NOTICE OF PUBLIC MEETING
OF THE
PLEASANT GROVE CITY COUNCIL

Notice is hereby given that the Pleasant Grove City Council will hold a **Work Session meeting at 4:30 p.m. on December 7, 2021** in the Community Room 108 S 100 E, prior to the regular **City Council meeting at 6:00 p.m**. This is a public meeting and anyone interested is invited to attend, however, Work Sessions are not designed to hear public comment or take official action.

AGENDA

4:30 P.M. WORK SESSION

1. Introduce New Employees.
2. Discussion on Planning Codes.
3. Vision and Mission statement presentation.
4. Staff Business.

6:00 P.M. REGULAR CITY COUNCIL

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. OPENING REMARKS

4. APPROVAL OF MEETING AGENDA

5. OPEN SESSION

6. CONSENT ITEMS: (Consent items are only those which have been discussed beforehand, are non-controversial and do not require further discussion)

a. City Council Minutes:
City Council Minutes for the November 16, 2021 meeting.

b. To consider approval of Payment Request No. 2 to Geneva Rock Products for the Micro Surfacing 2021 Project.

c. To consider for approval Final Payment to J. Lyne Roberts and Sons for the Veterans Memorial Park – Pickleball Court Project.

d. To consider approval of Payment Approval Reports for November 18 and December 2, 2021.

PLEASE NOTE: THE ORDER OF THE FOLLOWING ITEMS MAY BE SUBJECT TO CHANGE.

7. BOARD, COMMISSION, COMMITTEE APPOINTMENTS:

8. PRESENTATIONS:

9. PUBLIC HEARING ITEMS:

A. Public Hearing to consider for adoption a Resolution (2021-064) amending the Consolidated Fee Schedule for Fiscal Year 2021/2022; and providing an effective date. *Presenter: Director Roy*

B. Public Hearing to consider for adoption an Ordinance (2021-32) to apply the C-G (General Commercial) Zone to approximately 3.6 acres on property currently zoned R-R (Rural Residential) Zone, located at approximately 1130 West State Street. (Mud Hole Neighborhood) (Clean Space Storage Applicant) *Presenter: Director Cardenas*

C. Public Hearing to consider for adoption an Ordinance (2021-33) to apply the R1-10 (Single Family Residential) Zone to approximately .29 acres on property currently zoned R-R (Rural Residential) Zone, located at approximately 1330 North 100 East. (Big Spring Neighborhood) (Robert and Jill Bigelow Applicants) *Presenter: Director Cardenas*

D. Public Hearing to consider for adoption an Ordinance (2021-34) adopting the Pleasant Grove City Storm Water Management Plan updated November 2021 to meet the requirements of the Utah State Division of Water Quality MS4 Permit. A draft copy of the plan is available for review on the City's web site or at the Public Works Office (323 West 700 South) and providing an effective date. (Pleasant Grove City Applicant) *Presenter: Director Beaumont*

10. ACTION ITEMS READY FOR VOTE:

A. To consider for adoption an Ordinance (2021-35) amending City Code Title 6 Chapter "Storm Drainage" establishing obligations of private property owners to manage the Storm Water Drainage on their property; providing enforcement policies and other technical additions in order to meet State Storm Water Discharge requirements; adding a requirement for a Land Disturbance Permit Process and providing an effective date. (CITY WIDE) (Pleasant Grove City Applicant) *Presenter: Director Beaumont*

B. To consider for adoption a Resolution (2021-065) authorizing the Mayor to sign a Cooperative Agreement with The Utah Department of Transportation (UDOT) to construct and maintain storm water drainage facilities in the State Street Corridor at approximately between 1300 West and North County Blvd. in Pleasant Grove, Utah County, Utah and providing an effective date. *Presenter: Director Beaumont*

C. To consider for adoption a Resolution (2021-066) authorizing the Mayor to sign a General Service Contract Agreement with PACIFICORP dba Rocky Mountain Power to provide electrical service to the Pump Station Operation at the Manila Creek Pond at or near 751 West 3300 North, Pleasant Grove, Utah; and providing an effective date. *Presenter: Director Beaumont*

D. To consider for adoption a Resolution (2021-067) authorizing the Mayor to sign a Right-Of-Way Easement in Favor of PACIFICORP dba Rocky Mountain Power for the construction, reconstruction, operation, maintenance, repair, replacement, enlargement or removal of underground electric power distribution and communication lines on, across or under property owned by Pleasant Grove City located at the Manila Creek Pond approximately 3300 North and 751 West, Pleasant Grove, Utah and providing an effective date. *Presenter: Director Beaumont*

E. To consider awarding Cody Ekker Construction the Monson Overflow Piping Project bid with a total bid price of $44,792.00 and authorize the Mayor to sign the Notice of Award, and authorize the Mayor to sign the Notice to Proceed and Agreement upon receipt and approval of final contract documents. *Presenter: Director Beaumont*

F. To consider for adoption a Resolution (2021-068) authorizing the Mayor to sign a Fiscal Assistance Agreement with Utah Division of Recreation Funding for a restroom facility at Battle Creek Park and providing an effective date. *Presenter: Director Giles*

G. To consider for adoption a Resolution (2021-069) approving the City's Participation in the Utah Opioid Abatement Settlement Fund and Authorizing the Mayor to Execute the Necessary Documents to Effectuate the City's Participation in the Settlement Agreement and providing an effective date. *Presenter: Administrator Darrington*

H. To consider for adoption an Ordinance (2021-36) setting the time and place of the regular meetings of the City Council, Boards, Commissions, and Committee meetings of Pleasant Grove City for the Year 2022 and providing for an effective date. *Presenter: Attorney Petersen*

I. To consider for adoption a Resolution (2021-070) adopting the Voter Participation Areas Map (VPA) as prepared by the Utah County Elections Office; and providing and effective date. *Presenter: Attorney Petersen*

11. ITEMS FOR DISCUSSION:

A. Continued Items from the Work Session if needed.

12. REVIEW AND DISCUSSION ON THE JANUARY 4, 2022 CITY COUNCIL MEETING AGENDA.

13. MAYOR AND COUNCIL BUSINESS.

14. SIGNING OF PLATS.

15. REVIEW CALENDAR.

16. ADJOURN.

CERTIFICATE OF POSTING:
I certify that the above notice and agenda were posted in three public places within Pleasant Grove City limits and on the State (http://pmn.utah.gov) and City (www.plgrove.org) websites.

Posted by: /s/ Kathy T. Kresser, City Recorder
Date: December 3, 2021
Time:12:00 p.m.
Place: City Hall, Library and Community Room 108 S 100 E.

*Note: If you are planning to attend this public meeting and due to a disability, need assistance in understanding or participating in the meeting, please notify the City Recorder, 801-785-5045, forty-eight hours in advance of the meeting and we will try to provide whatever assistance may be required.

PARTIAL PAYMENT ESTIMATE
NO. 2

Name of Contractor:	***Geneva Rock Products***	
Name of Owner:	***Pleasant Grove City***	
Date of Completion: Original: November 10, 2021 Revised: May 13, 2022	Amount of Contract: Original: $884,502.08 Revised: $1,019,410.78	Dates of Estimate: From: October 30, 2021 To: November 24, 2021
Description of Job:	***Micro Surfacing 2021***	

Amount	This Period	Total To Date
Amount Earned	$ 41,358.15	$ 516,908.05
Retainage Being Held	$2,067.91	$25,845.40
Retainage Being Released	$0.00	$0.00
Previous Payments	$0.00	$451,772.41
Amount Due	$39,290.24	$39,290.24

Contractor's Construction Progress has been delayed until spring due to weather.

I hereby certify that I have carefully inspected the work and as a result of my inspection and to the best of my knowledge and belief, the quantities shown in this estimate are correct and have not been shown on previous estimates and the work has been performed in accordance with the Contract Documents.

Recommended by: Pleasant Grove City Engineering

Date: 12/2/2021

2021.12.02 12:02:24-07'00'

Accepted by: Geneva Rock Products

Date: 12-2-21

Approved by: Pleasant Grove City Mayor

Date: _____

Budget Code _____ Staff Initial _____

Schedule of Values

PROJECT: Micro Surfacing 2021 PAY PERIOD: 1 PAY PERIOD: 2 24-Nov

ITEM NO.	NATURE OF WORK	CONTRACT ITEMS				QUANTITY		QUANTITY		EARNINGS	
		Qty	Units	Unit Price	Bid Amt.	This Month	To Date	This Month	To Date	This Month	To Date
	BASE BID A – Micro Surfacing 2021										
1	Mobilization	1	LS	$30,000.00	$30,000.00	0.55	0.55		0.55		$16,500.00
2	Traffic Control	1	LS	$48,500.00	$48,500.00	0.55	0.55		0.55		$26,675.00
3	Micro Surface	124,134	SY	$2.89	$358,747.26	45604.00	45604.00		45604.00		$131,795.56
4	Adjust Valve Boxes to Grade	28	Each	$600.00	$16,800.00		0.00		0.00		$0.00
5	Adjust Manholes to Grade	14	Each	$800.00	$11,200.00		0.00		0.00		$0.00
6	Railroad Crossing Requirements	1	LS	$11,000.00	$11,000.00	0.75	0.75		0.75		$8,250.00
7	2" Mill	25,057	SY	$1.55	$38,838.35	16662.00	16662.00		16662.00		$25,826.10
8	HMA - 2" Thick	2,820	Ton	$73.00	$205,860.00	1321.95	1321.95	566.55	1888.50	$41,358.15	$137,860.50
9	Striping and Pavement Messages	1	LS	$28,000.00	$28,000.00	0.75	0.75		0.75		$21,000.00
	Additive Alternate #1 – Locust Ave (200 South to 1000 South)										
10	Mobilization	1	LS	$500.00	$500.00	1.00	1.00		1.00		$500.00
11	Traffic Control	1	LS	$2,000.00	$2,000.00	1.00	1.00		1.00		$2,000.00
12	Micro Surface	20,583	SY	$2.89	$59,484.87	21865.00	21865.00		21865.00		$63,189.85
13	Striping and Pavement Messages	1	LS	$5,500.00	$5,500.00	1.00	1.00		1.00		$5,500.00
	Additive Alternate #2 – 300 East (State Street to 500 North)										
14	Mobilization	1	LS	$500.00	$500.00	0.65	0.65		0.65		$325.00
15	Traffic Control	1	LS	$2,000.00	$2,000.00	0.65	0.65		0.65		$1,300.00
16	Micro Surface	20,440	SY	$2.89	$59,071.60	13102.00	13102.00		13102.00		$37,864.78
17	Striping and Pavement Messages	1	LS	$6,500.00	$6,500.00	1.00	1.00		1.00		$6,500.00
		Subtotal			$884,502.08					$41,358.15	$485,086.79
	Change Order # 1										
18	2" Mill for intersections	5,100	SY	$1.80	$9,180.00	3688.00	3688.0		3688.00	$0.00	$6,638.40
19	HMA - 2" Thick for intersections	580	Ton	$84.00	$48,720.00	299.80	299.8		299.80	$0.00	$25,182.86
20	Grind and Tack Bump on 1100 N	1	LS	$1,680.00	$1,680.00		0		0.00	$0.00	$0.00
21	Over run base bid line item #7 5414 SY (PG BLVD from 1300 W to 550 S)	1	LS	$8,392.39	$8,392.39	-	-	-	-	-	-
22	Over run base bid line item #8 618 Ton (PG BLVD from 1300 W to 550 S)	1	LS	$45,059.01	$45,059.01	-	-	-	-	-	-
23	Over run base bid line item #3 7570 SY (PG BLVD from 1300 W to 550 S)	1	LS	$21,877.30	$21,877.30	-	-	-	-	-	-
		Subtotal			$134,908.70					$0.00	$31,821.26
		Total			$1,019,410.78						

TOTAL	$41,358.15	$516,908.05
AMOUNT RETAINED	$2,067.91	$25,845.40
RETAINAGE RELEASED		
PREVIOUS RETAINAGE		$0.00
PREVIOUS PAYMENTS		$451,772.41
AMOUNT DUE	$39,290.24	$39,290.24

FINAL PAYMENT ESTIMATE
PAYMENT NO. 9

Name of Contractor:	***J. Lyne Roberts and Sons***				
Name of Owner:	***Pleasant Grove City***				
Date:		Amount of Contract:		Dates of Estimate:	
Original:	14-May-21	Original:	$1,261,309.00	From:	26-Dec-20
CO #1:	19-Jan-21	Change Order 1:	$35,482.25		
CO #2	11-Mar-21	Change Order 2:	$84,203.90		
CO #3	11-Aug-21	Change Order 3:	($5,200.00)		
Revised:	1-Dec-21	Revised:	$1,375,795.15	To:	1-Dec-21
Description of Job:	***Veterans Memorial Park Expansion Pickleball Courts***				

Note: Due to previous errors in calcualtions the amounts below have been adjusted to reflect actual contract amounts, paymnets, overruns, underruns, and approved change orders.

Amount	This Period	Total To Date
Amount Earned	$12,140.00	$1,408,878.85
Retainage Being Held	$867.00	$70,903.20
Retainage Being Released	$70,036.17	$70,903.20
Reconciliation for past Calculation Errors	$418.59	
Previous Payments		$1,325,417.09
Amount Due	**$83,461.76**	**$83,461.76**

Contractor's Construction Progress is COMPLETE

I hereby certify that I have carefully inspected the work and as a result of my inspection and to the best of my knowledge and belief, the quantities shown in this estimate are correct and have not been shown on previous estimates and the work has been performed in accordance with the Contract Documents.

Recommended by Horrocks Engineers

Date: 12/3/2021

Zachary Scott P.L.A
Project Landscape Architect

Accepted by: **J. Lyne Roberts and Sons**

Date: 12/3/21

~~Dan Selman~~ Tyler Roberts
Project Manager

Approved By: **Pleasant Grove City**

Date: _____

Guy L. Fugal, Mayor

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RESOLUTION NO. 2021-064

A RESOLUTION OF THE CITY COUNCIL OF PLEASANT GROVE CITY, UTAH COUNTY, UTAH, AMENDING THE FY2022 BUDGET CONSOLIDATED FEE SCHEDULE AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, notice of a Public Hearing, as required by law, to consider adjusting and amending the revenues and expenditures of the 2021/2022 Fiscal Year Budget, was published according to the state law, and

WHEREAS, the Pleasant Grove City Council held a duly noticed Public Hearing on June 2, 2021 to take public comment on the 2021/2022 FY budget; and

WHEREAS, State law requires amendments to the current year's budget be made no later than June 30 of each year; and

WHEREAS, after the City Council adopted the FY 2021/2022 budget which included the Consolidated Fee Schedule, additional amendments to the Fee Schedule were recommended; and

WHEREAS, the library fee changes are recommended by staff to reflect more accurately the costs incurred by Pleasant Grove City in responding to; and

WHEREAS, it has become necessary to amend the FY 2021/2022 budget by amending the FY22 Budget Consolidated Fee Schedule to accommodate the recommended fee changes; and

WHEREAS, pursuant to the requirements of state law, the City Council held a duly noticed public hearing on December 7, 2021 to adopt the amended 2021/2022 fee schedule; and

WHEREAS, the Council finds that it has satisfied all legal requirements to amend the fee schedule, and hereby determines that the amendment to the 2021/2022 Fiscal Year Consolidated Fee Schedule are necessary; and

WHEREAS, the Pleasant Grove City Council has considered input from staff and the public.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Pleasant Grove City, Utah County, State of Utah, that the adjustment to the Fiscal Year 2021/2022 Consolidated Fee Schedule are hereby adopted and is hereby amended to reflect those amendments.

PASSED AND ADOPTED by the City Council of Pleasant Grove City, Utah this 7th day of December 2021.

_____
Guy L. Fugal, Mayor

ATTEST:

(SEAL)

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

Pleasant Grove

Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
BUSINESS LICENSING		
Commercial/Industrial/Manufacturing		
Commercial/Industrial/Manufacturing	$75	$75
Mobile Food Truck	$100	$100
Mobile Food Truck - Licensed in another city	$25	$25
Home Occupation		
Major Home Occupation	$150 One Time Fee	$150 One Time Fee
Minor Home Occupation	$50 One Time Fee	$50 One Time Fee
Major/Minor Home Occupation	$50 Annual Fee	$50 Annual Fee
Temporary Use		
Residential Solicitation	$25	$25
Transient, Itinerant Merchants (annual)	$100	$100
Temporary Street Vendor (1 to 7 days)	$15	$15
Auctions	$100	$100
Special Event Business License Fee	$100	$100
Special Event Business License Fee (Nonprofit)	$25	$25
Firework Sales	$300	$300
Motorized Vehicle Sales (first 6 vendors)	$150	$150
Motorized Vehicle Sales (per add'l vendor)	$25	$25
Seasonal Business License	$100	$100
Bill Posting and Handbills	$25	$25
Private Firework Display	$25	$25
Temporary Use Fee	$300	$300
Firework Stands (per location/per event)	$500	$500
Circus/Carnival	$1,000	$1,000
Amusement Devices		
Annual Fee	$50	$50
Change of Location/Transfer fee	$25	$25
Beer/Alcohol Licensing		
Beer/Alcohol License Fee	$100	$100
Beer License (Class A or Class B)	$200	$200
Beer License (Class C)	$300	$300
Tavern	$300	$300
Packaging Agency	$200	$200
Manufacturing/Brewery	$300	$300
Full Service Restauraunt	$300	$300
Banquet - On premise	$300	$300
Temporary Beer/alcohol license	$300	$300

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
CEMETERY		
Grave Plot		
Grave Plot	$900/$1,800	$1,000/$2,000
Infants/Babyland	$900/$1,800	$1,000/$2,000
Cremations (up to 8 per plot 2'x2')	$900/$1,800	$1,000/$2,000
Opening and Closing - Per Plot		
Single	$700/$1,300	$700/$1,300
Double Deep 1st	$1,500/$2,100	$1,700/$2,300
Double Deep 2nd	$700/$1,300	$900/$1,500
Cremations	$250/$400	$250/$400
Infants	$250/$400	$250/$400
Infant Family Dig	$100/$100	$100/$100
Additional Fees		
Holidays & Sundays	$400	$450
Saturdays	$400	$450
Weekday Overtime	$400	$450
Transfer Fee- Resident to Family or Resident per Plot	$50	$50
Transfer Fee- Resident to Non Resident per Plot	$500	$500
Headstone Inspection Fee	$0	$100
Disinterment		
Under 4'	$1,400 flat fee	$1,600 flat fee
Over 4'	$1,400 flat fee	$1,600 flat fee
Double Deep	$1,700 flat fee	No longer allow
COMMUNITY ARTS		
Utah Children's Choir		
Concert Choir - Yearly Fee	$250	$250
Concert Choir - Registration	$60	$60
Chorister Choir - Yearly Fee	$230	$230
Chorister Choir - Registration	$60	$60
Choir Camp - 3 Days	$65	$65

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
COMMUNITY CENTER		
Family Pass		
Annual	$350/$421	$350/$421
Semi Annual	$193/239	$193/239
Monthly	$45/$53	$45/$53
Monthly (w/1-yr min and eft payment)	$35/$43	$35/$43
Couple Pass		
Annual	$264/$330	$264/$330
Semi Annual	$152/$188	$152/$188
Monthly	$35/$37	$35/$37
Monthly (w/1-yr min and eft payment)	$27/$29	$27/$29
Senior Couple Pass		
Annual	$152/$188	$152/$188
Semi Annual	$91/$107	$91/$107
Monthly	$20/$25	$20/$25
Monthly (w/1-yr min and eft payment)	$16/$19	$16/$19
Individual Pass		
Annual	$162/$203	$162/$203
Semi Annual	$91/$117	$91/$117
Monthly	$22/$27	$22/$27
Monthly (w/1-yr min and eft payment)	$17/$21	$17/$21
Senior Individual Pass		
Annual	$86/$107	$86/$107
Semi Annual	$51/$66	$51/$66
Monthly	$12/$14	$12/$14
Monthly (w/1-yr min and eft payment)	$9/$11	$9/$11
Student Pass		
Annual	$107/$132	$107/$132
Semi Annual	$61/$81	$61/$81
Monthly	$15/$17	$15/$17
Monthly (w/1-yr min and eft payment)	$11/$14	$11/$14

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
COMMUNITY CENTER CONTINUED		
Daily Admission Fees		
Adults (16-54 years old)	$3.50	$3.50
Youth (4-15 years old)	$3.00	$3.00
Seniors 55+	$2.25	$2.25
Track Only	$1.25	$1.25
Senior Track Only	$0.75	$0.75
Auto pay cancellation fees		
Individual	$25	$25
Couple	$35	$35
Family	$50	$50
Funshine - per month		
Tues/Thurs - 2 hours	$57	$57
Mon/Wed - 2 hours	$57	$57
Tues/Thurs - 2.5 hours	$69	$69
Mon/Wed/Fri - 2.5 hours	$92	$92
Dance		
School Year - Monthly Fee	$31/$46	$31/$46
School Year - Costume Fee	$76	$76
Summer Program Fee	$26	$26
Gymnastics		
Fall/Winter - Preschool	$80/$119	$80/$119
Fall/Winter - Beginning (5-8)	$95/$141	$95/$141
Fall/Winter - Beginning (9 and up)	$109/$164	$109/$164
Summer Preschool	$42/$62	$42/$62
Summer Beginning (5-8)	$50/$70	$50/$70
Summer Beginning (9 and up)	$57/$77	$57/$77
Enrichment		
Holiday Cooking Class - 6 per yr	$19/$21	$20/$22
Chef Cooking Class - 2 per yr	$65/$70	$65/$70
Summer Cooking - kids/toddlers - 8 weeks	$10 per class	$10 per class
Play Time	$62/$81	$66/$81
Toddler Gym/Kids Gym	$20/$21	$25
Summer Camp (price based on class supply need)	$0	$60/$95 or $75/$110
Summer Chef	$0	$50/$55

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
COMMUNITY CENTER CONTINUED		
Chess Club (After School)	$38	$38
Chess Club (Summer)	$48	$48
Chess Tournament	$17/$22	$17/$22
Park It Program (session)	$57/$67	$57/$67
Park It Program (daily)	$33/$43	$33/$43
Scrap Booking (2 days)	No Longer Offer	No Longer Offer
Scrap Booking (1 day)	No Longer Offer	No Longer Offer
Baby Sitting Class	$39/$44	$39/$44
Halloween Fest	$7/$9	$7/$9
Fishing Club	$21/$28.50	$21/$28.50
Kids Zone	No Longer Offer	No Longer Offer
Daddy Daughter Dance	$26 per couple	$26 per couple
Mom and Son Luau	$26 per couple	$26 per couple
Build A Party Fee	$135/$155/$195	$135/$155/$195
Tot and Kid Christmas Festival	$10	$10
COMMUNITY DEVELOPMENT		
Hearing Examiner		
Variance	$300	$300
Appeal	$300	$300
Building Fees		
Culinary Meter Set - 3/4" Meter and 5/8" Meter	$730	$730
Culinary Meter Set - 3/4" Meter and 5/8" Meter (Meter setter installed)	$400	$400
Culinary Meter Set - 1" Meter	$780	$780
Culinary Meter Set - 1" Meter (Meter setter installed)	$450	$450
PI Meter Set - 1" Lateral (w/idler)	$0	$480
PI Meter Set - 1" Lateral (w/o idler)	$0	$610
PI Meter Set - 1-1/2" Lateral (w/idler)	$0	$530
PI Meter Set - 1-1/2" Lateral (w/o idler)	$0	$700
PI Meter Set - 2" Lateral	$0	$1,400

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res

COMMUNITY DEVELOPMENT CONTINUED

Site Plans

Commercial Site Plan	$500 + $20 per acre	$500 + $20 per acre
Amended Site Plan (minor)	$100	$100
Zoning Verification Letter		$20/hour

Conditional Use Permit

Commercial Use	$300 (includes commercial use in residential)	$300 (includes commercial use in residential)
Commercial Use Combined with Site Plan	$500 + $20 per acre	No Longer Use
Residential Use	$150	$150

Subdivisions

Concept Plan	$100 per lot	$100 per lot
Preliminary Plat and Plan	$500 + $50 per lot/unit	$500 + $50 per lot/unit
Preliminary Plat Minor Sub	$100 + $50 per lot/unit	$100 + $50 per lot/unit
Final Plat and Plan (including amended)	$500 plus $50 per lot/unit	$500 plus $50 per lot/unit
Amended Plan	$500 plus $50 per lot/unit	No Longer Use

Fast Track Review

For Permitted Uses in The Grove Zone	150% of Normal Fee	No Longer Use

Zoning Ordinance

Code Text Amendment	$400 per chapter subsection or fraction thereof	$400 per chapter subsection or fraction thereof
Rezoning	$400 + $10 per acre	$400 + $10 per acre

General Plan

Map Amendment	$400 + $10 per acre	$400 + $10 per acre
Plan Text Amendment	$400 per section or fraction thereof	$400 per section or fraction thereof

Special Meeting

Any board, council, commission, etc. to convene a meeting at the request of a private person or entity where such meeting is not regularly scheduled. Such special meeting may be held only if that board, council, commission, etc. has consented to hold the meeting.	$500	$500

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res

COMMUNITY DEVELOPMENT CONTINUED

GIS Maps

8.5" x 11"	$2	$2
11" x 17"	$4	$4
22" x 17"	$15	$15
24" x 36"	$25	$25
30" x 36"	$35	$35
Custom Maps	$25	$25

Code Enforcement Fines

Dirt, Rocks, Materials, etc. in Road	$100	$100
Excessive Weeds	$50	$50
Illegal Garage Sale Signs	$50	$50
Accumulation of Junk	$50	$100
Garbage Receptacle Removal	$0	$0

Other

Annexation	$625 + $10 per acre	$625 + $10 per acre
Street Vacation	$500	$500
Building Inspection Fee	$58	$58
Commercial Signage Review	$100	$100
Commercial Temporary Use Sign	$20	$20

FACILITY RENTAL

Seniors Center

Refundable Deposit	$250	$250
Resident - 1st 90 min	$100	$100
Resident - 1st Hour	$100	$100
Resident - Each Additional Hour	$50	$50
Non-Resident - 1st 90 min	$125	$125
Non-Resident - 1st Hour	$125	$125
Non-Resident - Each Additional Hour	$75	$75
Commercial Resident - 1st 90 min	$150	$150
Commercial Resident - 1st Hour	$150	$150
Commercial Resident - Each Additional Hr	$100	$100
Comm Non-Resident - 1st 90 min	$175	$175
Comm Non-Resident - 1st Hour	$175	$175
Comm Non-Resident - Each Additional Hr	$125	$125

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res

FACILITY RENTAL CONTINUED

Other Buildings

Classroom per Hour	$35/$55	$35/$55
Classroom Commercial per Hour	$75/$95	$75/$95
Classroom per Day	$151/$225	$151/$225
Classroom Commercial per Day	$350/$385	$350/$385
Multi-Purpose per Hour (A or B)	$35/$55	$35/$55
Multi-Purpose Room (A & B)	$60/$80	$60/$80
Multi-Purpose Commercial per Hour (A or B)	$75/$95	$75/$95
Multi-Purpose Commercial per Hour (A & B)	$125/$250	$125/$250
Multi-Purpose per Day	No longer available	No longer available
Multi-Purpose Commercial per Day	No longer available	No longer available
Kitchen & Classroom per Hour	$35/$55	$35/$55
Kitchen & Classroom Commercial per Hour	$75/$95	$75/$95
Kitchen & Classroom per Day	$150/$225	$150/$225
Kitchen & Classroom Commercial per Day	$350/$385	$350/$385
Deposit	$150	$150
Recreation Center Gymnasium (Full)	$70/$90	$70/$90
Recreation Center Gymnasium (Half)	$35/$55	$35/$55
Hourly Staffing Fee (When applicable)	$15	$15

Rodeo Ground Rental

Half Day Rental	$175/$225	$175/$225
Full Day Rental	$350/$500	$350/$500
Deposit	$200	$200
Lights per hour	$75	$75
Work Arena	$75	$75

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res

FIRE

Ambulance

Ambulance Fees	As Set By the State of Utah Code Annotated Title 26-8a-403 & Administrative Rule R426-8-2	As Set By the State of Utah Code Annotated Title 26-8a-403 & Administrative Rule R426-8-2
CPR - Friends & Family	$20	$20
CPR - Heart Saver	$60 - w/book $75	$60 - w/book $75
CPR - Healthcare Provider (BLS)	Contact Fire Department	Contact Fire Department
Babysitter Class	Class not offered by Fire	Class not offered by Fire
Ambulance Coverage (Standy-by)	$60/hour	$60/hour
Personnel - FF/paramedic	$25/hour	$25/hour

Fire Services

Fire Engine Coverage (Stand-by)	$257/hour	$257/hour
Personnel - FF/paramedic	$25/hour	$25/hour
Plan Review	Bill Applicable Parties	Bill Applicable Parties
Inspection	$0	$0

Fire Service - Wildland

Engine - Type 1	$257/hour	$257/hour
Ambulance	$160/hour	$160/hour
Brush Rig	$152/hour	$152/hour
Ladder Truck	$257/hour	$257/hour
ATV 4X4	$11/hour	$11/hour
Side by Side	$13/hour	$13/hour
EMT A w/kit	$60/hour	$60/hour
Paramedic w/kit	$67/hour	$67/hour
Personnel - FF/paramedic	$25/hour	$25/hour
Fire Services-Haz Mat	Bill Spiller/Company	Bill Spiller/Company

Pleasant Grove

Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
GENERAL GOVERNMENT FEES		
Returned Check Fee	$20	$20
Election Fees		
Declaration of Candidacy	$35	$35
Nominating Petition	$35	$35
Write In Candidate	$35	$35
Historical Commission		
PG History Volume I	$26	$26
PG History Volume II	$45	$45
PG History Volume III	$15	$15
Walking Tour Booklet	$3	$3
LIBRARY		
Library Card	$0/$80	$0/$80
VHS/DVD/Discovery Bags (Overdue per Day)	$1	$0
Overdue Book Fines per Day	$0.10	$0
Lost Items (Replacement value plus)	$0	Replacement value
Lost Library Card	$5	$2
Interlibrary Loan Fee	$3	$4
Lamination	$0.60	$0
Copies	$0.10	$0.10
Guest Pass for Non-Resident	$1	$1
PARKS		
Park Pavilion Rental		
Half Day	$35/$50	$35/$50
Full Day	$70/$85	$70/$85
Deposit	$50	$50
Commercial Rental 1/2 Day	$75/$150	$75/$150
Commercial Rental Full Day	$100/$200	$100/$200
Commercial Deposit	$100	$100
Sports Field Rental		
Half Day	$75/$150	$75/$150
Full Day	$125/$250	$125/$250
Deposit	$150	$150
Lights per Field	$50	$50
Field Prep per Field	$50	$50
Facility Supervisor per hour	$30	$30
Facility Supervisor Full Day	No longer available	No longer available

Pleasant Grove

Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
POLICE		
Fingerprinting	$10/$25	$10/$25
Police Clearance Reports	$5	$5
Traffic Accident Reports	$10	$10
Insurance Reports	$10	$10
Records Request - First 15 min	$0	$0
Records Request - Over 15 min (per hour or fraction therof)	$12.50	$35/hour
PUBLIC WORKS		
Inspection Fees		
Construction Inspection	3% of Construction Bond	3% of Construction Bond
PW Director	$80/per hour	$100/per hour
City Engineer	$0	$90/per hour
Engineer	$55/per hour	$70/per hour
Engineer Inspector	$40/per hour	$60/per hour
Engineering Intern	$20/per hour	$20/per hour
PW Superintendent	$50/per hour	$75/per hour
PW Foreman	$0	$60/per hour
PW Operator 1 & 2	$40/per hour	$50/per hour
Engineering Consultant(Civil, Structural, Geotechnical or GIS)	Amount billed by Consultant for work performed	Amount billed by Consultant for work performed
Other Fees		
Hydrant Meter Rental ($1,500 Deposit)	$50/per month	$50/per month
Hydrant Water Usage	$2.50/1,000 gal	$2.50/1,000 gal
Curb Pins	$4	$4
Storm Water Decals	$2.50	$2.50
Sand Bags	$1 bag/$3 filled bag	$1 bag/$3 filled bag
Bond Release - 3rd or more request	$150	$150
Construction Fees		
Street Excavation Permit (6 months)	$125	$125
Permit Extension (6 month intervals)	$125	$125
Traffic Control Plan Review Fee	$40	$40
Asphalt Patch - Road < 5 Years Old (100 SF Min)	$200	$0
Asphalt Patch - Road > 5 Years Old (100 SF Min)	$100	$0
Asphalt Patch - Road < 5 Years Old (each 100 SF above initial)	$80	$0
Asphalt Patch - Road > 5 Years Old (each 100 SF above initial)	$40	$0
Asphalt Patch - Road PCI > 70 (100 SF MIN)	$0	$250
Asphalt Patch - Road PCI < 70 (100 SF MIN)	$0	$100
Asphalt Patch - Road PCI > 70 (EACH 100 SF ABOVE INITIAL)	$0	$100
Asphalt Patch - Road PCI < 70 (100 SF ABOVE INITIAL)	$0	$40
Asphalt Patch in Road with Sealcoat (per SF)	$0.25	$0.25
Crack seal & Sealcoat per square yard (SY)	$2.00	$2.50
Directional Boring (per LF)	$0.25	$0.25

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
PUBLIC WORKS CONTINUED		
Pothole	$25	$25
Existing Curb and Gutter Replacement (per LF)	$0.50	$0.50
Existing Sidewalk Replacement (per SF)	$0.20	$0.20
Driveway Inspection (per driveway)	$100	$100
Street LightPower Cost (per light)	$40	$40
After hours Inspection	$60	$60
Working without a permit	$500	$500
Local Street Closure (per day/per lane/per block)	$50	$50
Arterial Street Closure (per day/per lane/per block)	$100	$100
RECORDS REQUESTS		
8.5" x 11" Single Sided	$0.25	$0.25
8.5" x 11" Double Sided	$0.50	$0.50
11" x 14"	$0.75	$0.75
11" x 17"	$1.00	$1.00
8.5" x 11" Color	$2	$2
11" x 17" Color	$4	$4
22" x 17" Color	$8.50	$8.50
36" x 24" Color	$15	$15
42" x 36" Color	$25	$25
PDF Scan Copy 24" x 36" Plan Sheet	$10	$10
24" x 36" Black & White Plan Sheet	$10	$10
Certified Copies	$5	$5
First 15 min	$0	$0
Over 15 min (per hour or fraction therof)	$12.50	$35/hour
RECREATION		
Adult Sports		
Coed Slow Pitch	$483	$483
Fast Pitch	$762	$762
Fast Pitch Tournament	$381	$381
Men's Basketball (spring)	$508	$508
Men's Basketball (winter)	$584	$584
Men's Slow Pitch (spring)	$584	$584

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
RECREATION CONTINUED		
Men's slow Pitch (fall)	$483	$483
Pickleball Tournament (Around the Point)	$40	$40
Pickleball Tournament (Tis the Season)	$40	$40
Pickleball Tournament (Strawberry Days)	$30	$30
Tennis	$49/$69	$49/$69
Volleyball	$280	$280
Volleyball Tournament	$60	$60
Women's Basketball	$533	$533
Youth Sports		
Baseball (Mustang 3-4 grade)	$82/$102	$82/$102
Baseball (Pinto 5-6 grade)	$82/$102	$82/$102
Baseball (Pony 7-8 grade)	$102/$122	$102/$122
Baseball (Colt 9-12 grade)	$102/$122	$102/$122
Basketball Camp (1-2 grade)	$30/$45	$30/$45
Basketball Camp (3-4 grade)	$30/$45	$30/$45
Basketball Camp (5-6 grade)	$35/$53	$35/$53
Coach Pitch	$30/$45	$30/$45
Cross Country	$47/$67	$47/$67
Flag Football (1-2 grade)	$41/$61	$41/$61
Flag Football (3-4 grade)	$41/$61	$41/$61
Flag Football (5-6 grade)	$46/$66	$46/$66
Flag Football (7-9 grade)	$46/$66	$46/$66
Flag Football (10-12 grade)	$46/$66	$46/$66
Futsal	$36/$56	$36/$56
Golf (7 & Under)	$35/$53	$35/$53
Golf (8 & Older)	$65/$85	$65/$85
Golf (Intermediate/Advanced)	$85/$105	$85/$105
Golf (Mothers)	$65/$85	$65/$85
Itty Bitty Ball	$28/$42	$28/$42
2nd Grade Basketball	$41/$61	$41/$61
Jr Jazz Bball (3rd Boys/3rd-4th Girls)	$45/$65	$45/$65
Jr Jazz Bball (4th-5th Boys/5th-6th Girls)	$50/$70	$50/$70
Jr Jazz Bball (6th Boys)	$61/$81	$61/$81
Jr Jazz Bball (7th-8th Boys and Girls)	$61/$81	$61/$81
Jr Jazz Bball (9th - 12th Boys)	$75/$95	$75/$95
Jr Jazz Bball (9th - 12th Girls)	$75/$95	$75/$95

Pleasant Grove

Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
RECREATION CONTINUED		
K-1st JR Jazz	$30/$45	$41/$61
Machine Pitch (8 - 9 yr olds)	$37/$56	$37/$56
Soccer (Pre-K)	$29/$44	$34/$49
Fall Soccer (1-2 grade)	$41/$61	$41/$61
Fall Soccer (3-4 grade)	$41/$61	$41/$61
Fall Soccer (5-6 grade)	$46/$66	$46/$66
Fall Soccer (7-8 grade)	$46/$66	$46/$66
Soccer Camp (Beginner)	Private No Longer Offer	Private No Longer Offer
Soccer Camp (Intermediate/Advanced)	Private No Longer Offer	Private No Longer Offer
Spring Soccer	$46/$66	$46/$66
Youth Sports		
Softball (10 & Under)	$43/$63	$43/$63
Softball (12 & Under)	$61/$81	$61/$81
Softball (14 & Under)	$61/$81	$61/$81
Softball (17 & Under)	$61/$81	$61/$81
T-Ball	$30/$45	$30/$45
Tennis (Lessons)	$39/$55	$39/$55
Tennis (CUTA Tennis Team)	$92/$112	$92/$112
Timp Classic Softball Tournament	No Longer Offer	No Longer Offer
Track & Field	$46/$66	$46/$66
Volleyball (3-4 grade)	$40/$60	$40/$60
Volleyball (5-6 grade)	$40/$60	$40/$60
Volleyball (7-9 grade)	$46/$66	$46/$66
Volleyball (10-12 grade)	$46/$66	$46/$66
Volleyball Camp (7-10 yr old)	$34/$51	$34/$51
Volleyball Camp (11 & older)	$39/$59	$39/$59
Wrestling	$36/$54	$36/$54
SWIMMING POOL		
Passes		
Family Full Season	$183/$269	$183/$269
Family Even/Odd Season	$122/$193	$122/$193
Individual Full Season	$96/$147	$96/$147
Senior Individual Resident	$51	$51
Senior Individual Non Resident	$76	$76
Student Pass	No longer offer	No longer offer

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
SWIMMING POOL CONTINUED		
Discount Tickets		
12 Tickets	$55	$55
24 Tickets	$90	$90
48 Tickets	$200	$200
General Admission		
0-1 year old	Free	Free
1-3 year old	$1.00	$1.00
4 years and up	$5	$5
Seniors 55 +	$2.50	$2.50
Early Morning Swim		
Admission	$2	$2
Seniors 55 +	$1 (for classes only)	$1 (for classes only)
Swim Team		
Per Each Swimmer	$102/$122	$102/$122
Swim Lessons		
Per Each Swimmer	$35/$40	$35/$40
Rentals		
1 Hour up to 100 People	$250	$250
2 Hours up to 100 People	$400	$400
Saturdays 9am - 12pm	$550	$550
Groups		
Family Night Swim (Mondays)	$15	$15
Scout/Church Groups w/Leaders	$2	$2
Special Events/Pricing		
1/2 Price nights after 6 p.m.	$2.50	$2.50
End of Season pass August only	60% Discount	60% Discount
Merit Badge Classes		
First Aid, Swimming, Lifesaving	$5-$15 per Class	$5-$15 per Class

Pleasant Grove

Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
COMBINATION COMMUNITY CENTER AND POOL		
Resident Family		
Resident Everyday / Annual Pass	$518	$518
Resident Everyday / Annual Pass w/Discount	$487	$487
Odd-Even / Annual Pass	$467	$467
Odd-Even / Annual Pass w/Discount	$365	$365
Non Resident Family		
Everyday / Annual Pass	$685	$685
Everyday / Annual Pass w/Discount	$548	$548
Odd-Even / Annual Pass	$609	$609
Odd-Even / Annual Pass w/Discount	$487	$487
UTILITIES		
Residential Water		
Base Fee (Includes 5,000 gal)	$22.94	$24.32
Base Fee (Abatement Rate)	$18.35	$19.46
5,001 to 10,000 gal (per 1,000 gal)	$2.78	$2.95
10,001 to 15,000 gal (per 1,000 gal)	$4.06	$4.30
15,001 to 50,000 gal (per 1,000 gal)	$5.81	$6.26
50,001 and above (per 1,000 gal)	$6.96	$7.38
Commercial Water		
Base Fee (Includes 5,000 gal)	$22.94	$24.32
5,001 to 10,000 gal (per 1,000 gal)	$2.78	$2.95
10,001 to 15,000 gal (per 1,000 gal)	$3.02	$3.20
15,001 to 50,000 gal (per 1,000 gal)	$3.25	$3.45
50,001 to 100,000 gal (per 1,000 gal)	$3.48	$3.69
100,001 and above (per 1,000 gal)	$3.70	$3.92
Residential Water - No Access to Secondary/PI - North of Canal		
Base Fee (Includes 90,000 gal)	$60.79	$64.44
90,001 and above (per 1,000 gal)	$2.78	$2.95
Residential Water - No Access to Secondary/PI - South of State Street		
Base Fee (Includes 5,000 gal)	$22.94	$24.32
5,001 to 10,000 gal (per 1,000 gal)	$2.78	$2.95
10,001 to 15,000 gal (per 1,000 gal)	$3.02	$3.20
15,001 to 50,000 gal (per 1,000 gal)	$3.25	$3.45
50,001 to 100,000 gal (per 1,000 gal)	$3.48	$3.69
100,001 and above (per 1,000 gal)	$3.70	$3.92

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res

UTILITIES CONTINUED

Pressurized Irrigation

Residential Rates		
Under .50 Acre	$36.13	$37.21
.50 Acre to .99 Acre	$43.82	$45.13
1 Acre and Above	$51.49	$53.03
Additional Water Surcharge	$0.00	$0.00
Abatement Rate	80% of Standard Rate	
Commercial Rates	**For commercial parcels in excess of 1.5 irrigable acres - including schools, churches, and agricultural uses**	
Base Fee	$51.49	$53.03
Per Sq Ft ('000s)	$0.000795	$0.000819
- Area over 1.50 Acres		

Storm Drain

Monthly Fee per ESU	$14.41	$15.85
Base Fee (Abatement Rate)	$11.53	$12.68
Fse	$6.67	$6.67

Sewer

Base Fee	$26.55	$26.55
Base Fee (Abatement Rate)	$21.24	$21.24
Usage (per 1,000 gal)	$2.32	$2.32

Solid Waste

Garbage - 1st Can	$11.00	$11.66
Garbage - Additional Can	$8.29	$8.79
Recycling	$6.60	$6.60

Shutoff/Connection Fees

New Connection Fee per Unit	$30.00	$30.00
Unlawful Opening of Meter Box	$50.00	$50.00
Shutoff Notice Fee	$0.00	$0.00
Late Penalty	$10.00	$10.00
Employee Dispatch Fee	$20.00	$20.00
Reconnection Fee	$50.00	$50.00

Pleasant Grove
Utah's City of Trees

PLEASANT GROVE CITY FEE SCHEDULE

	Current Fee Res/Non Res	Adopted 2022 Fee Res/Non Res
UTILITIES CONTINUED		
Drought Relief		
Temporary Fee	$0.00	$0.00
Utility Transporation Fee		
Residential	$8.45	$8.45
Residential (Abatement Rate)	$6.76	$6.76
Commercial - Tier 1	$41.27	$41.27
Commerical-Tier 2	$236.05	$236.05

City Council Staff Report

Dec 7, 2021

Item 9B

REZONE

REQUEST	Rezone subject property, approximately 3.6 acres, from R-R (Rural Residential) Zone to C-G (General Commercial) Zone	
APPLICANT	Clean Space Storage	
ADDRESS	Approx. 1130 West State Street	
ZONE	R-R (Rural Residential) Zone	
GENERAL PLAN	West State Commercial	
STAFF RECOMMENDATION	Recommend approval of the Rezone	
ATTACHMENTS	Property Zoning Map	**3**
	Property Aerial Map	**4**
	General Plan Designation	**5**

Background

The applicant is requesting to apply the G-C (Professional Office) Zone, to property located at approximately 1130 West State Street, that is currently within the R-R (Rural Residential) Zone. The General Plan Designation for the property is West State Commercial (See General Plan Designation Map on Page 8). West State Commercial use areas are planned throughout many areas in the southern part of the community and are located in proximity to arterial roadways and highways. These areas provide for the shopping and service needs of the community. All neighboring properties along State Street directly adjacent to the subject property are planned to be zoned for commercial uses.

The purpose of the rezone is for a future development for the area. Applications for the plat of the land as well as for potential site plans shall be submitted and reviewed.

Analysis

The proposed rezone to the C-G (Commercial General) Zone is supported by the General Plan (see Page 5 for General Plan Designation for this area). Zone designations for surrounding properties along

Community Development 86 S 100 E Pleasant Grove, UT 84062 Phone: (801) 785-6057 Fax: (801) 785-5667 www.pgcity.org
Author: Rylee Hall-City Planner

the Northern portion of the State Street corridor are of a commercial nature and include a variety of commercial zones, including the C-G (Commercial General) Zone. Staff has determined a rezone of this property to the C-G (Commercial General) Zone is consistent with nearby areas and the General Plan and is appropriate for this property.

At this point no site plan is being presented to the Planning Commission; however, staff is strongly recommending that the vacant lots/parcels located to the North of State Street be master planned to create a cohesive line of commercial uses that facilitate the access to neighboring properties and are of an appropriate design that is not considered a nuisance to the adjacent residential properties.

Recommendation from Planning Commission

Pleasant Grove City Planning Commission took the following action on the described application at their meeting on November 18, 2021.

1. **Public Hearing: <u>Rezone – Located at approx. 1130 West State Street</u>**
   (Mud Hole Neighborhood)
   Public Hearing to consider the request of Clean Space Storage to apply the C-G (General Commercial) Zone to approximately 3.6 acres on property currently zoned R-R (Rural Residential) Zone, located at approximately 1130 West State Street.

RECOMMEND APPROVAL

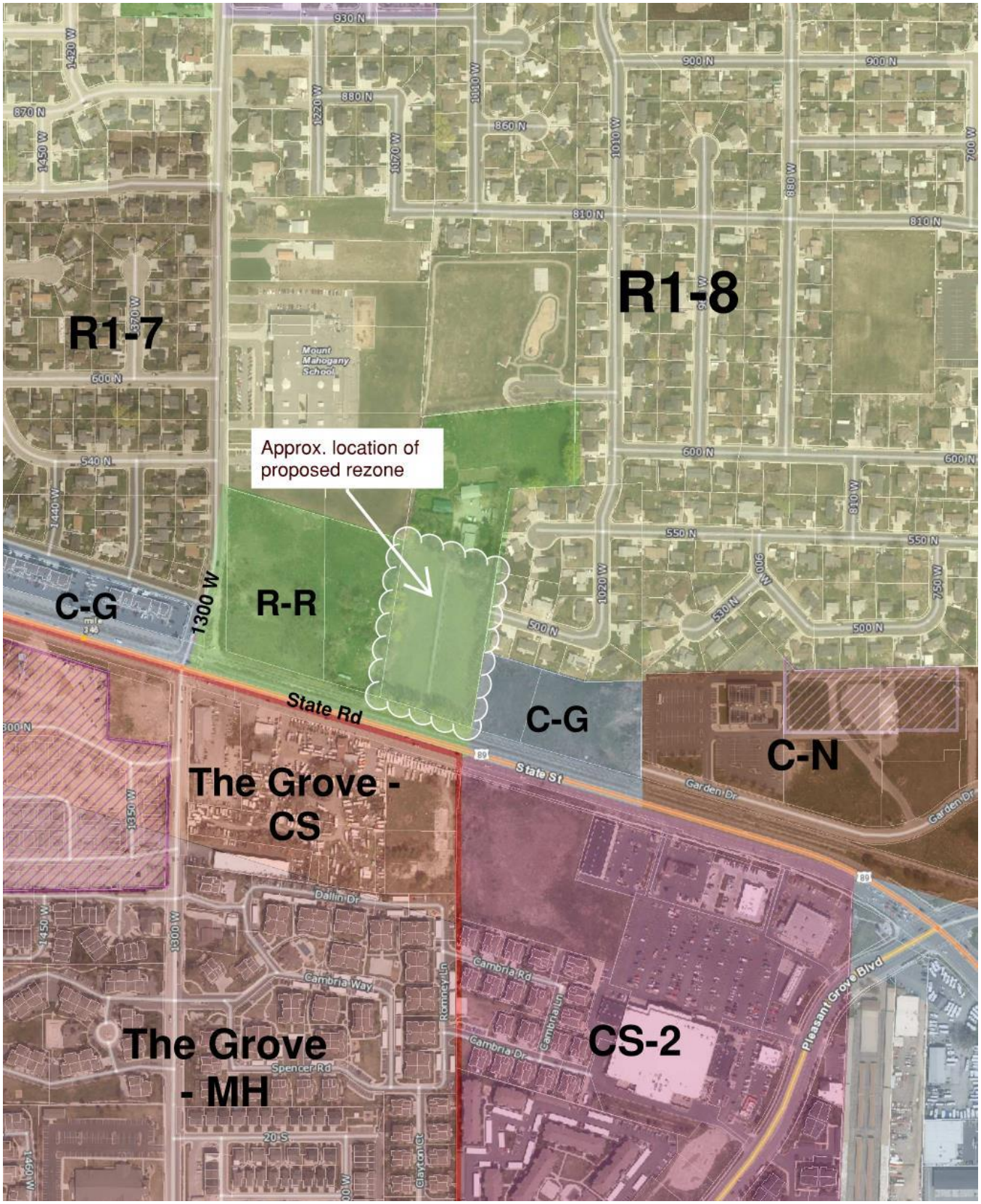
Motion: At the Public Hearing, Commissioner Butler moved the Planning Commission forward a recommendation approval to the City Council for the request of Clean Space Storage for the rezone of approx. 3.6 acres, for the property located at 1130 West State Street, as drawn in the attached map, from The Rural Residential Zone to the C-G (Commercial General) Zone; and adopting the exhibits, conditions, and findings of the staff report.

1. All Final Planning, Engineering, and Fire Department requirements are met.

Commissioner Coombs seconded the motion.
The Commissioners unanimously voted “Aye”. The motion carried.

Motion by: Commissioner Butler
Seconded by: Commissioner Coombs
AYE VOTES: Chair Blake, Butler, Steele, Hargett, Coombs

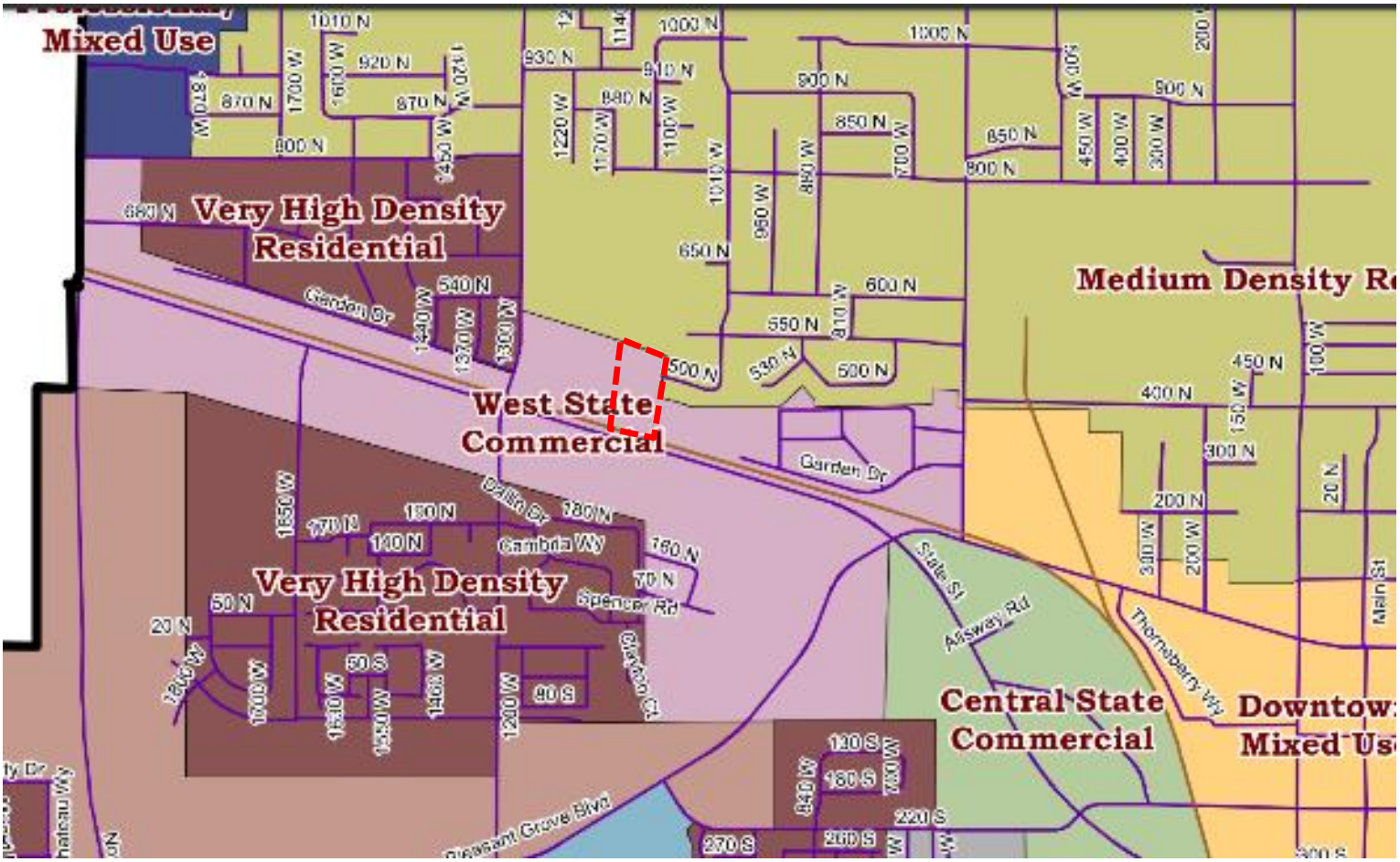
PROPERTY ZONING MAP



PROPERTY AERIAL MAP



GENERAL PLAN DESIGNATION



ORDINANCE NO. 2021-32

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF PLEASANT GROVE CITY, REZONING APPROXIMATELY 3.6 ACRES OF PROPERTY LOCATED AT APPROXIMATELY 1130 WEST STATE STREET FROM THE R-R (RURAL RESIDENTIAL) ZONE TO THE C-G (GENERAL COMMERCIAL) ZONE, CLEAN SPACE STORAGE IS THE APPLICANT.

WHEREAS, the existing zone for the property located at approximately 1130 West State Street is R-R (Rural Residential) Zone where the minimum required square footage per lot is .5 acre lots; and

WHEREAS, the applicant intends to develop a commercial subdivision, changing the use of the land from residential lots having minimum lot sizes no less than the 21,780 square feet as to commercial lots with no specific area required per lot; and

WHEREAS, the General Plan designation of West State Commercial supports the C-G, General Commercial zone on the property and the uses are cohesive with the existing as well as with the intended uses for the area; and

WHEREAS, on November 18, 2021 the Pleasant Grove City Planning Commission held a public hearing to consider the re-zone request; and

WHEREAS, at its public hearing the Planning Commission found that the rezone request was in the public's interest and considered that the application of the C-G Commercial zone is cohesive with its surroundings and consistent with the written goals and policies of the General Plan; and

WHEREAS, the Pleasant Grove Planning Commission recommended to the Pleasant Grove City Council that the rezone request be approved; and

WHEREAS, on December 7, 2021 the Pleasant Grove City Council held a public hearing to consider the request; and

WHEREAS, at its meeting the Pleasant Grove City Council was satisfied that the rezone request was in the best interest of the public and was consistent with the written goals and policies of the General Plan; and

WHEREAS, at its meeting the Pleasant Grove City Council approved the request to rezone approximately 3.6 acres located at approximately 1130 West State Street from the R-R Zone to the C-G Commercial Zone.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PLEASANT GROVE:

SECTION 1. The approximate .3.6 acres located at approximately 1130 West State Street shall be rezoned from the R-R (Rural Residential) Zone to the G-G (General Commercial) Zone; said property being described as shown on Exhibit "A".

SECTION 2. The Official Zoning Map showing such changes shall be filed with the Pleasant Grove City Recorder.

SECTION 3. The Pleasant Grove City Council finds that the zone change is in the best interest of the public and is consistent with the written goals and policies of the City's General Plan.

SECTION 4. SEVERABILITY. The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable. If any such section, paragraph, sentence, clause, or phrase shall be declared invalid or unconstitutional by the valid judgment or decree of a Court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any of the remaining sections, paragraphs, sentences, clauses, or phases of this Ordinance.

SECTION 5. This ordinance shall take effect immediately upon its passage and shall be posted or published as required by law.

SECTION 6. APPROVED AND ADOPTED AND MADE EFFECTIVE by the City Council or Pleasant Grove City, State of Utah, on this 7th day of December, 2021.

_____.
Guy L. Fugal, Mayor

ATTEST:

_____ (SEAL)
Kathy T. Kresser, MMC
City Recorder

Exhibit "A"



Motion: Council Member _____
Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

CERTIFICATE OF POSTING ORDINANCE
Pleasant Grove City Corporation

I, the duly appointed recorder for the City of Pleasant Grove, hereby certify that a summary of the foregoing Ordinance No._____was posted on the State (http://pmn.utah.gov) website on this day of _____, 2021.

Dated this _____ day of _____, 2021.

_____
Kathy T. Kresser, MMC, City Recorder

City Council Staff Report

Dec 7, 2021

Item 9C

PRELIMINARY SUBDIVISION PLAT

REQUEST	Rezone approximately .29 acres from the R-R (Rural Residential) Zone to the R1-10 (Single Family Residential) Zone	
APPLICANT	Robert and Jill Bigelow	
ADDRESS	Approx. 1330 N 100 E	
ZONE	R-R (Rural Residential) Zone	
GENERAL PLAN	Low Density Residential	
STAFF RECOMMENDATION	Approve the Rezone and Preliminary Subdivision Plat	
ATTACHMENTS	Property Zoning Map	**4**
	Property Aerial Map	**5**
	General Plan Designation Map	**6**
	Preliminary Plat – Bigelow Subdivision Plat A	**7**

Background

The applicant requested approval of a 2- lot residential subdivision, called Bigelow Subdivision Plat 'A,' located at approximately 1330 North 100 East in the R-R (Rural Residential) Zone and proposed R1-10 (Single Family Residential) Zone. The General Plan designation is Low Density Residential.

Neither lot has ever been part of an approved and recorded subdivision. Some street improvements for the proposed lots are not existing along 1280 North Street and will be constructed with the development of the subdivision. All required street improvements are existing along 100 East.

Analysis

The proposed subdivision occupies a total area of about 3 acres and consists of 2 single, residential lots: Lot 1 and 2.

Lot #	Acres	Sq. Ft.
1	2.72	118,353
2	.29	12,584

Proposed Lot 1 meets all requirements for the R-R (Rural Residential) Zone, and proposed Lot 2 meets all requirements for the R1-10 (Single Family Residential) Zone. The requirements for each of these zones are below:

Lot Requirements (R-R Zone)	*Feet*
Area	21,780 SF
Frontage	60 FT
Width	110 FT

Lot Requirements (R1-10 Zone)	Feet
Area	10,000 SF
Frontage	35 FT
Width	100 FT

Frontage for this subdivision is provided by public roads: 100 East and 1280 North.

Rezone

The proposed rezone to apply the R1-10 (Single Family Residential) Zone to approximately .29 acres of the subject property is supported by the General Plan (see Page 6 for General Plan Designation for this area). The subject property and nearby properties between 1100 North and 1800 North have a General Plan Designation of Low Density Residential. Low Density Residential (LDR) areas support the following zoning applications: R1-15, R1-12, and R1-10 Single Family Residential Zones, with 2-4 dwelling units per acre. Zone designations for nearby properties also include R1-10 (Single Family Residential) Zone bordering the norther, eastern, and southern sides of the property, and to the west, across 100 East, there is a large area within the R1-8 (Single Family Residential) Zone. Staff has determined a rezone of this property to the R1-10 (Single Family Residential) Zone, would be consistent with nearby areas, in line with the intent of the Land Use Designation for this area as indicated by the General Plan, and appropriate for this property.

Recommendation from Planning Commission

Pleasant Grove City Planning Commission took the following action on the described application at their meeting on November 18, 2021.

4. **Public Hearing: <u>Rezone – Located at approx. 1330 N 100 E</u>**

   (Big Spring Neighborhood)

   Public Hearing to consider the request of Robert and Jill Bigelow to apply the R1-10 (Single Family Residential) Zone to approximately .29 acres on property currently zoned R-R (Rural Residential) Zone, located at approximately 1330 North 100 East.

RECOMMEND APPROVAL

Motion: At the Public Hearing, Commissioner Steele moved the Planning Commission recommend that the City Council approve the request of Robert and Jill Bigelow, to apply the R1-10 (Single Family Residential) Zone to approximately .29 acres currently zoned R-R (Rural Residential) Zone, on property located at approximately 1330 North 100 East; and adopting the exhibits, conditions, and findings of the staff report, and as modified by the conditions below:

1. All Final Planning, Engineering, and Fire Department requirements are met.

Commissioner Coombs seconded the motion.

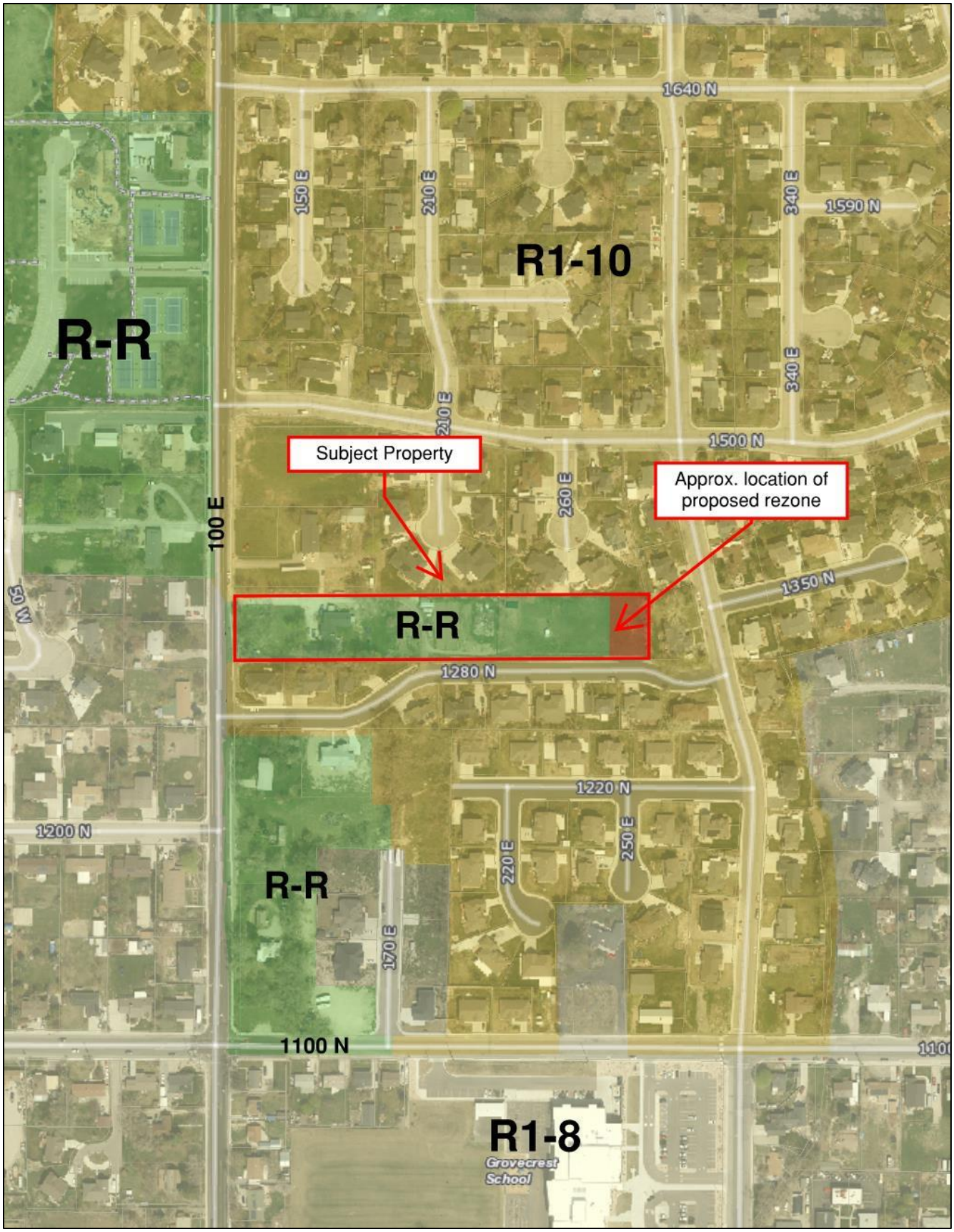
The Commissioners unanimously voted “Aye”. The motion carried.

Motion by: Commissioner Steele

Seconded by: Commissioner Coombs

AYE VOTES: Chair Blake, Steele, Hargett, Coombs

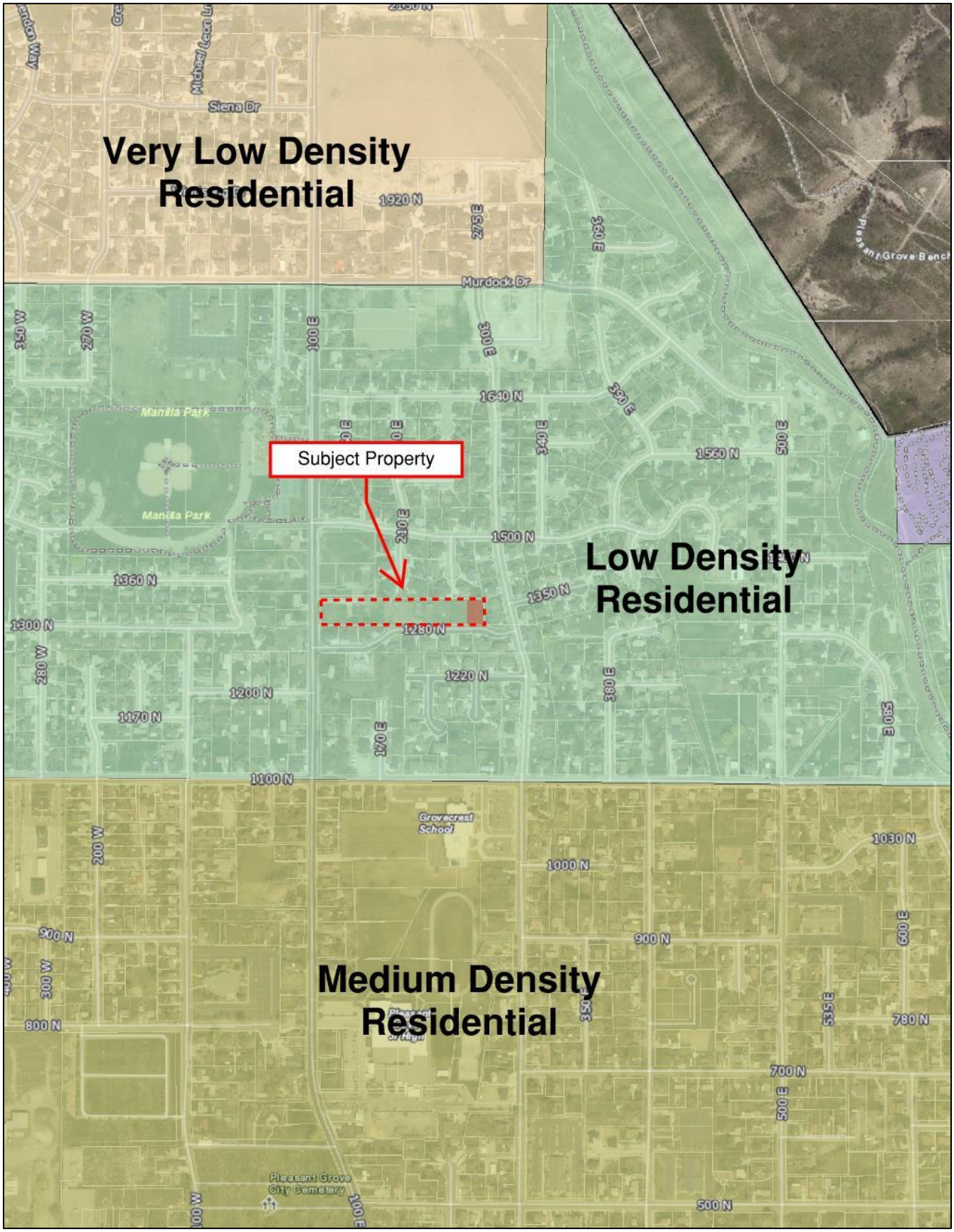
PROPERTY ZONING MAP



PROPERTY AERIAL MAP

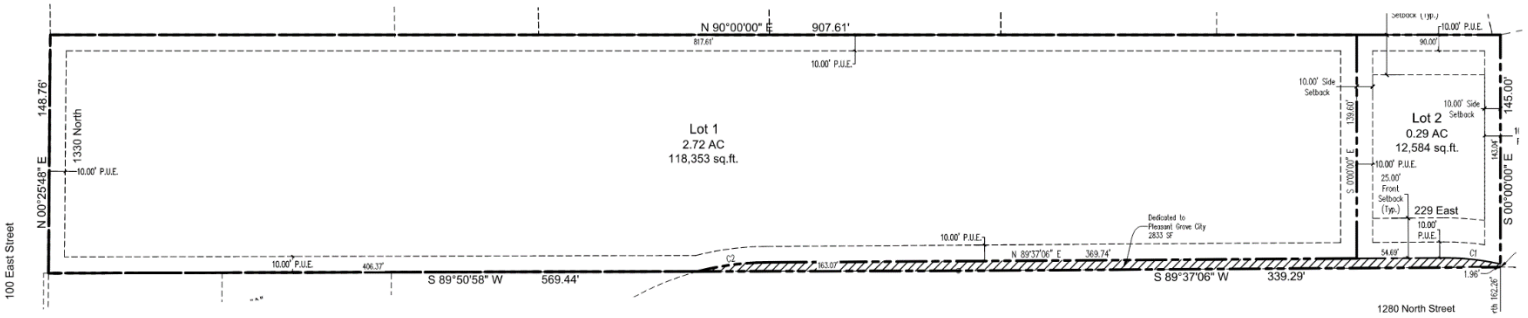


GENERAL PLAN DESIGNATION MAP



Community Development 86 South 100 East Pleasant Grove, UT 84062 Phone: (801) 785-6057 Fax: (801) 785-5667 www.pgcity.org
Authors: Daniel Cárdenas - Community Development Director and Rylee Hall - City Planner

PRELIMINARY PLAT – Bigelow Subdivision Plat A



ORDINANCE NO. 2021-33

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF PLEASANT GROVE CITY, REZONING APPROXIMATELY .29 ACRES OF PROPERTY LOCATED AT APPROXIMATELY 1330 N 100 E FROM THE R-R (RURAL RESIDENTIAL) ZONE TO THE R1-10 (SINGLE FAMILY RESIDENTIAL) ZONE, ROBERT AND JILL BIGELOW IS THE APPLICANT.

WHEREAS, the existing zone for the property located at approximately 1330 N 100 E is R-R (Rural Residential) Zone where the minimum required square footage per lot is .5 acre lots; and

WHEREAS, the applicant intends to develop a residential subdivision having minimum lot sizes averaging 10,000 square feet, which is less than the 21,780 square feet as currently required in the R-R Zone; and

WHEREAS, the General Plan designation of Low Density Residential supports the R1-10, Single family Residential zone on the property and the uses are cohesive with the existing as well as with the intended uses for the area; and

WHEREAS, on November 18, 2021 the Pleasant Grove City Planning Commission held a public hearing to consider the re-zone request; and

WHEREAS, at its public hearing the Planning Commission found that the rezone request was in the public's interest and considered that the application of the R1-10 zone is cohesive with its surroundings and consistent with the written goals and policies of the General Plan; and

WHEREAS, the Pleasant Grove Planning Commission recommended to the Pleasant Grove City Council that the rezone request be approved; and

WHEREAS, on December 7, 2021 the Pleasant Grove City Council held a public hearing to consider the request; and

WHEREAS, at its meeting the Pleasant Grove City Council was satisfied that the rezone request was in the best interest of the public and was consistent with the written goals and policies of the General Plan; and

WHEREAS, at its meeting the Pleasant Grove City Council approved the request to rezone approximately .29 acres located at approximately 1330 N 100 E from the R-R Zone to the R1-10 Zone.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PLEASANT GROVE:

SECTION 1. The approximate .29 acres located at approximately 1330 N 100 E shall be rezoned from the R-R (Rural Residential) Zone to the R1-10 (Single Family Residential) Zone; said property being described as shown on Exhibit "A".

SECTION 2. The Official Zoning Map showing such changes shall be filed with the Pleasant Grove City Recorder.

SECTION 3. The Pleasant Grove City Council finds that the zone change is in the best interest of the public and is consistent with the written goals and policies of the City's General Plan.

SECTION 4. SEVERABILITY. The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable. If any such section, paragraph, sentence, clause, or phrase shall be declared invalid or unconstitutional by the valid judgment or decree of a Court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any of the remaining sections, paragraphs, sentences, clauses, or phases of this Ordinance.

SECTION 5. This ordinance shall take effect immediately upon its passage and shall be posted or published as required by law.

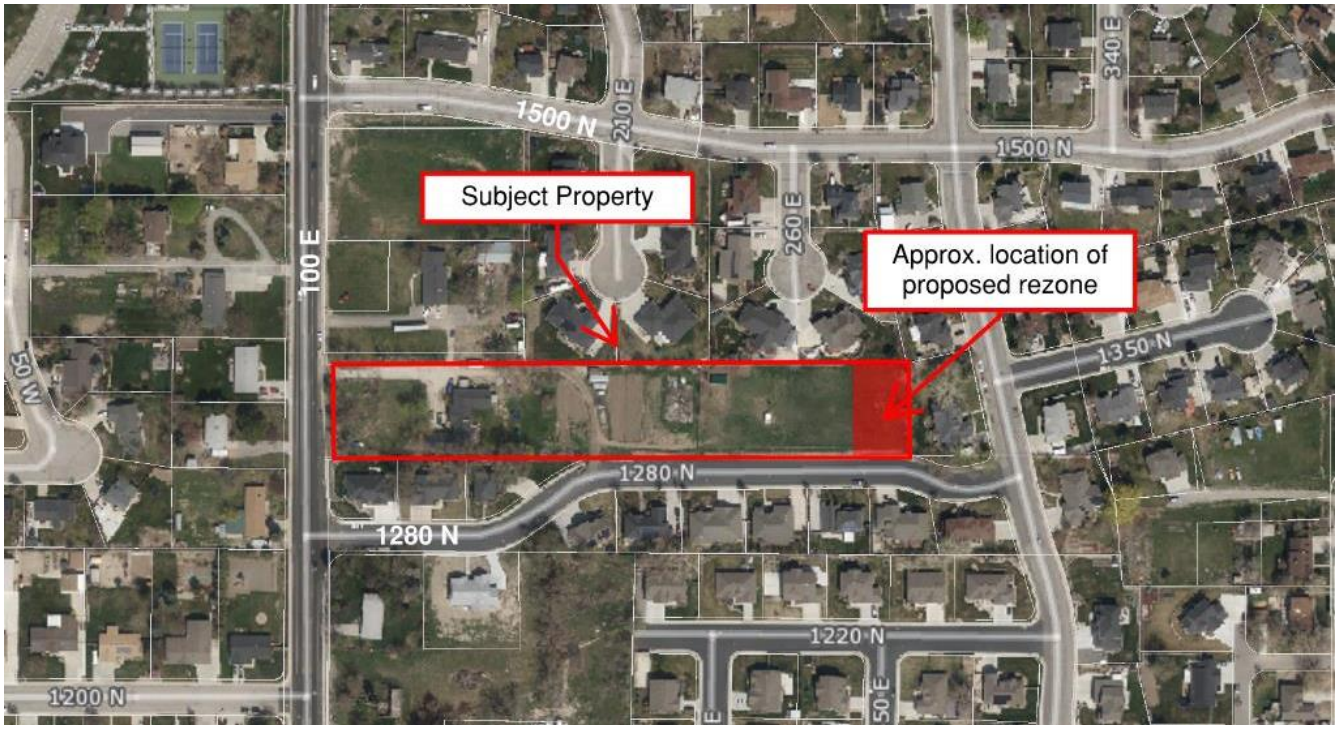
SECTION 6. APPROVED AND ADOPTED AND MADE EFFECTIVE by the City Council or Pleasant Grove City, State of Utah, on this 7th day of December, 2021.

_____.
Guy L. Fugal, Mayor

ATTEST:

_____ (SEAL)
Kathy T. Kresser, MMC
City Recorder

Exhibit "A"



Motion: Council Member _____
Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

CERTIFICATE OF POSTING ORDINANCE
Pleasant Grove City Corporation

I, the duly appointed recorder for the City of Pleasant Grove, hereby certify that a summary of the foregoing Ordinance No._____was posted on the State (http://pmn.utah.gov) website on this day of _____, 2021.

Dated this _____ day of _____, 2021.

_____
Kathy T. Kresser, MMC, City Recorder

ORDINANCE NO. 2021-34

AN ORDINANCE ADOPTING THE PLEASANT GROVE CITY STORM WATER MANAGEMENT PLAN UPDATED NOVEMBER 2021 TO COMPLY WITH REGULATIONS OF THE UTAH STATE DIVISION OF WATER QUALITY MS4 PERMIT; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City owns and operates a storm drain system to provide a level of protection to its citizens from storm water flows, and

WHEREAS, in 2010 the City prepared a Storm Water Management Plan (SWMP) as required by the Utah State Division of Water Quality, and

WHEREAS, the City's MS4 permit requires an annual review of the SWMP document in order to maintain permission to discharge storm water and non-storm water to the Waters of the State, and

WHEREAS, the City has contracted with Horrocks Engineers to assist with the update the SWMP in order to meet State requirements and to maintain permission to discharge to the Waters of the State, and

WHEREAS, the City desires to comply with the State requirements by updating and adopting the Storm Water Management Plan as prepared by Horrocks Engineers.

NOW, THEREFORE, BE IT ORDAINED by the Pleasant Grove City Council as follows:

SECTION 1. The Pleasant Grove City Storm Water Management Plan shown as Exhibit "A" is now adopted.

SECTION 2. This ordinance shall take effect immediately upon passage.

PASSED AND ADOPTED BY THE CITY COUNCIL OF PLEASANT GROVE, UTAH COUNTY, UTAH, this 7th day of December, 2021.

_____

Guy L. Fugal, Mayor

ATTEST: **(SEAL)**

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____
Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

CERTIFICATE OF POSTING ORDINANCE
Pleasant Grove City Corporation

I, the duly appointed recorder for the City of Pleasant Grove, hereby certify that a summary of the foregoing Ordinance No._____was posted on the State (http://pmn.utah.gov) website on this day of _____, 2021.

Dated this _____ day of _____, 2021.

_____
Kathy T. Kresser, MMC, City Recorder

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan "Draft"

Updated (Nov 2021):

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INTRODUCTION

Pleasant Grove City is a community of approximately 39,989 people in northern Utah County (see Appendix A), State of Utah. The City owns and operates a storm drain system to provide a level of protection to its citizens from storm water flows. In 2002 the City prepared a Storm Water Management Plan (SWMP) as required by State and Federal Law in order to obtain permission to discharge storm water to waters of the State. In August 1, 2010 The Utah State Division of Water Quality issued an updated permit which requires the City to update its SWMP in order to maintain permission to discharge to Waters of the State. The City subsequently updated its SWMP in November of 2010. In January 2016 the Utah State Division of Water Quality again issued an updated permit. The City subsequently updated its SWMP in 2016 and 2020. This SWMP represents the latest update and outlines the City's commitments to protect water quality. The SWMP is meant to be a living document and will be reviewed, at a minimum, on a yearly basis and updated as necessary.

1.0 PERMIT COVERAGE

Pleasant Grove City has prepared this SWMP to comply with the Small MS4 General UPDES Permit No. UTR090000 (hereafter Permit) and obtain authority to discharge to waters of the State. The City understands permitted discharge includes storm water and the non-storm water discharges listed below unless they are identified as significant sources of pollutants to waters of the state of as causing or contributing to a violation of water quality standards.

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs
- Water from crawl space pumps

- Footing drains
- Lawn watering runoff
- Individual residential car washing
- Flows from riparian habitats and wetlands
- De-chlorinated swimming pool discharges
- Residual street wash water
- De-chlorinated water reservoir discharges
- Discharges of flows from Emergency firefighting activity

2.0 NOTICE OF INTENT

A Notice of Intent (NOI) has been filed with the Division of Water Quality with the submission of the 2010 SWMP. This SWMP update will fall under the 2010 NOI.

3.0 SPECIAL CONDITIONS

3.1 DISCHARGES TO WATER QUALITY IMPAIRED WATERS

Pleasant Grove City discharges storm water to tributaries of Utah Lake which is listed as an impaired water body with respect to Harmful Algal Blooms, Eutrophication, PCB in Fish Tissue, Total Dissolved Solids, and Total Phosphorus as P. No Total Maximum Daily Load (TDML) has been developed by the Division and approved by EPA for Utah Lake. TDML development priority is listed as "low". Once a TDML is established for Utah Lake, the City's SWMP will be updated to reflect the listing per permit requirements.

3.2 NITROGEN AND PHOSPHORUS REDUCTION

Pleasant Grove City recognizes the need to address nitrogen and phosphorus in its storm water discharge. In addition to its ongoing public education and outreach efforts to address phosphorus the City will support the Utah County Storm Water Coalition in evaluation, identification, and targeting sources of nitrogen and phosphorus and providing outreach.

The Coalition will determine and target source that are contributing to or have the potential to contribute, nitrogen and phosphorus to the receiving waters of the City. The Coalition will prioritize the targeted sources that are most likely to obtain a reduction in nitrogen and phosphorus through public education. The Coalition will distribute educational materials or equivalent outreach to the prioritized targeted sources. Educational materials or equivalent outreach will describe storm water quality impacts associated with nitrogen and phosphorus in

storm water runoff and illicit discharges, the behaviors of concern, and actions that the target source can take to reduce nitrogen and phosphorus. This effort will be incorporated in the education and outreach strategies provided in accordance with Permit Part 4.2.1.

3.3 CO-PERMITTEES

Utah County Storm Water Coalition was a co-permittee with Pleasant Grove City on some Public Education and Outreach efforts. The Coalition's efforts will continue but they are not considered a co-permittee in this plan update. Their efforts are identified in Section 4.2.1.

4.0 STORM WATER MANAGEMENT PROGRAM

4.1 REQUIREMENTS

4.1.1 SWMP

This SWMP includes the six minimum control measures described in Section 4.2 of the Permit. This update of the SWMP represents additions, clarifications, etc. that are more specifically identified in the new permit.

4.1.2 Documentation and Financial Resources

The City has an ongoing documentation process for gathering, maintaining and using information as required by the permit. This process is outlined more fully in the six minimum control measures. A summary of the process is given in the SOP Appendix: *SOP SWMP Implementation and evaluation and SOP Record Keeping*.

The City tracks the number of inspections performed, official enforcement actions taken, and types of public education activities implemented as required. This information is available for review by the Division to measure permit compliance.

The City will secure the resources necessary to meet all requirements of this permit. The City will conduct an annual analysis of the capital and operation and maintenance expenditures necessary and allocate funding to meet the requirements of this permit including the development, implementation and enforcement activities required. A summary of its fiscal analysis shall be submitted with each annual report.

4.1.3 BMP's

The SWMP contains BMP's that the City will implement for each of the storm water minimum control measures.

The measureable goals for each of the BMP's include the dates the City will undertake the desired action including interim milestones and the frequency of the actions.

The City has designated their Storm Water Coordinator as the person responsible for implementing the BMP's contained within the SWMP. The Storm Water Coordinator is currently Mark Atwood. The person in this position is changed from time to time and will be identified by name in each annual report.

4.2 MINIMUM CONTROL MEASURES

The Pleasant Grove City SWMP covers the six minimum control measures required by the Permit. Each minimum control measure is covered in the following sections.

4.2.1 Public Education and Outreach on Storm Water Impacts

Outreach and educational efforts will include a multimedia approach including direct mail, internet, and notice boards. These efforts will target specific audiences including: residents, institutions, industrial, and commercial facilities, developers and contractors, and MS4-owned or operated facilities. The following sections detail these efforts.

4.2.1.1 Target Specific Pollutants and Pollutant Sources

Pleasant Grove will target the following pollutants and pollutant sources in their education and outreach efforts.

- Total Phosphorus
- Total Dissolved Solids
- Nitrogen
- Sediment
- Trash

Utah Lake is on the States 303C list of impaired waters with respect to Total Phosphorus and Total Dissolved Solids and therefore the City will focus on these items. Nitrogen is added to the program based on the updated permit requirements. Sediment and trash are of interest to the City because of potential impairment of receiving bodies of water and the maintenance effort required to clean these items from local storm drain facilities.

4.2.1.2 General Public Education

Pleasant Grove will provide educational material to the general public through the following methods: Monthly newsletter and utility billings, City web site, and existing Utah County storm water coalition advertisements. These efforts will cover the following topics at a minimum:

- Maintenance of Septic Systems
- Lawn Care

- On-site infiltration
- Automotive work and car washing
- Swimming Pool water disposal
- Pet waste

The information presented to the general public on these items will include a focus on the specific pollution and pollution sources identified in Section 4.2.1.1. It will also include information specific to nutrients in storm water according to section 3.2 of the permit.

4.2.1.3 Institutional, Industrial, and Commercial Education

Pleasant Grove will provide educational material to institutional, industrial, and commercial facilities through the following methods: Monthly newsletter and utility billings, City web site, business license renewal, and existing Utah County storm water coalition advertisements. These efforts will cover the following topics at a minimum.

- Proper Lawn Maintenance (use of Pesticides, herbicides, and fertilizer)
- On-site infiltration
- Building and Equipment maintenance (proper management of waste water)
- Use of salt and other de-icing materials (cover/prevent runoff to storm system and contamination to ground water)
- Proper storage of materials (emphasize pollution prevention)
- Proper management of water materials and dumpsters (cover and pollution prevention)
- Proper management of parking lot surfaces (sweeping)

The information presented to business and institutional facilities on these items will include a focus on the specific pollution and pollution sources identified in Section 4.2.1.1. It will also include information specific to nutrients in storm water according to section 3.2 of the permit.

4.2.1.4 Development Community Education

The City will provide and document information given to engineers, construction contractors, developers, development review staff, and land use planners concerning the development of storm water pollution prevention plans (SWPPPs). This portion of the SWMP will be addressed in Minimum Control Measure #4 - Construction Site Storm Water Runoff.

4.2.1.5 MS4-owned or Operated Facilities

Pleasant Grove City will continue a yearly employee training program concerning the prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste. At a minimum the City will cover the following topics.

- Equipment inspection to ensure timely maintenance
- Proper storage of industrial materials (emphasize pollution prevention)
- Proper management and disposal of wastes
- Proper management of dumpsters
- Minimization of use of salt and other de-icing materials (cover/prevent runoff to MS4 and ground water contamination)
- Benefits of appropriate on-site infiltration (areas with low exposure to industrial materials such as roofs or employee parking)
- Proper maintenance of parking lot surfaces (sweeping)

4.2.1.6 City Planners Education

Pleasant Grove City will encourage their MS4 engineers, development and plan review staff, land use planners, and others as applicable to attend training courses in Low Impact Development (LID) practices, green infrastructure practices, and communicate the specific requirements for post-construction control and the associated Best Management Practices (BMPs) chosen within the SWMP. These training courses will be documented by the City's Storm Water Coordinator.

4.2.1.7 Program Effectiveness

The effectiveness of the City's public education and outreach efforts will be measured through surveys, questionnaire, and quizzes with training. The City will send surveys with the monthly water bill and request the public to fill out and return every five years. A survey/questionnaire will be posted on the City's web site for electronic submittal every five years. All City sponsored training will include quizzes. The City also will track and compare violations from year to year to measure program effectiveness.

4.2.1.8 BMP Selection Process

The above mentioned BMP's were selected because they would reach all of the residents and businesses within the City because all receive monthly utility billings and many have access to the internet.

4.2.1.9 Control Measure 1 Summary

The following Table 1 shows a summary of Best Management Practices (BMP's) for Control Measure #1

Table 1 - Control Measure #1 Summary

Best Management Practice (BMP)	Measurable Goal	Implementation Schedule	Latest Action (Updated Yearly)
A. Develop Web Based Educational Program	Include Educational Material Monthly on City Web Site	Monthly	Included 2021
B. Distribute Flyers for Institutional, Industrial and Commercial	Include Flyers With Business License Renewal	Annually	Distributed 2021
C. Distribute Flyers in Utility Bills	Distribute Flyers to all Utility Bill Recipients	Annually	Distributed 2021
D. Include Material in City Newsletter	Include Educational Material in City Newsletter	Annually	Included 2021
E. Support Utah County Coalition	Pay Dues and Document School Programs Conducted by Coalition	Annually	Paid and Documented 2021
F. Employee Training	Conduct Training for City Employees	Annually	Conducted 2021
G. Measure Program Effectiveness	Web site and water bill survey	Every Five Years	planned 2022

4.2.1.10 Modifications to Previous Plan

- Changed wording of sections to match updated topic details.
- Updated table.

4.2.2 Public Involvement/Participation

The BMPs within this control measure were developed to provide ongoing opportunities for public involvement and participation. City will provide ongoing opportunities for public involvement and participation through one or more of the following:

- Advisory Panels
- Public Hearings
- Watershed Committees
- Stewardship Programs
- Environmental Activities
- Volunteer Opportunities
- Other Similar Activities

These opportunities shall be provided at a minimum of two times annually.

City will have a public hearing when submitting annual report.

City has annual spring and fall cleanup activities and will add focus on Storm Water.

4.2.2.1 Policy Directive

Pleasant Grove has developed a policy directive which will create opportunities for the public to provide input during the decision making processes involved in the development, implementation and update of the SWMP. The policy directive is as follows:

"Pleasant Grove City is developing, updating, and implementing a Storm Water Management Plan (SWMP) for the City according to the Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 2004, as amended and the Federal Water Pollution Control Act (33 U.S.C. 1251 et. seq., as amended to date), and the rules and regulations made pursuant to those statutes. Pleasant Grove City encourages the public to become involved in the development, updating and implementation of the SWMP including development and adoption of all required ordinances and regulatory mechanisms. The City shall follow the program outlined in the Public Involvement/Participation control measure section of its SWMP to encouraging public input."

4.2.2.2 Initial Public Review

Pleasant Grove made the SWMP available to the public for review and comment. The plan was posted on the City's web site with a request for public comment. The plan was available for review at City Hall, Community Development, and Public Works. Comments forms were available for the public to provide written comments. One public hearing was held to allow the public to comment on the plan.

In addition the SWMP was given to the Chamber of Commerce to review and provide input.

4.2.2.3 Ongoing Public Review

Pleasant Grove City maintains a current version of the SWMP on the City Website. The website requests and allows public to provide input and comment on the plan.

Annually a report will be submitted to the City Council in a regularly scheduled public meeting to discuss the City's storm water system including the SWMP. The City will request input from the Chamber of Commerce prior to this presentation.

As scheduled and as needed the City's SWMP will be updated and modified. The City will follow the same procedure of soliciting public input as outlined in Section 4.2.2.2 when modifying or updating the SWMP.

4.2.2.4 Public Notice

Pleasant Grove City currently follows the State standard public notice requirements for all public hearings. The City will follow the same requirements related to public hearings on its storm water management program. Public hearing advertisements will be noticed on the City's Website, City library, and other prominent City offices as well as the States notification web site.

4.2.2.5 Control Measure #2 Summary

The following Table 2 shows a summary of Best Management Practices (BMP's) for Control Measure #2

Table 2 - Control Measure #2 Summary

Best Management Practice (BMP)	**Measurable Goal**	**Implementation Schedule**	**Latest Action (Updated Yearly)**
A. Ongoing Public Involvement/Participation	Request Input From Chamber of Commerce Storm Water Emphasis in City-Wide Fall and Spring Cleanup	Annually Beginning 2010 Annually Beginning 2022	Obtained 2015
B. Make Storm Water Pollution Prevention Documents and Information Available to the Public	Post Documents and Information on Web Site	Annually Beginning 2010 and within 120 days of effective date of new permit	Available 2021

C. Allow Public Review of Annual Reports	Post Annual Reports on Web Site	Annually Beginning 2010	Posted 2021
D. Conduct Public Hearings	Hold annual public hearing	Annually Beginning 2010	Held 2021

4.2.2.6 Modifications to Previous Plan

- Added clarification on public involvement opportunities per new permit requirements.
- Remove Neighborhood Committees from plan as they have been disbanded.
- Updated table.

4.2.3 Illicit Discharge Detection and Elimination (IDDE)

The following chapter covers the Illicit Discharge Detention and Elimination minimum control measure of the City's SWMP.

4.2.3.1 Current Storm Sewer System Map

The City maintains and will update on a yearly basis maps of its municipal storm water system including the names and locations of all state waters that receive storm water discharge and the outfalls where storm water is discharged. Figure 1 in Appendix B shows the current storm water system of the City. Figure 2 shows the outfalls of the City storm water system into waters of the State.

4.2.3.2 Prohibition of Non-storm Water Discharges

The City prohibits non-storm water discharges to the MS4, including spills, illicit connections, illegal dumping and sanitary sewer overflows. The City's storm water ordinance is included in Appendix C. The ordinance gives adequate legal authority to detect, investigate, eliminate, and enforce against non-storm water discharges, including illegal dumping, into the MS4.

4.2.3.3 Detect and Address Non-storm Water Discharges

The City has developed and implemented procedures to detect and address non-storm water discharges that cover the requirements in Section 4.2.3.3 of the Permit. The standard operating procedures for detecting and addressing non-storm water discharges is located in the Appendix D.

Appendix B-3 shows the priority areas for IDDE. Appendix B-4 shows the priority list of areas shown in B-3.

Field assessment of storm water outfalls will occur as per Section 4.2.3.3 of the Permit. The Outfall Reconnaissance Inventory form in the Appendix E will be utilized to document inspection activities.

Pleasant Grove City will notify the Division if it discovers or suspects that a discharger may need a separate UPDES permit (e.g., Industrial Storm Water Permit, Dewatering Permit).

4.2.3.4 Procedures for Tracing an Illicit Discharge

The City has developed and implemented procedures for tracing an illicit discharge that covers the requirements in Section 4.2.3.4 of the Permit. The standard operating procedure for tracing an illicit discharge is located in the Appendix D.

4.2.3.5 Procedures for Characterizing an Illicit Discharge

The City has developed and implemented procedures for characterizing the nature of, and the potential public or environmental threat posed by an illicit discharge that covers the requirements in Section 4.2.3.5 of the Permit. The standard operating procedure for evaluating an illicit discharge is located in the Appendix D.

4.2.3.6 Procedures for Ceasing Illicit Discharge

The City has developed and implemented procedures for ceasing illicit discharge that cover the requirements in Section 4.2.3.6 of the Permit. The standard operating procedure for ceasing illicit discharge is located in the Appendix D.

4.2.3.7 Public Education

The City will inform public employees, businesses, and the general public of hazards associated with illicit discharge and improper disposal of waste through existing educational efforts outlined in Section 4.2.1 Public Education and Outreach and Section 4.2.3.11 – 12.

4.2.3.8 Household Hazardous Waste Program

The City encourages proper disposal of household hazardous waste by supporting the Utah County hazardous waste program. The City also has a drug drop off box at the dispatch office for citizens to dispose of prescription or other drugs.

4.2.3.9 Reporting Hotline

The City will utilize the public works department phone number (801-785-2941) and (801-420-0554) after hours as a hotline for the public to report spills and other illicit discharges. This number will be publicized in the City's website, newsletter and other public education efforts. A written record shall be kept of all calls received, all follow-up actions taken, and any feedback received from public education efforts. Appendix E includes an Illicit Detection Hotline Reporting form that will be utilized in this effort.

Appendix D includes a flow chart in Spill/Dumping Response Flowchart SOP that shows the procedures for responding to public referrals of illicit discharges.

4.2.3.10 Program Evaluation and Assessment

The City will evaluate and assess their IDDE program on an annual basis in conjunction with their annual report. This evaluation and assessment will follow the IDDE Evaluation and Assessment SOP as shown in Appendix D. The City has developed and maintains a data base for mapping, tracking of the number and type of spills or illicit discharges identified and inspections conducted. Figure B-5 in Appendix C shows the locations of spills and illicit discharges.

4.2.3.11 Training of Storm Water Employees

The City will include IDDE training in its mandatory annual training for City employees as part of Control Measure #1. This training will include field staff whose responsibilities might bring them into contact with or otherwise observe an illicit discharge or illicit connections to the City's storm drain system. It will also include office personnel who might receive initial reports of an illicit discharge. The training will cover how to identify a spill, an improper disposal, or an illicit connection to the storm drain system and proper procedures for reporting the activity. The training will also include identification, investigation, termination, cleanup, and reporting of illicit discharges including spills, improper disposal, and illicit connections.

4.2.3.12 Rights of Division

The City recognizes the Division's right to request documentation or further study according to Section 4.2.3.13 of the Permit.

4.2.3.13 Control Measure #3 Summary

The following Table 3 shows a summary of Best Management Practices (BMP's) for Control Measure #3

Table 3 - Control Measure #3 Summary

Best Management Practice (BMP)	**Measureable Goal**	**Implementation Schedule**	**Latest Action (Updated Yearly)**
System Mapping	Update Maps	Annually	Updated 2021
Storm Water Ordinance	Review Ordinance	Annually	Reviewed 2021

	Update Ordinance	As-needed	2021
Procedures to Detect and Address Non-storm Water Discharges	Update SOP Inspect High Priority Areas Inspect 20 % of outfalls Notify Division of Water Quality if separate discharge permit is required	Annually Annually Annually As-needed	Reviewed 2021 Inspected 2021 Inspected 2021 Date
Procedures to Trace Source of Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2021 Updated 2010
Procedures to Characterize Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2021 Updated 2010
Procedures to Cease Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2021 Updated 2010
IDDE Education (Public)	Provide Educational Material	Annually	Provided 2021
Household Hazardous Waste Program	Provide Program	Annually	Provided 2021
Hotline	Advertise Number	Annually	Advertised 2021

Spill/Dumping Response	Review SOP Update SOP	Annually As-needed	Reviewed 2021 Updated 2010
Training	Storm Drain Employees Field Staff and office Personnel	Annually Annually	Completed 2021 Completed 2021
Program Evaluation and Assessment	Review SOP Update SOP	Annually As-needed	Reviewed 2021 Updated 2010

4.2.3.14 Modifications to Previous Plan

- Clarified that City has legal authority to implement and cites ordinance.
- Updated table
- Storm water ordinance updated

4.2.4 Construction Site Storm Water Runoff Control

The following chapter covers the Construction Site Storm Water Runoff Control minimum control measure of the City's SWMP.

4.2.4.1 Develop and Adopt Ordinance

The City updates its Storm Water Ordinance and regulatory procedures as needed to reflect the requirements of the Permit. The ordinance will apply to all development sites and redevelopment sites greater than or equal to one acre, or those sites less than one acre but part of a larger common plan of development or sale. The ordinance and regulatory procedures are equivalent to the technical requirements set forth in the UPDES Storm Water General Permit for Construction Activities, UTRC090000. The ordinance and regulatory procedures include such local requirements as are beneficial to the City overall discharge goals. The ordinance and regulatory procedures require construction operators to prepare a Storm Water Pollution Prevention Plan (SWPPP) and apply sediment and erosion control BMPs as necessary to protect water quality, reduce the discharge of pollutants, and control waste. The ordinance and regulatory procedures will include a provision for access by qualified personnel to inspect BMPs on private property. The City currently requires a SWPPP with all construction.

The City's current storm water ordinance is included in this program as Appendix C.

The City's standard plans and specifications and storm water technical manual as adopted and updated from time to time provide specific authority to require construction sites to control storm water runoff, develop SWPPP plans, and allow inspections. The manual requires construction operators obtain coverage under the current UPDES storm water general permit.

4.2.4.2 Develop Enforcement Strategy and Implement Ordinance

The City has developed an enforcement strategy and implemented the enforcement provisions of the ordinance. The main enforcement strategy is to include escalating enforcement procedures and actions. These escalating enforcement procedures and actions are included in the City's storm water ordinance and this program.

The City has developed an SOP to implement Control Measure #4 and it includes specific processes and sanctions to minimize the occurrence of, and obtain compliance from violators which shall include appropriate, escalating enforcement procedures and actions. The SOP includes documentation and tracking procedures. A copy of the SOP can be seen in Appendix D.

4.2.4.3 SWPPP Review

The City has developed an SOP for site plan review prior to construction. The City reviews all Storm Water Pollution Prevention Plans (SWPPPs) as part of the normal development review process to ensure that plans include long-term storm water management measures that meet the requirements of this minimum control measure. The City has created a site plan review checklist with respect to storm water management and document reviews in the Planning Department project folders. A copy of the SOP and checklist is included in Appendix D.

A SWPPP is required for all commercial sites within the City and all other construction projects that disturb greater than or equal to one acre including those that disturb less than one acre that are part of a larger common plan or sale. A record will be kept of all material associated with each SWPPP for a period of five years or until construction is completed, whichever is longer. All projects that require a SWPPP are required to obtain a permit from the State of Utah Division of Water Quality according to the UPDES Storm Water General Permit for Construction Activities, UTRC00000. They are also required to utilize the SWPPP template provided by the Division.

Each project has a pre-construction meeting where the City discusses various construction items. During this meeting the City will review the SWPPP including the construction BMPs and post construction BMPs. Also discussed will be any potential water quality impacts and procedures for a pre-construction review including the use of a checklist.

The review of each project shall include evaluation of opportunities for the use of low impact design (LID), and green infrastructure and when opportunities exist, encourage that such BMP's to be incorporated into the site design.

The review checklist will include identifying priority construction sites per Section 4.2.4.3 of the permit. These sites will be subject to additional inspections.

4.2.4.4 Construction Site Inspection

The City has developed an SOP for construction site inspection and enforcement. The SOP clearly defines who is responsible for site inspections as well as who has authority to implement enforcement procedures. The ordinance provides the authority to impose sanctions and ensure compliance. These procedures and regulatory authority will be written and documented in the SWMP as part of the SOP. The SOP can be found in Appendix D.

The City's standard plans and specifications and storm water technical manual as adopted and updated from time to time provide specific authority to inspect construction sites as required.

Construction site inspections shall be performed by qualified personnel at least monthly using the Construction Storm Water Inspection Form provided by the Division. Inspection of priority construction sites shall be performed at least bi-weekly utilizing the same form. A copy of the inspection form can be found in Appendix E.

All phases of construction shall be inspected including prior to land disturbance, during active construction, and following active construction. A copy of the Notice of Termination (NOT) shall be required to be submitted to the Storm Water Coordinator so they can review and inspect before the City will sign off on any completed project.

The City will take any necessary follow-up actions to ensure compliance in accordance with the enforcement SOP. These follow-up and enforcement actions will be tracked and documented.

The City will ensure that all its inspectors are certified and require the same from contractors in according with the UPDES Storm Water General Permit for Construction Activities, UTRC00000.

City has published a hotline phone number for the public to report construction storm water violations as part of section 4.3.2.9. Included is the requirement to document violations, enforcement actions, and corrective actions.

4.2.4.5 Training

The City will include construction site storm water runoff control training in its mandatory annual training for City employees as part of Control Measure #1. This training will include staff whose responsibilities include permitting, plan review, construction site inspections, and enforcement. It will also include third-party inspectors and plan reviewers as well. Records will

be kept of the dates, activities or course descriptions, and names and positions of staff in attendance.

4.2.4.6 Record Keeping

The City currently maintains records of inspections and enforcement actions in a file cabinet along with the SWMP Program. The City has developed, adopted and implemented a written SOP to maintain these and other records as required. These records will be maintained for a period of five years or until construction is completed, whichever is longer. A copy of this SOP can be seen in Appendix D.

4.2.4.7 Control Measure #4 Summary

The following Table 4 shows a summary of Best Management Practices (BMP's) for Control Measure #4

Table 4 - Control Measure #4 Summary

Best Management Practice (BMP)	**Measurable Goal**	**Implementation Schedule**	**Latest Action (Updated Yearly)**
Ordinance to Require the Use of Erosion and Sediment Control Practices at Construction Sites	Review Ordinance Update Ordinance	Annually As needed	Reviewed 2021 2021
Enforcement Strategy	Review SOP Update SOP	Annually As needed	Reviewed 2021 Updated 2012
SWPPP Review	Review SOP Update SOP	Annually As needed	Reviewed 2021 Updated 2015
Construction Site Inspection	Review SOP	Annually	Reviewed 2021

	Update SOP	As needed	Updated 2021
Training	Employees Third-party Reviewers and Inspectors	Annually Annually	Provided 2021 Provided 2021
Record Keeping	Review SOP Update SOP	Annually As needed	Reviewed 2021 Updated 2012

4.2.4.8 Modifications to Previous Plan

- Updated table
- Storm water ordinance updated

4.2.5 Long-Term Storm Water Management in New Development and Redevelopment

The following chapter covers the Long-Term Storm Water Management in New Development and Redevelopment (post-construction storm water management) control measure of the City's SWMP.

4.2.5.1 Post-construction Controls

It is the intent of this program to implement standards that will prevent or minimize impacts to water quality. This program will include non-structural BMP's.

The City will annually review and update its Sensitive Lands Ordinance as appropriate with respect to the following areas.

- Minimize development in areas susceptible to erosion and sediment loss;
- Minimize the disturbance of native soils and vegetation;
- Preserve areas in the municipality that provide important water quality benefits;
- Implement measures for flood control;
- Protect the integrity of natural resources and sensitive areas.

The City's storm water management program shall be updated to include the specifics of the sensitive lands ordinance as it is updated. A copy of the current sensitive lands ordinance is included in Appendix C.

The City has developed a process to implement a Low Impact Development (LID) approach. The City requires new development and re-development projects disturbing greater than or equal to one acre including projects less than one acre that are part of a larger common plan of development or sale to manage rainfall on-site, and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event. Only redevelopment projects that increase impervious surfaces by greater than 10% shall be included in this requirement and they shall only be required to manage the net increase in storm water runoff as a result of redevelopment. The LID approach includes, where feasible, infiltration, evapotranspiration, or harvest and use of storm water to protect water quality. Structural controls may include green infrastructure practices such as rainwater harvesting, rain gardens, permeable pavement, and vegetated swales. When such LID approaches are proposed by the developers, they will be evaluated and accepted or rejected by City staff based on their effect on groundwater and slope stability, the ability to effectively maintain the control, clogging or obstruction issues, freeze-thaw problems and or other issues. If LID practices are not feasible, they will be documented on a case-by-case basis. The LID approach, evaluation procedure, BMP's, and 80th percentile storm data is outlined in Appendix F – Storm Water Technical Manuel and Appendix L LID handbook

The City will develop a LID "Bank" for use on City projects and potentially for private development projects. This Bank will may include infiltration of storm water and or stream water into the aquifer to offset direct storm water runoff in other areas of the City. It may also include rainwater harvesting and reuse through the City's pressurized irrigation system.

The City has developed a plan to retrofit existing developed sites that are impacting water quality. The City will identify sites that are adversely impacting water quality through their illicit detection and elimination program. All sites that are adversely affecting water quality will be required to develop a long term storm water management plan, enter into a maintenance agreement, and install controls, processes and procedures to protect water quality. The retrofit plan emphasizes controls that infiltrate, evapotranspire or harvest and use storm water discharges as appropriate. The plan includes a ranking of potential control measures as outlined in Section 4.2.5.3.3 of the Permit. The City will also require those businesses that are adversely impacting water quality to obtain a separate industrial storm water permit with the State if applicable.

The City has developed and defined a specific hydrological method to calculating runoff volumes and flow rates to ensure consistent sizing of structural BMP's in their jurisdiction and to facilitate plan review. This method is outlined in the City's Storm Water Technical Manual included as Appendix F.

4.2.5.2 Regulatory

The City has a Storm Water Ordinance and regulatory processes that reflects the requirements of the Small MS4 General UPDES Permit. The ordinance and regulatory processes applies to all development sites and redevelopment sites greater than or equal to one acre, or those sites less than one acre but part of a larger common plan of development or sale. The objective of this control measure is for the hydrology associated with the new development to mirror the pre-development hydrology as much as possible. Hydrology controls shall not replace required water quality controls. The ordinance and regulatory processes include such local requirements as are beneficial to the City's overall discharge goals. The ordinance and regulatory processes require BMP selection, design, installation, operation and maintenance standards necessary to protect water quality and reduce the discharge of pollutants to the MS4. The ordinance and regulatory processes apply to private as well as public development sites including roads. The ordinance and regulatory processes are equivalent to the technical requirements set forth in the Permit.

The City's current storm water ordinance is included in this program as Appendix C.

The City has developed an enforcement strategy and implemented the enforcement provisions of the ordinance. The main enforcement strategy is to include escalating enforcement procedures and actions. These escalating enforcement procedures and actions have been developed as part of the City's storm water ordinance and this plan and are included in Appendix D as Post-Construction Ordinance Enforcement SOP.

Development of the City's storm water ordinance and regulatory processes included documentation of how it will protect water quality and reduce the discharge of pollutants to the MS4. Documentation will include:

- How long-term storm water BMP's were selected;
- The pollutant removal expected from the selected BMP's; and
- The technical basis which supports the performance claims for the selected BMP's.

The City has developed an SOP for site inspection and enforcement of post-construction storm water control measures. This SOP can be found in Appendix D. The City's storm water ordinance and regulatory processes developed as part of Section 4.2.5.1 covers inspection and enforcement requirements from Section 4.2.5.2 of the Permit. The City inspects the installation of all long term storm water controls at least once during construction by qualified personnel and that construction is verify upon completion to ensure the BMPs were constructed as designed.

The City requires all new and redevelopment to enter into a maintenance agreement that will allow the City to have access to inspect and maintain long term controls as required. The maintenance agreement requires the owner of the development or redevelopment to maintain and inspect all long term storm water controls. All maintenance agreements and inspection reports shall be maintained by the City as part of its inventory of all post-construction structural storm water control measures. A copy of the maintenance agreement can be found in Appendix G.

4.2.5.3 Plan Review

The City has developed and implemented procedures for site plan review prior to construction. The City reviews all Storm Water Pollution Prevention Plans (SWPPPs) as part of the normal development review process to ensure that plans include long-term storm water management measures that meet the requirements of this minimum control measure. The City has created a site plan review checklist with respect to storm water management and document reviews in the Planning Department project folders. A copy of the checklist in included in Appendix D.

The City provides developers and contractors with preferred design specification to more effectively treat storm water for different development types. These are included in Appendix H. This information is given to contractors and developers when they commence the development process in the City. The City regularly holds informational meetings with developers and contractors to provide them with the latest development standards. The City will document when these materials are given to developers and contractors.

4.2.5.4 Inventory

The City maintains an inventory of all post-construction structural storm water control measures installed at new development and re-development sites. This inventory includes project name, owner's name and contact information, location, start/end date, etc. It shall also include the following for each project:

- Short description of each storm water control measure (type, number, design or performance specifications);
- Short description of maintenance requirements (frequency of required maintenance and inspections); and
- Inspection information (date, findings, follow up activities, prioritization of follow-up activities, compliance status).
- Storm water calculations
- Maintenance agreement

The inventory will be updated as appropriate to reflect changes in specific control measures implemented at the site or property ownership. The inventory shall be kept in a file cabinet along with the SWMP in the Public Works Building. The current inventory can be seen in Table B-4 in appendix B.

4.2.5.5 Staff Training

As part of its mandatory annual training and educational process, the City trains its staff involved with post-construction storm water management, planning and review, and inspections and enforcement. Training shall be provided or made available for staff in the fundamentals of long-term storm water management through the use of structural and non-structural control methods. Records of training shall be kept including dates, activities or course descriptions, and names and positions of staff in attendance. Training shall occur within 60 days of hire and annually thereafter at a minimum.

4.2.5.6 Control Measure #5 Summary

The following Table 5 shows a summary of Best Management Practices (BMP's) for Control Measure #5

Table 5 - Control Measure #5 Summary

Best Management Practice (BMP)	**Measureable Goal**	**Implementation Schedule**	**Latest Action (Updated Yearly)**
Ordinance to Mandate Controls of Quality and Quantity of Post Construction Storm Water Runoff	Review Ordinance Update Ordinance	Annually As needed	Reviewed 2021 2021
Develop Enforcement Strategy	Review SOP Update SOP	Annually As needed	Reviewed 2021 Updated 2012

Review and Update Development Code With Respect to Section 4.2.5.3	Review and update Development Code	As needed	Reviewed 2012
Retrofit Program	Review Program Update Program	Annually As needed	Reviewed 2021 Updated 2013
Hydrologic Method	Review Method Update Method	Annually As needed	Reviewed 2021 Updated 2020
Site Plan Review Procedures	Review Update Site Plan Review Procedures	Annually As needed	Reviewed 2021 Updated 2020
Storm Water Technical Manual	Review Manual Update Manual	Annually As needed	Reviewed 2021 updated 2020
Inspection and Enforcement	Review SOP Update SOP Document Inspection and Enforcement	Annually As needed Ongoing	Reviewed 2021 Updated 2021 Ongoing
City Staff Education	Yearly Training	Annually	Provided 2021
Maintain Inventory	Update Inventory	Annually	Updated 2021

4.2.5.9 Modifications to Previous Plan

- Storm water ordinance has been updated.
- Re-order sections to match permit.
- Added 80th percentile storm water management evaluation, review, and implementation requirements.
- Table Updated

4.2.6 Pollution Prevention and Good Housekeeping for Municipal Operations

The following chapter covers the pollution prevention and good housekeeping for municipal operations minimum control measure of the City's SWMP.

4.2.6.1 Inventory of Permittee-Owned or Operated Facilities

The City has prepared an inventory of all their owned or operated facilities. The inventory is included in the Appendix B to this report as Table B-6. This list will be reviewed and updated annually with the full Storm Water Management Plan.

4.2.6.2 Assessment of Permittee-Owned or Operated Facilities

The inventory of permittee-owned or operated facilities has been assessed for their potential to discharge to storm water the following typical urban pollutants: sediment, nutrients, metals, hydrocarbons, pesticides, chlorides, and trash. Other pollutants such as bacteria, chlorine, organic matter, etc. are included. In addition TDS is included because of Utah Lake which is listed as an impaired water body with respect to Total Phosphate and Total Dissolved Solids. The inventory shown in Table B-6 of the appendix includes the assessment. The assessment was performed and a numerical ranking was assigned based on the following criteria:

1. No contaminants available for discharge
2. Small amounts of contaminants available for discharge with good structural controls
3. Significant amounts of contaminants available for discharge with good structural controls or small amount of contaminants available for discharge with poor structural controls
4. Significant amounts of contaminants available for discharge with poor structural controls
5. Large amount of contaminants available for discharge that are uncontrolled, have a history of past problems or with known discharges

4.2.6.3 High Priority Ranking

The inventory and assessment of permittee-owned or operated facilities has been reviewed and a "High Priority" ranking has been assigned to those facilities or operations that have a high potential to generate storm water pollutants. The inventory shown in Table B-6 of the Appendix B includes the high priority ranking. The following factors were considered when assigning a high priority ranking:

A. Amount of urban pollutants stored at the site (small versus large)

B. Improperly stored materials (proper versus improper storage)
C. Activities that must be performed outside (inside versus outside)
D. Proximity to water bodies (adjacent versus distant)
E. Poor housekeeping practices (good versus poor practices)
F. Discharge of pollutants of concern to impaired waters (TDS and nutrients for Utah Lake)

The following method was used to assign a high priority to a site:

1. All sites with a numerical ranking of 5 on any of the pollutants.
2. Sites with a numerical ranking of 4 if factors B, C, D, E, & or F applies
3. Sites with a numerical ranking of 3 if factor F applies

4.2.6.4 Facility Specific SOP

The inventory and assessment performed in Sections 4.2.6.1 through 3 have identified four high priority sites for the City. These sites include the public works building and site, the Pipe Plant area, the rodeo grounds, and the cemetery. A facility specific SOP has been created for each site and are included in the SWMP in Appendix D.

4.2.6.5 Inspections

Individual SOP's for permittee-owned or operated facilities will include the following inspections:

1. Weekly visual inspections for High Priority facilities
2. Semi-annual comprehensive inspections of High Priority facilities
3. Annual visual observation of storm water discharges for High Priority facilities.

The SOP's include specific instructions on inspections, documentation, and corrective action if necessary. SOP's can be found in Appendix D.

4.2.6.6 SOP's for Permittee Owned Sites

General SOP's have been created for the facilities listed in Sections 4.2.6.4.1 through 4.2.6.4.7.

The City has developed an inventory of all floor drains inside City owned or operated facilities. The City will ensure they drain to the proper location and the inventory will be updated on a yearly basis. A copy of the inventory has been included in the updated SWMP in Appendix B.

The City has an inventory, including a map, of all storm drains on City owned or operated facilities. The inventory will be updated on a yearly basis. The map can be seen in Appendix B.

4.2.6.7 Third Party and Private Development Maintenance

The City does not contract with a third-party to conduct municipal maintenance. If the City chooses to contract with a third-parity in the future they will be held to the same standard as the City. Private developments are required to conduct their own maintenance according to Control Measure # 5. All new and redevelopment projects are required to enter into a maintenance agreement with the City. A sample copy of the maintenance agreement is given in Appendix G.

4.2.6.8 Flood Management Structural Controls

The City has developed and implemented a process to assess the water quality impacts in the design of all new flood management structural controls that are associated with the City or discharge to the MS4. The process is included in the City's development *SWPPP Review and Approval* SOP in Appendix D. In addition to the normal review checklist the following procedures have been added:

- Does the site have a potential to discharge pollutants of concern as listed in Section 4.2.1.1 to the MS4?
    - If so, then do the proposed controls adequately limit or remove the pollutants of concern?
    - If not then determine and require the best available controls to limit or remove the pollutants.
- Do the controls have adequate access for City or other maintenance personnel and equipment?
    - If not then require adequate access in the design.
- Do the hydraulic controls adequately mimic pre-development storm water flows?
    - If not, then require modified hydraulic controls to more closely mimic pre-development storm water flows.

The City has an inventory of all flood management structural controls within its jurisdiction. All existing flood management control structures shall be assessed to determine whether changes or additions should be made to improve water quality. Approximately 20 percent of all existing flood management control structures will be assessed each year until 100 percent of them have been assessed. Changes and additions will be recommended as needed and documented in the SWMP. The review process will be the same as the review for new flood control structures.

4.2.6.9 Retrofit Program

The City will review its list of owned and operated facilities every five years and Identify any that are negatively impacting water quality. If any are found to be negatively impacting water quality these sites will be ranked with respect to:

- Proximity to water body;

- Current assessment of waterbody with the goal to improve impaired waterbodies and protect unimpaired waterbodies;
- Hydrologic conditions of the receiving waterbody;
- Proximity to sensitive ecosystem or protected area; and
- Any sites that could be further enhanced by retrofitting storm water controls

Any City owned or operated site found to be negatively impacting water quality will be retrofitted to eliminate negative impacts. This retrofit will emphasize controls that infiltrate, have evapotranspiration, or harvest and use storm water discharges.

4.2.6.10 Staff Training

As part of its mandatory annual training and educational process, the City will train its staff involved with primary construction, operation, or maintenance job functions that are likely to impact storm water quality. Training shall meet the requirements of Section 4.2.6.9 of the Permit. Records of training shall be kept including dates, activities or course descriptions, and names and positions of staff in attendance.

4.2.6.10 Control Measure #6 Summary

The following Table 6 shows a summary of Best Management Practices (BMP's) for Control Measure #6

Table 6 - Control Measure #6 Summary

Best Management Practice (BMP)	**Measurable Goal**	**Implementation Schedule**	**Latest Action (Updated Yearly)**
Inventory	Review and Update	Annually	Reviewed and updated 2021
Assessment	Review and Update	Annually	Reviewed and updated 2021
High Priority Designation	Review and Update	Annually	Reviewed and Updated 2021
Develop Facility Specific SOP's	Review and Update SOP's	Annually	Reviewed 2021

Floor Drain Inventory	Develop Inventory Update Inventory	Feb 2011 Annually	Reviewed 2021 Updated 2021
Storm Drain Inventory and Map	Develop Inventory Update Inventory	Feb 2011 Annually	Reviewed and updated 2021
Inspections	Perform and Document Required Inspections	Weekly and Quarterly	Performed 2021
Flood Management Control Structures	Review Process for New Facilities Evaluate Existing Facilities	Annual Update 20 % a year for five years, as needed after	Reviewed 2021 Evaluated 2021
City Staff Education	Yearly Training	Annually	Provided 2021

4.2.6. Modifications to Previous Plan

- Reordered section to match permit
- Updated table
- Reduced inspection schedule to match updated permit
- Updated retrofit program to match permit

4.3 SHARING RESPONSIBILITY

Utah County Storm Water Coalition is not considered a co-permittee with Pleasant Grove City but does provide some Public Education and Outreach efforts. The Coalitions efforts are identified in Section 4.2.1 of this plan.

The City will report and document the efforts of the Coalition. In the event the Coalition fails to implement the control measure it will become the City's responsibility to do so or modify the control measure appropriately.

4.4 Reviewing and Updating Storm Water Management Programs

4.4.1 Storm Water Management Program Review

The City will review it SWMP annually in conjunction with its yearly reporting.

4.4.2 Storm Water Management Program Update

The City will update it SWMP as needed according to the requirements of part 4.4.2 of the Permit.

5.0 NARRATIVE STANDARD, MONITORING, RECORDKEEPING AND REPORTING

5.1 Narrative Standard

The following narrative standard is utilized in the City's storm water ordinance. A copy of the ordinance is included in Appendix C.

"It shall be unlawful, and a violation of this Permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste, or conditions which produce undesirable aquatic life or which produces objectionable tastes in edible aquatic organisms; or concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures"

5.2 Analytical Monitoring

Analytical monitoring is not required for the City except under the following circumstances.

5.2.1 Compliance with TDML's

The City discharges storm water to tributaries of Utah Lake which is listed as an impaired water body with respect to Total Phosphate and Total Dissolved Solids. No Total Maximum Daily Load (TDML) has been developed by the Division and approved by EPA for Utah Lake. TDML water quality studies are listed as "in-progress". Once a TDML is established for Utah Lake, the City's SWMP will be updated to reflect the listing per permit requirements.

5.2.2 Illicit Discharge Detection

The City will utilize analytical monitoring as outlined in parts 4.2.3.4, 4.2.3.5, and 4.2.3.5.1 of this plan for illicit discharge detention.

5.2.3 Elective analytical monitoring

In the event the City elects or is required in the future to conduct analytical monitoring as part of this plan, the City will comply with part 6.18 of this plan.

5.3 Non-analytical Monitoring

Non-analytical monitoring is included in this SWMP as required in part 4.2.3.3.2 of the Permit.

5.4 Record Keeping

The City will keep all supplementary documents current and up to date according to part 5.4 of the Permit. Documentation will be maintained for a period of five years unless that period is changed by the Utah Division of Water Quality.

5.5 Reporting

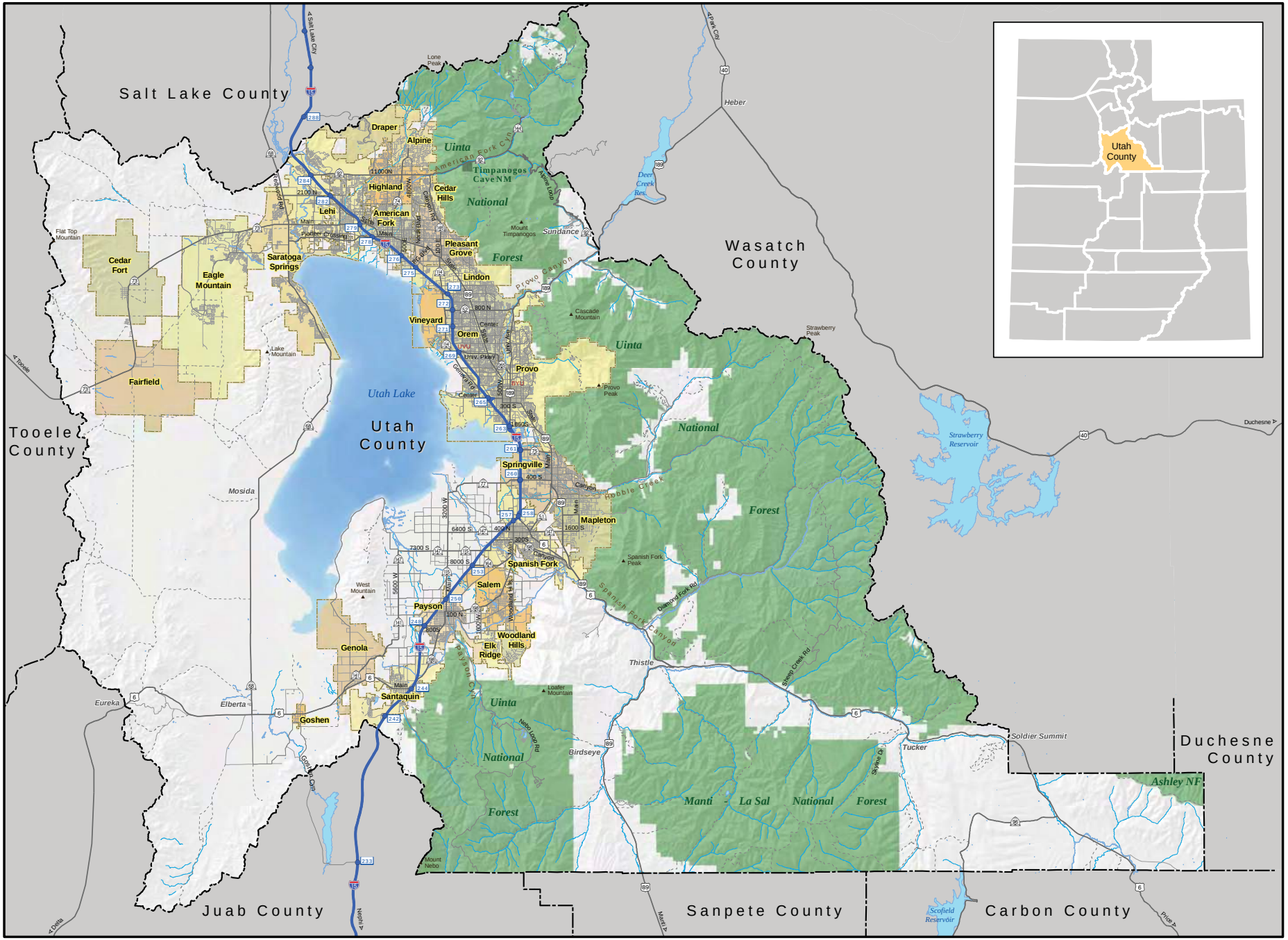
The City will submit an annual report to the Division according to part 5.5 of the Permit.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX A – LOCATION MAP



Utah County

State of Utah

- County Boundary
- I-15
- US Highway/State Route
- Major Road
- Paved Road
- Dirt Road
- Gravel Road
- City Boundaries
- Waterbody
- Reservoir
- Major River
- River
- National Park Service
- National Forest

1:348,480
1 inch = 5.5 miles

Utah County Public Works
Mapping Division
2855 South State Street
Provo, UT 84606
(801) 851-8626

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Utah County makes no warranty with respect to the accuracy, completeness or usefulness of this map. Utah County assumes no liability for direct, indirect, special, or consequential damages resulting from the use or misuse of this map or any of the information contained hereon.

Map created by Curtis Wursten

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX B – STORM WATER SYSTEM MAPS AND INVENTORIES

Legend

- RoadCenterline
- Curb Inlets
- SD Boxes
- SD Manholes
- Sumps
- SD Air Vents
- SD Meter Boxes
- LD Manholes
- LD Subsurface Drains
- Other
- 0
- 4
- 6
- 8
- 10
- 12
- 15
- 18
- 21
- 24
- 30
- 32
- 34
- 36
- 40
- 42
- 48
- 50
- 99
- Detention Basins
- Street Sweeping
- TaxParcel
- **NAME**
- Pleasant Grove

N W E S

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HORROCKS ENGINEERS
2162 West Grove Parkway
Pleasant Grove, Utah 84062

PLEASANT GROVE CITY

Figure B-1 Storm Water System Map

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Legend

- Grovecreek Sample Location
- 700 South Sample Location
- 1000 South Sample Location
- 600 West Sample Location
- 1300 West Sample Location
- 2000 West Sample Location
- Nameless Stream Sample Location
- Grovecreek Drainage
- 700 South Drainage
- 1000 South Drainage
- 600 West Drainage
- 1300 West Drainage
- 2000 West Drainage
- Nameless Stream Drainage
- Roads
- Pleasant Grove Boundary
- Parcels

HORROCKS ENGINEERS

2162 West Grove Parkway
Pleasant Grove, Utah 84062

PLEASANT GROVE CITY

Figure B-2 IDDE Sample Location Plan

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Legend

- Spill or Dump
- RoadCenterline
- historicalboundaries

ZONE_NAME

- BMP
- C-G
- C-N
- C-S
- CS-2
- Downtown Village
- M-D
- P-O
- SGC
- The Grove
- TaxParcel

NAME

- Pleasant Grove

See Figure B-2 for Priority II Discharge Locations
See Table B-4 for Priority II Post Construction SWPPP List

HORROCKS ENGINEERS
2162 West Grove Parkway
Pleasant Grove, Utah 84062

PLEASANT GROVE CITY

Figure B-3 Priority Areas Map

Table B-4 IDDE Priority Areas List

Priority I Areas

ID	ADDRESS	DESCRIPTION	Year
1	700 South	Brundage Hydraulic Oil leakage	2014
2	700 South	Allied Waste Hydraulic Oil leakage	2014

Priority II Areas

ID	ADDRESS	DESCRIPTION
1	Historical Overlay Area of Pleasant Grove	Older Infrastructure
2	Sanitary Sewer Overflows	None Presently
3	Commercial/Industrrial/Mixed Use Areas	See Figure B-3
4	Long Term Storm Water Management Plan Holders	**See Below**

Long Term Storm Water Management Inventory

Perm	Development	Location	Operator (Name)	Contact #	Current SWPPP	
6109	Thornberry	201 W. Center	Pentaland	301-2885		265-1155
6183	Centennial Square	238 W. St. #2		785-7190		
6216	McDonalds	700 S. State		303-779-0444		
6206	D&C Development	655 W. 220 S.	Office Warehouse	785-9866		
6241	City Side Office Park	457/459 E. 1000 S.	Condo	785-8025		
6257	Lindstrom	402 S. 100 E.	Business	785-3007		
6262	Dallin Aldridge	685 W. State	Comm.	785-1814		
6264	Village Square	376 E. State	Comm.	785-1814		
6286	Centennial Square	238 E. State		785-8025		
6297	Utaz Development	872/886 N. 2000 W.		377-6286		
6300	Sierra Cove Tri-Plex	526/518/514 E. Sierra Ln.		756-2682		
6306	Dr. Greg Kofferd (Alpine Ped.)	920 N. 2000 W.		377-6286		
6336	Village Square	376 E. State	Doug Nielson	376-6776		
6617	Jim Davis	732/734 W. 1000 N.	Tri-Plex	785-6265		
6809	P.G. Senior Center	242 W. 200 S.		361-1733		
6836	D&C Development	671 W. 220 S.		756-3802		
6855	Continerta Pipe	430 N. 600 W.		785-6922		
6911	U.S. Bureau of Reclamation	315 W. 1100 N.		372-9407		
6940	Dan Deans	454 W. State				
7011	Pebblecreek	462/464/456/458 E. 1000 S.		785-8025		
7173	Amsource	881 W./981 W. State		994-7000		
7319	PG Town Center Condo 2 plex	139 S. PG Blvd.	Green Grove Apt.	226-0080		
7325	Provo River Water Users	1100 N.		222-0710		
7365	Mountainland Head Start	350 W. State		375-7981		
7399	Car Wash	125 W. Center	Terry Stone	541-1031		
7548	Pleasant Springs	884 W. 700 S.		269-0700		
7630	Pemberley at Robinson Grove	1394 W. 110 N.	8 Plex (GCD)	434-8290		
7700	Garden Village 5 plex	1852 Thru 1832 Garden Drive	Wade Hanks			
7751	Gateway View Townhomes	149 N. Proctor Ln		566-1505		
7802	Dr. Edwards - Vet.	852 S. State		360-4202		
7833	Wieneischitzel	152 S. PG Blvd.		489-6408		
8000	Capelli Hair	200 E. State	No Permit			
8086	Gateway Village	655 S. 950 W.		492-0002		
8137	PG Town Center	985 W. State		994-7000		
8219	Allstar Auto	656 N. 2000 W.				
8304	Belle Monet	684 S. 2150 W.		465-8700		
8368	Dana Point	595 S. PG Blvd.		280-2184		
8428	Cambria	1286 W. 110 N.		227-0530		
	Cambria	1257 W. 50 N.				
8477	Country Cars Power Sports	25 W. State		360-2082		
8550	Business	140 S. Main	Ray Fox			
8604	PG Business Park	302 S. 710 W, 701 W. 220 S.		361-1733		
8734	PG Villas at Maplewood	264 S. 910 W.		836-1558		
8794	The Gables at PL. Grove	174 N. 1380 W., 152-158 N. 1380 W.		208-4000		
8925	Charter- One School	1582 W. 3300 N.		836-1558		
8931	Timp. Animal Hospital	815 S. Main		318-4933		
9050	Grove Business Park	822 S. 490 W., 513 W. 700 S.		568-9300		
9100	Rockwell - GCD	1462 W. 10 S.		434-8290		
9293	Maceys fuel Station	142 S. PG Blvd.		978-8242		
9325	PG Towncenter Car Wash	175 W. PG Blvd.		694-2697		
338	Mayfiel	260 S. 2500 W.		486-2530		
392	Grove Creek Center	2152 W. Grove Parkway		310-6552		
402	University of Phoenex	2174 W. Grove Parkway		480-822-1773		
514	Knesington	852 S. Main, 848 S. Main		420-5028		
519	Westgrove Plaza	2434 W. 700 S.		763-9901		
741	Discovery Grove	1955 W. Grove Parkway		836-8497		
748	Burbs	643 W. 700 S.		750-3848		
08-04	All American Development	200 S. State		787-7902		
09-17	Majecstic Meadows	637 W. State		216-4660		
10-08	Northwest Pipe Co.	430 N. 600 W.		566-7906		
11-07	Grove Point	1975 W. State		361-7207		
	LDS Churches					
6349		455 E. 200 S.		255-7700		
6548		1028 W. 1000 N.				
6681		475 N. 700 E.		763-4543		
6712	J.H. Seminary	647 N. 300 E.		254-2000		
		942 N. 500 E.				
6885		828 S. Locust Ave.				
6919		105 W. 1800 N.		763-4520		
6963		825 S. Loader Ave.		763-4520		
7090		1320 W. 3540 N.				
7702		2195 N. 100 E.				
		800 N. 100 W.				
8182		303 S. Murdock				
8456		1136 W. 700 S.				
9135		56 S. 1300 W.		763-4543		
9144		332 E. 500 S.		763-4543		
9160		1548 N. 900 W.		509-0757		

9221		3396 N. 900 W.		763-4520		
745		905 N. 500 W.		763-4520		
42		2433 W. 450 S.				
	Work Sheets					
	1998					
6046	Knight West					
6070	Village Square Comm. Addit.					
6094	Knight West Comm. Addit.					
6123	William Parker Med. Build					
6109	Thornberry Elderly house					
6152	Pentalo Const. Carports					
6183	Knight West Cent. Sq. #2					
6206	D&C Development Office Warehouse					
6216	McDonalds - 6379					
6232	Hal Ruston Computere Software					
6236	All American Elderly home					
6241	Knight West City Side Condo - 7133					
6257	JP Prop Jeff Lindstrom Comm					
6262	Dallan Aldridge Comm					
6264	General Nutrition Comm. Village Sq.					
6279	Village Sq./Blockbusters 6383 -6691					
6286	Knight West Comm. Finish					
6290	Lee's Café					
6297	Utaz Dev. Comm. 6415					
6300	Shane Morris Tri-Plex					
	2000					
6647	Phoenix Homes Comm. Remodel					
6681	LDS Church Remodel					
6712	HJH Seminary					
6716	LDS Church					
6731	John Pope Comm. Addit.					
6794	Nish Zundel (Proving Grounds) Int. Finish					
6802	Utaz Comm. Finish 5926					
6809	PG Senior Center					
6828	Warburton 6880					
6836	D&C Development					
6846	Magnum Mang Comm Remodel					
6853	UnCamp Credit Union					
6854	Smiths Gas Station					
6855	Continental Pipe					
6875	Knight West Unit 8-9 Comm					
6879	Steve Pterson Comm Remodel					
6885	LDS Church					
	2001					
6897	Joel Ivie Comm					
6911	US Bureau of Reclamation					
6913	Enrique Escobebo					
7382	Amsource Int finish 7401-02-03-04-05-06					
7399	Terry Stone Car Wash					
7417	Amsource Comm					
7504	The Marble Company Int. finish					
7542	Verl Bills Int. Finish - Quiznos					
7548	Western States Lodging Apartments	7549-7560				
	2003					
7618	Gary Devincent Glass Hospital Int finish					
7630	Mike Stewart 8 Plex GCD					
7631	Mike Steart 4 Plex 7632 - 33					
7652	LDS Church Remodel					
7656	Cobble Stone Int finish					
7700	Wade Hanks Multi family					
7702	LDS Church					
7751	Gateway View Townhomes					
7760	Alpine Pediatrics					
7772	Knight West Comm					
7802	Dr. Edwards - Vet.					
7817	Gateway View Townhomes Multi family	7817-7829				
7833	Wieneischitzel					
	2005					
8541	Green Groe Apartments	8541-8544-8560-68				
8550	Ray Fox Comm					
8584	Alison Chintz					
8594	Cambria Dev 3 plex					
8604	Dana Fairbanks Comm					
8631	Trophy Homes Multi Family	8631-8634				
8656	Sundance	8663-8665				
8704	Cambria Multi Fmily					
8734	Villas At Maplewood Multi Family	8734-8736	Distinctive Dev			
8749	PG Business Park					
8794	Castlewood Multi Family	89=794-8809				
8900	Brad Byland					
8925	Charter- One School					
8931	Timp. Animal Hospital	Darrel Barry				
	2006					
9050	Grove Business Park					
9062	Bellmonet Kriser Homes	9088				
9100	GCD rockwell	9108				
9135	LDS Church					
9137	City Side					
470	Spanky's Express comm Fongs					
495	Spinal Rehab comm					
514	New Century Kensington					
519	West Grove Plaza Comm					
	2008					
558	Verizon Wireless comm					
589	Precast Concrette comm					
688	DMB Grove Creek Center					
741	Discovery Office					

745	LDS Church					
748	Burbs					
	2009					
42	LDS Church					
48	All American Development					
114	Lincoln Acadamy					
171	Triple Focus Shell 170					

N

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Legend

- Spill or Dump
- RoadCenterline
- TaxParcel

NAME

- Pleasant Grove

HORROCKS ENGINEERS

2162 West Grove Parkway
Pleasant Grove, Utah 84062

PLEASANT GROVE CITY

Figure B-5 IDDE Historical Spill and Dumping Locations

B-6 City Properties Assessment and Priority

Facility Assessment Ranking

1 No contaminants available for discharge
2 Small amount of contaminants available for discharge/good structural controls
3 Sig contam avail for discharge/good struc controls or Small amount of contam avail for discharge/poor struc controls
4 Significant contaminants available for discharge/poor structural controls
5 Large amount of contaminants available for discharge/uncontrolled/past problems/known discharges

Priority Ranking Criteria (High/Low)	Potential to generate storm water pollutants based on the following
A	Amount of urban pollutants stored at the site
B	Improperly stored materials
C	Activities that must be performed outside
D	Proximity to water bodies
E	Poor housekeeping practices
F	Discharge of pollutants of concern to impaired waters

High Priority Sites Include:
Sites ranked #5
Sites ranked #4 if priority ranking criterias' B,C,D,E,&F applies
Sites Ranked #3 if adjacent to water bodies and priority ranking criteria #F applies

Facility	Sediment	Nutrients	TDS	Metals	Hydrocarbons	Pesticides	Chlorides	Chorine	Organic	Bacteria	Trash	Negatively Impacting Water Quality	Priority
Pipe Plant Property	3	1	3	1	2	1	1	1	3	1	3	no	High
Home (135 East 100 South)	1	2	1	1	2	2	2	1	2	1	2	no	
Home (146 East Center)	1	2	1	1	2	2	2	1	2	1	2	no	
Home (108 East Center)	1	2	1	1	2	2	2	1	2	1	2	no	
Property (499 South Locust)	1	2	1	1	2	2	2	1	2	1	2	no	
Home (375 South Locust) Veterans Park Update	1	2	1	1	2	2	2	1	2	1	2	no	
Property (1960 N 1060 W)	1	2	1	1	2	2	2	1	2	1	2	no	
Property (475 South Locust)	1	2	1	1	2	2	2	1	2	1	2	no	
Property (513 South Locust)	1	2	1	1	2	2	2	1	2	1	2	no	
Property (429 South Locust)	1	2	1	1	2	2	2	1	2	1	2	no	
Property (419 South Locust)	1	2	1	1	2	2	2	1	2	1	2	no	
Home (Beck - 90 East Center)	1	2	1	1	2	2	2	1	2	1	2	no	
Brimley Well	1	2	1	1	2	2	1	1	2	1	1	no	
Gibson Well	1	1	1	1	2	1	1	1	1	1	1	no	
Anderson Park Well	1	1	1	1	2	1	1	1	2	1	2	no	
Monson Well and Tanks	1	2	1	1	2	2	1	3	2	1	1	no	
Grove Creek Well and Filters	1	1	1	1	2	1	1	1	1	1	1	no	
Fugal Well	1	1	1	1	2	1	1	1	1	1	1	no	
Battle Creek Well	1	2	1	1	3	2	1	1	2	1	1	no	
Ekins Well	1	1	1	1	2	1	1	1	1	1	1	no	
Adams Well	1	2	1	1	2	2	1	1	2	1	1	no	
Peterson Well	1	1	1	1	2	1	1	1	1	1	1	no	
Atwood Well	1	2	1	1	2	2	1	1	1	1	1	no	
Future Big Springs Well	1	1	1	1	1	1	1	1	1	1	1	no	
Wade Springs	1	1	1	1	2	1	1	1	1	1	1	no	
Grove Creek Tank	1	1	1	1	2	1	1	1	1	1	1	no	
Cedar Hills Tank	1	1	1	1	2	1	1	1	1	1	1	no	
Wadley Tank	1	1	1	1	2	1	1	1	1	1	1	no	
Walker Tank	1	2	1	1	2	2	1	1	2	1	1	no	
Wadley Springs	1	1	1	1	2	1	1	1	1	1	1	no	
Battle Creek Tanks	1	1	1	1	2	1	1	3	1	1	1	no	
Kiwanis Park	1	2	2	1	2	2	1	1	1	1	2	no	
Manila Tank Park	1	2	2	1	2	2	2	1	3	1	2	no	
Manila Creek Park	1	2	2	1	2	2	2	1	3	1	2	no	
Manila Park	1	2	2	1	2	2	2	1	3	1	2	no	
Mahogany Park	1	2	2	1	2	2	2	1	3	1	2	no	
Chrisville Park	1	2	2	1	2	2	2	1	3	1	2	no	
Battle Creek Park	1	2	2	1	2	2	2	1	3	1	2	no	
Wil's Park	1	2	2	1	2	2	2	1	3	1	2	no	
Pioneer Museum Park	1	2	2	1	2	2	2	1	3	1	2	no	
Downtown Park	1	2	2	1	2	2	2	1	3	1	2	no	
Veteran's Memorial Park	1	2	2	1	2	2	2	1	3	1	2	no	
Cemetery	1	2	2	1	2	2	2	1	3	1	2	no	High
Rodeo Grounds	3	3	2	1	3	3	1	1	3	3	3	no	High
Shannon Fields	1	2	2	1	2	2	1	1	2	1	2	no	
Public Works Shop	3	3	5	3	3	3	3	3	2	2	3	no	High
Vetran's Memorial Pool	1	2	2	1	2	2	3	3	3	1	2	no	
Old Rec Center	1	2	2	1	2	2	3	1	3	1	2	no	
New Rec Center	1	2	2	1	2	2	3	1	3	1	2	no	
Comm Dev / Fire Dept	1	1	2	1	2	1	3	1	1	1	1	no	
Historic City Hall	1	2	2	1	2	2	3	1	2	1	1	no	
Lions / Sportsman Building	2	1	2	1	2	1	2	1	1	1	2	no	
City Hall / Library	1	2	2	1	2	2	3	1	3	1	2	no	
Wren Woods Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Mud Hole West Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Mud Hole East Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Loader Detention	1	2	1	1	1	2	1	1	3	1	1	no	
1700 West Detention and Park	1	2	1	1	1	2	1	1	3	1	1	no	
1800 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
850 West 2600 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
1250 West 2600 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
1100 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
100 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Blackhawk Detention	1	2	1	1	1	2	1	1	3	1	1	no	
500 North Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Fort Acres Detention	1	2	1	1	1	2	1	1	3	1	1	no	
North Murdock Detetion	1	2	1	1	1	2	1	1	3	1	1	no	
Ellis Detention	1	2	1	1	1	2	1	1	3	1	1	no	
600 West Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Mahogany Detention	1	2	1	1	1	2	1	1	3	1	1	no	
Manila Springs Detention	1	2	1	1	1	2	1	1	3	1	1	no	
North County BLVD Detention Basins	1	2	1	1	1	2	1	1	3	1	1	no	
Villas/Gateway/Pleasant Springs Wetlands	1	1	1	1	1	1	1	1	1	1	1	no	
Main Street Landscaping	1	2	1	1	1	2	1	1	2	1	1	no	
Clock Tower	1	2	1	1	1	2	2	1	2	1	1	no	
Center Street Landscaping	1	2	1	1	1	2	1	1	2	1	1	no	
PG BLVD Landscaping	1	2	1	1	1	2	1	1	2	1	1	no	
2000 West Landscaping	1	2	1	1	1	2	1	1	2	1	1	no	
I-15 Interchange Landscaping	1	2	1	1	1	2	1	1	2	1	1	no	
Smith Property	1	1	1	1	1	1	1	1	1	1	1	no	
1300 West PG BLVD	1	1	1	1	1	1	1	1	1	1	1	no	
Rocky Mountain Collision (Driveway deed)	1	1	1	1	1	1	1	1	1	1	1	no	
Misc, Center Street Between RR Tracks	1	1	1	1	1	1	1	1	1	1	1	no	

B-7 City Building Drain Inventory

Location	Address	#Drains	Notes
			Old Home on 400 N and 600 W drain to
		2	sewer
		1	Changing Room Building drains to sewer
Pipe Plant Property	600 East, 400 North to 800 North	2	RR drains to sewer
		2	Storage Room drain to sewer
		1	Pump Room drains to sewer
Veteran's Memorial Pool	Veteran's Memorial Park	11	Men's RR drains to sewer
		13	Women's RR drains to sewer
		5	Concessions drains to sewer
		1	First Aid drains to sewer
Veteran's Memorial Pool	Vinking way and locust	2	Life Guard Room drains to sewer
Home on 600 West 1775 North	600 West 1775 West	1	Drain to sewer
		6	General floor drains to sewer
		8	Women's RR drains to sewer
Public Safety Building	30 East 100 South	8	Women's RR drains to sewer
		8	Bay drains to sewer
		3	General floor drains to sewer
		7	Women's RR drains to sewer
Fire Department	30 East 200 South	7	Women's RR drains to sewer
		1	Men's RR
downtown park restrooms	33 east 100 south	1	women's RR
historic city hall	107 south 100 east	0	none in this old building
		1	In the basement of the building
lions/sportsmen building	600 east center		It drains into the sewer
pioneer museum building	73 south 100 east	0	none in this old building
		2	Up stairs RR @ the p.d.men and women's
		1	Holding area @ the p.d.
		2	Downstairs RR@ the p.d. drains to sewer
City Hall	70 south 100 east	1	Sally Port @ the p.d. drains to sewer
		1	downstairs in the kitchen
library building	70 south 100 east	2	downstairs in the RR
		1	Men's RR
		1	Women's RR
manila creek park R.R. building	3300 north 900 weat	1	Utillity room
		2	in the RR
Manila park R.R. North	100 east 300 west		to the sewer
		2	in the RR
Manila Park R.R. South	100 east 300 west		to the sewer
		1	Men's RR
Manila Park Scor Tower R.R.	100 east 300 west	1	women's RR drains to the sewer
		1	Men's RR
Mahogany ridge park R.R.	650 west	1	women's RR drains to the sewer
		2	One in each building,Drains into ditch.
Monson Well Buildings	900 east 200 north		

Anderson Park well building	approx. 950 east	1	in building ,Drains into ditch.
Andersom Park R.R.	approx. 950 east	2	In the restrooms Men's and women's
Battle Creek park R.R.	850 east 200 south	2	In the restrooms Men's and women's
Battle Creek well house Battle Creek well house P.I.	1481 east 200 south	1 1	Drain is in building,drains to the S.W Drain is in building,drains to the S.W.
Manila tank park R.R.	350 south 1500 east	2	Men's and Women's RR
Gibson Well house building	337 south loader	1	Drain is in building, drains into the open ditch
Brimley Well house building	1062 east Nathaniel drive	1	Drains into ditch on the south side.
Grove Creek Well House building	P.I. filter station 500 North 1150 east	1	Drains into ditch on the south side.
Grove Creek Well House building	drinking water 500 North 1150	1	Drains into ditch on the south side.
Rodeo Grounds R.R	North and South	3	Drains to the sewer R.R. shower
Rodeo Grounds R.R	east building	1	Drains to the sewer R.R.
Shannon Fields R.R. sco. Tower	Just of 220 south	2 1	Men's and Women's RR drains to sewer Storage Room Drains to the sewer
Public Work building	323 West 700 South	2	Men's and women's R.R. drains to sewer
Cemetary building R.R.	550 north 100 west	1 3	Man's and Womem's R.R. drains to sewer Floor drains in shop drains into sump.
New Community center (rec)	547 north locust	 14 2 2 1 2	Men's and women's R.R. drains to sewer Family R.R.s drains to sewer Preschool R.R.s men's and women's Kitchen on the north end drains to sewer Small bathroom by front desk to sewer Wash room drains to sewer
Veterans Memorial Park R.R.	399 South Locust	2	Men's and women's R.R. drains to sewer

B-8 Storm Drain Inventory on City Owned Property

Included in B-1

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX C – ORDINANCES

Proposed Ordinance Change

Chapter 6
STORM DRAINAGE

Ordinance No. 2021-_____

AN ORDINANCE AMENDING CITY CODE TITLE 6 CHAPTER; "STORM DRAINAGE" ESTABLISHING OBLIGATIONS OF PRIVATE PROPERTY OWNERS TO MANAGE THE STORM WATER DRAINAGE ON THEIR PROPERTY; PROVIDING ENFORCEMENT POLICIES AND OTHER TECHNICAL ADDITIONS IN ORDER TO MEET STATE STORM WATER DISCHARGE REQUIREMENTS AND PROVIDING AN EFFECTIVE DATE. (CITY WIDE) (PLEASANT GROVE CITY APPLICANT)

WHEREAS, The City is authorized by Utah Code § 10-8-84 to "pass all ordinances and rules, and make all regulations . . . as are necessary and proper to provide for the safety and preserve the health, and promote the prosperity, improve the morals, peace and good order, comfort, and convenience of the city and its inhabitants. . ."; and

WHEREAS, the purpose of this ordinance is to promote the public health, safety, and general welfare of the citizens of Pleasant Grove; and

WHEREAS, City has an existing storm drainage system that consists of a network of manmade and natural channels, structures, and conduits that collect and convey storm water runoff; and

WHEREAS, Land development alters the hydrologic response of watersheds by converting natural ground to impervious surfaces, resulting in increased storm water runoff rates and volumes, increased potential for flooding, increased stream and drainage channel erosion, and increased sediment transport and deposition; and

WHEREAS, Storm water runoff produced by land development activities places increased demands on the City's storm drainage system; and

WHEREAS, The Environmental Protection Agency (EPA) and the Utah State Department of Environmental Quality (DEQ) have increased storm water regulations as part of the Phase II of the National Pollutant Discharge Elimination System (NPDES) and the Utah Pollutant Discharge Elimination System (UPDES); and

WHEREAS, City is mandated to be in compliance with these standards; and

WHEREAS, after consideration of all the relevant factors, the Pleasant Grove City Council finds and determines that it is in the best interest of the health, safety and general

welfare of its current and future residents to adopt this ordinance in order to provide adequate regulation of storm water flows within the City; and

WHEREAS, the City Council held a public meeting on December 7, 2021 to consider these ordinance changes; and

WHEREAS, at the conclusion of the meeting, the council adopted and approved the proposed ordinance amendments.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of Pleasant Grove City, Utah County, Utah that Title 8 Chapter 6 of the Pleasant Grove Municipal Code be amended as follows:

CHAPTER 6
STORM DRAINAGE [1]

SECTION:

8-6-1: Findings; Storm Drainage Master Plan Adopted

8-6-2: Definitions

8-6-3: Obstructions

8-6-4: Dumping Or Pumping

8-6-5: Conveyance And Discharge Of Stormwater

8-6-6: Piping Of Existing Drainage/Irrigation Facilities

8-6-7: Penalty

Notes

1 **1. See also subsection 11-7-4D of this code for provisions regarding subdivision drainage plan.**

8-6-1: FINDINGS; STORM DRAINAGE MASTER PLAN ADOPTED:

The city council:

A. Has found it necessary and determined that the public interest, convenience, health, welfare and safety requires that all water generated from, off and around individual construction, commercial, industrial, and public use developments and subdivisions be

confined and disposed of in a flood control storm drain system; and (Ord. 98-34, 12-15-1998)

B. Has adopted as part of the city's general plan a storm drainage master plan as amended from time to time relating to the disposition of surface waters in a storm drainage system; and (Ord. 98-34, 12-15-1998; amd. Ord. 2004-16, 7-20-2004)

C. Has found that each area which is proposed to be subdivided, developed and/or built upon, does in fact generate additional runoff water which needs to be disposed of in a safe manner, avoiding damage and hazards to the inhabitants of the city; and

D. Has found it is necessary that certain improvements be constructed upon and/or in close proximity to subdivisions, commercial, industrial and public use developments, developments and individual construction in order to carry the surface runoff water to appropriate storage, disposition areas and other facilities identified in the storm drainage master plan; and

E. Has found that the costs of construction of the improvements must be borne by the subdivision and/or proposed developer and builder. (Ord. 98-34, 12-15-1998)

8-6-2: DEFINITIONS:

For the purpose of this chapter, the following terms, phrases, words and their derivations shall have the meanings given herein:

BEST MANAGEMENT PRACTICE (BMP): is a schedule of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce storm water pollution. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

CLEAN WATER ACT: IS THE Clean Water Act of 1987, formerly referred to as the Federal Water Pollution Control Act.

CATCH BASIN: A basin that has a stormwater inlet to trap solids or debris.

DEBRIS: Any rock, dirt, sand, tree or other rubbish, litter, etc.

DETENTION BASIN OR RETENTION BASIN: A depression, or bermed area, designed with an inlet and outlet that regulates water flow and may allow debris to settle out of the water, and that is capable of detaining stormwater runoff until it can either percolate into the surrounding soil, or be discharged at an approved release rate into a channel, pipe, ditch, street or other conveyance, without causing damage downstream. The detention basin shall have a discharge into said facilities as set forth above, however, a retention basin must contain all generated volumes.

DEVELOPED LAND: shall be all property altered from a natural state by grading, paving, compaction, construction of structures, impervious surfaces, or drainage works so that storm water runoff from the property is changed in quantity, quality, or point of discharge from that which would occur in the natural condition, or so that provision of control and management of storm water runoff from other properties is necessary to prevent property damage and/or personal hazard during storm events.

DISCHARGER: is any person or entity who directly or indirectly discharges storm water from any property or who directly or indirectly discharges any substance into a storm drainage system.

DRAIN INLET: A point of entry into a sump, detention or retention basin, or stormwater system or conduit, or approved irrigation system.

ILLICIT DISCHARGE: is any discharge into a water body, drainage channel, or a public or private drainage system that is not composed entirely of storm water or discharges otherwise exempted**.**

IMPERVIOUS SURFACE: means any hard surface, other than an undisturbed natural surface, that prevents or retards the absorption of water into the soil, or that causes water to run off the surface at a rate or quantity greater than that of the natural surface. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, and storage areas.

LOW IMPACT DEVELOPMENT (LID): Storm water control measures intended to capture, infiltrate, or treat initial runoff.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES): is a federal permitting program, as authorized by Section 402 of the Clean Water Act, to control water pollution by regulating point sources that discharge pollutants.

POLLUTANT: is any substance which has the potential to impair water quality including but not limited to the following: solid wastes, vehicle fluids, yard wastes, landscape materials, animal wastes, sediment, sewage, garbage, chemical wastes, biological wastes, soils, rocks, sand, or any other substance defined as a pollutant under the Clean Water Act.

PRETREATMENT: A structure, facility, or system that is designed to treat the flows in a stormwater conveyance system prior to discharge into downstream facilities, receiving waters, or into the soil. The facility reduces bulk pollutants by reducing sediment loads, removing trash, oils, grease and debris, and reducing Total Suspended Solids (TSS).

PRIVATE DRAINAGE: is all storm water that originates within the boundaries of private property, including, but not limited to, residential, commercial, industrial, or agricultural.

It shall retain private classification up to the point where it is discharged to a public storm water facility.

STORM DRAIN: A closed conduit for conducting stormwater that has been collected by inlets or other approved means.

STORMWATER: Precipitation such as rain, snow, hail or other naturally occurring waters, that are not present as groundwater. Once the water percolates into the soil, it is defined herein as groundwater. Stormwater runoff is water that is generated by stormwater over land. All other water is defined as being water that is naturally occurring, and is not stormwater.

STORMWATER RUNOFF: is the runoff and drainage of precipitation resulting from rainfall, snowfall, or snow/ice melt or other natural events or processes.

SUMP: A formalized structure underground, surrounded by drain rock, that acts as a detention basin to allow the slow release of water into the surrounding subsoil. Sumps usually receive stormwater runoff from paved areas such as streets, parking lots, building roofs, etc. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES): is a State permitting program authorized by Section 402 of the Clean Water Act to control water pollution, and is comparable to the National Pollutant Discharge Elimination System (NPDES).

8-6-3: OBSTRUCTIONS:

A. It is unlawful for any person to obstruct or contribute to the obstruction of the flow of stormwater runoff or non-stormwater runoff into any sump, retention basin, stormwater channel or storm drain, curb and gutter, drain inlet, or other associated structural controls that convey stormwater and/or non-stormwater runoff.

B. It is unlawful for any person to cause any obstruction that inhibits the normal flow of stormwater and/or non-stormwater runoff in any curb and gutter, unless the obstruction is associated with a street and/or stormwater improvement project and is authorized by the city engineer or his appointee and granted with the issuance of a permit signed by the city engineer or his appointee.

C. It is unlawful for any person to cover over any drain inlet for any reason or purpose. (Ord. 98-34, 12-15-1998)

8-6-4: DUMPING OR PUMPING:

A. It is unlawful for any person to dump or pump, or allow to be dumped or pumped, into any sump, detention or retention basin, storm drain, curb and gutter, drain inlet, or

other storm or non-storm water structure that conveys stormwater and/or non-storm water, including, but not limited to: any type of debris, groundwater, petroleum product, chemical, paint, pesticide, herbicide, heavy metal, acid or base product, solid or liquid waste product, hazardous waste product, and/or human or animal waste.

B. The restrictions set forth in subsection A of this section shall not apply to the normal runoff of non-stormwater related to domestic home use, as long as the product in question is used in the manner prescribed by the manufacturer of the product; for example, lawn watering, washing cars, etc. (Ord. 2012-2, 1-17-2012)

8-6-5: CONVEYANCE AND DISCHARGE OF STORMWATER:

A. Prohibited Discharges.

1. **Illicit Discharges. It is unlawful for any person to cause or allow the discharge into a water body or storm drainage system, either directly or indirectly, of any substance not comprised entirely of storm water or an exempted discharge as listed in Subsection (2) of this Section.**
2. **Exempted Discharges. The following non-storm water discharges shall be permissible; provided, that they do not result in a violation of water quality standards set forth by the State of Utah and/or Federal agencies:**
    - **(a) Discharges regulated under a valid Utah Pollutant Discharge Elimination System (UPDES) discharge permit; provided that the discharge complies with the terms of the permit.**
    - **(b) Discharges from water line flushing.**
    - **(c) Discharges from landscape or lawn watering.**
    - **(d) Uncontaminated ground water.**
    - **(e) Uncontaminated irrigation water.**
    - **(f) Discharges from natural riparian habitat or wetland flows.**
    - **(g) Discharges form air conditioning condensate.**
    - **(h) Discharges or flows from emergency management or firefighting activities.**
    - **(i) Discharges from foundation drains, footing drains or crawlspace or basement pumps; provided that the discharge is approved by the Public Works Director or their designee.**
    - **(j) Discharges resulting from municipal infrastructure management, including street wash water, storm drainage system jetting, hydrant flushing and/or testing, etc.**
3. **Accidental Discharges. Any person who accidentally discharges into a water body or storm drainage system shall immediately inform the Public Works Director or their designee of the discharge. If such information is given orally, a written report concerning the discharge is to be submitted by the discharger to the Public Works**

Director, or their designee, within ten (10) days of the discharge. The written report shall specify:

(a) The composition of the discharge and the cause thereof.
(b) The exact date, time and estimated volume of the discharge.
(c) All measures taken to clean up the accidental discharge.
(d) Proposed measures to be taken to prevent any recurrence.
(e) The name and contact information of the person making the report.

A properly reported accidental discharge shall be considered an affirmative defense to a civil infraction of this Title; however, it shall not be a defense to legal action brought to obtain an injunction, to recover costs, or to obtain other relief from any adversities resulting from the discharge. A discharge shall be considered properly reported only if the discharge complies with all requirements of this section.

B. Prohibited Storage and Littering.

1. It is unlawful for any person to place garbage, refuse yard waste, pet waste, rocks, soil, mud, or any other tangible material/substance into any street, gutter, or component of the storm drainage system.
2. Except as permitted by law and where adequate protection and containment is provided, it is unlawful for any person to store, stockpile, keep, or leave any pollutant or hazardous material, within a drainage-way, or in a manner that is likely to result in the discharge of material into the storm drainage system.

C. Inspection, Monitoring and Sampling.

1. Under the direction of the Public Works Director or their designee, a properly identified City representative may inspect, monitor and/or obtain samples form storm water runoff facilities of any discharger to determine compliance with the requirements of this Title.
2. Any discharger shall allow the City's representative to enter upon the premises of the discharger during regular business hours for the purpose of inspecting, monitoring and/or sampling storm water discharges.
3. The discharger shall allow the City's representative to temporarily place on the discharger's property the equipment or devices necessary to perform proper inspections, monitoring and/or sampling of storm water discharges.

~~A.~~ D. **Reduction of Stormwater Flows:**

1. Multi-Family, Commercial, and Industrial Development: The development for which the permit or approval is issued must design for and calculate the flows and volume, as provided in subsection 11-7-4D of this code, that will be produced by a 10-year, 24-hour storm for detained flow, and a 25-year, 24-hour storm for retained flow. In addition, the

maximum allowable discharge from the detention basin(s) for the entire project area or site shall not exceed 0.15 cfs per acre of gross area of development. The amount of storm water exiting the project cannot exceed the amount calculated above but may be further restricted by the capacity of existing storm drains or drainage facilities as determined by the City Engineer. Restrictions to the controlled rate of release will require that detention storage be provided. If no storm water collection system is available downstream with allowable capacity, retention of the 25-year storm must be provided. In any event that retention is the only available source of storm water management, in the determination of the city engineer, the soil must be capable of absorbing the entire volume of water within a three (3) day period of time, as determined by a percolation test that shall be performed on the site to be used for retention of the storm water. All other provisions of the sizing, improvement and use of retention or detention basins shall conform in all instances to the provisions of section 10-15-33 of this code. In addition, all provisions of the design of storm water systems or control for each development shall conform to the stormwater master plan. Such developments must also provide means of safely conveying the 100-year storm to available public roads and drainage facilities without undue flooding of buildings and adjacent property. If such facilities are not provided or feasible, as determined by the City Engineer, retention of the full 100-year event must be provided.

2. Single-family residential:

a. Single-family residential developments are not required to install onsite detention or retention facilities unless no storm water collection system with allowable capacity, or no regional detention basins are available downstream with sufficient unused capacity, or no such facilities are planned for in the storm drain master plan, as determined by the City Engineer. Detention or retention must be designed for the 10-year or 25-year storm volume as described in 8-6-5-A-1.

b. Developments must be designed to safely convey the 100-year event to public roads and drainage facilities without flooding buildings or creating additional undue flooding of neighboring properties, as determined by the City Engineer.

B. All developments for which the permit or approval is issued must provide means of conveying the 25-year storm from the site to public facilities. Any conveyance facilities connecting to city systems, or intended for dedication to the city, must be designed to convey the full 25-year storm event.

C. All facilities which are designed to infiltrate runoff into the soil must have means of pretreatment. The pretreatment must be designed to treat all flow up to the 2-year storm peak flow and volume and must retain the majority of trapped sediment and pollutants during bypass events. In a system that injects water directly into the soil, if special

circumstances exist on a development site, the City Engineer may specify a larger design event for pretreatment or require that other protective measures be installed.

D. January 1, 2021, all submitted development applications for new or redeveloped developments with an area greater than 1 acre in size must address Low Impact Development storm drain design practices as outlined below. The Project Volume Retention Goal (V_{goal}) must be calculated as described in the "Storm Water Technical Manual" in Appendix A of the "Public Works Standards Specifications and Drawings".

1. For developments in single family residential zones, the MS4 LID Residential Development Fee will be calculated based on the Vgoal volume, in accordance with the current adopted fee schedule.

2. All other types of development must provide infiltration, evapotranspiration and bioretention facilities for the full V_{goal} volume in accordance with the requirements of the Storm Water Technical Manual. If conditions exist as outlined in the Storm Water Technical Manual that prevent such developments from infiltrating the full volume, a partial retention approach shall be utilized. Whatever volume of water cannot be infiltrated shall be treated using LID practices prior to discharging any storm water offsite.

3. The City Engineer may reject or require adjustments or modifications to any LID methods, standards, or guidelines proposed for use by the developer that are deemed by the City Engineer to not meet the requirements or intent of the city code or the city's Standard Specifications and Drawings, or that may be ineffective, or unproven, or create excessive or unaddressed maintenance concerns, or that may create a public nuisance.

E. In the instances where the plan describes major storm water conveyance channels that are intended to remain in an open, non-piped condition, conflicting provisions of this code, requiring that channels, ditches, and other storm or irrigation water conveyances be piped, shall be waived. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)

8-6-6: PIPING OF EXISTING DRAINAGE/IRRIGATION FACILITIES:

Any open irrigation and/or drainage ditches which are located within or along the borders of any proposed development must be piped or otherwise covered as a condition of development approval, except as provided in section 8-6-5 of this chapter. The developer shall be responsible for the design and construction of the required improvements. In the event the ditch has been identified in the stormwater master plan as needing increased capacity, the city council may elect to have the city participate in the costs of piping such ditch. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-29, 12-15-2020)

8-6-7: ENFORCEMENT, PENALTIES, AND ABATEMENT ~~PENALTY~~:

1. **Enforcement Authority. The Public Works Director, or their designee, shall have the authority to issue notices of violation, stop work orders and to impose civil penalties for any violation of this Title.**
2. **Notice of Violation. Whenever the Public Works Director, or their designee finds that a person has violated any of the provisions of this Title, the Director or their designee may issue a written notice of violation. Such notice may include any or all of the following:**
    - **(a) Elimination of illicit connections or discharges;**
    - **(b) That the violating discharges, practices, or operations shall cease and desist;**
    - **(c) The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;**
    - **(d) Payment to cover remediation costs incurred by the City;**
    - **(e) The implementation of proper BMPs to prevent future occurrences.**

Within ten (10) days of the date of the notice, the violator shall submit to the Public Works Director or their designee a plan for the satisfactory correction of the discharge or a request for an administrative hearing. The Public Works Director or their designee may skip the notice requirements set forth in this Section and immediately proceed with civil and/or criminal action against the violator if (1) the violator has committed the same violation in the past, or (2) the violation, in the opinion of the Director or their designee creates a serious risk to the public, the environment, or property, or (3) the Director or their designee deems the violation an emergency.

3. **Stop Work Order. Where there is work in progress that causes or constitutes a violation of any provision of this Title, the Public Works Director, or their designee is authorized to issue a stop work order to prevent further or continuing violations and/or adverse effect. All persons to whom the stop work order is directed, or who are involved, in any way, with the work described in the stop work order shall fully comply therewith. In situations which may be deemed a risk to the public health or safety, the Director or their designee may also undertake or cause to be undertaken any necessary or advisable protective measures to correc the violation and prevent further unauthorized discharge, the cost of which shall be the responsibility of the owner of the property upon which the work is being done and any person carrying out or participating in the work. Such costs shall be a lien upon the property, at the discretion of the City. In cases where the costs exceed available bond monies, the responsible party shall not be granted new permits by the City until the costs have been repaid to the City in full.**

8-6-8: PENALTY:

A. Civil Penalties: The violation of any of the provisions of this chapter shall be punished as follows:

1. **First day warning of violation without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction an is subject to a zero ($0) dollar fine and a Red Tag.**
2. **Second day of violation after warning, without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction and is subject to a $100.00 fine.**
3. **Third day of violation after warning, without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction and is subject to a $300.00 fine.**
4. **If the violation is not corrected after the third day, it shall be elevated to a Level II Violation and follow the penalties as outline below for Level II Violations.**
5. **First day of violation WITH illegal discharges to the City Storm Drain System is a Level II Violation or infraction subject to a $500.00 fine.**
6. **Second day of violation WITH illegal discharges to the City Storm Drain System is a Level II Violation or Class C misdemeanor and shall be punishable by a fine in a sum not to exceed seven hundred and fifty dollars ($750.00), or by imprisonment for a period of not longer than ninety (90) days, or by both such fine and imprisonment.**
7. **Each additional day is an additional Class C misdemeanor up to a maximum of seven (7) days.**
8. **After seven (7) days it becomes a Level III Violation or a Class B misdemeanor and shall be punishable by a fine in a sum not to exceed one thousand dollars ($1,000.00), or by imprisonment for a period not longer than six (6) months, or by both such fine and imprisonment.**
9. **Each additional day is an additional Class B misdemeanor.**
10. **Upon conviction of a violation of any provision of this Chapter, any license previously issued to the violator or for the subject property issued by the City may be revoked by the court or the governing body.**
11. **If, as a result of the violation of any provision of this Chapter, the City or any other party suffers damages, fines, incurs investigative or clean-up costs, or is required to make repairs and/or replace any materials, the cost of investigations, fines, repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.**
12. **Repeat offenders (3 or more Level I or greater violations within 24 months) or those with unpaid fines shall be ineligible for the issuance of any permit(s) for a period of one (1) year from the date of the last offense and all fines are paid.**
13. **If there are three (3) violations at any level within 24 months, the next violation is automatically escalated by one level.**

B. Administrative Hearing.

A person or entity served a notice of violation of any of the provisions of this Title with civil penalties shall have the right to an administrative hearing. A request for such hearing shall be in writing and shall be files, with the City Recorder or their designee within ten (10) days from the date of service of the Notice. Failure to request an administrative hearing shall constitute a waiver of the right to an administrative hearing and a waiver of the right to appeal. Administrative hearings shall adhere to the provisions of _____ of the Pleasant Grove Municipal Code.

C. Violators of this Title may be subject to prosecution, fines, and penalties from the State of Utah and the United States EPA. Nothing in this Title shall be interpreted to relieve any person from an obligation to comply with applicable Federal, State, or local laws related to storm water discharge or drinking water protection.

~~**A. The violation of any of the provisions of this chapter shall be a class C misdemeanor and upon conviction, subject to penalty as provided in section 1-4-1 of this code. Each day that a violation occurs shall constitute a separate offense.**~~

~~**B. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages and is required to make repairs and/or replace any materials, the cost of repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.**~~ **(Ord. 98-34, 12-15-1998; amd. 2003 Code; Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)**

SECTION 2. SEVERABILITY. The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable. If any such section, paragraph, sentence, clause, or phrase shall be declared invalid or unconstitutional by the valid judgment or decree of a Court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any of the remaining sections, paragraphs, sentences, clauses or phases of this Ordinance.

SECTION 3. **EFFECTIVE DATE**. This ordinance shall take effect immediately upon its passage and posting as provided by law.

SECTION 4. **APPROVED AND ADOPTED** by the City Council of Pleasant Grove City, Utah County, Utah, this ___day of December 2021.

_____

Guy L. Fugal, Mayor

ATTEST:

_____

Kathy T. Kresser, MMC
City Recorder

Chapter 8
SENSITIVE LANDS

11-8-1: LEGISLATIVE INTENT:

A. With the enactment of this chapter, it is the intent of the city council:

1. To place the liability and expense of evaluating the condition of potentially unstable land, and determining restrictions which should be placed on its development, upon geologists or engineers employed by the landowner;

2. To restrict the development of land to those uses which do not present unreasonable risks to persons or property because of geologic hazards; and

3. To prevent fraud in land sales relating to the geologic condition of real property.

B. With the enactment of this chapter, it is the intent of the city council to authorize a governmental function of regulation within the meaning of Utah Code Annotated sections 63-30-3 and 63-30-10(1), (3) and (4). (Ord. 2000-23, 7-18-2000)

11-8-2: GENERAL PROVISIONS:

The provisions of this chapter are intended to minimize floods, erosion and other environmental hazards; to protect the natural scenic character of foothill areas, and other areas not suitable for development, and to ensure the efficient expenditure of public funds. To ensure that the improvement of proposed sensitive lands areas shall reflect the best interests of the city, all grading or other improvement of any land, including, but not limited to, land in approved subdivisions or other development plans, shall conform to the development standards, guidelines and criteria of this chapter. The policies to be achieved by this chapter shall include, but not be limited to, the following: (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

A. Minimize grading deviations from the natural contour of the land. Round off, in a natural looking manner, sharp angles at the tops and ends of cut and fill slopes. Avoid a "staircase" or "padding" effect.

B. Require preservation of trees and other vegetation that stabilize steep hillsides, retain moisture, prevent erosion and enhance a natural scenic view. Where necessary, require additional landscaping to enhance the scenic and safety characteristics of the hillside.

C. Require immediate planting of vegetation wherever appropriate to stabilize cut and fill slopes, to conceal the raw soil from view and to minimize erosion. (Ord. 2000-23, 7-18-2000)

D. Preserve natural drainage channels. May require dedication of fifteen foot (15') wide drainage and access easement on both sides of channel for inspection and maintenance. (Ord. 2000-23, 7-18-2000; amd. 2003 Code; Ord. 2004-19, 8-17-2004)

E. Encourage retention of natural landmarks, prominent natural features, wildlife habitation and open space.

F. Preserve and enhance the visual and environmental quality by using natural vegetation and minimizing excavation and terracing.

G. Protect the public from natural hazards of storm water runoff and erosion by requiring drainage facilities.

H. Minimize the threat of fire damage by establishing fire protection measures. (Ord. 2000-23, 7-18-2000)

I. Establish land use management that will encourage protection of natural elements while allowing a harmonious and satisfying residential environment. Establish multi-use trail system along drainage channels, watercourses and foothill areas. (Ord. 2000-23, 7-18-2000; amd. 2003 Code; Ord. 2004-19, 8-17-2004)

J. Encourage a regard for the view of the foothills as well as view from the foothills. (Ord. 2000-23, 7-18-2000)

11-8-3: ACTIONS PROHIBITED:

Notwithstanding any other provision of this title, it shall be unlawful to grade, fill or excavate any land in any manner which presents an unreasonable risk of erosion, flooding, landslide or any other unsafe condition. It also shall be unlawful to erect any structure which will not be reasonably safe for use as a human habitation because of:

A. Shallow ground water (water close to the surface);

B. Surface water;

C. Expansive soils;

D. Collapsible soils;

E. Proximity to a potential landslide area;

F. Proximity to a secondary fault;

G. Proximity to an active landslide;

H. Proximity to a primary Wasatch fault zone;

I. Steep slopes;

J. Any other unsafe condition. (Ord. 2000-23, 7-18-2000)

11-8-4: PROCEDURE TO DEVELOP REAL PROPERTY:

A. It shall be unlawful to construct any road to be dedicated to the public without doing the following:

1. Obtain the acknowledgment of the city engineer that a geotechnical report (a "geotechnical report" is described in section 11-8-7 of this chapter) required by this chapter, has been received and meets the requirements of section 11-8-7 of this chapter. (The giving of this acknowledgment by the city engineer shall not be an approval of or acquiescence to the content or conclusions of the geotechnical report. A geotechnical report shall be considered part of the public record and may be copied by any person.)

2. Except as provided in section 11-8-10 of this chapter, by grading, filling or excavating land or erecting structures only as described in the geotechnical report that has been acknowledged by the city engineer.

3. By executing and recording the restrictive covenant required by section 11-8-12 of this chapter. (This subsection does not apply if no geotechnical report is required.)

B. In addition to the provisions of this chapter, all grading, filling or excavation of land or erection of any structure shall comply with all other applicable provisions of these ordinances. (Ord. 2000-23, 7-18-2000)

C. Those parts of any proposal to construct improvements such as roads, sewer lines, water lines, trails or other improvements which are intended to be placed in public ownership, shall be subject to the approval of the city engineer. (Ord. 2000-23, 7-18-2000; amd. 2003 Code; Ord. 2004-19, 8-17-2004)

D. Those parts of any proposal to develop real property which jeopardize the public's health, safety or welfare, or significantly interferes with established long term development of the city, shall be subject to the approval of the city engineer after consultation with the appropriate city department. (Ord. 2000-23, 7-18-2000)

11-8-5: PRELIMINARY DETERMINATION BY CITY ENGINEER:

All proposals to grade, fill or excavate land, or to erect a structure for human habitation (sometimes referred to herein as the "proposal"), shall be referred to the city engineer who shall make a preliminary determination if any of the unsafe physical conditions described in section 11-8-3 of this chapter appear to exist in relation to the real property which is included in the proposal. (Ord. 2000-23, 7-18-2000)

11-8-6: REQUIREMENT TO SUBMIT A GEOTECHNICAL REPORT:

A. Except as otherwise provided in subsection C of this section, if the city engineer determines in the manner described in section 11-8-5 of this chapter that no unsafe physical condition described in section 11-8-3 of this chapter appears to exist in relation to the subject property, the proposal with respect to which the subject property is associated may proceed, as proposed, subject to the other requirements of this title.

B. If the city engineer determines in the manner described in section 11-8-5 of this chapter that an unsafe physical condition described in section 11-8-3 of this chapter appears to exist in relation to the subject property, the applicant shall submit a geotechnical report and otherwise comply with the remainder of this chapter.

C. With respect to any proposal not requiring a geotechnical report, the city engineer may require the applicant to submit other information to resolve issues with respect to the condition of the subject property. The city engineer may withhold the determination described in section 11-8-5 of this chapter until the required information has been received, and based on that information, the city engineer may require the submission of a geotechnical report. (Ord. 2000-23, 7-18-2000)

11-8-7: GEOTECHNICAL REPORT:

A. Information Required: A geotechnical report shall include maps and a report containing not less than the following information:

1. Maps: The maps shall include:

a. The site location and regional setting of the subject property.

b. A geologic map which illustrates actual or potential landslides, fault zones, shallow water tables, expansive or collapsible soils, debris flows, flood areas, and any other pertinent natural or artificial features that might influence the stability of the subject property or adjacent property. Actual or probable surface and subsurface conditions shall be shown in relation to those that are conjectural, being clearly labeled as such. The proposed grading, filling, excavation or structure to be erected shall be shown in relation to the geologic features described above. Any corrective or remedial action necessary to avoid a violation of section 11-8-3 of this chapter shall be shown and shall be clearly identified as such.

c. Maps shall be a scale of one inch equals one hundred feet (1" = 100'), with contour lines at five foot (5') intervals. Existing contours shall be shown by dashed lines and proposed contours shall be shown as solid lines. Boring logs, cross sections, test trench logs, soil sample descriptions, and test results shall be included.

d. The city engineer may require additional maps or additional detail on existing maps as to evaluate actual or potential geologic hazards.

2. Report: The report shall include:

a. A description of the proposed grading, filling, excavation or structure;

b. An analysis of the effects of the proposed grading, filling, excavation or erection of a structure in relation to the geologic conditions shown on geologic maps;

c. An analysis of how structures will be made reasonably safe for human habitation;

d. Any corrective or remedial action necessary to avoid a violation of section 11-8-3 of this chapter, described and analyzed in detail;

e. A list, including title, author and date, of all prior studies or reports which are relied upon to make this report;

f. The city engineer may require additional information or analyses to evaluate actual or potential geologic hazards.

B. Sloped Lands: If the geotechnical report (maps and report) relates to land having an average slope that exceeds twenty five percent (25%), the development proposal described in the geotechnical report shall conform to the provisions of section 11-8-14 of this chapter. (Ord. 2000-23, 7-18-2000)

C. Waiver: In the case of a proposal to grade, fill or excavate, which is not directly or indirectly related to a proposal to erect a structure for human habitation, the city engineer may waive compliance with any requirement of this section relevant to the proposed grading, filling or excavating. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

11-8-8: ENGINEER QUALIFICATIONS:

A. State License: A geotechnical report (described in section 11-8-7 of this chapter) shall be stamped and signed by a geotechnical engineer who shall be a licensed professional engineer registered in the state.

B. False Statements: In addition to any applicable private civil remedies, it shall be unlawful to knowingly make a false, untrue or incomplete statement in a geotechnical report or to sign the certificate described above knowing the same to be materially false or not true. (Ord. 2000-23, 7-18-2000)

11-8-9: POST CONSTRUCTION INSPECTION AND CERTIFICATION:

For real property with respect to which development has proceeded on the basis of a geotechnical report which has been acknowledged by the city engineer, no final inspection shall be completed or certificate of occupancy issued or performance bond released until the engineer who signed and approved that geotechnical report shall further certify that the completed

improvements and structures conform to the descriptions and requirements contained in said report. Provided, however, the improvements and structures may, with the consent of the city engineer, deviate from the descriptions and requirements contained in the geotechnical report because of conditions which are discovered after acknowledgment by the city engineer of the report or geotechnical report. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

11-8-10: APPEAL FROM DECISION OF CITY ENGINEER:

Any person dissatisfied with a decision of the city engineer may appeal the same within thirty (30) days thereof to the Utah state board of appeals, created by the international building code. This board is authorized by this section to hear appeals from decisions of the city engineer, and shall affirm or reverse those decisions, either in whole or in part. Any person dissatisfied with a decision of the board of appeals may appeal that decision within thirty (30) days thereof to any court of competent jurisdiction for an administrative review. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

11-8-11: SCOPE OF APPLICATION:

No subdivision or other development plat or plan shall be approved without compliance with the provisions of this chapter. Every proposal to grade, fill or excavate land, and every proposal to erect a structure for human habitation shall be subject to this chapter, including proposals related to land in subdivisions or any other development plans which may have been approved prior to the adoption of the ordinance codified herein. (Ord. 2000-23, 7-18-2000)

11-8-12: RESTRICTIVE COVENANT REQUIRED:

If a geotechnical report, or other information required to resolve issues regarding the subject property, has been submitted to the city engineer, no subdivision plat or other development plan shall be approved and no building permit shall be issued for construction until the owners of the subject real property have signed and delivered a restrictive covenant to the city. The restrictive covenant shall be in a form suitable for recording and shall contain not less than the following:

A. A complete description of the geotechnical condition of the subject real property, including references to relevant reports and studies;

B. A description of grading, filling, excavating of land or erection of a structure for human habitation, as approved in the geotechnical report which was acknowledged by the city engineer, with the requirements and restrictions imposed thereon;

C. A covenant and agreement enforceable by the city, adjoining landowners and any subsequent owner of the subject real property stating that only the grading, filling or excavating of land or erection of a structure in the acknowledged geotechnical report will be constructed or maintained on the property and no others. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

11-8-13: CIVIL AND CRIMINAL FRAUD:

It shall be unlawful for any person, including the seller or his representative, directly or indirectly, in connection with the sale or offering for sale of real property located in the city, to make any untrue statement of a material fact related to the geotechnical condition of the subject property. This section shall be construed to create private and public civil causes of action in addition to creating criminal liability. (Ord. 2000-23, 7-18-2000)

11-8-14: HILLSIDE DEVELOPMENT STANDARDS:

A. Grading:

1. No grading, filling or excavation of any kind shall be accomplished without first having obtained a grading permit from the city engineer based on the provisions of this subsection.

2. Land having an average slope of greater than twenty five percent (25%) shall be deemed to be land having a "steep slope" within the meaning of subsection 11-8-11B of this chapter. Any person proposing to grade, excavate, fill or to erect any structure on such land shall submit a geotechnical report as though the same were required by the city engineer pursuant to subsection 11-8-6B of this chapter. This subsection shall not apply if a geotechnical report (as required by this chapter) relating to the subject property has, at an earlier date, been acknowledged by the city engineer.

3. No grading, filling or excavation of land, or the erection of a structure, shall be permitted on land having an average slope in excess of twenty five percent (25%) except in compliance with the provisions of this section.

4. All rough street and site grading shall be completed prior to the installation of utilities.

5. Fills shall be compacted to at least ninety five percent (95%) of AASHTO (American association of state highway transportation officials) T180 density for those areas intended as structural foundations, including roadways.

6. Borrowing for fill shall be prohibited unless the material is obtained from a cut permitted under an approved grading plan, or imported from outside the hillside area of the city.

7. Cut slopes shall be constructed to eliminate sharp angles of intersection with the existing terrain and shall be rounded and contoured as necessary to blend with existing topography to the maximum extent possible. The city will not accept the dedication and maintenance of cut and fill slopes except those within the required street right of way. Where a cut or fill slope occurs between two (2) lots, the slope shall normally be made part of the downhill lot. (Ord. 2000-23, 7-18-2000)

8. The international building code shall be complied with, except that decisions described therein to be made by the "building official" may also be made by the city engineer. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

B. Drainage:

1. Required storm water runoff collection facilities shall be designed so as to retain storm water runoff on development sites for a sufficient length of time so as to prevent flooding and erosion during storm water runoff flow periods.

2. Required storm water runoff collection facilities shall be so designed as to divert surface water away from cut faces or sloping surfaces of a fill. French drains are not acceptable.

3. Curb, gutter and pavement designs shall be such that water on roadways is prevented from flowing off the roadways.

4. Natural drainage shall be riprapped, or otherwise stabilized to the satisfaction of the city engineer, below drainage and culvert discharge points for a distance sufficient to convey the discharge without channel erosion.

5. Material from construction, including soil and other solid materials, shall not be deposited within a natural or manmade drainage course nor within irrigation channels.

6. Sediment catchment ponds shall be constructed downstream from each development, unless sediment retention facilities are otherwise provided.

C. Vegetation And Revegetation:

1. Every effort shall be made to conserve topsoil, which is removed during construction, for later use on areas requiring vegetation or landscaping, e.g., cut and fill slopes.

2. Areas not contained within lot boundaries shall be protected with adapted, fire-resistant species of perennial vegetal cover after all construction is completed. A list of acceptable species is available from the community development director.

3. New plantings shall be protected with organic cover.

4. All disturbed soil surfaces shall be stabilized before final acceptance of the subdivision by the city.

5. In all areas under the ownership and control of the subdivider, he shall be fully responsible for any destruction of native vegetation which is required to be retained, he shall carry the responsibility for such areas both for his own employees and for all subcontractors from the first

day of construction until final acceptance of the subdivision by the city. The subdivider shall be responsible for replacing such destroyed vegetation.

6. At the termination of the bonding period, any dead plant materials required and installed by the subdivider shall be replaced, and a new bond issued to assure establishment of the replaced materials.

D. Fire Protection:

1. Lot size and potential placement of buildings thereon shall be such that adequate clearance from hazardous, flammable vegetative cover may be accomplished.

2. All easements for firebreaks for safety of built up areas shall encompass access for firefighting personnel and equipment. Such easements shall be dedicated for this specific purpose by being recorded.

3. The inability to provide fire line water pressure consistent with the standards set by the insurance service organization shall be justification for denial of a subdivision request.

E. Streets:

1. Hillside streets should reflect a rural rather than urban character. Street alignments, where possible, should be parallel to contours, in valleys, or on ridges. If a location between a valley and a ridge is unavoidable, directional pavements shall be split, with the principal of grading being half cut and half fill versus all fill or all cut. Split streets may be provided by the subdivider according to the following schedule:

a. One lane in each direction; the split section width of the pavement shall be sixteen feet (16').

b. Two (2) lanes in each direction; the split section width of the pavement shall be twenty two feet (22'). The median between split streets shall not exceed the slope of two feet (2') horizontal for each one foot (1') vertical and such median shall be planted by the subdivider and maintained for one year, to the satisfaction of the city engineer. Where deemed appropriate by the city engineer, lots may be located between the split pavements and such lots may front on both lanes.

2. Collective driveways shall only be permitted where such utilization will result in better building access than would be possible if a public street were required. Said collective driveways shall not be used as required street frontage for the lots which they serve. Collective driveways permitted to serve a maximum of six (6) dwellings, shall be paved to a width not less than twelve feet (12') and shall not exceed one hundred fifty feet (150') in length. Collective driveways serving more than six (6) dwellings shall be paved to a width of not less than twenty feet (20') and shall not exceed three hundred fifty feet (350') in length. Turnarounds must be provided at the end of collective driveways. Signs indicating the driveways as private shall be erected in compliance with city standards. Collective driveways shall not be maintained in any way by the city.

3. Cul-de-sacs may serve no more than ten (10) dwelling units and shall be a maximum of four hundred feet (400') long. A suitable turnaround shall be provided at the end of stub streets.

4. Streets in hillside areas may intersect at the minimum angle of sixty degrees (60°), provided they meet all other legal requirements relating to the construction of streets.

5. The following minimum dimensions are to be utilized in the design of hillside streets:

a. All streets shall have suitable pavement edging, such as curbs and gutters. Concrete gutters must be provided where street drainage is accommodated.

b. The width of the graded section shall extend three feet (3') beyond the curb face or edge of sidewalk on the fill side and two feet (2') on the cut side of the street.

c. Sidewalks of not less than four feet (4') in width may be required on one side of minor streets and on both sides of a collector street, except that where adjacent to a curb, all sidewalks shall be five feet (5') in width.

d. Parking lanes, eight feet (8') in width, may be required on at least one side of all public streets except where existing topography renders development adjacent to the street impractical, or where the street serves solely as an access road, or where an adequate number of off street parking spaces are provided on each lot adjacent to the street. Streets without parking lanes shall be provided with emergency parking stalls adequate to contain at least two (2) vehicles per lot.

e. The following travel lane widths shall be required all hillside areas:

(1) The side of a travel lane not adjacent to another travel lane shall be increased by two feet (2').

(2) Minor hillside streets shall have a minimum travel lane of ten feet (10').

(3) Collector hillside streets shall have a minimum travel lane of twelve feet (12').

F. Preservation Of Hillside Vistas: Development proposed at five thousand feet (5,000') ASL or above will be discouraged and will require compelling justification for approval by the planning commission. (Ord. 2000-23, 7-18-2000)

11-8-15: SHALLOW GROUND WATER AREA DEVELOPMENT STANDARDS:

Development in shallow ground water areas shall be subject to the following standards:

A. Wetlands will not be permitted to be included as part of any buildable subdivision or development lot. Exception: For developments within the R-R or A-1 zone, wetlands may be included as part of the development, providing there is sufficient buildable area to accommodate the proposed use. (Ord. 2000-23, 7-18-2000)

B. Wetlands may not be included in area requirements for lots or for calculation of density unless all or a portion of the wetlands has been approved as a usable wetland area by the city council. (Ord. 2000-23, 7-18-2000; amd. 2003 Code)

C. Where determined by the planning commission or designee, wetland areas may be required to be fenced if found to be detrimental to public health, safety or welfare.

D. Prior to the acceptance by the city of petition for rezoning of property in the designated shallow ground water area, or before the submission of an application for preliminary subdivision in the designated shallow ground water area, it must be demonstrated to the satisfaction of the planning commission that the conditions and requirements contained herein can be met. A predevelopment conference with the plan coordinating committee and developer will be required to review any concept plans.

E. Prior to acceptance by the city of an application for final subdivision plat in the specified area, it must be demonstrated to the satisfaction of the planning commission that all of the conditions specified in this policy have been fully met and accomplished.

F. Surface or subsurface drainage from any development within the subject area shall be transported to Utah Lake, and shall not be deposited, collected or stored upon the property being developed or upon other properties within the subject area.

G. Drainage water from the proposed new development will not be placed upon or pass through other properties, except:

1. Where a preexisting drainage system of adequate capacity is already in use; or

2. Where a permanent drainage easement of a size sufficient to carry projected flows has been obtained and a statement from the owners of both the host and guest properties recorded on proper deeds in the office of the county recorder specifying the following:

a. The city will be held harmless from all damages or injury resulting from water pollution and/or flooding from drainage crossing said property.

b. The property owner will allow the owner of the easement to enter onto said property to maintain the drainage facility on said easement.

c. The drainage channel can be placed in a pipe or culvert at such time as deemed appropriate by the owner of the easement.

H. Drainage from the proposed new development will not be placed in an irrigation ditch or irrigation canal, originally constructed for irrigation purposes, except where permission, in written and recorded instruments (i.e., easements) running with the land, has been granted by the irrigation company specifying the following:

1. The city will be held harmless from all damage or injury resulting from flooding, water pollution, or high ground water from drainage in the ditch or canal.

2. The irrigation ditch or canal can be placed in a pipe or culvert at a time deemed necessary by the owner of the easement, except for the channels provided for in the master storm water management plan, wherein the channels are to remain in an open, nonpiped condition (section 8-6-5 of this code).

3. The owner of property which is the subject of a development plan will provide, and record with the county recorder, a statement holding the city harmless from all damage within the project resulting from flooding or shallow ground water.

4. A disclosure statement be placed upon all subdivision plats in the subject area, stating that the subdivision lot is in an area potentially subject to flooding and/or shallow ground water.

5. Drainage easements be granted to the city within the proposed development, as determined by the city engineer, and drainage facilities be installed as part of the development at developer's expense.

I. No building shall be allowed to be constructed in a shallow ground water area of the city where the building proposed to be built includes a basement, except in accordance with the following standards: prior to the issuance of the building permit, the owner shall produce a statement which has been recorded on proper deeds in the office of the county recorder, stating that the city will be held harmless from all damages or injury resulting from flooding or any other damage resulting from a shallow ground water area.

J. A comprehensive drainage and grading plan is to be submitted by the developer of any property within a shallow ground water area. The plan shall be approved by the city engineer before final residential subdivision approval, or approval is given for any commercial or industrial development or building.

1. Approval of, and signatures by, all irrigation and canal companies if their ditches or canals cross the development areas, or if surface or subsurface drainage is to outfall into the ditch or canal.

2. Quantities of runoff shall be determined for the complete development area by any engineering method acceptable to the city engineer.

3. At all outfall points from the development, quantities of runoff for a 10-year storm shall be determined and indicated on the plan in cubic feet per second.

4. The capacity of any irrigation ditch, storm drain or other channel shall be determined from the inlet point to the outfall point of said channel, if it is to be used for runoff. If there is an insufficient capacity to handle added flows, it will not be used.

5. A topographic map shall be prepared indicating sufficient slopes in all areas to take surface drainage water into the designated street or storm drain. Water will not be allowed to pond any place other than a designated detention basin.

6. A plan of all proposed curbs, gutters and cross gutters shall be submitted. Such plan shall indicate on each curb the proposed grade, direction of flow, and quantity of flow. If the gutter capacity is less than that required for a 10-year storm, storm drains will be required.

7. No french drains or sumps will be allowed in the developments as part of the drainage plans.

8. No building permit shall be issued in any development in the described area until the required subsurface and storm drainage system has been constructed and is in operable condition.

9. Accompanying the drainage and grading plan will be a soils test provided by a licensed professional engineer for all areas in which underground private and public utilities will be installed. The engineer's statement must indicate what remedial action is anticipated to be taken to stabilize utility lines to assure that they well not shift, buckle or lose alignment.

10. The said engineering plan shall include a cross section of all proposed utility trenches showing configuration and type of materials to be used in backfill and as a "bed" for utility lines; the same to be approved by the city engineer.

11. All water mains in shallow ground water areas must be poly wrapped. (Ord. 2000-23, 7-18-2000)

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Storm Water Management Plan

APPENDIX D - STANDARD OPERATING PROCEDURES (SOP)

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STANDARD OPERATING PROCEDURE (SOP) – SWMP IMPLEMENTATION AND EVALUATION

The following is an ongoing documentation process for gathering, maintaining and using information to conduct planning, set priorities, track the development and implementation of the SWMP, evaluate Permit compliance/non-compliance, and evaluate the effectiveness of the SWMP implementation.

1. Review and update SWMP annually prior to yearly report submitted to the Division.
    a. Review BMP's for each control measure and evaluate compliance on each.
    b. Rate compliance on each BMP with: 1-implemented or completed, 3-in process of being implemented or completed, 5-not implemented or completed.
    c. Note areas on non-compliance with Permit.
    d. Non-compliance areas become high priority for the next year.
2. Review questionnaires submitted by residents. Compare to previous years to evaluate effectiveness of education program.
3. Review questionnaires completed by employees who have completed training. Compare to previous years to evaluate effectiveness of education program. Review list of employees who have taken training and compare with previous years and verify SOP: *SWMP Training* was followed.

4. Review and compare yearly comments from Public from the public hearings, committees, and web site comments. Compare to previous years to evaluate effectiveness of education program.

5. Track and compare the participation in the household hazardous waste collection program.

6. Review number and type of illicit discharges reported for the year. Compare results from previous years to evaluate effectiveness of program.

7. Review IDDE inspections and reports. Compare results from previous years to evaluate effectiveness of program.

8. Review enforcement actions for control measures 3, 4, & 5. Compare results from previous years to evaluate effectiveness of program.

9. Review construction and post construction inspection reports. Compare results from previous years to evaluate effectiveness of program.

10. Review City Facility inventory, assessment, and inspections. Compare to previous years to track improvements.

11. Review flood control inspection reports. Compare results from previous years to evaluate effectiveness of program.

12.

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – SWMP TRAINING

The following list gives the yearly training required for each control measure and the people involved.

1. Control Measure 1
    a. Employees of City owned or operated facilities – Prohabition against and the water quality impacts associated with illicit discharges and improper disposal of waste.
    b. MS4 engineers, development and plan review staff, land use planners – LID practices, green infrastructure, post-construction control requirements, and associated BMP's.
2. Control Measure 3
    a. Field staff – identification, investigation, termination, cleanup, and reporting of illicit discharges.
    b. Office staff – illicit discharge reporting.
3. Control Measure 4
    a. Field and other staff – implementation of the construction strom water program, including permitting, plan review, construction site inspections, and enforcement.
4. Control Measure 5

a. Field and other staff – involved in post-construction storm water management, including, planning, and review, and inspections, and enforcement.

5. Control Measure 6

    a. All employees who have primary construction, operation, maintenance job functions that are likely to impact storm water quality – O&M program including SOP's.

6. Documentation

    a. Record and document dates, activities or course descriptions, and names and positions of staff in attendance.

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STANDARD OPERATING PROCEDURE (SOP) – LOCATING AND LISTING PRIORITY AREAS

The following are written systematic procedures to locate and list the priority areas listed in 4.2.3.3.1 of the Small MS4 General UPDES Permit likely to have illicit discharges as applicable to Pleasant Grove City.

1. Obtain and review current City land use and zoning maps from City's GIS system.
2. Obtain and review current storm drain system map from City's GIS system.
3. Obtain and review current storm drain outfall map from City's GIS system.
4. Create and or update on the City GIS system a priority areas map which include the following items:
    a. illicit connection locations including non storm water discharges that do not need to be addressed as part of the City's SWMP. Discharges not addressed include the following.
        i. waterline flushing, landscape irrigation, diverted stream flows, rising ground water, uncontanimated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioner condensate, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering runoff, Individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, residual street wash water, dechlorinated water reservir discharges, discharges or flows from emergency fire fighting activity, other similar discharges.

b. Illegal dumping locations.

c. Areas with older infrastructure that are more likely to have illicit connections. Older areas are defined as historical overlay zone.

d. Industrial, commercial, and mixed use areas.

e. Areas with onsite sewage disposal systems.

f. Areas with older sewer lines or with a history of sewer overflows or crossconnections.

g. Comercial or high density residential areas that are required to have a post construction storm water management plan.

h. Areas upstream of sensitive waterbodies.

i. Storm sewer outfalls.

5. Create and or update a list of priority areas based on the map created above. The list shall include the reasons why an area is included in the priority list.

6. The City will be divided into three priority areas as follows:

   a. Priority I areas include: areas with past history of history of illicit connections (not listed in 4.a.i), illegal dumping, or sewer overflows and crossconnections, all commercial, industrial, or mixed use land use areas, areas with onsite sewage disposal systems, storm system areas greater than 30 years old, and areas upstream of sensitive water bodies.

   b. Priority II areas include: Storm sewer outfalls.

   c. Priority III areas include the balance of the City.

7. Inspect all priority I areas on a yearly basis.

8. Inspect 20 percent of priority II areas annually.

9. Priority III areas will only be inspected during regular maintenance of the storm drain system or if illicit connections and or dumping is reported.

10. Update list and map on a yearly basis.

Pleasant Grove

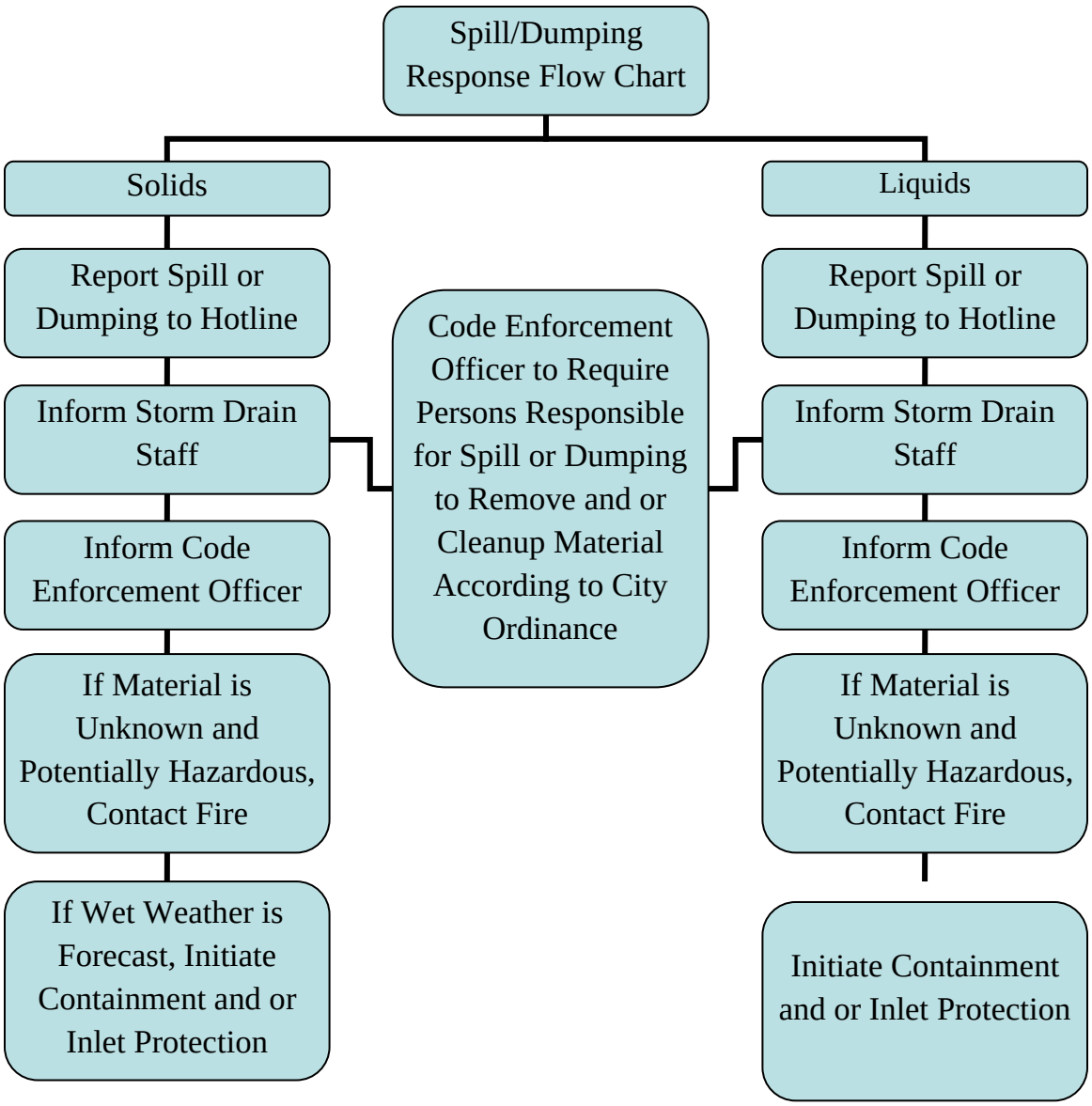
Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – SPILL/DUMPING RESPONSE AND FLOW CHART

In the event of a spill or dumping material that has the potential to impact the City's storm drain system the City will follow the attached flow chart and standard operating procedures.

1. When City staff becomes aware of a spill or dumping they will call the Hotline to report spill or dump for record keeping purposes. When a spill or dumping has been reported to the City from outside sources the City will proceed with step number 2.
2. Follow flow chart on following page.
3. Follow SOP Characterizing Illicit Discharge.
4. Follow SOP Ceasing Illicit Discharge.


Spill/Dumping Response Flow Chart
Solids
Report Spill or Dumping to Hotline
Inform Storm Drain Staff
Inform Code Enforcement Officer
If Material is Unknown and Potentially Hazardous, Contact Fire
If Wet Weather is Forecast, Initiate Containment and or Inlet Protection
Code Enforcement Officer to Require Persons Responsible for Spill or Dumping to Remove and or Cleanup Material According to City Ordinance
Liquids
Report Spill or Dumping to Hotline
Inform Storm Drain Staff
Inform Code Enforcement Officer
If Material is Unknown and Potentially Hazardous, Contact Fire
Initiate Containment and or Inlet Protection

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STANDARD OPERATING PROCEDURE (SOP) – TRACING ILLICIT DISCHARGE

Once an illicit discharge has been identified through dry weather screening, other inspections, public reporting, potential analytical testing, ect., City Staff will attempt to trace the discharge to its source through the following steps:

1. Consult storm sewer maps
2. Check the next "upstream" manhole with a junction to see if there is evidence of the illicit discharge.
3. Repeat these steps until a junction is found with no evidence of discharge; the discharge source is likely to be located between the junction with no evidence of discharge and the next downstream junction.
4. Be aware of the surrounding areas and look for the illicit discharge or spills in gutters and streets.
5. If source is not apparent video inspect storm drain to atempt to locate connection where illict discharge is occuring.
6. Utilize additional techniques as appropriate to pinpoint the source of the discharge. These techniques may include: dye tracing, smoke testing, analytical monitoring.
    a. Analytical monitoring will be utilized as appropriate to trace an illicit discharge but will generally be utilized as a last resort.
    b. When appropriate, Table X in the appendix will serve as a quide to analytical monitoring efforts.

7. Document tracing efforts.

8. Continue IDDE program through SOP Characterization Illicit Discharge and SOP Ceasing Illicit Discharge.

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STANDARD OPERATING PROCEDURE (SOP) – CHARACTERIZING ILLICIT DISCHARGE

Once an Illicit discharge has been reported, identified, and or traced the following SOP will be followed to characterize the nature of and the potential public or environmental threat posed by the illicit discharge.

1. Initiate an investigation immediately.
2. Create an inspection report covering the following items:
    a. Date City became aware of the non-storm water discharge,
    b. Date the City initiated an investigation of the discharge,
    c. Date the discharge was observed,
    d. Location of the discharge,
    e. Description of the discharge,
    f. Method of discovery,
    g. Date of removal,
    h. Repair,
    i. Enformement actions,
    j. Date and method of removal verification,

k. Fully document any analytical monitoring utilized including decision process to utilize analytical monitoring.

3. Determine if illicit discharge is among those that do not require addressing as part of the City's SWMP. If an illicit discharge does not need to be addressed, file documentation including its location for future addition to City's maps. Discharges not addressed include the following.

    a. waterline flushing, landscape irrigation, diverted stream flows, rising ground water, uncontanimated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioner condensate, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering runoff, Individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, residual street wash water, dechlorinated water reservir discharges, discharges or flows from fire fighting activity, other similar discharges.

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STANDARD OPERATING PROCEDURE (SOP) – CEASING ILLICIT DISCHARGE

Once an Illicit Discharge has been confirmed, the following SOP will be followed to ensure the illicit discharge will cease.

1. Confirm SOP-Characterizing Illicit Discharge has been followed.
2. Notify the appropriate authorities.
    a. Storm Water Forman for all discharges.
    b. Any hazardous materials follow Appendix J.
3. Notify the property owner to cease the illicit discharge and clean up as appropriate.
    a. Verbal notification to tenant or on site owner's representative.
    b. Leave written notice and citation on premises.
    c. Certified letter to owner of record.
4. Provide technical assistance for removing the source of the discharge or otherwise eliminating the discharge.
    a. Provide a list of engineers that can design BMP's to eliminate the discharge.
    b. Provide a list of local contractors that can assist with non hazardous material cleanup.
    c. Provide a list of disaster cleanup contractors for hazardous discharges.

d. Provide State of Utah Department of Environmental Quality contact information.

5. Provide follow up inspections.

    a. Follow up inspections will be undertaken as determined until discharge is eliminated and cleaned up.

6. Legal action consists of the following escalating penalties.
    a. First day with illegal discharges to the City Storm Drain System is at least a Level I Violation or infraction subject to a $500 Fine.
    b. Second day with illegal discharges to the City Storm Drain System is at least a Level II Violation or Class C misdemeanor and shall be punishable by a fine in a sum not to exceed seven hundred fifty dollars ($750.00), or by imprisonment for a period not longer than ninety (90) days, or by both such fine and imprisonment.
    c. Each additional day is an additional Class C misdemeanor until 7 days.
    d. After 7 days it becomes a Level III Violation or Class B Misdemeanor and shall be punishable by a fine in a sum not to exceed one thousand dollars ($1,000.00), or by imprisonment for a period not longer than six (6) Months, or by both such fine and imprisonment.
    e. Each day additional day is an additional Class B misdemeanor.
    f. When a person is convicted of a violation, any license previously issued to him by the City may be revoked by the court or by the governing body.
    g. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages, fines, incurs investigative or clean up costs, or is required to make repairs and/or replace any materials, the cost of investigations, fines, repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.
    h. If there are three violations at any level within 24 months the next violation is automatically escalated by one level.

7. Document all inspection and enforcement actions.

8. Review and or update SOP on an annual basis in conjunction with yearly reporting.

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STANDARD OPERATING PROCEDURE (SOP) – IDDE PROGRAM EVALUATION AND ASSESSMENT

Annually in conjunction with its SWMP report the City will evaluate and assess its IDDE program according to the following procedures.

1. Review illicit discharges that have occurred in the past five years.
2. Track number and types of illicit discharges reported.
3. Compare illicit discharge information from year to year in order to evaluate effectiveness of the program.
4. Follow SOP-Locating and Listing Priority Areas and determine if maps need to be updated.
5. Update maps as necessary.
6. Review and or update SOP on an annual basis in conjunction with yearly reporting.

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STANDARD OPERATING PROCEDURE (SOP) – CONSTRUCTION SITE ORDINANCE

ENFORCEMENT

1. Review Construction SWPPP according to SOP SWPPP Review and Approval.
    a. Require completed and approved SWPPP prior to allowing construction to commence.
2. Conduct Pre-Construction Meeting.
    a. Fill out Pre-construction checklist and provide copy to property owner.
    b. Inform property owner of enforcement provisions.
    c. Require submission of NOI to the State with a copy to the City.
    d. Review SWPPP and make modifications as appropriate.
3. Conduct initial inspection utilizing Construction Storm Water Inspection Form.
    a. If deficiencies are noted verbally request compliance with SWPPP.
    b. If actions are not initiated to correct deficiencies issue stop work order (Red Tag).
    c. No inspections or permits are issued until SWPPP is in place and functioning.
    d. If inaction results in discharges to the City Storm drain system, initiate legal actions against property owner.
    e. Document all actions.
4. Conduct inspections every two weeks utilizing Construction Storm Water Inspection Form.
    a. If deficiencies are noted verbally request compliance with SWPPP.
    b. If actions are not initiated to correct deficiencies issue stop work order (Red Tag).
    c. If inaction results in discharges to the City Storm drain system, initiate legal actions against property owner.
    d. Document all actions.
5. Conduct final inspection utilizing Construction Storm Water Inspection Form.

a. Require submission of NOT to the City and State (as appropriate).
b. Require contract information for those in charge of Long Term Storm Water Management on the site.
c. Final approval or occupancy Permit not issued until final items are complete, NOT is received and Maintenance Agreement is signed and recorded.
d. If inaction results in discharges to the City Storm drain system, initiate legal actions against property owner.
e. Document all actions.

6. Legal action consists of the following escalating penalties.
    a. First day warning of violation, without actual discharges to the City Storm Drain System, is considered Level I Violation or infraction subject to a $0 Fine.
    b. Red Tag.
    c. Second day of violation after warning, without actual discharges to the City Storm Drain System, is considered Level I Violation or infraction subject to a $100 Fine.
    d. Third day of violation after warning, without actual discharges to the City Storm Drain System, is considered Level I Violation or infraction subject to a $300 Fine.
    e. If the situation is not corrected after the third day it shall be elevated to a Level II Violation and follow the procedures listed below.
    f. First day with illegal discharges to the City Storm Drain System is Level I Violation or infraction subject to a $500 Fine.
    g. Second day with illegal discharges to the City Storm Drain System is a Level II Violation or Class C misdemeanor and shall be punishable by a fine in a sum not to exceed seven hundred fifty dollars ($750.00), or by imprisonment for a period not longer than ninety (90) days, or by both such fine and imprisonment.
    h. Each additional day is an additional Class C misdemeanor until 7 days.
    i. After 7 days it becomes a Level III Violation or Class B Misdemeanor and shall be punishable by a fine in a sum not to exceed one thousand dollars ($1,000.00), or by imprisonment for a period not longer than six (6) Months, or by both such fine and imprisonment.
    j. Each day additional day is an additional Class B misdemeanor.
    k. When a person is convicted of a violation, any license previously issued to him by the City may be revoked by the court or by the governing body.
    l. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages, fines, incurs investigative or clean up costs, or is required to make repairs and/or replace any materials, the cost of investigations, fines, repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.

m. Repeat offenders (3 or more level I or greater violations within 24 months) or those with unpaid fines shall be ineligible to pull a permit for a period of one year of last offence and all fines are paid.
n. If there three violations at any level within 24 months the next violation is automatically escalated by one level.

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STANDARD OPERATING PROCEDURE (SOP) – SWPPP REVIEW AND APPROVAL

All proposed private development projects in the City will undergo a SWPPP review and approval process. This process includes both construction and post-construction SWPPP's. The City Engineer or his representative reviews the plans according to the requirements in the City's storm water technical manual and the attached check list. Development plans are not approved until applicable construction and post-construction SWPPP's have been developed and approved. Review comment documentation is maintained in the project folders at the community development office.

All projects that require a SWPPP are required to obtain a permit from the State of Utah Division of Water Quality according to the UPDES Storm Water General Permit for Construction Activities, UTRC00000. They are also required to utilize the SWPPP template provided by the Division.

STORM WATER MANAGEMENT PLAN

- ☐ Storm drainage calculations which include:
  - ☐ The signature and stamp of a professional engineer.
  - ☐ Use of area-specific storm intensities found on the following website: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ut
  - ☐ A map showing drainage sub-basins, the location and drainage area of any storm water that flows into the proposed development, and the piping system.
  - ☐ Cumulative peak flow calculations for the site (submit all input data, calculations, and results). (11-7-7:F.2.a)

- ☐ Capacity calculations for each segment of the pipe system. Verify that the 25-year storm can be carried by the pipe system. (11-7-7:F.2.b)
- ☐ Calculations showing that flow rates in streets do not exceed maximum allowable values before reaching storm drain inlets.
- ☐ Calculations showing that inlets are sufficiently designed to capture peak design flows.
- ☐ Identify the flow rate of the 100-year storm that is not carried by the pipe system.
- ☐ Detention calculations which include the following items are required for all developments other than single-family residential housing:
    - ☐ Detention volume requirement—an analysis that identifies the storm whose duration creates the greatest detention volume requirement, given the storm duration and stage storage curve and outlet discharge curve. (11-7-7:F.2.c)
    - ☐ Stage storage curve. (11-7-7:F.2.c)
    - ☐ Outlet discharge curve. (11-7-7:F.2.c)
    - ☐ Orifice calculations showing the allowable discharge rate is not exceeded. (11-7-7:F.2.c)

  Obtain site specific storm data from the following website:
  http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ut

☐ A construction storm water pollution prevention plan which includes: (draft prepared by design engineer and finalized by construction contractor)

- ☐ 11”x17” Site plan with Location and type of BMP’s to be implemented. (finalized by contractor)
- ☐ 8.5”x11” BMP’s to be implemented. (finalized by contractor)
- ☐ SWPPP template updated for specific site. (by contractor)

☐ A Long-term Storm Water Management Plan which shows BMP locations, design, installation, operation and maintenance. (Pleasant Grove City Storm Water Management Plan 4.2.5.1)

- ☐ Site Plan showing all storm drainage improvements and contours.
- ☐ Required language.
- ☐ Name and contact information of person responsible to implement.
- ☐ Final storm drain calculations.
- ☐ BMP’s to be implemented.
- ☐ Maintenance agreement.

- Review potential water quality impacts – See section 4.2.4.3. ie is the site immediately adjacent to impaired waters or live water that empties into Utah Lake? If so it requires more frequent inspections. (currently there are no waters listed as impaired with respect to sediment that the City discharges into.)
- Review flood management control structures
  - Does the site have a potential to discharge pollutants of concern as listed in Section 4.2.1.1 to the MS4?
  - If so, then do the proposed controls adequately limit or remove the pollutants of concern?
  - If not then determine and require the best available controls to limit or remove the pollutants.
  - Do the controls have adequate access for City or other maintenance personnel and equipment?
  - If not then require adequate access in the design.
  - Do the hydraulic controls adequately mimic pre-development storm water flows?
  - If not, then require modified hydraulic controls to more closely mimic pre-development storm water flows.
- Require management of 90th percentile storm onsite
  - Utilize LID Handbook to determine what is feasible and not feasible
- Hillside areas shall show existing vegetation and re-vegetation proposal
- Sensitive Lands Ordinance (Hillside, Shallow Groundwater, Fault Zones, Surface Water)
- Storm water discharge permit as required by the Utah Division of Water Quality (801-538-6146).
- Construction Storm Water Management Plan containing all requirements of the Pleasant Grove City Storm Water Management Program (http://www.pgcity.org/publicworks/storm_water_management.htm).
- Post Construction Storm Water Management plan containing all requirements of the Pleasant Grove City Storm Water Management Program. (http://www.pgcity.org/publicworks/storm_water_management.htm).
- Signed and recorded maintenance agreement.

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STANDARD OPERATING PROCEDURE (SOP) – CONSTRUCTION SITE INSPECTION

AUTHORITY TO INSPECT.

Whenever necessary to make an inspection to enforce any provision of the City ordinance or whenever the City has cause to believe that there exists, or potentially exists, a condition, which constitutes a violation of the city ordinance. The City may enter the premises at all reasonable times to inspect and to inspect and copy records related to storm water compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

SITE INSPECTION

***What Items are required for Inspection*?**

The following is a list of some of the most common health and safety gear that may be used:

- Mud Boots
- Rain Coat
- Digital Camera
- GPS Unit
- Site Folder (Permit, Plans, etc.)
- Pen
- I.D. Badge
- Job Site Inspection Report (UPDES) Form (checklist)
- Hard Hat
- Safety Vest

Monitoring Equipment

The following is a list of some equipment that may be helpful to document facts and verify compliance:

• Digital Camera

• Measuring tape or wheel

• Hand level

First Inspection:

1. The Storm Water Project Manager /inspector shall familiarize himself/herself with the Erosion and Sediment Control Plans /SWPPP and identify all BMPs prior to the initial site inspection.
2. At the time of inspection, the inspector shall introduce himself/herself to the site superintendent and review the plans on site. Items to "look for" in the initial meeting with superintendent include:
   - If required, the SWPPP template is displayed on site.
   - Approved SWPPP Template.
   - Site Maps, 3 total (Full size)
     One map showing the BMP's that are going to be used with details.

     One map showing the area of disturbance with contour lines.

     One map showing permanent post construction BMP's.

   - State of Utah UPDES NOI is posted on site
   - UPDES General Construction Permit.
   - Copy of <u>approved, stamped</u> SWPPP /Erosion and Sediment Control Plans is maintained on site.
   - Inspection logs and or logbooks
   - Is project causing water quality standard violations.
   - Does required Stormwater Pollution Prevention Plan (SWPPP) includes appropriate erosion and sediment controls and, to some extent, post construction controls.
   - Is owner/operator complying with the SWPPP;
   - Are self-inspections being properly performed; and
   - Is the owner/operator responds appropriately to the self-inspector's reports.
3. During the site inspection, it is the Storm Water Project Manager /inspector responsibility to insure that all structural site erosion controls (BMPs) have been installed according to the approved SWPPP plans.

4. All aspects of the inspection shall be documented in the UPDES. Photos shall be taken of current site conditions.

ROUTINE INSPECTION/TIMING AND FREQUENCY OF INSPECTIONS:

1. Site inspections shall be conducted at minimum of once a month or more if needed throughout the duration of the Land Disturbance Permit activity. Inspections shall be scheduled based on project phase (i.e.: during heavy grading activity more frequent inspections are required, once interior building activity has begun less frequent inspections are required). Wet-event inspections of construction sites shall be completed within 24-hours of appreciable rainfall event.
2. The inspector shall prepare a written report summarizing inspection results. The inspection report is then provided to the Permittee, or the Permittees duly authorized representative, and to the contractor responsible for implementing stormwater controls on-site in order to correct deficiencies noted in the inspection report. Finally, the inspection report must be added to the site log book that is required to be maintained on-site, and be available to regulatory oversight authorities for review.
3. All information associated with site inspections shall be documented. Each (over one-acre) inspection shall be recorded using a UDPES form. Items associated with the inspection shall be noted on the form, signed by the contractor on site and by the Stormwater project manager /inspector. Copies of the UPDES Form shall be left with the contractor or site attendant and the original report sheet remains with the inspector. Additional copy with be mailed to the Department of Environmental Quality (DEQ). Photos of the site shall be taken during the inspection. If there is nobody on site, the UPDES Form should be sent by fax or email.(if no fax no. available, then by mail) to the contractor/developer office.

On-site Inspection Process:

1. ***Professionalism***, Don't Pretend to Possess Knowledge.

Unless the inspector has experience with a particular management practice, do not pretend to possess knowledge. Inspectors cannot be expert in all areas; their job is to collect information, not to demonstrate superior wisdom. Site operators are often willing to talk to someone who is inquisitive and interested. Within reason, asking questions to obtain new information about a management practice, construction technique or piece of equipment is one of the inspector's main roles in an inspection.

Don't Recommend Solutions.

The inspector should not recommend solutions or endorse products. The solution to a compliance problem may appear obvious based on the inspector's experience. However, the responsibility should be placed on the site owner/responsible person to implement a workable solution to a compliance problem that meets UPDES

standards. The inspector should refer the site operator to the UPDES Standards and Specifications for Erosion and Sediment Control. Key advice must be offered carefully. One experienced stormwater inspector suggests saying: "I can't direct you or make recommendations, but what we've seen work in other situations is ..." The way inspectors present themselves is important to the effectiveness of the inspection. An inspector cannot be overly familiar, but will be more effective if able to establish a minimum level of communication.

2. Walk the Site.

During wet weather conditions, it may be advantageous to observe the receiving waters prior to walking the rest of the site. At some point during the inspection, the receiving water conditions must be observed and noted. It is critical to note if there is a substantial visible contrast to natural conditions, or evidence of deposition, stream bank erosion, construction debris or waste materials (e.g. concrete washouts) in the receiving stream. Each inspector should evaluate actual implementation and maintenance of practices on-site compared to how implementation and maintenance is detailed in the SWPPP. At a minimum, the inspector should observe all areas of active construction. Observing equipment or materials storage, recently stabilized areas, or stockpile areas is also appropriate to evaluate the effectiveness of management practices.

3. Taking Photographs

Evidence of poor receiving water conditions and poor or ineffective practices should be documented with digital photographs. Those photographs should be logged date stamped and stored on media that cannot be edited (e.g. write only CDs). Photos should also be appended to the site inspector's report.

It is also beneficial to take photographs of good practices for educational and technology transfer reasons.

4. Exit Interview

Clearly communicate expectations and consequences. If it is clear from the inspection that the owner/operator must modify the SWPPP, or modify Best management practices within an assigned period (e.g. 24 hours, 48 hours, one week, two weeks), then that finding should be communicated at the time of the exit interview. The inspector should assign the period based on factors such as how long it would reasonably take to complete such modifications and the level of risk to water quality associated with failure to make such modifications.

The inspector should make clear that UPDES reserves rights to future enforcement actions. If the inspector's supervisor or enforcement coordinator determines additional enforcement actions are necessary, the Inspector *should not* reassure the owner/operator that the current situation is acceptable.

Post Construction Inspection:

1. The Stormwater Project Manager/inspector shall conduct final inspection to confirm that the site, including the detention pond, is stable.
2. Final inspection should include site stabilization with final landscaping or temp re-vegetation.
3. Detention pond should be measured to insure compliance with the approved plans (ie: size, shape, design). Emergency spillway should be installed per approved plan.
4. Geotextile material should be properly installed in drainage swales or emergency spillway per manufacturer's specifications.
5. Stormwater infrastructure should be inspected to insure that pipes are the size specified by the approved plans, all pipes and structures should be sealed and clear of sediment deposition.
6. Verify that site conditions (especially structures) match approved plans; revisions required either as-built or revised plans. All revisions shall be approved by the Plan Reviewer staff.

Method of Documentation

1. Upon returning to the office, site inspections shall be recorded in appropriate computer database.
2. Photos shall be imported into the appropriate database.
3. Original copies of the UPDES Form shall be deposited into the appropriate box (In the Storm water project manager's office) for scanning into the appropriate computer database.
4. The Storm Water Project Manager/inspector shall maintain all documentation.

COMPLIANCE & ENFORCEMENT (REPORTING OF VIOLATIONS)

1. See Enforcement SOP
2. Documentation is critical to effective enforcement. Advanced enforcement shall be documented for tracking purposes in an electronic database managed in the Storm waster pollution prevention management program.
3. It is the responsibility of the inspector to maintain time limits, specified by enforcement levels, and re-inspect on appropriate dates. Timely follow-up inspection is critical.

NOTICE OF TERMINATION

Once final site inspection is completed, site matches approved plans or as-built have been approved, the Land Disturbance Permit may be terminated by the owner and or the responsible personal. The closure process involves a post construction inspection. Once the inspection passes, the Stormwater projects manage/inspector will sign the N.O.T portion of the UPDSE form, giving a copy to the owner and or responsible personal. It will be left up to them to mail their copy of the N.O.T to the DEQ for SWPPP termination.

PERMIT RENEWAL

Each Operator is responsible for keeping up with his/her sites permit status. The Land Disturbing Permit may be renewed (except for Fill type) when the permittee realizes that he/she is not be able to complete work (stabilize the site) by the completion date listed in the Land Disturbing Permit application.

INSPECTOR CERTIFICATION

Each City inspector to be certified.

Each contractor inspector to be certified.

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STANDARD OPERATING PROCEDURE (SOP) – RECORD KEEPING

1. All hard copy records shall be kept in filing cabinets in the storm water manager's office unless otherwise noted.
2. All electronic records shall be kept on the storm water manager's computer unless otherwise noted.
3. All records will be kept for a period of five years unless otherwise noted or required in the Small MS4 General UPDES Permit.
4. All storm water management program updates will be noted in the appropriate section of the plan with hard copies of old management plans kept for a period of five years after updating.
5. Each file will be clearly marked as to what is included
6. **Minimum Control Measure 1 – Public Education and Outreach**
    a. Save electronically the monthly educational material located on the City Web Site.
    b. Save a hard copy of the flyers distributed with business license renewals.
    c. Save a hard copy of the flyers distributed in utility bills.
    d. Save a hard copy of the City newsletters that include information on storm water.

e. Document attendance and financial support of Utah County Storm Water Coalition.

f. Save a hard copy of Public education done by Utah County Coalition.

g. Document all training activities for City employees.

7. Minimum Control Measure 2 – Public Involvement/Participation

a. Save hard copy of all requests for input and all input from the Neighborhood Committees and Business Advisory Committee

b. Save an electronic copy of all public hearing minutes.

c. Document all training activities for City employees.

8. Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

a. A current map of the City storm Drain system will be maintained on the City's GIS system.

b. The City's current storm drain ordinance will be kept by the City recorder and is available for review on the City web site.

c. Save an electronic and hard copy of all illicit discharge reports from hotline or otherwise.

d. Save an electronic and hard copy of all documentation on efforts to detect, trace, characterize, and cease illicit discharge.

e. Save an electronic database of documented illicit discharges.

f. Save an electronic and hard copy of field assessment of storm water outfalls.

g. All public education efforts will be documented as part of minimum control measure 1.

h. Save records on the amount and type of materials disposed of properly in the City's Household hazardous waste program.

i. Document all training activities for City employees.

9. Minimum Control Measure 4 – Construction Site Storm Water Runoff Control

a. Save separate electronic and hard copies files of all construction projects (both under and over one acre).

i. These records will be maintained for a period of five years or until construction is completed, whichever is longer.

ii. Include all citations and or documentation of legal actions in each respective project file.

iii. Record will include construction SWPPP, NOI, Pre construction minutes, correspondence, inspection reports, final inspection notes, NOT, etc.

iv. Record will also include SWPPP review checklist.

b. Document all training activities for City employees.

10. Minimum Control Measure 5 – Long Term Storm Water Management

a. Save a hard copy of all Long Term Storm Water Management Plans. Transition to electronic copies as they become available.

b. Maintain an electronic database of all long term storm water management plan holders.

c. Maintain a database and hard copy of all executed maintenance agreements.

d. Save an electronic and hard copy of all self-inspection reports for a period of five years.

e. Save an electronic and hard copy of all City inspection reports for a period of five years.

f. Save an electronic and hard copy of all enforcement actions.

11. Minimum Control Measure 6 – Pollution Prevention and Good Housekeeping for Municipal Operations

a. All inspections of basins inlets, outfalls, weekly and quarterly high priority sites will be done electronically

12. Each file will be clearly marked as to what goes in each file and training will be given on recorded

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – LONG-TERM STORM WATER MANAGEMENT

ORDINANCE ENFORCEMENT

1. Review Post Construction SWPPP at final inspection of Construction Project.
    a. Require completed and approved SWPPP prior to finalizing project.
    b. Require signed and recorded maintenance agreement prior to finalizing project.
    c. Verify updated contact person and information for long term monitoring.
    d. Provide contact person with inspection report that they will submit each year.
    e. Verify this information is documented.
    f. Input information in long term inspection schedule.
2. Conduct yearly inspections and verification.
    a. Within two months of annual report deadline, contact long term SWPP Plan holders reminding them of the requirement to inspect their facilities and submit an inspection report.
    b. Annually contact long term SWPP Plan holders to schedule a site inspection by City Staff. (City to inspect every facilities at least once every five years for those who have executed a maintenance agreement and at least once every year for those who have not.)
    c. Document deficiencies and direct facility to correct those deficiencies.
        i. Deficiencies not resulting in illegal discharges to City storm drain shall be given a reasonable time to correct.
        ii. Deficiencies resulting in illegal discharges to City storm drain shall be considered a level one violation and legal action will be initiated according to the attached escalating penalties.
    d. Conduct follow up inspection to assess and document corrective actions.

e. If actions are not initiated to correct deficiencies noted in yearly inspections, initiate legal actions.
f. Document all actions.

3. Legal action consists of the following escalating penalties.
    a. Deficiencies noted during inspections without actual illegal discharges to the City Storm Drain System, are considered Level I Violations or infractions subject to a $0 Fine.
    b. Inaction to correct deficiencies by the reasonable time determined, without actual illegal discharges to the City Storm Drain System, are considered Level I Violations or infractions subject to a $100 Fine.
    c. Each day after with no corrective action, without actual illegal discharges to the City Storm Drain System, is considered Level I Violation or infraction subject to a $300 Fine.
    d. If the situation is not corrected after a week it shall be elevated to a Level II Violation and follow the procedures listed below.
    e. First day with illegal discharges to the City Storm Drain System is Level I Violation or infraction subject to a $500 Fine.
    f. Second day with illegal discharges to the City Storm Drain System is a Level II Violation or Class C misdemeanor and shall be punishable by a fine in a sum not to exceed seven hundred fifty dollars ($750.00), or by imprisonment for a period not longer than ninety (90) days, or by both such fine and imprisonment.
    g. Each additional day is an additional Class C misdemeanor until 7 days.
    h. After 7 days it becomes a Level III Violation or Class B Misdemeanor and shall be punishable by a fine in a sum not to exceed one thousand dollars ($1,000.00), or by imprisonment for a period not longer than six (6) Months, or by both such fine and imprisonment.
    i. Each day additional day is an additional Class B misdemeanor.
    j. When a person is convicted of a violation, any license previously issued to him by the City may be revoked by the court or by the governing body.
    k. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages, fines, incurs investigative or clean up costs, or is required to make repairs and/or replace any materials, the cost of investigations, fines, repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.
    l. No new licenses or permits shall be issued for a property with unresolved violations or penalties.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – LONG TERM STORM WATER MANAGEMENT

INSPECTION

1. Annually obtain self-inspection reports from entities that have entered into a maintenance agreement.
    a. Review reports for deficiencies and follow up.
2. Inspect long term storm water management plan holders. Annually, unless they have entered into a maintenance agreement and then every 5 years if they have.
    a. Contact plan holders and set inspection date.
    b. Encourage plan holders to enter into a maintenance agreement and self-inspect.
    c. Inspect site utilizing inspection form in Appendix E
3. Inspect 20 percent of commercial areas for illicit discharges as per control measure #3.
    a. Note those commercial areas that are adversely affecting water quality.
    b. Require these areas to develop a long term storm water management plan and enter into a maintenance agreement.
    c. Add facility to inventory of long term storm water management plan holders.
4. Upon completion the permittee must verify that long-term BMP's were constructed as designed.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – FERTILIZER, PESTICIDE, AND HERBICIDE APPLICATION

1. General

- Always follow the manufacturer's recommendations for mixing, application and disposal.
- Use manual and/or mechanical methods for weed/pest control and vegetation removal wherever possible rather than chemical methods. When chemicals are required, use the least toxic method to control animal and plant pests. Pheromone-based traps and sticky paper are often more effective than chemicals and are protective of water quality. Beneficial organisms should be promoted and protected whenever/wherever possible.
- When chemicals are used, use the most biodegradable product that will accomplish the desired goal.

2. Mixing

- Follow all manufacturers' recommendations for mixing, applying and handling of fertilizers, herbicides and pesticides.
- Mix fertilizers, herbicides or pesticides inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
- Label all containers.
- Always mix only the minimum amount of fertilizers, herbicides or pesticides that will be needed for the immediate job.
- If possible, use rinse water from cleaning of containers and application equipment as a dilution for the next batch.

3. Application

- Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and training of pesticide applicators ("Read the Label").

- Time the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendation for best results. (ex: Do not apply during a heavy rainfall or if a heavy rainfall is expected and do not apply immediately before an irrigation cycle.)
- If possible, avoid broadcast spraying of pesticides. Choose an appropriate method of application such that application does not exceed the problem area. (Fertilizer may be broadcast sprayed.)
- If possible, spot spray pesticides on infested areas whenever possible rather than treating a larger area. Do not use pesticides on a regular (preventive) basis. Apply only when there is an actual pest problem.
- Only use State recommended and approved chemicals around water features (ponds, lakes or streams).
- If possible, avoid applying fertilizers, herbicides or pesticides within 25 feet of any surface water or storm drainage structure.
- If possible use granular fertilizers, herbicides or pesticides whenever possible since they result in lower application losses.
- Avoid applying fertilizers, herbicides or pesticides in or near any drainage ditch, creek, pond or seasonal streambed.

4. Clean-Up

- Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and training of pesticide applicators ("Read the Label").
- Always follow all manufacturers' recommendations for cleaning-up and handling of fertilizers, herbicides or pesticides.
- Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, sweep them back onto grassy areas.
- Clean up any spills or leaks of fertilizers, herbicides or pesticides promptly. Refer to the *Spill Clean-Up* BMP for more details.
- Make sure all containers are clearly labeled.
- Dispose of excess or leftover chemicals and empty expired fertilizers, herbicides or pesticides containers according to instructions on the label – preferably on the target pest or vegetated area.
- If possible use the triple rinsate from empty containers and/or rinsate from sprayer cleaning as dilution for the next batch.
- Never pour triple rinsate from empty containers and/or rinsate from sprayer cleaning onto ground or into any drainage system.
- Dispose of excess, expired or waste fertilizers, herbicides or pesticides properly. Try to use up the entire product on target areas. If not, dispose of the remaining product as hazardous waste.

5. Storage

- Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and training of pesticide applicators ("Read the Label").
- Store fertilizers, herbicides or pesticides inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
- Chemicals and pesticides are stored at the Public Works Building. (This area should be indoors or have secondary containment so that spills or leaks will not contact soils.)
- All containers must be clearly and correctly labeled.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.
- Pesticide application must be done only under the supervision of a "certified pesticide applicator" or qualified supervisor.
- All employees who handle or apply pesticides or herbicides should be trained on the most recent Material Safety Data Sheet(s).
- Train employees on the proper methods for cleaning up spills or leaks of pesticides, herbicides and fertilizers. (Refer to the *Spill Clean-Up* BMP for more details.)

Record Keeping and Documentation

1. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention Binder.
2. Records of pesticide application activities are kept at the Public Works Building.
3. An inventory of fertilizers, herbicides and pesticides including expiration dates are kept at the Public Works Building.
4. Copies of MSD sheets for all pesticides, fertilizers and other hazardous products are kept at the Public Works Building.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – SPILL PREVENTION AND REPORTING

1. Spill Prevention - Materials and Waste Handling and Storage

- If possible, liquid or hazardous materials should be handled, used, stored, re-package and transferred indoors or under cover.
- Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets should be covered during deliveries.
- Cover and contain containers, materials and wastes.
- Keep all containers closed unless adding or removing materials.

2. Spill Kit Maintenance

- Spill kits are located at the following locations:
  _____
- (Name) _____ is responsible for spill kit(s) inventory and re-ordering supplies.
- Inspection of spill kit and re-supplying is done _____x's/_____ (month/year).

3. Spill Clean Up and Storm Drain Protection

- Clean up minor spills immediately.
- Block any down gradient storm drains with berms, covers, absorbent socks or "pigs".
- Never hose down spills or leaks.
- Always use "Dry Clean up Methods" for clean up of fuel spills (gas, diesel, motor oil or kerosene).
  - Spread absorbents ("kitty litter" or loose absorbents, sheets, pillows, pigs, or socks) on the spill.
  - Sweep up or pick up the absorbed materials.
  - Dispose of wastes properly.

- If fluids are leaking or have spilled on an impermeable surface, such as a roadway, locate nearest down gradient storm rain and dike or berm the drain to prevent fluids from entering it.
- Put down absorbent on the spill area.
- After clean up, be sure to sweep up the contaminated absorbent and remove the berm or dike at storm drain.
- If fluids are leaking or have spilled on a permeable surface, such as gravel, soil or grass, mark the area and report the spill to 801-785-2941.

4. Reporting Spills

- Any spill or discharge of any pollutant (ex: oil, paints, fuels, hazardous liquids, sediment, or super-chlorinated water) that reaches storm drains or enters *Waters of the State** must be reported to the Divison of Water Quality Emergency Spill Reporting line at 1-801-538-6146 or 1-801-536-4132 (off hours).
- If a spill or leak is of a hazardous substance that exceeds 1 pint or is of an unknown substance of any amount, call 911and notify the Divison of Water Quality's 24-hour emergency spill notification hotline at 1-801-536-4132, immediately.
- If the spill is more than 25 gallons of a petroleum product from a regulated storage tank or delivery truck or any amount that causes a sheen on nearby surface water, it must be reported to the Division of Water Quality at 1-801-536-4132
- For non-emergency spills, call 1-801-538-6146.
- Report spills to the facility supervisor (Name): _____ Phone (____)_____
- Report spills that reach storm drains or waterways to your city's Stormwater Coordinator (Name): Mark Atwood Phone (801)319-1331.

Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a Spill Response Plan on site. The plan is located at: _____(Facility SWPPP or separate document).
2. Post signs as to whom to report spills to (Facility Supervisor, Stormwater Coordinator, Fire Department, PG Dispatch, etc.)
3. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder or other location.

Keep copies of any correspondence with Division of Water Quality if the spill reaches “waters of the state”.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR CITY BUILDINGS AND FACILITIES

1. Building and Landscape Maintenance

- Maintain the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines) on your property. Clean at least twice a year, late in the fall and in the spring. Inspect twice yearly clean As-needed
- Do not pressure wash or hose off surfaces with soap or chemicals unless wastewater is collected. Do not let wastewater enter storm drains.
- If only cleaning surfaces of ambient dust (with water only), the wastewater can be drained to nearby landscaped/vegetated areas or allowed to pool on-site and evaporate.
- Maintain sprinkler systems as to not over-irrigate. Avoid watering at rates that exceed the infiltration rate of the soil.
- Overflow drains from fountains or decorative ponds should be discharged to the sanitary sewer, drained to a vegetated area, or re-used for irrigation.
- If paving or sealing a roof, sidewalk or parking lot, prevent the sealant from reaching the gutters or drains. Use absorbent booms or pigs to protect storm drains.
- Stencil storm drains on your property with a caution message. *Example "No Dumping, Drains to waterways"*
- Always follow *Fertilizer, Herbicide, and Pesticide Application* SOP.

2. Heat Transfer Equipment and HVAC Equipment Cleaning

- Do not allow cooling towers to discharge, leak, or mist-out into roof drains (if those drains empty onto pavement, streets or storm drains). Cooling towers should discharge to the sanitary sewer, if permitted by your local wastewater facility.
- Blow-down from utility boilers may not be discharged outside to pavement or to storm drains. Wastewater should be sent to the sanitary sewer.

3. Fire Suppression (Sprinkler) Systems

- If possible, discharge water suppression systems (sprinklers) to sanitary sewer. New sprinkler system testing water must be de-chlorinated or sent to sanitary sewer.
- If water systems cannot be discharged to sanitary sewer, divert the wastewater to landscaped areas and minimize erosion.

4. Floor Drains and Elevator shaft Pumps

- Ensure that elevator sump pumps, interior floor drains, and parking garage floor drains are plumbed to the sanitary sewer (not to storm drains).
- If there are any hydraulic fluid leaks from elevators, assure proper cleanup.

5. Janitorial Practices

- Never dump mop water or cleaning wastewater outside, into parking lot or storm drains. Dispose of wastewater in mop sink or other sanitary sewer drain. (This also includes wastewater from automated floor or carpet cleaning equipment.)
- Do not pour, transfer or dispose of any material outdoors or near a storm drain.
- Store all chemicals indoors on an impervious floor.

6. Painting, Staining and Sandblasting

- Use a ground cloth or oversized tub for paint mixing and tool cleaning. Properly dispose of the wastes.
- Enclose spray-painting operations with tarps or other means, as possible, to minimize wind drift and to contain overspray.
- Clean paintbrushes and tools used to apply water-based paints in sinks plumbed to a sanitary sewer or in portable containers that can be emptied into sanitary sewer drains. Never clean tools over a storm drain or outside.
- Brushes and tools used for oil-based paints, finishes, thinners, solvents or other materials must be cleaned over a tub or container and the cleaning wastes disposed or recycled at an approved hazardous waste facility. Never clean tools over a storm drain or outside.
- Promptly cleanup any spills of paints, cleaners or other maintenance chemicals or supplies. See *BMP: Spill Cleanup* for details.

7. Waste Management

- All waste receptacles must be close-fitting lids or covers. This includes dumpsters and compactors.
- Keep all container lids closed at all times unless adding or removing material.
- If possible, Store waste receptacles (dumpsters) indoors, under a roof or roof overhang or inside a shed or covered structure.
- Sweep up around outdoor waste containers regularly.
- Do not hose-out dumpsters outdoors. Return dumpsters to the disposal company for cleaning at their facility. If dumpsters must be washed, do so in a wash bay or in an area where wastewater will drain to the sanitary sewer.
- Maintain and follow spill prevention plans.

8. Parking Lot Maintenance

- Sweep Parking lots a minimum of twice a year. Once in the spring and fall with additional as needed.
- Always follow *Storm Water Pollutant Management for City Roads, Highways, and Parking Lots SOP.*

Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.
- Train all employees on the proper handling and disposal of chemicals and implementation of spill prevention plans.

Record Keeping and Documentation

1. Keep a current inventory of all floor drains inside all permittee-owned or operated buildings.
2. Keep a current map of all storm drains located on the property of all permittee-owned or operated buildings and facilities.
3. Keep a current copy of spill prevention plans.
4. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention Binder.
5. Keep copies of all contracts for building services or other maintenance.
6. The Lead Storm Water Tech/Inspector is responsible for cleaning of storm drains, ditches or culverts.
7. Keep records of any routine cleaning of parking lots, storm drains or culverts.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR CITY MATERIAL STORAGE AREAS

1. Outdoor Storage Areas

- If possible, store all containers indoors whenever possible. If they must be stored outdoors, place them in a shed or under a roof.
- All containers and dry materials should be covered or have secondary containment.
- Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water run-on/run-off
- If possible, place containers on paved, impervious surfaces and as far from (or at a lower elevation than) storm drain inlets and drainage ditches as possible.
- Provide a spill kit near storage areas. Clean up any spills, leaks or discharges promptly.
- Inspect all containers stored outdoors regularly
- If a container is found to be leaking either empty the contents into a leak-tight container or place entire leaking container inside of a larger leak-tight container. Clean up any spills or leaks promptly.
- Do not drain accumulated water from secondary containment structures unless approved by a supervisor.
- Inspect all containers stored outdoors regularly. Any containers that are leaking must be moved indoors immediately or placed in a leak-tight, "over-pack" container.

2. Sand, Salt, Dirt or Gravel Stockpiles

- Cover sand/salt piles with a tarp or store inside a building or under a roof.
- Contain stormwater run-off from dirt and gravel stockpiles by using barriers or berms.

3. Liquid Bulk Material Storage

- Provide impervious secondary containment for all Above Ground Storage Tanks (ASTs), except double-walled tanks, that is sufficient to contain the entire contents of the largest single tank plus an additional 4" of rainfall.
- Keep drain valves in secondary containment at ASTs locked in the closed position at all times. Open for draining only under supervision.
- Make sure an adequate spill kit with sufficient equipment and supplies is located near storage areas where spills are possible. Clean up any spills, leaks or discharges immediately.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder.
2. Provide and document weekly visual inspections and quarterly comprehensive inspections.
3. Keep a map of the facility, including storm drain inlets, in the Stormwater Pollution Prevention Binder.
4. Keep copies of current MSDS's for all materials stored outdoors.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR HEAVY EQUIPMENT STORAGE AREAS AND MAINTENANCE AREAS

1. Vehicle and Equipment Maintenance

- Move leaking vehicles or equipment indoors or under cover.
- Use drip pans for leaking vehicles that need to be stored outside.
- Contain leaking fluids and tag the vehicle to alert drivers that vehicle is non-operational.
- Perform all maintenance activities involving fluids indoors only (except in emergency cases).
- Dispose of wastewater from tire leak check appropriately (to sanitary sewer or interior drain).
- Clean all parts indoors using the appropriate parts washer.
- Wash vehicles in dedicated wash bays that drain to sanitary sewer.

2. Emergency Maintenance Operations

- Use drip pans underneath vehicles to catch leaks and drips.
- Have spill kits on all response vehicles.
- Move vehicle to an impervious surface if possible (for better spill clean up).
- Notify your supervisor of spills. (See *SOP: Spill Prevention, Clean up and Reporting*)

3. Good Housekeeping and Waste Disposal

- Clean up all spills promptly.
- Transfer fluids from drip pans to the appropriate waste containers immediately.
- Routinely check any equipment stored outside for leaks.
- Maintain oil/water separators according to municipal ordinance.
- Keep lids on dumpsters closed when not in use.
- Develop and maintain a maintenance schedule to check outdoor parking and storage areas for spills and or debris accumulation.

- Inspect parking and fueling areas daily. Designate employee(s) to perform these inspections.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in stormwater pollution prevention including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder or other location: _____.
2. Maintain a current copy of Spill Response Plan in SWPPP.
3. Maintain a map of storm drain locations on the property.
4. Keep a map, including location of storm drain inlets, in the facility's Stormwater Pollution Prevention Binder.

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Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR CITY PARKS AND OPEN SPACE

1. General

- Never dump any liquids or other materials outside. Dispose of all liquids and materials appropriately.
- Ensure the storm drain system (ditches, inlets, catch basins, drainage channels, or underground lines) on the property is properly maintained.
- Catch basins, inlets and culverts are scheduled to be cleaned once / year.) If additional cleaning or maintenance is needed notify: Public Works at: 801-785-1276
- Keep all outdoor work areas neat and tidy. Sweep around work areas after each shift and properly dispose of all wastes.
- If possible, do not hose down outdoor work areas or trash/waste container storage areas. If these areas must be washed, ensure that wash water will enter the sanitary sewer or a landscaped area. Do not use soap.

2. Irrigation Systems

- Set sprinklers to water at rates less than the infiltration rate of the soil, to water evenly over the vegetated area, and to minimize the amount of water falling on impervious surfaces.
- Automatic timers should be used on all irrigation equipment to minimize run-off and over irrigation. Monitor soil moisture content and adjust timer settings appropriately.
- Always replace or repair broken or leaking sprinkler heads as soon as possible.
- To report an irrigation problem or concern contact: Parks Department at 801-785-7275.

3. Landscaping, Lawn & Vegetation Maintenance

- Whenever possible, mulch-mow grasses.
- Sweep grass clippings and other vegetation debris from sidewalks or streets back on to grassy areas.

- Dispose of lawn clippings, leaves, tree trimmings, or other landscape waste appropriately. Grass clippings are taken to TSSD for disposal.
- If possible, dispose of organic wastes by composting. If composting is not possible, dispose of organic wastes at an approved disposal facility. Organic waste is composted at TSSD.
- If possible, control soil erosion by seeding, sod, mats, mulching, terracing or other effective methods. Use mulch or other erosion control methods to prevent erosion of exposed soils and flowerbeds.
- Do not apply bark or mulch on top of plastic sheeting unless the area is enclosed by a barrier-like lawn edging or it is far away from a storm drain inlet. Bark on plastic is easily washed off by heavy rainfall.
- If possible, design new or re-landscaped areas using xeriscape and Low Impact Development (LID) techniques to the maximum extent possible. Use hardy plant materials appropriate to the climate.
- Always follow the *Fertilizer, Herbicide and Pesticide Application* SOP.

4. Buildings and Structures

- Never discharge waste and/or wastewater from cleaning and repair of exterior surfaces into the Municipal Separate Storm Sewer System (MS4).
- Always follow the *Pressure Washing and Exterior Cleaning* SOP when power washing buildings or structures.
- Use inlet protection devices, such as rock wattles or drain covers, when constructing or repairing paved pathways or other structures to protect any storm drain inlets or ditches that are within 25 feet or are at the same or lower elevation than the work area.
- If possible, use rub-on techniques for graffiti removal or re-paint over the affected areas.
- Capture any wastewater, debris, solvent wastes or solid wastes from graffiti removal with tarps or wet vacs.

5. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Public Works Shop, which drains to the sanitary sewer or an approved holding tank.
- Vehicles and mowers may also be washed at a commercial or other designated car washing facility.
- If possible, perform all maintenance and repair work inside shop. (Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.)
- Do not store leaking vehicles or equipment outdoors. Contain the leak, repair immediately, or move indoors and repair.
- Notify parks supervisor at Parks Office when leaving a leaking vehicle at Fleet Services or at your shop.

6. Painting and Staining

- Do not clean tools over a storm drain.
- Use a ground cloth or oversized tub for paint mixing and tool cleaning. Properly dispose of the wastes. Avoid performing activities near storm drains.

- Enclose spray-painting operations with tarps or other means to minimize wind drift and to contain overspray.
- Clean paintbrushes and tools used to apply water-based paints in sinks plumbed to a sanitary sewer or in portable containers that can be emptied into sanitary sewer drains.
- Clean brushes and tools used for oil-based paints, finishes, thinners, solvents or other materials over a tub or container and dispose of the cleaning wastes at an approved hazardous waste facility.
- Immediately clean up any spills of paints, cleaners or other maintenance chemicals or supplies.
- Store paints, stains and solvents inside, or under cover and with secondary containment (as per manufacturer's Recommendations).

7. Swimming Pool Maintenance

- Do not discharge pool water to a street or storm drain when draining pools or hot tubs. Discharge water to vegetated landscape or the sanitary sewer.
- Never clean pool filters in the parking lot or near a storm drain.
- Do not hose down pool decks or sidewalks if the wash water will flow to pavement or the storm sewer system. Direct wash water to landscaped or grassy areas or to sanitary sewer.
- Store all pool chemicals indoors and under cover.
- Records to Recreation Manager and Parks Supervisor.

8. Waste Management

- All waste receptacles must be close-fitting lids or covers. This includes dumpsters and compactors.
- Keep all container lids closed at all times unless adding or removing material.
- If possible, Store waste receptacles (dumpsters) indoors, under a roof or roof overhang or inside a shed or covered structure.
- Sweep up around outdoor waste containers regularly.
- Do not hose-out dumpsters outdoors. Return dumpsters to the disposal company for cleaning at their facility. If dumpsters must be washed, do so in a wash bay or in an area where wastewater will drain to the sanitary sewer.
- Post signs informing the public about the proper disposal of pet waste.
- Review yearly the adequacy of trash receptacles and adjust the amount and location accordingly.
- Remove trash on a weekly basis or more often as required.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a list of all employees trained in the department's Stormwater Pollution Prevention Binder.
2. Records of all maintenance activities are kept at: Parks Office.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR CITY VEHICLES AND EQUIPMENT

1. Vehicle and Equipment Maintenance

- Move leaking vehicles or equipment indoors or under cover.
- Use drip pans for leaking vehicles that need to be stored outside.
- Contain leaking fluids and tag the vehicle to alert drivers that vehicle is non-operational.
- Perform all maintenance activities involving fluids indoors only (except in emergency cases).
- Dispose of wastewater from tire leak check appropriately (to sanitary sewer or interior drain).
- Clean all parts indoors using the appropriate parts washer.
- Wash vehicles in dedicated wash bays that drain to sanitary sewer.

2. Emergency Maintenance Operations

- Use drip pans underneath vehicles to catch leaks and drips.
- Have spill kits on all response vehicles.
- Move vehicle to an impervious surface if possible (for better spill clean up).
- Notify your supervisor of spills. (See *SOP: Spill Prevention, Clean up and Reporting*)

3. Good Housekeeping and Waste Disposal

- Clean up all spills promptly.
- Transfer fluids from drip pans to the appropriate waste containers immediately.
- Routinely check any equipment stored outside for leaks.
- Maintain oil/water separators according to municipal ordinance.
- Keep lids on dumpsters closed when not in use.
- Develop and maintain a maintenance schedule to check outdoor parking and storage areas for spills and or debris accumulation.

- Inspect parking and fueling areas daily. Designate employee(s) to perform these inspections.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in stormwater pollution prevention including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder or other location: _____.
2. Maintain a current copy of Spill Response Plan in SWPPP. Maintain a map of storm drain locations on the property. This is located at: _____
3. Keep a map, including location of storm drain inlets, in the facility's Stormwater Pollution Prevention Binder.
4. Keep copies of any correspondence with CDPHE if the spill reaches "waters of the state".

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR STREET SWEEPING, SWEEPER CLEANING, AND WASTE DISPOSAL

1. Operation of the Street Sweeper

- Operate all sweepers according to the manufacturer's recommended procedures.
- While sweeping, drive between _____ and _____ mph.
- Make sure brushes and water spray hoses are functional before leaving the shop.
- Fill the water tank daily or as needed.
- Replace brushes when bristle length is less than inches.

2. Sweeping Frequency (need to develop schedule)

☐ Streets should be swept according to an established schedule. The schedule is located at: _____	(Please fill out the Table, below, or place a copy of your schedule here.)	**Area**
Actual Frequency	**Main Arterials**	
Commercial areas		
Industrial areas		
Downtown area		
Municipal Parking Lots		
Residential areas		
Hot Spots		
Seasonal Sweeping		
Winter Sand Removal		
Outdoor Special Events		

- Have any "hotspot" areas been identified for extra sweeping? Where are they? _____ How often are they swept? _____x's/ _____
- Sweep after outdoor special events (fairs, festivals and parades). Which events are identified?
  _____

3. Disposal of Sweeper Wastewater and Debris

- Always decant sweeper wastewater into the sanitary sewer. Decant areas are located at: Pleasant Grove Public Works yard
- Dispose of debris at the designated, temporary, storage area. The debris storage areas should be on an impervious surface and enclosed area.
- The temporary storage area is located at: Pipe Plant Property
- Inspect and maintain the temporary storage area. Check area daily for run-on or run-off or debris scattering.
- Debris should be disposed of regularly or as needed.
- How often is debris disposed of? _____x's/ week _____x's/month other _____
- The permanent disposal site is located at:
  _____

4. Cleaning the Sweeper

- Scrape out left over debris from the hopper after the last dump of the day.
- Always wash sweepers in an area that drains to sanitary sewer.
- The wash area is located at:
  _____.

5. Other SOPs

- Do not wash down any streets or curbs for routine cleaning.
- If spills or illegal discharges are seen report them immediately to the Public Works Department at 801-785-1276.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in stormwater pollution prevention including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a street sweeping record and recorded in: Pleasant Grove City GIS system.

2. The number of tons disposed of per year is recorded in:

   _____

   (Facility SWPPP manual or separate document)

3. The number of miles driven per area or route is recorded in: Pleasant Grove City GIS system.
4. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR PARKING LOT MAINTENANCE

1. General Maintenance

- Designate personnel to conduct inspections of parking facilities and stormwater conveyance systems on a regular basis.
- Clean leaves, trash, sand, and other debris from parking lots regularly or as needed to prevent debris from reaching any storm drain inlet or storm detention area.
- Sweep parking lots with a street sweeper regularly or as needed.
- The parking lots are inspected and evaluated for maintenance twice per year.
- Sweep after special events or construction projects.
- Sweep parking lots in the spring and after leaf season in the fall.
- Any automotive spills and/or drips must be cleaned up with dry clean-up methods (absorbents) and disposed of properly.
- Inspect all dumpster or waste disposal areas regularly. Clean up any trash, spills or leaks and report leaking dumpsters to the disposal company.

2. Maintenance of Storm Drains, Culverts and Detention Areas

- Inspect storm structures, culverts, detention areas or structural BMPs regularly for debris accumulation. Clean out as needed.

3. Paving, Re-surfacing and Concrete Projects

- Re-seal or pave on dry days when no rain is expected or stop paving activities well before rainfall.
- Pre-heat, transfer, or load hot asphalt far away from storm drain inlets.
- Protect or block nearby, downstream, storm drain inlets from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave inlet protection in place until the job is complete.

- Clean up debris from around inlets and dispose of properly.
- Designate a “Concrete Wash Out Area" on the job site - in a grassy or graveled area where pooled water can soak into the ground.
- If no “Wash Out Area” is available, wash out into a container (pool, bucket or wheelbarrow) and dispose of material properly.

4. Painting and Striping

- Schedule painting, marking, and striping projects during dry weather only. Cease all activities when rain threatens.
- Use thermoplastic markings in place of paint whenever possible.
- Block nearby storm drain inlets (within 25 feet and down gradient of project).
- Promptly clean up any spills of paints, cleaners or other chemicals.

5. Salt, Sand or Deicer Application

- Hand-apply deicer or sidewalk salt. Use sparingly.
- If truck-applying salt, sand or liquid deicer, use the lowest application rate that will be effective. Ensure that the equipment is calibrated to optimum levels according to manufacturer’s instructions.

6. Snow Plowing and Snow Storage

- Do not plow, push, blow or store excess snow, deicer, or other debris into creeks, watercourses or storm drainage systems.
- If possible, store excess snow in a pervious area where melt water can infiltrate into the ground and not into the storm drain system.
- If snow storage is on a paved area, sweep up debris after snow melt.

Contracts & Contractors

- Contracts should include Stormwater Pollution Prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep al log of maintenance records in at the Public Works Building.
2. Keep a log of all employees trained in facility’s Stormwater Pollution Prevention Binder.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR STREET AND ROAD MAINTENANCE AND REPAIR

1. Storm Drain Protection

- Locate and block storm drain inlets (within 25 feet and/or down gradient from) during maintenance work such as concrete curb and gutter work, resurfacing, paving, striping/marking, or saw cutting.
- Place covers, rock wattles, sand bags, or filter fabric around inlets to protect them from entry of wastes, dusts, overspray or slurry.
- Inspect site at the beginning of the day and end to ensure operations are not contributing sediment or other pollutants to the flow line or storm drain.
- Clean right of ways (roadways) with brooms or street sweepers – as needed.

2. Concrete Work

- When saw cutting concrete, use the minimum amount of water. Let the waste slurry dry and then sweep it up before leaving the location. A wet vacuum may also be used to pick up the waste slurry immediately after cutting is complete. Do not allow slurry to reach storm drains.
- Designate a "Concrete Wash Out Area" that is as far as possible from any surface waters, storm drain inlets or drainage ditches and is located in a low area where wash water will pool and soak into the ground.
- Concrete trucks must washout in the wash out area or into a container such as a kiddy pool or wheelbarrow.
- Maintain the wash out area, inspect it for clean out needs, and check for run-on and run-off.
- The debris from the wash out area must be taken to a permanent disposal site when the washout is full and when the project is complete.

3. Erosion Control and Storage of Materials

- Cover and contain all liquid and solid materials to prevent run off.
- Avoid storing piles of materials (soil, sand, gravel) in street, near storm drains or gutters. If dirt piles must be stored in the street, they must have berms or wattles surrounding them to prevent run-off. Rock wattles should be placed around all down gradient storm drains to prevent sediment from reaching the inlets
- Excavated material should be placed on the uphill side of trenches to minimize sediment run-off.
- Control erosion to the maximum extent possible.
- Inspect and maintain all erosion or sediment control devices or equipment installed in erosion-prone areas in road construction projects as per the Stormwater Management Plan (SWMP).
- Ensure that projects over 1 acre have the proper Utah Stormwater Discharge Permits and refer to the Stormwater Management Plan.

4. Painting and Striping

- Schedule painting, marking, and striping projects during dry weather only. Cease all activities when rain threatens.
- Use thermoplastic markings in place of paint whenever feasible.
- Block nearby storm drain inlets (within 25 feet and/or down gradient of project).
- Promptly clean up any spills of paints, cleaners or other chemicals.

5. Re-surfacing or Paving

- Re-seal or pave only on dry days when no rain is expected. Cease all activities when rain threatens
- If possible, transfer, store, pre-heat and load hot asphalt far away from storm drain inlets.
- Protect or block downstream storm drain inlets (within 25 feet) from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave covers or berms in place until the job is complete

6. Bridge Repair Work

- When working on bridges, transport and store paint and materials in containers with secure lids.
- Do not transfer, store or load paint on a bridge.
- Capture waste, scraps, rust or paint from sanding or painting projects. It may be necessary to suspend nets or tarps below the bridge to catch falling debris. If sanding or sand blasting, use a vacuum bag attachment.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- Al applicable employees should be trained in general stormwater pollution prevention: including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. If the site is over an acre, obtain the proper Utah Discharge permit; prepare and use a Stormwater Management Plan (SWMP) and keep copies of all inspection logs.
2. Keep a list of all employees trained in Stormwater Pollution Prevention.
3. Keep copies of MSD Sheets of all products used.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR

CITY STORM WATER COLLECTION AND CONVEYANCE SYSTEM

1. Stormwater System Inspection and Maintenance (need Schedule including priority areas)

- Stormwater system should be inspected for structural integrity and evidence of illicit discharge and maintained according to an established schedule including inlets, lines, manholes, ditches, detention ponds and permanent BMP's.
- Report any areas needing attention and schedule repairs ASAP.
- Keep records of "hot spot" areas here or note where information is stored: _____
    - Where are they located? _____
    - How often are storm drain inlets cleaned or maintained? _____x's/ _____ (year).
    - Time of year: _____
- Inspections should be used to help determine cleaning schedule for stormwater systems (ex. runs prone to fast sediment accumulation, confirmed contamination).
- Stormwater system should be cleaned according to an established schedule, including detention ponds and permanent BMPs. This schedule is located: _____.
- Ensure water from jetting and flushing inlets and lines is not discharged into the storm system. Use a Vactor truck to vacuum up flush water downstream while jetting and flushing inlets and lines.

2. Reporting

- Report any suspected illegal connections or dumping to the Public Works Department at 801-785-1276.

3. Decanting Wastewater from Vac Trucks and Sweepers

- Always decant Vac trucks and sweepers into the sanitary sewer.
- Decant areas are located at the Public Works Department washout pad

4. Debris Storage Areas and Disposal

- Dispose of debris at the designated, temporary, storage area.
- The temporary storage area is located at the 220 South Smith property.
- Always inspect and maintain the temporary storage area. Check area for run-on or run-off or debris scattering.
- Debris should be removed and taken to the permanent disposal site regularly.
- The permanent disposal site is at the Utah County Solid Waste Transfer Station for contaminated wastes. Un-contaminated fill material to be disposed of in various fill sites as available.

5. Ditches and Detention Ponds

- Inspect ditches for signs of erosion while mowing drainage ditches.
- Track ditches prone to erosion and set maintenance schedule accordingly.
- Do not apply pesticides or fertilizers in drainage ditches, on roadways or curbs.
- Do not disturb waterways, wetlands or sensitive wildlife habitat without permits from Army Corps of Engineers.

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution.

Employee Training

- All applicable employees should be trained in stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Record Keeping and Documentation

1. Keep a written Storm Drain System Inspection and Maintenance Schedule. This is recorded in:
   _____.
2. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder (or other location: _____).
3. Debris removal totals are kept at:
   _____.
4. The inventory of hot spot areas where contamination has been confirmed and require frequent inspections is recorded in
   _____
5. Records of any testing done on debris removed from catch basins is located
   _____

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR

"HIGH PRIORITY" PIPE PLANT PROPERTY MATERIAL STAGING AREA

1. Outdoor Storage Areas

- If possible, store all containers indoors whenever possible. If they must be stored outdoors, place them in a shed or under a roof.
- All containers and dry materials should be covered or have secondary containment.
- Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water run-on/run-off
- If possible, place containers on paved, impervious surfaces and as far from (or at a lower elevation than) storm drain inlets and drainage ditches as possible.
- Provide a spill kit near storage areas. Clean up any spills, leaks or discharges promptly.
- Do not drain accumulated water from secondary containment structures unless approved by a supervisor.
- Do not store vac-truck or sweeper truck material on site unless it has first been decanted into the sanitary sewer.

2. Sand, Salt, Dirt or Gravel Stockpiles

- Cover sand/salt piles with a tarp or store inside a building or under a roof.
- Contain stormwater run-off from dirt and gravel stockpiles by using barriers or berrns.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Inspections

- Perform weekly visual inspection.
- Look for evidence of spills and immediately clean them up.

- Perform quarterly comprehensive inspections.
- Inspect the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines).
- Special attention to be paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant generating areas.
- Perform quarterly visual observation of storm water discharge.
- Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied.

Record Keeping and Documentation

1. Keep a list of all employees trained in Stormwater Pollution Prevention.
2. Keep copies of all contracts for building services or other maintenance.
3. Log inspections and keep records with SWMP document. Include any identified deficiencies and corrective actions taken.
4. Keep copies of current MSDS's for all materials stored outdoors.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR "HIGH PRIORITY" CEMETERY

1. General

- Never dump any liquids or other materials outside. Dispose of all liquids and materials appropriately.
- Ensure the storm drain system (ditches, inlets, catch basins, drainage channels, or underground lines) on the property is properly maintained.
- Catch basins, inlets and culverts are scheduled to be cleaned once / year.) If additional cleaning or maintenance is needed notify: Public Works at: 801-785-1276
- Keep all outdoor work areas neat and tidy. Sweep around work areas after each shift and properly dispose of all wastes.
- If possible, do not hose down outdoor work areas or trash/waste container storage areas. If these areas must be washed, ensure that wash water will enter the sanitary sewer or a landscaped area. Do not use soap.

2. Irrigation Systems

- Set sprinklers to water at rates less than the infiltration rate of the soil, to water evenly over the vegetated area, and to minimize the amount of water falling on impervious surfaces.
- Automatic timers should be used on all irrigation equipment to minimize run-off and over irrigation. Monitor soil moisture content and adjust timer settings appropriately.
- Always replace or repair broken or leaking sprinkler heads as soon as possible.
- To report an irrigation problem or concern contact: Parks Department at 801-785-7275.

3. Landscaping, Lawn & Vegetation Maintenance

- Whenever possible, mulch-mow grasses.

- Sweep grass clippings and other vegetation debris from sidewalks or streets back on to grassy areas.
- Dispose of lawn clippings, leaves, tree trimmings, or other landscape waste appropriately. Grass clippings are stored at the Cemetery or taken to TSSD for disposal.
- If possible, dispose of organic wastes by composting. If composting is not possible, dispose of organic wastes at an approved disposal facility. Organic waste is composted at TSSD.
- If possible, control soil erosion by seeding, sod, mats, mulching, terracing or other effective methods. Use mulch or other erosion control methods to prevent erosion of exposed soils and flowerbeds.
- Do not apply bark or mulch on top of plastic sheeting unless the area is enclosed by a barrier-like lawn edging or it is far away from a storm drain inlet. Bark on plastic is easily washed off by heavy rainfall.
- If possible, design new or re-landscaped areas using xeriscape and Low Impact Development (LID) techniques to the maximum extent possible. Use hardy plant materials appropriate to the climate.
- Always follow the *Fertilizer, Herbicide and Pesticide Application* SOP.

2. Buildings and Structures

- Never discharge waste and/or wastewater from cleaning and repair of exterior surfaces into the Municipal Separate Storm Sewer System (MS4).
- Use inlet protection devices, such as rock wattles or drain covers, when constructing or repairing paved pathways or other structures to protect any storm drain inlets or ditches that are within 25 feet or are at the same or lower elevation than the work area.
- If possible, use rub-on techniques for graffiti removal or re-paint over the affected areas.
- Capture any wastewater, debris, solvent wastes or solid wastes from graffiti removal with tarps or wet vacs.

3. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Public Works Department washout pad, which drains to the sanitary sewer.
- Vehicles and mowers may also be washed at a commercial or other designated car washing facility.
- If possible, perform all maintenance and repair work inside shop. (Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.
- Do not store leaking vehicles or equipment outdoors. Contain the leak, repair immediately, or move indoors and repair.
- Follow *Vehicle and Equipment Cleaning* BMP.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Inspections

- Perform weekly visual inspection.
- Look for evidence of spills and immediately clean them up.
- Perform quarterly comprehensive inspections.
- Inspect the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines).
- Special attention to be paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant generating areas.
- Perform quarterly visual observation of storm water discharge.
- Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied.

Record Keeping and Documentation

5. Keep a list of all employees trained in Stormwater Pollution Prevention.
6. Keep copies of all contracts for building services or other maintenance.
7. Log inspections and keep records with SWMP document. Include any identified deficiencies and corrective actions taken.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR "HIGH PRIORITY" RODEO GROUNDS

1. General

- Never dump any liquids or other materials outside. Dispose of all liquids and materials appropriately.
- Maintain the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines) on your property. Inspect twice yearly clean as-needed
- Keep all outdoor work areas neat and tidy. Sweep around work areas after each shift and properly dispose of all wastes.
- Remove animal wastes and trash immediately after rodeos and other public activities at the site. Remove animal wastes regularly at other times of the year.
- If possible, do not hose down outdoor work areas or trash/waste container storage areas. If these areas must be washed, ensure that wash water will enter the sanitary sewer or a landscaped area. Do not use soap.
- Maintain bermed areas to eliminate storm water runoff from the site.

2. Buildings and Structures

- Never discharge waste and/or wastewater from cleaning and repair of exterior surfaces into the Municipal Separate Storm Sewer System (MS4).
- Use inlet protection devices, such as rock wattles or drain covers, when constructing or repairing paved pathways or other structures to protect any storm drain inlets or ditches that are within 25 feet or are at the same or lower elevation than the work area.
- If possible, use rub-on techniques for graffiti removal or re-paint over the affected areas.
- Capture any wastewater, debris, solvent wastes or solid wastes from graffiti removal with tarps or wet vacs.

3. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Public Works Department washout pad, which drains to the sanitary sewer.
- Vehicles and mowers may also be washed at a commercial or other designated car washing facility.
- If possible, perform all maintenance and repair work inside shop. (Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.
- Do not store leaking vehicles or equipment outdoors. Contain the leak, repair immediately, or move indoors and repair.
- Follow *Vehicle and Equipment Cleaning* BMP.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Inspections

- Perform weekly visual inspection.
- Look for evidence of spills and immediately clean them up.
- Perform quarterly comprehensive inspections.
- Inspect the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines).
- Special attention to be paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant generating areas.
- Perform quarterly visual observation of storm water discharge.
- Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied.

Record Keeping and Documentation

8. Keep a list of all employees trained in Stormwater Pollution Prevention.
9. Keep copies of all contracts for building services or other maintenance.
10. Log inspections and keep records with SWMP document. Include any identified deficiencies and corrective actions taken.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

STANDARD OPERATING PROCEDURE (SOP) – STORM WATER POLLUTANT MANAGEMENT FOR

"HIGH PRIORITY" PUBLIC WORKS YARD

1. Building and Landscape Maintenance

- Maintain the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines) on your property.
- Do not pressure wash or hose off surfaces with soap or chemicals unless wastewater is collected. Do not let wastewater enter storm drains.
- If only cleaning surfaces of ambient dust (with water only), the wastewater can be drained to nearby landscaped/vegetated areas or allowed to pool on-site and evaporate.

2. Janitorial Practices

- Never dump mop water or cleaning wastewater outside, into parking lot or storm drains. Dispose of wastewater in mop sink or other sanitary sewer drain. (This also includes wastewater from automated floor or carpet cleaning equipment.)
- Do not pour, transfer or dispose of any material outdoors or near a storm drain.

3. Painting, Staining and Sandblasting

- Use a ground cloth or oversized tub for paint mixing and tool cleaning. Properly dispose of the wastes.
- Enclose spray-painting operations with tarps or other means, as possible, to minimize wind drift and to contain overspray.
- Clean paintbrushes and tools used to apply water-based paints in sinks plumbed to a sanitary sewer or in portable containers that can be emptied into sanitary sewer drains. Never clean tools over a storm drain or outside.
- Brushes and tools used for oil-based paints, finishes, thinners, solvents or other materials must be cleaned over a tub or container and the cleaning wastes disposed or recycled at an approved hazardous waste facility. Never clean tools over a storm drain or outside.

- Promptly cleanup any spills of paints, cleaners or other maintenance chemicals or supplies. See *BMP: Spill Cleanup* for details.
- When sand blasting exterior surfaces, place tarps or ground cloths beneath the work area to capture sand blasting media and debris. Enclose the sand blasting area with tarps or plastic to protect from wind and to capture airborne particles (dust).
- Cease all sand blasting operations on windy days.

4. Waste Management

- All waste receptacles must be close-fitting lids or covers. This includes dumpsters and compactors.
- Keep all container lids closed at all times unless adding or removing material.
- If possible, Store waste receptacles (dumpsters) indoors, under a roof or roof overhang or inside a shed or covered structure.
- Sweep up around outdoor waste containers regularly.
- Do not hose-out dumpsters outdoors. Return dumpsters to the disposal company for cleaning at their facility. If dumpsters must be washed, do so in a wash bay or in an area where wastewater will drain to the sanitary sewer.

5. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Public Works Department washout pad, which drains to the sanitary sewer.
- Vehicles and mowers may also be washed at a commercial or other designated car washing facility.
- If possible, perform all maintenance and repair work inside shop. (Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.
- Do not store leaking vehicles or equipment outdoors. Contain the leak, repair immediately, or move indoors and repair.
- Follow *Vehicle and Equipment Cleaning* BMP.

6. Outdoor Storage Areas

- If possible, store all containers indoors whenever possible. If they must be stored outdoors, place them in a shed or under a roof.
- All containers and dry materials should be covered or have secondary containment.
- Place all containers on a plastic pallet or other device that elevates them off the ground or pavement and provides containment. This avoids contact with storm water run-on/run-off
- If possible, place containers on paved, impervious surfaces and as far from (or at a lower elevation than) storm drain inlets and drainage ditches as possible.
- Provide a spill kit near storage areas. Clean up any spills, leaks or discharges promptly.
- Inspect all containers stored outdoors regularly
- If a container is found to be leaking either empty the contents into a leak-tight container or place entire leaking container inside of a larger leak-tight container. Clean up any spills or leaks promptly.
- Do not drain accumulated water from secondary containment structures unless approved by a supervisor.

- Inspect all containers stored outdoors regularly. Any containers that are leaking must be moved indoors immediately or placed in a leak-tight, “over-pack” container.

7. Sand, Salt, Dirt or Gravel Stockpiles

- Cover sand/salt piles with a tarp or store inside a building or under a roof.
- Contain stormwater run-off from dirt and gravel stockpiles by using barriers or berrns.

Employee Training

- All applicable employees should be trained in general stormwater pollution prevention; including how to recognize and report illegal connections or discharges.

Inspections

- Perform weekly visual inspection.
- Look for evidence of spills and immediately clean them up.
- Perform quarterly comprehensive inspections.
- Inspect the storm drain system (ditches, inlets, catch basins, culverts, drainage channels, or underground lines).
- Special attention to be paid to waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, and similar pollutant generating areas.
- Perform quarterly visual observation of storm water discharge.
- Any observed problems (e.g., color, foam, sheen, turbidity) that can be associated with pollutant sources or controls must be remedied.

Record Keeping and Documentation

1. Keep a list of all employees trained in Stormwater Pollution Prevention.
2. Keep copies of all contracts for building services or other maintenance.
3. Log inspections and keep records with SWMP document. Include any identified deficiencies and corrective actions taken.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX E - STANDARD FORMS AND CHECKLISTS

Outfall Reconnaissance Inventory Form

Illicit Discharge Hotline Incident Tracking Form

Construction Storm Water Inspection Form

Public Comment Form

Long Term Storm Water Management Inspection Report

Detention Basin Inspection Form

High Priority Quarterly Comprehensive Inspection Form

High Priority Quarterly Discharge Inspection Form

High Priority Weekly Inspection Form

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☐ Open Space

☐ Ultra-Urban Residential ☐ Institutional

☐ Suburban Residential Other:_____

☐ Commercial Known Industries:_____

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:_____	☐ Circular ☐ Eliptical ☐ Box ☐ Other:	☐ Single ☐ Double ☐ Triple ☐ Other:_	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	' "	Ft, In	Tape measure
	Measured length	' "	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes	☐ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitutde:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

☐ Industrial ☐ Open Space

☐ Ultra-Urban Residential ☐ Institutional

☐ Suburban Residential Other:_____

☐ Commercial Known Industries:_____

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other:_____	☐ Circular ☐ Eliptical ☐ Box ☐ Other:	☐ Single ☐ Double ☐ Triple ☐ Other:_	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other:	☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	' "	Ft, In	Tape measure
	Measured length	' "	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1. Sample for the lab?	☐ Yes	☐ No	
2. If yes, collected from:	☐ Flow	☐ Pool	
3. Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

Illicit Discharge Hotline Incident Tracking Sheet

Incident ID:

Responder Information	
Call taken by:	Call date:
Call time:	Precipitation (inches) in past 24-48 hrs:
Reporter Information	
Incident time:	Incident date:

Caller contact information (*optional*):

Incident Location *(complete one or more below)*

Latitude and longitude:

Stream address or outfall #:

Closest street address:

Nearby landmark:

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor *(In or adjacent to stream)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☐ Upland area *(Land not adjacent to stream)*	☐ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location:

Upland Problem Indicator Description

☐ Dumping	☐ Oil/solvents/chemicals	☐ Sewage
☐ Wash water, suds, etc.	☐ Other: _____	

Stream Corridor Problem Indicator Description

Odor	☐ None	☐ Sewage	☐ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☐ Other: Describe in "Narrative" section		
Appearance	☐ "Normal"	☐ Oil sheen	☐ Cloudy	☐ Suds
	☐ Other: Describe in "Narrative" section			
Floatables	☐ None:	☐ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in "Narrative" section			

Narrative description of problem indicators:

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

Investigation Notes	
Initial investigation date:	Investigators:
☐ No investigation made	Reason:
☐ Referred to different department/agency:	Department/Agency:
☐ Investigated: No action necessary	
☐ Investigated: Requires action	Description of actions:
Hours between call and investigation:	Hours to close incident:
Date case closed:	
Notes:	

UPDES STORM WATER INSPECTION EVALUATION FORM FOR SWPPP COMPLIANCE

Insert City Logo Here

BACKGROUND INFORMATION

Site Name:	UPDES Permit #:
Site Address:	
Local Jurisdiction or County:	
Permit Effective Date:	Permit Expiration Date:
Total Project Area:	Total Disturbed Area:

Project Type: (circle) *Subdivision* *Commercial* *Industrial* *Linear (Road/Pipe/Power)* *Land Disturbance*

OPERATOR CONTACT INFORMATION

	NAMES	PHONE NUMBERS	E-MAIL
Operator:			
Onsite Facility Contact:			
Important Contacts:			
Important Contacts:			

SWPPP PRE-SITE REVIEW INFORMATION	YES	NO	SWPPP PRE-SITE REVIEW INFORMATION	YES	NO
1. Has a pre-construction review of the SWPPP been conducted by the applicable jurisdiction, if required?			6. Does the SWPPP contain the site description, sequence of construction activities, and areas of the site to be disturbed?		
2. Are the required post-construction elements included in the SWPPP? (i.e. grass swales, detention basins, etc.)			7. Does the SWPPP contain locations of storm drains, surface drainage patterns, and locations of storm water discharges?		
3. Are contact names and telephone numbers listed in the SWPPP?			8. Does the SWPPP and/or site map address waste control & disposal, off site tracking, sanitary concerns, exposure to construction materials, lay down or storage areas, administrative trailers, etc.?		
4. Are the NOI and State permit in the SWPPP?			9. Does the SWPPP include the site map, sediment, and erosion control design drawings, showing both structural and non structural BMPs?		
5. Did the "Operator" sign the SWPPP with authorization and certification statements?					

NOTICE OF TERMINATION (NOT) INSPECTION

Site Name:	Date of Evaluation:
Site Address:	
Inspected By:	Title\Organization:

	YES	NO	Comments:
1. Has the site been properly stabilized according to permit requirements?			
2. Have all temporary BMPs been removed?			
3. Have post-construction (permanent storm water system) elements been constructed and inspected in accordance with approved project drawings?			
4. Is the site acceptably clean?			

Inspector: I certify that this document and all attachments were prepared under my direction. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Inspector: _____

(Print Name) (Title) (Signature) (Date)

Operator: _____

(Print Name) (Title) (Signature) (Date)

(Attach additional sheets of narrative, pictures and checklists, as necessary)

SWPPP COMPLIANCE INSPECTION FORM

Insert City Logo Here

Project Name:	Address:	Date:
Owner:	Contractor: Gen/Sub	Start time:
Site Contact:	Phone:	Stop time:
UPDES Permit #: Expiration:	Weather: Sunny Cloudy Raining Snowing Other:	
Date of last rain event:	Duration:	Approx. Rainfall (in):
Inspected By (Print):	Local Jurisdiction or County:	
Reason for Inspection: Scheduled Complaint/Tip Random	Receiving Waters:	

BMP/HOUSEKEEPING INFORMATION	YES	NO	BMP/HOUSEKEEPING INFORMATION	YES	NO
1. Are the SWPPP, NOI, and permit on site and accessible?			14. Are BMPs properly located, including inlet protection BMPs?		
2. Are off-site flows entering the construction site?			15. Are wind erosion controls in place?		
3. Are sediment & erosion control BMP's installed on the site as shown in the SWPPP, or on the site map if req'd? (BMPs that are no longer necessary should be crossed out and dated, new BMPs drawn in and dated.)			16. Does repair/maintenance of existing sediment and erosion control BMPs need to occur?		
			17. Are soil, construction material, landscaping items, or other debris evident on the street?		
4. Does your site evaluation indicate a need to update and document the SWPPP report and accompanying sediment and erosion control drawings within the next seven (7) days?			18. Have all on-site corrective action items from previous inspections been addressed and documented within the time frame allotted by the inspector?		
5. Are on-site inspection reports in the SWPPP? (Inspections are to be performed *bi-weekly* and *within 24 hours* after a measurable weather event, and/or as required by the SWPPP)			19. Are there locations where additional BMPS should be installed or removed that are not identified in the SWPPP?		
			20. Are all exits to public roads maintained to limit track-out?		
6. Are updated BMP submittals in the SWPPP? (specifications and engineering for BMPs, both structural and non-structural)			21. Is there evidence of sediment discharge such as mud flows or soil deposits from the construction site to downstream locations?		
7. Is trash and debris cleanup being performed? (goodhousekeeping)			22. Is there evidence of vehicles tracking sediment (mud-tracking) off the construction site onto roads or property?		
8. Are construction products, chemicals, and supplies properly managed and contained?			23. Are soil, construction material, landscaping items, or other debris evident on the street?		
9. Is fuel storage properly located and maintained?			24. Are spill prevention controls in place?		
10. Are proper (not dirt) curb ramps installed?			25. Do locations exist where BMPs could be removed?		
11. Are port-a-potties properly located off impervious areas and anchored down			26. Should additional BMPs be installed that aren't in the SWPPP?		
12. Are runoff controls properly located and maintained? (e.g. silt fences, straw bails, waddles, etc.)?			27. Is a concrete wash out area with sign properly located on the site?		
13. Are there disturbed areas that have not had constrction activites for 14 to 21 days without stabilization? (except snow or frozen ground)?					

COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Identify the problem and its location. If appropriate, describe (in general terms) what needs to be completed. However, only if qualified (e.g., you are a designer) should you be mandating specific BMPs to install. Include the date when corrections are to be completed.

Inspection Code (circle):	SW sampling SW non-sampling	Inspector Code (circle):	(S) State (L) Local	Type Code (circle): 1 - Municipal 2 - Industrial 4 - Federal

Please list applicable Single Event Violation Codes:

Inspector: I certify that this document and all attachments were prepared under my direction. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

(Print Name) (Title) (Signature) (Date)

(Attach additional sheets of narrative, pictures and checklists, as necessary)

ADDITIONAL COMMENTS AND CORRECTIVE ACTIONS FOR SWPPP COMPLIANCE

Insert City Logo Here

Site Name:	Date of Evaluation:	Page of
Site Address:		

EPA Form 3560-3 SEV Codes and Descriptions

Available Single Event Violation Codes for WW Storm Water Construction					
DOR11		Discharge without a permit	BR19B		Failure to properly operate and maintain BMP's
DOR18		Failure to apply for a Notice of Termination	DOR12		Failure to submit required permit information
BOR12		Failure to conduct inspections	EOR16		Failure to submit required report (non-DMR)
BOC17		Failure to develop any or adequate SWPPP/SWMP	AOR22		Narrative effluent violation
BOC18		Failure to implement SWPPP/SWMP	EOR14		Noncompliance with section 308 information request
BOR41		Failure to maintain records	AOR12		Numeric effluent violation
COR11		Failure to monitor	BOR42		Violation of a milestone in an order
BR19A		Failure to properly install/implement BMP's			

Pleasant Grove

Utah's City of Trees

PUBLIC COMMENT SHEET

Pleasant Grove City Storm Water Management Plan

Please submit this comment sheet to City Staff or mail your comments to Pleasant Grove City Public Works, 70 South 100 East, Pleasant Grove, UT 84062. We greatly appreciate your input.

Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone Number: _____ Email: _____

1. Please list your comments, concerns, and/or suggestions relating to the American Fork Pressurized Irrigation Project.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Long Term Storm Water Management Inspection Report

Project Name	
Inspection Date	
Inspector Name	
Project Location	
Current Owner (Name and Phone)	
Current Responsible Operator (Name and Phone)	

Long Term (Post Construction) Storm Water Management Plan
0 = Good
1 = Adequate
2 = Poor
3 = Missing

Objectives:
1. Control Soil Erosion
2. Controlling discharge of sediment into storm drainage facilities or onto adjacent properties
3. Preventing Illicit Discharges into on-site soils, into storm drainage facilities or onto adjacent properties

Reviewed - Check (Yes) or (No)

Item					Comments
1. Applicable to site	0	1	2	3	N/A
2. Objectives clearly stated	0	1	2	3	N/A
3. BMP's clearly shown	0	1	2	3	N/A
4. Storm Water Infrastructure clearly shown	0	1	2	3	N/A
5. Owner or Responsible Operator Listed with contact info	0	1	2	3	N/A

Contributing Drainage Area
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash or Debirs	0	1	2	3	N/A	
2. Bare\Exposed soil	0	1	2	3	N/A	
3. Evidence of Erosion	0	1	2	3	N/A	
4. Trash enclosure in good shape	0	1	2	3	N/A	
5. Excessive landscape waste \ yard clippings	0	1	2	3	N/A	

Inlets
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash, Debris, or Sediment in Inlets	0	1	2	3	N/A	
2. Inlets provide stable conveyence into facility	0	1	2	3	N/A	
3. Evidence of Erosion	0	1	2	3	N/A	
	0	1	2	3	N/A	

Pipes
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash, Debris, or Sediment in pipes	0	1	2	3	N/A	
	0	1	2	3	N/A	
	0	1	2	3	N/A	
	0	1	2	3	N/A	

Treatment BMP's
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash, Debris, or Sediment in treatement BMP	0	1	2	3	N/A	
2. Evidence of pollutants making it past treatement BMP	0	1	2	3	N/A	
	0	1	2	3	N/A	
	0	1	2	3	N/A	

Detention Facilities
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash, Debris, or Sediment in Detention	0	1	2	3	N/A	
2. Vegetative Cover	0	1	2	3	N/A	
3. Evidence of Erosion	0	1	2	3	N/A	
	0	1	2	3	N/A	

Outlet to City Storm Drain
0 = Good Condition. Well Maintained, no action required
1 = Moderate Condition. Adequately maintained, routine maintenance needed
2 = Degraded Condition. Poorly maintained routine maintenance and repair needed
3 = Serious Condition. Immediate need for repair or replacement

Inspected - Check (Yes) or (No)

Item						Comments
1. Excessive Trash, Debris, or Sediment in outlet	0	1	2	3	N/A	
2. Stable conveyence into facility	0	1	2	3	N/A	
3. Evidence of Erosion	0	1	2	3	N/A	
	0	1	2	3	N/A	

Comments and or corrective actions (including deadlines):

I _____, (site owner or responsible operator) hereby certify that I have inspected the site's long term storm water management plan and the site's storm water facilities and controls and that they are in good operating condition or if they are not, that any deficiencies noted will be corrected in a timely manner.

_____ _____
(Signature) (Date)

Pleasant Grove City's Detention Basin Inspection Report

Address of facility:	**Size of facility:**
Date of visit:	**Time of visit:**
Provide the name(s) and title(s) of staff present during inspection	
Name	**Title**
Inspector Observations:	
Does the basin remove sediment and trash from storm water flows?	
Review SOP for site and note any deficiencies	
Storm sewer system and structural component inspection	
Inspect inlet and outlet pipes for structural integrity	
Inspect riprap for clogging debris and/or sediment	
Inspect inlets, outlets, spill ways, and orifice for trash/debris that is blocking flow	
Inspect inlets, orifice boxes, and junction boxes for sediment	
Inspect detention pond for excess sedimentation	
Vegetation management	
Inspect for areas where vegetation has died or been eroded	
Inspect for weeds and other non-intended vegetation	

Inspect vegetation to prevent establishment of woody vegetation, and for aesthetics and mosquito control	
Check that grass has been mowed and clippings removed, if part of the detention basin design	
Embankment and outlet stabilization	
Inspect side slopes for erosion	
Check for rodent holes that may undermine berms and slopes	
Pollution prevention	
Inspect detention pond for signs of chemicals/pollutants (gasoline, paint, solvents)	
Notes or additional information:	

Action Items	**Cost**	**Date Completed**
1.)		
2.)		
3.)		
4.)		

Recommended Improvements	**Cost**	**Date Completed**
1.)		
2.)		
3.)		

Pleasant Grove City's High Priority Site Semi-Annual Inspection Report

High Priority Site: (Cemetery, Rodeo Grounds, Public Works Shop, Pipe Plant Property Materials Storage Area)	
Address of facility:	**Size of facility:**
Date of visit:	**Time of visit:**

Provide the name(s) and title(s) of staff present during inspection	
Name	**Title**

Inspector Observations:	
Review SOP for site and note any deficiencies	
SWPPP or stormwater plan	
Has the maintenance facility developed a SWPPP or stormwater plan?	
Does the plan include a site map, list of pollutant sources, BMPs, and maintenance procedures?	
Does the permittee conduct and document periodic inspections of the facility?	
Are storm drains labeled and free of debris?	
Vehicle maintenance, fueling and washing	
Are vehicle maintenance activities conducted in a designated place not exposed to stormwater?	
Are fueling stations properly designed with spill kits nearby?	

Are vehicles washed on-site? Is wash water discharged to the MS4 or sanitary sewer?	
Material storage	
Are all materials that are potential stormwater contaminants stored under cover or in secondary containment?	
Hazardous waste management	
Are all hazardous materials properly labeled and stored to prevent exposure to stormwater runoff?	
Waste management	
Are waste bins covered with waste properly disposed in containers?	
How is landscape waste stored?	
Spill response	
Does the facility have a spill response plan, and are spill kits readily available?	
Employee training	
What type of stormwater training do maintenance staff receive?	
Notes or additional information:	

Pleasant Grove City's High Priority Site Annual Visual Observation of Storm Water Discharge

High Priority Site: (Cemetery, Rodeo Grounds, Public Works Shop, Pipe Plant Property Materials Storage Area)	
Address of facility:	**Size of facility:**
Date of visit:	**Time of visit:**

Provide the name(s) and title(s) of staff present during inspection	
Name	**Title**

Inspector Observations:	
Describe Storm Event.	
Any observed problems on outflow? (color, foam, sheen, turbidity, trash, sediment)	
Are containment structures in good shape?	
Are material stockpiles contained?	
Any other issues?	

Notes or corrective actions:

Pleasant Grove City's High Priority Site Weekly Inspection Report

High Priority Site: (Cemetery, Rodeo Grounds, Public Works Shop, Pipe Plant Property Materials Storage Area)	
Address of facility:	**Size of facility:**
Date of visit:	**Time of visit:**

Provide the name(s) and title(s) of staff present during inspection

Name	Title

Inspector Observations:	
Review SOP for site and note any deficiencies	
Is there any evidence of spills?	
Are containment structures in good shape?	
Is there any loose trash at the site?	
Are there any uncontained material stockpiles?	
Are there any fertilizers or salts stored outside?	

Notes or corrective actions:

APPENDIX A

STORM WATER TECHNICAL MANUAL & BEST MANAGEMENT PRACTICES

(Updated November 2020)

PART 1
STORM WATER TECHNICAL MANUAL

A. INTRODUCTION

The Storm Water Technical Manual contains requirements for land development and construction activities as well as design criteria and guidelines for those performing such activities. It includes best management practices applicable to development and construction activities. It also includes the plan submittal requirements. The City Engineer has authority to modify the requirements of the Storm Water Technical Manual as needed to accomplish reasonable and effective storm water pollution prevention objectives.

B. REQUIREMENTS FOR PROPOSED DEVELOPMENTS

1. **Incorporate best management practices (BMPs) into development design to limit quantity of runoff and preserve quality of runoff**

   Storm water BMPs must be considered throughout the development process. PART 2, CONSTRUCTION AND LONG-TERM BEST MANAGEMENT PRACTICES (formerly Post Construction) of the Pleasant Grove Storm Water Management Program contains fact sheets for BMPs whose use Pleasant Grove City encourages. Section F.2, Storm Water Quality Criteria of this Storm Water Technical Manual identifies BMPs that are required on all Construction Site Storm Water Management Plans.

2. **Prepare Construction Site Storm Water Management Plan**

   A Construction Site Storm Water Management Plan must be prepared and submitted with the development plans for approval. This requirement applies to all developments (other than construction of a single-family home, with associated on-site improvements). See section G of this chapter, CONSTRUCTION SITE STORM WATER MANAGEMENT PLAN CONTENTS for the required contents of the plan.

3. **Provide financial guarantee that improvements contained in the Construction Site Storm Water Management Plan will be installed and maintained**

   Financial guarantee must be posted with Pleasant Grove City prior to beginning construction. In the case of a subdivision of land, this will be included in the bond that is required for the cost of the subdivision improvements. In the case of site improvements, rather than a financial guarantee, non-monetary methods of enforcement already in place in Pleasant Grove City (business licenses, utility services, building and occupancy permits) are available to encourage compliance with the improvements contained in the approved Construction Site Storm Water Management Plan.

At the time of development, the developer shall provide an estimate of the cost of the required improvements. The City will review the estimate and establish the dollar amount of the financial guarantee.

4. **Prepare a Long-Term Storm Water Management Plan for new development and re-development**

   A Long-Term Storm Water Management Plan must be prepared and submitted with the development plans for approval. This requirement applies to all developments and re-developments in which private improvements are constructed (except construction of single-family homes, with associated on-site improvements). See section H of this chapter, LONG-TERM STORM WATER MANAGEMENT PLAN CONTENTS for the required contents of the plan.

5. **Obtain UPDES Permit (all sites having land disturbance area equal to or greater than 1 acre)**

   Developments having a disturbed area of 1 acre or more require a UPDES Storm Water General Permit for Construction activities from the Division of Water Quality of the Department of Environmental Quality of the State of Utah.

   Obtaining the permit requires preparation of a Storm Water Pollution Prevention Plan (we would expect that the Construction Site Storm Water Management Plan previously described would suffice) and a Notice of Intent. Information regarding this process is available at: https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits. The developer must submit a copy of the Notice of Intent to the City before the site plan or improvement plans will be considered finalized.

   Note that when a development of over 1 acre in size is phased, the permit is required for each phase, even if each phase is less than 1 acre in size.

C. REQUIREMENTS FOR CONSTRUCTION ACTIVITIES (OTHER THAN THOSE ASSOCIATED WITH INDIVIDUAL RESIDENTIAL STRUCTURES)

1. **Provide instruction to construction site operators regarding the Construction Site Storm Water Management Plan**

   Prior to beginning work, developers and contractors must provide appropriate instruction to on-site construction supervisors and operators, regarding the requirements of the Construction Site Storm Water Management Plan. A copy of the approved plan must be present at the construction site.

2. **Following Construction Site Storm Water Management Plan**

   The improvements shown in the approved Construction Site Storm Water Management Plan must be constructed as indicated in the plan. The appropriate activities outlined in the Construction Site Storm Water Management Plan must be performed prior to any other construction activities on the site. Pleasant Grove City encourages modifications to the plan, when needed, to improve storm water management in light of site conditions. However, variations from the plan that reduce or eliminate elements of the plan must only be done with the approval of the Pleasant Grove City Public Works Representative or City Engineer.

3. **Monitor effectiveness of the elements included in the Construction Site Storm Water Management Plan and make improvements as necessary to achieve the plan objectives.**

   After initial implementation of the improvements outlined in the approved Construction Site Storm Water Management Plan, rainfall activity will provide opportunity to observe the effectiveness of the storm water management improvements. Those responsible for construction activities must monitor the in-place storm water management improvements to assess their effectiveness; they must then make adjustments to the improvements as needed to accomplish effective storm water management.

4. **Provide verification that improvements were constructed as approved**

   Following implementation of the improvements contained in the Construction Site Storm Water Management Plan, the preparer of the plan shall provide Pleasant Grove City with a statement as to the condition of the improvements contained in the plan. The statement shall be made on a copy of the Construction Site Storm Water Management Plan document and shall be signed.

   If the improvements were constructed as approved, it shall include language verifying such. If the improvements were not constructed as approved, it shall state the differences, the reason for the differences, and provide an opinion as to the adequacy of the constructed improvements. This statement must be provided to

Pleasant Grove City at the time record drawings are submitted (in the case of public improvements) or prior to issuance of an occupancy permit (in the case of private site improvements)

D. REQUIREMENTS FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH INDIVIDUAL RESIDENTIAL STRUCTURES

1. Construction Site Storm Water Management Plan

While the Public Works Representative or City Engineer may require that a Construction Site Storm Water Management Plan be created on individual residential lots in special circumstances, generally no lot-specific plan is required.

2. Sediment Control on Small Construction Sites

The BMP fact sheet for Sediment Control on Small Construction Sites (SCSCS) is to be included as a part of the building permit. This BMP applies to construction and landscaping activities associated with individual residential structures and shall be followed.

3. Owner or operator shall make adjustments to practices as needed to prevent storm water pollution

Sediment that is left in the street or on adjacent lots is evidence of inadequate sediment control. Where storm water pollution prevention measures are inadequate, or are not being properly followed, the Public Works Representative, Community Development Representative or City Engineer may refuse to perform inspections or shut down work on the project.

E. REQUIREMENTS FOR EXISTING DEVELOPMENTS

1. Following approved Long-Term Storm Water Management Plan

The owners of existing developments are responsible to maintain improvements and observe practices that were part of an approved Long-Term Storm Water Management Plan. Failure to adhere to the plan may result in failure of the City to renew business licenses, fines, or other action as prescribed by Pleasant Grove City Code.

2. Operator or owner makes adjustments to practices or improvements when necessary to achieve Long-Term Storm Water Management Plan objectives

Pleasant Grove City encourages adjustments to the plan that enhance effective storm water management. However, significant reduction of practices contained in the plan is to be accomplished through formal modification of the plan and resubmission to the Development Review Committee (or designee) for approval.

F. STORM WATER PERFORMANCE CRITERIA AND DESIGN GUIDELINES

The following storm drainage criteria and design guidelines apply to all storm drainage plans in Pleasant Grove and shall be used in storm drainage calculations. The City Engineer has authority to modify the criteria and guidelines as needed to meet changing or unusual needs or conditions, or updates in federal or state requirements. Two principle categories of design criteria must be met:

- Low Impact Development meeting all local, state and federal requirements
- Design storm detention and conveyance

The design criteria for each of these is outlined in further detail below.

1. Low Impact Development Design Guidelines (LID)

A. 80th Percentile Storm Management: Infiltrate, evapotranspire and/or harvest and use rainwater on site for the first 0.5 inches of water per storm (daily rainfall) to the maximum extent practicable. The city's analysis has determined that 0.5 inches is the appropriate depth within its boundaries for the 80th percentile storm.

B. Specific LID Design methodology and BMPs acceptable to Pleasant Grove City are included in the most recent version of "A Guide to Low Impact Development within Utah" prepared for the Utah Department of Environmental Quality, Division of Water Quality ("Guide").
    i. Variances from the Guide specific to Pleasant Grove City:
        a. Typical Single-Family Residential Developments must purchase credits towards the City's LID bank in lieu of implementing infiltration or water quality measures onsite, unless subject to the following exclusions:
            i. Purchases of credit towards the LID bank are subject to availability of existing or planned banking facilities, as determined by the City Engineer.
            ii. Available or planned banks must be effective in offsetting the LID design volume (V_{goal}) for the proposed development, as determined by the City Engineer.
        b. Non-Single-Family Residential Developments are required to fully implement LID standards onsite and ensure operation and maintenance through long term storm water management plan development and implementation.
        c. Include Drinking Water Source Protection areas (DWSP) in Flow Chart 1 consideration. Typically, surface infiltration in vegetative areas is acceptable in these areas. Direct underground infiltration is not acceptable unless water is first cleaned through pretreatment, such as a hydrodynamic separator. No direct underground injection of storm water is permitted within Zone 1

of any Drinking Water Source Protection Zone for wells and springs.

i. The city may supply a "Stormwater LID Information" map which may be used a s a reference in determining DWSP zones but is not considered final or all-inclusive.

d. The necessity of sprinklers, fertilization, and operation and maintenance issues must also be considered in selecting BMP and vegetation types.

e. Permeable pavements in areas regularly trafficked by vehicles are generally not permitted but may be considered on a case-by-case basis by the City Engineer.

f. The developer may propose additional LID BMP's if they are similar in analysis, form, and function as the BMP's in the Guide. Calculations and/or documentation must be provided demonstrating the effectiveness. The City Engineer reserves the right to accept or reject the BMPs based on its opinion of effectiveness for the given situation, or the adequacy of the documentation.

g. The City Engineer may reject or require adjustments to BMPs that may be ineffective, unproven, or create excessive or unaddressed maintenance concerns, or may create a public nuisance.

C. LID Design Process

All developments that disturb an area greater than one acre or re-development projects that increase the amount of impervious area by 10 percent are required to manage rainfall from the 80th percentile storm through infiltration, evapotranspiration and/or harvesting or reusing. The State of Utah has developed "A Guide to Low Impact Development within Utah" (Guide) to help meet this requirement. Pleasant Grove City has differentiated between typical single-family residential developments and non-single-family developments and created separate design processes for each to meet the requirements. These processes are described below.

i. Non-Single-Family Residential, Mixed-Use, and similar Developments, as determined by City Engineer:

a. Fill out Storm Water Quality Report Template located in Appendix A of the Guide.

b. Follow Flow Charts 1-3 from the "LID BMP Selection" section of the Guide to determine if retention or treatment BMP is appropriate for the proposed development.

c. Select BMP's appropriate for proposed development and follow provided checklists in design.

d. Design site storm water system including LID requirements and submit all checklists, flow charts, and calculations to the City for review.

ii. Single-Family Residential:

a. Follow design process for Non-Single-Family Residential or purchase credits towards the LID bank.

b. A combination of implementing some LID measures and purchasing credits in a bank may be considered by the City Engineer on a case-by-case basis.
c. The City Engineer may require specific minimum water quality measures be put in place even if LID bank credits are approved to offset infiltration or more rigorous water quality measures.

iii. The City retains the right to accept or reject ownership of LID measures implemented onsite for any reason. For any LID measure, whether located in city right-of-way or not, the city may require that specific measures be maintained by the property owners under an acceptable long-term maintenance agreement with the owner or a property owners' association. This includes, but is not limited to, measures requiring continual maintenance of vegetation or otherwise high levels of maintenance.

2. Storm Water Detention and Conveyance Quantity Criteria & Design Guidelines

A. Detention and Conveyance Design Storm

i. Frequency
   a. Design piping system for a 25-year storm and detention for a 10-year storm
   b. Control the point of discharge and the flooding hazard of a 100-year storm
   c. Design piping and detention systems for a 100-year storm in those areas identified in the City's most recent Storm Water Master Plan as requiring the higher standard.

ii. Depth and Intensity— site specific per the following Website: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ut

iii. Hydrograph method
   a. A 6-hour SCS type II rainfall distribution is considered acceptable for hydrograph method analysis.
   b. Other methods will be considered on a case-by-case basis.

B. Runoff Coefficients

The design engineer is to calculate a composite runoff coefficient based on surface type and associated runoff coefficient, weighted by the area of each surface type.

C. Inlet Spacing

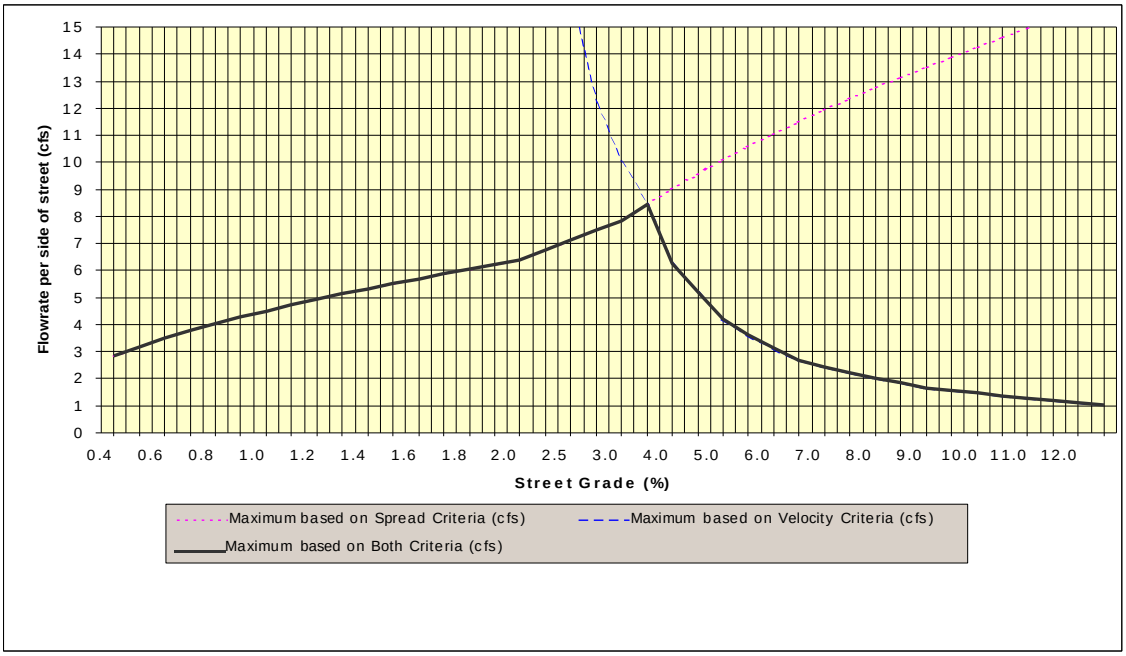
Two criteria must be met:

i. Spread of water in the street—storm water must be delivered from the street into an underground piped system when the spread of water in the street covers the outside 10 feet of asphalt. This will leave two 7-foot traffic lanes in local streets and three 10-foot traffic lanes in collector streets that are not submerged.

ii. Gutter velocity—water must be delivered from the street into an underground piped system when the velocity of water in the deepest part of the gutter reaches 10 feet per second (as a safety consideration).

Each of these requirements is a function of street slope and storm water flow rate. Storm water must be delivered from the street to storm drains when flows reach amounts shown in the following graph, Figure 2:

Figure 2. Maximum Flow Rates Allowed in Streets (25-year storm)



Note: The spread of water in the street is calculated using the Manning Equation in the form developed by Izzard, with a roughness coefficient of 0.013 and the standard street cross section. The velocity criteria calculates the velocity at the deepest part of the gutter with the Manning's Equation, with a roughness coefficient of 0.013, and using a depth at a point six inches from the face of the curb as the hydraulic radius.

D. Inlet Capacity

The designer is to assume 50% blockage of inlets when considering storm drain inlet capacity.

E. Detention

Storm water must be detained such that the peak flow rate released from the site does not exceed 0.15 cubic feet per second per acre (cfs/acre) (0.05 cfs/acre in areas identified in the City's most recent Storm Water Master Plan as requiring the higher standard). The following limitations apply to detention basins:

i. No part of the bottom of a landscaped detention area may be flatter than 1%.

ii. Within 10 feet of the outlet, the slope of a landscaped basin bottom must not be flatter than 3% unless a concrete apron is constructed around the outlet.

iii. Excluding areas within 10 feet of the outlet, the maximum allowable depth of the basin is 3 feet. Basins proposed with greater depths may be allowed

with conditions including but not limited to security fencing, escape facilities etc.

iv. Storm drain pipes are to continue through detention areas to allow low flows to proceed through the storm drainage system without having to come to the surface. These low flows must still pass through the outlet restriction that limits runoff rates.

v. Basins are to be designed such that water does not run into them after they reach a maximum depth (unless a free flowing overflow is provided)—this can often be controlled by the elevation of an inlet box in the street adjacent to the basin.

vi. The design drawings for the basin shall include the total basin area, side slopes and width of the berm or height of retaining walls if used, basin depth, storage capacity curve, and design details of the outlet control structure including orifice plate installation.

vii. Side slopes shall not be steeper than 3-feet horizontal to 1-foot vertical (3:1).

viii. A minimum freeboard of 1' shall be provided except when designing for the 100-year storm event freeboard shall be a minimum of 3 inches in order to direct flows from the detention basin to a public right of way at the location of a provided spillway.

ix. The minimum top-width of any berm shall be 3 feet unless approved otherwise by the City Engineer.

x. Control structures must be in locations accessible to cleaning equipment.

xi. Where accessibility is required through a landscaped area, provide a design for the access way that will accommodate the weight of the cleaning equipment/vehicles.

xii. The volume of pipe, manholes, boxes (and similar structures), and ponding in parking lots may used as part of the detention volume, but the ponding water cannot interfere with the ability of the conveyance, treatment, and LID facilities to function.

xiii. Detention in parking lots cannot exceed 6" in depth before the water overflows the detention system for up to the 100-year event. All other typical parking design criteria must be met

F. Deviations from this standard may be approved on a case by case basis by the City Engineer given unusual site conditions and/or storm water management objectives.

3. Storm water quality criteria

A. Storm Water Treatment

Pretreatment must be utilized prior to discharging storm water into city systems, bodies of water, drainages, or into the soil. It must be treated to reduce illicit discharges of sediment, oils, floatables and other pollutants. The treatment method must be approved by the City Engineer.

Pretreatment Design Criteria:

- Treat all flow up to the 2-year storm peak flow and volume.
- Must retain the majority of trapped sediment and pollutants during bypass events.
- In a system that injects water directly into the soil, the City Engineer may specify a larger design event for pretreatment or require that other protective measures be installed.

B. Use of Best Management Practices

Pleasant Grove City encourages the use of the BMP fact sheets included in PART 2, CONSTRUCTION AND LONG-TERM BEST MANAGEMENT PRACTICES. **The following BMPs are required to be a part of all Construction Site Storm Water Management Plans:**

* BMP Inspection & Maintenance	BMPIM
* Concrete Waste Management	CWM
* Dust Controls	DC
* Hazardous Waste Management	HWM
* Material Storage	MS
* Portable Toilets	PT
* Spill Clean-Up	SCU
* Vehicle and Equipment Cleaning	VEC
* Vehicle and Equipment Fueling	VEF

There is no list of BMPs that are required on all Long-Term Storm Water Management Plans.

In addition to the required BMPs listed above, other BMPs from PART 2, CONSTRUCTION AND LONG-TERM BEST MANAGEMENT PRACTICES that apply to a given development should be used. Pleasant Grove City also encourages the use of practices in addition to those contained in the Pleasant Grove Storm Water Management Program that may be suitable for a given development. Engineering judgment must be used in selecting BMPs for a given development.

C. Prohibited Practices

The following practices are specifically prohibited:

i. Soil or construction materials may not be piled in streets.
ii. Soil bridges over curb and gutter may not be constructed.

G. CONSTRUCTION SITE STORM WATER MANAGEMENT PLAN CONTENTS

1. Purpose of the Construction Site Storm Water Management Plan

The purpose of the Construction Storm Water Management Plan is to control storm water runoff and reduce pollutants in storm water runoff during construction by accomplishing the following:

A. Controlling soil erosion

B. Controlling discharge of sediment into storm drainage facilities or onto adjacent properties

C. Preventing illicit discharges into on-site soils, into storm drainage facilities, or onto adjacent properties

D. Preventing uncontrolled discharge of storm water to adjacent property

E. Controlling construction waste

F. Controlling dust

2. Contents of the Construction Site Storm Water Management Plan

The Construction Storm Water Management Plan is to be submitted with the site plans or improvement plans, and is to contain at least the following elements:

A. Utilize the standard SWPPP template and instruction provided at the following website: https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits

B. Plan views shall be provided on 11" x 17" paper

C. Existing and proposed contours as shown on the grading plan

D. Existing and proposed storm drainage improvements

E. Best management practices to accomplish the purpose of the plan – show the following for each BMP specified, as applicable:

i. Location and extent of specified BMP
ii. Timing of implementation, possibly in terms of planting season or number of days following commencement of grading
iii. Duration of implementation
iv. Any information in addition to or different from that shown on the BMP fact sheet as necessary to employ the BMP on the site

F. BMP Fact sheets or other descriptive material for all specified BMPs

G. Proposed re-vegetation—show the following:

   i. Location and type of re-vegetation proposed
   ii. Timing of re-vegetation, possibly in terms of planting season or number of days following commencement of grading

H. Sequencing of construction activities and BMPs

I. Name, address & telephone number of individual who has responsibility for implementation and maintenance of the plan.

J. Final SWPPP plan to be submitted in an 8.5” x 11.0” binder

H. LONG-TERM STORM WATER MANAGEMENT PLAN CONTENTS

1. Purpose of the Long-Term Storm Water Management Plan

The purpose of the Long-Term Storm Water Management Plan is to control storm water runoff and reduce pollutants in storm water runoff after construction is complete and the developed site is in operation. This is achieved by accomplishing the following:

A. Controlling soil erosion

B. Controlling discharge of sediment into storm drainage facilities or onto adjacent properties

C. Preventing illicit discharges into on-site soils, into storm drainage facilities, or onto adjacent properties

D. Mirror the predevelopment hydrology as much as practicable for new development and improve the hydrology of redeveloped sites

2. Contents of the Long-Term Storm Water Management Plan

The Long-Term Storm Water Management Plan is to be submitted separate from the site plan or improvement plans. It shall be contained in a manila folder and is to contain at least the following:

A. Name and contact information of the person responsible for long-term maintenance of the storm water system.

B. A Storm Water Maintenance Agreement. This should be filled out completely and ready for review and signature by a City Official.

C. An 11" x 17" copy of the site plan, including vicinity map, proposed contours, permanent storm drainage improvements, landscaping, and best management practices to accomplish the purpose of the plan. Examples of appropriate BMPs may include those addressing operation and maintenance of storm drainage quality control facilities, operation and maintenance of storm water discharge control facilities, maintenance of landscaping, good housekeeping practices, etc. Show the following for each BMP specified:

   i. Location and extent of specified BMPs, as appropriate
   ii. Detailed schedule of execution for each specified BMP, in terms of starting time, duration, frequency, etc., as appropriate
   iii. Any information in addition to or different from that shown on the BMP fact sheets as necessary to employ the BMPs on the site

D. BMP fact sheets or other descriptive material for all specified BMPs. BMP fact sheets that are part of the Long-Term Storm Water Management Plan are to be on a separate sheet from those BMP fact sheets associated with the Construction Site Storm Water Management Plan. Each BMP fact sheet should be printed on a separate 8.5" x 11" paper.

E. Final storm drainage calculations. These should be a finalized set of calculations defined in Section F of this document.

F. The following statement shall prominently appear on the site plan submitted with all Long-Term Storm Water Management Plans:

The owner(s) of the property are responsible to perpetually follow this Long-Term Storm Water Management Plan. Failure to follow the plan may result in the City refusing to renew business licenses or taking other action against the property owner.

The objectives of the Plan are to:

1. Control soil erosion
2. Control discharge of sediment into storm drainage facilities or onto adjacent properties
3. Prevent illicit discharges into on-site soils, into storm drainage facilities, or onto adjacent properties
4. Mirror the predevelopment hydrology as much as practicable for new development and improve the hydrology of redeveloped sites

If the objectives of the Plan are not being met, the site operator or owner shall make adjustments to the Plan as needed to accomplish its purposes.

Pleasant Grove City encourages adjustments to the plan that enhance effective storm water management. However, significant reduction of practices contained in the plan is to be accomplished through formal modification of the plan and resubmission to the City Engineer for approval.

I. PROPOSED CONSTRUCTION AND LONG-TERM STORM WATER MANAGEMENT PLAN REVIEW PROCEDURES

The Construction Storm Water Management Plan and Long-Term Storm Water Management Plan will be submitted to Pleasant Grove City with the development plans. They will be reviewed along with the development plans, with storm water quantity and quality benefits in mind. The review procedure will be the same as for subdivision improvement plans and site plans.

J. CONCLUSION

Inasmuch as the construction and post construction related best management practices will generally be carried out by those in the private construction industry, they will be implemented as specified in specific construction site and long-term storm water management plans as development occurs. The BMPs found in PART 2, BMPs PERFORMED BY PLEASANT GROVE CITY, cover Pleasant Grove City's efforts to assure that the plans are followed.

Pleasant Grove City's Storm Water Technical Manual satisfies, in part, two of the six minimum control measures established by the Storm Water Phase II Rule: #4: Construction site storm water runoff control, and #5: Post-construction storm water management in new development and redevelopment.

PART 2
CONSTRUCTION AND LONG-TERM BEST MANAGEMENT PRACTICES

A. BMP Index

Pleasant Grove City encourages the use of the following best management practices on Construction Site and Long-Term Storm Water Management Plans. As established in Section F.3.A of PART 1, STORM WATER TECHNICAL MANUAL, **BMPs with an asterisk are required to be a part of all Construction Site Storm Water Management Plans.** Additional LID BMPs are available in the State's LID Guide and should be considered for each site.

Benching	BE
Biofilters	BF
* BMP Inspection & Maintenance	BMPIM
Brush or Rock Filter	BRF
Building Repair, Remodeling & Construction	BRRC
Catch Basin Cleaning	CBC
Contaminated or Erodible Surface Areas	CESA
Compaction	CP
Construction Road Stabilization	CR
Construction Sequencing	CS
Constructed Wetlands	CW
* Concrete Waste Management	CWM
* Dust Controls	DC
Diversion Dike	DD
Detention/Infiltration Device Maintenance	DIDM
Earth Berm Barrier	EB
Erosion Control Blankets	ECB
Extended Detention Basins	EDB
Filter Strips	FS
Geotextiles and Mats	GM
Grading Practices	GP
Grassed Swales	GS
Hydromulching	HM
* Hazardous Waste Management	HWM
In-Line Storage	ILS
Infiltration	IN
Inlet Protection – Concrete Block	IPC
Inlet Protection – Excavated	IPE
Inlet Protection – Gravel	IPG
Inlet Protection – Silt Fence or Straw Bale	IPS
Level Spreaders	LS

* Material Storage	MS
Mulching	MU
Outlet Protection	OP
Parking Lot Sweeping/Vacuuming	PLSV
* Portable Toilets	PT
Rock Check Dams	RCD
Riprap	RR
Sediment Basin	SB
Sand Bag Barrier	SBB
Street Cleaning	SC
Stabilized Construction Entrance and Wash Area	SCEWA
Sediment Control on Small Construction Sites	SCSCS
* Spill Clean-Up	SCU
Slope Drain	SD
Storm Drain Flushing	SDF
Silt Fence	SF
Seeding and Planting	SP
Surface Roughening	SR
Sediment Trap	ST
Straw Bale Barrier	STB
Temporary Drains and Swales	TDS
Temporary and Permanent Seeding	TPS
Temporary Stream Crossing	TSC
* Vehicle and Equipment Cleaning	VEC
* Vehicle and Equipment Fueling	VEF
Waste Disposal	WD
Wet Ponds	WP

B. LID LONG-TERM MANAGEMENT BMPs

No specific list of Long-Term Low Impact Development (LID) BMP fact sheets is provided. Reference is made to the manual distributed by the Utah Division of Water Quality titled “A Guide to Low Impact Development within Utah” (Guide), particularly the maintenance portion of the BMP Fact Sheets found in Appendix C of the Guide. For BMPs which may not be in the manual, BMP Maintenance Fact Sheets equivalent in scope and detail must be provided, in accordance with industry standards and published data.

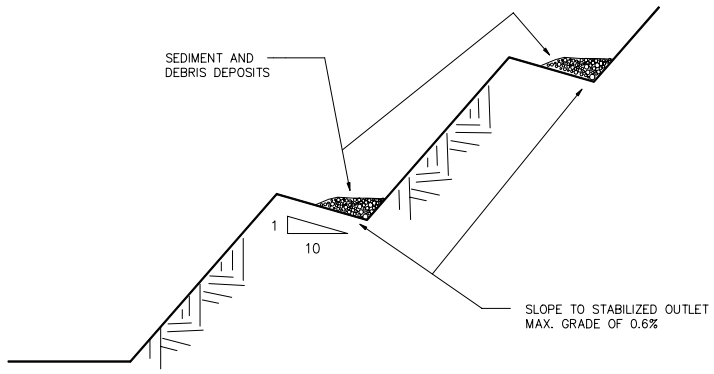
LID BMP information and Fact Sheets should be included in the Long-Term Management Plan in the same fashion as traditional BMP measures, with any necessary additional data as may be required to provide a complete maintenance guide and plan.

C. BMP FACT SHEETS

The following sheets contain BMP Fact Sheets for use in Pleasant Grove.

BMP: Benching

BE



DESCRIPTION:

Slope construction with benches spaced at regular intervals perpendicular to the slope which intercept and collect sheet flow and direct it to a stable outfall point.

APPLICATION:

- Unstabilized cut and fill slopes
- Large stockpiles
- Existing unstable slopes

INSTALLATION/APPLICATION CRITERIA:

- Benches should be formed as slope is constructed and graded to the outlet point.
- Stabilized outlet with sediment controls should be in place prior to slope construction.

LIMITATIONS:

- Construction slope design must accommodate benching
- Not appropriate for sandy or rocky soil
- Only effective if suitable outlet provided

MAINTENANCE:

- Inspect after major storm events and at least biannually, repair any damaged areas
- Remove debris blocking water flow
- Inspect outlet, repair/replace sediment controls and remove sediment build up.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

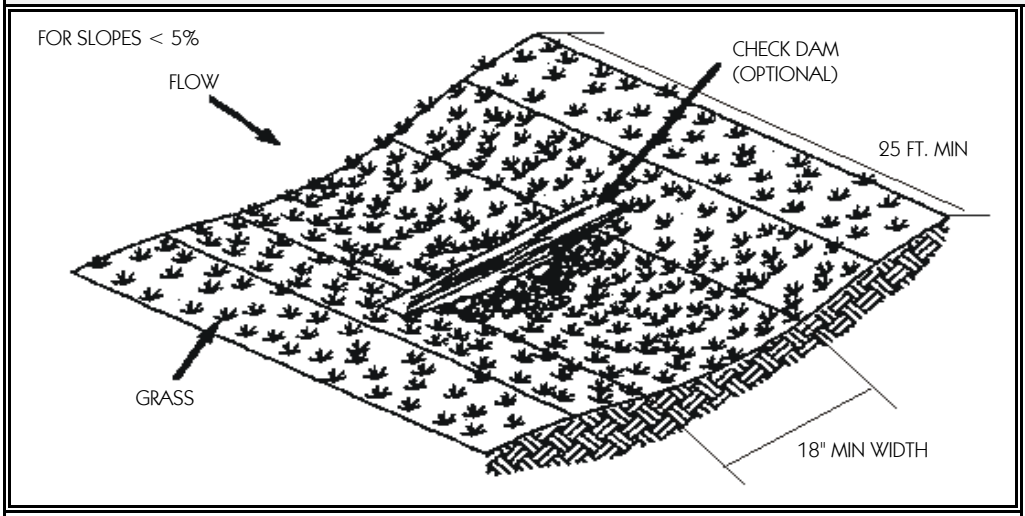
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Biofilters

BF



DESCRIPTION:

Biofilters are of two general types: vegetated channel and vegetated filter strip. The vegetated channel is sloped like a standard storm drain channel; the storm water is treated as it passes through the channel. With filter strips the flow is distributed broadly along the width of the vegetated area.

APPLICATION:

- Comparable performance to wet ponds and constructed wetlands.
- Limited to treating a few acres.

INSTALLATION/APPLICATION CRITERIA:

- The surface area must be defined.
- The minimum width for a swale is determined by Mannings Equation.
- Minimum length of a strip is 10 feet.
- The longitudinal slope must not exceed 5%.
- Use a flow spreader and energy dissipater at the entrance of a swale.
- Good soils are important to achieve good vegetation cover.

LIMITATIONS:

- Good performance depends upon good design
- May be limited to areas where summer irrigation is feasible.
- Can be difficult to maintain sheet flow in strips.
- Can be difficult to avoid channelization in swales.
- Cannot be placed on steep slope.
- Area required may make infeasible on industrial sites.
- Proper maintenance required to maintain health and density of vegetation.
- Limited to treating a few acres and availability of water during dry season.

MAINTENANCE:

- Make sure soils are suitable for healthy vegetation.
- Level cross-section and even longitudinal slope for swales.
- Any damage to the channel such as rutting must be repaired with suitable soil, properly tamped and seeded.

CONSIDERATIONS

☒ Soils
☒ Area Required
☒ Slope
☒ Water Availability
☒ Aesthetics
☐ Hydraulic Head
☐ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: BMP Inspection and Maintenance

BMPIM



APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☒ Vehicle Maintenance
- ☐ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

Inspect and maintain all structural BMP's (both existing and new) on a routine basis to remove pollutants from entering storm drain inlets. This includes the establishment of a schedule for inspections and maintenance.

APPROACH:

Regular maintenance of all structural BMP's is necessary to ensure their proper functionality.

- Annual inspections.
- Prioritize maintenance to clean, maintain, and repair or replace structures in areas beginning with the highest pollutant loading.
- Clean structural BMP's in high pollutant areas just before the wet season to remove sediments and debris accumulated during the summer and fall.
- Keep accurate logs of what structures were maintained and when they were maintained.
- Record the amount of waste collected.

LIMITATIONS:

- Availability of trained staff

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

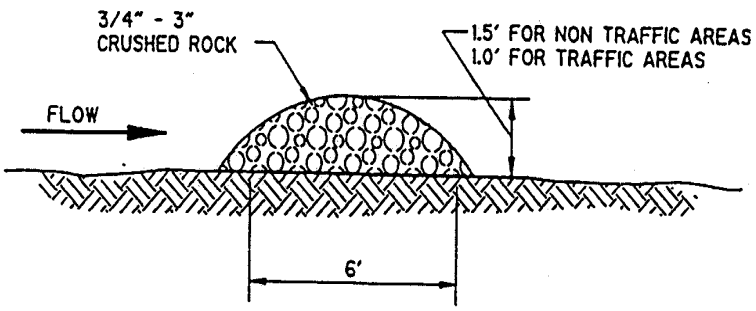
- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☒ Staffing
- ☐ Training
- ☐ Administrative

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Brush or Rock Filter

BRF



DESCRIPTION:

A rock filter is made of rock 3/4 - 3" in diameter and placed along a level contour. A brush filter is composed of brush (usually obtained during the site clearing) wrapped in filter cloth and anchored to the toe of the slope. If properly anchored brush or rock filters may be used for sediment trapping and velocity reduction.

APPLICATION:

- As check dams across mildly sloped construction roads.
- Below the toe of slopes.
- Along the site perimeter.
- In areas where sheet or rill flow occurs.
- Around temporary spoil areas.
- At sediment traps or culvert/pipe outlets.

INSTALLATION/APPLICATION CRITERIA:

- For rock filter, use larger rock and place in a staked, woven wire sheathing if placed where concentrated flows occur.
- Install along a level contour.
- Leave area behind berm where runoff can pond and sediment can settle.
- Drainage areas should not exceed 5 acres.

LIMITATIONS:

- Rock berms may be difficult to remove.
- Removal problems limit their usefulness in landscaped areas.
- Runoff will pond upstream of the filter, possibly causing flooding if sufficient space does not exist.

MAINTENANCE:

- Inspect monthly after each rainfall.
- If berm is damaged, reshape and replace lost/dislodged rock.
- Remove sediment when depth reaches 1/3 of berm height, or 1 ft.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

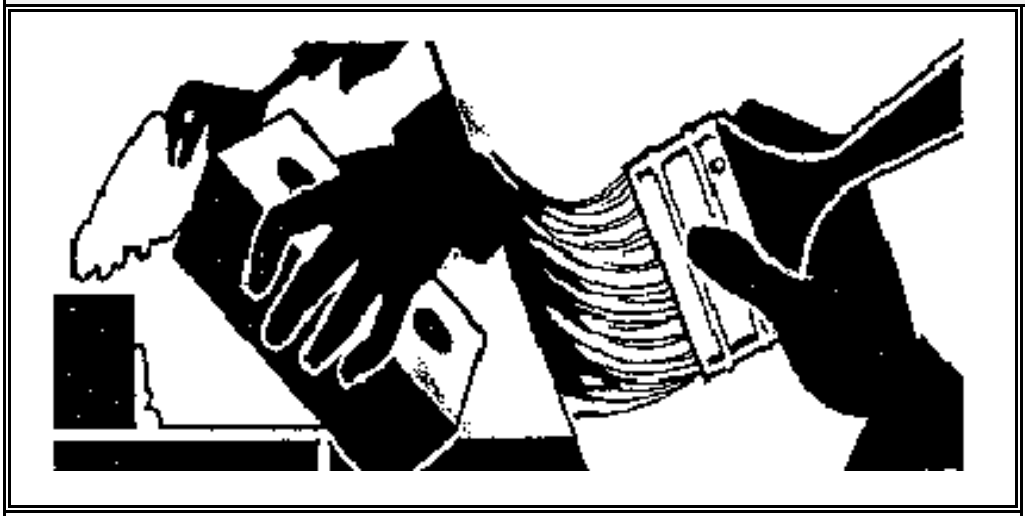
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Building Repair, Remodeling, and Construction

BRRC



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from building repair, remodeling and construction by using soil erosion controls, enclosing or covering building material storage areas, using good housekeeping practices, using safer alternative products, and training employees.

APPLICATION:

- Use soil erosion control techniques if bare ground is temporarily exposed.
- Use permanent soil erosion control techniques if the remodeling clears buildings from an area that is not to be replaced.

INSTALLATION/APPLICATION CRITERIA:

- Enclose painting operations consistent with local air quality regulations and OSHA.
- Properly store materials that are normally used in repair and remodeling such as paints and solvents.
- Properly store and dispose of waste materials generated from the activity.
- Maintain good housekeeping practices while work is underway.

LIMITATIONS:

- This BMP is for minor construction only.
- Hazardous waste that cannot be re-used or recycled must be disposed of by a licensed hazardous waste hauler.
- Safer alternative products may not be available, suitable, or effective in every case.
- Be certain that actions to help storm water quality are consistent with OSHA and air quality regulations.

MAINTENANCE:

None.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ■ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

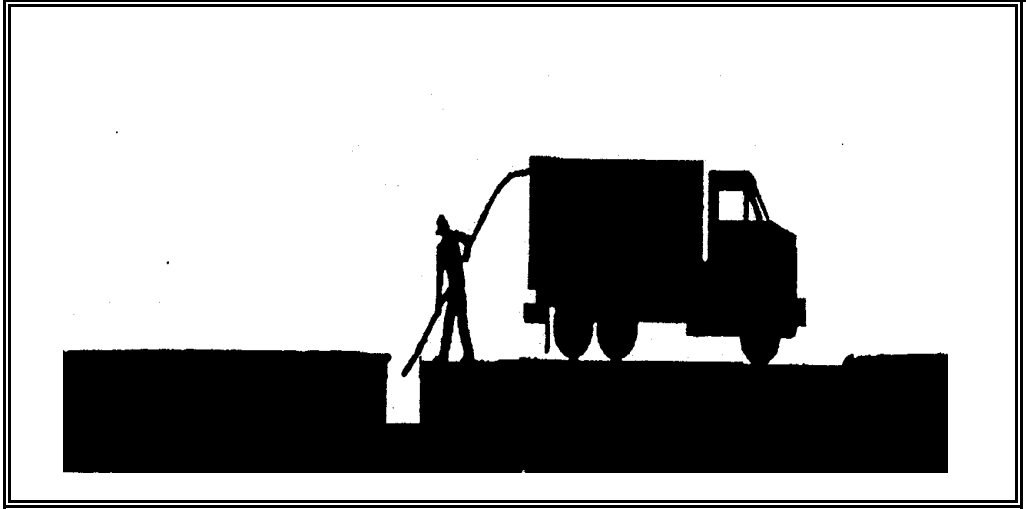
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Catch Basin Cleaning

CBC



DESCRIPTION:

Maintain catch basin and stormwater inlets on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, and restore the catch basins' sediment trapping capacity. A catch basin is distinguished from a stormwater inlet by having at its base a sediment sump designed to catch and retain sediments below the overflow point. This information sheet focuses on the cleaning of accumulated sediments from catch basins.

APPROACH:

Regular maintenance of catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the key to effective catch basins are:

- At least annual inspections.
- Prioritize maintenance to clean catch basins and inlets in areas with the highest pollutant loading.
- Clean catch basins in high pollutant load areas just before the wet season to remove sediments and debris accumulated during the summer.
- Keep accurate logs of the number of catch basins cleaned.
- Record the amount of waste collected.

LIMITATIONS:

There are no major limitations to this best management practice.

MAINTENANCE:

Regular maintenance of public and private catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the keys to effective catch basins are:

- Annual/monthly inspection of public and private facilities to ensure structural integrity, a clean sump, and a stenciling of catch basins and inlets.
- Keep logs of the number of catch basins cleaned.
- Record the amount of waste collected.

PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☐ Commercial Activities
- ☐ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ☐ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☒ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ■ O&M Costs
- ☐ Regulatory
- ☒ Training
- ■ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Contaminated or Erodible Surface Areas

CESA



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from contaminated or erodible surface areas by leaving as much vegetation on-site as possible, minimizing soil exposure time, stabilizing exposed soils, and preventing storm water runon and runoff.

APPLICATION:

This BMP addresses soils which are not so contaminated as to exceed criteria but the soil is eroding and carrying pollutants off in the storm water.

INSTALLATION/APPLICATION CRITERIA:

Contaminated or erodible surface areas can be controlled by:

- Preservation of natural vegetation
- Re-vegetation
- Removal of contaminated soils
- Geosynthetics.

LIMITATIONS:

Disadvantages of preserving natural vegetation or re-vegetating include:

- Requires substantial planning to preserve and maintain the existing vegetation.
- May not be cost-effective with high land costs.
- Lack of rainfall and/or poor soils may limit the success of re-vegetated areas.

MAINTENANCE:

Maintenance should be minimal, except possibly if irrigation of vegetation is necessary.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ■ Toxic Materials
- ■ Oil & Grease
- ■ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

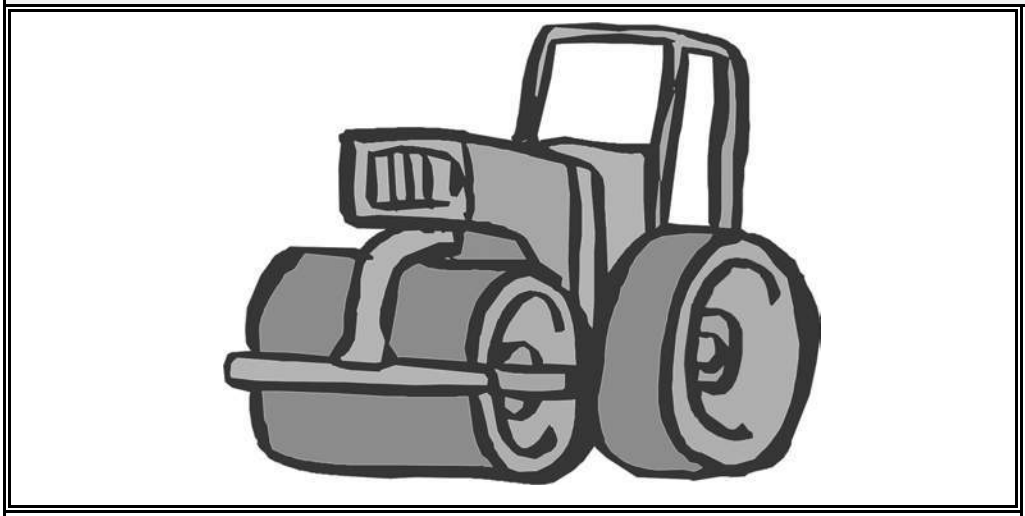
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Compaction

CP



DESCRIPTION:

Use of rolling, tamping, or vibration to stablize fill materials and control erosion by increasing the soil density. Increasing the density of soil improves soil strength, reduces long-term soil settlement, and provides resistance to erosion.

APPLICATIONS:

- Stabilize fill material placed around various structures.
- Improve soil in place as foundation support for roads, parking lots, and buildings.

INSTALLATION/APPLICATION CRITERIA:

- Make sure soil moisture content is at optimum levels.
- Use proper compaction equipment.
- Install sediment control and storm water management devices below compacted areas and runon interceptor devices above these areas. Drainage from compacted areas must be carefully planned to protect adjacent uncompacted soils.
- The surface of compacted areas should be scarified and seeded or mulched and seeded to increase the effectiveness of compaction.

LIMITATIONS:

- Compaction tends to increase runoff.
- Over-compaction will hamper revegetation efforts.

MAINTENANCE:

No maintenance required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

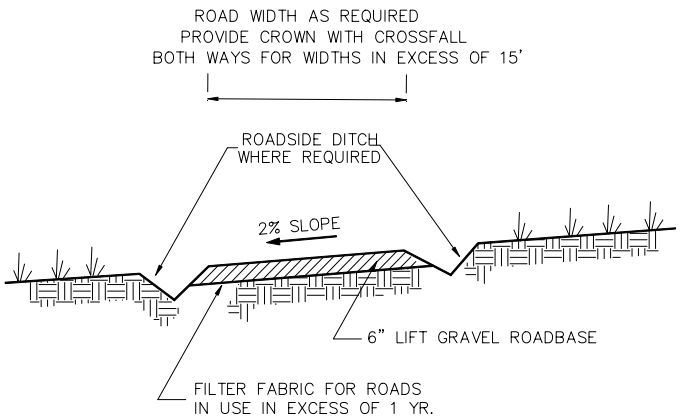
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Construction Road Stabilization

CR



DESCRIPTION:

Temporary stabilization of on-site roadway by placement of gravel roadbase.

APPLICATION:

- On-site roadways used daily by construction traffic (may not apply to gravelly type soils)
- Parking or staging areas susceptible to erosion due to traffic use

INSTALLATION/APPLICATION CRITERIA:

- Grade temporary access road with 2% cross fall, for two-way width provide crown.
- Provide roadside ditch and outlet controls where required.
- Place 6 inches of 2-inch to 4-inch crushed rock on driving area

LIMITATIONS:

- May require removal of gravel roadbase at completion of activities if final cover is not impervious
- May require controls for surface storm water runoff

MAINTENANCE:

- Inspect after major rainfall events and at least monthly.
- Place additional gravel as needed and repair any damaged areas.
- Maintain any roadside drainage controls.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Construction Sequencing

CS



In sequenced construction, sites are completed in stages and completed portions are permanently stabilized before other areas are disturbed

DESCRIPTION:

Construction sequencing requires creating and following a work schedule that balances the timing of land disturbance activities and the installation of measures to control erosion and sedimentation, in order to reduce on-site erosion and off-site sedimentation. Staging areas can be used to limit contamination and erosion.

APPROACH:

Construction sequencing can be used to plan earthwork and erosion and sediment control (ESC) activities at sites where land disturbances might affect water quality in a receiving water body.

Construction sequencing schedules should, at a minimum, include the following:

- The ESC practices that are to be installed
- Principal development activities
- Which measures should be installed before other activities are started
- Compatibility with the general contract construction schedule

The following activities and features should be included (as they apply):

- Construction access—entrance to site, construction routes, areas designated for equipment parking
- Sediment traps and barriers—basin traps, sediment fences, outlet protection
- Runoff conveyance system—stabilize stream banks, storm drains, channels, inlet and outlet protection, slope drains
- Land clearing and grading—site preparation (cutting, filling, and grading, sediment traps, barriers, diversions, drains, surface roughening)
- Landscaping and final stabilization—top-soiling, trees and shrubs, permanent seeding, mulching, sodding, riprap

LIMITATIONS:

- Weather and other unpredictable variables may affect construction sequence schedules.

MAINTENANCE:

- The construction sequence should be followed throughout the project and the written plan should be modified before any changes in construction activities are executed.

APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

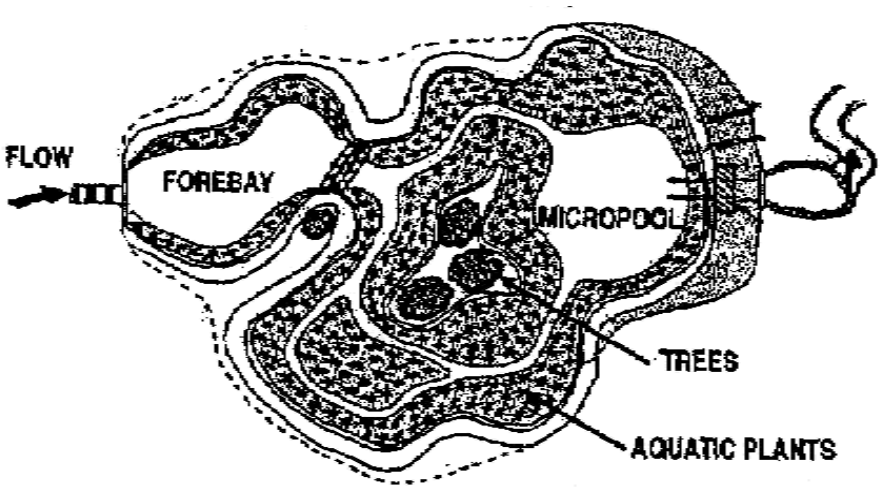
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Constructed Wetlands

CW



DESCRIPTION:

Constructed wetlands have a significant percentage of the facility covered by wetland vegetation.

APPLICATION:

- Need to achieve high level of particulate and some dissolved contaminant removal.
- Ideal for large, regional tributary areas.
- Multiple benefits of passive recreation and wildlife.

INSTALLATION/APPLICATION CRITERIA:

- Suitable soils for wetland vegetation are required.
- Surface area equal to at least 1% and preferably 2% of the tributary watershed.
- Include a forebay for extra storage and to trap incoming sediment.
- Involve qualified wetland ecologist to design and install wetland vegetation.
- Establishing wetland vegetation may be difficult.

LIMITATIONS:

- Concern for mosquitoes.
- Cannot be placed on steep unstable slopes.
- Need base flow to maintain water level.
- Not feasible in densely developed areas.
- Nutrient release may occur during winter.
- Overgrowth can lead to reduced hydraulic capacity.
- Regulatory agencies may limit water quality to constructed wetlands.

MAINTENANCE:

- Remove foreign debris and sediment build-up.
- Areas of bank erosion should be repaired.
- Remove nuisance species.
- Control mosquitoes.

CONSIDERATIONS

☒ Soils
☒ Area Required
☒ Slope
☒ Water Availability
☒ Aesthetics
☐ Hydraulic Head
☒ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
■ Toxic Materials
■ Oxygen Demanding Substances
■ Oil & Grease
■ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

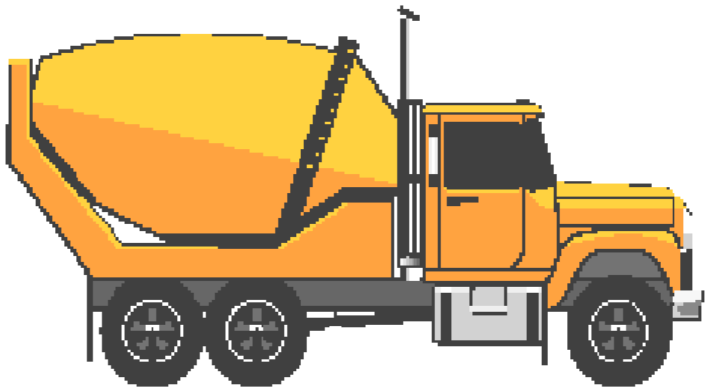
■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Concrete Waste Management

CWM



Description:

Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

Applications:

This technique is applicable to all types of sites.

Installation/Application Criteria:

- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on-site.
- Perform washout of concrete trucks off-site or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

Limitations:

- Off-site washout of concrete wastes may not always be possible.

Maintenance:

- Inspect subcontractors to ensure that concrete wastes are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

Objectives

- ☐ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants

- ☐ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☒ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

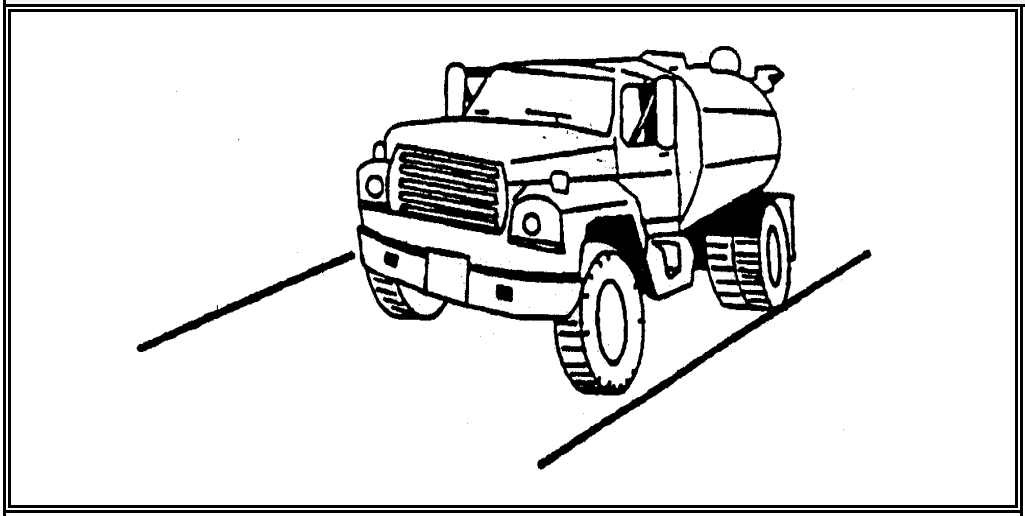
Implementation Requirements

- ☐ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

BMP: Dust Controls

DC



OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Dust control measures are used to stabilize soil from wind erosion, and reduce dust by construction activities.

APPLICATION:

Dust control is useful in any process area, loading and unloading area, material handling areas, and transfer areas where dust is generated. Street sweeping is limited to areas that are paved.

INSTALLATION/APPLICATION CRITERIA:

- Two kinds of street sweepers are common: brush and vacuum. Vacuum sweepers are more efficient and work best when the area is dry.
- Mechanical equipment should be operated according to the manufacturers' recommendations and should be inspected regularly.
- Water may be sprayed on the ground surface to moisten dry soils, making it less susceptible to wind erosion.

LIMITATIONS:

- Street sweeping is labor and equipment intensive and may not be effective for all pollutants.
- Water sprayed from water trucks must be done at a rate such that the water is absorbed in the soil; if excessive amounts of water are used, it may run off, carrying soil with it.

MAINTENANCE:

If excess water results from water spraying, dust-contaminated waters should not be allowed to run off site. Areas may need to be resprayed to keep dust from spreading.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

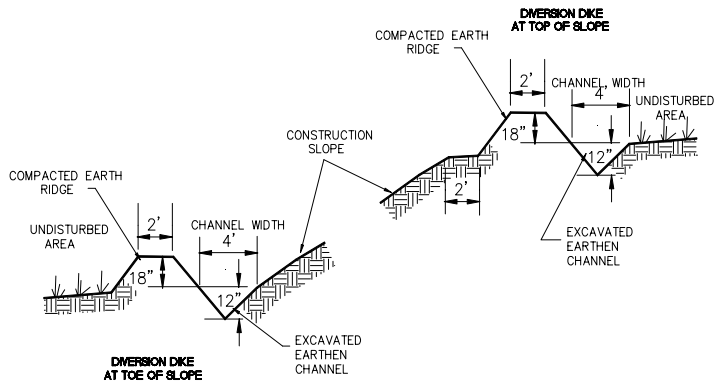
- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Diversion Dike

DD



DESCRIPTION:

A temporary sediment barrier and storm runoff conveyance consisting of an excavation channel and compacted earth ridge.

APPLICATION:

- Construct along top of construction slope to intercept upgradient runoff and convey around construction site.
- Construct along toe of construction to divert sediment laden runoff.
- Construct along midpoint of construction slope to intercept runoff and channel to controlled discharge point.
- Construct around base of soil stockpiles to capture sediment.
- Construct around perimeter of disturbed areas to capture sediment.

INSTALLATION/APPLICATION CRITERIA:

- Clear and grub area for dike construction.
- Excavate channel and place soil on downgradient side.
- Shape and machine compact excavated soil to form ridge.
- Place erosion protection (riprap, mulch) at outlet.
- Stabilize channel and ridge as required with mulch, gravel, or vegetative cover.

LIMITATIONS:

- Recommended maximum drainage area of 5 acres
- Recommended maximum sideslopes of 2h:1v (50%)
- Recommended maximum slope on channel of 1%

MAINTENANCE:

- Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- Look for runoff breaching dike or eroding channel or sideslopes.
- Check discharge point for erosion or bypassing of flows.
- Repair and stabilize as necessary.
- Inspect daily during vehicular activity on slope, check for and repair any traffic damage.

OBJECTIVES

- ☐ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Detention/Infiltration Device Maintenance

DIDM



DESCRIPTION:

Proper maintenance and siltation removal is required on both a routine and corrective basis to promote effective storm water pollutant removal efficiencies for wet/dry detention pond and infiltrative devices.

APPROACH:

- Remove silt after sufficient accumulation.
- Periodically clean accumulated sediment and silt out of pre-treatment inlets.
- Infiltration device silt removal should occur when the infiltration rate drops below ½ inch per hour.
- Removal of accumulated paper, trash, and debris should occur every six months or as needed to prevent clogging of control devices.
- Vegetation growth should not be allowed to exceed 18 inches in height.
- Mow the slopes periodically and check for clogging, erosion and tree growth on the embankment.
- Corrective maintenance may require more frequent attention (as required).
- Create a public education campaign to explain the function of wet/dry detention pond/infiltration devices and their operation requirements for proper effectiveness.
- Encourage the public to report wet/dry detention pond/infiltration devices needing maintenance.

LIMITATIONS:

- Wet detention pond dredging can produce slurried waste that often exceeds the requirements of many landfills.
- Frequent sediment removal is labor and cost intensive.

PROGRAM ELEMENTS

☐ New Development
☒ Residential
☒ Commercial Activities
☒ Industrial Activities
☒ Municipal Facilities
☐ Illegal Discharges

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
☒ Nutrients
■ Heavy Metals
☐ Toxic Materials
☒ Oxygen Demanding Substances
☐ Oil & Grease
☐ Floatable Materials
■ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

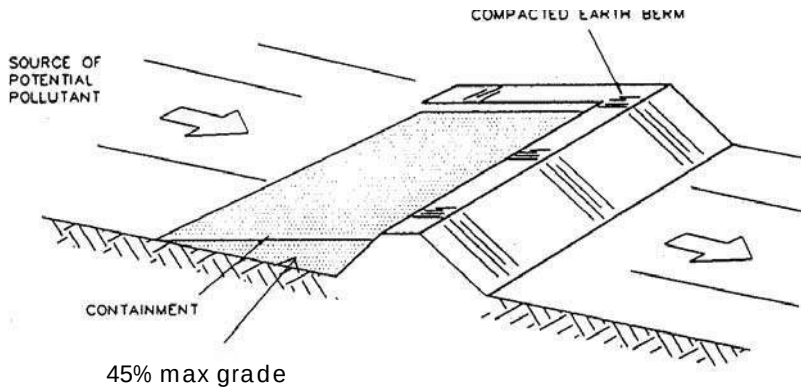
☒ Capital Costs
■ O&M Costs
☐ Regulatory
☐ Training
☒ Staffing
☐ Administrative

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Earth Berm Barrier

EB



45% max grade

DESCRIPTION:

A temporary containment control constructed of compacted soil.

APPLICATION:

- Construct around waste and materials storage area.
- Construct around staging and maintenance areas.
- Construct around vehicle parking and servicing areas.

INSTALLATION/APPLICATION CRITERIA:

- Construct an earthen berm down hill of the area to be controlled. The berm should surround fueling facilities and maintenance areas on three sides to provide containment.
- Berm needs to be a minimum of 1 foot tall by 1 foot wide and be compacted by earth moving equipment.

LIMITATIONS:

- Not effective on steep slopes.
- Limits access to controlled area.
- Personnel need to quickly respond to spills with remedial actions.

MAINTENANCE:

- Observe daily for any non-storm water discharge.
- Look for runoff bypassing ends of berms or undercutting berms.
- Repair or replace damaged areas of the berm and remove accumulated sediment.
- Recompact soil around berm as necessary to prevent piping.

OBJECTIVES

- ☐ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Construction Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

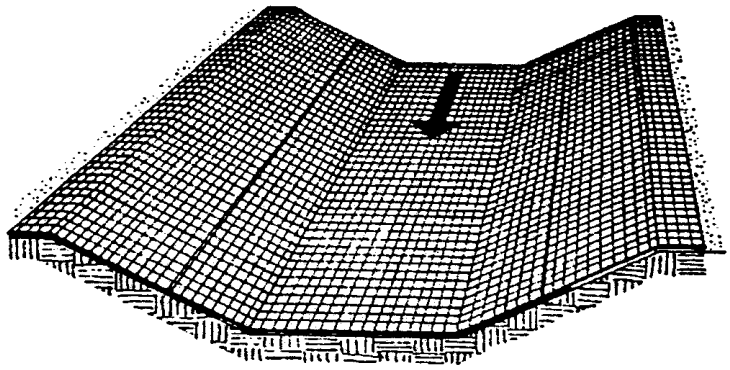
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Erosion Control Blankets

ECB



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

Erosion control blankets are used in place of mulch on areas of high velocity runoff and/or steep grade, to aid in controlling erosion on critical areas by protecting young vegetation. See related Geotextiles and Mats BMP Fact Sheet (GM).

APPLICATIONS:

- Where vegetation is likely to grow too slowly to provide adequate cover.
- In areas subject to high winds where mulch would not be effective.
- On steep slopes in which planting and mulching alone may not be as effective.

INSTALLATION/APPLICATION CRITERIA:

- Install erosion control blankets parallel to the direction of the slope.
- In ditches, apply in direction of the flow.
- Place erosion control blankets loosely on soil - do not stretch.
- Ends of blankets should be buried no less than six inches deep.
- Staple the edges of the blanket at least every three feet.

LIMITATIONS:

- Not recommended in areas which are still under construction.

MAINTENANCE:

- Check for erosion and undermining periodically, particularly after rainstorms.
- Repair dislocations or failures immediately.
- If washouts occur, reinstall after repairing slope damage.
- Monitor until permanently stabilized.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

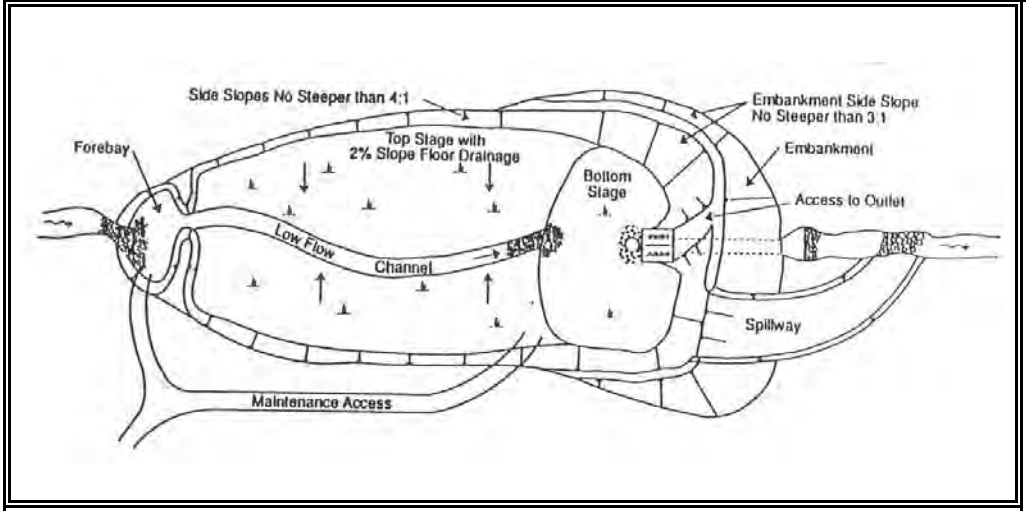
- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Extended Detention Basins

EDB



DESCRIPTIONS:

Extended detention basins are dry between storms. During a storm the basin fills. A bottom outlet releases the storm water slowly to provide time for sediments to settle.

APPLICATION:

- Objective is to remove only particulate pollutants.
- Use where lack of water prevents the use of wet ponds, wetlands or biofilters.
- Use where wet ponds or wetlands would cause unacceptable mosquito conditions.

INSTALLATION/APPLICATION CRITERIA:

- Basin volume is sized to capture a particular fraction of the runoff.
- Drawdown time of 24 to 40 hours is required.
- A shallow basin with large surface area performs better than a deep basin with the same volume.
- Place energy dissipater at the entrance to minimize bottom erosion and resuspension.
- Vegetate side slopes and bottom to the maximum extent practical.
- If side erosion is particularly severe, consider paving or soil stabilization.
- If floatables are a problem, protect outlet with a trash rack or other device.
- Provide bypass or pass through capabilities for 100-year storm.

LIMITATIONS:

- May be less reliable than other treatment control BMPs. Inability to vegetate banks and bottom may result in erosion and resuspension.
- Limitation of the orifice diameter may preclude use in small watersheds.
- Requires differential elevation between inlet and outlet.

MAINTENANCE:

- Check outlet regularly for clogging.
- Check banks and bottom of basin for erosion and correct as necessary.
- Remove sediment when accumulation reaches 6-inches, or if resuspension is observed.

CONSIDERATIONS

- ☐ Soils
- ☒ Area Required
- ☐ Slope
- ☐ Water Availability
- ☐ Aesthetics
- ☒ Hydraulic Head
- ☐ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☒ Heavy Metals
- ☒ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☒ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

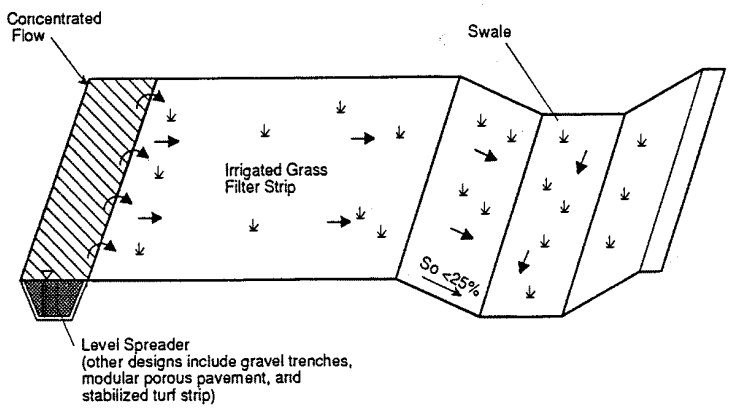
- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Filter Strips

FS



General Description:

Filter strips are 20-foot-wide strips of natural or planted vegetation around a construction site. They are designed to cause deposition of sediments within the vegetation layer.

Applications:

- Suited for areas where the soils are well drained or moderately well drained.
- Areas where the bedrock and the water table are well below the surface.

Installation/Application Criteria:

- Make sure the vegetative cover is dense enough to protect underlying soil while causing sediment to settle.
- Filter strip must be approximately 20 feet wide to function well.
- The length should be approximately 50 to 75 feet. Where slopes become steeper the length of the strip must be increased.

Limitations:

- Only applicable in areas where vegetation is previously established or where sod is added.
- Vegetated filter strips will not function well on steep slopes, in hilly areas, or in highly paved areas.
- Sites with slopes of 15 percent or more may not be suitable for filtering storm water flows.

Maintenance:

- Check for channels and repair.
- Provide rock aprons to aid in slowing flow if necessary.
- Maintain vegetation at optimal height and thickness.

Objectives

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

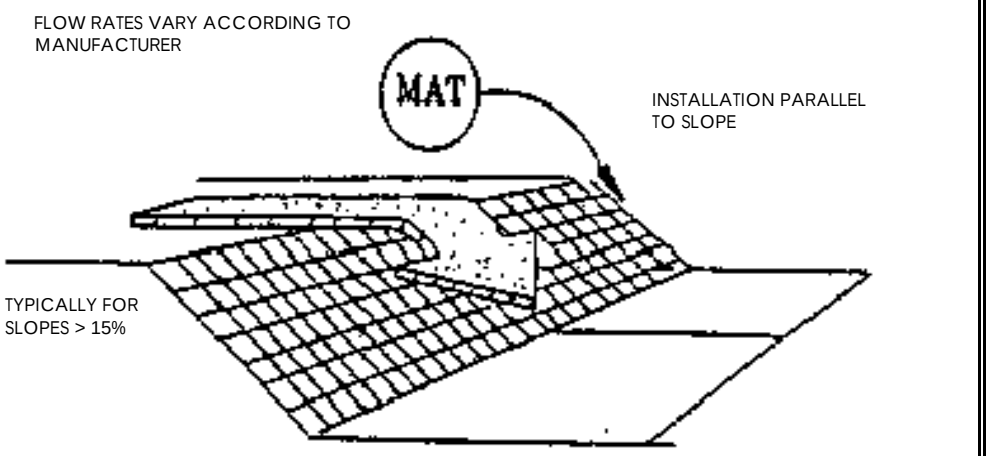
Implementation Requirements

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Geotextiles and Mats

GM



DESCRIPTION:

Mattings made of natural or synthetic material which are used to temporarily or permanently stabilize soil. See the related Erosion Control Blankets BMP Fact Sheet (ECB).

APPLICATION:

- Typically suited for post-construction site stabilization, but may be used for temporary stabilization of highly erosive soils.
- Channels and streams.
- Steep slopes.

INSTALLATION/APPLICATION CRITERIA:

- Mattings may be applied to disturbed soils and where existing vegetation has been removed.
- The following organic matting materials provide temporary protection until permanent vegetation is established, or when seasonal circumstances dictate the need for temporary stabilization until weather or construction delays are resolved: Jute mattings and straw mattings.
- The following synthetic mattings may be used for either temporary or post-construction stabilization, both with and without vegetation: excelsior matting, glass fiber matting, mulch matting.
- Staples are needed to anchor the matting.

LIMITATIONS:

- Mattings are more costly than other BMP practices, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- May delay seed germination, due to reduction in soil temperature.
- Installation requires experienced contractor to ensure soil stabilization and erosion protection.

MAINTENANCE:

- Inspect monthly and after significant rainfall.
- Re-anchor loosened matting and replace missing matting and staples as required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Grading Practices

GP



Soils exposed from land grading activities are very vulnerable to erosion

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

Control soil erosion by minimizing the exposure of bare soil to erosive forces. This is done by

1) limiting the amount of land disturbed at one time in preparation for construction
2) limiting the amount of time between the disturbance of soil and protection or stabilization of disturbed soils, and
3) using grading practices to protect exposed soils susceptible to storm water runoff.

Related practices include construction sequencing, preservation of existing vegetation, erosion control practices and sediment control practices.

APPROACH:

- Limit the area of disturbance to those areas requiring grading. This preserves existing vegetation and reduces the vulnerability of soil to erosion.
- Based on erosion potential and sediment control measures on the site, establish what areas are to be graded at one time.
- An undisturbed buffer zone containing vegetation at the lowest elevation of a construction site can reduce the transport of sediment off site.
- Initiate soil protection measures during the course of work to minimize the length of time soil is exposed to erosive forces.
- Conduct work in stages so that construction or soil stabilization occurs promptly after disturbance of soil.
- Establish a schedule governing the stabilization of disturbed slopes, both in terms of passage of time since commencement and completion of disturbance and in terms of planting season.
- Leaving the surface of the disturbed soil graded in a roughened condition (not smooth) can reduce the quantity and velocity of storm water runoff.
- Prevent storm water runoff from running onto steep slopes from above.
- Avoid long, steep cut or fill slopes that allow runoff water of sufficient quantity or velocity to cut into and erode the slope.

LIMITATIONS:

- The specific approach to grading on a particular site depends on the conditions of the site and surrounding land; engineering judgment is required to design the approach best suited for each site.

MAINTENANCE:

- Practices may need to vary from the approved plan if erosion problems appear when storm water runoff occurs.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Grassed Swales

GS



Grassed swales can be used along roadsides and parking lots to collect and treat storm water runoff

DESCRIPTION:

A series of vegetated, open channel management practices designed specifically to treat and attenuate storm water runoff. Storm water is treated through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils.

APPROACH:

- Grassed swales can be applied in most situations with some restrictions. Swales are very well suited for treating highway or residential road runoff because they are linear practices.
- Grassed swales should be used on sites with relatively flat slopes of less than 4 percent slope; 1 to 2 percent slope is recommended.
- A small fore-bay should be used at the front of the swale to trap incoming sediments. A pea gravel diaphragm, a small trench filled with river run gravel, should be used as pretreatment for runoff entering the sides of the swale.
- Swales should also have the capacity to pass larger storms (typically a 10-year storm) safely.

LIMITATIONS:

- Grassed swales cannot treat a very large drainage area.
- Wet swales may become a nuisance due to mosquito breeding.

MAINTENANCE:

Maintenance of grassed swales mostly involves maintenance of the grass or wetland plant cover.

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ■ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Hydromulching

HM



DESCRIPTION:

A combination of wood fiber mulch, processed grass, or hay or straw mulch and a tacking agent. It is made into a slurry, then applied to bare slopes or other bare areas to provide temporary stabilization.

APPLICATIONS:

- Small roadside slopes.
- Large, relatively flat areas.

INSTALLATION/APPLICATION CRITERIA:

- Legume seeds should be pellet inoculated with the appropriate bacteria.
- The seed should not remain in the hydromulcher tank for more than 30 minutes.
- Wood fiber may be dyed to aid in uniform application.
- Slurry should be uniformly applied until an adequate coverage is achieved.
- The applicator should not be directed at one location for a long period of time; erosion will occur.

LIMITATIONS:

- Will lose effectiveness after 1 year.
- Can use only on physically stable slopes (at natural angle of repose, or less).

MAINTENANCE:

- Periodically inspect for damage caused by wind, water, or human disturbance.
- Promptly repair damaged areas.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Hazardous Waste Management

HWM



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from hazardous waste through proper material use, waste disposal, and training of employees. Another important aspect of this BMP is to insure the use of sub-consultants who are properly licensed and trained.

APPLICATION:

Many of the chemicals used on-site can be hazardous materials which become hazardous waste upon disposal. These wastes may include:

- Paints and solvents; petroleum products such as oils; fuels and greases; herbicides and pesticides; acids for cleaning masonry; and concrete curing compounds.

In addition, sites with existing structures may contain wastes which must be disposed of in accordance with federal, state and local regulations, including:

- Sandblasting grit mixed with lead, cadmium or chromium based paints, asbestos, and PCBs.

INSTALLATION/APPLICATION CRITERIA:

The following steps will help reduce storm water pollution from hazardous wastes:

- Use all of the product before disposing of the container.
- Do not remove the original product label, it contains important safety and disposal information.
- Do not over-apply herbicides and pesticides. Prepare only the amount needed. Follow the recommended usage instructions. Over-application is expensive and environmentally harmful. Apply surface dressings in several smaller applications, as opposed to one large application, to allow time for infiltration and to avoid excess material being carried off-site by runoff. Do not apply these chemicals just before it rains. People applying pesticides must be certified in accordance with federal and state regulations.

LIMITATIONS:

Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste collector.

MAINTENANCE:

- Inspect hazardous waste receptacles and areas regularly.
- Arrange for regular hazardous waste collection.

PROGRAM ELEMENTS

- ☒ New Development
- ☒ Residential
- ☒ Commercial Activities
- ☒ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ■ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

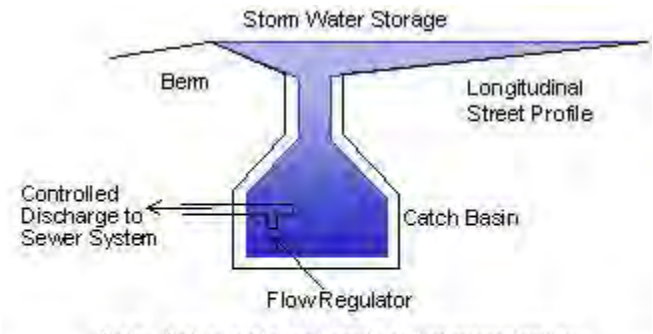
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☒ O&M Costs
- ☒ Regulatory
- ☒ Training
- ☒ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP: In-Line Storage

ILS



Catch basins can be equipped with flow restrictors to temporarily detain storm water in the conveyance system

APPLICATIONS

- ☒ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☒ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

In-line storage refers to a number of practices designed to use the storage within the storm drain system to detain flows. While these practices can reduce storm peak flows, they are unable to improve water quality or protect downstream channels. Devices can slow the rate of flow by backing up flow, as in the case of a dam or weir, or through the use of vortex valves, devices that reduce flow rates by creating a helical flow path in the structure.

APPROACH:

- In-line storage practices serve the same purpose as traditional detention basins
- These practices can act as a surrogate for aboveground storage when little space is available for aboveground storage facilities.

LIMITATIONS:

- In-line storage practices only control flow, and thus are not able to improve the water quality of storm water runoff.
- If improperly designed, these practices may cause upstream flooding.
- Flow regulators cannot be applied to all storm drain systems. In older cities, the storm drainpipes may not be oversized, and detaining storm water within them would cause upstream flooding.

MAINTENANCE:

- Flow regulators require very little maintenance, because they are designed to be "self - cleaning," much like the storm drain system.
- For some designs, such as check dams, regulations will require only moderate construction in order to modify the structure's design.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

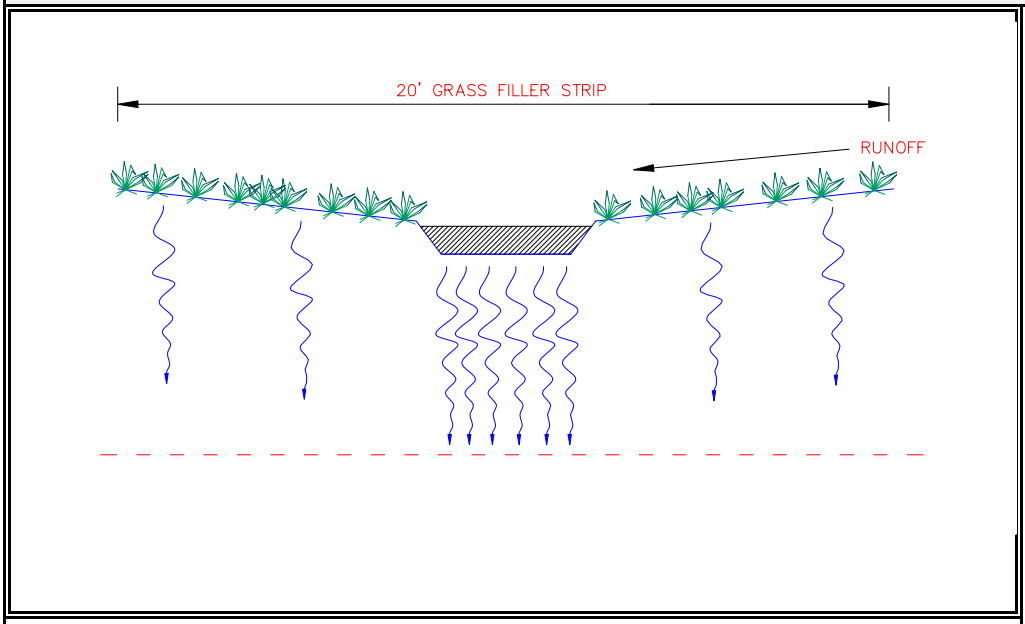
- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Infiltration

IN



DESCRIPTION:

A family of systems in which the majority of the runoff from small storms is infiltrated into the ground rather than discharged to a surface water body. Infiltration systems include: ponds, vaults, trenches, dry wells, porous pavement, and concrete grids.

APPLICATION:

Suitable site soils and geologic conditions; low potential for long-term erosion in the watershed.

INSTALLATION/APPLICATION CRITERIA:

- Volume sized to capture a particular fraction of annual runoff.
- Pretreatment is necessary in fine soils.
- Emergency overflow or bypass for larger storms is needed.
- Observation wells are required in trenches.
- Infiltration surface must be protected during construction.
- Pond sides need vegetation to prevent erosion.
- During construction frequent inspection for clogging is necessary.
- Line sides of trench with permeable filter fabric
- Trench should be filled with clean washed stone or gravel. (1.5-3.0 in.)
- A six inch sand filter layer; cloth lines the bottom of trench.

LIMITATIONS:

- Loss of infiltrative capacity and high maintenance cost in fine soils.
- Low removal of dissolved pollutants in very coarse soils.
- Not suitable on fill sites or steep slopes.
- The risk of ground water contamination in very coarse soils, may require ground water monitoring.

MAINTENANCE:

- Remove sediment at a frequency appropriate to avoid excessive concentrations of pollutants and loss of infiltrative capacity.
- Frequent cleaning of porous pavements is required.
- Maintenance is difficult and costly for underground trenches.

CONSIDERATIONS

- ☒ Soils
- ☒ Area Required
- ☒ Slope
- ☐ Water Availability
- ☐ Aesthetics
- ☐ Hydraulic Head
- ☒ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ■ Toxic Materials
- ■ Oxygen Demanding Substances
- ■ Oil & Grease
- ☒ Floatable Materials
- ■ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

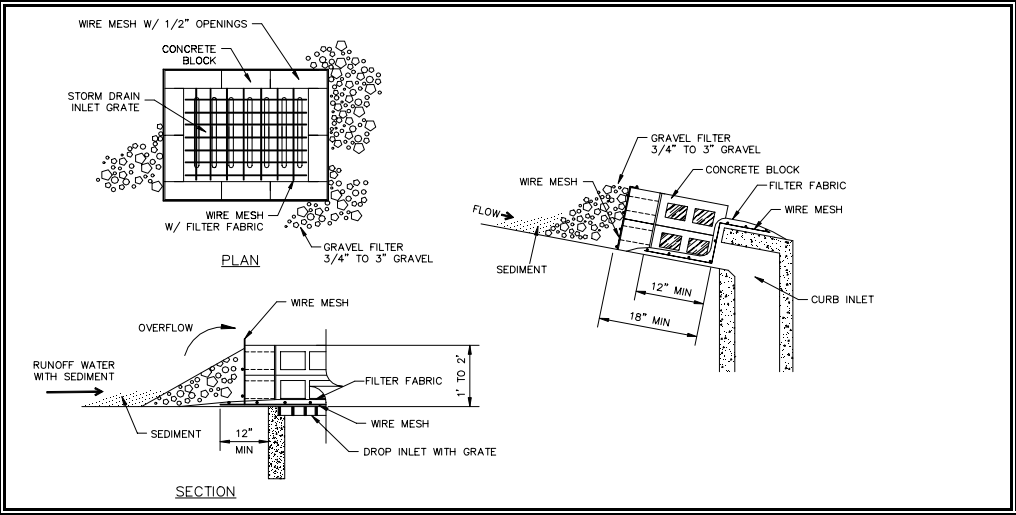
- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Inlet Protection - Concrete Block

IPC



DESCRIPTION:

Concrete block and gravel filter placed over inlet to storm drain system.

APPLICATION:

Construct at inlets in paved or unpaved areas where upgradient area is to be disturbed by construction activities.

INSTALLATION/APPLICATION CRITERIA:

- Place wire mesh (with ½ inch openings) over the inlet grate extending one foot past the grate in all directions.
- Place concrete blocks around the inlet with openings facing outward. Stack blocks to minimum height of 12-inches and maximum height of 24-inches.
- Place wire mesh around outside of blocks.
- Place gravel (3/4" to 3") around blocks.

LIMITATIONS:

- Recommended for maximum drainage area of one acre.
- Excess flows may bypass the inlet requiring down gradient controls.
- Ponding will occur at inlet.

MAINTENANCE:

- Inspect inlet protection after every large storm event and at a minimum of once monthly.
- Remove sediment accumulated when it reaches 4-inches in depth.
- Replace filter fabric and clean or replace gravel if clogging is apparent.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

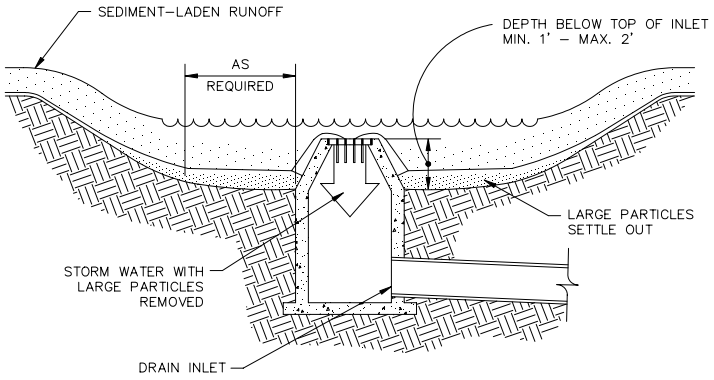
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Inlet Protection - Excavated

IPE



DESCRIPTION:

An area excavated around a storm drain inlet to impound water below the inlet.

APPLICATION:

Construct at storm drainage inlets located downgradient of areas to be disturbed by construction (for inlets in paved areas see other information sheets for inlet protection).

INSTALLATION/APPLICATION CRITERIA:

- Provide upgradient sediment controls, such as silt fence during construction of inlet.
- When construction of inlet is complete, excavate adjacent area 1 to 2 feet lower than the grate elevation. Size of excavated area should be based on soil type and contributing acreage.

LIMITATIONS:

- Recommended maximum contributing drainage area of one acre.
- Limited to inlets located in open unpaved areas.
- Requires flat area adjacent to inlet.

MAINTENANCE:

- Inspect inlet protection following storm event and at a minimum of once monthly.
- Remove accumulated sediment when it reaches one half of the excavated sump below the grate.
- Repair side slopes as required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

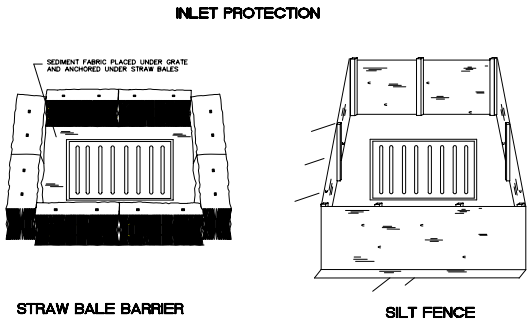
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Inlet Protection - Silt Fence or Straw Bale

IPS



SEE INDIVIDUAL BMP INFORMATION SHEETS FOR INSTRUCTIONS FOR CONSTRUCTION OF STRAW BALE BARRIER AND SILT FENCE..

DESCRIPTION:

Sediment barrier erected around storm drain inlet.

APPLICATION:

Construct at storm drainage inlets located downgradient of areas to be disturbed by construction (for inlets in paved areas see other information sheets for inlet protection).

INSTALLATION/APPLICATION CRITERIA:

- Provide upgradient sediment controls, such as silt fence during construction of inlet.
- When construction of inlet is complete, erect straw bale barrier or silt fence surrounding perimeter of inlet. Follow instructions and guidelines on individual BMP information sheets for straw bale barrier and silt fence construction.

LIMITATIONS:

- Recommended maximum contributing drainage area of one acre.
- Limited to inlets located in open unpaved areas.
- Requires shallow slopes adjacent to inlet.

MAINTENANCE:

- Inspect inlet protection following storm event and at a minimum of once monthly.
- Remove accumulated sediment when it reaches 4-inches in depth.
- Repair or realign barrier/fence as needed.
- Look for bypassing or undercutting and recompact soil around barrier/fence as required.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

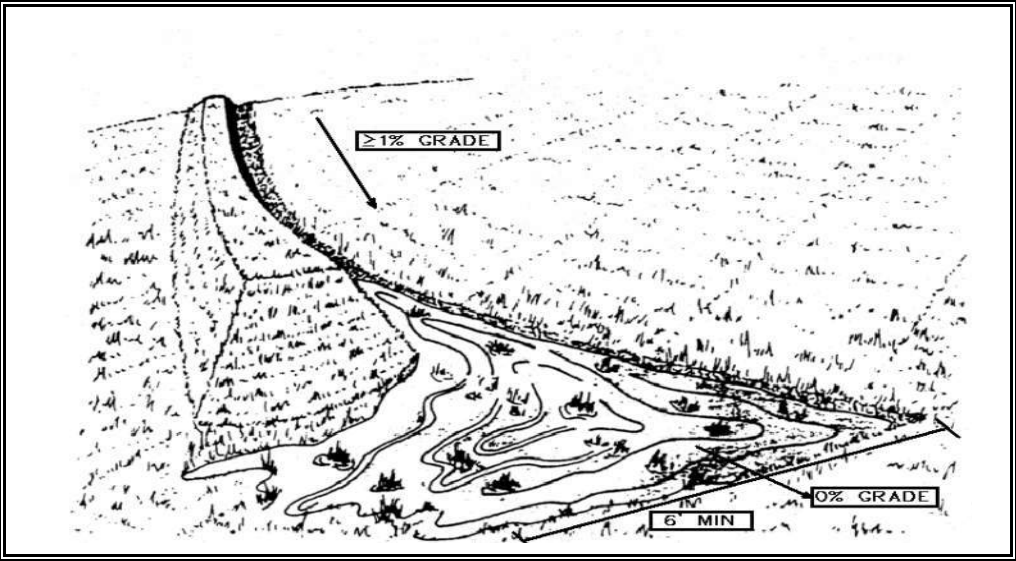
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Level Spreaders

LS



DESCRIPTION:

Level spreaders are devices used at storm water outlets to spread out collected storm water flows into sheet flow (runoff that flows over ground surface in a thin, even layer). Typically, a level spreader consists of a depression in the soil surface that spreads the flow onto a flat area across a gentle slope. Level spreaders then release the storm water flow onto level areas stabilized by vegetation to reduce speed and increase infiltration.

APPLICATION:

Level spreaders are most often used as an outlet for temporary or permanent storm water conveyances or dikes. Runoff that contains high sediment loads should be treated in a sediment trapping device prior to release into a level spreader.

INSTALLATION/APPLICATION CRITERIA:

- The length of the spreader depends upon the amount of water that flows through the conveyance.
- Larger volumes of water need more space to even out.
- Level spreaders are generally used with filter strips (see Filter Strips BMP).
- The depressions are seeded with vegetation (see Permanent & Temporary Seeding BMP).
- Level spreaders should be constructed on natural soils and not on fill material.
- The entrance to the spreader should be level so that the flow can spread out evenly.
- Level Spreader should have a grade of 0%; minimum width should be 6'.

LIMITATIONS:

- Can easily develop "short circuiting" (concentration of flows into small streams instead of sheet flow over the spreader) because of erosion or other disturbance.
- Cannot handle large quantities of sediment-laden storm water.

MAINTENANCE:

- The spreader should be inspected after every storm event to check for damage.
- If ponding or erosion channels develop, the spreader should be regraded.
- Dense vegetation should be maintained and damaged areas reseeded as needed.

CONSIDERATIONS

- ☒ Soils
- ☒ Area Required
- ☒ Slope
- ☐ Water Availability
- ☒ Aesthetics
- ☐ Hydraulic Head
- ☒ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

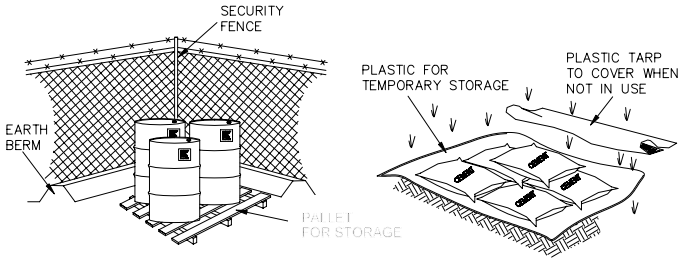
- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Materials Storage

MS



►CONTROLLED STORAGE LOCATION
►BERMED PERIMETER IMPOUNDMENT
►STORAGE OFF GROUND
►COVER WHEN NOT IN USE

DESCRIPTION:

Controlled storage of on-site materials.

APPLICATION:

- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

INSTALLATION/APPLICATION CRITERIA:

- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:

- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled location.

MAINTENANCE:

- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Verify that materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.

OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake City BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☒ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Mulching

MU

DESCRIPTION:

Placement of material such as straw, grass, woodchips, woodfibers or fabricated matting over open area.

APPLICATION:

- Any exposed area to remain untouched longer than 14 days and that will be exposed less than 60 days (seed areas to be exposed in excess of 60 days).
- Areas that have been seeded.
- Stockpiled soil material.

Material	Application	Depth	Comments
Gravel: Washed 1/4" to 1-1/2"	9 cy/1000 sf	3 inches	Good for traffic areas Good for short slopes
Straw: Air-dried, free of seeds and coarse material	2-3 bales/1000 sf	2 inches min.	Subject to wind blowing Tack down or keep moist
Wood Fiber Cellulose: Free from growth inhibitors; dyed green	35 lb/1000 sf	1 inch	For critical areas, double application rate; Limit to slopes < 3% and < 150 feet

INSTALLATION/APPLICATION CRITERIA:

- Roughen area to receive mulch to create depressions that mulch material can settle into.
- Apply mulch to required thickness and anchor as necessary.
- Ensure material used is weed free and does not contain any constituents that will inhibit plant growth.

LIMITATIONS:

- Anchoring may be required to prevent migration of mulch material.
- Downgradient control may be required to prevent mulch material being transported to storm water system.

MAINTENANCE:

- Inspect mulched areas after every rainfall event and at a minimum of monthly.
- Replace mulch on any bare areas and reanchor as necessary.
- Clean and replace downgradient controls as necessary.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

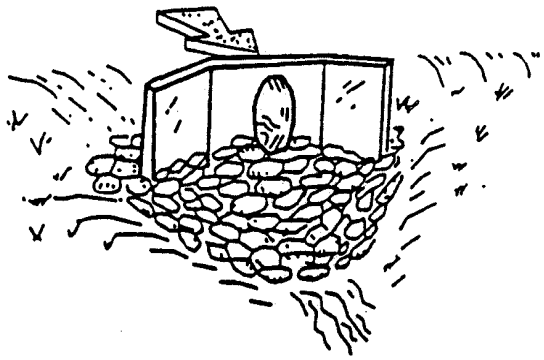
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Outlet Protection

OP



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

A rock outlet protection is a physical device composed of rock, grouted riprap, or concrete rubble which is placed at the outlet of a pipe to prevent scour of the soil caused by high pipe flow velocities, and to absorb flow energy to produce non-erosive velocities.

APPLICATIONS:

- Wherever discharge velocities and energies at the outlets of culverts, conduits, or channels are sufficient to erode the next downstream reach.
- Rock outlet protection is best suited for temporary use during construction becasue it is usually less expensive and easier to install than concrete aprons or energy dissipators.
- A sediment trap below the pipe outlet is recommended if runoff is sediment laden.
- Permanent rock riprap protection should be designed and sized by the engineer as part of the culvert, conduit or channel design.
- Grouted riprap should be avoided in areas of freeze and thaw because the grout will break up.

INSTALLATION/APPLICATION CRITERIA:

Rock outlet protection is effective when the rock is sized and placed properly. When this is accomplished, rock outlets do much to limit erosion at pipe outlets. Rock size should be increased for high velocity flows. Best results are obtained when sound, durable, angular rock is used.

LIMITATIONS:

- Large storms often wash away the rock outlet protection and leave the area susceptible to erosion.
- Sediment captured by the rock outlet protection may be difficult to remove without removing the rock.
- Outlet protection may negatively impact the channel habitat.

MAINTENANCE:

- Inspect after each significant rain for erosion and/or disruption of the rock, and repair immediately.
- Grouted or wire-tied rock riprap can minimize maintenance requirements.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Parking Lot Sweeping/Vacuuming

PLSV



DESCRIPTION:

Reduce the discharges of pollutants to stormwater from parking lot surfaces by conducting parking lot cleaning on a regular basis.

APPROACH:

- Restrict parking prior to and during sweeping.
- Establish frequency of sweeping based on anticipated need and observations of debris or sediment accumulation
- Increase sweeping frequency just before the rainy season.
- Lots that generate greater amounts of debris or sediment must be swept more frequently. These include lots associated with or adjacent to recreational, commercial, or industrial areas, or other areas of high vehicle or pedestrian traffic.
- Manually remove debris from corners or other areas of the parking lot that equipment cannot reach
- Keep accurate operation logs to track programs.
- Equipment selection can be key for this particular BMP. There are two types used, the mechanical broom sweepers (more effective at picking up large debris and cleaning wet streets), and the vacuum sweepers (more effective at removing fine particles and associated heavy metals). It may be useful to have the ability to use both kinds.

LIMITATIONS:

- Conventional sweepers are not able to remove oil and grease.
- Mechanical sweepers are not effective at removing finer sediments.
- Effectiveness may also be limited by parking lot conditions, presence of parked vehicles, presence of construction projects, climatic conditions and condition of curbs.

MAINTENANCE:

- Acquisition and maintenance of equipment is generally handled by the company hired to perform the sweeping/vacuuming.

PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☒ Commercial Activities
- ☒ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ■ Heavy Metals
- ☒ Toxic Materials
- ■ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

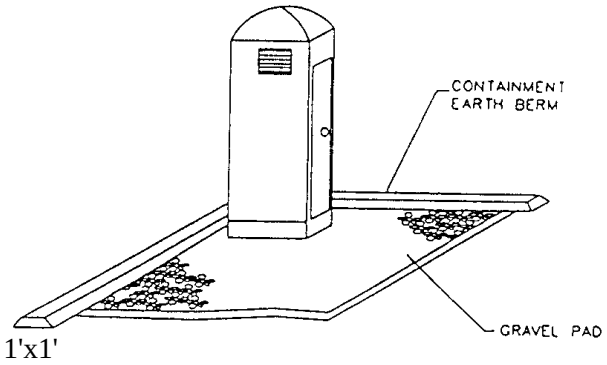
IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☒ O&M Costs
- ☐ Regulatory
- ☐ Training
- ☐ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Portable Toilets

PT



1'x1'

DESCRIPTION:

Temporary on-site sanitary facilities for construction personnel.

APPLICATION:

All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:

- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.
- Stake toilets to prevent them from tipping.

LIMITATIONS:

No limitations.

MAINTENANCE:

- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

OBJECTIVES

☒ Housekeeping Practices
☒ Contain Waste
☐ Minimize Disturbed Areas
☐ Stabilize Disturbed Areas
☐ Protect Slopes/Channels
☐ Control Site Perimeter
☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

☐ Sediment
☐ Nutrients
☐ Toxic Materials
☐ Oil & Grease
☐ Floatable Materials
■ Other Waste

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

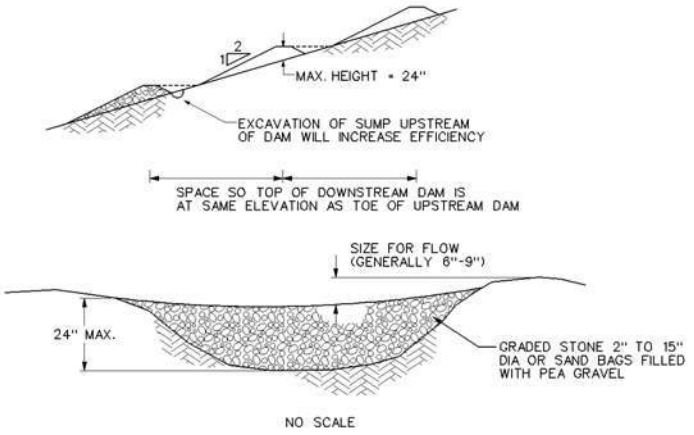
IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Rock Check Dams

RCD



DESCRIPTION:

A small, temporary dam constructed across a drainage ditch to reduce velocity of concentrated storm water flows, thereby reducing the erosion of the ditch.

APPLICATION:

- Temporary drainage paths
- Permanent drainage ways not yet stabilized
- Existing drainage paths receiving increased flows due to construction

INSTALLATION/APPLICATION CRITERIA:

- Prepare location of dam by removing any debris and rough grading any irregularities in channel bottom
- Place rocks by hand or with appropriate machinery, do not dump
- Construct dam with center lower to pass design flow
- Construct 50% side slopes on dam

LIMITATIONS:

- Maximum recommended drainage area is 10 acres
- Maximum recommended height is 24"
- Do not use in running stream

MAINTENANCE:

- Inspect dams daily during prolonged rainfall, after each major rain event and at a minimum of once monthly.
- Remove any large debris and repair any damage to dam, channel or sideslopes
- Remove accumulated sediment when it reaches one half the height of the dam

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

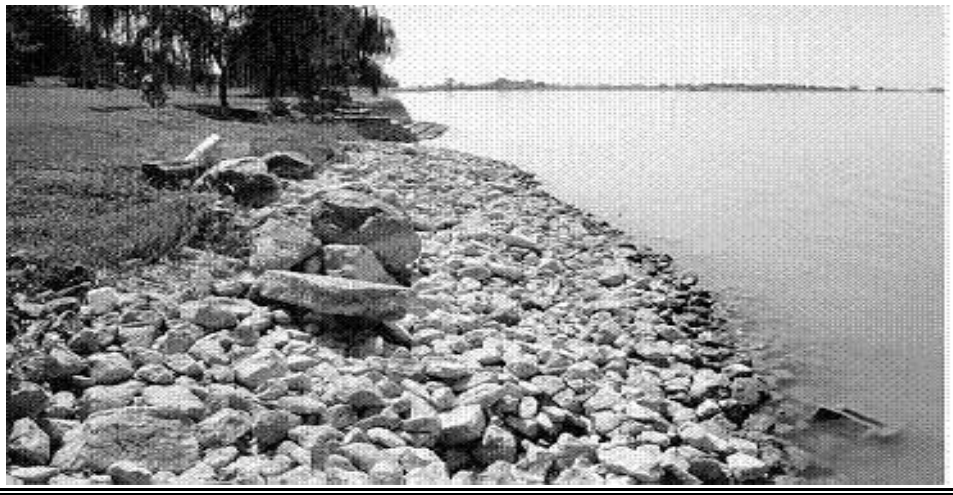
- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Riprap

RR



DESCRIPTION:

Riprap is a permanent, erosion-resistant protective layer made of loose stones. It is intended to protect soil from erosion in areas of concentrated runoff. Riprap may also be used to stabilize slopes that are unstable because of seepage problems.

APPLICATION:

- Riprap is normally used at locations where erosive forces from water flow exceed the ability of the soil or vegetative cover to resist those forces.
- Riprap can be used for pipe outlet protection, channel lining, scour protection, etc.
- Riprap is commonly used for wave protection on lakes.

INSTALLATION/APPLICATION CRITERIA:

- For slopes steeper than 2:1, consider using materials other than riprap for erosion protection.
- If riprap is being planned for the bottom of a permanently flowing channel, the bottom can be modified to enhance fish habitat. This can be done by constructing riffles and pools which simulate natural conditions.
- When working within flowing streams, measures should be taken to prevent excessive turbidity and erosion during construction. Bypassing base flows or temporarily blocking base flows are two possible methods. Work should be done during a period of low flow.

In designing riprap consider the following:

- Use durable rock, such as granite, and a variety of rock sizes.
- The thickness of riprap layers should be at least 1.25 times the max. stone diameter.
- Filter material is usually required between riprap and the underlying soil surface.

LIMITATIONS:

- Riprap may be unstable on very steep slopes.
- The placement of a riprap in streams requires a state stream alteration permit.

MAINTENANCE:

- Riprap should be inspected annually and after major storms.
- If riprap has been damaged, repairs should be made promptly to prevent a progressive failure.
- If repairs are needed repeatedly at one location, the site should be evaluated to see if original design conditions have changed.

CONSIDERATIONS

- ☒ Soils
- ☒ Area Required
- ☒ Slope
- ☐ Water Availability
- ☒ Aesthetics
- ☐ Hydraulic Head
- ☒ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☒ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

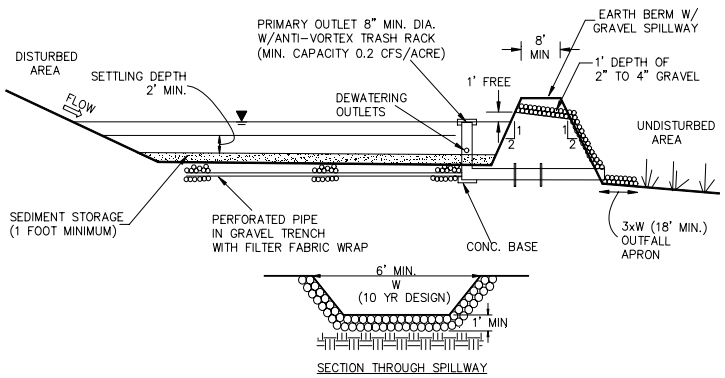
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Sediment Basin

SB



DESCRIPTION:

A pond created by excavation or construction of an embankment, and designed to retain or detain runoff sufficiently to allow excessive sediment to settle.

APPLICATION:

- At the outlet of all disturbed watersheds 10 acres or larger.
- At the outlet of smaller disturbed watersheds, as necessary.
- Where post construction detention basins will be located.

INSTALLATION/APPLICATION CRITERIA:

- Design basin for site specific location, maintain effective flow length 2 times width.
- Excavate basin or construct compacted berm containment, ensure no downgradient hazard if failure should occur. (Provide minimum of 67 cy. per acre of drainage area).
- Construct dewatering and outfall structure and emergency spillway with apron.

LIMITATIONS:

- Should be sized based on anticipated runoff, sediment loading and drainage area size.
- May require silt fence at outlet for entrapment of very fine silts and clays.
- May require safety fencing to prevent public access.
- Height restrictions for embankment regulated by Utah Division of Dam Safety.

MAINTENANCE:

- Inspect after each rainfall event and at a minimum of monthly.
- Repair any damage to berm, spillway or sidewalls.
- Remove accumulated sediment as it reaches 2/3 height of available storage.
- Check outlet for sedimentation/erosion of downgradient area and remediate as necessary. Install silt fence if sedimentation apparent.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

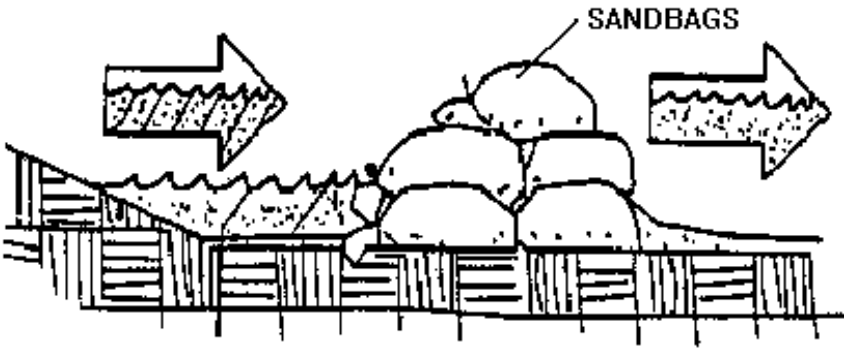
- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Sand Bag Barrier

SBB



DESCRIPTION:

Stacking sand bags along a level contour creates a barrier which detains sediment-laden water, ponding water upstream of the barrier and promoting sedimentation.

APPLICATION:

- Along the perimeter of the site.
- May be used in drainage areas up to 5 acres.
- Along streams and channels
- Across swales with small catchments.
- Around temporary spoil areas.
- Below the toe of a cleared slope.

INSTALLATION/APPLICATION CRITERIA:

- Install along a level contour.
- Base of sand bag barrier should be at least 48 inches wide.
- Height of sand bag barrier should be at least 18 inches high.
- 4 inch PVC pipe may be installed between the top layer of sand bags to drain large flood flows.
- Provide area behind barrier for runoff to pond and sediment to settle.
- Place below the toe of a slope.

LIMITATIONS:

- Sand bags are more expensive than other barriers, but also more durable.
- Burlap should not be used.

MAINTENANCE:

- Inspect after each rain.
- Reshape or replace damaged sand bags immediately.
- Replace sediment when it reaches six inches in depth.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Street Cleaning

SC



DESCRIPTION:

Reduce the discharges of pollutants to stormwater from street surfaces by conducting street cleaning on a regular basis.

APPROACH:

- Prioritize cleaning to use the most sophisticated sweepers, at the highest frequency, and in areas with the highest pollutant loading.
- Restrict street parking prior to and during sweeping.
- Increase sweeping frequency just before the rainy season.
- Proper maintenance and operation of sweepers greatly increase their efficiency.
- Keep accurate operation logs to track programs.
- Reduce the number of parked vehicles using regulations.
- Sweepers effective at removing smaller particles (less than 10 microns) may generate dust that would lead to concerns over worker and public safety.
- Equipment selection can be key for this particular BMP. There are two types used, the mechanical broom sweepers (more effective at picking up large debris and cleaning wet streets), and the vacuum sweepers (more effective at removing fine particles and associated heavy metals). Many communities find it useful to have a compliment of both types in their fleet.

LIMITATIONS:

- Conventional sweepers are not able to remove oil and grease.
- Mechanical sweepers are not effective at removing finer sediments.
- Effectiveness may also be limited by street conditions, traffic congestion, presence of construction projects, climatic conditions and condition of curbs.

MAINTENANCE:

- Replace worn parts as necessary.
- Install main and gutter brooms of the appropriate weight.

PROGRAM ELEMENTS

☐ New Development
☐ Residential
☐ Commercial Activities
☐ Industrial Activities
☒ Municipal Facilities
☒ Illegal Discharges

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
■ Nutrients
■ Heavy Metals
☒ Toxic Materials
■ Oxygen Demanding Substances
☐ Oil & Grease
☒ Floatable Materials
☐ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

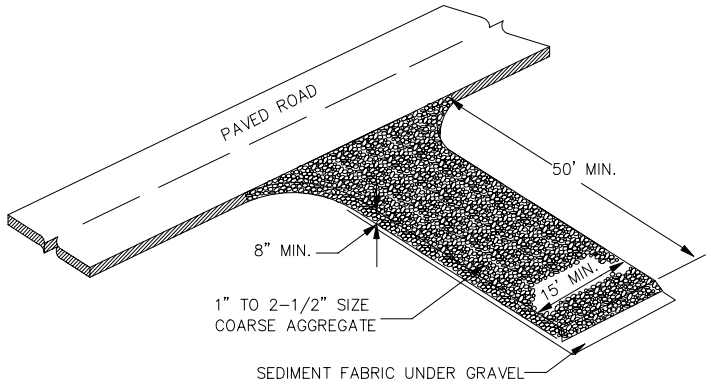
IMPLEMENTATION REQUIREMENTS

■ Capital Costs
■ O&M Costs
☒ Regulatory
☒ Training
■ Staffing
☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Stabilized Construction Entrance and Wash Area

SCEWA



DESCRIPTION:

A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface. The area can be used to spray off vehicles before they leave the site.

APPLICATIONS:

At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.

INSTALLATION/APPLICATION CRITERIA:

- Clear and grub area and grade to provide maximum slope of 2%.
- Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months).
- Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches.
- Provide water to the area that can be used to spray off vehicles as needed to prevent the tracking of mud off of the construction site. This may not be needed during dry periods of work, but is needed when construction is proceeding under wet conditions.
- Provide berming as needed to prevent sediment laden wash water from entering storm water facilities or other water bodies, or leaving the site.

LIMITATIONS:

- Requires periodic top dressing with additional stones.
- Should be used in conjunction with street sweeping on adjacent public right-of-way.
- Must be situated such that waste water does not run off site.

MAINTENANCE:

- Inspect daily for loss of gravel or sediment buildup.
- Inspect adjacent roadway for sediment deposit and clean by shoveling and sweeping.
- Repair entrance and replace gravel as required to maintain control in good working condition.
- Expand stabilized area as required to accommodate traffic and prevent erosion at driveways.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

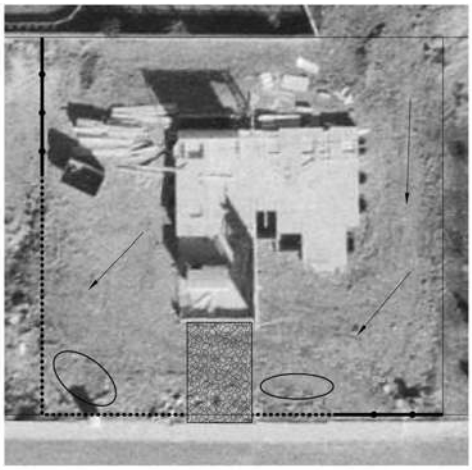
- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Sediment Control on Small Construction Sites

SCSCS



APPLICATIONS

- ☐ Manufacturing
- ☒ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☐ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☒ Housekeeping Practices

DESCRIPTION:

Control the perimeter, vehicular access, and the delivery of materials to small construction sites so that sediment, landscaping materials and other construction debris is not in the street. This BMP is intended to be applied to residential construction sites and small nonresidential sites.

APPROACH:

- Prior to any building construction on a site, identify the point of access to the property. This should generally be the location of the future driveway. Fence the remainder of the street frontage of the property, as well as side lot lines (as far as necessary to prevent access) with temporary fencing (silt fence may be used where silt fence is needed). This fencing is to remain in place until all construction or landscape material deliveries are complete. **No access is to be made at any point other than the designated point of access.**
- Control the perimeter of the site so that sediment-laden storm water does not leave the site during construction. This may involve sediment control measures such as silt fences, drainage swales or berms, straw or hay bale barriers, or rock check dams.
- Either utilize the curb cut or leave the curb, gutter and sidewalk in place (and replace it if needed when work is complete). **Do not place anything in the gutter, including dirt ramps.**
- Excavate for and place a bed of gravel or drain rock the full width of the future driveway (16' minimum), a distance of 27 feet back from the back of sidewalk. Place the rock to the depth necessary to prevent material delivery vehicles from contacting the on-site soils.
- At the proper time, the gravel or rock bed can be modified to serve as the base for concrete driveway placement. At that point, the concrete driveway will prevent delivery and other vehicles from coming into contact with on-site soils.

LIMITATIONS:

- It may be necessary to pump concrete to locations away from the bed of gravel or rock.
- Parking of workers' vehicles may require that the bed of gravel or rock be enlarged to make space for vehicle parking that keeps the vehicles from contacting the on-site soils.
- Builders, subcontractors, material suppliers, vendors and other visitors to the site must be educated to adhere to the practices outlined.
- Landscaping and construction materials must be placed on the lot, not the street or walk.

MAINTENANCE:

- Repair fencing as needed to maintain control of access.
- Repair sediment control measures as needed during construction.
- Replenish and dress up the gravel/rock area as needed during the course of construction.
- Any tracking of soil onto the adjacent street indicates inadequate performance of this BMP. Remove soil tracked onto the street at the end of any day that it occurs and take corrective measures to prevent soil tracking onto the street from recurring.

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Heavy Metals
- ☐ Toxic Materials
- ☐ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☒ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

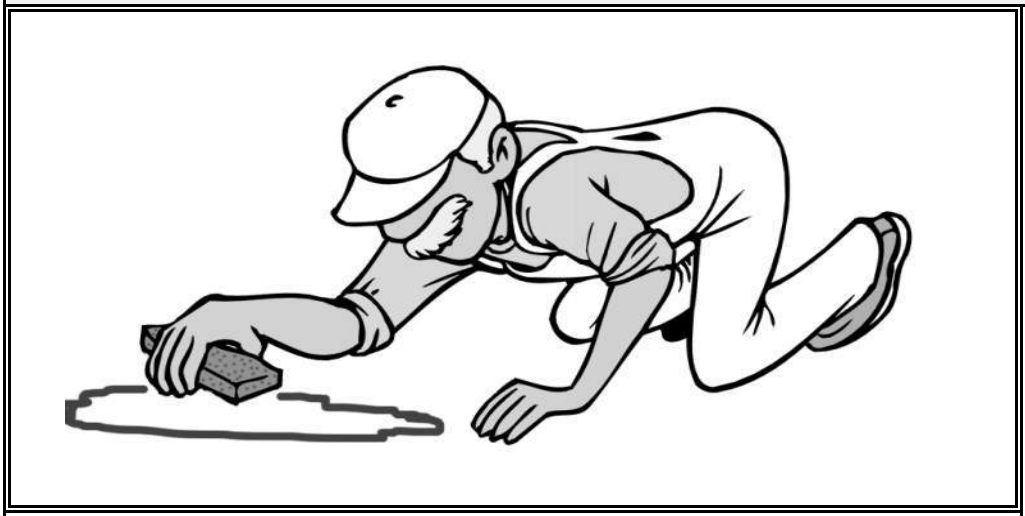
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ■ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Spill Clean-Up

SCU



DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #801-536-4100) for any spill of reportable quantity.

OBJECTIVES

☒ Housekeeping Practices
☒ Contain Waste
☐ Minimize Disturbed Areas
☐ Stabilize Disturbed Areas
☐ Protect Slopes/Channels
☐ Control Site Perimeter
☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

☐ Sediment
☐ Nutrients
■ Toxic Materials
☒ Oil & Grease
☐ Floatable Materials
☐ Other Waste

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

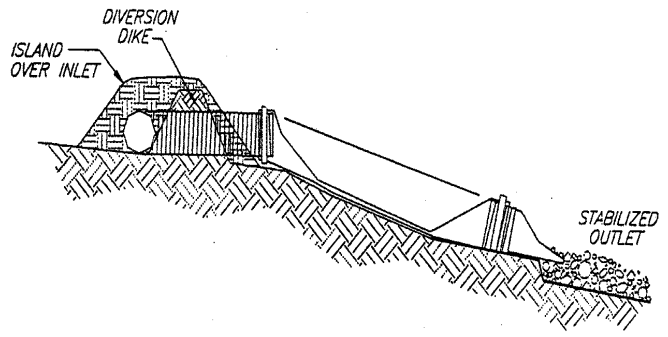
IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
■ Training

■ High ☒ Medium ☐ Low

BMP: Slope Drain

SD



DESCRIPTION:

A temporary pipe or lined channel that drains the top of a slope to a stable discharge point at the bottom of a slope without causing erosion.

APPLICATIONS:

- Where concentrated flow of surface runoff must be conveyed down a slope in order to prevent erosion.
- Drainage for top slope diversion dikes or swales.
- Emergency spillway for a sediment basin.
- Drainage for top of cut/fill slopes where water can accumulate.

INSTALLATION/APPLICATION CRITERIA:

- Secure inlet and surround with dikes to prevent gully erosion, and anchor pipe to slope.
- Size to convey at least the peak of a 10-year, storm event.
- Stabilize outlet. (See Outlet Protection BMP).

LIMITATIONS:

- Maximum drainage area per slope drain is 5 acres.
- Clogged slope drains will force water around the pipe and cause slope erosion.
- Dissipation of high flow velocities at the pipe outlet is required to avoid downstream erosion.
- Failure can result in flooding and severe erosion.

MAINTENANCE:

- Structure must be inspected weekly and after storms.
- Inlet must be free of undercutting and no water should circumvent the entry.
- Outlet should not produce erosion; velocity dissipaters must be maintained.
- Pipe anchors must be checked to ensure that the pipe remains anchored to the slope.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

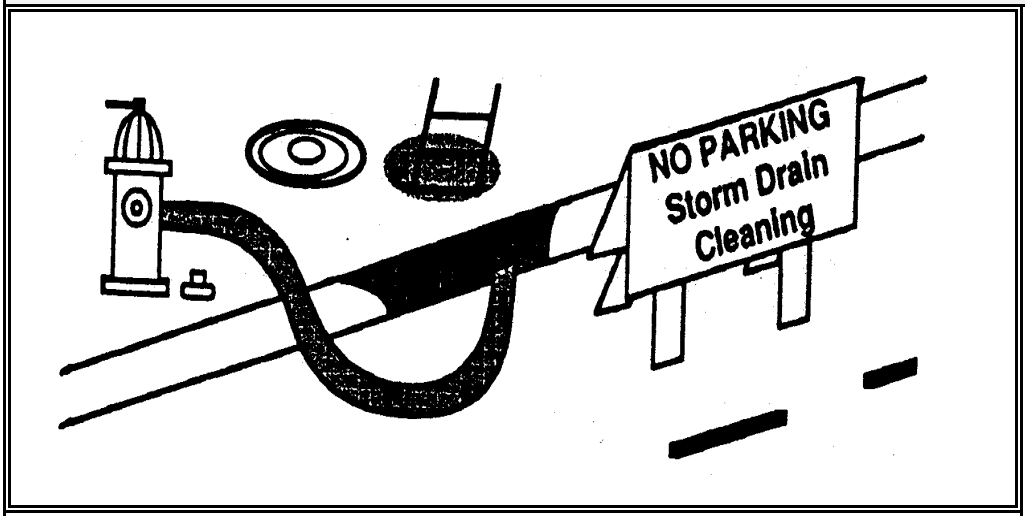
IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Storm Drain Flushing

SDF



DESCRIPTION:

A storm drain is "flushed" with water to suspend and remove deposited materials. Flushing is particularly beneficial for storm drain pipes with grades too flat to be self-cleansing. Flushing helps ensure pipes convey design flow and remove pollutants from the storm drain system.

APPROACH:

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.
- Whenever possible, flushed effluent should be collected, decanted, evaporated, and disposed of in a landfill.

LIMITATIONS:

- Most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity).
- Water source must be available.
- May have difficulty finding downstream area to collect sediments.
- Requires liquid/sediment disposal.

PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☐ Commercial Activities
- ☐ Industrial Activities
- ☒ Municipal Facilities
- ☐ Illegal Discharges

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☒ Heavy Metals
- ☐ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

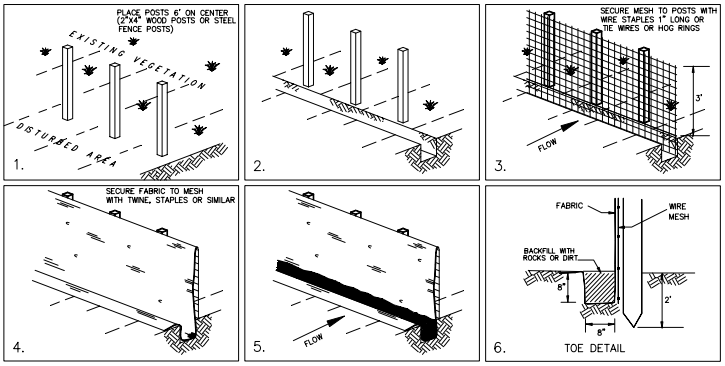
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ■ O&M Costs
- ☐ Regulatory
- ☒ Training
- ■ Staffing
- ☐ Administrative

■ High ☒ Medium ☐ Low

BMP: Silt Fence

SF



DESCRIPTION:

A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.

APPLICATION:

- Perimeter control: place barrier at downgradient limits of disturbance
- Sediment barrier: place barrier at toe of slope or soil stockpile
- Protection of existing waterways: place barrier near top of stream bank
- Inlet protection: place fence surrounding catchbasins

INSTALLATION/APPLICATION CRITERIA:

- Place posts 6 feet apart on center along contour (or use preassembled unit) and drive 2 feet minimum into ground. Excavate an anchor trench immediately upgradient of posts.
- Secure wire mesh (14 gage min. With 6 inch openings) to upslope side of posts. Attach with heavy duty 1 inch long wire staples, tie wires or hog rings.
- Cut fabric to required width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench.
- Backfill trench over filter fabric to anchor.

LIMITATIONS:

- Recommended maximum drainage area of 0.5 acre per 100 feet of fence
- Recommended maximum upgradient slope length of 150 feet
- Recommended maximum uphill grade of 2:1 (50%)
- Recommended maximum flow rate of 0.5 cfs
- Ponding should not be allowed behind fence

MAINTENANCE:

- Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- Look for runoff bypassing ends of barriers or undercutting barriers.
- Repair or replace damaged areas of the barrier and remove accumulated sediment.
- Reanchor fence as necessary to prevent shortcutting.
- Remove accumulated sediment when it reaches ½ the height of the fence.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

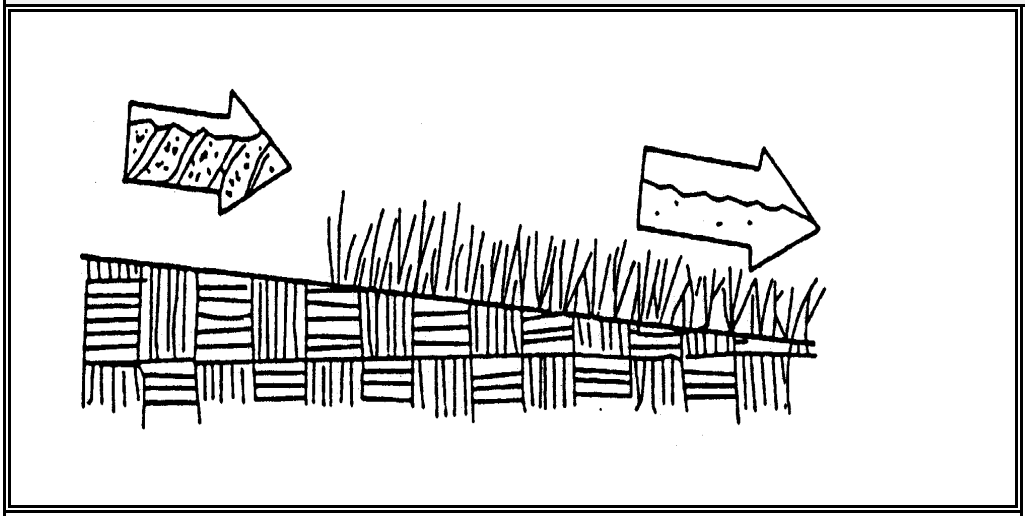
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Seeding and Planting

SP



DESCRIPTION:

Seeding of grass and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. Grasses can be planted for temporary stabilization.

APPLICATION:

- Appropriate for site stabilization both during construction and post-construction.
- Any graded/cleared areas where construction activities have ceased.
- Open space cut and fill areas.
- Steep slopes, spoil piles, vegetated swales, landscape corridors, stream banks.

INSTALLATION/APPLICATION CRITERIA:

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application.

Grasses:

- Ground preparation: fertilize and mechanically stabilize the soil.
- Tolerant of short-term temperature extremes and waterlogged soil composition.
- Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- Selection criteria: vigor, species, size, shape & wildlife food source.
- Soil conditions: select species appropriate for soil, drainage & acidity.
- Other factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- Ground preparation: lime and fertilizer preparation.
- Use proper seeding rates.
- Appropriate soil conditions: drainage, acidity and slopes.
- Generally avoid species requiring irrigation.

LIMITATIONS:

- Permanent and temporary vegetation may not be appropriate in dry periods without irrigation.
- Fertilizer requirements may have potential to create stormwater pollution.

MAINTENANCE:

- Shrubs and trees must be adequately watered and fertilized and if needed pruned.
- Grasses may need to be watered and mowed.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

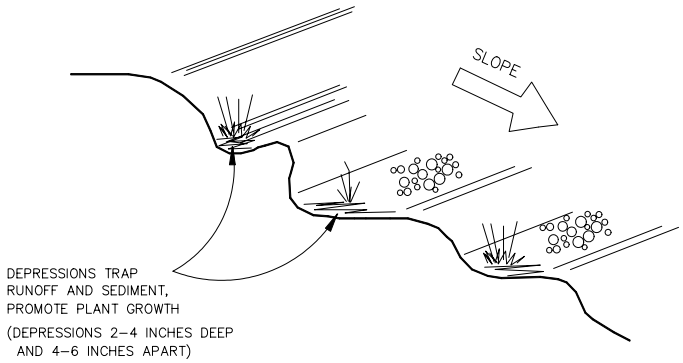
- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Surface Roughening

SR



DESCRIPTION:

Rough preparation of working areas leaving depressions and uneven surface. Depressions should be done parrallel to contours.

APPLICATION:

Surface roughening is appropriate for all construction that will not be receiving impervious cover within 14 days and that will be exposed less than 60 days (seed areas to be open in excess of 60 days).

INSTALLATION/APPLICATION CRITERIA:

- Surface should be left in rough condition during initial earthwork activity.
- Surfaces that have become smoothed or compacted due to equipment traffic should be roughened by use of disks, spring harrows, teeth on front end loader, or similar, operating along the contours of the slope. Tracking (by crawler tractor driving up and down slope) may also be used to provide depressions parallel to contours.
- Avoid compaction of soils during roughening as this inhibits plant growth and promotes storm water runoff. Limit tracked machinery to sandy soil.
- Seed or mulch areas to be exposed in excess of 60 days.
- Employ dust controls (See Dust Control BMP Fact Sheet).

LIMITATIONS:

- Will not withstand heavy rainfall.
- Slopes steeper than 2:1 (50%) should be benched (See Benching BMP Fact Sheet).

MAINTENANCE:

- Inspect following any storm event and at a minimum of weekly.
- If erosion in the form of rills (small waterways formed by runoff) is evident, perform machine roughening of area.
- For vegetated slopes reseed areas that are bare or have been reworked.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

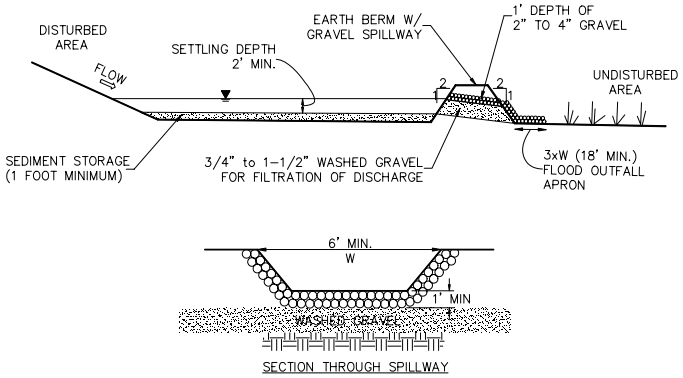
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Sediment Trap

ST



DESCRIPTION:

A sediment trap is a small excavated or bermed area where runoff from small drainage areas is detained and sediment can settle.

APPLICATION:

- Temporary control for runoff from disturbed areas of less than 3 acres.
- Temporary control for discharge from diversion dike, surface benching, or other temporary drainage measures.

INSTALLATION/APPLICATION CRITERIA:

- Design basin for site specific location.
- Excavate basin or construct compacted berm containment.
- Construct outfall spillway with apron.
- Provide downstream silt fence if necessary.

LIMITATIONS:

- Should be sized based on anticipated runoff, sediment loading and drainage area size.
- May require silt fence at outlet for entrapment of very fine silts and clays.

MAINTENANCE:

- Inspect after each rainfall event and at a minimum of monthly.
- Repair any damage to berm, spillway or sidewalls.
- Remove accumulated sediment as it reaches 2/3 height of available storage.
- Check outlet for sedimentation/erosion of downgradient area and remediate as necessary. Install silt fence if sedimentation apparent.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

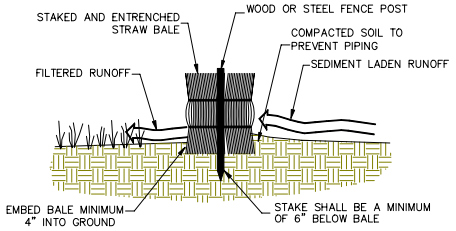
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☐ Training

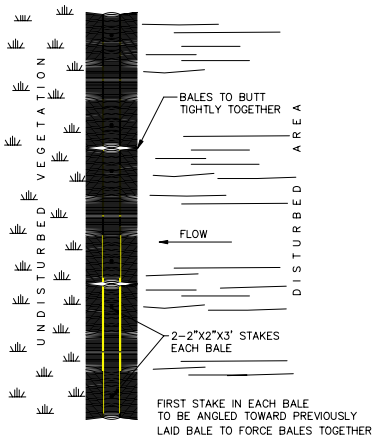
■ High ☒ Medium ☐ Low

BMP: Straw Bale Barrier

STB



SECTION



PLAN

DESCRIPTION:

Temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

APPLICATION:

- Perimeter Control: place barrier at downgradient limits of disturbance.
- Sediment barrier: place barrier at toe of slope or soil stockpile.
- Protection of existing waterways: place barrier near top of stream bank.
- Inlet Protection.

INSTALLATION/APPLICATION CRITERIA:

- Excavate a 4-inch minimum deep trench along contour line, i.e. parallel to slope, removing all grass and other material that may allow underflow.
- Place bales in trench with ends tightly abutting, fill any gaps by wedging loose straw into openings.
- Anchor each bale with 2 stakes driven flush with the top of the bale.
- Backfill around bale and compact to prevent piping, backfill on uphill side to be built up 4-inches above ground at the barrier.

LIMITATIONS:

- Recommended maximum area of 0.5 acre per 100 feet of barrier
- Recommended maximum upgradient slope length of 150 feet
- Recommended maximum uphill grade of 2:1 (50%)

MAINTENANCE:

- Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- Look for runoff bypassing ends of barriers or undercutting barriers.
- Repair or replace damaged areas of the barrier and remove accumulated sediment.
- Realign bales as necessary to provide continuous barrier and fill gaps.
- Recompact soil around barrier as necessary to prevent piping.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

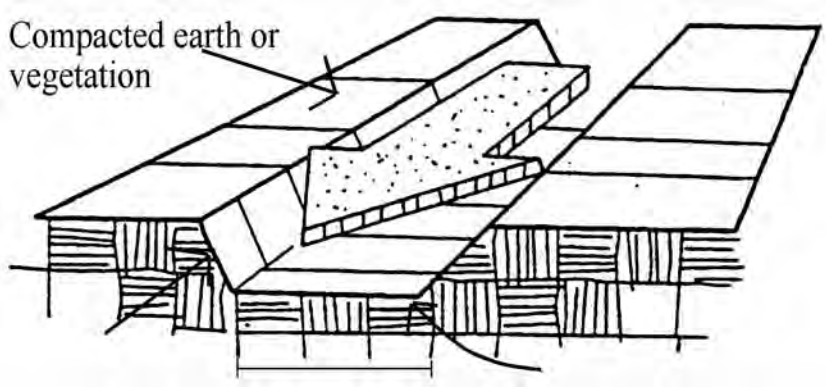
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Temporary Drains And Swales

TDS



DESCRIPTION:
Temporary drains and swales are used to divert off-site runoff around the construction site, divert runoff from stabilized areas around disturbed areas, and direct runoff into sediment.

APPLICATIONS:
- Temporary drains and swales are appropriate for diverting any upslope runoff around unstabilized or disturbed areas of the construction site.
- Prevent slope failures. Prevent damage to adjacent property. Prevents erosion and transport of sediments into water ways. Increases the potential for infiltration. Diverts sediment-laden runoff into sediment basins or traps.

INSTALLATION/APPLICATION:
- Temporary drainage swales will effectively convey runoff and avoid erosion if built properly:
- Size temporary drainage swales using local drainage design criteria. A permanent drainage channel must be designed by a professional engineer (see the local drainage design criteria for proper design).
- At a minimum, the drain/swale should conform to predevelopment drainage patterns and capacities.
- Construct the drain/swale with an uninterrupted, positive grade to a stabilized outlet. Provide erosion protection or energy dissipation measures if the flow out of the drain or swale can reach an erosive velocity.

LIMITATIONS:
- Temporary drains and swales or any other diversion of runoff should not adversely impact upstream or downstream properties.
- Temporary drains and swales must conform to local floodplain management requirements.

MAINTENANCE:
- Inspect weekly and after each rain.
- Repair any erosion immediately.
- Remove sediment which builds up in the swale and restricts its flow capacity.

OBJECTIVES

☐ Housekeeping Practices
☐ Contain Waste
☐ Minimize Disturbed Areas
☐ Stabilize Disturbed Areas
☒ Protect Slopes/Channels
☒ Control Site Perimeter
☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
☐ Nutrients
☐ Toxic Materials
☐ Oil & Grease
☐ Floatable Materials
☐ Other Waste

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☐ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP: Temporary and Permanent Seeding

TPS



DEFINITION:

Temporary seeding - establishment of short term cover by application of rapidly germinating seed mix (alternatively hydroseeding may be utilized).
Permanent seeding - establishment of final term cover by application of perennial seed mix (alternatively sod may be utilized).

APPLICATION:

Disturbed areas that are at final grade and which will not be disturbed by continuing activities on site. Also areas that are not at final grade but which will be left untouched in excess of one year.

RECOMMENDED SEED MIX:

The recommended seed mix will be dependent on site specific information such as elevation, exposure, soils, water available and topography. Check with the County Extension Service for recommended mixes for site specific conditions:

Utah State University Extension Service
51 South University Avenue, Suite 206
Provo, Utah 84601
phone (801) 370-8460

LIMITATIONS:

- Limited to areas that will not be subject to traffic or high usage.
- May require irrigation and fertilizer which creates potential for impacting runoff quality.
- May only be applied during appropriate planting season, temporary cover required until that time.

INSTALLATION:

- Roughen soil to a depth of 2 inches. Add fertilizer, manure, topsoil as necessary.
- Evenly distribute seed using a commonly accepted method such as broadcast seeding, drilling or hydroseeding.
- Use a seed mix appropriate for soil and location that will provide rapid germination and growth. Check with County Extension Service for recommended mix and application rate.
- Cover area with mulch if required due to steep slopes or unsuitable weather conditions.

MAINTENANCE:

- Provide irrigation as required to establish growth and to maintain plant cover through duration of project.
- Reseed as necessary to provide 75% coverage
- Remediate any areas damaged by erosion or traffic.
- When 75% coverage is achieved inspect monthly for damage and remediate as necessary.

OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ■ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

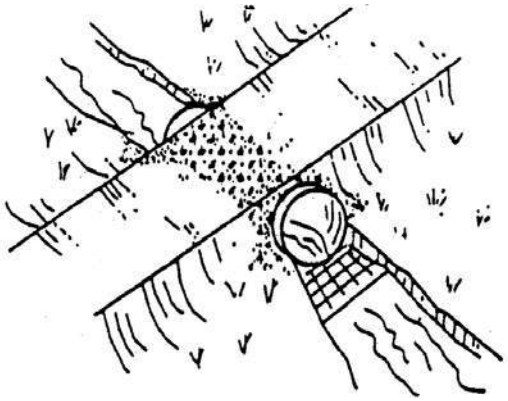
- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Temporary Stream Crossing

TSC



DESCRIPTION:

A temporary access stream crossing is a temporary culvert, ford or bridge placed across a waterway to provide access for construction purposes for a period of less than one year. Temporary access crossings are not intended to be used to maintain traffic for the general public.

APPLICATIONS:

Temporary stream crossings should be installed at all designated crossings of perennial and intermittent streams on the construction site, as well as for dry channels which may be significantly eroded by construction traffic.

INSTALLATION/APPLICATION:

Requires knowledge of stream flows and soil strength and should be designed under the direction of a Utah registered engineer with knowledge of both hydraulics and construction loading requirements for structures.

LIMITATIONS:

- May be expensive for a temporary improvement.
- Requires other BMP's to minimize soil disturbance during installation and removal.
- Fords should only be used in dry weather.
- A Stream Alteration Permit may be required, contact the Utah Division of Water Rights before implemention.

MAINTENANCE:

- Inspect weekly and after each significant rainfall, including assessment of foundations.
- Periodically remove silt from crossings.
- Replace lost aggregated from inlets and outlets of culverts.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

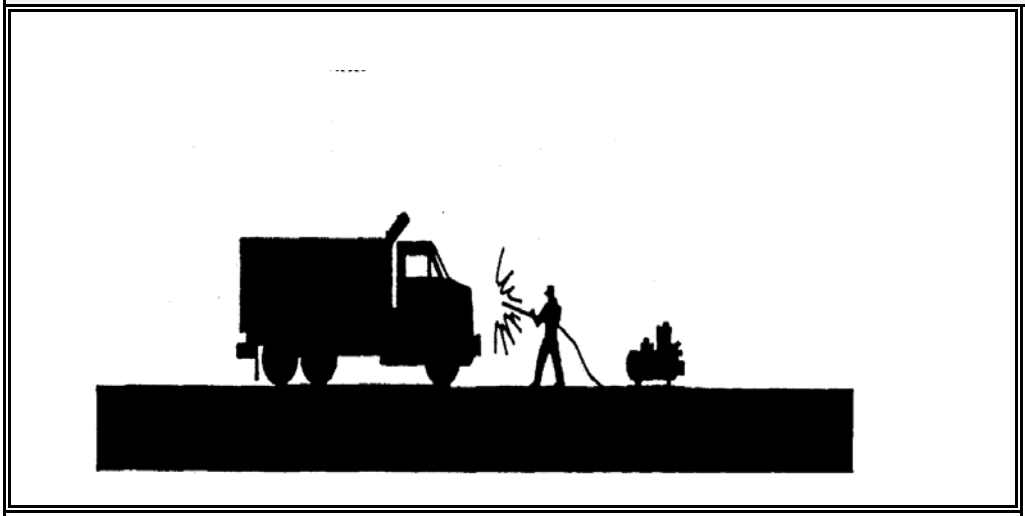
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Vehicle And Equipment Cleaning

VEC



DESCRIPTION:

Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and/or training employees and subcontractors.

INSTALLATION/APPLICATION:

- Use off-site commercial washing businesses as much as possible. Washing vehicles and equipment outdoors or in areas where wash water flows onto paved surfaces or into drainage pathways can pollute storm water. If you wash a large number of vehicles or pieces of equipment, consider conducting this work at an off-site commercial business. These businesses are better equipped to handle and dispose of the wash waters properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- If washing must occur on-site, use designated, bermed wash areas to prevent wash water contact with storm water, creeks, rivers, and other water bodies. The wash area can be sloped for wash water collection and subsequent infiltration into the ground.
- Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. Use phosphate-free biodegradable soaps. Educate employees and subcontractors on pollution prevention measures. Do not permit steam cleaning on-site. Steam cleaning can generate significant pollutant concentrations.

LIMITATIONS:

- Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades.
- Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance.

MAINTENANCE:

- Minimal, some berm repair may be necessary.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

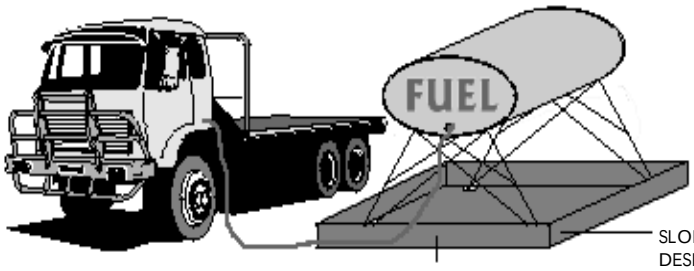
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP: Vehicle And Equipment Fueling

VEF



SLOPED OR OTHERWISE DESIGNED FOR EASY REMOVAL OF LEAKED FUEL

DESCRIPTION:

Prevent fuel spills and leaks, and reduce their impacts to storm water by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

INSTALLATION/APPLICATION:

- Use off-site fueling stations as much as possible. Fueling vehicles and equipment outdoors or in areas where fuel may spill/leak onto paved surfaces or into drainage pathways can pollute storm water. If you fuel a large number of vehicles or pieces of equipment, consider using an off-site fueling station. These businesses are better equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runon of storm water and the runoff of spills. Discourage"topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan or drop cloth, when fueling to catch spills/leaks. Place a stockpile of spill cleanup materials where it will be readily accessible. Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- Carry out all Federal and State requirements regarding stationary above ground storage tanks.(40 CF Sub. J) Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps forklifts, most vehicles should be able to travel to a designated area with little lost time. Train employees and subcontractors in proper fueling and cleanup procedures.

LIMITATIONS:

Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance.

MAINTENANCE:

- Keep ample supplies of spill cleanup materials on-site.
- Inspect fueling areas and storage tanks on a regular schedule.

OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

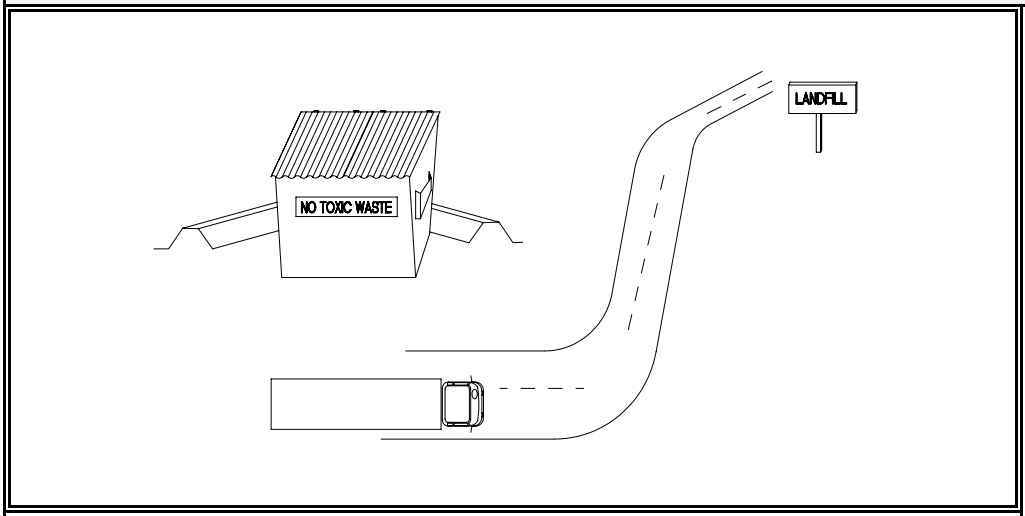
- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Waste Disposal

WD



DESCRIPTION:
Controlled storage and disposal of solid waste generated by construction activities.

APPLICATION:
All construction sites.

INSTALLATION:
- Designate one or several waste collection areas with easy access for construction vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Construct compacted earthen berm (See Earth Berm Barrier BMP Fact Sheet), or similar perimeter containment around collection area for impoundment in the case of spills and to trap any windblown trash.
- Use water tight containers with covers to remain closed when not in use. Provide separate containers for different waste types where appropriate and label clearly.
- Ensure all on site personnel are aware of and utilize designated waste collection area properly and for intended use only (e.g. all toxic, hazardous, or recyclable materials shall be properly disposed of separately from general construction waste).
- Arrange for periodic pickup, transfer and disposal of collected waste at an authorized disposal location. Include regular Porto-potty service in waste management activities.

LIMITATIONS:
- On-site personnel are responsible for correct disposal of waste.

MAINTENANCE:
- Discuss waste management procedures at progress meetings.
- Collect site trash daily and deposit in covered containers at designated collection areas.
- Check containers for leakage or inadequate covers and replace as needed.
- Randomly check disposed materials for any unauthorized waste (e.g. toxic materials).
- During daily site inspections check that waste is not being incorrectly disposed of on-site (e.g. burial, burning, surface discharge, discharge to storm drain).

OBJECTIVES

☒ Housekeeping Practices
☒ Contain Waste
☐ Minimize Disturbed Areas
☐ Stabilize Disturbed Areas
☐ Protect Slopes/Channels
☐ Control Site Perimeter
☐ Control Internal Erosion

Adapted from Salt Lake City BMP Fact Sheet

TARGETED POLLUTANTS

☐ Sediment
☐ Nutrients
■ Toxic Materials
☐ Oil & Grease
☐ Floatable Materials
■ Other Waste

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

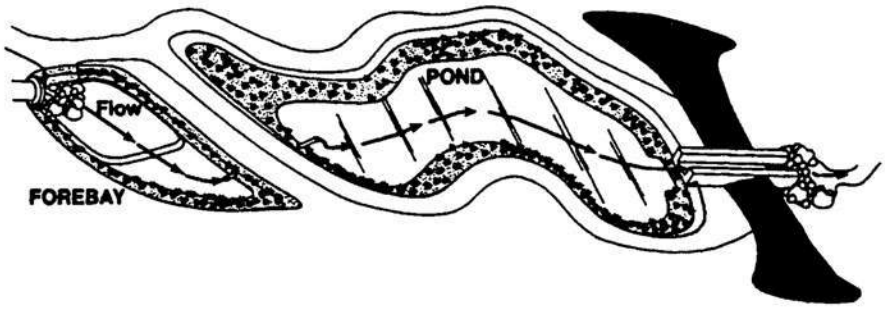
■ Capital Costs
■ O&M Costs
☒ Maintenance
■ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

BMP: Wet Ponds

WP



DESCRIPTION:
A wet pond has a permanent water pool to treat incoming stormwater. An enhanced wet pond includes a pretreatment sediment forebay.

APPLICATION:
- Need to achieve high level of particulate and some dissolved contaminant removal.
- Ideal for large, regional tributary areas.
- Multiple benefits of passive recreation (e.g. bird watching, wildlife habitat).

INSTALLATION/APPLICATION CRITERIA:
- Water depth of 3 to 9 feet.
- Wetland vegetation, occupying 25-50% of water surface area.
- Design to minimize short-circuiting.
- Bypass storms greater than two year storm.
- Establishing wetland vegetation may be difficult.

LIMITATIONS:
- Concern for mosquitoes and maintaining oxygen in ponds.
- Cannot be placed on steep unstable slopes.
- Need base flow or supplemental water if water level is to be maintained.
- Infeasible in very dense urban areas.
- May require permits from various regulatory agencies, e.g.,Corps of Engineers.

MAINTENANCE:
- Remove floatables and sediment build-up.
- Correct erosion spots in banks.
- Control mosquitoes.

CONSIDERATIONS

☒ Soils
☒ Area Required
☒ Slope
☒ Water Availability
☒ Aesthetics
☐ Hydraulic Head
☒ Environmental Side Effects

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

■ Sediment
☒ Nutrients
☒ Heavy Metals
☒ Toxic Materials
☒ Oxygen Demanding Substances
☒ Oil & Grease
■ Floatable Materials
☒ Bacteria & Viruses

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

J·U·B Engineers, Inc.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX G – MAINTENANCE AGREEMENT

THIS AGREEMENT entered into this _____ day of _____, 20___, by and between PLEASANT GROVE CITY, a Municipal Corporation of Utah (hereinafter referred to as CITY), and _____, (hereinafter referred to as LAND OWNER), whose mailing address is

_____,

_____,

and telephone number is (_____) - _____ - _____.

WITNESSETH:

WHEREAS, the CITY has adopted a Strom Water Management Plan (hereinafter Management Plan) and established maintenance responsibilities for storm water management facilities on private property which connect to the CITY storm water system; and

WHEREAS, under said Management Plan the CITY has the authority to inspect private drainage systems within the CITY, and to order such corrective actions to said private storm water drainage systems as are necessary to maintain properly the drainage systems within the CITY; and

WHEREAS, under said Management Plan it is provided that private storm water drainage systems must be maintained by the property owner, and a maintenance agreement must be executed before the development plan is approved, or in the case of developed properties has already been approved; and

WHEREAS, the Landowner is the owner of certain real property, more particularly described as

LEGAL DESCRIPTION

Project/Development Name - _____

(hereinafter called the "Property"); and

WHEREAS, the Landowner is proceeding to build on and develop the property (or the property has previously been developed); and

WHEREAS, the Management Plan provides for the construction of storm water drainage systems on the property and such are detailed in the Site Plan/Subdivision Plan (Site Plan); and

WHEREAS, the City and the Landowner agree that the health, safety, and general welfare of the residents of Pleasant Grove City require that storm water drainage systems be constructed and maintained on the property; and

WHEREAS, the City requires that storm water drainage systems as shown on the Site Plan be constructed and adequately maintained by the Landowner;

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The storm water drainage systems shown in the Site Plan shall be constructed by the Landowner in accordance with the plans and specifications in the Management Plan.
2. The Landowner shall maintain the storm water drainage systems as shown on the Site Plan in good working order acceptable to the City.
3. The Landowner shall annually certify that adequate maintenance has been performed and the structural controls are operating as designed to protect water quality. Such certification shall be on a form provided by the City and occur with renewal of business license or, if there is no business license required, at an agreed upon date each year.
4. In the event that Federal or State regulations governing the City's Management Plan change such that modifications are needed to the Site Plan, the Landowner shall make such updates within four months of notification by the City.
5. The landowner hereby grants permission to the City, its authorized agents, and employees to enter the property and to inspect any storm water structures wherever it deems necessary.
6. In the event the Landowner fails to maintain storm water drainage sytems as shown on the Site Plan in good working order acceptable to the City, the City may enter the property and take whatever steps it may deem necessary to maintain said storm water drainage systems. It is expressly understood and agreed that City is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.
7. In the event the City, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, or materials, the Landowner shall reimburse the City on demand, within a time frame specified by the City for all

costs incurred, including reasonable attorney's fees in the event that an action to collect such costs must be instituted.

8. It is the intent of this Agreement to insure the proper maintenance of storm water drainage systems and structures by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by storm water management.
9. The Landowner, its executors, administrators, assigns, and any other successors in interest, shall indemnify and hold the City and its agents and its employees harmless for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the City from the construction, presence, existence, or maintenance of the storm water drainage systems by the Landowner or the City.
10. In the event a claim is asserted against the City, its agents, or employees, the City shall notify the Landowner and the Landowner shall defend at his own expense any suit based on such claim. If any judgment or claims against the City, its agents, or its employees shall be allowed, the Landowner shall pay all costs and expenses in connection therewith.
11. This Agreement shall be recorded among the land records of Utah County, Utah, and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, leasees, executors, assigns, heirs, and any other successors in interest.

WHEREUPON, the parties hereto have set their hands the day and year first above written.

LANDOWNER

_____

By (Print Name):

_____

Signature:

_____

Title:

_____

Property Ownership Entity:

(Signature must be notarized, as applicable, on page four or five of this document.)

Date Signed: _____/_____/_____

PLEASANT GROVE CITY

AUTHORIZED CITY OFFICIAL

_____

(Print Name)

_____

Signature

_____/_____/_____

Date Signed

_____

Title

Authorized City Officials

- City Engineer
- Public Works Director
- City Administrator

APPLICANT NOTARY (Use Appropriate Acknowledgment)

(Complete only if APPLICANT is an Individual)

STATE OF _____)

COUNTY OF _____) ss.

On this _____ day of _____, 20___, personally appeared before me,

_____, the signer(s) of the foregoing instrument, who duly acknowledged to me that s/he executed the same.

NOTARY PUBLIC

_____

(Print Name)

_____ _____/_____/_____

Signature My Commission Expires

Residing in _____ County, State of _____

(Complete only if APPLICANT is a Partnership)

STATE OF _____)

COUNTY OF _____) ss.

On this _____ day of _____, 20___, personally appeared before me,

_____, who being by me duly sworn did say that s/he is the_____ of _____, a partnership, and that the foregoing instrument was signed in behalf of said partnership after a lawful meeting held or by authority of its by-laws and signed in behalf of said partnership.

NOTARY PUBLIC

_____

(Print Name)

_____ _____/_____/_____

Signature My Commission Expires

Residing in _____ County, State of _____

(Complete only if APPLICANT is a Corporation)

STATE OF _____)

COUNTY OF _____) ss.

On this _____ day of _____, 20___, personally appeared before me,

_____, who being by me duly sworn did say that s/he/ is the _____ of, _____, a Corporation, and that the foregoing instrument was signed in behalf of said Corporation by authority of its Board of Directors, and s/he acknowledged to me that said Corporation executed the same.

NOTARY PUBLIC

_____

(Print Name)

_____ _____/_____/_____

Signature My Commission Expires

Residing in _____ County, State of _____

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX H – PREFERRED DESIGN SPECIFICATIONS

CONTENTS

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Retail Gasoline Outlets (BMP PD-1)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that provide vehicle fueling services.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Fueling
2. Air/water supplying areas
3. Dumpster and trash can areas

Pollutants may include:

1. Heavy metals (copper, lead, nickel, and zinc)
2. Hydrocarbons (oil and grease, PAHs)
3. Toxic chemicals (benzene, toluene, xylene)
4. Trash

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products.
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets.
c. Reduce the use of water and/or use dry methods (e.g. sweeping).
d. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning outdoor areas, contain the wash water and dispose of in the sanitary sewer (with permission of the local sewer provider) or for offsite disposal, do not dispose of in the gutter or street.
- Maintain facility and move/cover activities/materials to prevent contact with storm water.
- Inspect and clean leaks and drips routinely.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain.
- Inspect/clean, storm drain inlets within the facility boundary before October 1 each year.

FUELING

- Maintain fuel dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills.
- Fueling areas should never be washed down unless the wash water is collected and disposed of properly. Do not discharge waste to the sanitary sewer until contacting the local sewer authority to determine if pretreatment is required.
- Fit fuel dispensing nozzles with "hold-open latches" (automatic shutoffs) except where prohibited by local fire departments.
- Cover the fuel dispensing area such that the cover's minimum dimensions are equal to or greater than the area within the grade break or fuel dispensing area. Position roof downspouts to direct water away from fueling areas.
- Construct a berm around the perimeter of the fuel dispensing area to prevent the run-on of uncontaminated storm water from adjacent areas as well as storm water runoff.
- Slope the pavement near the fuel dispensing areas to prevent ponding.
- Post signs at the fuel dispenser or fuel island warning vehicle owners/operators against "topping off" of vehicle fuel tanks.
- Install protective guards around tanks and piping to prevent vehicle damage and spills.

DUMPSTER AND TRASH CAN AREAS

- Minimize the possibility of storm water pollution from outside waste receptacles by doing the following:
    - Use only water-tight waste receptacle(s) and keep the lid(s) closed;
    - Grade and pave the waste receptacle area to prevent run-on of storm water;
    - Install a roof over the waste receptacle area;
    - Install a low containment berm around the waste receptacle area; and
    - Empty waste receptacles frequently.

SPILL CLEANUP

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.

4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Auto Repair Shops (BMP PD-2)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that conduct auto repair and maintenance activities.

Potential Pollutant Sources

The following activities are potential sources of pollutants:

1. Automobile servicing
2. Parts cleaning
3. Materials and waste handling
4. Materials storage
5. Cleaning floors

Pollutants may include:

1. Fueling
2. Heavy metals (copper, lead, nickel, and zinc)
3. Hydrocarbons (oil and grease, PAHs)
4. Toxic chemicals (solvents, chlorinated compounds, glycols)
5. Acids and alkalis

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Minimize use of solvents – use water-based solvents for cleaning, if possible;
e. Recycle and reuse waste products and waste flows; and
f. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning shop floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer (with permission of sewer provider) or for offsite disposal, do not dispose of in the storm drain, gutter, or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.

- Use a vehicle maintenance area designed to prevent storm water pollution – minimize contact of storm water with outside operations through berming and appropriate drainage routing.
- Inspect and clean leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.
- Manage materials and waste to reduce adverse impacts on stormwater quality.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain.
- Inspect and clean if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.
- Sweep parking lots and areas around your facility instead of washing them down with water.
- Send dirty rags to an industrial laundry.

AUTOMOBILE SERVICING

- Only conduct maintenance or repair work in designated areas with spill containment.
    - Construct a berm or intercept trench at doorways to prevent the run-on of uncontaminated storm water from adjacent areas as well as stormwater runoff.
    - Avoid working over asphalt and dirt floors – surfaces that absorb vehicle fluids.
- Perform all vehicle fluid removal or changing inside or under cover, if possible, to prevent the run-on of storm water and the runoff of spills.
- Keep a drip pan under the vehicle while unclipping hoses, unscrewing filters, or removing other parts. Use a drip pan under any vehicle that might leak.
- Use a tarp, ground cloth, or drip pans beneath the vehicle or equipment to capture all spills and drips if temporary work is being conducted outside. Collected drips and spills must be disposed, reused, or recycled properly.
- Keep equipment clean – do not allow excessive build-up of oil and grease.
- Monitor parked vehicles for leaks. Pans should be placed under any leaks to collect the fluids for proper disposal or recycling. Drain oil and other fluids first if the vehicle or equipment is to be stored outdoors. Do not allow leaking vehicles on-site.
- Avoid soldering over drip tanks. Sweep up drippings and recycle or dispose of as hazardous waste.
- Sweep or use a vacuum to clean up dust and debris from scraping or bead blasting radiators.

PARTS CLEANING

- Clean vehicle parts without using liquid cleaners wherever possible to reduce waste.
- Steam cleaning and pressure washing may be used instead of solvent parts cleaning. The wastewater generated from steam cleaning must be discharged to an on-site oil/water separator that is connected to a sanitary sewer or blind sump. Never discharge wastewater from steam cleaning, or engine/parts cleaning to a street, gutter, or storm drain.

- Non-caustic detergents should be used instead of caustic cleaning agents, detergent-based or water-based cleaning systems in place of organic solvent degreasers, and non-chlorinated solvent in place of chlorinated organic solvents for parts cleaning.
- Designate specific areas or service bays for engine, parts, or radiator cleaning. Do not wash or rinse parts outdoors. Keep water from flowing to storm drains, gutters, and streets.
- Use self-contained sinks and tanks when working with solvents. Keep sinks and tanks covered when not in use.
- Rinse and drain parts over the solvent sink or tank. Use drip boards or pans to catch excess solutions and divert them back to a sink or tank.
- Inspect degreasing solvent sinks regularly for leaks and make necessary repairs immediately.
- Allow parts to dry over the hot tank. If rinsing is required, rinse over the tank as well.
- Collect and reuse parts cleaning solvents and water used in flushing and testing radiators. When reuse is no longer possible, these solutions may be hazardous wastes, and must be disposed properly.
- Rinse water may only be discharged to the sanitary sewer with adequate treatment and approval (with permission of sewer provider).

MATERIALS AND WASTE HANDLING

- Label all hazardous wastes according to hazardous waste regulations.
- Keep lids on waste barrels and containers and store them indoors or under cover to reduce exposure to rain and prevent spills from reaching the sanitary sewer or storm drain, gutter, and street.
- Do not pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections.
- Do not leave drip pans or other open containers lying around.
- Recycle oil.
- Store cracked batteries in a non-leaking secondary container and dispose of properly at recycling or household hazardous waste facilities.
- Store waste containers of antifreeze and oil within secondary containment. Antifreeze and waste oil should be stored separately and recycled, or disposed of as hazardous waste.
- Ask your supplier for information on less toxic chemical cleaners and other products.
- Label and track the recycling of waste material (e.g. used oil, spent solvents, batteries).

MATERIALS STORAGE

- Double-contain all bulk fluids to prevent accidental discharges.
- Store new batteries securely to avoid breakage and acid spills. Store used batteries indoors and in plastic trays to contain potential leaks.

CLEANING FLOORS

- Collect all metal filings, dust, and paint chips from grinding, shaving, and sanding, and dispose of waste properly. Collect all dust from brake pads separately and dispose of the waste properly. Never sweep these wastes outside.
- Use dry cleaning methods (i.e. sweeping, vacuuming) to prevent the discharge of pollutants into the storm drain conveyance system.
- If cleaning agents are used, select biodegradable products.
- If water is used, block off storm drain or contain runoff and collect wash water to pump to the sanitary sewer, if allowed. If wash water contains soaps or other cleaning agents and can not be pumped to the sanitary sewer, it may need to be disposed of as hazardous waste.
- Consider using an oleophilic mop (picks up oil and not water) to reduce the volume of waste liquids you collect and reduce your cost for disposal.

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily accessible.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Minimize the distance between waste collection points and storage areas.
- Contain and cover all solid and liquid wastes – especially during transfer.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Kennels (BMP PD-3)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that conduct kennel and other types of domestic animal housing and maintenance practices.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Animal cleaning
2. Animal housing

Pollutants may include:

1. Bacteria
2. Nutrients
3. Soaps, detergents
4. Pesticides

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and.
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for outdoor kennel areas, contain the wash water and dispose of in the sanitary sewer. Do not dispose of in the gutter or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Stencil on-site storm drains.

ANIMAL CLEANING

- When washing animals, wash in a designated area that drains to the sanitary sewer.

ANIMAL HOUSING

- If feasible, house the animals in paved and covered areas.
- If housing the animals in covered areas is not feasible, cover the ground with vegetation or some other type of ground cover such as mulch.
- Clean the animal handling areas frequently.
- Use dry cleaning methods to clean animal handling areas.
    - Sweeping animal handling areas is encouraged.
    - Properly dispose of droppings, uneaten food and other potential contaminants. Do not wash out to storm drains, gutters, or streets when cleaning the area.
- If water is used for cleaning the housing areas:
    - Do not discharge wash water to storm water drains or other receiving waters.
    - Block the storm drain and contain runoff.
    - Wash water should be collected and pumped to the sanitary sewer and should not enter storm drains.

SPILL CONTROL

- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Auto Dealers (BMP PD-4)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that buy, trade and sell automobiles.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Minor automobile servicing
2. Cleaning Floors
3. Washing cars
4. Parking lot cleaning

Pollutants may include:

1. Heavy metals (copper, lead, nickel, and zinc)
2. Hydrocarbons (oil and grease, PAHs)
3. Toxic chemicals (solvents, chlorinated compounds, glycols)
4. Acids and alkalis

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning shop floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer (if allowed by the local sewer authority) or for offsite disposal, do not dispose of in the gutter or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Inspect and clean leaks and drips routinely.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain.

MINOR AUTOMOBILE SERVICING

Maintenance and Repair Work

- Only conduct maintenance or repair work in designated areas with spill containment.
    - Construct a berm or intercept trench at doorways to prevent the run-on of uncontaminated stormwater from adjacent areas as well as stormwater runoff.
    - Avoid working over asphalt and dirt floors which can absorb vehicle fluids.
- Perform all vehicle fluid removal or changing inside or under cover if possible to prevent the run-on of storm water and the runoff of spills:
    - Keep a drip pan under the vehicle while unclipping hoses, unscrew filters, or removing other parts. Use a drip pan under any vehicle that might leak.
    - Promptly transfer used fluids to the proper waste or recycling drums. Do not leave drip pans or other open containers lying around.
    - Do not change motor oil or perform equipment maintenance in non-appropriate areas.
- Use a tarp, ground cloth, or drip pans beneath the vehicle or equipment to capture all spills and drips if temporary work is being conducted outside. Collected drips and spills must be disposed, reused, or recycled properly.

CLEANING FLOORS

- Use dry cleaning methods (i.e. sweeping, vacuuming) to prevent the discharge of pollutants to the storm drain conveyance system.
- If cleaning agents are used, select biodegradable products.
- If water is used, block off storm drain or contain runoff and collect wash water to pump into the sanitary sewer, if allowed. If wash water contains soaps or other cleaning agents and can not be pumped to the sanitary sewer, it may need to be disposed of as hazardous waste.

WASHING CARS

- Use off-site commercial washing businesses, if feasible.
- Designate an impervious indoor or outdoor area to be used solely for vehicle washing. Clearly mark the vehicle washing area.
- Design wash area to collect and properly dispose of wash water and/or effluent generated.
    - Install sumps or drain lines to collect wash water.
    - Construct a berm around the area to collect wash water and prevent storm water run-on.
    - Use portable containment and vacuum collect the wash water.
- If the wash area is outdoors, cover the area when not in use.
    - Collect all wash water from vehicle cleaning operations and discharge to a sanitary sewer (if allowed by the local sewer authority), holding tank, or process treatment system through an enclosed recycling system.
    - Do not discharge wash water to sanitary sewer until contacting the local sewer authority to find out if pretreatment is required.

    - Install a water recirculation/reclamation system, if feasible.
- Use biodegradable, phosphate-free detergents. Remember, even though these detergents are better, the wash water still needs to be discharged to the sanitary sewer.
- Provide trash containers in wash area and empty on a regular basis. Use recycle bins.
- Use hoses with nozzles that automatically turn off when left unattended.
- Do not degrease the engine in the wash area. Take the vehicle to an off-site facility that can process the wastewater.

PARKING LOT CLEANING

- Inspect the storage yard for filling drip pans and other programs (leaking equipment) regularly.
- Provide an adequate number of litter receptacles. Clean out and cover litter receptacles frequently to prevent spillage.
- Clean oil/water/sand separators regularly, especially after heavy storms.
- Establish a parking lot sweeping frequency based on usage and waste accumulation.
- Sweep all parking lots at least once before the onset of the wet season.
- Inspect and clean if necessary, storm drain inlets and catch basins within the facility boundary before October 1 each year.
- Use dry cleaning methods (i.e. sweeping, vacuuming) to prevent the discharge of pollutants into the storm drain conveyance system.
- If water or cleaning agents are used for cleaning (even biodegradable cleaners) :
    - Block the storm drain or contain runoff.
    - Wash water should be collected and pumped to the sanitary sewer or discharge to a pervious surface. Do not allow wash water to enter storm drains, gutters, or streets. If wash water does not contain soap or other cleaning agents, discharge to a pervious surface.
    - Dispose parking lot sweeping debris and dirt in the trash.
- When cleaning heavy oily deposits:
    - Use absorbent materials on oily spots prior to sweeping or washing.
    - Dispose used absorbents appropriately.
    - Vacuum/pump discharges to a tank or discharge to a sanitary sewer (with permission).

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily accessible.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Equipment Rentals (BMP PD-5)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that clean, store, and rent equipment.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Equipment servicing
2. Washing equipment
3. Handling/storing materials
4. Storing equipment
5. Equipment fueling

Pollutants may include:

1. Heavy metals (copper, lead, nickel, and zinc)
2. Hydrocarbons (oil and grease, PAHs)
3. Toxic chemicals (solvents, chlorinated compounds, glycols)
4. Acids and alkalis

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, or streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning shop floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer (with permission of sewer provider) or for offsite disposal. Do not dispose of in the gutter or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Inspect and clean leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.

- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain.

EQUIPMENT SERVICING

- Perform major equipment repairs in a specified area or corporation yard.
- Move maintenance and repair activities indoors, if possible. If this is not possible, cover repair area with a permanent roof. Place curbs or berms around the immediate boundaries of the process equipment.
- Regularly inspect equipment for leaks. Collect leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle or dispose of if kept separate.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Do not hose down work areas. If work areas are washed with water, discharge wash water to the sanitary sewer with permission. If discharge to the sanitary sewer is not permitted, collect wash water and dispose of properly.
- Keep equipment clean – do not allow excessive build-up of oil or grease.

WASHING EQUIPMENT

- Use off-site commercial washing businesses, if feasible.
- If washing must occur on-site, designate an impervious area to be used solely for equipment washing. Clearly mark the equipment washing area.
- Design wash area to collect and properly dispose of wash water.
- Recycle or reuse liquid cleaners, if feasible. Use non-toxic cleaners.
- If the wash area is outdoors, cover the area when not in use.
- Provide trash containers in wash area and empty on a regular basis. Use recycle bins.
- Discharge wash water to sanitary sewer.

HANDLING/STORING MATERIALS

- Do not pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains.
- Promptly transfer used fluids to the proper waste or recycling drums. Do not leave full drip pans or other open containers lying around.
- Store batteries in a secondary container.

STORING EQUIPMENT

- Place drip pans or absorbent materials under equipment.
- Sweep/vacuum all storage area at least once before the onset of the wet season.
- Use dry cleaning methods to prevent the discharge of pollutants into the storm water conveyance system.
- Dispose of storage area sweeping debris and dirt properly.

- If water is used, block off storm drain or contain runoff and collect wash water to pump to the sanitary sewer.
- If cleaning agents are used, select biodegradable products.
- Clean heavy oily spots with absorbent materials. Seal the storm drain.
- Appropriately dispose of spilled materials and absorbents.
- Provide an adequate number of litter receptacles. Clean out and cover litter receptacles frequently to prevent spillage.

EQUIPMENT FUELING

- Maintain fuel dispensing areas using dry cleanup methods such as sweeping for removal of litter and debris, or use of rags and absorbents for leaks and spills. Fueling areas should never be washed down unless the wash water is collected and disposed of properly.
- Clean leaks and drips immediately. Leaks are not cleaned up until the absorbent is picked up and disposed properly.
- Install vapor recovery nozzles to help control drips as well as air pollution.
- Use secondary containment such as curbs or berms when transferring fuel from the tank truck to the fuel tank.

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Restaurants (BMP PD-6)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that prepare and serve food.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Dumpster and loading dock area maintenance
2. Equipment cleaning
3. Grease handling and disposal
4. Landscaping and grounds maintenance

Pollutants may include:

1. Bacteria
2. Organic materials (food wastes)
3. Trash
4. Oil and grease
5. Toxic chemicals (cleaning products, disinfectants)

Pollution Prevention

Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning facility floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer. Do not dispose of in the gutter, storm drain, or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Stencil on-site storm drains.

DUMPSTER AND LOADING DOCK AREAS MAINTENANCE

- Provide trash and recycling receptacles to keep litter from accumulating around loading docks.
- Bag and seal food waste before putting it in the dumpster. Do not place uncontained liquids, or leaking containers or garbage bags into a dumpster.
- Keep dumpster lids closed to keep out rainwater and to prevent trash from spilling out. Consider enclosing the dumpster in a roofed and contained area.
- If the dumpster regularly overflows, get a bigger one or arrange for more frequent collection.
- If dumpster is hosed out for cleaning, direct the wash water to landscaping or the sanitary sewer once the floatable trash and debris are removed.
- Have the dumpster leasing company repair or replace leaky dumpsters and compactors, and have them clean out dirty dumpsters.
- Keep dumpsters or the dumpster enclosure locked to prevent illegal dumping.

EQUIPMENT CLEANING

- Clean floor mats, filters, and garbage cans in a mop sink, floor drain, or proper outside area connected to the sanitary sewer with an oil and water separator. Pour all wash water into the mop sink. Do not wash them in a parking lot, alley, sidewalk, or street.

GREASE HANDLING AND DISPOSAL

- Recycle grease and oil. Do not contaminate the recyclable oils and grease in the tallow bin with the waste grease from the grease trap or grease interceptor.
- Keep grease that is stored outside under a roof, if feasible.
- Clean grease trap regularly.
- For disposal of waste grease from the grease trap or grease interceptor, see “Grease Traps” or “Septic Tanks” in the phone book.

MATERIALS PURCHASING, RECYCLING, AND DISPOSAL

- Dispose of toxic waste properly. Toxic wastes include used cleaners and rags (soaked with solvents, floor cleaners, and detergents).

LANDSCAPING AND GROUNDS MAINTENANCE

- Leftover pesticides must either be used up or disposed of as hazardous waste. Do not dispose leftover pesticides in the gutter, street, or storm drain.
- If pesticides are used, do not over-apply or apply when rain is forecasted.
- Do not blow or rake leaves, grass, or garden clippings into the street, gutter, or storm drain.

SPILL CLEANUP

- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Auto Body Shops (BMP PD-7)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that conduct auto body repair, painting, detailing and washing.

Potential Pollutant Sources

The following activities are potential sources of pollutants:

1. Wet and dry sanding
2. Painting
3. Washing cars and other vehicles
4. Cleaning floors

Pollutants may include:

1. Heavy metals (copper, lead, nickel, and zinc)
2. Hydrocarbons (oil and grease, PAHs)
3. Toxic chemicals (solvents, chlorinated compounds)

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning shop floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer (with permission of the sewer agency) or for offsite disposal, do not dispose of in the gutter or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- When receiving damaged vehicles, inspect for leaks. Use drip pans, if necessary.
- Conduct all body repair and painting work indoors.
- Inspect and clean leaks and drips routinely. Leaks are not cleaned up until the absorbent is picked up and disposed of properly.

- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain.

WET AND DRY SANDING

- Conduct all sanding indoors.
- Use dent repair tools, whenever practical for small dents.

Dry Sanding

- Perform sanding activities in a contained area.
- Use vacuum sanding equipment, whenever possible, to reduce the amount of airborne dust.
- Use dry cleanup methods (sweep or vacuum) to pick up dust from dry sanding of primer, metal, or body filler.

Wet Sanding

- Do not use wet sanding in a wash rack or in areas with a floor drains.
- Use a spray bottle to squirt water onto the panel that is being sanded. This eliminates sanding bucket wastewater and minimizes drips and spills.
- Place a pan under the car panel being wet sanded to catch drips. Pour the collected water back into the wet sanding bucket.
- Clean up drips with a rag, or let the drips dry and then sweep or vacuum up the dust.
- Dispose of wet sanding waste in one of the following ways:
    - Settle the waste and then separate the water from the sludge;
    - Discharge the water to a Permitted Treatment System; or
    - Dispose of the water at an offsite disposal facility.

PAINTING ACTIVITIES

Cleaning Auto Body Parts

- When cleaning auto body parts before painting, first brush off the dirt and use rags to wipe down the parts.
- If degreasers are used to clean the parts, conduct degreasing in a designated area and contain the wastewater for proper disposal. Do not let the wastewater run into the gutter or street.
- Avoid using acid-based wheel cleaners if soap and elbow grease will work.
- If an acid-based metal cleaner or cleaner/conditioner is used to treat bare metal and rinse water is recommended to stop the chemical reaction, use as little water as possible and wipe down the area with a rag or towel. Wastewater should be contained and disposed of properly.

Painting

- Conduct all painting indoors, preferably in a paint booth.
- Do not use water to control overspray or dust in the paint booth unless it will evaporate in the booth (so the dust can be swept up), or the wastewater is collected. The water should be treated prior to discharge into the sewer system.
- Use drop/ground cloths underneath outdoor painting, scraping, and sandblasting work as well as any outdoor mixing of paints, solvents, and tool cleaning.
- Shelter any blasting and spray painting activities.
    - Hang wind-blocking tarps to prevent sand blasting dust and overspray from escaping.
    - Do not conduct these activities when wind conditions render containment ineffective.
    - Do not conduct these activities over open water.
- Cover and seal nearby storm drain inlets
    - Cover and seal nearby storm drain inlets with waterproof material, mesh, or other runoff control device.
    - Leave covers in place until job is complete.
    - Clean covers daily and remove any debris for proper disposal.

Paint Waste

- Never discharge gun-cleaning solution to the sewer or storm drain.
- Properly clean, store, and dispose of painting, finishing, and coating materials.
    - Do not dispose of liquid wastes on the pavement or ground
    - Clean paint brushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain.
    - Clean paint brushes and tools covered with non-water-based paints, finishes, or other materials such that used solvents (e.g. paint thinner, turpentine, etc.) can be collected for recycling or proper disposal.
    - Recycle paint, paint thinner, solvents, and other recyclable materials.

WASHING CARS

Designate an impervious indoor or outdoor area to be used solely for vehicle washing. Clearly mark the vehicle washing area.

- Use off-site commercial washing businesses, if feasible.
- Design wash area to collect and properly dispose of wash water and/or effluent generated.
    - Install sumps or drain lines to collect wash water.
    - Construct a berm around the area to collect wash water.
    - Use portable containment and vacuum collect the wash water.
- If the wash area is outdoors, cover the area when not in use.
    - Collect all wash water from vehicle cleaning operations and discharge to a sanitary sewer (if allowed by the local sewer authority), holding tank, or process treatment system through an enclosed recycling system.

    - Do not discharge wash water to sanitary sewer until contacting the local sewer authority to find out if pretreatment is required.
- Use biodegradable, phosphate-free detergents. Remember, even though these detergents are better, the wash water still needs to be discharged to the sanitary sewer.
- Provide trash containers in wash area and empty on a regular basis.
- Use hoses with nozzles that automatically turn off when left unattended.
- Do not degrease the engine in the wash area. Take the vehicle to an off-site facility that can process the wastewater.

CLEANING FLOORS

- Use dry cleaning methods (i.e. sweeping, vacuuming) to prevent the discharge of pollutants to the storm drain conveyance system.
- If cleaning agents are used, select biodegradable products.
- If water is used, block off storm drain or contain runoff and collect wash water to pump into the sanitary sewer, if allowed. If wash water contains soaps or other cleaning agents and can not be pumped to the sanitary sewer, it may need to be disposed of as hazardous waste.

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily accessible.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Dry Cleaning (BMP PD-8)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that conduct cleaning of apparel, textile industrial goods and other fabric items. The dry cleaning industry includes commercial, industrial, and coin-operated facilities.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Chemical Storage
2. Chemical Use
3. Equipment Maintenance and Repair
4. Cooling water

Pollutants may include:

1. Toxic chemicals (solvents, chlorinated compounds, glycols)
2. Hydrocarbons (oil and grease, PAHs)

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and
e. Provide on-going employee training.

Best Management Practices and Procedures

GENERAL

- If water is being used for cleaning shop floors and adjacent outdoor areas, contain the wash water and dispose of in the sanitary sewer (with permission of sewer provider) or for offsite disposal, do not dispose of in the gutter or street.
- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Dispose of chemical recovery filters appropriately.
- Stencil on-site storm drains.

CHEMICAL STORAGE

- Clearly label all chemicals containers.
- Store chemicals indoors, if possible. If chemicals must be stored outside, construct a covered and bermed area to protect the containers from contact with storm water and to contain spills.
- Do not leave chemical containers uncovered. Use air-tight containers for chemical storage.

CHEMICAL USE

- Use only as much chemicals as needed for cleaning. Reuse or recycle chemicals, if possible.
- Collect wash water and dispose of properly. Do not discharge wash water into storm drains, gutters, or streets.
- Use a licensed service to dispose of hazardous waste. Hazardous wastes can include used rags soaked with solvents, floor cleaners and detergents.

EQUIPMENT MAINTENANCE AND REPAIR

- Move maintenance and repair activities indoors, if possible. If it is not possible, cover the repair area with a roof and cover the ground with a tarp, ground cloth, or drip pans.
- Regularly inspect equipment for leaks. Collect leaking or dripping fluids in drip pans or containers.
- Use biodegradable, phosphate-free detergents for cleaning machines rather than solvents. Contain wash water and dispose of in the sanitary sewer (with permission of sewer provider).

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily accessible.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Remove the absorbent materials promptly and dispose of properly.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.

4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Nurseries (BMP PD-9)

This Fact Sheet provides Best Management Practices (BMPs) that are recommended for facilities that grow and sell plants and conduct other landscaping activities.

Potential Pollutant Sources
The following activities are potential sources of pollutants:

1. Irrigation
2. Garden waste disposal
3. Chemical usage

Pollutants may include:

1. Nutrients (fertilizers, plant wastes)
2. Pesticides
3. Heavy metals (copper, lead, and zinc)
4. Sediments

Pollution Prevention
Implementation of pollution prevention measures may reduce or eliminate the need to implement other more costly or complicated procedures.

The following pollution prevention principles apply to most facilities:

a. Use alternative, safer, non-toxic, and/or recycled products;
b. Reduce storm water flow across the site and redirect flows away from storm drains, gutters, and streets;
c. Reduce the use of water and/or use dry methods;
d. Recycle and reuse waste products and waste flows; and

Best Management Practices and Procedures

GENERAL

- Maintain facility grounds and move or cover activities and materials to prevent contact with storm water.
- Promote native plants when possible to help conserve water, filter impurities, reduce the need for toxic pesticides, fertilizers, and herbicides.
- Stencil on-site storm drains.

IRRIGATION

- Use intermittent (pulse) or drip irrigation to conserve water and prevent discharges.
- Regularly inspect irrigation systems for leaks to prevent excessive runoff from occurring.

- Convert paved or bare soil areas to vegetation that will slow runoff (turf grasses or other comparable plant materials), if feasible.
- Group plants with similar water needs together to improve irrigation efficiency.
- During warm summer months, irrigate only after 6 PM and before 11 AM to reduce evaporation.

GARDEN WASTE DISPOSAL

- Do not dispose of garden wastes in streets, waterways, or storm drains.

CHEMICAL USAGE

Storage and Disposal

- Implement storage requirements for pesticide, herbicide, and fertilizer products with guidance from the local fire department and/or County Agricultural Commissioner.
- Provide secondary containment for chemical storage.
- Dispose of empty containers according to the instructions on the container label.

Pesticide Usage

- Follow manufacturers' recommendations and label directions.
- Use the minimum amount of chemicals needed for the job.
- Use pesticides only if there is an actual pest problem (not on a regular preventative schedule). Avoid the use of copper-based pesticides, if possible.
- Do not apply pesticides if rain is expected or if wind speeds are above 5 mph.
- Do not mix or prepare pesticides within 100 feet of any well, stream, or pond.
- Do not dispose of unused pesticides by washing them down the drains. Dispose of unused pesticides as hazardous waste.
- Employ techniques to minimize off-target applications (e.g. spray drift) of pesticides, including consideration of alternative application techniques.
- Careful soil mixing and layering techniques using a topsoil mix or composted organic material can be used as an effective measure to reduce herbicide use and watering.

Fertilizer Usage

- Periodically test soils to determine proper fertilizer use.
- If feasible, spread out applications of controlled-release fertilizers and use split applications of soluble fertilizers over the growing season.
- Work fertilizers into the soil rather than dumping or broadcasting them.
- Transition from the use of soluble fertilizers to controlled-release fertilizers. Use slow release fertilizers whenever possible to minimize leaching. Reduce or eliminate routine leaching of crops.

SPILL CONTROL

- Develop and maintain a spill response plan.
- Place an adequate stockpile of spill cleanup materials where it will be readily available.
- Spot clean leaks and drips routinely.
- Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills.
- Sweep pavement and sidewalk if chemicals are spilled on these surfaces before applying irrigation water.
- Keep the spill from entering the street, gutter, or storm drain.
- Do not use bleach or disinfectants if there is a possibility that rinse water could flow to a street, gutter, or storm drain.

Employee Training

1. Train employees on these practices.
2. Train staff on the proper maintenance of the facility.
3. Train employees on the facility's spill control plan and proper spill containment and cleanup procedures.
4. Establish a regular training schedule, train all new employees, and conduct annual refresher training.
5. Use a training log or similar method to document training.

Concrete Applications (BMP PD-10)

Getting Started

- Schedule projects for dry weather seasons/periods.
- Keep materials out of the rain. Store both dry and wet materials under cover, protected from rainfall and runoff. Also protect dry materials from the wind.
- Secure open bags of cement to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall and runoff.
- Minimize waste when ordering materials. Order only the amounts needed to complete the job.

During Construction

- Place erosion controls down slope to capture runoff carrying mortar or cement before it reaches the storm drain.
- Do not mix up more fresh concrete or cement than will be used.
- Set up and operate small mixers on tarps or heavy drop cloths.
- When breaking up paving (cement or asphalt) be sure to pick up all the pieces. Recycle them at a crushing company.
- Dispose of small amounts of excess dry concrete, grout and mortar in the trash.
- Use recycled and recyclable materials whenever possible.

Cleaning Up

- When cleaning up after driveway or sidewalk construction, wash concrete dust onto dirt areas, not down the driveway or into the street or storm drain.
- Wash out concrete mixers and equipment only in designated wash-out areas, where the water flows into containment ponds or onto dirt.
- Recycle cement wash water by pumping it back into cement mixers for reuse.
- Never dispose of cement washout into driveways, streets, gutters, storm drains or drainage ditches.
- Recycle broken asphalt, concrete, wood and cleared vegetation.

Heavy Equipment & Earth Moving Activities (BMP PD-11)

Vehicle and Equipment Maintenance

- Maintain all vehicles and heavy equipment. Inspect frequently for leaks.
- Conduct all vehicle/equipment maintenance and refueling at one location away from storm drains.
- Perform major maintenance, repair jobs and vehicle/equipment washing off site.
- Use gravel approaches where truck traffic is frequent to reduce soil compaction and limit the tracking of sediment into streets.
- Use drip pans or drop cloths to catch drips and spills. Treat collected material as hazardous waste.
- Do not use diesel oil to lubricate equipment or parts.

Cleaning Up

- Sweep up dry spilled materials immediately. Never attempt to bury them or wash them into a storm drain.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- To report a significant spill, dial **911**. For general information on spills, contact the Utah County Health Department at **(801) 851-7000**.
- Clean up leaks, drips, and other spills immediately by using an absorbent material such as kitty litter or sawdust. Treat collected material as hazardous waste.
- Never hose down pavement or surfaces where materials have been spilled.

Pollution Prevention

- After clearing, grading or excavating, exposed soil poses a clear and immediate danger of stormwater pollution. One solution is re-vegetation (permanent or temporary), which is an excellent form of erosion control for any site.
- Avoid excavation and grading activities during wet weather.
- Construct diversion dikes to channel runoff around the site. Line channels with grass or roughened pavement to reduce runoff velocity.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.
- Remove existing vegetation only when absolutely necessary. Large projects should be conducted in phases.

Roadwork and Paving (BMP PD-12)

During Construction

- Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.
- Cover and seal catch basins and maintenance holes when applying seal coat, slurry seal, fog seal, etc.
- Never wash excess material from exposed aggregate concrete or similar treatments into a street or stormwater drain. Collect and recycle, or dispose into dirt area.
- Use check dams or ditches to divert runoff around excavations.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.
- Catch drips from paver with drip pans or absorbent materials placed under the machine when not in use. Treat collected material as hazardous material.
- Clean up all spills and leaks using "dry" methods like sweeping or absorbing, or dig up and remove contaminated soil.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- Avoid over application by water trucks for dust control.

General Business Practices

- Schedule excavation and grading work for dry weather.
- Perform major equipment repairs away from the job site.
- Shovel or vacuum saw cut slurry and remove from site.
- When refueling or maintenance must be done on site, designate a location away from storm drains.
- Do not use diesel oil to lubricate equipment or parts.
- Recycle used oil, concrete, broken asphalt, etc., whenever possible.
- Check for and repair leaking equipment.

Asphalt/Concrete Removal

- Avoid creating excess dust when breaking asphalt or concrete.
- After breaking old pavement, be sure to remove all chunks and pieces.
- Make sure broken pavement does not come in contact with rainfall or runoff.
- Never hose down streets to clean up tracked dirt.
- Cover storm drains during saw cutting if necessary.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX I – SAMPLE SPILL RESPONSE PLAN

STORMWATER POLLUTION PREVENTION & SPILL RESPONSE PLAN

for

_____

(enter facility name and address)

Federal and State Phase II storm water regulations require municipal facilities to implement an operation and maintenance program that includes an employee training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Preventing spills of materials and wastes is a significant component of complying with these regulations. However, even with the best prevention efforts, spills may still occur. When they do, it is up to facility personnel to respond quickly and effectively to cleanup the spilled material or notify someone who can. This Spill Response Plan is designed as a template for municipal facilities to development site-specific individual Spill Response and Prevention Plans. The plan should be kept in a central location that is easily accessible for employees.

INSTRUCTIONS

Each facility can use this template by filling in the blanks and completing the attached:

- __ Spills that require Special Cleanup,
- __ Materials Inventory,
- __ Maximum Cleanup Amounts,
- __ Facility Map,
- __ Spill Kit Inventory and labeling, and the
- __ Employee Training Log.

Once completed, this Plan becomes the facility's individual Plan and must be properly implemented and maintained. The finished Plan should be reviewed and updated at least annually.

Plan Implementation Date: _____

Revision Date(s): _____

_____

Facility's Responsible Person(s) in charge of spill response planning, implementation and maintenance of this Plan:

Name	Phone #

RESPONSIBILITIES

- The **Facility Responsible Person** has primary responsibility for coordinating the response to emergencies, including chemical spills.
- **Supervisors** should ensure that employees are familiar with these procedures and receive any necessary training.
- **All employees** should follow these procedures in the event of a chemical spill.

EMERGENCY CONTACT NUMBERS

The following telephone numbers should be posted near telephones and in other conspicuous locations:

- Outside emergency services (police, fire department, ambulance service): 911
- Hospital: American Fork Hospital, 801-763-3300
- Facility Responsible Person: _____ Phone #:_____
- Safety Department: (if applicable): _____
- Poison Control Center: 801-222-1222
- Regional EPA Office: 303-312-6312
- State environmental agency (Utah Department of Environmental Quality: 801-536-4400)
- OSHA area office: 720-264-6550
- National Response Center: 1-800-424-8802
- Utah County Office of Emergency Management: 801-851-4130
- Pleasant Grove City Illicit Discharge Hotline: 801-785-2941
- Pleasant Grove City Dispatch: 801-785-3506
- Utah County Dispatch (Non-emergency): 801-851-4100
- Others: _____

CLEAN-UP PROCEDURES

Spilled chemicals should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves ***only if properly trained and protected.*** Employees who are not trained in spill cleanup procedures should report the spill to the Responsible Person(s) listed above, warn other employees, and leave the area.

The Maximum Cleanup Amounts that properly trained employee can cleanup **are listed on page 8**. In the event of spills greater than these amounts, contact the appropriate responders listed in the Emergency Contact Numbers listed above.

The following general guidelines should be followed for evacuation, spill control, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

1. Evacuation

Persons in the immediate vicinity of a spill should *immediately evacuate* the premises (except for employees with training in spill response in circumstances described below). If the spill is of "medium" or "large" size, or if the spill seems hazardous, immediately notify emergency response personnel.

2. Spill Control Techniques

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. MSDSs, absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and "caution-keep out" signs are common spill response items.

3. Spill Response and Cleanup

Chemical spills are divided into three categories: Small, Medium and Large. Response and cleanup procedures vary depending on the size of the spill.

Small Spills: Any spill where the major dimension is less than 18 inches in diameter. Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams.

- Quickly control the spill by stopping or securing the spill source. This could be as simple as uprighting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary.
- Put spill material and absorbents in secure containers if any are available.
- Consult with the Facility Responsible Person and the MSDS for spill and waste disposal procedures.
- In some instances, the area of the spill should not be washed with water. Use Dry Cleanup Methods and **never** wash spills down the drain, onto a storm drain or onto the driveway or parking lot.
- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

Medium Spills: Spills where the major dimension exceeds 18 inches, but is less than 6 feet. Outside emergency response personnel (police and fire department HAZMAT teams) should usually be called for medium spills. Common sense, however, will dictate when it is necessary to call them.

- Immediately try to help contain the spill at its source by simple measures only. This means quickly uprighting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert Emergency Responders at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill.
- Evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise Emergency Responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility. Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater.

Large Spills: Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and any “running” spill, where the source of the spill has not been contained or flow has not been stopped.

- Leave the area and notify Emergency Responders (911). Give the operator the spill location, chemical spilled, and approximate amount.
- From a safe area, attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Provide information for reports to supervisors and responders, just as in medium spills.

REPORTING SPILLS

All chemical spills, regardless of size, should be reported as soon as possible to the Facility Responsible Person. The Responsible Person will determine whether the spill has the potential to affect the environment outside of the facility and must be reported to 911or the National Response Center at 800-424-8802. Examples of spills that could affect the outside environment include spills that are accompanied by fire or explosion and spills that could reach nearby water bodies.

Accidental releases of certain toxic substances must be reported to the Utah Department of Environmental Quality and the Utah County Office of Emergency Management.

SPILLS (MATERIALS) THAT REQUIRE SPECIAL CLEANUP

Describe any materials used your facility that in require special materials and procedures for cleanup procedures beyond those listed above. Provide details regarding hazards associated with these.

Material	***Hazards***

MATERIAL INVENTORY

List all materials or wastes that may require clean up. List the average and maximum amounts on site and their storage locations. *(Example materials are listed for convenience only. Ignore any that do not apply and add any other materials of concern that are onsite. Use additional sheets if necessary.)*

Material	**Amount (avg/max)**	**Location(s)**
Antifreeze		
Degreaser		
Diesel Fuel		
Fertilizers		
Gasoline		
Herbicides		
Magnesium Chloride		
Motor Oil		
Hydraulic Oil		
Paints/Stains		
Pesticides		
Solvents		
Used Oil		
Other		

MAXIMUM CLEANUP AMOUNTS

Identify the maximum volume of spill that may be cleaned up by facility employees or contractors base on material (use 1 qt or 1 lb unless other information is available.). Also identify how wastes from a spill of any material will be disposed (for example, absorbed and placed in dumpster) and the name and address of the offsite facility to which clean-up wastes will be sent for hazardous waste disposal, if applicable:

Material	Maximum Volume to be cleaned	Disposal Method/Location

FACILITY MAP

Attach a map or sketch of the facility showing (a) the locations of each spill response kit, (b) the locations where the materials identified on page 6 are normally stored or used, and (c) the location of each storm drain inlet or drainage ditch.

SPILL KIT INVENTORY

List the spill response equipment that will be maintained in each locker (refer to MSDSs to determine recommended clean-up methods and supplies):

LOCKER NUMBER OR LOCATION	ABSORBENTS (bags of loose absorbents, pigs, rolls of sheets, containers of neutralizing agents)	TOOLS (shovels, brooms, dust pans, waste containers, squeegees, etc.)	PERSONAL PROTECTIVE EQUIPMENT (impervious gloves, goggles, aprons, boots, dust masks, etc.)	OTHER SUPPLIES (warning tape, labels, markers, MSDSs, etc.)

PERSON RESPONSIBLE FOR MAINTAINING THIS INVENTORY: _____

LABEL SPILL KITS

- Label each spill kit prominently with the words “SPILL KIT” or “ABSORBENTS” etc.

- Label or stencil the necessary emergency telephone number(s) or pager number(s) of persons to be contacted in case of a spill or leak that is beyond the training and equipment available on or near each spill locker:

Facility Responsible Person/Phone Number: _____/(___)____-____

Spill Response Contractor (if any)/Phone Number: _____/(___)_____-___

NRC 24-Hour Emergency Spill Reporting Hot-Line: 800-424-8802

- Stencil the following warning *PROMINENTLY* on each spill locker:

“WARNING: NEVER HOSE DOWN A SPILL! CLEAN IT UP PROMPTLY AND DISPOSE OF THE WASTE PROPERLY.”

EMPLOYEE TRAINING LOG

Identify the spill response training provided to each employee or contractor who is charged with responsibility for spill response:

EMPLOYEE OR CONTRACTOR NAME	INSTRUCTOR'S NAME	DATE OF TRAINING

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Storm Water Management Plan

APPENDIX J – SPILL/DUMPING NOTIFICATION INFORMATION

A Summary of Utah State and Federal Hazardous Substance/Waste/Material Environmental Regulations Requiring Immediate to Within 24 Hour Notification of Utah DEQ or EPA

Air Quality						
Regulation	**When Required**	**Information Required**	**Notify Whom**	**Oral Notice Time**	**Phone Numbers**	**Written Notice Time**
R307-107.2	Air pollution control equipment breakdown > 2 hrs	Not specified	Div. of Air Quality.	3-18 hrs	536-4000 536-4123 (off hours)	7 days
40 CFR 58	Air pollution control malfunction	Not specified	State	24 hours	536-4000 536-4123 (off hours)	14 days
40 CFR 59	Monitoring system malfunctions	Not specified	State Air Program Director.	24 hours	536-4000 536-4123 (off hours)	14 days
40 CFR 52	When in violation of National Ambient Air Quality Standards	Not specified	State Air Program Director	24 hours	536-4000 536-4123 (off hours)	
Hazardous Waste/Material/Substance						
R315-9-1(b)	Spill of one kilogram of "acutely hazardous waste", which includes: 1. "P"wastes, 2. F999 wastes (chemical warfare agents), and 3. "F" wastes with a hazard code of "H" (identified in 40 CFR 261.31 and includes wastes from the production or use of chlorphenols and chlorobenzenes). Spill of 100 kilograms of other hazardous waste. Notify for a spill of a lesser quantity if there is a potential threat to human health or the environment.	Name, phone number, and address of responsible party. Name, title and phone of person reporting. Time and date of the spill. Spill location. Nearest town, city, highway or waterway. Waste description and amount. Cause. Extent of injuries. Potential hazards to human health or the environment. Estimated quantity and disposition of recovered material.	Div. of Solid & Hazardous Waste	Immediately	538-6170 536-4123 (off hours)	15 days
40 CFR 263.30	When a transporter spills a hazardous waste, immediate action must be taken to protect the environment, including notification of local authorities.	Not specified	Div. of Solid & Hazardous Waste	Immediately	538-6170 536-4123 (off hours)	
CERCLA 103	Any CERCLA listed substance spilled over the reportable quantity into the environment.	Name, phone number, and address of responsible party; name, title and phone of person reporting; time and date of the spill; spill location; nearest town, city, highway or waterway; waste description and amount; cause; action taken.	NRC	Immediately	1-800-424-8802	
40 CFR 302.6	Discharge of a hazardous substance in quantities greater than the reportable quantity over 24 hours	Not specified	NRC	Immediately	1-800-424-8802	

Hazardous Waste/Material/Substance Continued						
Regulation	**When Required**	**Information Required**	**Notify Whom**	**Oral Notice Time**	**Phone Numbers**	**Written Notice Time**
49 CFR 171.15 49 CFR 195.52	Hazardous materials release (as defined by DOT in 29 CFR 171.8) causes death, serious injury, major property damage, evacuation, closure of a major highway, aircraft flight path altered, pollution of a water body, release of infectious substance, or continuing danger to life	Reporter name and phone number, name and address of carrier, incident date, time and location, extent of injuries, classification, name and quantity of hazardous materials involved, type of incident and nature of hazardous materials involvement, whether a continuing danger to life exists.	NRC	earliest practicable moment	1-800-4248802	30 days (see 49 CFR 171.16 for details)
EPCRA 304 40 CFR 355.40	Release of "Extremely Hazardous Substance" or CERCLA substance, over the RQ, exposing persons outside the facility boundaries	Chemical name, quantity, release time and duration, health risks, medical advice, precautions, contact names and phone numbers	LEPC SERC	Immediately	Various 536-4123 (24 hours)	As soon as practicable
R315-8-4.7(a) R315-7-11.7(a)	Any imminent or actual emergency at a hazardous waste Treatment, Storage or Disposal (TSD) permitted facility	Facility name, address, EPA ID number; Incident date, time and type. Quantity of waste. Injuries.	DEQ, federal OSC, State and local response agencies	Immediately		15 days
40 CFR 264.56/ 265.56 40 CFR 279.52	Imminent or actual emergency situation at a TSD or used oil processor or used oil refiner facility	Facility name, address, EPA ID number. Incident date, time and type. Quantity of waste. Injuries. Possible hazards to human health or the environment outside the facility.	State and local response agencies, NRC	Immediately	1-800-424-8802	15 days
40 CFR 262.34 40 CFR 264.56	When a fire, explosion or other release at a hazardous waste generator or TSD facility could threaten human health outside the facility, or when the spill has reached surface water	Facility name, address, EPA ID number Incident date, time and type. Quantity of waste Injuries. Quantity of recovered materials. Possible hazards to human health or the environment outside the facility.	NRC	Immediately	1-800-424-8802	15 days
R315-8-4.7(d) R315-7-11.7(d)	When a fire, explosion or other release at a hazardous waste TSD facility could threaten human health or the environment outside the facility	Name and phone number of reporter. Facility name, address. Incident date, time and type. Name and quantity of waste. Injuries. Human health or environmental hazards.	DEQ Federal OSC NRC	Immediately	538-4170 1-303-293-1788 1-800-424-8802	5 days
R315-3-10(i)(6) 40 CFR 270.30	Any TSD permittee noncompliance which may endanger health or the environment	Releases of hazardous waste that may cause endangerment to public drinking water systems. Information on releases of hazardous waste or fire or explosions which could threaten the environment or human health outside the facility. Name and phone number of reporter. Facility name, address. Incident date, time and type. Name and quantity of waste. Injuries. Description of occurrence. Human health or environmental hazards. Estimated quantity and disposition of recovered material.	Div of Solid & Hazardous Waste	24 hours	536-6170	5 days

Hazardous Waste/Material/Substance Continued						
Regulation	**When Required**	**Information Required**	**Notify Whom**	**Oral Notice Time**	**Phone Numbers**	**Written Notice Time**
40 CFR 264.196(d) 265.196(d) R315-8-10 R315-7-12	When a hazardous waste disposal facility discovers a tank or secondary containment system leak	Not specified	EPA administrator Div of Solid & Hazardous Waste	24 hours	1-303-293-1788 538-6170	
40 CFR 761.125	When PCB contaminated material contaminates surface water, sewers, drinking water, grazing lands or vegetable gardens.	Not specified	EPA Region	24 hours	1-303-293-1788	
40 CFR 302.6	Release of PCB's into the environment in amounts greater than 1 pound.	Not specified	NRC	Immediately	1-800-424-8802	
R315-303-5(7)(c)	When a landfill operator discovers receipt of a hazardous waste or PCB contaminated waste	Not specified	Div of Solid & Hazardous Waste, Hauler, Generator	24 hours	538-6170 536-4123 (off hours)	
R315-303-4-(5)	When methane levels at a landfill exceed state limits in R315-303(2)(a)	Not specified	Div. of Solid & Hazardous Waste	Immediately	538-6170 536-4123 (off hours)	
40 CFR 258.23	When methane levels at a landfill exceed specified federal limits.	Not specified	State Director	Immediately	538-6170 536-4123 (off hours)	
Radioactive Materials						
R313-38-77(2)(b)	If a sealed radiation source or device containing radioactive material is damaged, or if contamination is detected at the surface after the source is used in a subsurface tracer study.	Circumstances of the loss and request approval of abandonment procedures	Div of Rad. Control	Immediately	536-4250 536-4123 (off hours)	
R313-38-77(5)(b)	If radioactive material has been lost in or to an underground potable water source.	Well location. Magnitude and extent of radioactive material loss. Consequences of such loss. Efforts being taken to mitigate these consequences.	Div of Rad. Control	Immediately	536-4250 536-4123 (off hours)	
R313-32-33(1)	Misadministration of a radioactive material in a therapy procedure	Not specified	Div of Rad. Control	24 hours	536-4250 536-4123 (off hours)	
R313-15-1202(1)	Event involving a radioactive material which caused or threatens to cause a specified exposure or specified amount of property damage	Not specified	Div. of Rad. Control	Immediately	536-4250 536-4123 (off hours)	

Radioactive Materials Continued						
Regulation	**When Required**	**Information Required**	**Notify Whom**	**Oral Notice Time**	**Phone Numbers**	**Written Notice Time**
R313-15-1202(2)	Loss of licensed or registered source of radiation that may have caused or threatens to cause a specified exposure or specified amount of property damage.	Not specified	Div. of Rad. Control	24 hours	536-4250 536-4123 (off hours)	
Releases From Underground Storage Tanks						
Utah Code 19-6-420 (3)	Releases from an underground storage tank presenting the possibility of an imminent and substantial danger to public health or the environment	Abatement action taken	Div. of Env. Response & Remediation	24 hours	**536-4123 (24 hours)**	
R311-201-7	Discovery of a release from an underground storage tank	Not specified	Div. of Env. Response & Remediation	24 hours	**536-4123 (24 hours)**	
40 CFR 280.50	Release of a regulated substance, unusual operation conditions or monitoring results that indicate a release	Not specified	State	24 hours	**536-4123 (24 hours)**	
40 CFR 280.53	A spill or overfill that is: 1. > 25 gallons; or 2. causes a sheen on surface water; or 3. > reportable quantity of a CERCLA hazardous substance into the environment; or 4. In violation of Clean Water Act 311(b)(3)	Not specified	Div. of Env. Response and Remediation (see also ref 8,31,32)	24 hours	**536-4123 (24 hours)**	
Used Oil						
R315-15-9	Used oil spills > 25 gallons or potential threat to human health or environment.	Name, phone number and address of person responsible for spill. Name, title and phone number of individual reporting. Time and date of spill. Spill location - including nearest city, highway, or waterway. Amount and description of material spilled. Cause of the spill. Action taken to minimize threats to human health and the environment.	DEQ	Immediately	536-4123	15 Days

Water Quality						
Regulation	**When Required**	**Information Required**	**Notify Whom**	**Oral Notice Time**	**Phone Numbers**	**Written Notice Time**
Utah Code 19-5-114	Spill of substance which could pollute the waters of the state	Material, actions taken, cleanup and disposal plan	Div. of Water Quality	Immediately	538-6146 536-4123 (off hours)	
40 CFR 110	If oil or hazardous substance release: (1)causes a sheen; or (2)violates water quality standards; or (3) causes sludge or emulsion to be deposited below water level	Not specified	NRC	Immediately	1-800-424-8802	
R317-8-4 (b)(12)(f)	Any UPDES permittee noncompliance which may endanger health or the environment including, but not limited to: (1) unanticipated bypasses which exceed effluent permit limitations; (2) any upset which exceeds effluent limitation; (3) violation of maximum daily discharge limitation for permit listed pollutants.	Name and telephone number of reporting party. Time and type of incident. Name and quantity of materials released Injuries. Health hazards	Div. of Water Quality	24 hours	538-6146 536-4123 (off hours)	5 days
R318-8.10 (7)(b) R318-8.13 (c) and 8.14 (3)(b)	1. Sampling indicates a violation of water pollution control pretreatment standards. 2. A pretreatment system "upset" that exceeds pretreatment standards. 3. An unanticipated pretreatment bypass.	Not specified	"Control Authority", which is DEQ or the POTW, depending on the permit.	24 hours		
40 CFR 403.12 40 CFR 403.16/17	1. Sampling indicates a violation of water pollution control pretreatment standards. 2. A pretreatment system "upset" that exceeds pretreatment standards. 3. An unanticipated pretreatment bypass.	Not specified	"Control Authority", which is DEQ or the POTW, depending on the permit.	24 hours		
R317-6-6.13	Mechanical or discharge system failures affecting the chemical characteristics or volume of a ground water discharge	Not specified	Div. of Water Quality	Immediately	538-6146 536-4123 (off hours)	30 days
R317-6-6.11	Commencement of groundwater discharge	Not specified	Div of Water Quality	Immediately	538-6146 536-4123 (off hours)	
R317-6-6.11	Discontinuance of groundwater discharge due to spill, leak or accidental release	Not specified	Div. of Water Quality	Immediately	538-6146 536-4123 (off hours)	5 days
R317-6-6.18	Out of compliance with ground water discharge permit	Not specified	Div. of Water Quality	Immediately	538-6146 536-4123 (off hours)	5 days

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX K – 80TH PERCENTILE STORM DOCUMENTATION

HORROCKS ENGINEERS

To: Marty Beaumont, PE
Public Works Director/City Engineer
Pleasant Grove

From: Jonathan M. Clegg, P.E.

Date: February 5, 2020

Subject: 80th Percentile Rainfall Analysis



Memorandum

Executive Summary

As required by the Official Draft version of the Utah Department of Environmental Quality General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), Permit No. UTR090000 (dated December 14, 2019), the 80th percentile rainfall event was determined using hourly precipitation records from 5 local weather stations. The 80th percentile values ranged from 0.42 inches to 0.63 inches with an average of 0.50 inches. Considering years of record of each station and each station's comparability to Pleasant Grove, the recommended 80th percentile rainfall value is 0.50 inches.

Purpose and Background

On December 24, 2019, the Utah Department of Environmental Quality (UDEQ) issued a Draft General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s), Permit No. UTR090000 (Permit). The Permit contains the following requirement:

> *By March 1, 2020, new development projects that disturb land greater than or equal to one acre, including projects that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre must manage rainfall on-site, and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event or a predevelopment hydrologic condition, whichever is less…The 80th percentile rainfall event is the event whose precipitation total is greater than or equal to 80 percent of all storm events over a given period of record.*
>
> *By March 1, 2020, redevelopment projects that disturb greater than or equal to one acre, including projects less than an acre that are part of a larger common plan of development or sale which collectively disturbs land greater than or equal to one acre must provide a site-specific and project-specific plan aimed at net gain to onsite retention or a reduction to impervious surface to provide similar water quality benefits. If a redevelopment project increases the impervious surface by greater than 10%, the project shall manage rainfall on-site, and prevent the off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event.*

This technical memo outlines the development of the 80th percentile rainfall event for Pleasant Grove including the data sources, methodology used, and results. In this memo, the terms rainfall and precipitation are used synonymously even though precipitation can fall as rain or snow.

Methodology

The steps outlined below were followed to develop the 80th percentile rainfall event for Pleasant Grove (Reference 1).

1) Obtain a long-term rainfall record from a nearby weather station.
2) Edit out small rainfall events than are 0.1 inches or less and snowfall events that do not immediately melt. Events less than 0.1 inch are excluded because they do not generally result in any measurable runoff due to absorption, interception and evaporation.
3) Analyze the rainfall time series and develop a frequency analysis to determine the percentage of rainfall events greater than or equal to a given numerical value (e.g., 0.2, 0.5, 1.0, 1.5 inches, etc).
4) Construct a table and curve showing rainfall depth versus percentile.
5) Use the data to define the 80th percentile rainfall depth.

Procedure

Step 1: Obtain long-term rainfall data

A review of historic hourly rainfall data available from the NOAA National Centers for Environmental Information website (Reference 2) (NOAA) indicated that there are 11 weather stations near Pleasant Grove. See Figure 1 and Table 4. Of these 11 stations, only the following three have the minimum recommended period of record of 30 years: Fairfield, Olmstead PH, and Provo BYU. The stations Provo Radio KAYK and Upper American Fork PH have almost 25 years and 21 years respectively and were therefore include in this analysis.

Hourly rainfall data was obtained from NOAA for the 5 stations shown in Table 1:

Table 1: Stations Used in Analysis

	Station Name	Station ID	Period of Record		
			Begin Date	End Date	Duration (years)
1	FAIRFIELD, UT US	COOP:422696	9/1/1950	12/22/2013	63
2	OLMSTEAD P H, UT US	COOP:426455	2/1/1977	12/23/2013	37
3	PROVO BYU, UT US	COOP:427064	9/1/1980	12/23/2013	33
4	PROVO RADIO KAYK, UT US	COOP:427068	4/1/1952	3/1/1977	25
5	UPPER AMERCN FORK PH, UT US	COOP:428939	6/1/1986	4/1/2007	21

The hourly data for each station was processed to determine individual storm events. A minimum inter-event duration of 6-hours was used to separate individual storms. Storm events separated by at least 6 hours with no precipitation were considered to be separate storm events.

Step 2: Remove small rain events

All storm events that produced 0.10 inches of precipitation or less were removed from each station record. The NOAA hourly precipitation data did not distinguish snow events from rain events. So, for the remaining storms events, it was assumed that all precipitation that fell as snow melted quickly enough to generate runoff.

Step 3: Perform statistical analysis

For each station, the number of storms that generated rainfall were counted and ordered by increasing depth in 0.01-inch increments beginning with 0.11 inches. For each depth, the sum of all storms of equal or lesser depth was determined and the percentile of each depth was then calculated. The results are presented in table and chart form in Step 4.

Step 4: Tabulate and chart the results

Table 2 shows the rainfall depth associated with various percentiles for each station. The results in graphic format are shown in Figure 2 through Figure 6.

Table 2: Rainfall Percentiles for 5 Stations

	Rainfall Depth by Percentile									
Station	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Fairfield	0.17	0.19	0.20	0.20	0.28	0.29	0.39	0.49	0.59	2.40
Olmstead PH					0.23	0.28	0.34	0.42	0.57	2.10
Provo BYU	0.14	0.17	0.20	0.22	0.29	0.32	0.40	0.52	0.76	2.95
Provo KAYK	0.13	0.16	0.19	0.20	0.25	0.29	0.35	0.46	0.60	1.30
Upper AF PH				0.23	0.29	0.36	0.46	0.63	0.90	3.20
Shaded cells have insufficient data to calculate a percentile value.										

Step 5: Determine the 80th percentile rainfall event

Table 3 summarizes the results.

Table 3: 80th Percentile Analysis Summary

Station	80 Percentile Precipitation Depth (inches)	Period of Record	Years of Record	# of Storms
Fairfield	0.49	1950 - 2013	63	1411
Olmstead PH	0.42	1977 - 2013	37	1026
Provo BYU	0.52	1980 - 2013	33	1311
Provo KAYK	0.46	1952 - 1977	25	1156
Upper AF PH	0.63	1986 - 2007	21	716
Average	0.50		36	1124
Average of stations with 30 yrs+ of records	0.47		44	1249

Conclusion & Recommendation

Based on the methodology outlined in this memo, rainfall percentiles were developed for 5 weather stations in the vicinity of Pleasant Grove. The 80th percentile for each station was determined. The 80th percentile for all five stations ranges from 0.42 inches to 0.63 inches with an average of 0.50 inches. The 80th percentile for the three stations with more than 30 years of record ranges from 0.42 inches to 0.52 inches with an average of 0.47 inches.

None of these stations is located in Pleasant Grove and each is affected differently by its unique topographic and meteorological setting (e.g. elevation, proximity to mountains and water bodies). Upper AF PH station likely has greater precipitation than Pleasant Grove due to its higher elevation and location within the mountains. If the Upper AF PH station is excluded, the remaining stations still yield an average of 0.47 inches. Excluding this station does not change the recommendation.

A rainfall depth of 0.50 inches is recommended for use by Pleasant Grove to meet the requirements of the UDEQ MS4 General Permit.

Figure 1: Nearby Weather Stations

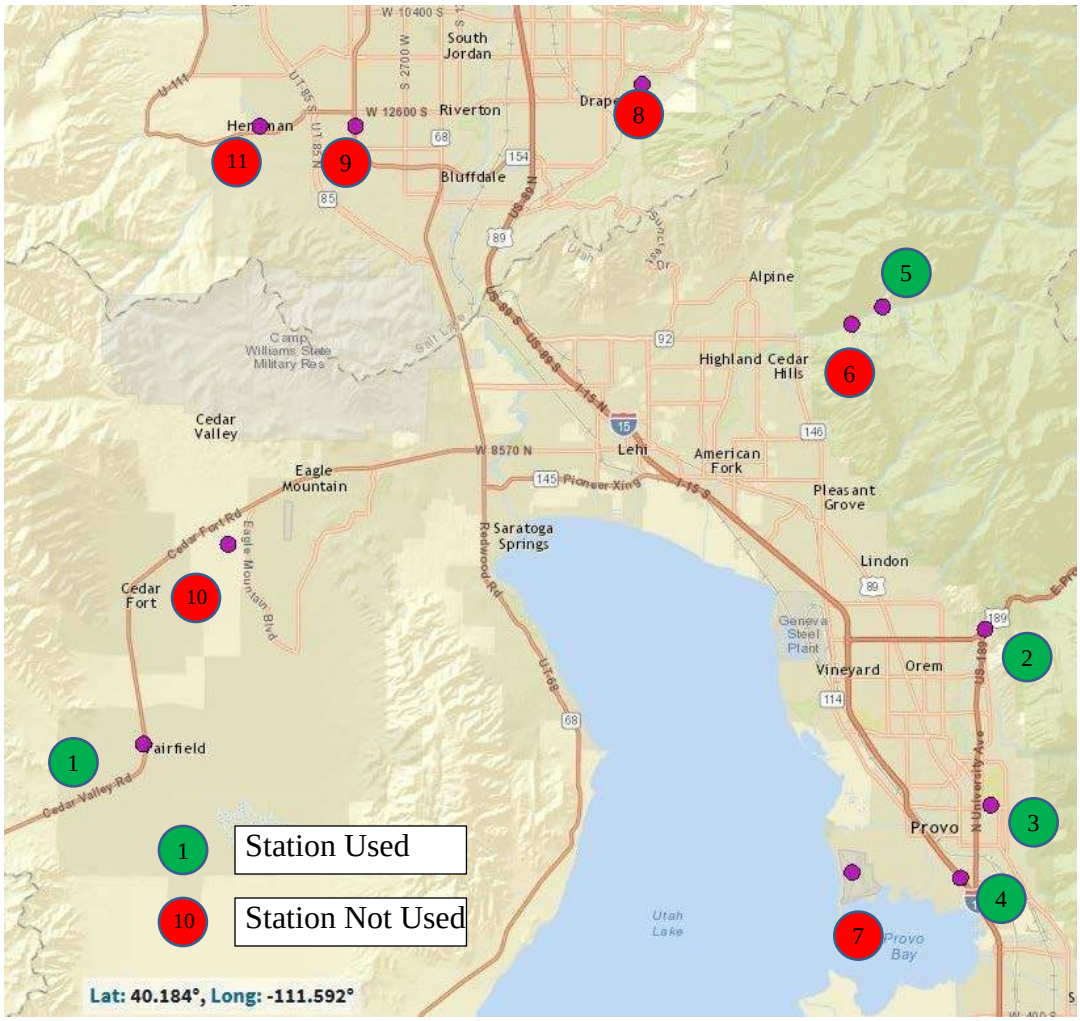


Table 4: Nearby Weather Stations

		Station Name	Station ID	Period of Record		
				Begin Date	End Date	Duration (years)
Used	1	FAIRFIELD, UT US	COOP:422696	8/31/1950	12/22/2013	63
	2	OLMSTEAD P H, UT US	COOP:426455	1/31/1977	12/23/2013	37
	3	PROVO BYU, UT US	COOP:427064	8/31/1980	12/31/2013	33
	4	PROVO RADIO KAYK, UT US	COOP:427068	3/31/1952	2/28/1977	27
	5	UPPER AMERCN FORK PH, UT US	COOP:428939	5/31/1986	3/31/2007	21
Not Used	6	TIMPANOGOS CAVE, UT US	COOP:428733	3/31/2007	12/24/2013	7
	7	PROVO AIRPORT, UT US	COOP:427061	6/30/1948	4/30/1952	4
	8	DRAPER, UT US	COOP:422233	11/30/1964	9/29/1968	4
	9	RIVERTON, UT US	COOP:427343	6/30/1965	9/20/1968	3
	10	FAIRFIELD CAA AIRPORT, UT US	COOP:422697	6/30/1948	7/31/1950	2
	11	HERRIMAN, UT US	COOP:423867	9/30/1963	7/31/1965	2

Figure 2: Fairfield

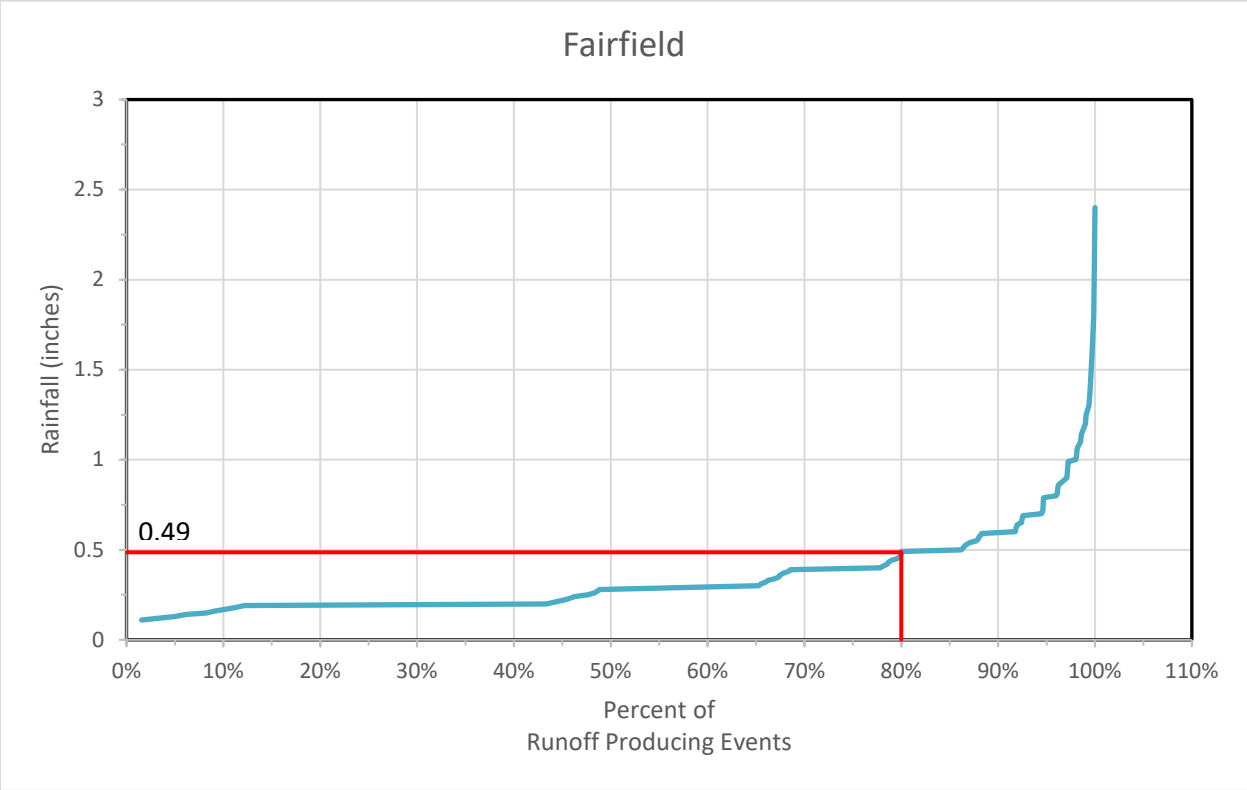


Figure 3: Olmstead PH

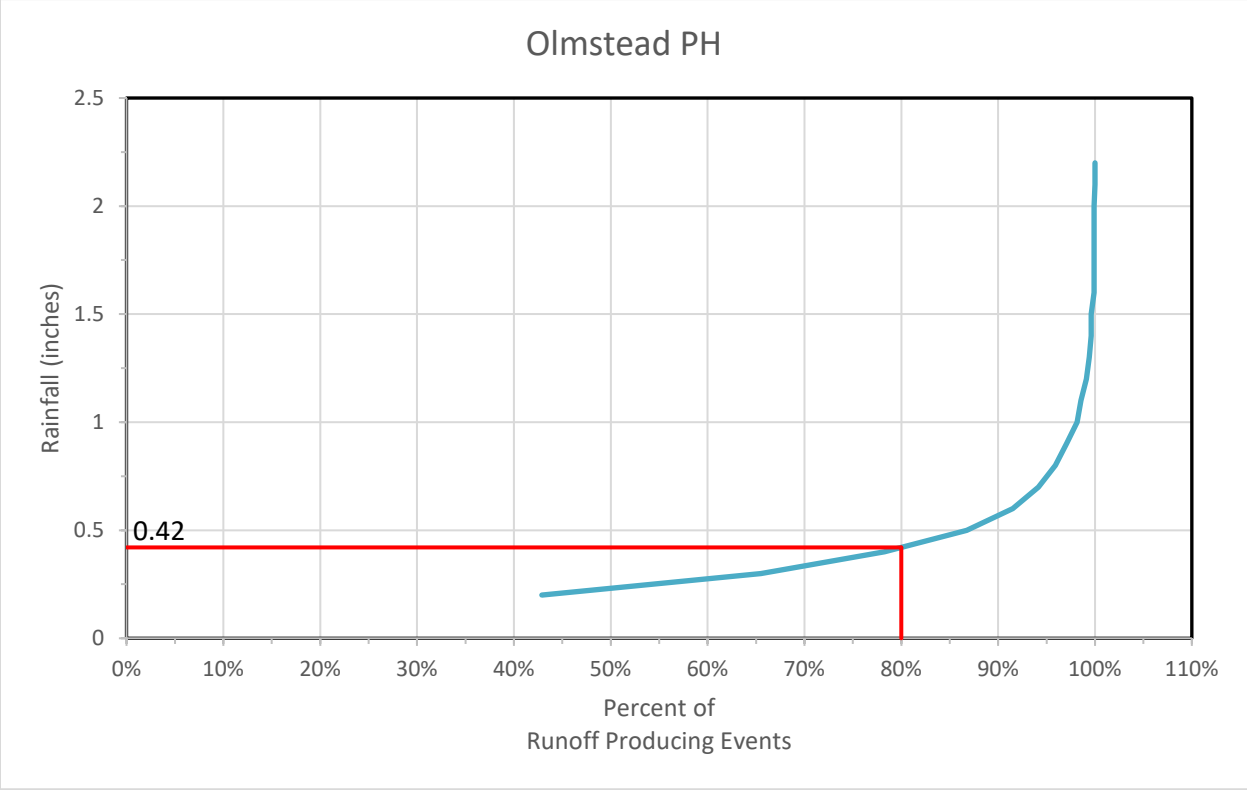


Figure 4: Provo BYU

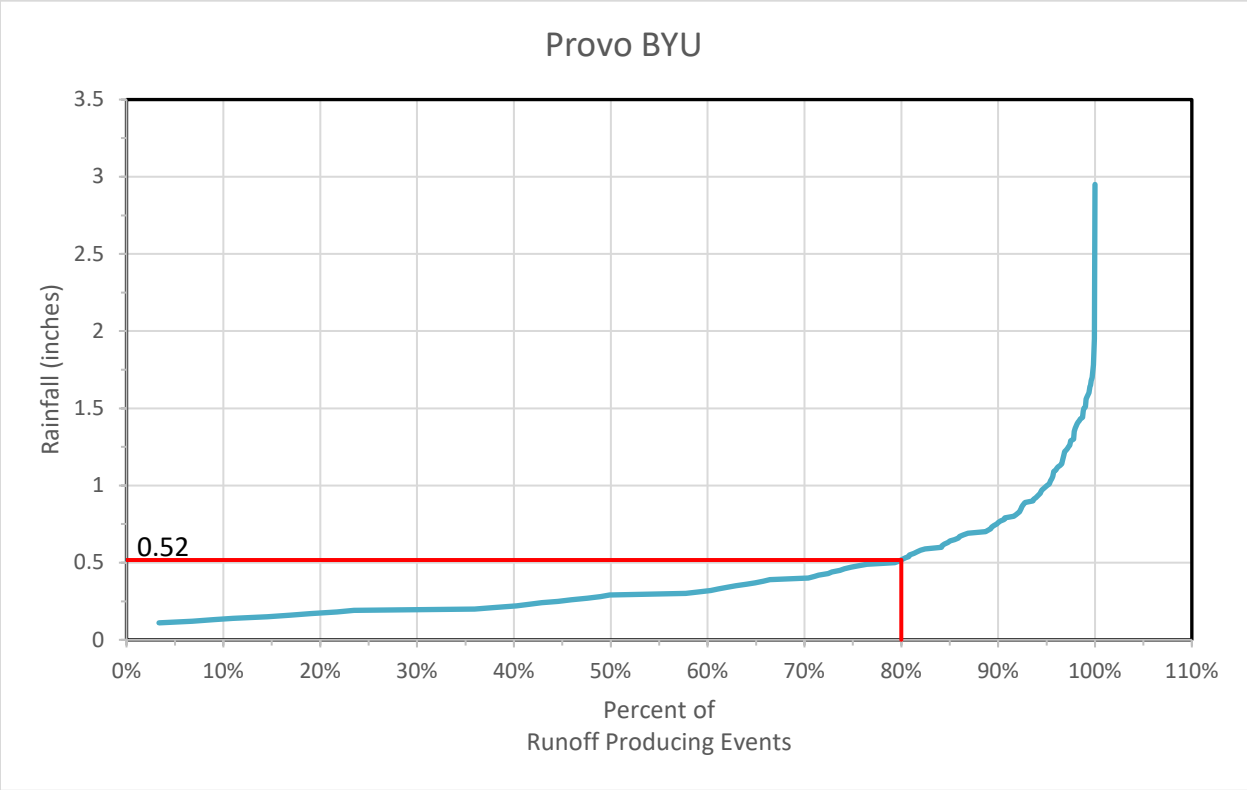


Figure 5: Provo KAYK

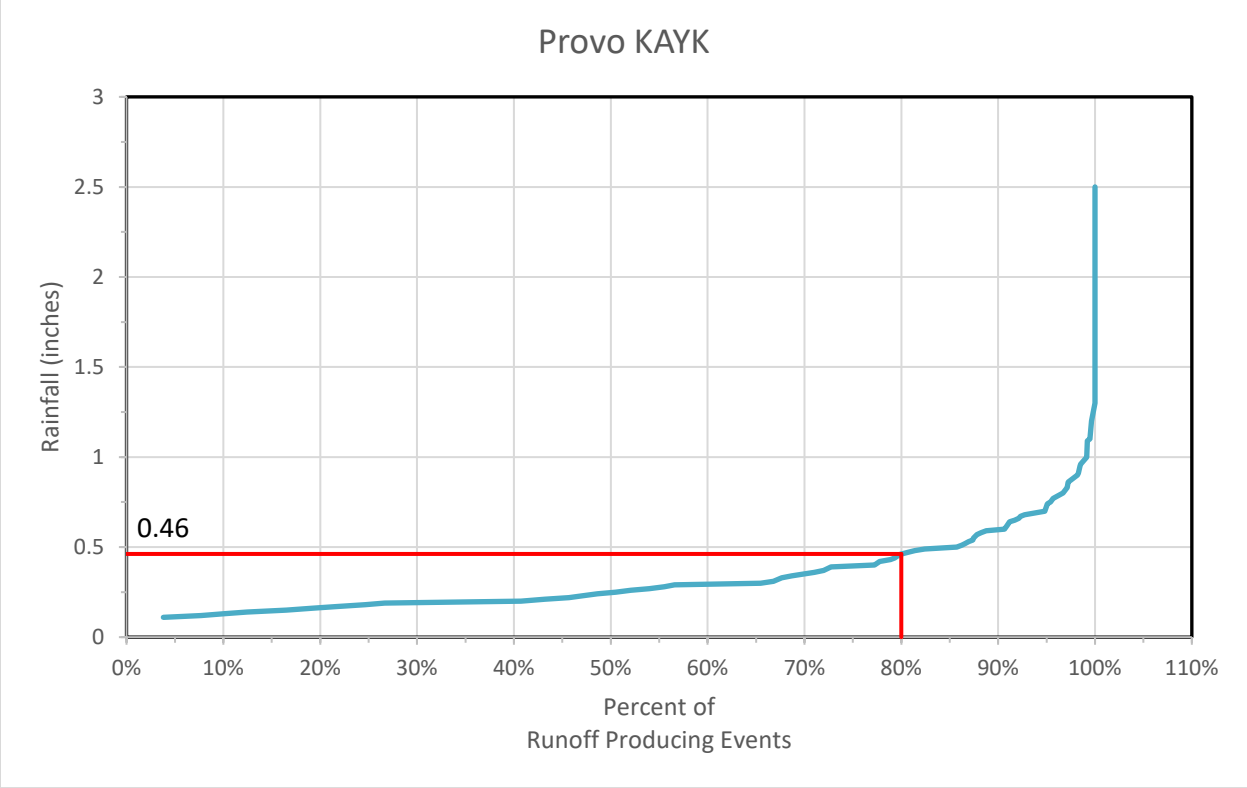
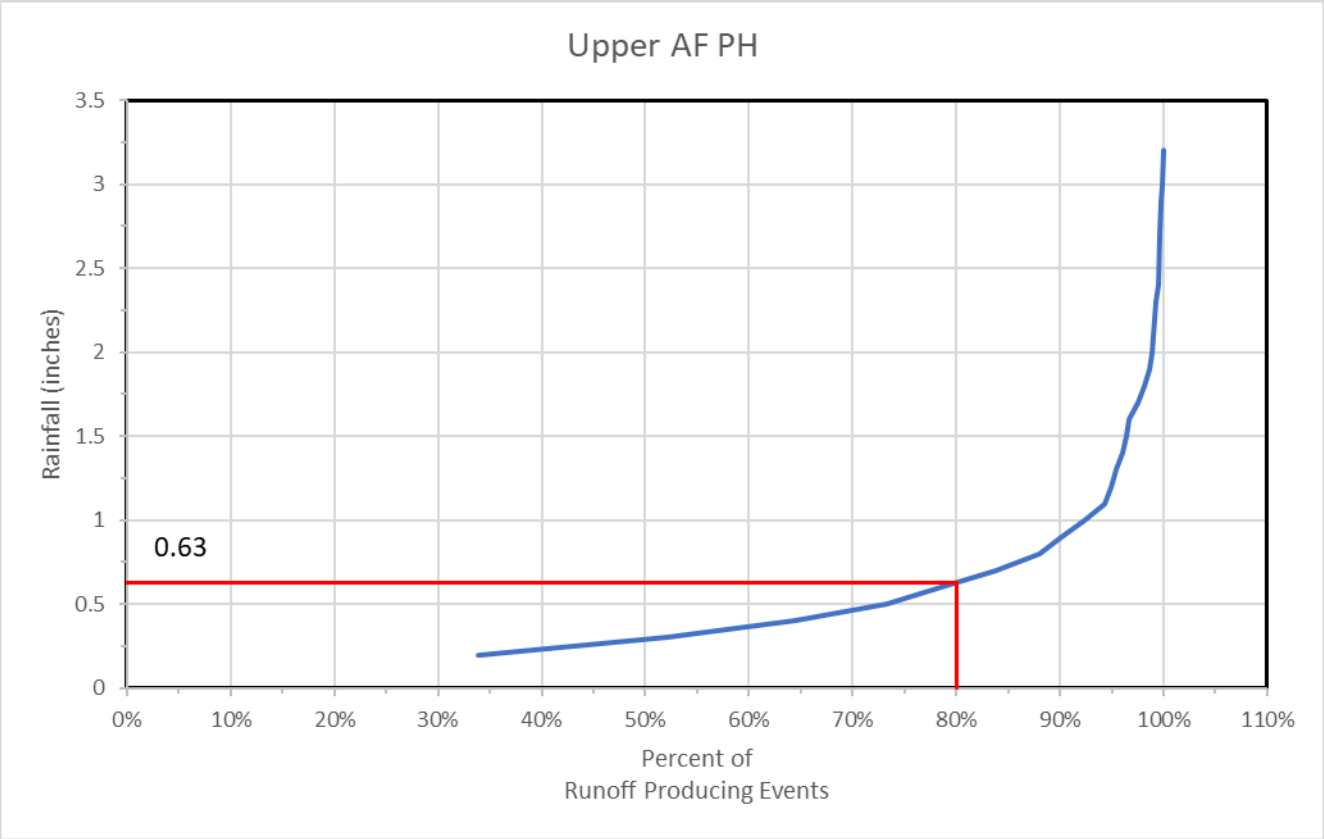


Figure 6: Upper American Fork PH



References:

1) Schueler, T., Hirschman, D., Novotney, M., and J. Zielinski. 2007. Urban Watershed Restoration Manual No. 3: Urban Stormwater Retrofit Practices, Table 1.3.
2) National Oceanic and Atmospheric (NOAA) National Centers for Environmental Information, Climate Data Online website. https://www.ncdc.noaa.gov/cdo-web/. Hourly Precipitation Data. Accessed April 18, 2016. Verified January 16, 2020.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX K – LID HANDBOOK

See State of Utah Division of Water Quality "A Guide to Low Impact Development within Utah"

Ordinance No. 2021-35

AN ORDINANCE AMENDING CITY CODE TITLE 6 CHAPTER; "STORM DRAINAGE" ESTABLISHING OBLIGATIONS OF PRIVATE PROPERTY OWNERS TO MANAGE THE STORM WATER DRAINAGE ON THEIR PROPERTY; PROVIDING ENFORCEMENT POLICIES AND OTHER TECHNICAL ADDITIONS IN ORDER TO MEET STATE STORM WATER DISCHARGE REQUIREMENTS; ADDING A REQUIREMENT FOR A LAND DISTURBANCE PERMIT PROCESS AND PROVIDING AN EFFECTIVE DATE. (CITY WIDE) (PLEASANT GROVE CITY APPLICANT)

WHEREAS, The City is authorized by Utah Code § 10-8-84 to "pass all ordinances and rules, and make all regulations . . . as are necessary and proper to provide for the safety and preserve the health, and promote the prosperity, improve the morals, peace and good order, comfort, and convenience of the city and its inhabitants. . ."; and

WHEREAS, the purpose of this ordinance is to promote the public health, safety, and general welfare of the citizens of Pleasant Grove; and

WHEREAS, City has an existing storm drainage system that consists of a network of manmade and natural channels, structures, and conduits that collect and convey storm water runoff; and

WHEREAS, Land development alters the hydrologic response of watersheds by converting natural ground to impervious surfaces, resulting in increased storm water runoff rates and volumes, increased potential for flooding, increased stream and drainage channel erosion, and increased sediment transport and deposition; and

WHEREAS, Storm water runoff produced by land development activities places increased demands on the City's storm drainage system; and

WHEREAS, The Environmental Protection Agency (EPA) and the Utah State Department of Environmental Quality (DEQ) have increased storm water regulations as part of the Phase II of the National Pollutant Discharge Elimination System (NPDES) and the Utah Pollutant Discharge Elimination System (UPDES); and

WHEREAS, City is mandated to be in compliance with these standards; and

WHEREAS, after consideration of all the relevant factors, the Pleasant Grove City Council finds and determines that it is in the best interest of the health, safety and general welfare of its current and future residents to adopt this ordinance in order to provide adequate regulation of storm water flows within the City; and

WHEREAS, the City Council held a public meeting on December 7, 2021 to consider these ordinance changes; and

WHEREAS, at the conclusion of the meeting, the council adopted and approved the proposed ordinance amendments.

NOW, THEREFORE, BE IT ORDAINED, by the City Council of Pleasant Grove City, Utah County, Utah that Title 8 Chapter 6 of the Pleasant Grove Municipal Code be amended as follows:

CHAPTER 6
STORM DRAINAGE [1]

SECTION:

8-6-1: Findings; Storm Drainage Master Plan Adopted

8-6-2: Definitions

8-6-3: Obstructions

8-6-4: Dumping Or Pumping

8-6-5: Conveyance And Discharge Of Stormwater

8-6-6: Piping Of Existing Drainage/Irrigation Facilities

8-6-7: Enforcement, Penalties and Abatement

8-6-8 Land Disturbance Permits

8-6-8: Penalty

Notes

1 1. See also subsection 11-7-4D of this code for provisions regarding subdivision drainage plan.

8-6-1: FINDINGS; STORM DRAINAGE MASTER PLAN ADOPTED:

The city council:

A. Has found it necessary and determined that the public interest, convenience, health, welfare and safety requires that all water generated from, off and around individual construction, commercial, industrial, and public use developments and subdivisions be confined and disposed of in a flood control storm drain system; and (Ord. 98-34, 12-15-1998)

B. Has adopted as part of the city's general plan a storm drainage master plan as amended from time to time relating to the disposition of surface waters in a storm drainage system; and (Ord. 98-34, 12-15-1998; amd. Ord. 2004-16, 7-20-2004)

C. Has found that each area which is proposed to be subdivided, developed and/or built upon, does in fact generate additional runoff water which needs to be disposed of in a safe manner, avoiding damage and hazards to the inhabitants of the city; and

D. Has found it is necessary that certain improvements be constructed upon and/or in close proximity to subdivisions, commercial, industrial and public use developments, developments and individual construction in order to carry the surface runoff water to appropriate storage, disposition areas and other facilities identified in the storm drainage master plan; and

E. Has found that the costs of construction of the improvements must be borne by the subdivision and/or proposed developer and builder. (Ord. 98-34, 12-15-1998)

8-6-2: DEFINITIONS:

For the purpose of this chapter, the following terms, phrases, words and their derivations shall have the meanings given herein:

BEST MANAGEMENT PRACTICE (BMP): is a schedule of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce storm water pollution. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

CLEAN WATER ACT: IS THE Clean Water Act of 1987, formerly referred to as the Federal Water Pollution Control Act.

CATCH BASIN: A basin that has a stormwater inlet to trap solids or debris.

DEBRIS: Any rock, dirt, sand, tree or other rubbish, litter, etc.

DETENTION BASIN OR RETENTION BASIN: A depression, or bermed area, designed with an inlet and outlet that regulates water flow and may allow debris to settle out of the water, and that is capable of detaining stormwater runoff until it can either percolate into the surrounding soil, or be discharged at an approved release rate into a channel, pipe, ditch, street or other conveyance, without causing damage downstream. The detention basin shall have a discharge into said facilities as set forth above, however, a retention basin must contain all generated volumes.

DEVELOPED LAND: shall be all property altered from a natural state by grading, paving, compaction, construction of structures, impervious surfaces, or drainage works so that storm water runoff from the property is changed in quantity, quality, or point of discharge from that which would occur in the natural condition, or so that provision of

control and management of storm water runoff from other properties is necessary to prevent property damage and/or personal hazard during storm events.

DISCHARGER: is any person or entity who directly or indirectly discharges storm water from any property or who directly or indirectly discharges any substance into a storm drainage system.

DRAIN INLET: A point of entry into a sump, detention or retention basin, or stormwater system or conduit, or approved irrigation system.

ILLICIT DISCHARGE: is any discharge into a water body, drainage channel, or a public or private drainage system that is not composed entirely of storm water or discharges otherwise exempted.

IMPERVIOUS SURFACE: means any hard surface, other than an undisturbed natural surface, that prevents or retards the absorption of water into the soil, or that causes water to run off the surface at a rate or quantity greater than that of the natural surface. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, and storage areas.

LOW IMPACT DEVELOPMENT (LID): Storm water control measures intended to capture, infiltrate, or treat initial runoff.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES): is a federal permitting program, as authorized by Section 402 of the Clean Water Act, to control water pollution by regulating point sources that discharge pollutants.

POLLUTANT: is any substance which has the potential to impair water quality including but not limited to the following: solid wastes, vehicle fluids, yard wastes, landscape materials, animal wastes, sediment, sewage, garbage, chemical wastes, biological wastes, soils, rocks, sand, or any other substance defined as a pollutant under the Clean Water Act.

PRETREATMENT: A structure, facility, or system that is designed to treat the flows in a stormwater conveyance system prior to discharge into downstream facilities, receiving waters, or into the soil. The facility reduces bulk pollutants by reducing sediment loads, removing trash, oils, grease and debris, and reducing Total Suspended Solids (TSS).

PRIVATE DRAINAGE: is all storm water that originates within the boundaries of private property, including, but not limited to, residential, commercial, industrial, or agricultural. It shall retain private classification up to the point where it is discharged to a public storm water facility.

STORM DRAIN: A closed conduit for conducting stormwater that has been collected by inlets or other approved means.

STORMWATER: Precipitation such as rain, snow, hail or other naturally occurring waters, that are not present as groundwater. Once the water percolates into the soil, it is defined herein as groundwater. Stormwater runoff is water that is generated by stormwater over land. All other water is defined as being water that is naturally occurring, and is not stormwater.

STORMWATER RUNOFF: is the runoff and drainage of precipitation resulting from rainfall, snowfall, or snow/ice melt or other natural events or processes.

SUMP: A formalized structure underground, surrounded by drain rock, that acts as a detention basin to allow the slow release of water into the surrounding subsoil. Sumps usually receive stormwater runoff from paved areas such as streets, parking lots, building roofs, etc. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES): is a State permitting program authorized by Section 402 of the Clean Water Act to control water pollution, and is comparable to the National Pollutant Discharge Elimination System (NPDES).

8-6-3: OBSTRUCTIONS:

A. It is unlawful for any person to obstruct or contribute to the obstruction of the flow of stormwater runoff or non-stormwater runoff into any sump, retention basin, stormwater channel or storm drain, curb and gutter, drain inlet, or other associated structural controls that convey stormwater and/or non-stormwater runoff.

B. It is unlawful for any person to cause any obstruction that inhibits the normal flow of stormwater and/or non-stormwater runoff in any curb and gutter, unless the obstruction is associated with a street and/or stormwater improvement project and is authorized by the city engineer or his appointee and granted with the issuance of a permit signed by the city engineer or his appointee.

C. It is unlawful for any person to cover over any drain inlet for any reason or purpose. (Ord. 98-34, 12-15-1998)

8-6-4: DUMPING OR PUMPING:

A. It is unlawful for any person to dump or pump, or allow to be dumped or pumped, into any sump, detention or retention basin, storm drain, curb and gutter, drain inlet, or other storm or non-storm water structure that conveys stormwater and/or non-storm water, including, but not limited to: any type of debris, groundwater, petroleum product, chemical, paint, pesticide, herbicide, heavy metal, acid or base product, solid or liquid waste product, hazardous waste product, and/or human or animal waste.

B. The restrictions set forth in subsection A of this section shall not apply to the normal runoff of non-stormwater related to domestic home use, as long as the product in question is used in the manner prescribed by the manufacturer of the product; for example, lawn watering, washing cars, etc. (Ord. 2012-2, 1-17-2012)

8-6-5: CONVEYANCE AND DISCHARGE OF STORMWATER:

A. Prohibited Discharges.

1. **Illicit Discharges. It is unlawful for any person to cause or allow the discharge into a water body or storm drainage system, either directly or indirectly, of any substance not comprised entirely of storm water or an exempted discharge as listed in Subsection (2) of this Section.**
2. **Exempted Discharges. The following non-storm water discharges shall be permissible; provided, that they do not result in a violation of water quality standards set forth by the State of Utah and/or Federal agencies:**
    - **(a) Discharges regulated under a valid Utah Pollutant Discharge Elimination System (UPDES) discharge permit; provided that the discharge complies with the terms of the permit.**
    - **(b) Discharges from water line flushing.**
    - **(c) Discharges from landscape or lawn watering.**
    - **(d) Uncontaminated ground water.**
    - **(e) Uncontaminated irrigation water.**
    - **(f) Discharges from natural riparian habitat or wetland flows.**
    - **(g) Discharges form air conditioning condensate.**
    - **(h) Discharges or flows from emergency management or firefighting activities.**
    - **(i) Discharges from foundation drains, footing drains or crawlspace or basement pumps; provided that the discharge is approved by the Public Works Director or their designee.**
    - **(j) Discharges resulting from municipal infrastructure management, including street wash water, storm drainage system jetting, hydrant flushing and/or testing, etc.**
3. **Accidental Discharges. Any person who accidentally discharges into a water body or storm drainage system shall immediately inform the Public Works Director or their designee of the discharge. If such information is given orally, a written report concerning the discharge is to be submitted by the discharger to the Public Works Director, or their designee, within ten (10) days of the discharge. The written report shall specify:**
    - **(a) The composition of the discharge and the cause thereof.**
    - **(b) The exact date, time and estimated volume of the discharge.**
    - **(c) All measures taken to clean up the accidental discharge.**

(d) Proposed measures to be taken to prevent any recurrence.

(e) The name and contact information of the person making the report.

A properly reported accidental discharge shall be considered an affirmative defense to a civil infraction of this Title; however, it shall not be a defense to legal action brought to obtain an injunction, to recover costs, or to obtain other relief from any adversities resulting from the discharge. A discharge shall be considered properly reported only if the discharge complies with all requirements of this section.

B. Prohibited Storage and Littering.

1. It is unlawful for any person to place garbage, refuse yard waste, pet waste, rocks, soil, mud, or any other tangible material/substance into any street, gutter, or component of the storm drainage system.
2. Except as permitted by law and where adequate protection and containment is provided, it is unlawful for any person to store, stockpile, keep, or leave any pollutant or hazardous material, within a drainage-way, or in a manner that is likely to result in the discharge of material into the storm drainage system.

C. Inspection, Monitoring and Sampling.

1. Under the direction of the Public Works Director or their designee, a properly identified City representative may inspect, monitor and/or obtain samples from storm water runoff facilities of any discharger to determine compliance with the requirements of this Title.
2. Any discharger shall allow the City's representative to enter upon the premises of the discharger during regular business hours for the purpose of inspecting, monitoring and/or sampling storm water discharges.
3. The discharger shall allow the City's representative to temporarily place on the discharger's property the equipment or devices necessary to perform proper inspections, monitoring and/or sampling of storm water discharges.

~~A.~~ D. **Reduction of Stormwater Flows:**

1. Multi-Family, Commercial, and Industrial Development: The development for which the permit or approval is issued must design for and calculate the flows and volume, as provided in subsection 11-7-4D of this code, that will be produced by a 10-year, 24-hour storm for detained flow, and a 25-year, 24-hour storm for retained flow. In addition, the maximum allowable discharge from the detention basin(s) for the entire project area or site shall not exceed 0.15 cfs per acre of gross area of development. The amount of storm water exiting the project cannot exceed the amount calculated above but may be further restricted by the capacity of existing storm drains or drainage facilities as determined by the City Engineer. Restrictions to the controlled rate of release will require that detention

storage be provided. If no storm water collection system is available downstream with allowable capacity, retention of the 25-year storm must be provided. In any event that retention is the only available source of storm water management, in the determination of the city engineer, the soil must be capable of absorbing the entire volume of water within a three (3) day period of time, as determined by a percolation test that shall be performed on the site to be used for retention of the storm water. All other provisions of the sizing, improvement and use of retention or detention basins shall conform in all instances to the provisions of section 10-15-33 of this code. In addition, all provisions of the design of storm water systems or control for each development shall conform to the stormwater master plan. Such developments must also provide means of safely conveying the 100-year storm to available public roads and drainage facilities without undue flooding of buildings and adjacent property. If such facilities are not provided or feasible, as determined by the City Engineer, retention of the full 100-year event must be provided.

2. Single-family residential:

a. Single-family residential developments are not required to install onsite detention or retention facilities unless no storm water collection system with allowable capacity, or no regional detention basins are available downstream with sufficient unused capacity, or no such facilities are planned for in the storm drain master plan, as determined by the City Engineer. Detention or retention must be designed for the 10-year or 25-year storm volume as described in 8-6-5-A-1.

b. Developments must be designed to safely convey the 100-year event to public roads and drainage facilities without flooding buildings or creating additional undue flooding of neighboring properties, as determined by the City Engineer.

B. All developments for which the permit or approval is issued must provide means of conveying the 25-year storm from the site to public facilities. Any conveyance facilities connecting to city systems, or intended for dedication to the city, must be designed to convey the full 25-year storm event.

C. All facilities which are designed to infiltrate runoff into the soil must have means of pretreatment. The pretreatment must be designed to treat all flow up to the 2-year storm peak flow and volume and must retain the majority of trapped sediment and pollutants during bypass events. In a system that injects water directly into the soil, if special circumstances exist on a development site, the City Engineer may specify a larger design event for pretreatment or require that other protective measures be installed.

D. January 1, 2021, all submitted development applications for new or redeveloped developments with an area greater than 1 acre in size must address Low Impact Development storm drain design practices as outlined below. The Project Volume

Retention Goal (V_{goal}) must be calculated as described in the "Storm Water Technical Manual" in Appendix A of the "Public Works Standards Specifications and Drawings".

1. For developments in single family residential zones, the MS4 LID Residential Development Fee will be calculated based on the Vgoal volume, in accordance with the current adopted fee schedule.

2. All other types of development must provide infiltration, evapotranspiration and bioretention facilities for the full V_{goal} volume in accordance with the requirements of the Storm Water Technical Manual. If conditions exist as outlined in the Storm Water Technical Manual that prevent such developments from infiltrating the full volume, a partial retention approach shall be utilized. Whatever volume of water cannot be infiltrated shall be treated using LID practices prior to discharging any storm water offsite.

3. The City Engineer may reject or require adjustments or modifications to any LID methods, standards, or guidelines proposed for use by the developer that are deemed by the City Engineer to not meet the requirements or intent of the city code or the city's Standard Specifications and Drawings, or that may be ineffective, or unproven, or create excessive or unaddressed maintenance concerns, or that may create a public nuisance.

E. In the instances where the plan describes major storm water conveyance channels that are intended to remain in an open, non-piped condition, conflicting provisions of this code, requiring that channels, ditches, and other storm or irrigation water conveyances be piped, shall be waived. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)

8-6-6: PIPING OF EXISTING DRAINAGE/IRRIGATION FACILITIES:

Any open irrigation and/or drainage ditches which are located within or along the borders of any proposed development must be piped or otherwise covered as a condition of development approval, except as provided in section 8-6-5 of this chapter. The developer shall be responsible for the design and construction of the required improvements. In the event the ditch has been identified in the stormwater master plan as needing increased capacity, the city council may elect to have the city participate in the costs of piping such ditch. (Ord. 98-34, 12-15-1998; amd. Ord. 2020-29, 12-15-2020)

8-6-7: ENFORCEMENT, PENALTIES, AND ABATEMENT ~~PENALTY~~:

1. **Enforcement Authority. The Public Works Director, or their designee, shall have the authority to issue notices of violation, stop work orders and to impose civil penalties for any violation of this Title.**
2. **Notice of Violation. Whenever the Public Works Director, or their designee finds that a person has violated any of the provisions of this Title, the Director or their**

designee may issue a written notice of violation. Such notice may include any or all of the following:

(a) Elimination of illicit connections or discharges;

(b) That the violating discharges, practices, or operations shall cease and desist;

(c) The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;

(d) Payment to cover remediation costs incurred by the City;

(e) The implementation of proper BMPs to prevent future occurrences.

Within ten (10) days of the date of the notice, the violator shall submit to the Public Works Director or their designee a plan for the satisfactory correction of the discharge or a request for an administrative hearing. The Public Works Director or their designee may skip the notice requirements set forth in this Section and immediately proceed with civil and/or criminal action against the violator if (1) the violator has committed the same violation in the past, or (2) the violation, in the opinion of the Director or their designee creates a serious risk to the public, the environment, or property, or (3) the Director or their designee deems the violation an emergency.

3. **Stop Work Order. Where there is work in progress that causes or constitutes a violation of any provision of this Title, the Public Works Director, or their designee is authorized to issue a stop work order to prevent further or continuing violations and/or adverse effect. All persons to whom the stop work order is directed, or who are involved, in any way, with the work described in the stop work order shall fully comply therewith. In situations which may be deemed a risk to the public health or safety, the Director or their designee may also undertake or cause to be undertaken any necessary or advisable protective measures to correc the violation and prevent further unauthorized discharge, the cost of which shall be the responsibility of the owner of the property upon which the work is being done and any person carrying out or participating in the work. Such costs shall be a lien upon the property, at the discretion of the City. In cases where the costs exceed available bond monies, the responsible party shall not be granted new permits by the City until the costs have been repaid to the City in full.**

8-6-8: LAND DISTURBANCE PERMITS

A. When required. Every person will be required to obtain a land disturbance permit from the city engineer in the following cases:

1. **Land disturbing activity that generally disturbs one or more acres of land.**

2. Land disturbing activity of less than one acre of land if such activity is part of a larger common plan of development that affects one or more acres of land;
3. Land disturbing activity of less than one acre of land, if, in the discretion of the city engineer, such activity poses a unique threat to water, or public health or safety;
4. The creation and use of borrow pits;
5. Development of a single family home;
6. Processing of earthen materials such as top soil and gravel screening;
7. Construction of parking lots;
8. Creation of an impervious area 0.25 acres (ten thousand eight hundred ninety square feet) constructed with compacted gravel, asphalt, or concrete pavement;
9. Creation or alteration of storm drain works or systems;
10. Excavation or disturbance of more than one thousand cubic yards of material in any non-agricultural earth moving activity.

B. Drainage Channels, waterways, and sensitive areas.

1. Property owners shall not alter or restrict natural channels and waterways without proper federal, state, and city permits.

2. Modifications of sensitive areas are subject to and governed by the Pleasant Grove City Sensitive Land Ordinance. These actions will require a land disturbance permit and approval from all other governing agencies.

3. Property owners proposing to redirect runoff, surface and/or channelized pipe flow to properties or facilities outside Pleasant Grove City boundaries must provide wrtieen approval from the federal (if applicable), state, county or municipality or their agents.

4. Property owners are responsible for the protection of channels per the relevant sections of this chapter.

5. Discharges or modifications to the channels require written approval from the canal owners and applicable governing agencies.

C. Building Permit. No building permit shall be issued until the applicant has obtained a land disturbance permit where the same is required by this chapter.

D. Exemptions. The following activities are exempt from the permit requirement:

1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources including activities required to promote public safety, repairs to water lines and/or other city infrastructure repairs.

2. Existing nursery and agricultural operations conducted as a predominant land use.

3. Any agricultural activity that is consistent with an approved farm conservation plan or a management plan prepared or approved by the appropriate federal, state, or city agency.

4. Additions or modifications to existing single family structures.

5. Landscape modifications resulting in disturbances below the limits identified in Section 8-6-8(A).

6. Excavation activities necessary for public purposes approved through the city approval process.

E. Applications for a land disturbance permit.

1. Each application shall include the following:

a. Name of Applicant;

b. Business or residence address of Applicant;

c. Name, address, and telephone number of the owner of the property of record in the office of the Utah County Assessor;

d. Address and legal description of subject property, including the tax reference number and parcel number of the subject property;

e. Name, address, and telephone number of the contractor and any subcontractor(s) who shall perform the land disturbing activity and who shall implement the erosion and sediment control plan;

f. A statement indicating the nature, extent, and purpose of the land disturbing activity including the size of the area for which the permit shall be applicable and a schedule for the starting and completion dates of the land disturbing activity.

2. The Applicant shall obtain, from any other state or federal agency, any other appropriate environmental permits that pertain to the property. However, the inclusion of those permits in the application shall not foreclose the city engineer from imposing additional development requirements and conditions, commensurate with this chapter, on the development of property covered by those permits.

3. Each application shall be accompanied by:

a. A sediment and erosion control plan; and

b. A storm water management plan providing for storm water management during the land disturbing activity and after the activity has been completed sufficient to handle the design storm events.

4. Each application for a land disturbance permit shall be accompanied by payment of the land disturbance permit and other storm water management fees, as adopted by resolution and found in the city fee schedule.

F. Review and approval of application.

1. The city engineer will review each application for a land use disturbance permit to determine its conformance with the provisions of this chapter. Within fifteen days after receiving an application, the city engineer shall provide one of the following responses in writing:

a. Approval of the permit application;

b. Approval of the permit application, subject to such reasonable conditions as may be necessary to secure substantially the objectives of this chapter, and issue the permit subject to these conditions; or

c. Denial of the permit application, indicating the reason(s) for the denial.

2. If the city engineer has granted conditional approval of the permit, the applicant shall submit a revised plan that conforms to the conditions established by the city engineer. However, the applicant shall be allowed to proceed with his land disturbing activity so long as it conforms to conditions established by the city engineer.

No development plans will be released until the land disturbance permit has been approved and all plan review fees are paid in full.

G. Permit Duration. Every land disturbance permit shall expire and become null and void if substantial work authorized by such permit has not commenced within one hundred eighty calendar days of issuance, or is not complete within eighteen months from the date of the commencement of construction.

H. Notice of construction.

1. The applicant must notify the city public works department ten working days in advance of the commencement of construction. Regular inspections of the storm water management system construction shall be conducted by a city storm drain inspector. All inspections shall be documented and written reports shall be prepared that contain the following information:

a. The date and location of the inspection;

b. Whether construction is in compliance with the approved storm water management plan;

c. Variations from the approved construction specifications;

d. Any violations that exist and remedies the applicant is required to perform.

I. Performance bonds.

1. The city engineer shall require the submittal of a performance security or performance guarantee bond prior to issuance of a permit in order to ensure that the storm water pollution prevention practices are installed by the permit holder as required by the approved storm water pollution prevention plan (SWPPP).

a. The amount of the installation performance security or performance guarantee bond shall be the total estimated construction cost of the structural BMPs approved under the permit, plus any reasonably foreseeable additional related costs.

b. The performance security shall contain forfeiture provisions for failure to complete work specified in the storm water pollution prevention plan (SWPPP).

c. The applicant shall provide an itemized construction cost estimate, complete with unit prices, which shall be subject to acceptance, amendment or rejection by the city engineer.

d. Alternatively, the city engineer shall have the right to calculate the estimates for the cost of construction and review the opinion of probable cost accordingly.

2.The performance security or performance guarantee bond shall be released in full only upon submission of as-built plans and written certification by a registered professional engineer licensed to practice in the state of Utah that the structural BMP has been installed in accordance with the approved plan and other applicable provisions of this chapter. Completion of all final inspection punch list items and removal of all temporary control measures are also required prerequisites for release of guarantee funds.

3.A city storm drain inspector will make a final inspection of the structural BMP to ensure that it is in compliance with the approved plan and the provision of this chapter. Provisions for a partial pro-rata release of the performance security or performance guarantee bond based on the completion of various development stages may be made at the discretion of the city engineer.

8-6-9: PENALTY:

A. Civil Penalties: The violation of any of the provisions of this chapter shall be punished as follows:

1. **First day warning of violation without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction an is subject to a zero ($0) dollar fine and a Red Tag.**
2. **Second day of violation after warning, without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction and is subject to a $100.00 fine.**
3. **Third day of violation after warning, without actual discharges to the City Storm Drain System is considered a Level I Violation or infraction and is subject to a $300.00 fine.**
4. **If the violation is not corrected after the third day, it shall be elevated to a Level II Violation and follow the penalties as outline below for Level II Violations.**
5. **First day of violation WITH illegal discharges to the City Storm Drain System is a Level II Violation or infraction subject to a $500.00 fine.**
6. **Second day of violation WITH illegal discharges to the City Storm Drain System is a Level II Violation or Class C misdemeanor and shall be punishable by a fine in a sum not to exceed seven hundred and fifty dollars ($750.00), or by imprisonment for a period of not longer than ninety (90) days, or by both such fine and imprisonment.**
7. **Each additional day is an additional Class C misdemeanor up to a maximum of seven (7) days.**
8. **After seven (7) days it becomes a Level III Violation or a Class B misdemeanor and shall be punishable by a fine in a sum not to exceed one thousand dollars ($1,000.00), or by imprisonment for a period not longer than six (6) months, or by both such fine and imprisonment.**
9. **Each additional day is an additional Class B misdemeanor.**
10. **Upon conviction of a violation of any provision of this Chapter, any license previously issued to the violator or for the subject property issued by the City may be revoked by the court or the governing body.**
11. **If, as a result of the violation of any provision of this Chapter, the City or any other party suffers damages, fines, incurs investigative or clean-up costs, or is required to make repairs and/or replace any materials, the cost of investigations, fines, repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.**
12. **Repeat offenders (3 or more Level I or greater violations within 24 months) or those with unpaid fines shall be ineligible for the issuance of any permit(s) for a period of one (1) year from the date of the last offense and all fines are paid.**

13. **If there are three (3) violations at any level within 24 months, the next violation is automatically escalated by one level.**

B. Administrative Hearing.

A person or entity served a notice of violation of any of the provisions of this Title with civil penalties shall have the right to an administrative hearing. A request for such hearing shall be in writing and shall be files, with the City Recorder or their designee within ten (10) days from the date of service of the Notice. Failure to request an administrative hearing shall constitute a waiver of the right to an administrative hearing and a waiver of the right to appeal. Administrative hearings shall adhere to the provisions of Section 2-4-3 of the Pleasant Grove Municipal Code.

C. Violators of this Title may be subject to prosecution, fines, and penalties from the State of Utah and the United States EPA. Nothing in this Title shall be interpreted to relieve any person from an obligation to comply with applicable Federal, State, or local laws related to storm water discharge or drinking water protection.

~~**A. The violation of any of the provisions of this chapter shall be a class C misdemeanor and upon conviction, subject to penalty as provided in section 1-4-1 of this code. Each day that a violation occurs shall constitute a separate offense.**~~

~~**B. If, as the result of the violation of any provision of this chapter, the city or any other party suffers damages and is required to make repairs and/or replace any materials, the cost of repair or replacement shall be borne by the party in violation, in addition to any criminal fines and/or penalties.**~~ **(Ord. 98-34, 12-15-1998; amd. 2003 Code; Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020)**

SECTION 2. SEVERABILITY. The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable. If any such section, paragraph, sentence, clause, or phrase shall be declared invalid or unconstitutional by the valid judgment or decree of a Court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any of the remaining sections, paragraphs, sentences, clauses or phases of this Ordinance.

SECTION 3. **EFFECTIVE DATE**. This ordinance shall take effect immediately upon its passage and posting as provided by law.

SECTION 4. APPROVED AND ADOPTED by the City Council of Pleasant Grove City, Utah County, Utah, this ___day of December 2021.

_____

Guy L. Fugal, Mayor

ATTEST:

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

CERTIFICATE OF POSTING ORDINANCE

Pleasant Grove City Corporation

I, the duly appointed recorder for the City of Pleasant Grove, hereby certify that a summary of the foregoing Ordinance No._____was posted on the State (http://pmn.utah.gov) website on this ____ day of _____, 2021.

Dated this _____ day of _____, 2021.

_____

Kathy T. Kresser, MMC, City Recorder

RESOLUTION NO. 2021-065

A RESOLUTION OF THE GOVERNING BODY OF PLEASANT GROVE CITY AUTHORIZING THE MAYOR TO SIGN A COOPERATIVE AGREEMENT WITH THE UTAH DEPARTMENT OF TRANSPORTATION (UDOT) TO CONSTRUCT AND MAINTAIN STORM WATER DRAINAGE FACILITIES IN THE STATE STREET CORRIDOR AT APPROXIMATELY BETWEEN 1300 WEST AND NORTH COUNTY BLVD IN PLEASANT GROVE, UTAH COUNTY, UTAH, AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, UDOT and a design consultants are engaged in preparing plans, specifications, and estimates for the construction of roadway widening and drainage facilities within the US-89 (State Street) corridor between approximately 500 East American Fork and 220 South Pleasant Grove, also known as F-0052(13)3 "US-89; State St., 220 So P.G. to 500 East A.F." (hereinafter referred to as the "Project"; and

WHEREAS, the CITY has limited storm water drainage facilities in the above-described section of US-89 and desires new storm water drainage facilities to be installed with UDOT's construction of the Project so the CITY's facilities can accommodate an increased flow of water from UDOT's expanded roadway; and

WHEREAS, UDOT and the CITY have worked together and agreed to the scope of the new UDOT storm water drainage facilities ("Drainage Facilities") to be constructed within the Project; and

WHEREAS, plans for the Drainage Facilities are attached to this agreement as Exhibit "A" to the Agreement and incorporated herein by reference (the "Plans"); and

WHEREAS, UDOT and the CITY have also determined that the CITY will construct, maintain, and operate improvements to the CITY's storm water drainage and detention system (the "CITY Storm Water System") to ensure that the system can accommodate the increased flow of water from UDOT's roadway and Drainage Facilities, and UDOT will provide the CITY with a fixed amount of funding to pay for CITY's construction of the necessary improvements to the CITY Storm Water System (the "CITY Work"); and

WHEREAS, it is agreed by and between both parties to enter into the Cooperative Agreement; and

WHEREAS, the City Council finds that it is in the best interests of the citizens of Pleasant Grove to enter into the Cooperative Agreement with UDOT.

NOW, THEREFORE, BE IT RESOLVED by the Pleasant Grove City Council, Pleasant Grove, Utah as follows:

SECTION 1.

The Mayor is authorized to enter into the Cooperative Agreement with UDOT regarding storm drainage management within the Project Area at approximately 1300 West and State Street in Pleasant Grove. Said Agreement which is attached hereto and incorporated herein as Exhibit "A".

SECTION 2.

The provisions of this Resolution shall take effect immediately.

PASSED AND ADOPTED BY THE CITY COUNCIL OF PLEASANT GROVE, UTAH this, 7th day of December, 2021

_____
Guy L. Fugal, Mayor

ATTEST: (SEAL)

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

Project No. F-0089(276)345
PIN 9994, Authority No. 53499
US-89; State St. , 220 So P.G. to 500 East A.F.
PLEASANT GROVE CITY

COOPERATIVE AGREEMENT

THIS AGREEMENT, made and entered into as of this _____ day of _____, 2021, by and between the **UTAH DEPARTMENT OF TRANSPORTATION**, hereinafter referred to as "**UDOT**", and the **CITY OF PLEASANT GROVE**, a municipal corporation of the State of Utah, hereinafter referred to as "**CITY.**"

WITNESSETH:

WHEREAS, UDOT and its design consultants are engaged in preparing plans, specifications, and estimates for the construction of roadway widening and drainage facilities within the US-89 (State Street) corridor between approximately 500 East American Fork and 220 South Pleasant Grove, also known as F-0052(13)3 US-89; State St., 220 So P.G. to 500 East A.F ("Project"); and

WHEREAS, UDOT and the CITY have worked together and agreed to the scope of the new UDOT storm water drainage facilities ("Drainage Facilities") to be constructed within the Project; and

WHEREAS, plans for the Drainage Facilities are attached to this agreement as Exhibit "A" and incorporated herein by reference (the "Plans"); and

WHEREAS, UDOT and the CITY have also determined that as the CITY continues to develop and add storm water to the 1300 West drainage facilities, the CITY will cause to be constructed, and further maintain, and operate existing and future improvements to the CITY's storm water drainage and detention system (the "CITY Storm Water System") to ensure that the system can accommodate the increased flow of water from UDOT's roadway and Drainage Facilities, and UDOT will provide the CITY with a fixed amount of funding to pay for CITY's construction of the necessary future improvements to the CITY Storm Water System (the "CITY Work").

NOW THEREFORE, in consideration of the foregoing recitals (which are incorporated herein by this reference) and the following terms and conditions, the sufficiency of which is hereby acknowledged, it is agreed by and between the parties hereto as follows:

1. Within 45 days from the execution of this agreement, UDOT shall pay the CITY Three Hundred Five Thousand Five Hundred Dollars ($305,500.00), which is for anticipated future drainage detention system expansion needs to handle the additional flows from UDOT's Project.

2. UDOT shall construct the Drainage Facilities in accordance with the attached Plans. Any changes to the Plans or any change orders for the Drainage Facilities portion of the Project must be approved in writing by the CITY.

3. UDOT shall be responsible for the ongoing repair, maintenance and replacement of all Drainage Facilities constructed in UDOT's State Street right-of-way as part of the Project. Once the

storm water from the UDOT Drainage Facilities enters the CITY's storm water infrastructure in 1300 West, the CITY will be responsible for the ongoing repair, maintenance, operation, and replacement of the CITY's storm water system and the handling of the water received. Each party shall only be responsible for damage that may arise, if any, in connection with its own system's operations. The CITY acknowledges and agrees that the purpose of this agreement is to provide for the flow of water from UDOT's roadway and Drainage Facilities into the CITY Storm Water System and that UDOT has provided financial support as stated herein for the CITY Work for that purpose, and such flow of water shall not give rise to damage to the CITY. The CITY will operate and maintain its storm water drainage system in a manner that does not limit UDOT's ability to utilize its Drainage Facilities. The parties agree to cooperate with each other and coordinate their efforts in operating and maintaining their respective systems when necessary or reasonable.

4. UDOT and the City will each comply with the required storm water permits, applicable laws, and regulations for the storm water systems that they own.

5. This agreement contains the entire agreement between the parties with respect to the subject matter, and no statements, promises, or inducements made by either party that are not contained in this written agreement shall be binding or valid.

6. Each party agrees to undertake and perform all further acts that are reasonably necessary to carry out the intent and purposes of this agreement at the request of the other party.

7. The failure of either party to insist upon strict compliance with any of the terms and conditions herein, or failure or delay by either party to exercise any rights or remedies provided in this agreement, or by law, will not release either party from any obligations arising under this agreement.

8. This agreement does not create any type of agency relationship, joint venture, or partnership between the parties. This agreement is for the benefit of the parties signing below and it does not create any rights or obligations for any third parties.

9. Each party represents that is has the authority to enter into this agreement and that its authorized representative has signed below. This agreement may be executed in one or more counterparts, each of which shall be an original, with the same effect as if the signatures were made upon the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly authorized officers as of the day and year first above written.

ATTEST:

By: _____

Title: _____

Date: _____
(IMPRESS SEAL)

CITY OF PLEASANT GROVE, a municipal corporation within the State of Utah

By: _____

Title: _____

Date: _____

UTAH DEPARTMENT OF TRANSPORTATION

By:_____
Project Manager

Date: _____

By:_____
Region Director

Date: _____

COMPTROLLER OFFICE

By:_____
Contract Administrator

Date:_____

EXHIBIT A

GENERAL DRAINAGE NOTES:

1. STRUCTURE ID:
   CB = CATCH BASIN P = DRAINAGE PIPE MH = MANHOLE ES = END SECTION
   EXP = EXISTING PIPE EXCB = EXISTING CATCH BASIN HGL = HYDRAULIC GRADE LINE

2. EXISTING UTILITY ID:
   bctv = buried cable tv g = gas fo = fiber optic ud = perforated underdrain pipe
   be = buried electric sd = storm drain e = overhead electric wtr = water
   btel = buried telephone swr = sewer EX OPL = Existing overhead powerline

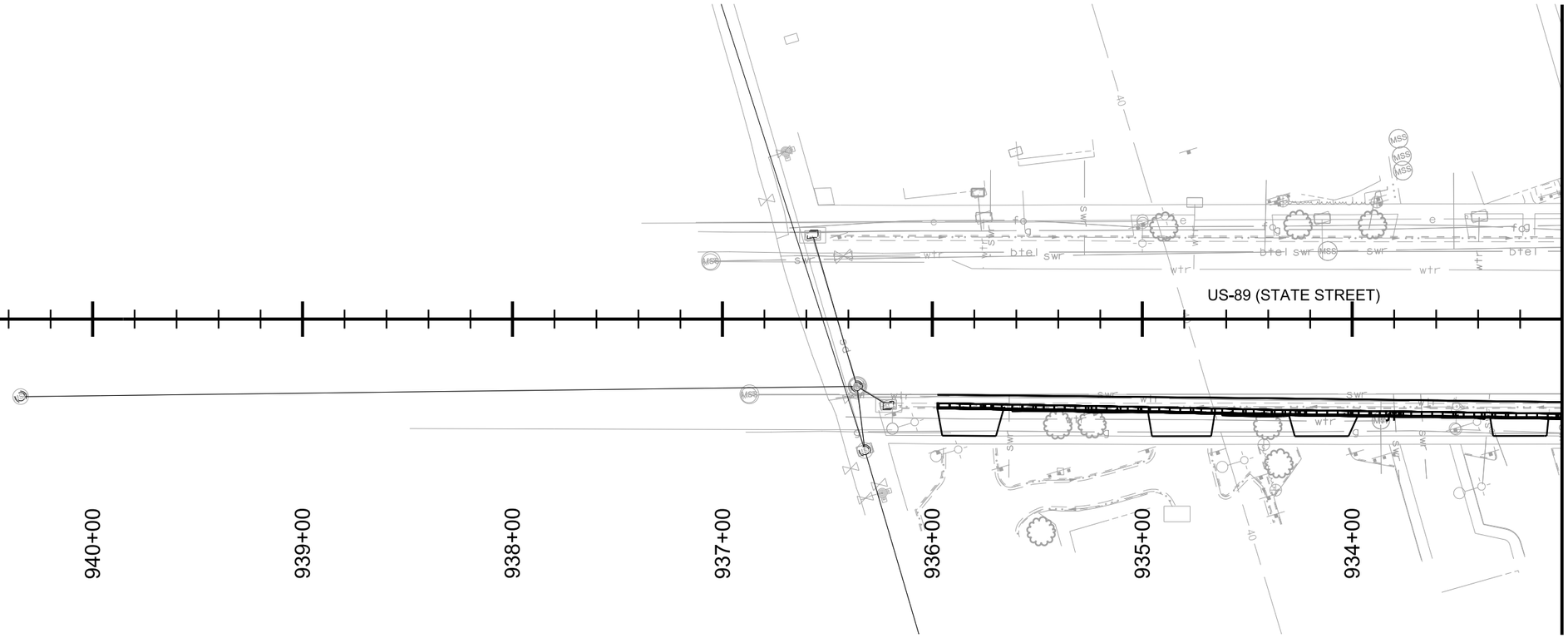
3. GRADING
   FL = FLOWLINE HI POINT = HIGHPOINT IN GUTTER

4. UTILITY LOCATIONS ARE APPROXIMATIONS BASED ON THE AVAILABLE INFORMATION. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL UTILITIES. PROTECT IN PLACE ALL UTILITIES AND EXISTING DRAINAGE FEATURES NOT BEING RELOCATED.

5. FIELD VERIFY THE EXISTING PIPE LOCATIONS AND THE FIT AND FUNCTION AT STRUCTURE LOCATIONS PRIOR TO MANUFACTURING PRECAST DRAINAGE STRUCTURES. THE DEPARTMENT WILL NOT REIMBURSE FOR PRECAST STRUCTURES THAT DO NOT FIT FIELD CONDITIONS.

6. SEE DRDT-01 FOR INLET AND MANHOLE DETAILS.

NO DRAINAGE WORK THIS SHEET



REVISIONS				
NO.	DATE	APPROVED BY	REMARKS	

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY: MMM QC CHECKED BY: CMR

2/27/2019 DATE

APPROVED

PROFESSIONAL ENGINEER

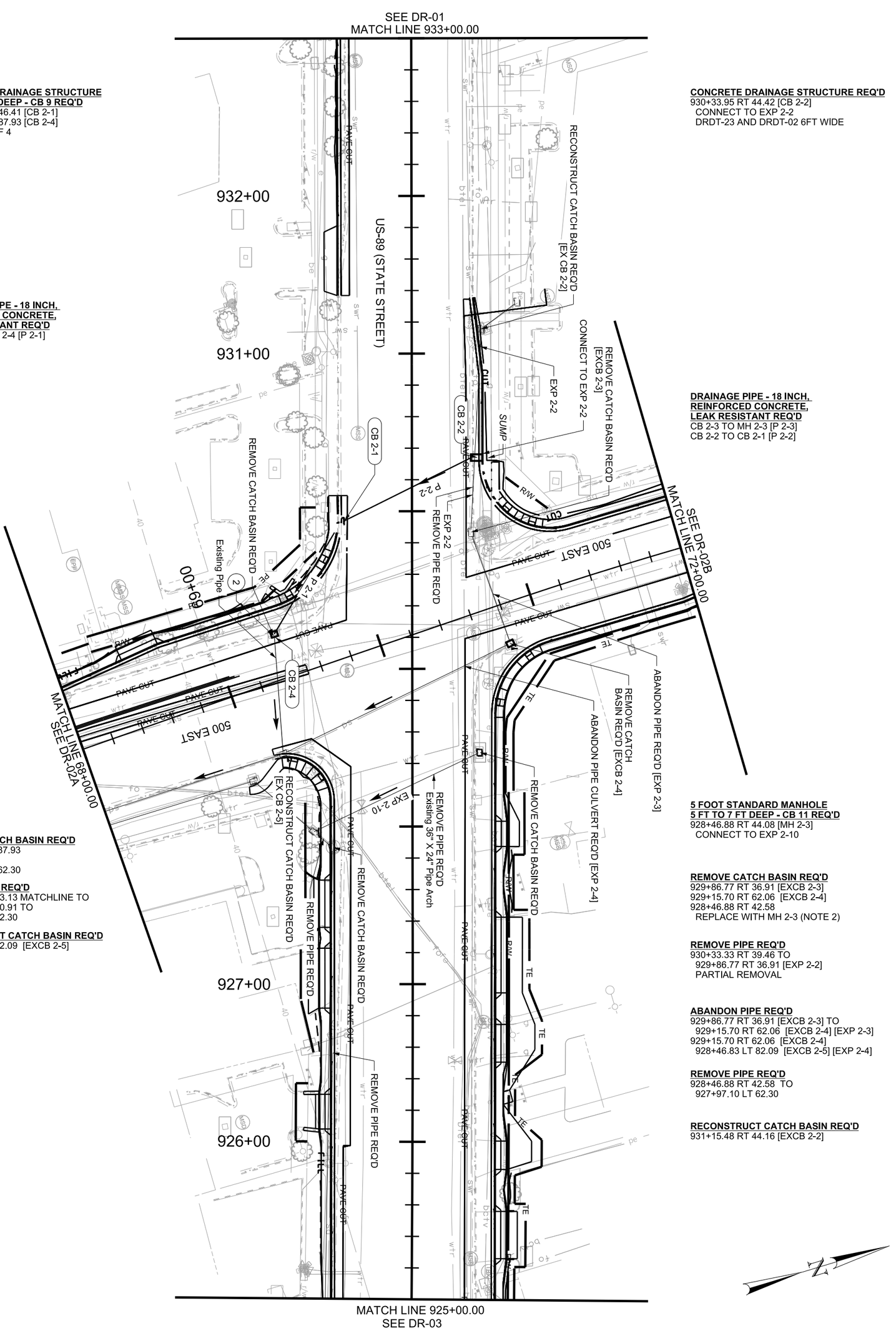
PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.

PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DR-01

27-FEB-2019 DGN File: IP_PWP=d0294478\9994_DR-01.dgn



CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
929+93.74 LT 46.41 [CB 2-1]
929+21.14 LT 87.93 [CB 2-4]
SOLID LID GF 4

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 2-1 TO MH 2-4 [P 2-1]

REMOVE CATCH BASIN REQ'D
929+21.14 LT 87.93
NOTE 2
927+97.10 LT 62.30

REMOVE PIPE REQ'D
925+00.00 LT 53.13 MATCHLINE TO
927+38.30 LT 50.91 TO
927+97.10 LT 62.30

RECONSTRUCT CATCH BASIN REQ'D
928+46.83 LT 82.09 [EXCB 2-5]

CONCRETE DRAINAGE STRUCTURE REQ'D
930+33.95 RT 44.42 [CB 2-2]
CONNECT TO EXP 2-2
DRDT-23 AND DRDT-02 6FT WIDE

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 2-3 TO MH 2-3 [P 2-3]
CB 2-2 TO CB 2-1 [P 2-2]

5 FOOT STANDARD MANHOLE
5 FT TO 7 FT DEEP - CB 11 REQ'D
928+46.88 RT 44.08 [MH 2-3]
CONNECT TO EXP 2-10

REMOVE CATCH BASIN REQ'D
929+86.77 RT 36.91 [EXCB 2-3]
929+15.70 RT 62.06 [EXCB 2-4]
928+46.88 RT 42.58
REPLACE WITH MH 2-3 (NOTE 2)

REMOVE PIPE REQ'D
930+33.33 RT 39.46 TO
929+86.77 RT 36.91 [EXP 2-2]
PARTIAL REMOVAL

ABANDON PIPE REQ'D
929+86.77 RT 36.91 [EXCB 2-3] TO
929+15.70 RT 62.06 [EXCB 2-4] [EXP 2-3]
929+15.70 RT 62.06 [EXCB 2-4]
928+46.83 LT 82.09 [EXCB 2-5] [EXP 2-4]

REMOVE PIPE REQ'D
928+46.88 RT 42.58 TO
927+97.10 LT 62.30

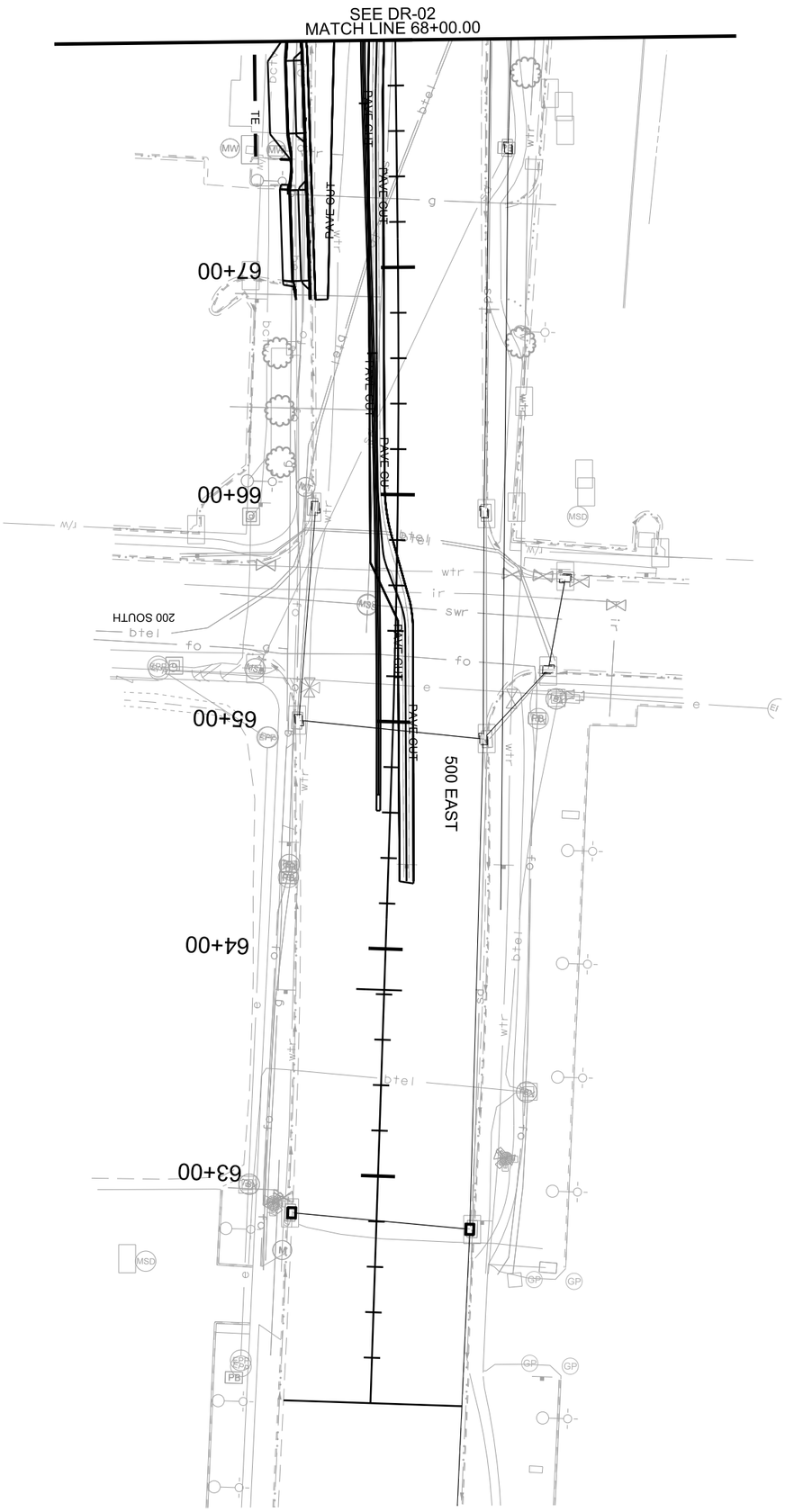
RECONSTRUCT CATCH BASIN REQ'D
931+15.48 RT 44.16 [EXCB 2-2]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

(2.) REMOVE CATCH BASIN AND REPLACE WITH A CATCH BASIN. CONNECT EXISTING PIPES.

SHEET NO. DR-02	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 3/5/2019 DATE	QC CHECKED BY CMR	



NO DRAINAGE WORK THIS SHEET

N

SHEET NO. DR-02A

PROJECT	US-89; STATE ST.,		UTAH DEPARTMENT OF TRANSPORTATION	
	220 SO P.G. TO 500 EAST A.F.			
PROJECT NUMBER	F-0089(276)345	PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE		PROFESSIONAL ENGINEER — 2/27/2019 DATE	QC CHECKED BY CMR

REVISIONS			
NO.	DATE	APPROVED BY	REMARKS

NO DRAINGE WORK THIS SHEET

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY	MMM
QC CHECKED BY	CMR

2/27/2019
DATE

APPROVED

PROFESSIONAL ENGINEER

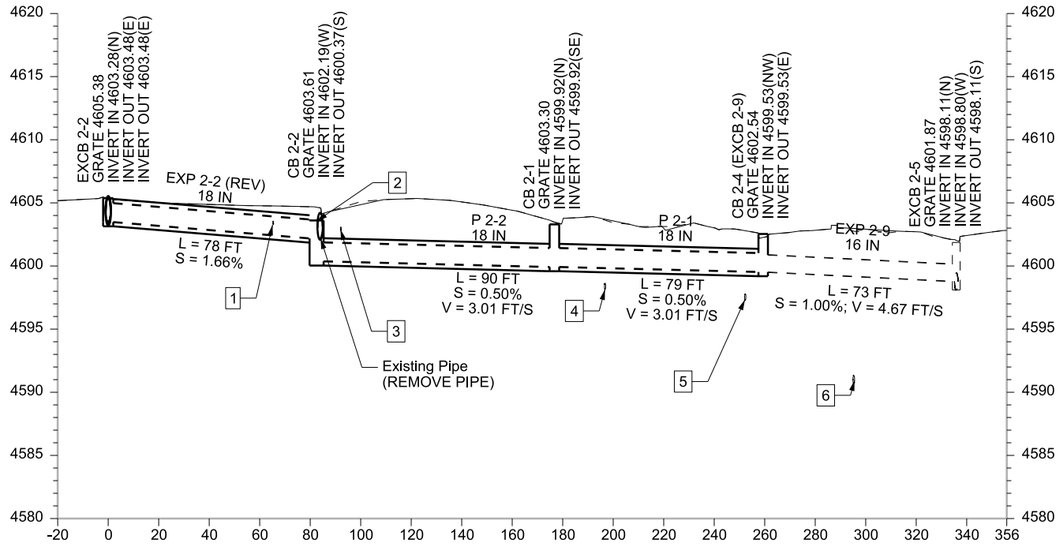
PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.

PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DR-02B

27-FEB-2019 DGN File:IP_PWPub0294478\9994_DR-02B.dgn



ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	SYRINGA/UDOT		PROTECT IN PLACE	
2	FIBER OPTIC	SYRINGA/UDOT		RELOCATE BY SYRINGA/UDOT	BTEL LINE GOES THROUGH CB 2-2 BOX
3	BURIED TELEPHONE	CENTURY LINK		RELOCATE BY CENTURY LINK	
4	GAS	DOMINION	2" PE	PROTECT IN PLACE	
5	GAS	DOMINION	4" PE	PROTECT IN PLACE	
6	SEWER	AMERICAN FORK	8" RCP	PROTECT IN PLACE	

LEGEND

———— FINISHED GRADE
– – – – Existing Grade
— · — HGL 10-year

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

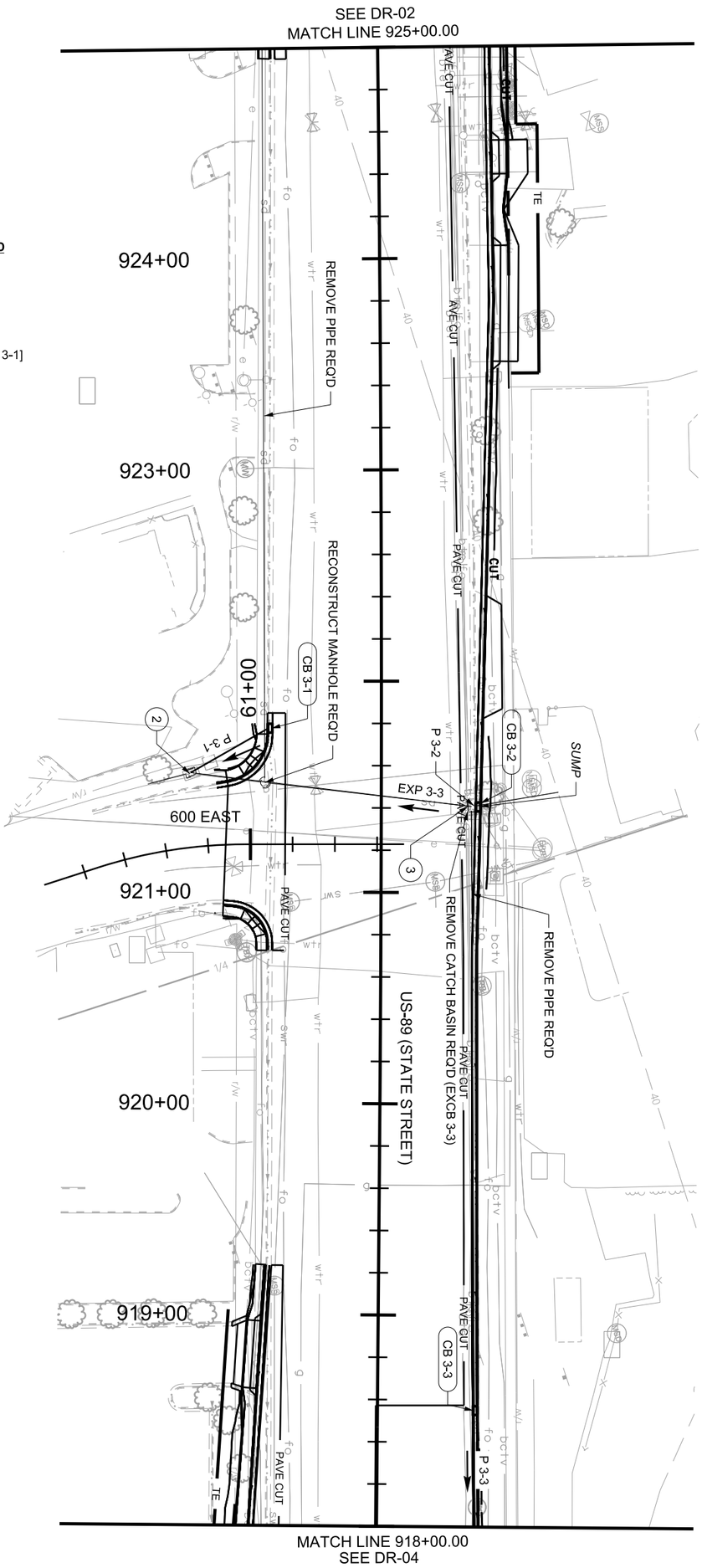
DRAWN BY MMM
QC CHECKED BY CMR
DATE 2/27/2019
APPROVED
PROFESSIONAL ENGINEER

PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.
PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DP-02

DGN File:IP_PWP:d2994z78\9994_DP-02.dgn
27-FEB-2019



SHALLOW CATCH BASIN - CB 3 REQ'D
921+77.71 LT 53.45 [CB 3-1]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 3-1 TO EXCB 921+56.33 LT 89.92 [P 3-1]

RECONSTRUCT MANHOLE REQ'D
921+51.83 LT 55.25

REMOVE PIPE REQ'D
925+00.00 LT 53.20 MATCHLINE TO
921+51.83 LT 55.25

CONCRETE DRAINAGE STRUCTURE REQ'D
918+55.14 RT 47 [CB 3-3]
DRDT-28 AND DRDT-02 5FT WIDE ROTATED

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
921+40.56 RT 46.62 [CB 3-2]
CONNECT EXP 3-2 TO CB 3-2

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 3-3 TO CB 4-4 [P 3-3]
CB 3-2 TO EXP 3-3 [P 3-2]

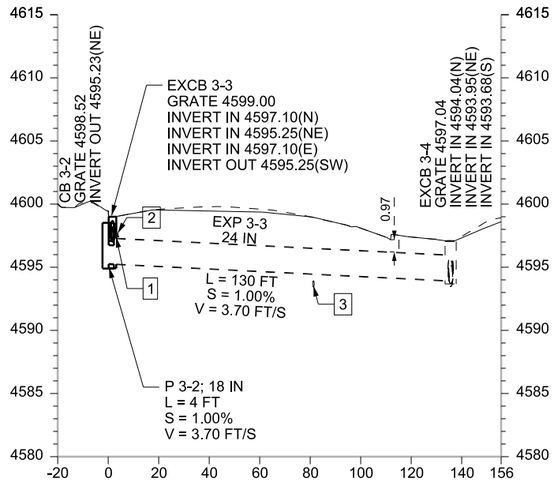
REMOVE CATCH BASIN REQ'D
921+40.94 RT 41.90 (EXCB 3-3) NOTE 2

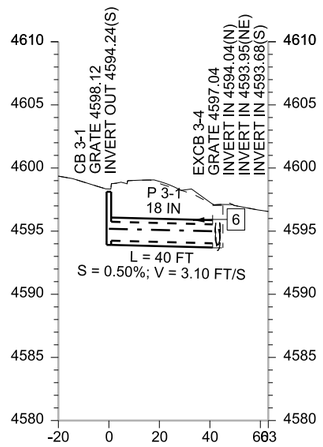
REMOVE PIPE REQ'D
921+40.94 RT 41.90 TO
918+00.00 RT 46.25 MATCHLINE

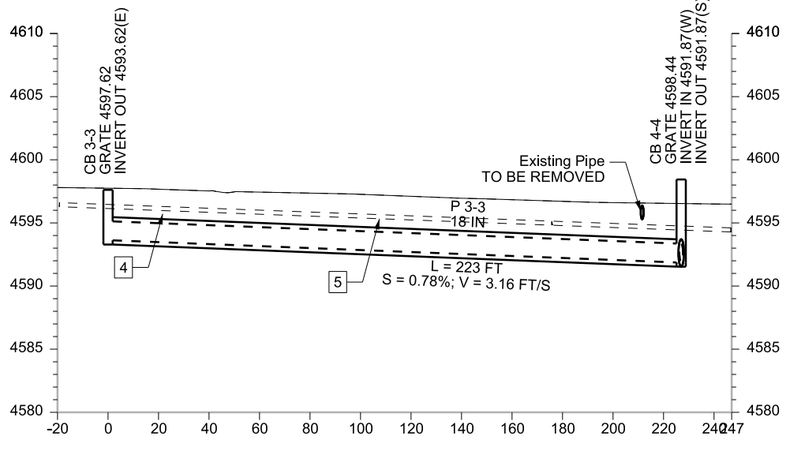
NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.
2. EXISTING UNDERGROUND SUMP.
3. P 3-2 CONNECTS EXP 3-3 TO NEW CB 3-2.

SHEET NO. DR-03	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
		DRAINAGE	PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	







ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
2	FIBER OPTIC	SYRINGA/UDOT		PROTECT IN PLACE	
3	GAS	DOMINION	3" PE	PROTECT IN PLACE	
4	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
5	FIBER OPTIC	SYRINGA/UDOT		PROTECT IN PLACE	
6	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

DGN: Files\IP-PWP:d0299478\9994_DP-03.dgn
27-FEB-2019

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

DRAWN BY MMM
QC CHECKED BY CMR
DATE 2/27/2019

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PROJECT
PROJECT NUMBER F-0089(276)345
PIN 9994

DRAINAGE

SHEET NO. DP-03

SEE DR-03
MATCH LINE 918+00.00

CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
913+35.84 LT 50.21 [CB 4-2]
911+87.80 LT 53.81 [CB 4-3]

CONCRETE DRAINAGE STRUCTURE REQ'D
916+15.42 LT 62.12 [CB 4-1]
DRDT-27 AND DRDT-02 4FT WIDE ROTATED

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 4-1 TO CB 4-2 [P 4-1]
CB 4-2 TO CB 4-3 [P 4-2]
CB 4-3 TO CB 5-1 [P 4-3]

CONCRETE DRAINAGE STRUCTURE REQ'D
911+96.47 RT 47.06 [CB 4-5]
CAST-IN-PLACE
SEE DRDT-03 AND DRDT-02 6FT WIDE
916+28.17 RT 50.27 [CB 4-4]
CAST-IN-PLACE
SEE DRDT-03A AND DRDT-02 6FT WIDE

CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
53+99.01 LT 29.59 [CB 4-6]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 4-4 TO CB 4-1 [P 4-4]
CB 4-5 TO CB 5-4 [P 4-5]
CB 4-6 TO EXMH 53+82.34 LT 33.17 [P 4-6]

REMOVE PIPE REQ'D
918+00.00 RT 47.02 MATCHLINE TO
916+13.56 RT 49.45 TO
915+79.79 RT 76.59 TO
915+21.31 RT 79.79
915+79.79 RT 76.59 TO
915+04.87 RT 66.80
53+71.87 LT 24.75 TO
53+82.34 LT 33.17

REMOVE CATCH BASIN REQ'D
916+13.56 RT 49.45
53+71.87 LT 24.75

REMOVE MANHOLE REQ'D
915+79.79 RT 76.59

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

MATCH LINE 910+00.00
SEE DR-05

SHEET NO. DR-04	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	

NO DRAINAGE WORK THIS SHEET

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM

QC CHECKED BY CMR

2/27/2019
DATE

APPROVED

PROFESSIONAL ENGINEER

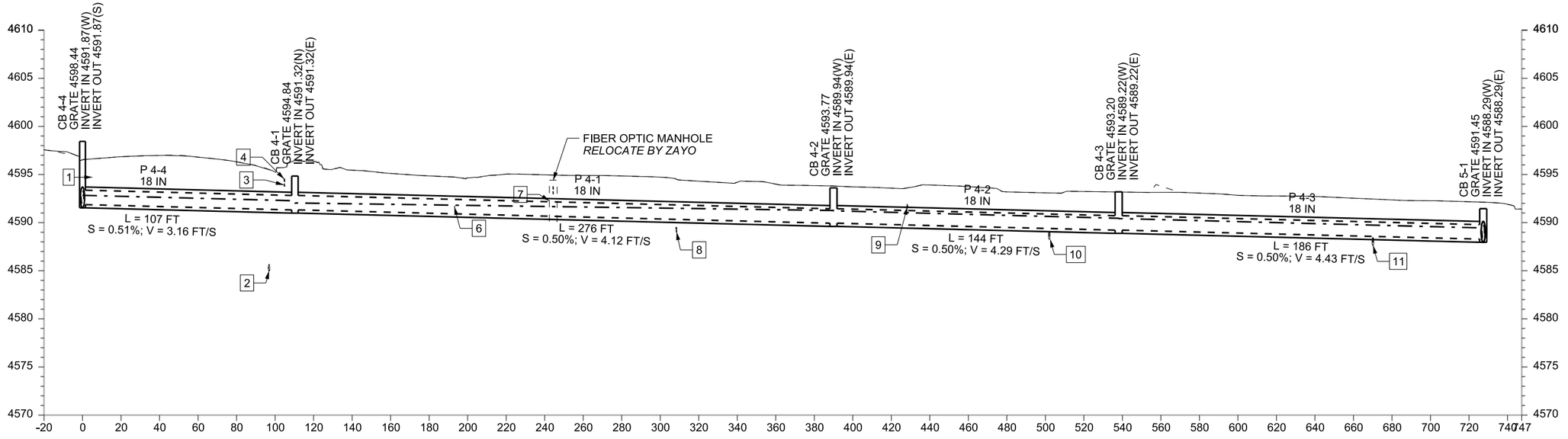
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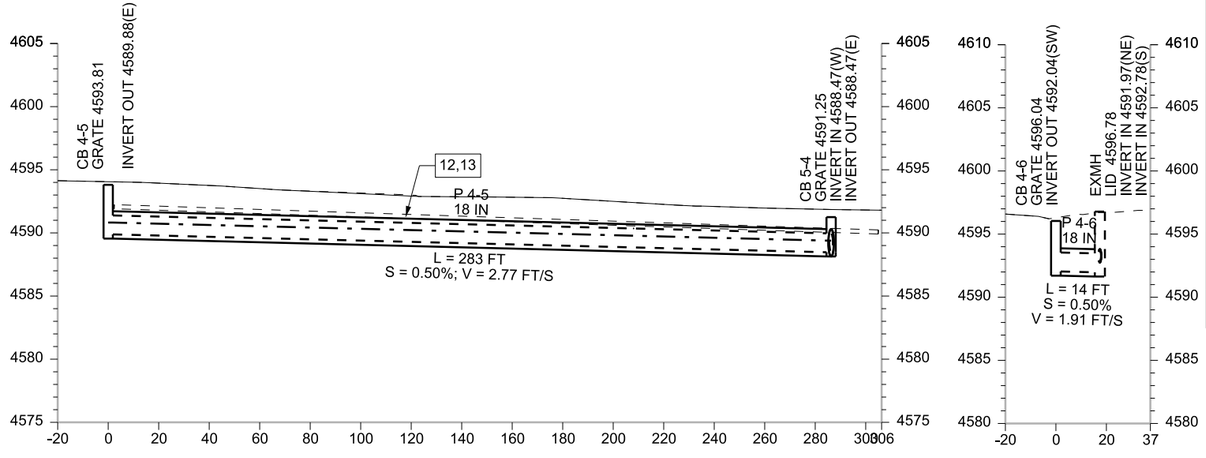
PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DR-04A

27-FEB-2019 DGN File: IP_PWPod02934781\9994_DR-04A.dgn





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	SYRINGA/UDOT		RELOCATE BY SYRINGA/UDOT	BTEL LINE GOES THROUGH CB 4-4 BOX
2	SEWER	AMERICAN FORK	8" RCP	PROTECT IN PLACE	
3	FIBER OPTIC	AMERICAN FORK		PROTECT IN PLACE	
4	FIBER OPTIC	ZAYO		PROTECT IN PLACE	
5	WATER	AMERICAN FORK	10" DI	RELOCATE BY AMERICAN FORK	
6	BURIED ELECTRIC	UDOT		REOCATE BY	
7	FIBER OPTIC	ZAYO		RELOCATE MANHOLE BY ZAYO	PIPE RUNS THROUGH FO MH
8	GAS	DOMINION	3/4"	PROTECT IN PLACE	
9	FIBER OPTIC	CENTRACOM		RELOCATE BY CENTRACOM	
10	WATER	AMERICAN FORK		RELOCATE BY AMERICAN FORK	FIRE HYDRANT CONNECT
11	WATER	AMERICAN FORK		RELOCATE BY AMERICAN FORK	METER CONNECT
12	FIBER OPTIC	AT&T		RELOCATE BY AT&T	PIPE RUNS IN SAME TRENCH AS UTILITY
13	BURIED CABLE	COMCAST		RELOCATE BY COMCAST	PIPE RUNS IN SAME TRENCH AS UTILITY

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY: MMM
QC CHECKED BY: CMR
2/27/2019 DATE

APPROVED

PROFESSIONAL ENGINEER

US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.

PROJECT

PROJECT NUMBER: F-0089(276)345

PIN: 9994

DRAINAGE

SHEET NO. DP-04

DGN: Files\P-PW\Proj\82994\78\9994_DP-04.dgn
27-FEB-2019

SEE DR-04
MATCH LINE 910+00.00

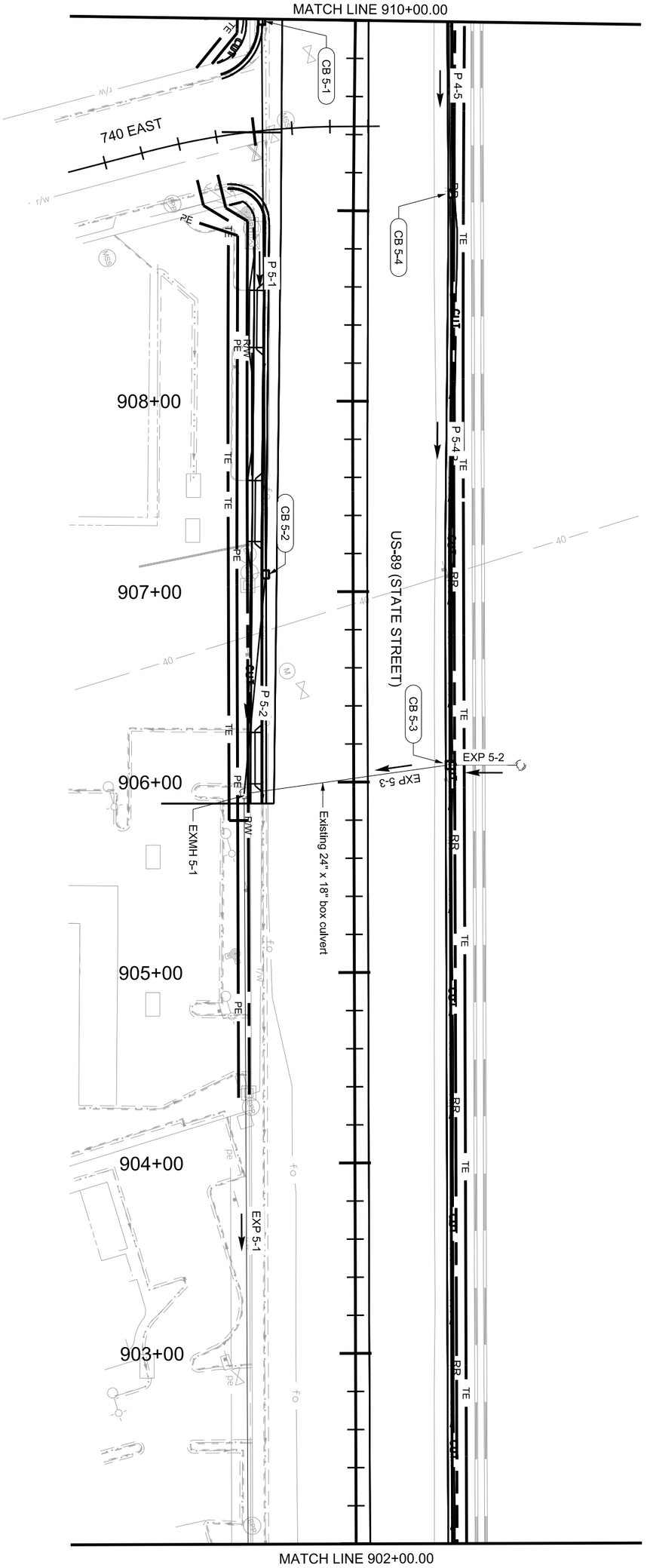
CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
909+99.11 LT 50.73 [CB 5-1]
907+09.19 LT 47.41 [CB 5-2]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 5-1 TO CB 5-2 [P 5-1]
CB 5-2 TO EXMH 5-1 [P 5-2]
CONNECT TO EXMH 5-1

SHALLOW CATCH BASIN - CB 3 REQ'D
909+09.32 RT 51.77 [CB 5-4]
CAST-IN-PLACE
SEE DRDT-04

CONCRETE DRAINAGE STRUCTURE REQ'D
906+08.75 RT 50.27 [CB 5-3]
CONNECT EXP 5-2, EXP 5-3, AND P 5-4
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-05 4FT ROTATED

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 5-4 TO CB 5-3 [P 5-4]

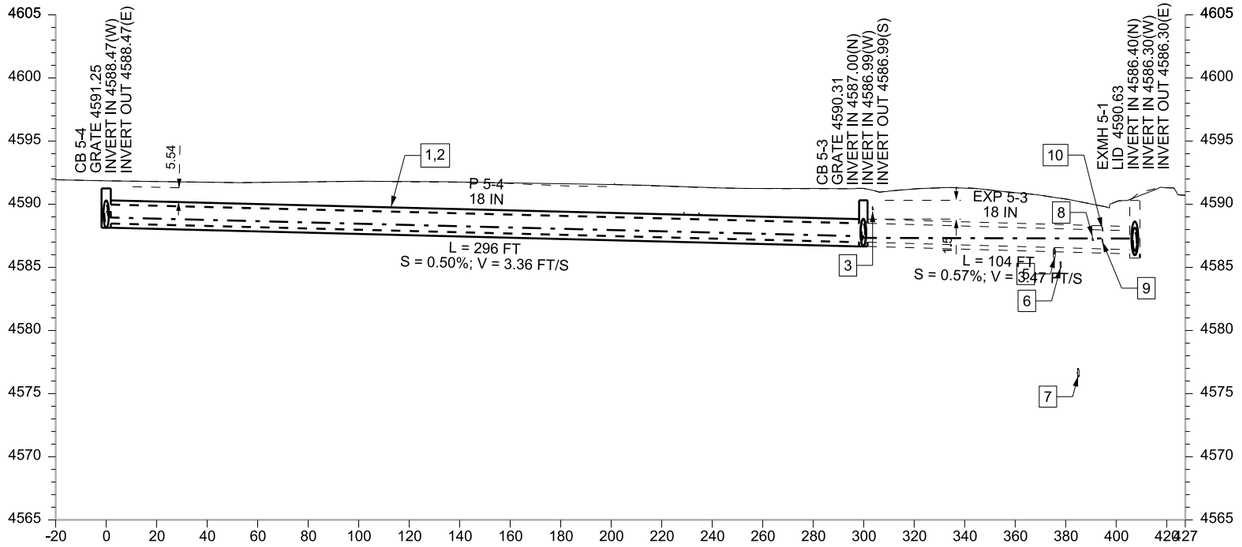


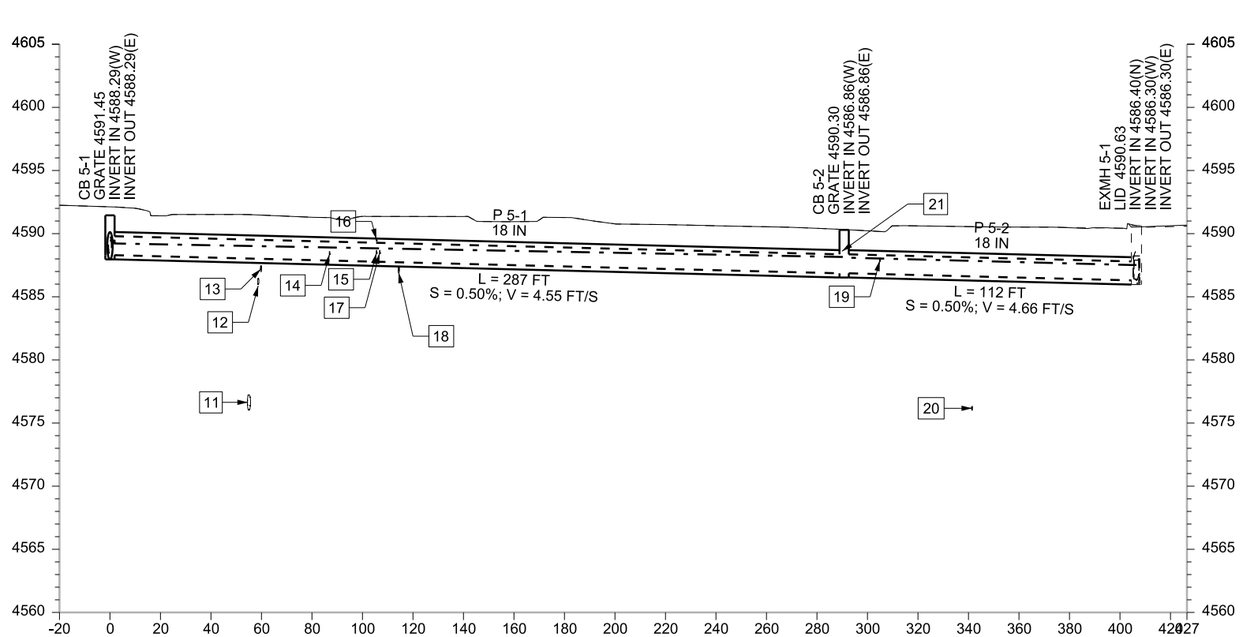
MATCH LINE 902+00.00
SEE DR-06

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

SHEET NO. DR-05	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	AT&T		RELOCATE BY AT&T	PIPE RUNS IN TRENCH AS U
2	BURIED CABLE	COMCAST		RELOCATE BY COMCAST	PIPE RUNS IN TRENCH AS U
3	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
4	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
5	WATER	AMERICAN FORK	10" DI	PROTECT IN PLACE	
6	GAS	DOMINION	4" STL	PROTECT IN PLACE	
7	SEWER	AMERICAN FORK	6" PVC	PROTECT IN PLACE	
8	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
9	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
10	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
11	SEWER	AMERICAN FORK	15" RCP	PROTECT IN PLACE	
12	GAS	DOMINION	2"PE	PROTECT IN PLACE	
13	WATER	AMERICAN FORK	10" DI	PROTECT IN PLACE	
14	FIBER OPTIC	CENTURY LINK	4" PVC 900 PAIR	RELOCATE BY CENTURY LINK	
15	FIBER OPTIC	CENTURY LINK	4" PVC 900 PAIR	RELOCATE BY CENTURY LINK	
16	FIBER OPTIC	CENTURY LINK	2" PE	RELOCATE BY CENTURY LINK	
17	FIBER OPTIC	CENTURY LINK	2" PE	RELOCATE BY CENTURY LINK	
18	WATER	AMERICAN FORK		RELOCATE BY AMERICAN FORK	METER CONN
19	FIBER OPTIC	CENTURY LINK	300 PAIR	RELOCATE BY CENTURY LINK	
20	SEWER	AMERICAN FORK	6" PVC	PROTECT IN PLACE	
21	FIBER OPTIC	CENTURY LINK	2-2" PE	RELOCATE BY CENTURY LINK	CONFLICTS W

(CB5-2

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

DGN Files: IP_PwPad0294478\9994_DP-05.dgn
27-FEB-2019

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE

APPROVED
PROFESSIONAL ENGINEER

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PIN 9994

PROJECT
F-0089(276)345

PROJECT NUMBER

DRAINAGE

SHEET NO. DP-05

SEE DR-05
MATCH LINE 902+00.00

SHALLOW CATCH BASIN - CB 3 REQ'D
897+85.71 LT 48.06 [CB 6-1]

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
899+58.21 LT 50.28 [CB 6-5]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 6-1 TO 897+64.83 LT 58.69
EXMH 6-7 [P 6-1]
CONNECT TO EXMH 6-7

REMOVE CATCH BASIN REQ'D
896+44.82 LT 41.34
897+73.00 LT 44.00
899+58.21 LT 48.00

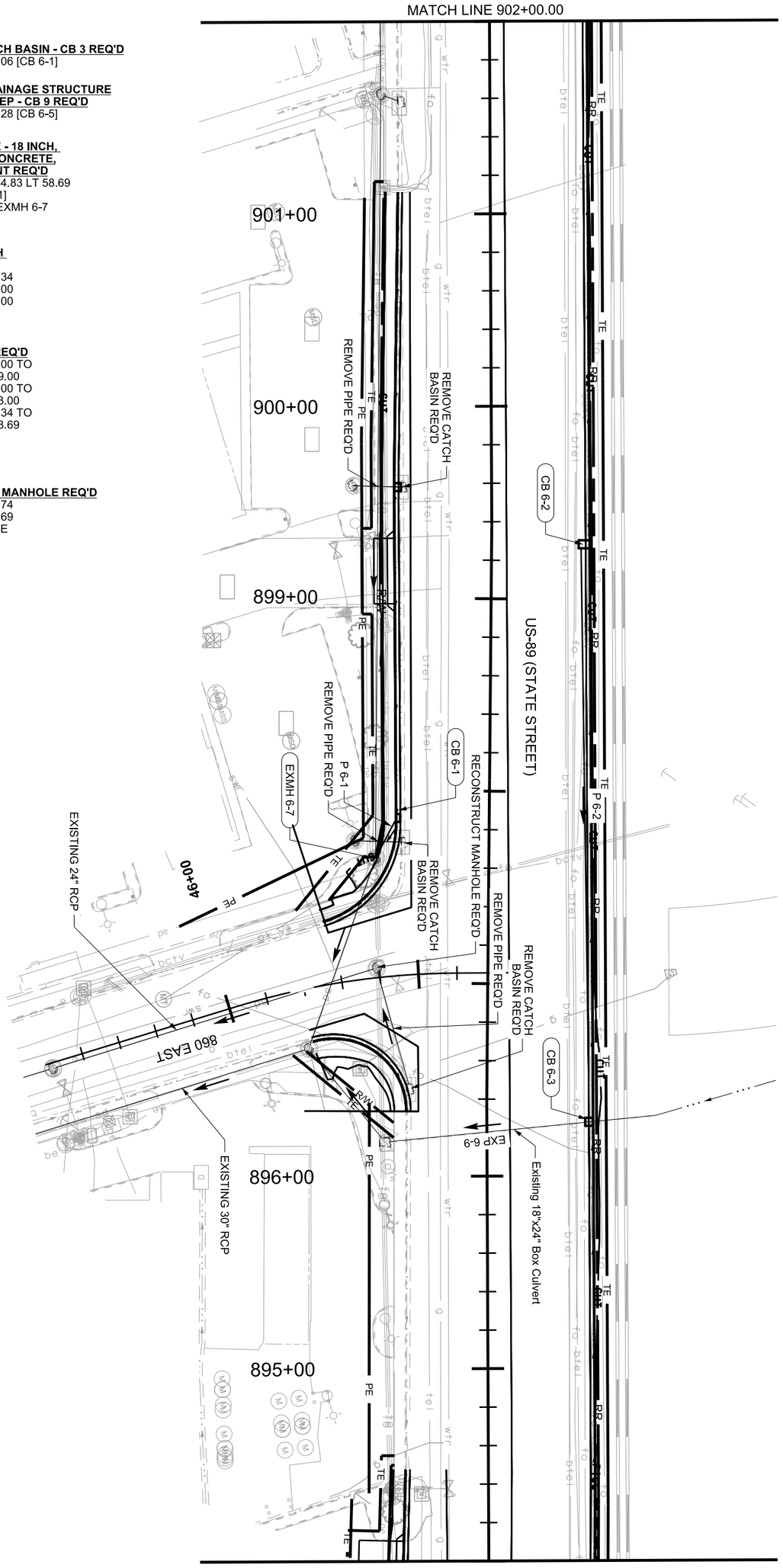
REMOVE PIPE REQ'D
897+73.00 LT 44.00 TO
897+74.00 LT 69.00
899+58.21 LT 48.00 TO
899+58.00 LT 73.00
896+44.82 LT 41.34 TO
897+64.83 LT 58.69

RECONSTRUCT MANHOLE REQ'D
897+07.57 LT 57.74
897+64.83 LT 58.69
RAISE TO GRADE

CONCRETE DRAINAGE STRUCTURE REQ'D
899+28.71 RT 50.72 [CB 6-2]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-06 6FT WIDE

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
896+28.01 RT 54.92 [CB 6-3]
CONNECT TO EXP 6-3

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 6-2 TO CB 6-3 [P 6-2]



MATCH LINE 894+00.00
SEE DR-07

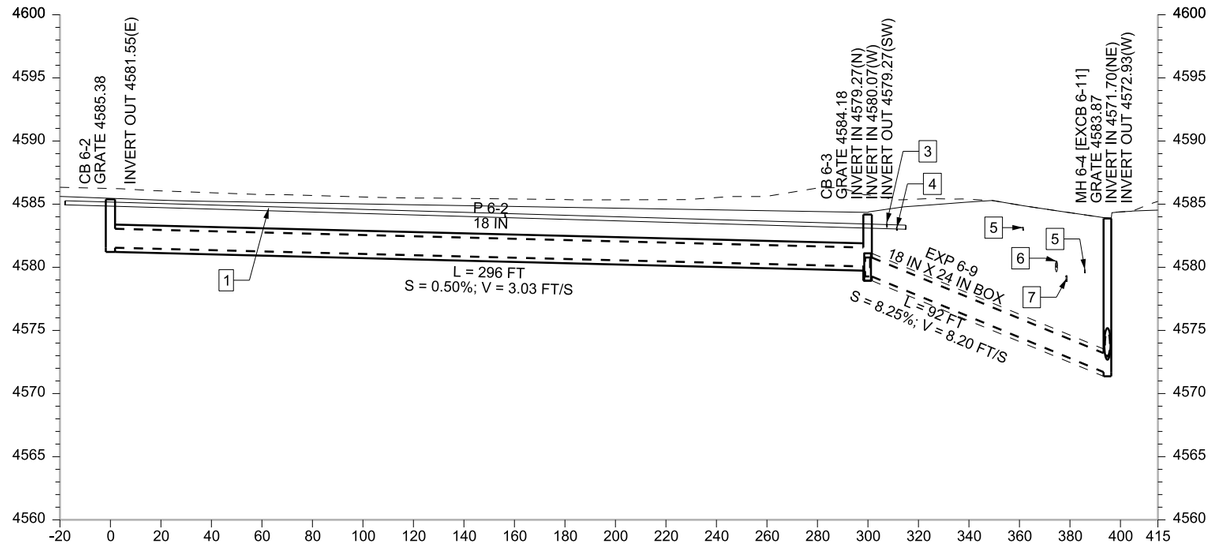
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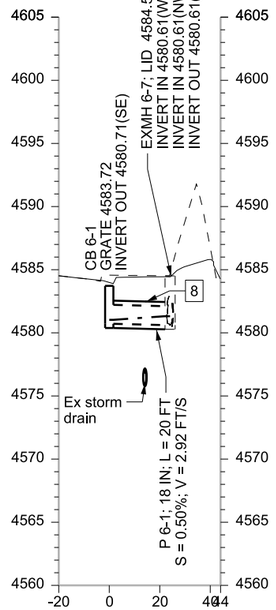
1. SEE GENERAL DRAINAGE NOTES ON DR-01.

SHEET NO. DR-06

PROJECT	US-89; STATE ST.,		**UTAH DEPARTMENT OF TRANSPORTATION**	REVISIONS
	220 SO P.G. TO 500 EAST A.F.			
PROJECT NUMBER	F-0089(276)345	PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE		PROFESSIONAL ENGINEER — 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	BURIED CABLE	COMCAST		RELOCATE BY COMCAST	BCTV IS IN SAME TRENCH AS P 6-2 AND CONFLICTS W/ CB 6-2
2	FIBER OPTIC	CENTURY LINK		RELOCATE BY CENTURY LINK	BTEL IS IN SAME TRENCH AS P 6-2
3	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
4	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
5	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
6	WATER	AMERICAN FORK	10" DI	PROTECT IN PLACE	
7	GAS	DOMINION	2"PE	PROTECT IN PLACE	
8	BURIED CABLE	COMCAST		RELOCATE BY COMCAST	

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

27-FEB-2019
DGN Files: IP-PWP:d0293478\9994_DP-06.dgn

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE
APPROVED
PROFESSIONAL ENGINEER

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.
PROJECT
F-0089(276)345
PROJECT NUMBER
PIN 9994
DRAINAGE

SHEET NO. DP-06

SEE DR-06
MATCH LINE 894+00.00

SHALLOW CATCH BASIN - CB 3 REQ'D
891+06.31 LT 52.40 [CB 7-1]

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
889+90.05 LT 55.71 [CB 7-2]
888+42.13 LT 59.93 [CB 7-7]
886+29.14 LT 68.74 [CB 7-4]

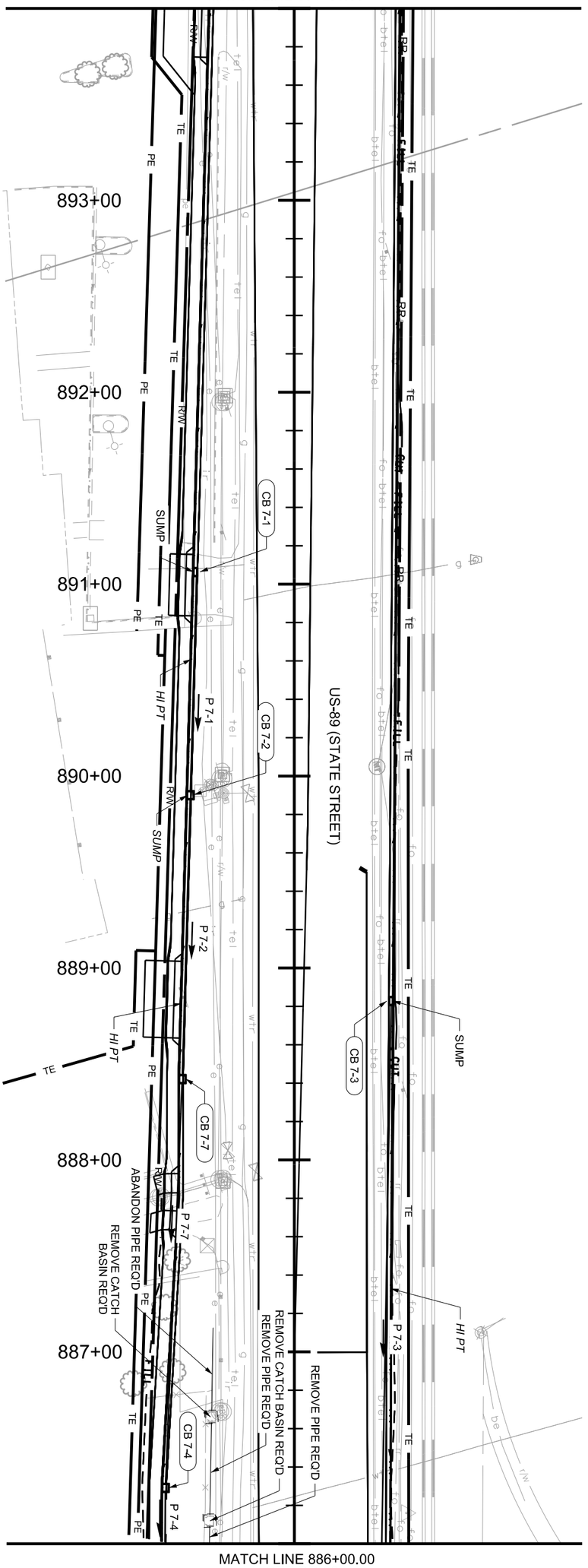
DRAINAGE PIP - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 7-1 TO CB 7-2 [P 7-2]
CB 7-2 TO CB 7-7 [P 7-2]
CB 7-7 TO CB 7-4 [P 7-7]
CB 7-4 TO CB 8-5 [P 7-4]

REMOVE CATCH BASIN REQ'D
886+65.71 LT 43.43
886+12.08 LT 44.34

REMOVE PIPE REQ'D
887+12.48 LT 42.41 TO
886+65.71 LT 43.43 TO
886+12.08 LT 44.34 TO
886+00.05 LT 44.34

SHALLOW CATCH BASIN - CB 3 REQ'D
888+82.80 RT 51.23 [CB 7-3]
CAST-IN-PLACE
SEE DRDT-08

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 7-3 TO CB 8-6 [P 7-3]



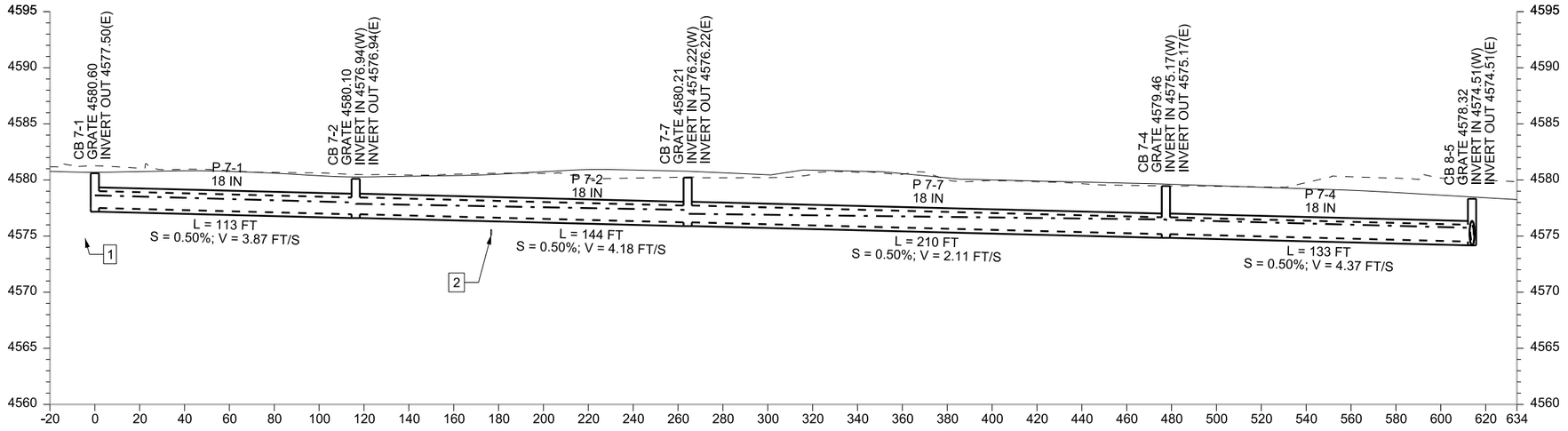
MATCH LINE 886+00.00
SEE DR-08

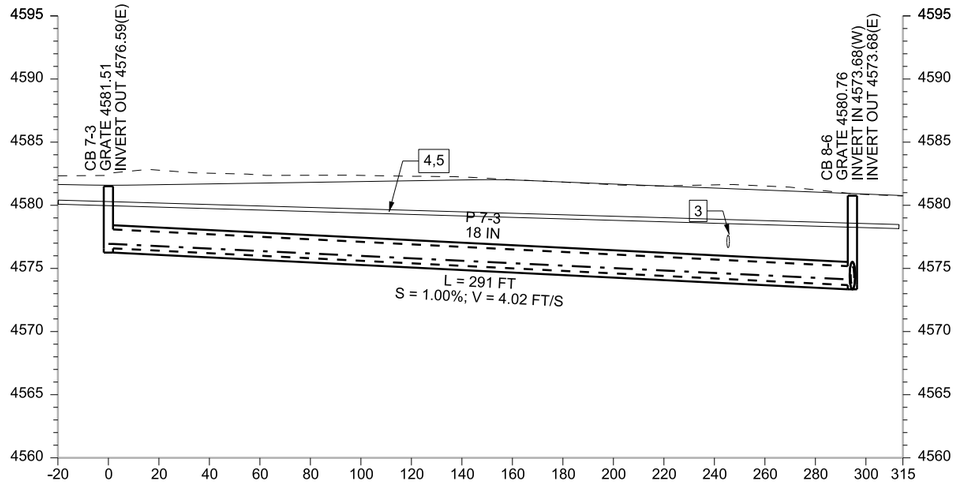
NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

SHEET NO. DR-07	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.		UTAH DEPARTMENT OF TRANSPORTATION	REVISIONS
	PROJECT NUMBER	F-0089(276)345	PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE			PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	GAS	DOMINION	1 1/4" STL	PROTECT IN PLACE	GAS SERVICE LINE
2	GAS	DOMINION	1 1/4" STL	PROTECT IN PLACE	GAS SERVICE LINE
3	WATER	AMERICAN FORK	12" DI	RELOCATE BY AMERICAN FORK	
4	FIBER OPTIC	CENTURY LINK	DUCT BANK	RELOCATE BY CENTURY LINK	PIPE RUNS IN SAME TRENCH AS UTILITY
5	FIBER OPTIC	CENTURY LINK	DUCT BANK	RELOCATE BY CENTURY LINK	PIPE RUNS IN SAME TRENCH AS UTILITY

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

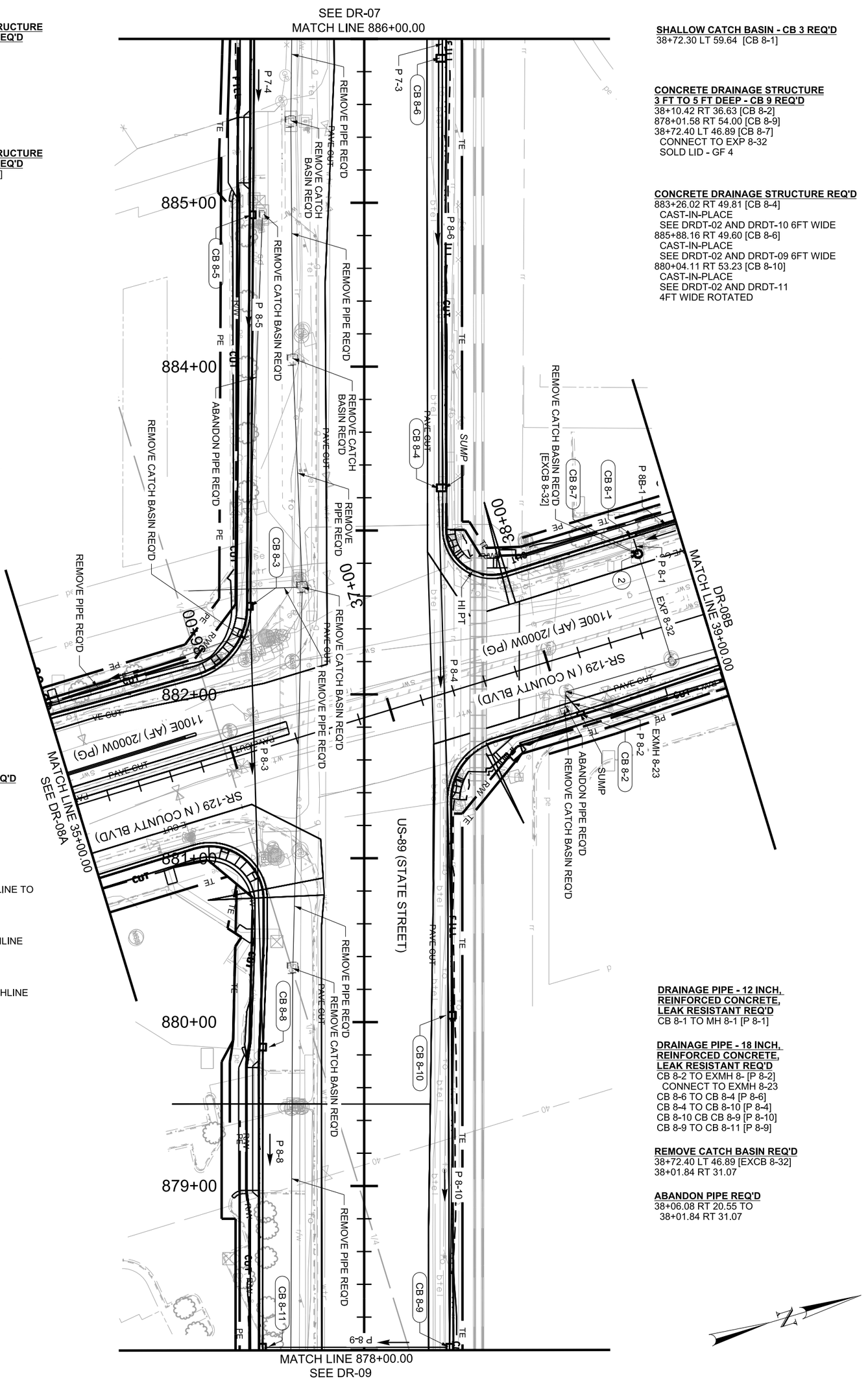
PROJECT

PROJECT NUMBER F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DP-07

DGN: Files\IP_PWP:d0294a78\9994_DP-07.dgn
27-FEB-2019



CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
882+53.76 LT 71.27 [CB 8-3]
884+92.66 LT 69.61 [CB 8-5]
879+84.82 LT 63.66 [CB 8-8]

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
878+01.64 LT 63.80 [CB 8-11]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8-5 TO CB 8-3 [P 8-5]
CB 8-3 TO CB 8-8 [P 8-3]
CB 8-8 TO CB 8-11 [P 8-8]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8-11 TO CB 9-4 [P 8-11]

REMOVE CATCH BASIN REQ'D
885+49.85 LT 44.83
884+05.35 LT 44.35
882+64.88 LT 38.08
880+33.58 LT 43.02
884+92.93 LT 62.10
882+32.98 LT 71.78

REMOVE PIPE REQ'D
886+00.00 LT 44.53 MATCHLINE TO
885+49.85 LT 44.83 TO
884+05.35 LT 44.35 TO
882+64.88 LT 38.08 TO
880+33.58 LT 43.02 TO
878+00.00 LT 44.38 MATCHLINE
882+64.89 LT 38.08 TO
882+63.04 LT 107.32
884+92.93 LT 62.10 TO
882+32.98 LT 71.78 TO
881+94.30 LT 194.02 MATCHLINE

SHALLOW CATCH BASIN - CB 3 REQ'D
38+72.30 LT 59.64 [CB 8-1]

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
38+10.42 RT 36.63 [CB 8-2]
878+01.58 RT 54.00 [CB 8-9]
38+72.40 LT 46.89 [CB 8-7]
CONNECT TO EXP 8-32
SOLD LID - GF 4

CONCRETE DRAINAGE STRUCTURE REQ'D
883+26.02 RT 49.81 [CB 8-4]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-10 6FT WIDE
885+88.16 RT 49.60 [CB 8-6]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-09 6FT WIDE
880+04.11 RT 53.23 [CB 8-10]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-11
4FT WIDE ROTATED

DRAINAGE PIPE - 12 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8-1 TO MH 8-1 [P 8-1]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8-2 TO EXMH 8- [P 8-2]
CONNECT TO EXMH 8-23
CB 8-6 TO CB 8-4 [P 8-6]
CB 8-4 TO CB 8-10 [P 8-4]
CB 8-10 CB CB 8-9 [P 8-10]
CB 8-9 TO CB 8-11 [P 8-9]

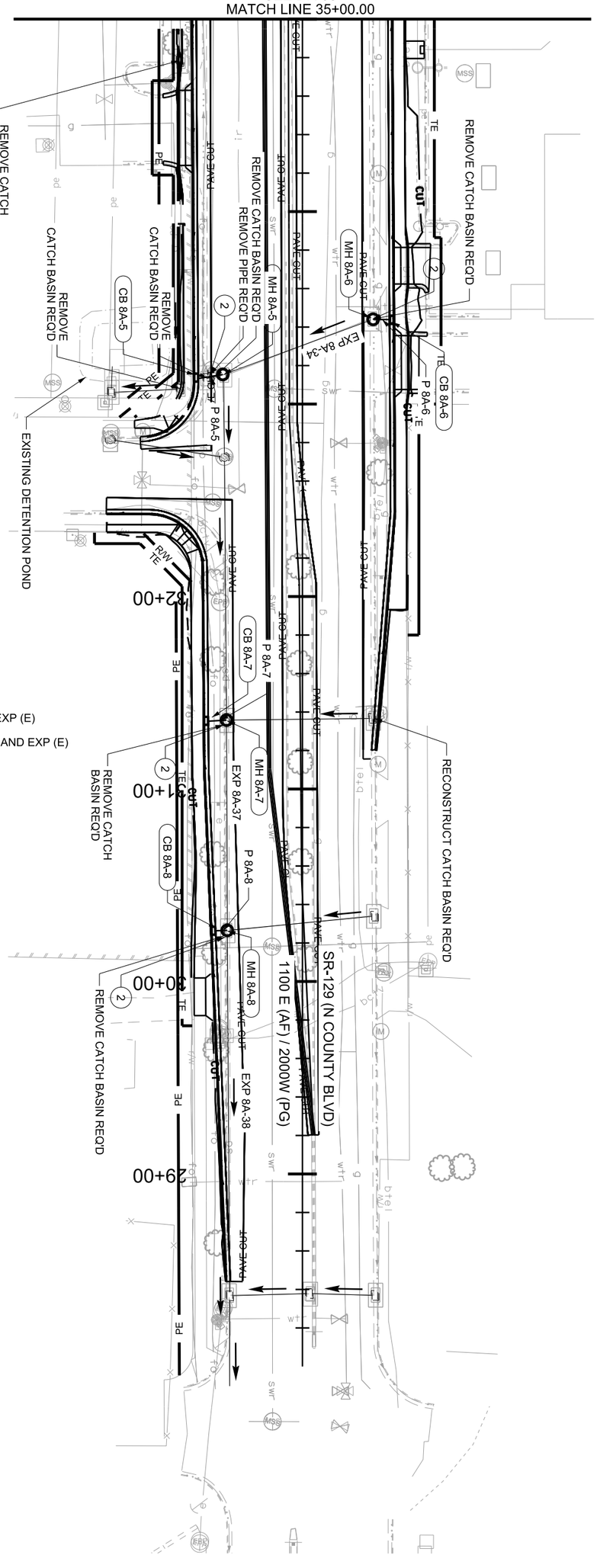
REMOVE CATCH BASIN REQ'D
38+72.40 LT 46.89 [EXCB 8-32]
38+01.84 RT 31.07

ABANDON PIPE REQ'D
38+06.08 RT 20.55 TO
38+01.84 RT 31.07

NOTES:
1. SEE GENERAL DRAINAGE NOTES ON DR-01.
(2) REPLACE CATCH BASIN WITH A NEW MANHOLE AND CONNECT EXISTING PIPES TO THE NEW MANHOLE MH 8-1.

SHEET NO. DR-08	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	

SEE DR-08
MATCH LINE 35+00.00



CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
33+13.73 LT 56.01 [CB 8A-5]
31+35.41 LT 50.83 [CB 8A-7]
30+26.34 LT 47.07 [CB 8A-8]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8A-5 TO MH8A-5 [P 8A-5]
CB 8A-7 TO MH8A-7 [P 8A-7]
CB 8A-8 TO MH8A-8 [P 8A-8]

5 FOOT STANDARD MANHOLE
5 FT TO 7 FT DEEP - CB 11 REQ'D
33+15.38 LT 41.37 [MH 8A-5]
ATTACH TO P 8A-5, EXP 8A-34 (NE) AND EXP (S)
31+35.81 LT 39.42 [MH 8A-7]
ATTACH TO P 8A-7, EXP (N), EXP 8A-37 (S), AND EXP (E)
30+26.57 LT 39.05 [MH 8A-8]
ATTACH TO P 8A-8, EXP 8A-37 (N), EXP 8A-38 (S), AND EXP (E)

REMOVE CATCH BASIN REQ'D
30+26.57 LT 39.05
31+35.81 LT 39.42
33+08.10 LT 62.49
33+13.14 LT 49.72
33+15.38 LT 41.37
34+77.96 LT 62.98

REMOVE PIPE REQ'D
35+00.00 LT 62.98 MATCHLINE TO
34+77.96 LT 62.98 TO
33+08.10 LT 62.49
33+13.14 LT 49.72 TO
33+15.38 LT 41.37

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

(2) REMOVE CATCH BASIN AND REPLACE WITH NEW MANHOLE. CONNECT EXISTING PIPES TO NEW MANHOLE.

SHALLOW CATCH BASIN - CB 3 REQ'D
33+43.83 RT 47.17 [CB 8A-6]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8A-6 TO MH8A-6 [P 8A-6]

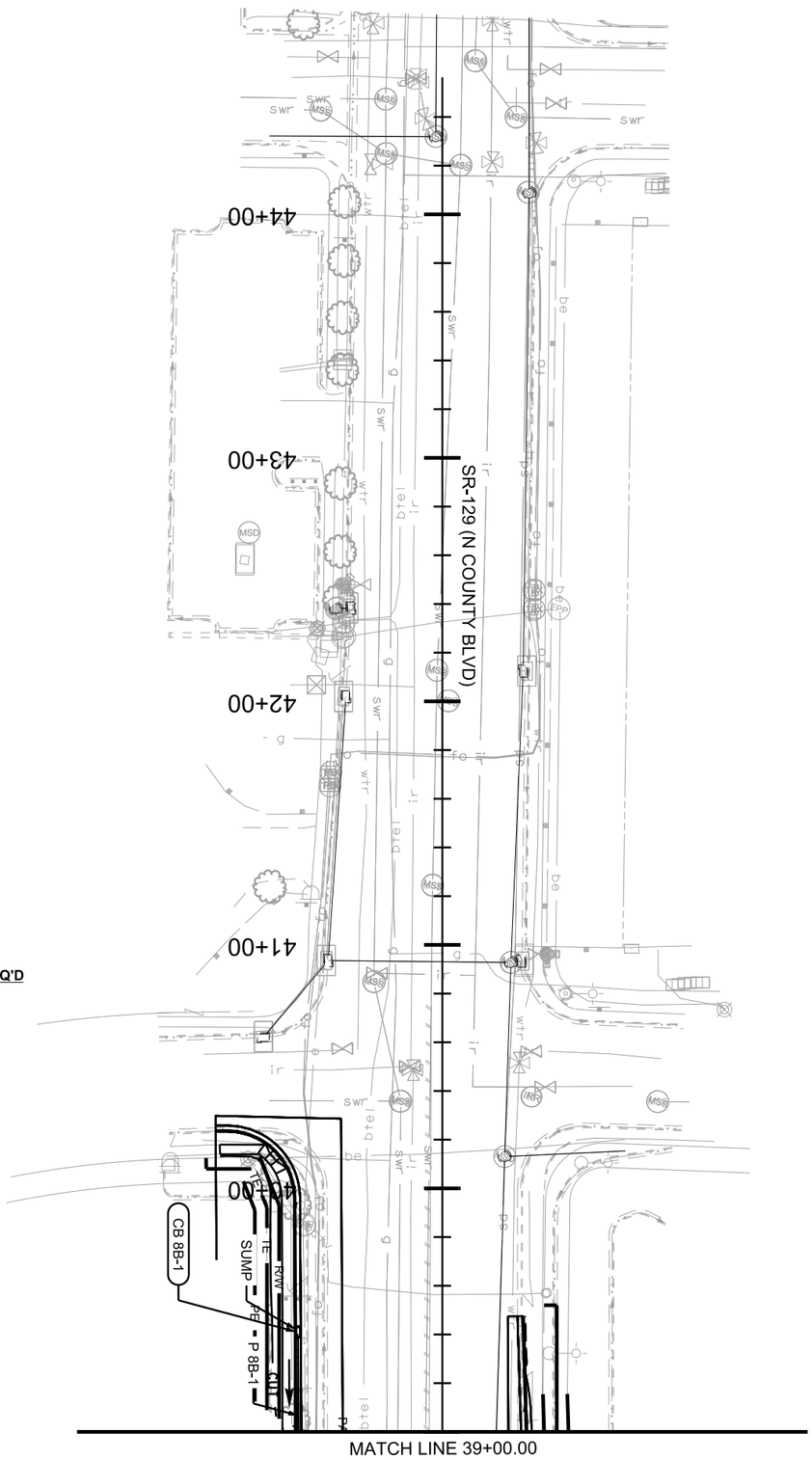
5 FOOT STANDARD MANHOLE
5 FT TO 7 FT DEEP - CB 11 REQ'D
33+44.03 RT 36.72 [MH8A-6]
ATTACH TO EXP 8A-34

REMOVE CATCH BASIN REQ'D
33+44.03 RT 36.72

RECONSTRUCT CATCH BASIN REQ'D
31+36.45 RT 36.76

N

SHEET NO. DR-08A	PROJECT	US-89; STATE ST.,	UTAH DEPARTMENT OF TRANSPORTATION		REVISIONS
		220 SO P.G. TO 500 EAST A.F.			
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	
		DRAINAGE	PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	NO. DATE APPROVED BY REMARKS



SHALLOW CATCH BASIN - CB 3 REQ'D
39+41.09 LT 60.04 [CB 8B-1]

DRAINAGE PIPE - 12 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 8B-1 TO CB 8-1 [P 8B-1]

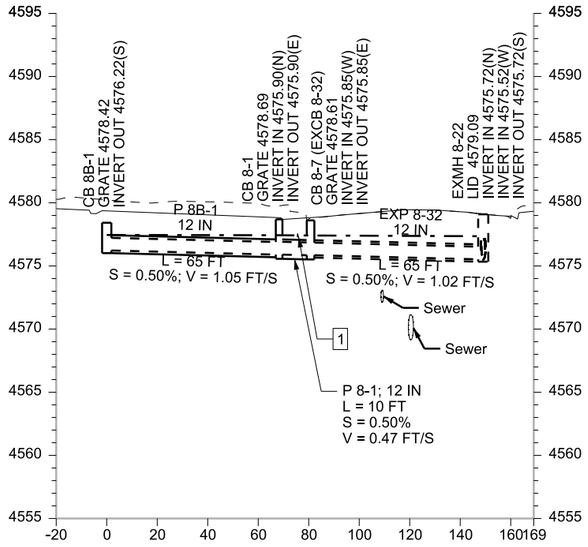
MATCH LINE 39+00.00
SEE DR-08

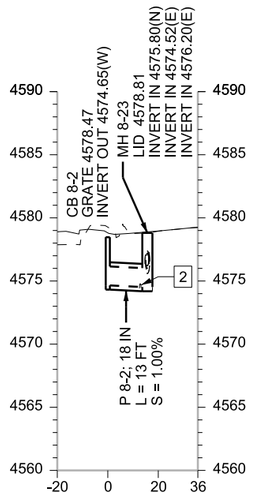
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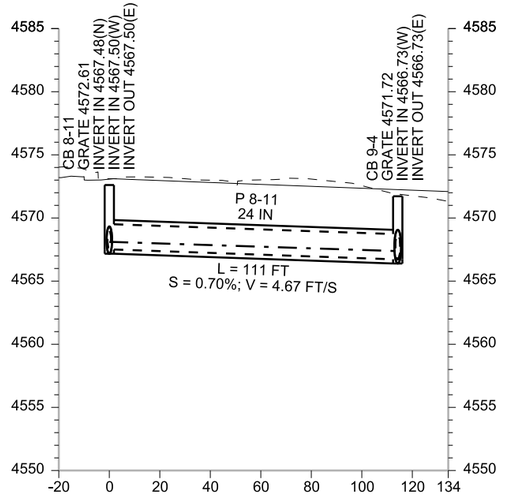
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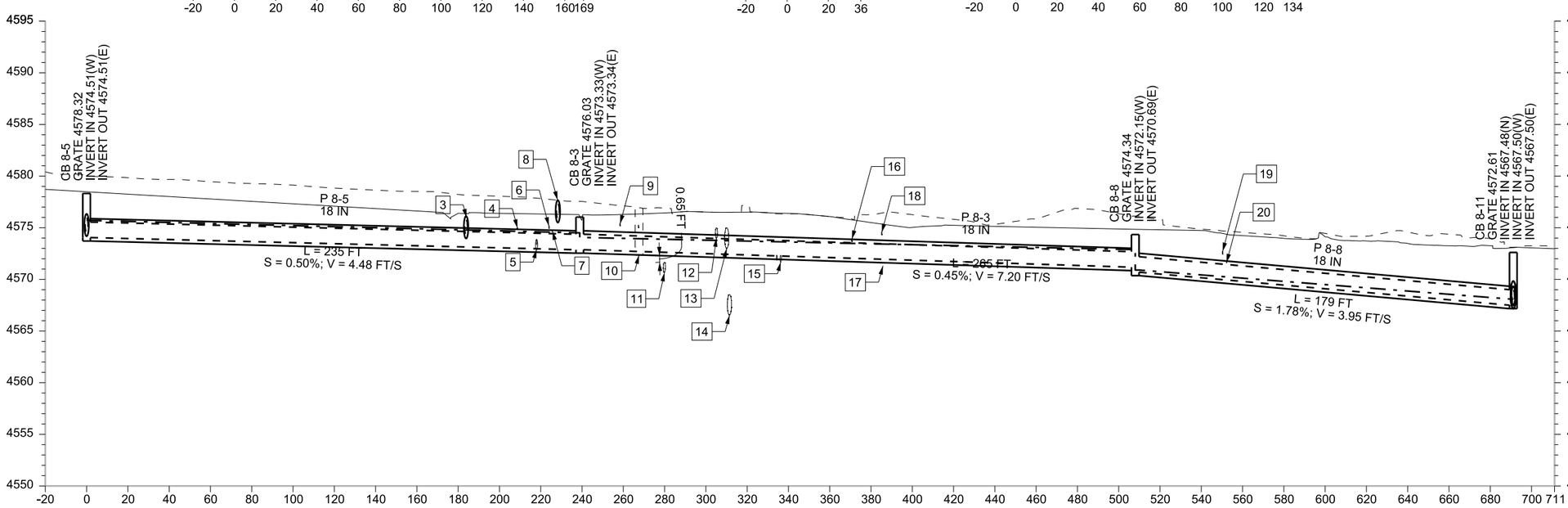
PROJECT	US-89; STATE ST.,	**UTAH DEPARTMENT OF TRANSPORTATION**	REVISIONS
	220 SO P.G. TO 500 EAST A.F.		
PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE	PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS









ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	AMERICAN FORK		RELOCATE BY AMERICAN FORK	
2	WATER	AMERICAN FORK		RELOCATE BY AMERICAN FORK	
3	STORM DRAIN			EXISTING PIPE TO BE REMOVED	SEE DR-08
4	BURIED ELECTRIC	RMP	4" PE	RELOCATE BY RMP	
5	WATER	AMERICAN FORK	12" DI	RELOCATE BY AMERICAN FORK	
6	FIBER OPTIC	AMERICAN FORK		RELOCATE BY AMERICAN FORK	
7	BURIED ELECTRIC	RMP	4" PE	RELOCATE BY RMP	

ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
8	STORM DRAIN			EXISTING PIPE TO BE REMOVED	SEE DR-08
9	FIBER OPTIC	AMERICAN FORK		RELOCATE BY AMERICAN FORK	
10	FIBER OPTIC	AMERICAN FORK		RELOCATE BY AMERICAN FORK	PIP CONFLICTS WITH FO BOX
11	SEWER	AMERICAN FORK	12" PVC	PROTECT IN PLACE	
12	PRESSURIZED IRRIGATION	AMERICAN FORK	12" C-900	RELOCATE BY AMERICAN FORK	
13	PRESSURIZED IRRIGATION	AMERICAN FORK	24" PVC	RELOCATE BY AMERICAN FORK	
14	SEWER	AMERICAN FORK	24" PVC	PROTECT IN PLACE	
15	WATER	PLEASANT GROVE	8"	RELOCATE BY PLEASANT GROVE	
16	FIBER OPTIC	CENTURY LINK		RELOCATE BY CENTURY LINK	
17	GAS	DOMINION	6" PE	RELOCATE BY DOMINION	
18	FIBER OPTIC	CENTURY LINK		RELOCATE BY CENTURY LINK	
19	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
20	BURIED ELECTRIC	RMP		PROTECT IN PLACE	

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
CHECKED BY QC CMR

APPROVED

PROFESSIONAL ENGINEER

2/27/2019
DATE

US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.

PIN 9994

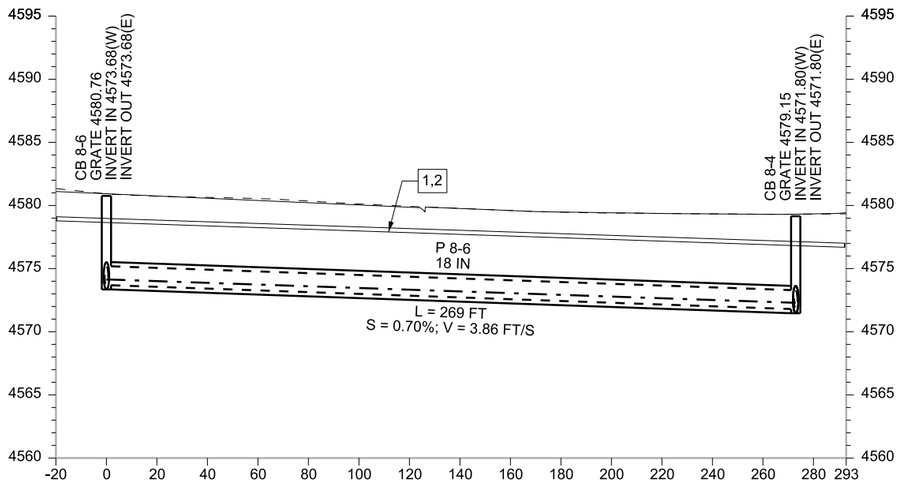
PROJECT NUMBER F-0089(276)345

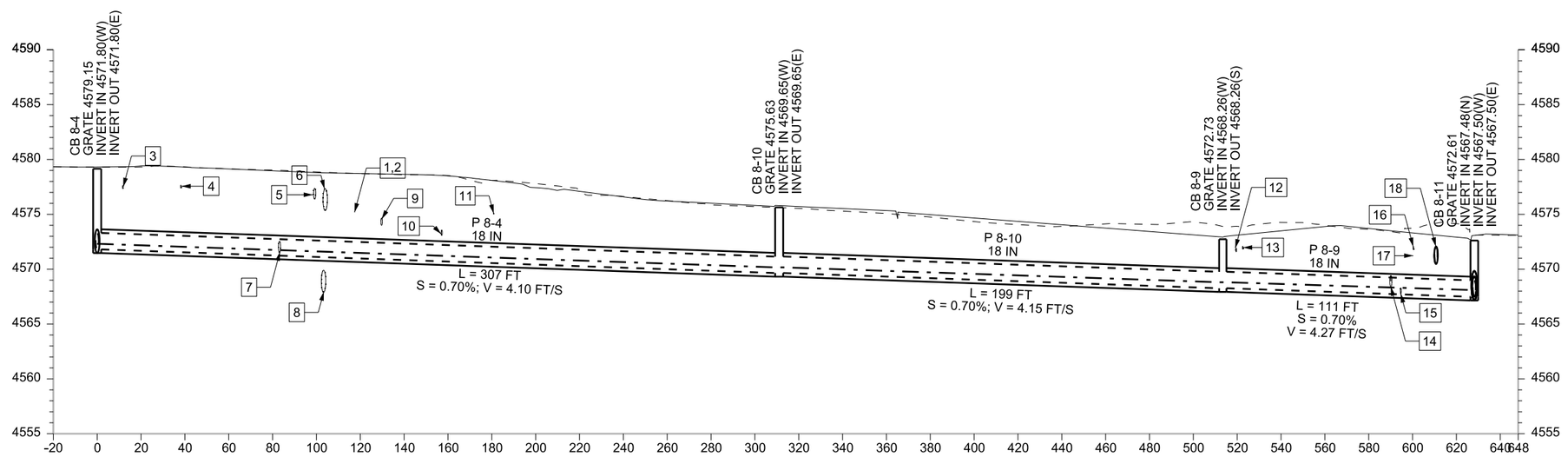
PROJECT

DRAINAGE

SHEET NO. DP-08(1)

DGN: File:IP_PWP\d0294978\9994_DP-08(1).dgn
27-FEB-2019





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
2	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
3	FIBER OPTIC	CCI/UC/AFC	2" PE	PROTECT IN PLACE	
4	FIBER OPTIC	CCI/UC/AFC		PROTECT IN PLACE	
5	PRESSURIZED IRRIGATION	AMERICAN FORK	12" C-900	RELOCATE BY AMERICAN FORK	
6	PRESSURIZED IRRIGATION	AMERICAN FORK	24" PVC	RELOCATE BY AMERICAN FORK	
7	SEWER	AMERICAN FORK	12" PVC	CONFLICT - REDESIGN	
8	SEWER		24" PVC	PROTECT IN PLACE	
9	WATER	PLEASANT GROVE	8"	PROTECT IN PLACE	
10	GAS	DOMINION	3/4" STL	PROTECT IN PLACE	
11	BURIED ELECTRIC	UDOT		PROTECT IN PLACE	
12	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	
13	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	
14	WATER	PLEASANT GROVE	12" PVC	RELOCATE BY PLEASANT GROVE	
15	GAS	DOMINION	4" STL	RELOCATE BY DOMINION	
16	FIBER OPTIC	CENTURY LINK	2" HDPE	PROTECT IN PLACE	
17	FIBER OPTIC	CENTURY LINK	2" HDPE	PROTECT IN PLACE	
18	STORM DRAIN			EXISTING PIPE TO BE REMOVED	SEE DR-08

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

DGN Files: IP_PwPad2934781\9994_DP_08(2).dgn
27-FEB-2019

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM | CHECKED BY CMR | QC

2/27/2019 DATE

APPROVED

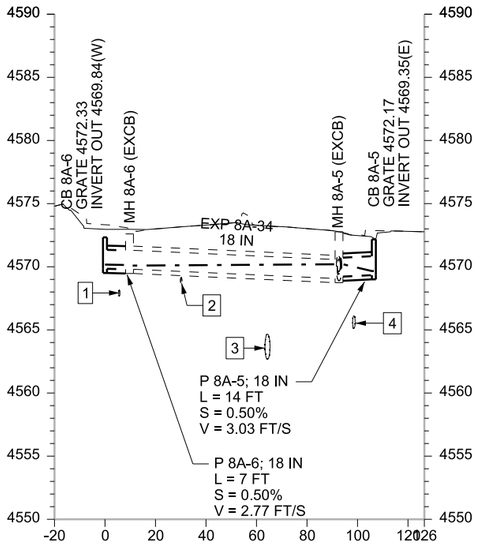
PROFESSIONAL ENGINEER

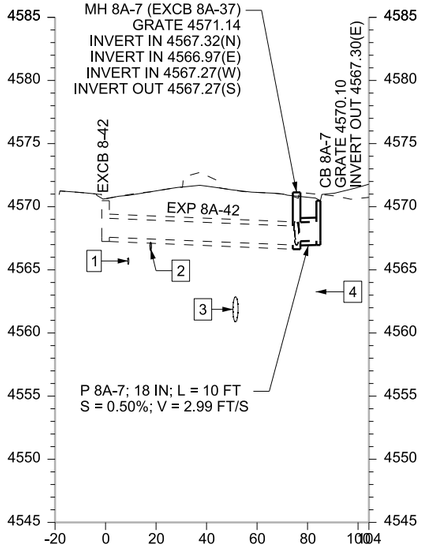
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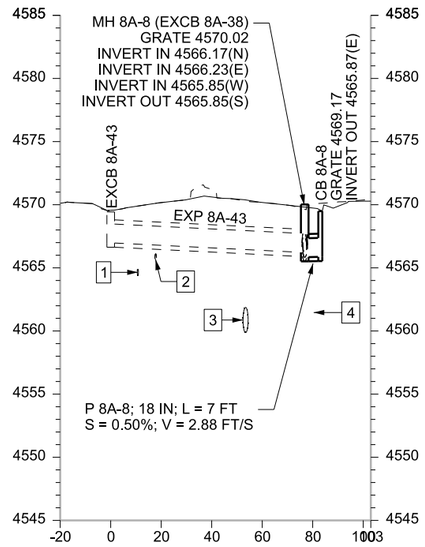
PROJECT NUMBER: F-0089(276)345 | PIN 9994

DRAINAGE

SHEET NO. DP-08(2)







ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	GAS	DOMINION	6" PE	PROTECT IN PLACE	
2	WATER	PLEASANT GROVE	8"	PROTECT IN PLACE	
3	SEWER		24" PVC	PROTECT IN PLACE	
4	SEWER	AMERICAN FORK	12" PVC	PROTECT IN PLACE	

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

DGN File: IP-PwP:d2994278\9994_DP-08(3).dgn
27-FEB-2019

REVISIONS

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UTAH DEPARTMENT OF TRANSPORTATION

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QC CHECKED BY CMR
2/27/2019 DATE

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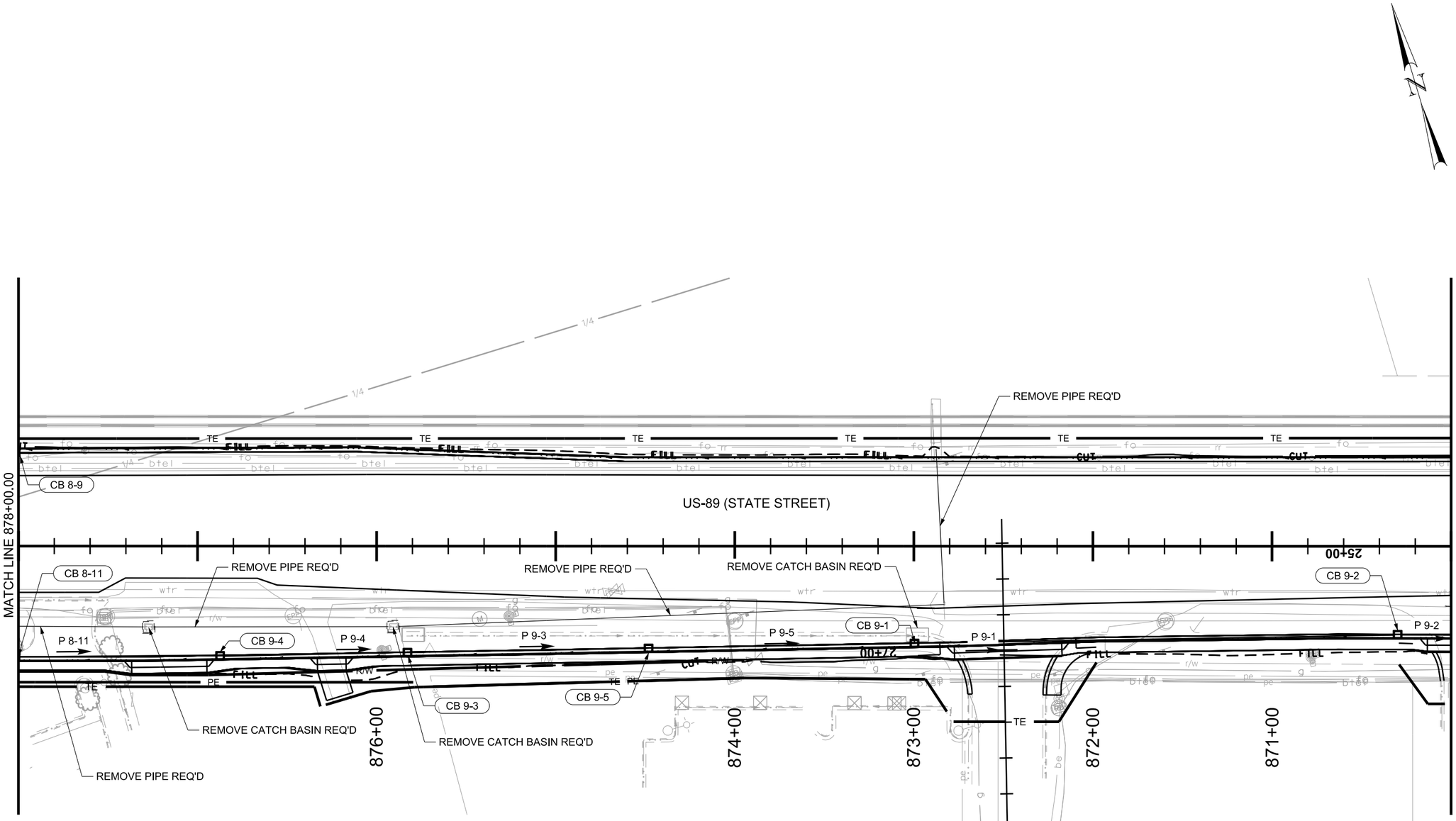
PROFESSIONAL ENGINEER

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PROJECT
PROJECT NUMBER F-0089(276)345
PIN 9994

DRAINAGE

SHEET NO. DP-08(3)



CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
872+99.65 LT 55.96 [CB 9-1]
870+29.86 LT 51.07 [CB 9-2]

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
875+82.78 LT 61.14 [CB 9-3]
876+87.41 LT 62.94 [CB 9-4]
874+48.13 LT 58.76 [CB 9-5]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 9-4 TO CB 9-3 [P 9-4]
CB 9-3 TO CB 9-5 [P 9-3]
CB 9-5 TO CB 9-1 [P 9-5]
CB 9-1 TO CB 9-2 [P 9-1]
CB 9-2 TO CB 10-1 [P 9-2]

REMOVE CATCH BASIN REQ'D
877+27.58 LT 45.03
875+90.96 LT 43.85
872+97.84 LT 49.18

REMOVE PIPE REQ'D
878+00.00 LT 43.45 MATCHLINE TO
877+27.58 LT 45.03 TO
875+90.96 LT 43.85 TO
872+82.88 LT 32.50
872+83.13 LT 31.45 TO
872+87.58 RT 53.98

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

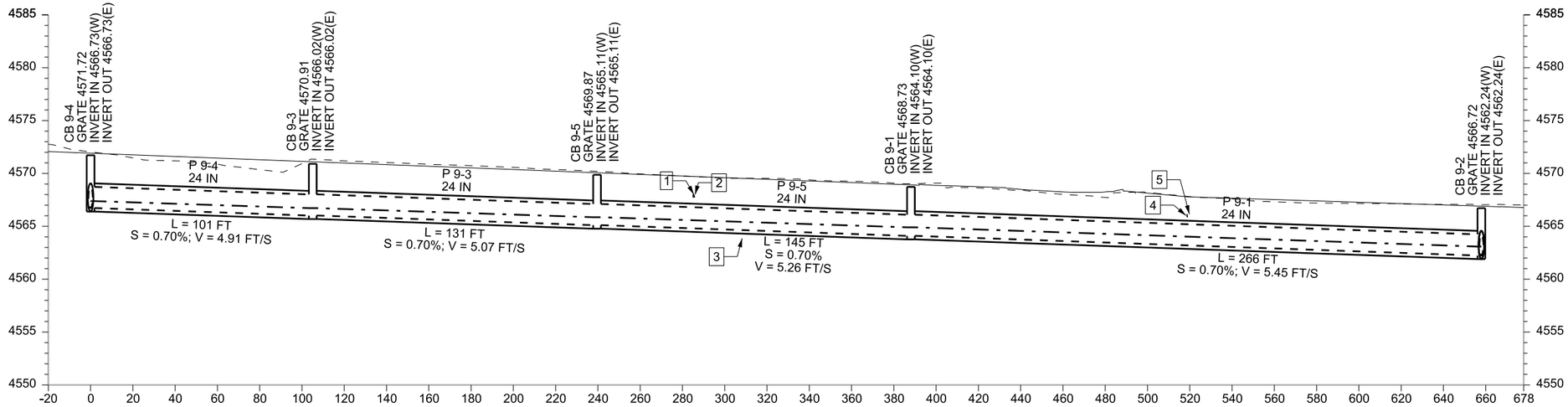
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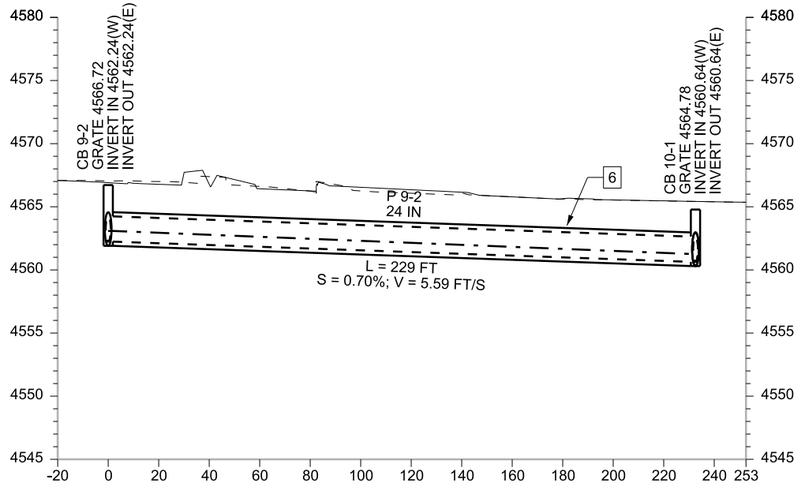
PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.
PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DR-09

27-FEB-2019 DGN: Files\P PWPrd\2394\78\9994_DR-09.dgn





LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	CENTURY LINK	2" HDPE	PROTECT IN PLACE	
2	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
3	GAS	DOMINION	6" PE	RELOCATE BY DOMINION	
4	BURIED ELECTRIC	RMP	6" PE	PROTECT IN PLACE	
5	FIBER OPTIC	CENTURY LINK	2" HDPE	PROTECT IN PLACE	
6	BURIED ELECTRIC	RMP		RELOCATE BY RMP	

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

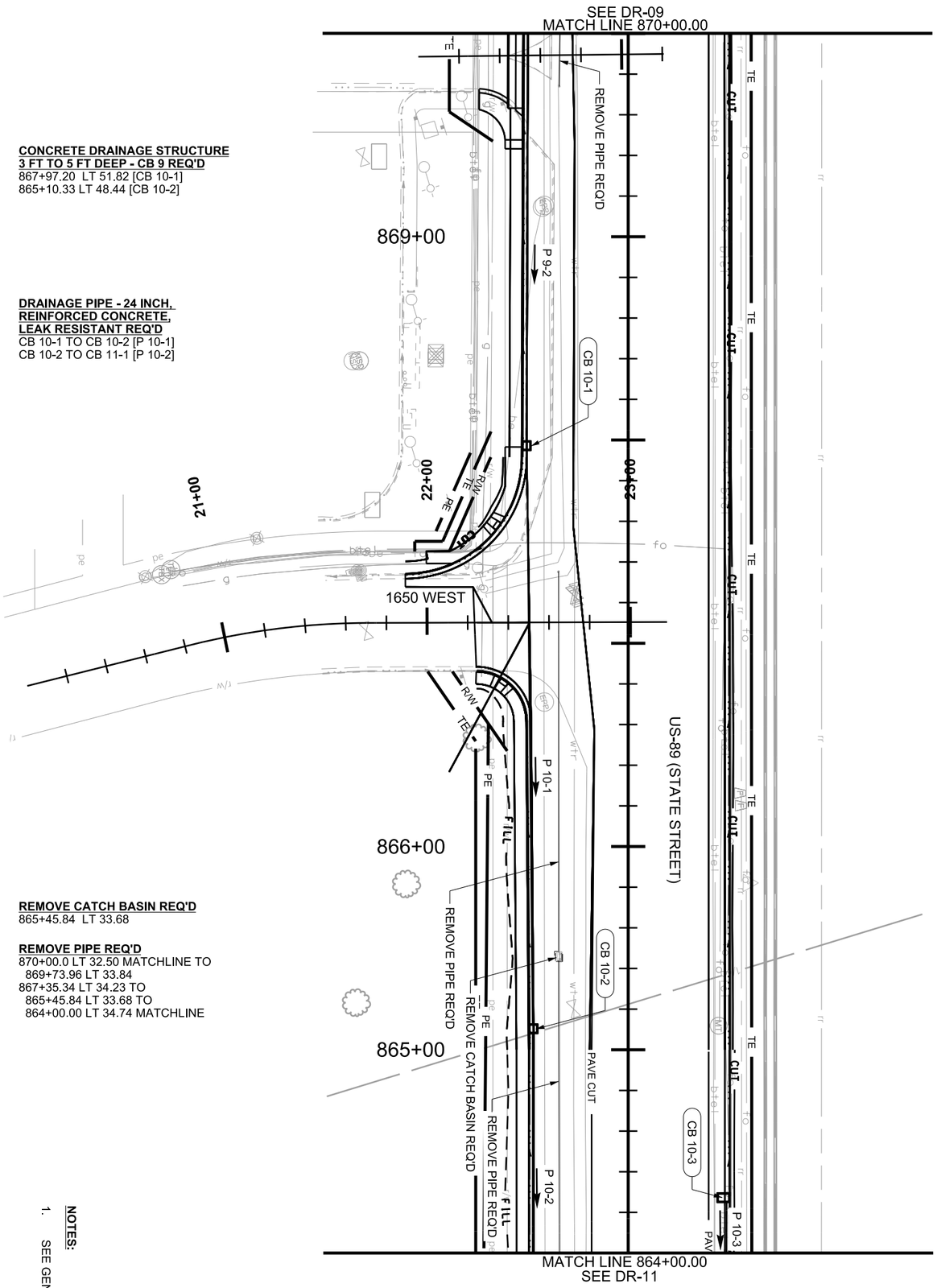
PIN 9994

PROJECT NUMBER F-0089(276)345

PROJECT DRAINAGE

SHEET NO. DP-09

DGN: Files:IP-PWP:d02994z78\9994_DP-09.dgn
27-FEB-2019



CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
867+97.20 LT 51.82 [CB 10-1]
865+10.33 LT 48.44 [CB 10-2]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 10-1 TO CB 10-2 [P 10-1]
CB 10-2 TO CB 11-1 [P 10-2]

REMOVE CATCH BASIN REQ'D
865+45.84 LT 33.68

REMOVE PIPE REQ'D
870+00.0 LT 32.50 MATCHLINE TO
869+73.96 LT 33.84
867+35.34 LT 34.23 TO
865+45.84 LT 33.68 TO
864+00.00 LT 34.74 MATCHLINE

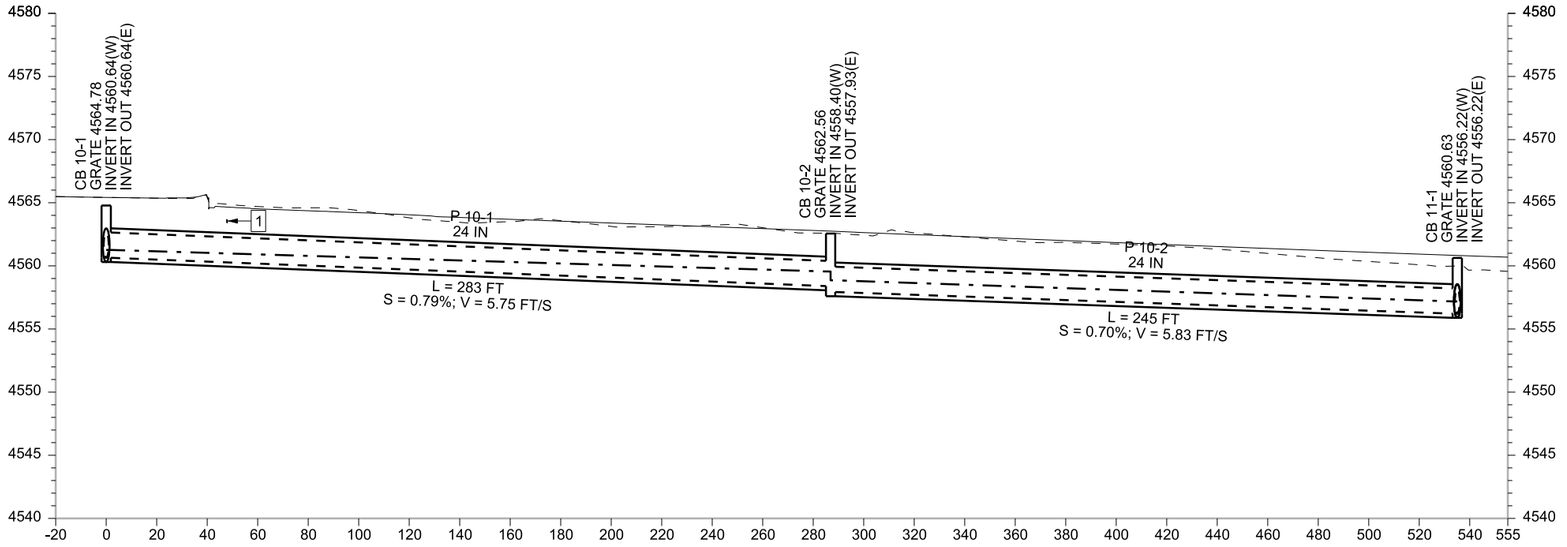
CONCRETE DRAINAGE STRUCTURE REQ'D
864+27.23 RT 49.49 [CB 10-3]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-12 6FT WIDE

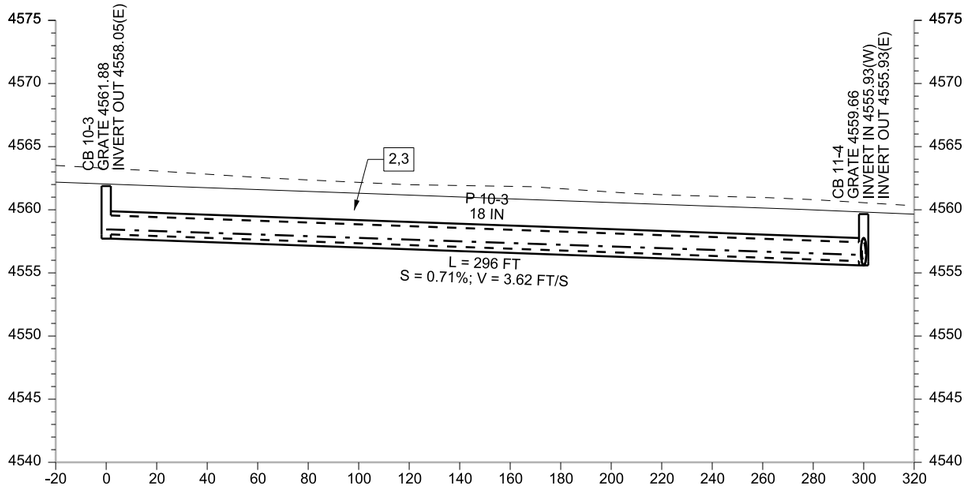
DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 10-3 TO CB 11-4 [P 10-3]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

SHEET NO. DR-10	PROJECT	US-89; STATE ST.,	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
		220 SO P.G. TO 500 EAST A.F.			
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	
		DRAINAGE	PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	NO. DATE APPROVED BY REMARKS





LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	CENTURY LINK	2" HDPE	PROTECT IN PLACE	
2	FIBER OPTIC	CENTURY LINK	2" HDPE	RELOCATE BY CENTURY LINK	
3	FIBER OPTIC	CENTURY LINK	2" HDPE	RELOCATE BY CENTURY LINK	

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

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US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

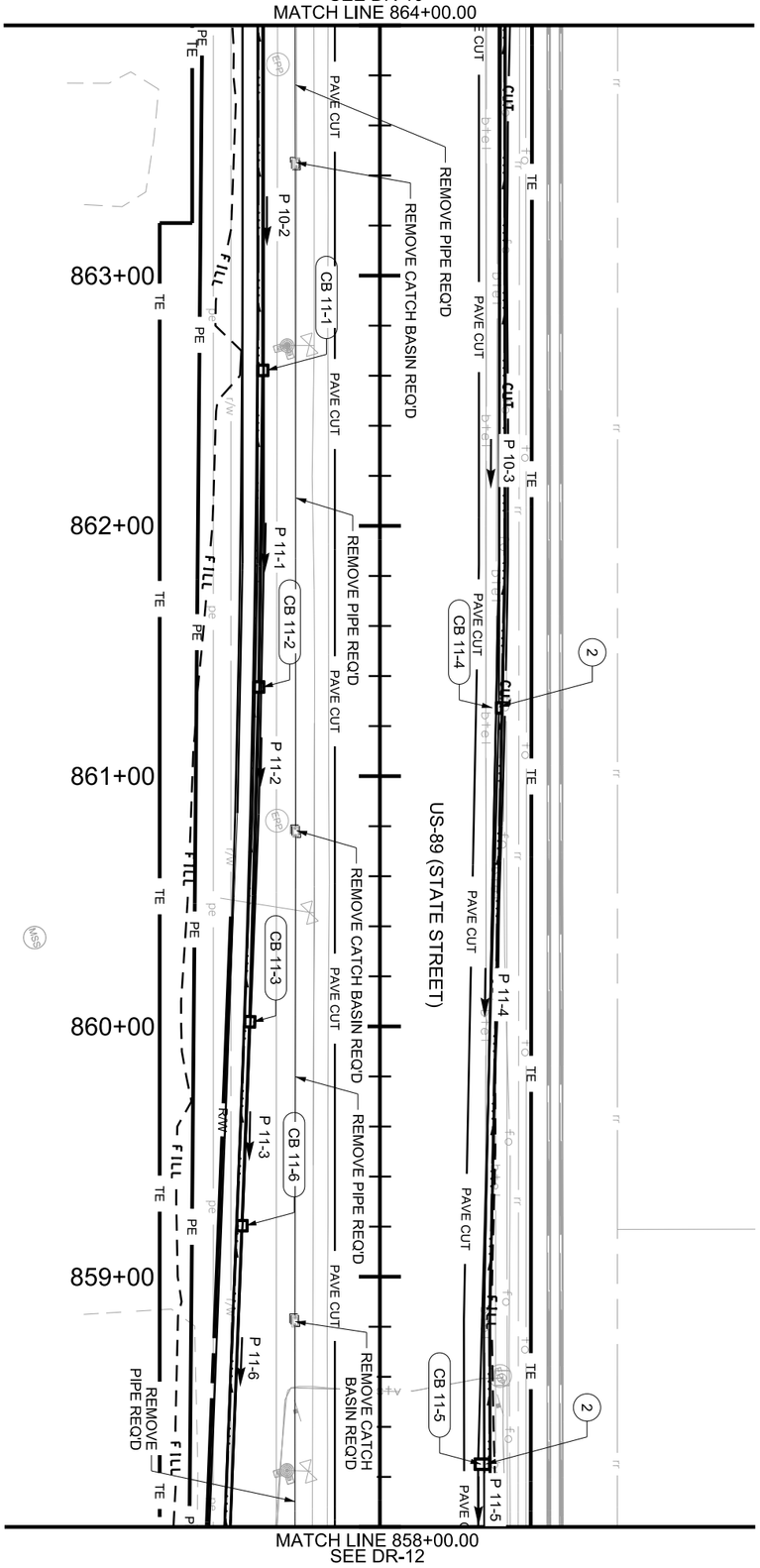
PROJECT
PROJECT NUMBER F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DP-10

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SEE DR-10
MATCH LINE 864+00.00



MATCH LINE 858+00.00
SEE DR-12

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
862+62.15 LT 48.50 [CB 11-1]
861+35.63 LT 50.13 [CB 11-2]
860+01.93 LT 53.74 [CB 11-3]
859+20.37 LT 56.83 [CB 11-6]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 11-1 TO CB 11-2 [P 11-1]
CB 11-2 TO CB 11-3 [P 11-2]
CB 11-3 TO CB 11-6 [P 11-3]
CB 11-6 TO CB 12-4 [P 11-6]

REMOVE CATCH BASIN REQ'D
863+99.75 LT 33.64
860+78.10 LT 33.63
858+82.44 LT 34.16

REMOVE PIPE REQ'D
863+45.32 LT 33.94 TO
863+99.75 LT 33.64 TO
860+78.10 LT 33.63 TO
858+82.44 LT 34.16 TO
858+00.47 LT 33.77

SHALLOW CATCH BASIN - CB3 REQ'D
861+27.25 RT 48.37 [CB 11-4]
SEE DRDT-14

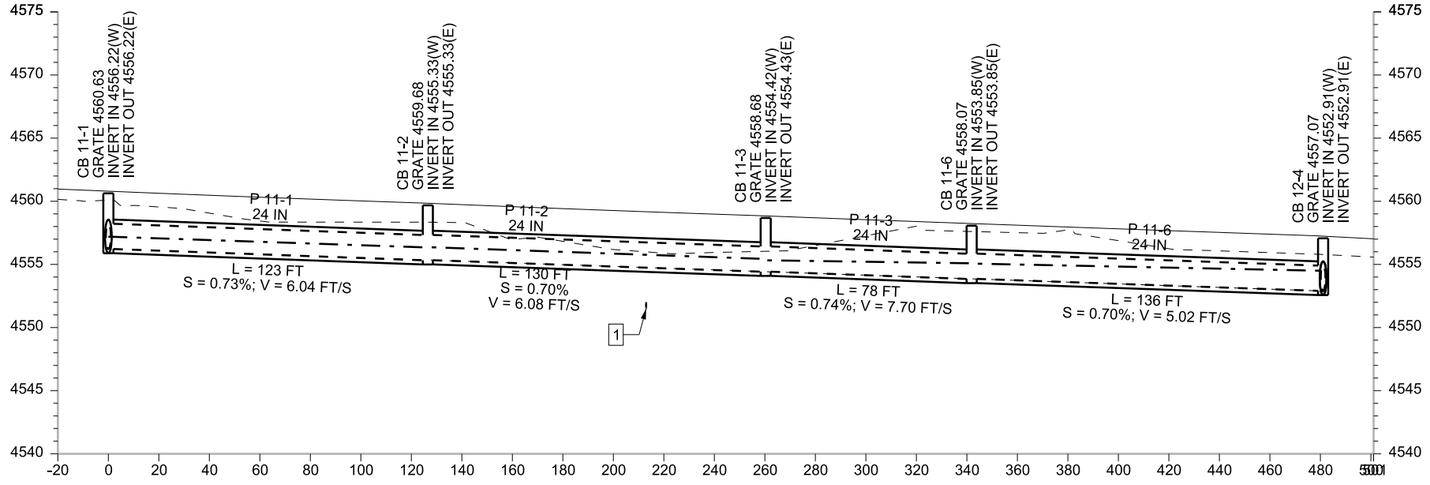
CONCRETE DRAINAGE STRUCTURE REQ'D
858+25.09 RT 43.58 [CB 11-5]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-15 6FT WIDE

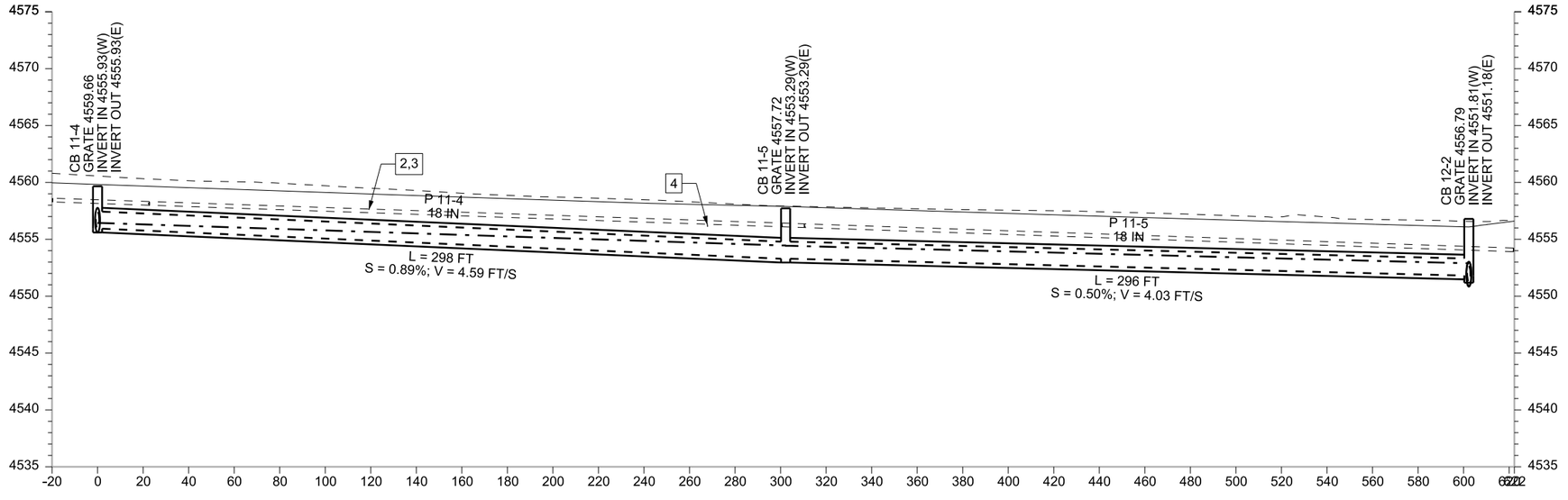
DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 11-4 TO CB 11-5 [P 11-4]
CB 11-5 TO CB 12-2 [P 11-5]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.
2. SEE DRDT-14 AND DRDT-15 FOR CATCH BASIN DETAILS TO AVOID CONFLICTS WITH FIBER OPTIC CONDUIT.

SHEET NO. DR-11	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	





LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	WATER	PLEASANT GROVE		PROTECT IN PLACE	METER CONNECT
2	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
3	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
4	BURIED CABLE TV	CCI	2" PVC	PROTECT IN PLACE	

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

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DATE 2/27/2019

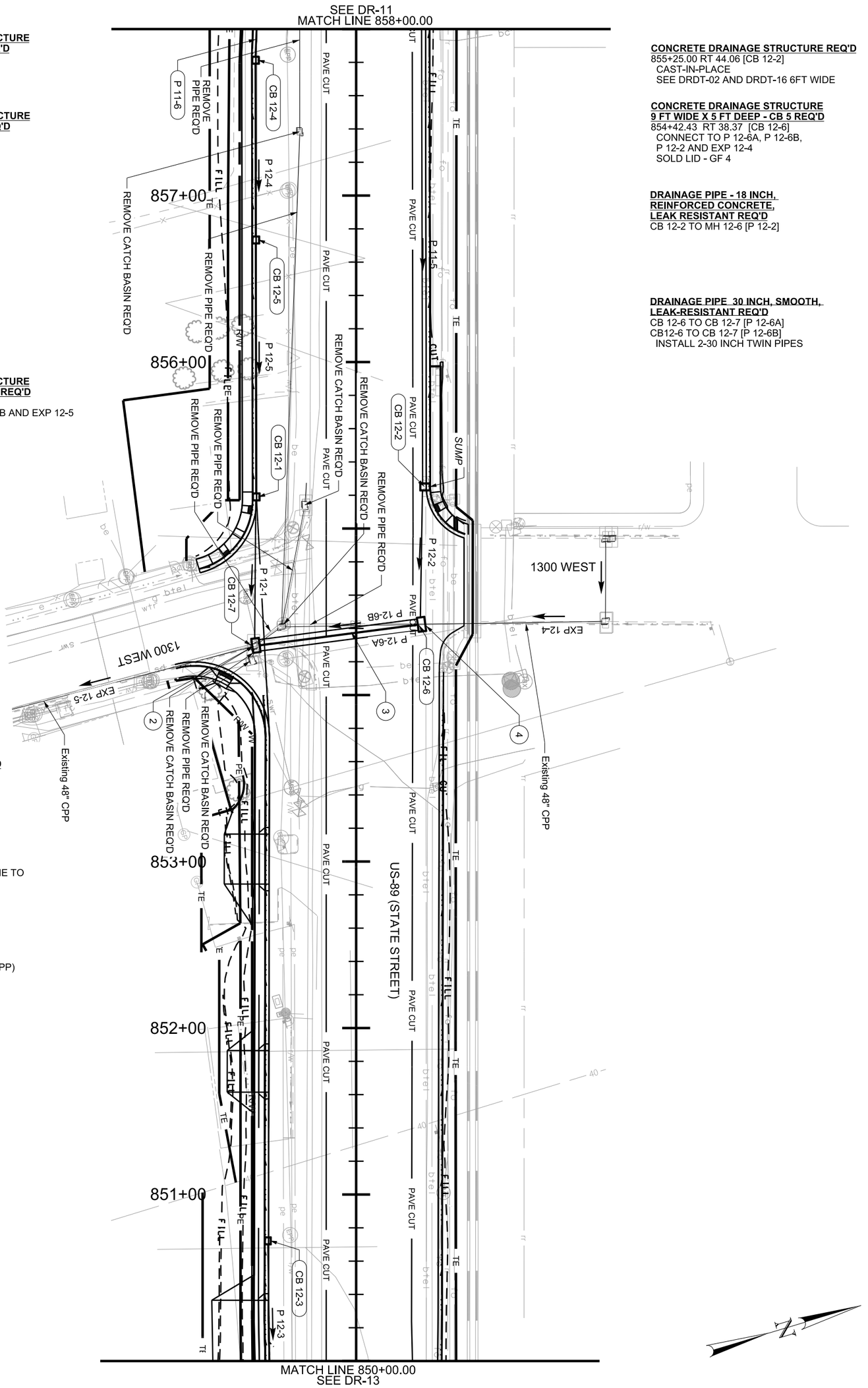
US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PROJECT
PROJECT NUMBER F-0089(276)345
PIN 9994

DRAINAGE

SHEET NO. DP-11

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27-FEB-2019



CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
857+81.29 LT 62.19 [CB 12-4]
856+73.31 LT 62.01 [CB 12-5]
850+72.18 LT 54.58 [CB 12-3]

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
855+19.00 LT 61.77 [CB 12-1]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 12-3 TO CB 13-1 [P 12-3]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 12-4 TO CB 12-5 [P 12-4]
CB 12-5 TO CB 12-1 [P 12-5]
CB 12-1 TO CB 12-7 [P 12-1]

CONCRETE DRAINAGE STRUCTURE 9 FT WIDE X 5 FT DEEP - CB 5 REQ'D
854+29.58 LT 60.90 [CB 12-7]
CONNECT TO P 12-6A, P 12-6B AND EXP 12-5
SOLD LID - GF 4

REMOVE CATCH BASIN REQ'D
857+38.34 LT 34.02
855+14.12 LT 30.64
854+42.84 LT 44.06
854+29.58 LT 60.90
854+20.66 LT 62.40

REMOVE PIPE REQ'D
857+99.32 LT 33.86 MATCHLINE TO
857+38.34 LT 34.02 TO
854+42.84 LT 44.06
855+27.41 LT 29.91 TO
855+14.12 LT 30.64 TO
854+42.84 LT 44.06
854+42.43 RT 38.37 TO
854+42.84 LT 44.06 TO
854+29.58 LT 60.90
(PARTIAL REMOVAL OF 48" CPP)
854+20.66 LT 62.40 TO
854+29.58 LT 60.90

CONCRETE DRAINAGE STRUCTURE REQ'D
855+25.00 RT 44.06 [CB 12-2]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-16 6FT WIDE

CONCRETE DRAINAGE STRUCTURE 9 FT WIDE X 5 FT DEEP - CB 5 REQ'D
854+42.43 RT 38.37 [CB 12-6]
CONNECT TO P 12-6A, P 12-6B,
P 12-2 AND EXP 12-4
SOLD LID - GF 4

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 12-2 TO MH 12-6 [P 12-2]

DRAINAGE PIPE 30 INCH, SMOOTH, LEAK-RESISTANT REQ'D
CB 12-6 TO CB 12-7 [P 12-6A]
CB12-6 TO CB 12-7 [P 12-6B]
INSTALL 2-30 INCH TWIN PIPES

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

(2) REMOVE CATCH BASIN AND REPLACE WITH MANHOLE. CONNECT EXISTING PIPES TO NEW MANHOLE.

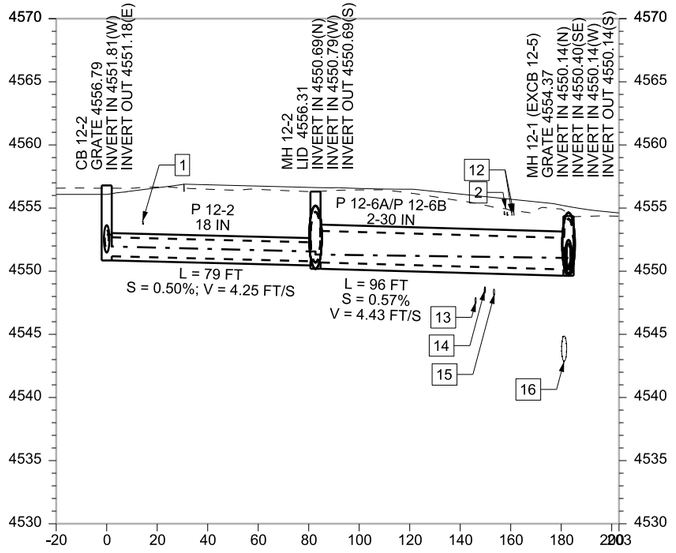
(3) REMOVE 48" PIPE AND REPLACE WITH 2-30" PIPES.

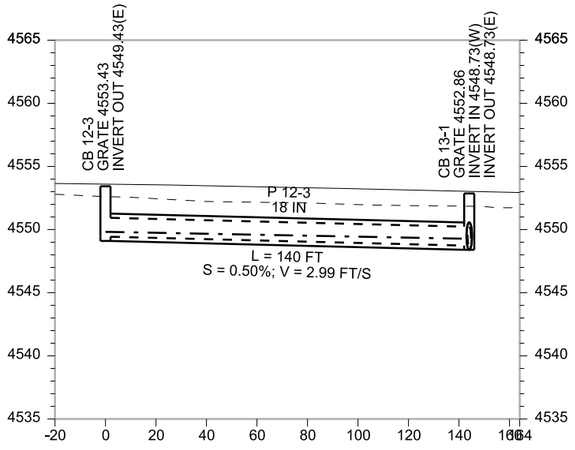
(4) INSTALL MH 12-6 AND CONNECT TO EXISTING 48" PIPE, P 12-2, P 12-6A AND P 12-6B.

SHEET NO. DR-12

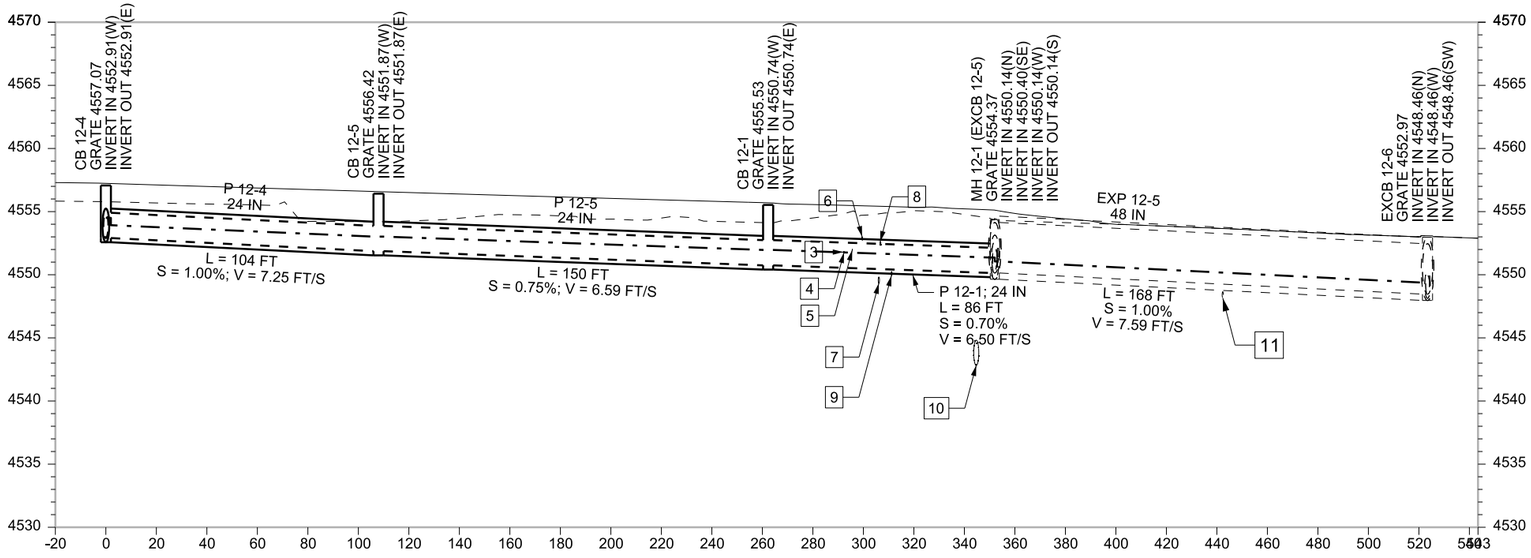
PROJECT	US-89; STATE ST.,	**UTAH DEPARTMENT OF TRANSPORTATION**	REVISIONS
	220 SO P.G. TO 500 EAST A.F.		
PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE	PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	BURIED CABLE	COMCAST		PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
2	FIBER OPTIC	AT&T		PROTECT IN PLACE	NOTE (2)
3	BURIED ELECTRIC	RMP		PROTECT IN PLACE	
4	BURIED ELECTRIC	RMP	6" PE	PROTECT IN PLACE	
5	BURIED ELECTRIC	RMP		PROTECT IN PLACE	
6	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
7	GAS	DOMINION	2" STL	RELOCATE BY DOMINION	
8	FIBER OPTIC	CENTURY LINK		RELOCATE BY CENTURY LINK	
9	WATER	PLEASANT GROVE	12"	RELOCATE BY PLEASANT GROVE	
10	SEWER	PLEASANT GROVE	24" PVC	PROTECT IN PLACE	
11	GAS	DOMINION		PROTECT IN PLACE	
12	BURIED ELECTRIC	RMP		PROTECT IN PLACE	NOTE (2)
13	GAS	DOMINION		PROTECT IN PLACE	NOTE (2)
14	WATER	PLEASANT GROVE	10"	PROTECT IN PLACE	NOTE (2)
15	WATER	PLEASANT GROVE	10"	PROTECT IN PLACE	NOTE (2)
16	SEWER	PLEASANT GROVE	24" PVC	PROTECT IN PLACE	



LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

NOTES:

1. FOR CB 12-1, THERE IS A 3" TAR WRAPPED CENTURY LINK LINE RUNNING UNDER THE NEW CURB AND GUTTER AT AN APPROXIMTE DEPTH OF 2.8 FEET BELOW EXISTING GROUND. SEE DRDT-02 FOR DETAILS ON CATCH BASIN LAYOUT FOR UTILITY AVOIDANCE.

(2) NOT CERTAIN IF LINE GOES OVER OR UNDER EXISTING 48-INCH PIPE. CONTRACTOR TO VERIFY LOCATION; PROTECT IN PLACE.

DGN Files: IP-PWPad0293478\9994_DP-12.dgn
27-FEB-2019

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

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2/27/2019 DATE
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PROFESSIONAL ENGINEER

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.
PROJECT
PROJECT NUMBER F-0089(276)345 PIN 9994
DRAINAGE

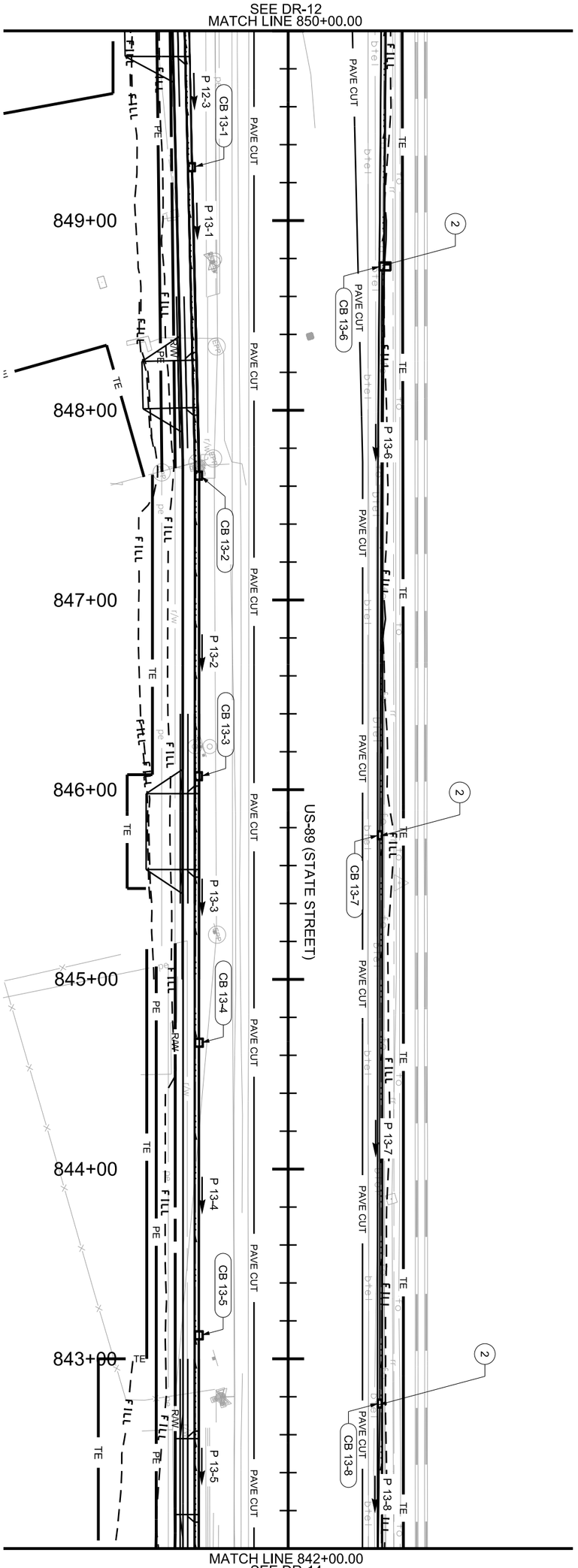
SHEET NO. DP-12

CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
849+28.14 LT 52.40 [CB 13-1]
847+65.54 LT 48.69 [CB 13-2]
846+07.10 LT 48.73 [CB 13-3]
844+66.63 LT 48.76 [CB 13-4]

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
843+12.39 LT 48.80 [CB 13-5]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 13-1 TO CB 13-2 [P 13-1]
CB 13-2 TO CB 13-3 [P 13-2]
CB 13-3 TO CB 13-4 [P 13-3]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 13-4 TO CB 13-5 [P 13-4]
CB 13-5 TO CB 14-2 [P 13-5]



CONCRETE DRAINAGE STRUCTURE REQ'D
848+75.83 RT 49.98 [CB 13-6]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-17
6FT WIDE ROTATED

SHALLOW CATCH BASIN - CB 3 REQ'D
845+76.00 RT 49.13 [CB 13-7]
842+76.43 RT 49.07 [CB 13-8]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 13-6 TO CB 13-7 [P 13-6]
CB 13-7 TO CB 13-8 [P 13-7]
CB 13-8 TO CB 14-7 [P 13-8]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.

(2) SEE DRDT-02 FOR CATCH BASIN DETAILS TO AVOID CONFLICTS WITH FIBER OPTIC CONDUIT.

SHEET NO. DR-13

PROJECT	US-89; STATE ST.,	**UTAH DEPARTMENT OF TRANSPORTATION**	REVISIONS
	220 SO P.G. TO 500 EAST A.F.		
PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM
	DRAINAGE	PROFESSIONAL ENGINEER — 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

27-FEB-2019 DGN File: IP-PWP:d0299478\9994_DP-13(1).dgn

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

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2/27/2019 DATE

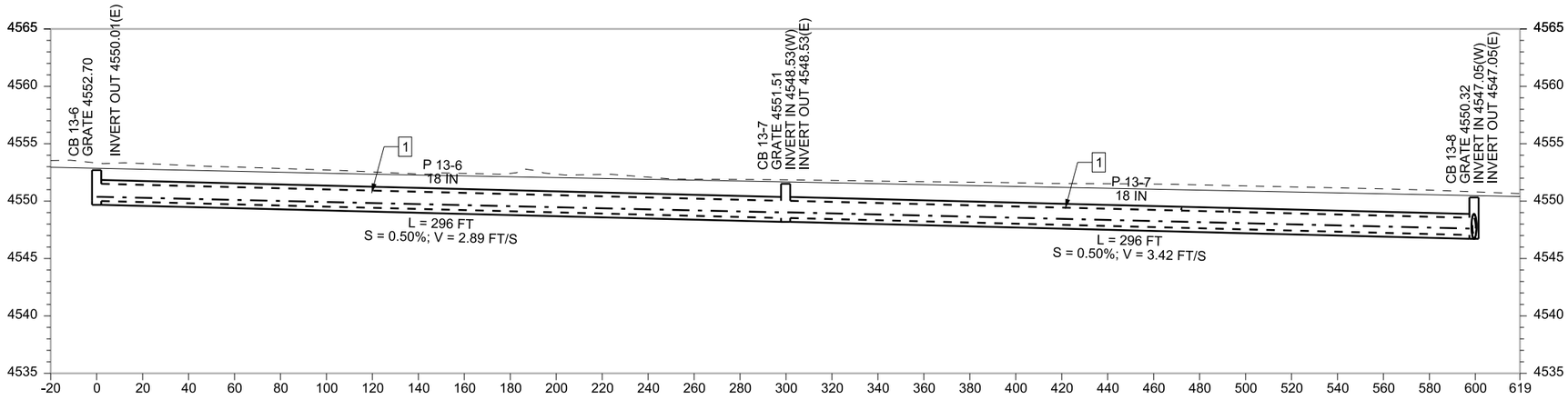
APPROVED

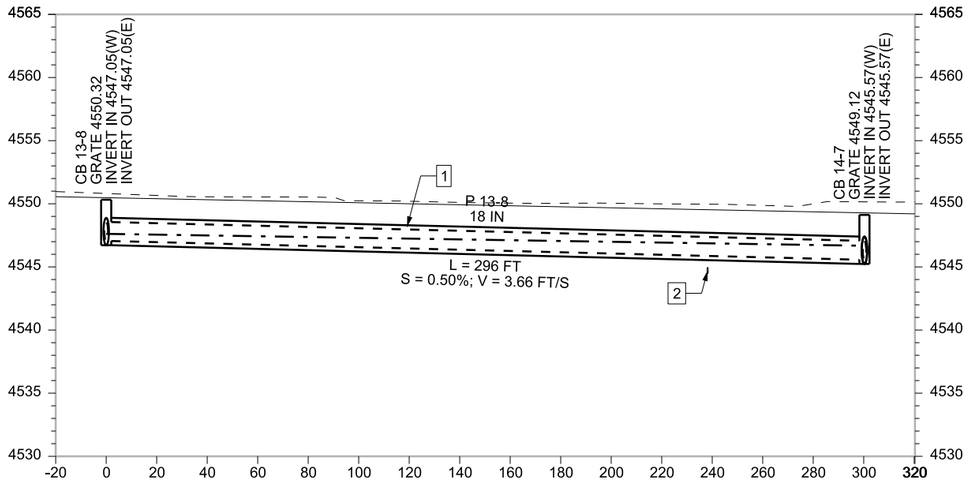
PROFESSIONAL ENGINEER

PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.
PROJECT NUMBER: F-0089(276)345 PIN 9994

DRAINAGE

SHEET NO. DP-13(1)





LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	PIPE RUNS IN SAME TRENCH AS UTILITY
2	GAS	DOMINION	3/4" STL	PROTECT IN PLACE	

NOTES:

1. FOR CB 13-6, CB 13-7, AND CB 13-8, THERE ARE 3-4" PVC CONDUITS RUNNING UNDER THE NEW CURB AND GUTTER AT AN APPROXIMTE DEPTH OF 2 FEET BELOW EXISTING GROUND. SEE DRDT-02 FOR DETAILS ON CATCH BASIN LAYOUT FOR UTILITY AVOIDANCE.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE

APPROVED

PROFESSIONAL ENGINEER

US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PIN 9994

F-0089(276)345

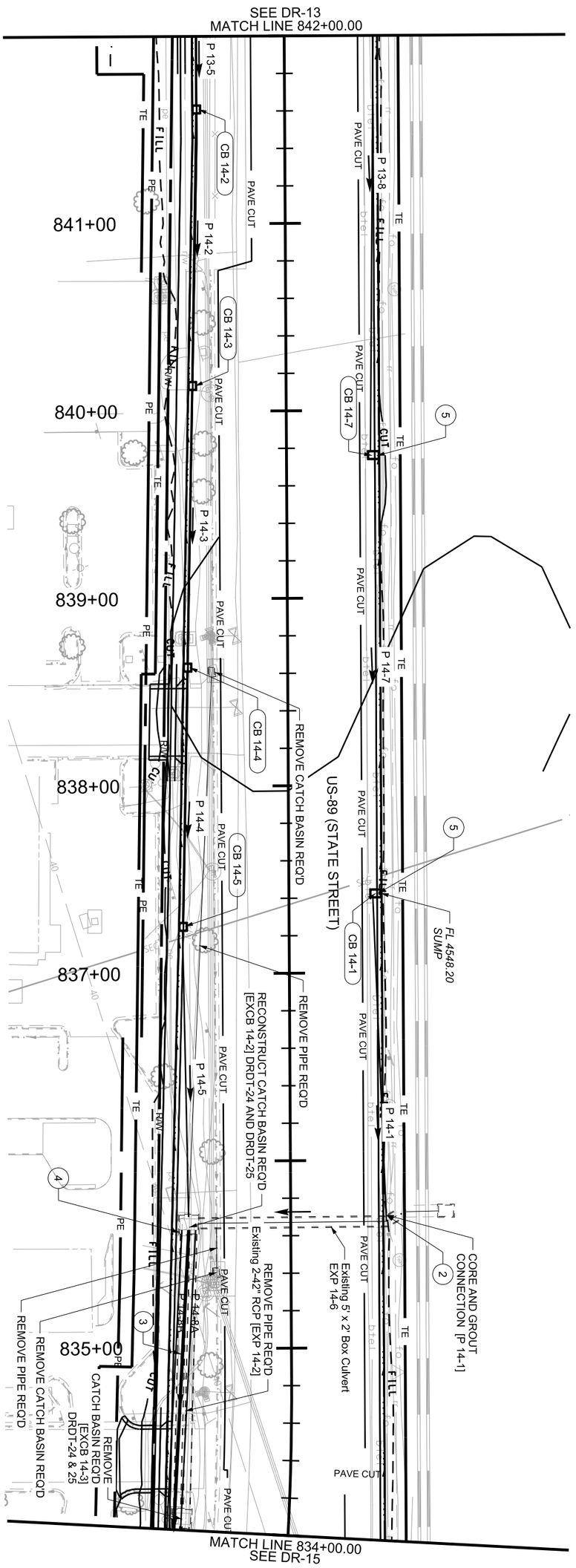
DRAINAGE

PROJECT

PROJECT NUMBER

SHEET NO. DP-13(2)

DGN: Files\P-Pw\d0294w78\9994_DP-13(2)dgn.dgn
27-FEB-2019



CONCRETE DRAINAGE STRUCTURE REQ'D
839+76.15 RT 49.01 [CB 14-7]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-20 6FT WIDE
837+42.32 RT 48.96 [CB 14-1]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-21 6FT WIDE

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
841+61.03 LT 48.84 [CB 14-2]
840+13.54 LT 51.78 [CB 14-3]
838+63.30 LT 55.16 [CB 14-4]
837+25.05 LT 58.30 [CB 14-5]

DRAINAGE PIPE - 24 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 14-2 TO CB 14-3 [P 14-2]
CB 14-3 TO CB 14-4 [P 14-3]
CB 14-4 TO CB 14-5 [P 14-4]
CB 14-5 TO 835+66.38 LT 54.07
EXCB 14-2 [P 14-5]
CONNECT TO EXCB 14-2

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 14-7 TO CB 14-1 [P 14-7]
CB 14-1 TO EXP 14-6 [P 14-1] (NOTE 2)

DRAINAGE PIPE 30 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
EXCB 14-2 TO CB 15-5 [P 14-8A]
EXCB 14-2 TO CB 15-5 [P 14-8B]
INSTALL 2-30 INCH TWIN PIPES

REMOVE CATCH BASIN REQ'D
838+59.72 LT 39.67
835+40.65 LT 39.85
834+06.11 LT 55.87

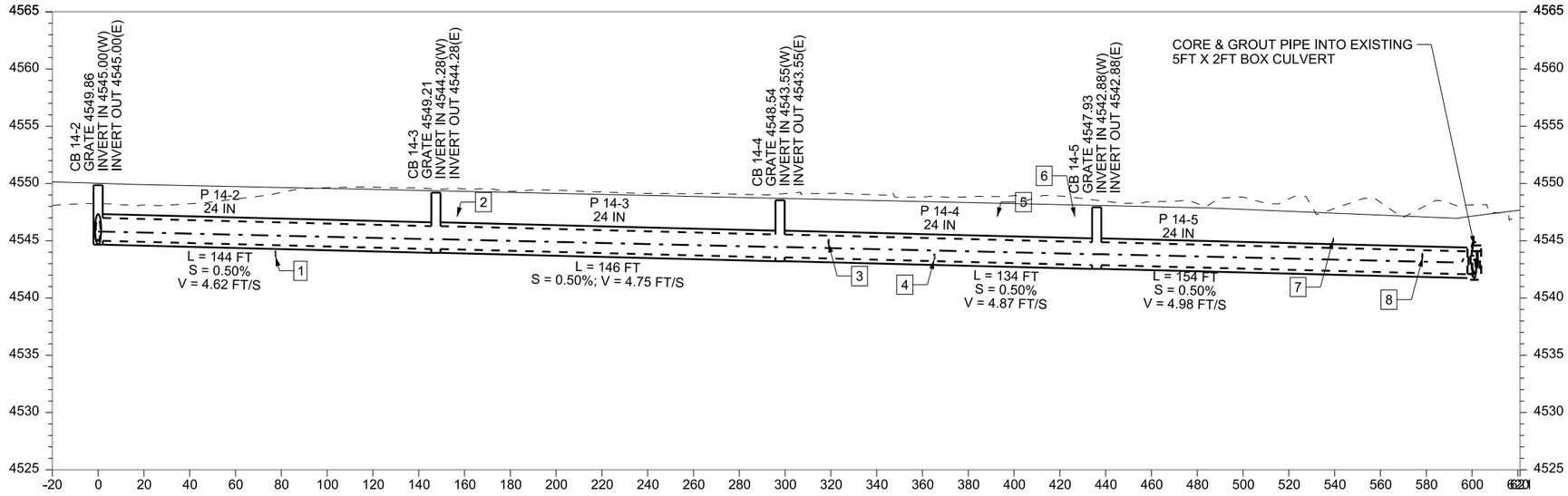
REMOVE PIPE REQ'D
838+59.72 LT 39.67 TO
835+64.41 LT 39.69 TO
835+40.65 LT 39.85
PLACE CONCRETE PLUG AT CONNECTION TO BOX CULVERT
835+66.38 LT 54.07 [EXCB 14-2] TO
834+06.11 LT 55.87 TO
834+00.00 LT 56.00
Existing 2-42" RCP

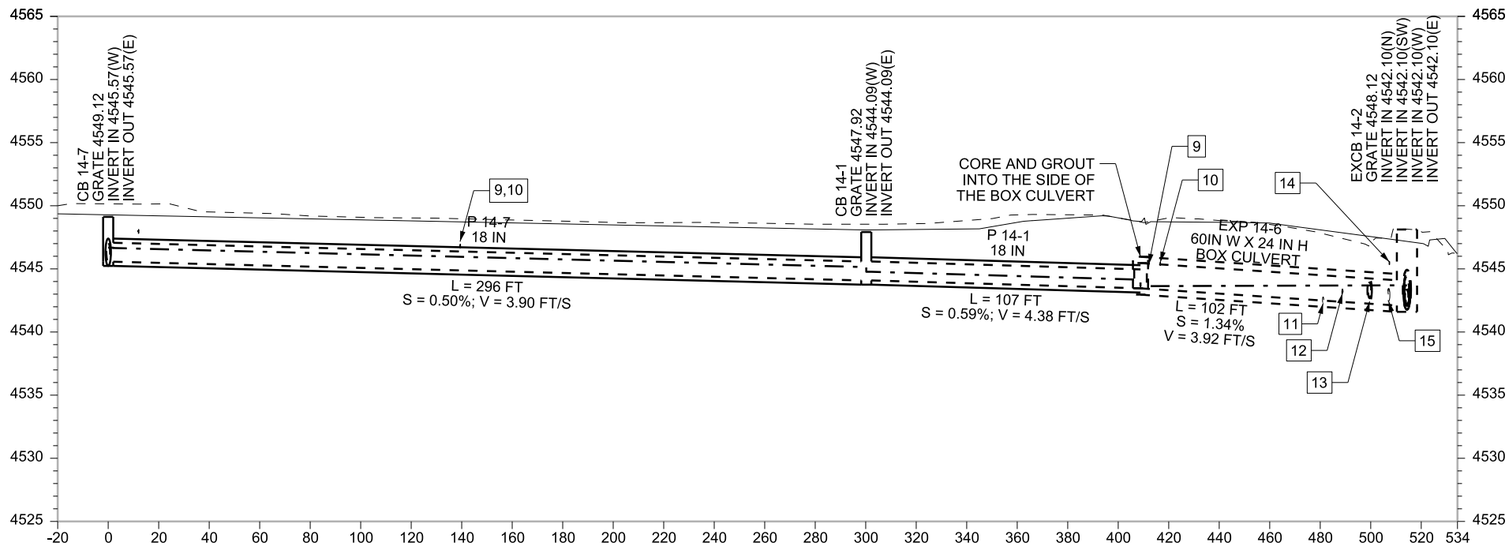
RECONSTRUCT CATCH BASIN REQ'D
835+66.38 LT 54.07 [EXCB 14-2]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.
2. CONNECT P 14-1 TO EXISTING BOX CULVERT.
3. REPLACE EXISTING 2-42" CPP PIPES WITH 2-30" RCP PIPES.
4. CONNECT 2-30" RCP PIPES TO EXISTING BOX.
5. SEE DRDT-02 FOR CATCH BASIN DETAILS TO AVOID CONFLICTS WITH FIBER OPTIC CONDUIT.

SHEET NO. DR-14	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	GAS	DOMINION	1.25" SRVC	PROTECT IN PLACE	SERVICE LINE
2	BURIED ELECTRIC	RMP		PROTECT IN PLACE	
3	WATER	PLEASANT GROVE	SRVC	PROTECT IN PLACE	SERVICE LINE
4	GAS	DOMINION	1 1/4" SRVC	PROTECT IN PLACE	SERVICE LINE
5	BURIED ELECTRIC	RMP		PROTECT IN PLACE	
6	BURIED ELECTRIC	RMP		PROTECT IN PLACE	
7	FIBER OPTIC	CENTURY LINK	25 PAIR	PROTECT IN PLACE	
8	WATER	PLEASANT GROVE		PROTECT IN PLACE	METER CONNECT
9	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	
10	FIBER OPTIC	CENTURY LINK	DUCT BANK	PROTECT IN PLACE	
11	GAS	DOMINION	4" STL	PROTECT IN PLACE	
12	WATER	PLEASANT GROVE	10" DI	PROTECT IN PLACE	
13	STORM DRAIN TIE-IN		15" CPP	PROTECT IN PLACE	
14	WATER	PLEASANT GROVE	6"	PROTECT IN PLACE	
15	WATER	PLEASANT GROVE		RELOCATE BY PLEASANT GROVE	
16	FIBER OPTIC	CENTURY LINK	2" HDPE	RELOCATE BY CENTURY LINK	

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

NOTES:

1. SEE DRDT-24 AND DRDT-25 FOR PIPE PROFILES FOR P 14-8A AND P 14-8B.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED

PROFESSIONAL ENGINEER

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE

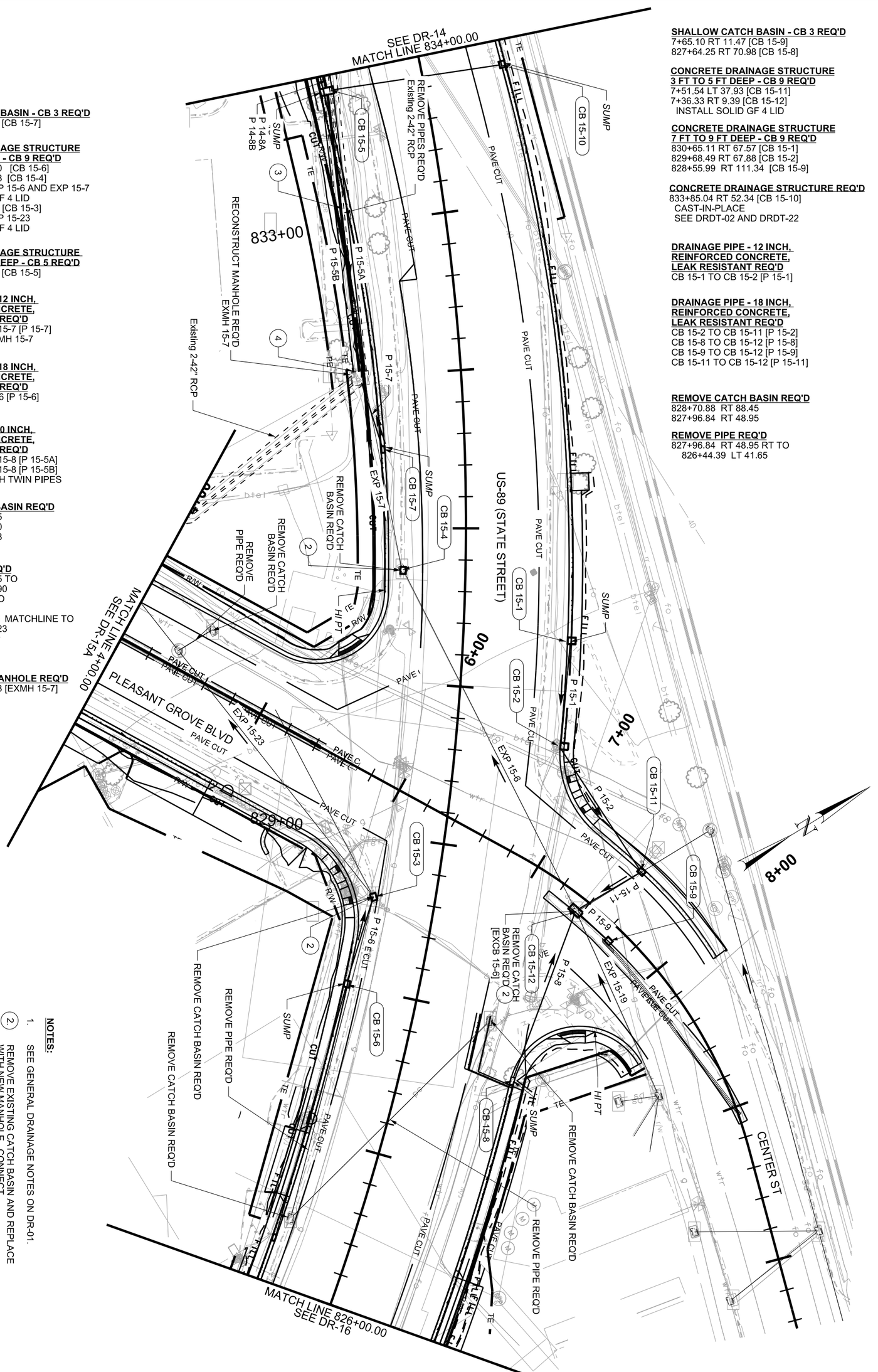
US-89; STATE ST.,
220 SO P.G. TO 500 EAST A.F.

PROJECT F-0089(276)345
PROJECT NUMBER PIN 9994

DRAINAGE

SHEET NO. DP-14

D0N File: IP_PWPad0299478\9994.DP-14.dgn
27-FEB-2019



SHALLOW CATCH BASIN - CB 3 REQ'D
831+51.47 LT 54.39 [CB 15-7]

CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
828+01.03 LT 46.60 [CB 15-6]
830+73.23 LT 39.38 [CB 15-4]
CONNECT TO EXP 15-6 AND EXP 15-7
INSTALL SOLID GF 4 LID
828+59.15 LT 40.05 [CB 15-3]
CONNECT TO EXP 15-23
INSTALL SOLID GF 4 LID

CONCRETE DRAINAGE STRUCTURE
9 FT WIDE x 5 FT DEEP - CB 5 REQ'D
833+89.47 LT 64.94 [CB 15-5]

DRAINAGE PIPE - 12 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 15-7 TO EXMH 15-7 [P 15-7]
CONNECT TO EXMH 15-7

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 15-6 TO MH 15-6 [P 15-6]

DRAINAGE PIPE 30 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 15-5 TO EXMH 15-8 [P 15-5A]
CB 15-5 TO EXMH 15-8 [P 15-5B]
INSTALL 2-30 INCH TWIN PIPES

REMOVE CATCH BASIN REQ'D
826+44.39 LT 41.65
828+59.74 LT 38.90
830+73.23 LT 39.38
4+48.05 LT 31.71

REMOVE PIPE REQ'D
826+44.39 LT 41.65 TO
828+59.74 LT 38.90
4+48.05 LT 31.71 TO
4+35.42 LT 10.89
834+00.00 LT 57.26 MATCHLINE TO
831+99.12 LT 63.23
Existing 2-42" RCP

RECONSTRUCT MANHOLE REQ'D
831+99.12 LT 63.23 [EXMH 15-7]

SHALLOW CATCH BASIN - CB 3 REQ'D
7+65.10 RT 11.47 [CB 15-9]
827+64.25 RT 70.98 [CB 15-8]

CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
7+51.54 LT 37.93 [CB 15-11]
7+36.33 RT 9.39 [CB 15-12]
INSTALL SOLID GF 4 LID

CONCRETE DRAINAGE STRUCTURE
7 FT TO 9 FT DEEP - CB 9 REQ'D
830+65.11 RT 67.57 [CB 15-1]
829+68.49 RT 67.88 [CB 15-2]
828+55.99 RT 111.34 [CB 15-9]

CONCRETE DRAINAGE STRUCTURE REQ'D
833+85.04 RT 52.34 [CB 15-10]
CAST-IN-PLACE
SEE DRDT-02 AND DRDT-22

DRAINAGE PIPE - 12 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 15-1 TO CB 15-2 [P 15-1]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 15-2 TO CB 15-11 [P 15-2]
CB 15-8 TO CB 15-12 [P 15-8]
CB 15-9 TO CB 15-12 [P 15-9]
CB 15-11 TO CB 15-12 [P 15-11]

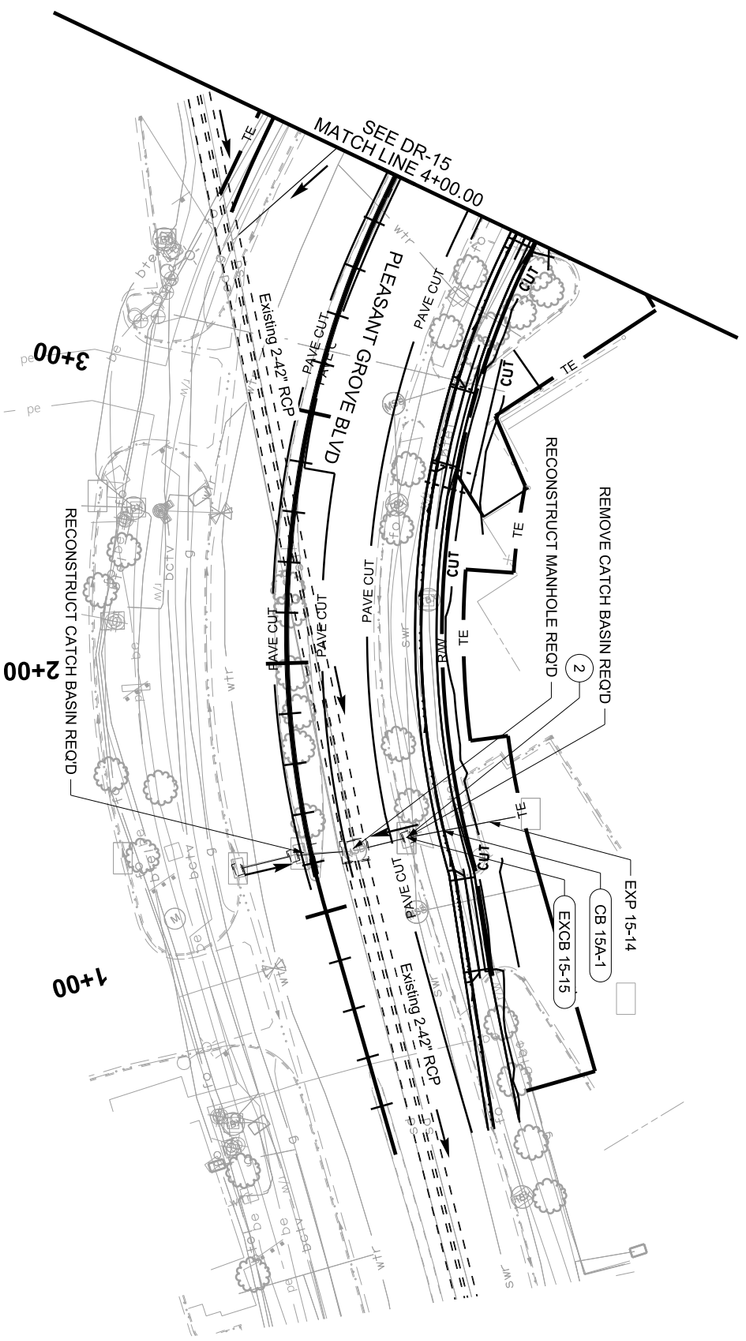
REMOVE CATCH BASIN REQ'D
828+70.88 RT 88.45
827+96.84 RT 48.95

REMOVE PIPE REQ'D
827+96.84 RT 48.95 RT TO
826+44.39 LT 41.65

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.
2. REMOVE EXISTING CATCH BASIN AND REPLACE WITH NEW MANHOLE. CONNECT EXISTING PIPES TO NEW MANHOLE.
3. REPLACE EXISTING 2-42" CPP PIPE WITH 2-30" RCP PIPES.
4. CONNECT 2-30" RCP TO EXISTING BOX.
5. SEE DRDT-02 FOR CATCH BASIN DETAILS TO AVOID CONFLICTS WITH FIBER OPTIC CONDUIT.

SHEET NO. DR-15	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	NO. DATE APPROVED BY REMARKS
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	



CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
1+20.82 RT 52.77 [CB 15A-1]
ATTACH EXP 15-14 TO CB 15A-1

REMOVE CATCH BASIN REQ'D
1+20.96 RT 38.39 [EXCB 15-15]
CONNECT EXISTING PIPE SECTIONS
AFTER REMOVAL OF EXCB 15-15

RECONSTRUCT CATCH BASIN REQ'D
1+24.69 LT 3.44

RECONSTRUCT MANHOLE REQ'D
1+20.80 RT 17.17
RAISE TO GRADE

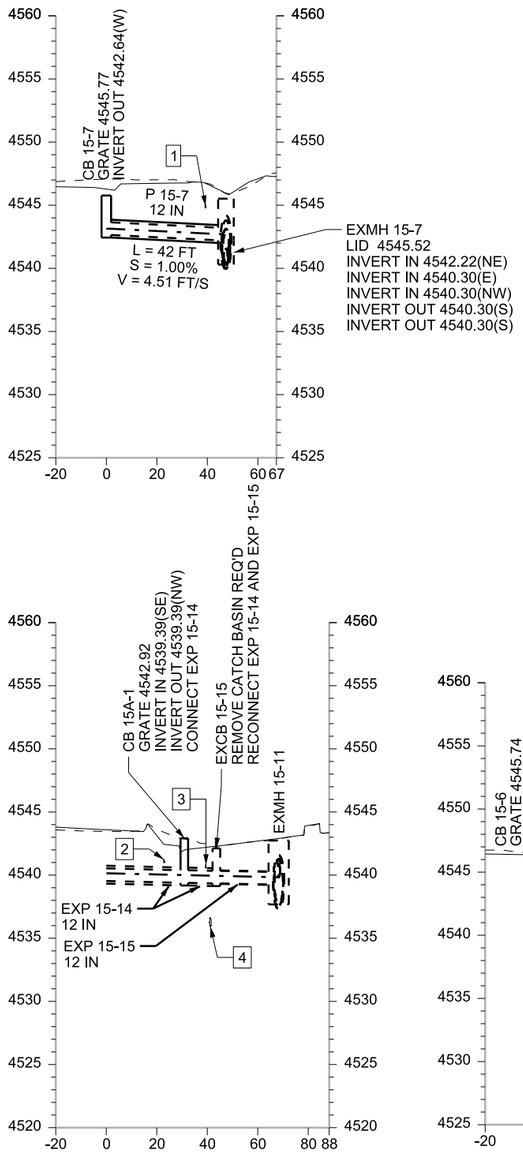
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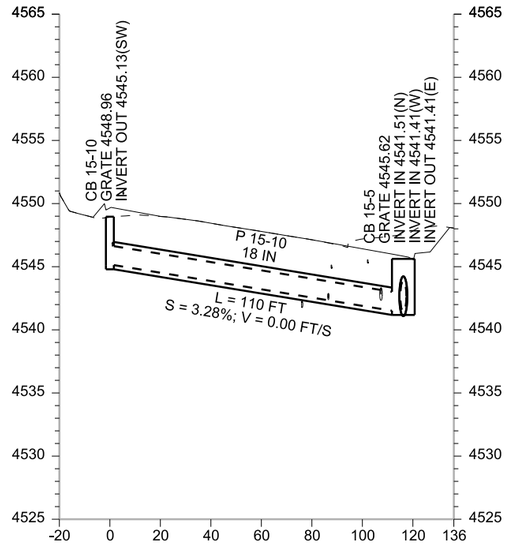
1. SEE GENERAL DRAINAGE NOTES ON DR-01.

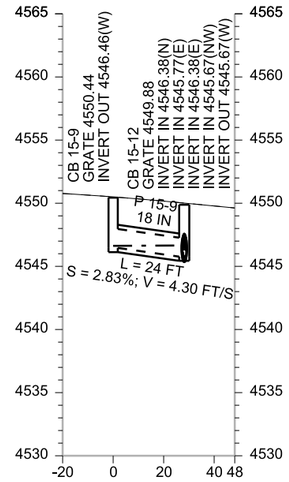
(2) RECONNECT EXISTING PIPES AFTER REMOVING THE CATCH BASIN.

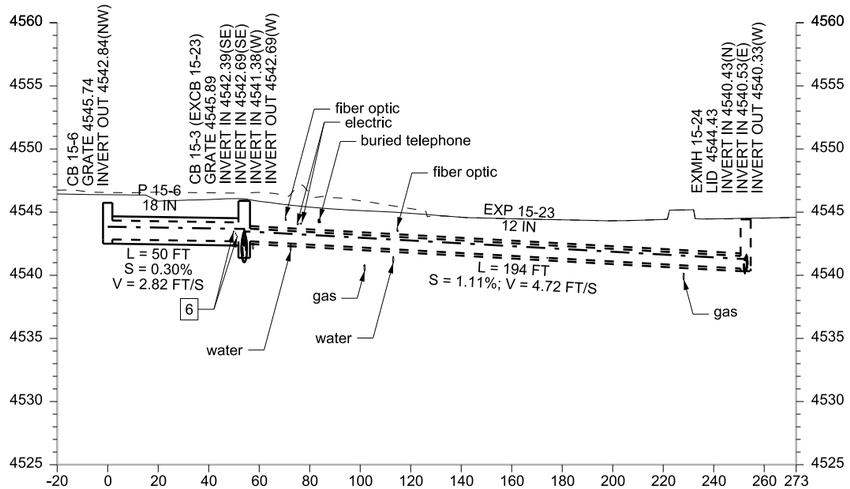
SHEET NO. DR-15A	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	NO. DATE APPROVED BY REMARKS

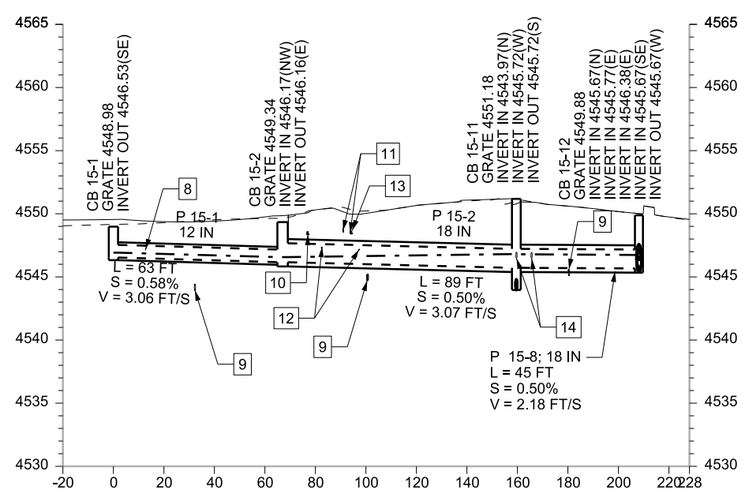
ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	FIBER OPTIC	COMCAST	2 1/2" PVC	PROTECT IN PLACE	
2	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
3	FIBER OPTIC	UDOT	4-2" PE & 1-1"PE	PROTECT IN PLACE	
4	SEWER	PLEASANT GROVE		PROTECT IN PLACE	
6	BURIED ELECTRIC	UDOT SIGNALS	4-2" PVC	RELOCATE BY UDOT	
8	BURIED CABLE			RELOCATE BY	
9	GAS	DOMINION	4" STL	LOOP BY DOMINION	
10	FIBER OPTIC	CENTURY LINK	1200 PAIR	RELOCATE BY CENTURY LINK	
11	FIBER OPTIC	CENTURY LINK	2-2" PE	RELOCATE BY CENTURY LINK	
12	BURIED ELECTRIC	UDOT SIGNALS	4 PVC	RELOCATE BY UDOT SIGNALS	
13	FIBER OPTIC	COMCAST	2 1/2" PVC	RELOCATE BY COMCAST	
14	WATER	PLEASANT GROVE	12" DI	RELOCATE BY PLEASANT GROVE	











LEGEND

- FINISHED GRADE
- Existing Grade
- HGL 10-year

NOTES:

1. FOR CB 15-10, SEE DRDT-22 FOR CATCH BASIN LAYOUT ADN UTILITY AVOIDANCE.
2. SEE DRDT-24 AND DRDT-25 FOR PIPE PROFILES FOR P 15-5A AND P 15-5B.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY: MMM | QC CHECKED BY: CMR | DATE: 2/27/2019 | APPROVED | PROFESSIONAL ENGINEER

PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.

PROJECT NUMBER: F-0089(276)345 | PIN: 9994

SHEET NO. DP-15

DRAINAGE

DGN Files: IP_PwPad02994780\9994_DP-15.dgn

27-FEB-2019

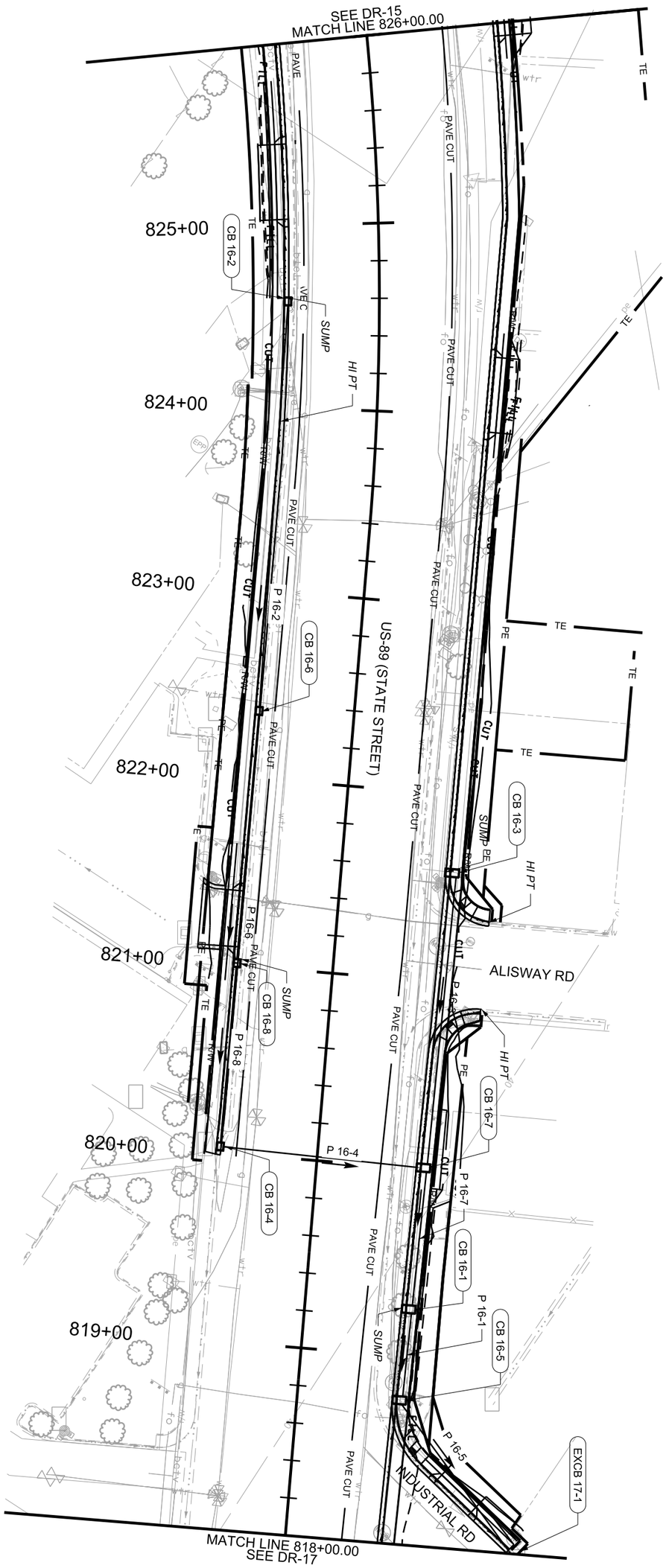
CONCRETE DRAINAGE STRUCTURE 3 FT TO 5 FT DEEP - CB 9 REQ'D
824+58.28 LT 50.12 [CB 16-2]

CONCRETE DRAINAGE STRUCTURE 5 FT TO 7 FT DEEP - CB 9 REQ'D
824+60.18 LT 50.12 [CB 16-6]
820+03.26 LT 53.30 [CB 16-4]
821+01.17 LT 52.53 [CB 16-8]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 16-2 TO CB 16-6 [P 16-2]
CB 16-4 TO CB 16-7 [P 16-4]
CB 16-6 TO CB 16-8 [P 16-6]
CB 16-8 TO CB 16-4 [P 16-8]

CONCRETE DRAINAGE STRUCTURE REQ'D
819+25.30 RT 53.45 [CB 16-1]
DRDT-26 AND DRDT-02 6FT WIDE ROTATED
818+76.68 RT 52.45 [CB 16-5]
DRDT-26 AND DRDT-02 6FT WIDE ROTATED
820+00.81 RT 54.92 [CB 16-7]
DRDT-26 AND DRDT-02 6FT WIDE ROTATED
821+58.43 RT 57.59 [CB 16-3]
DRDT-26 AND DRDT-02 6FT WIDE ROTATED

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 16-3 TO CB 16-7 [P 16-3]
CB 16-1 TO CB 16-5 [P 16-1]
CB 16-7 TO CB 16-1 [P 16-7]
CB 16-5 TO EXCB 17-1
817+99.52 RT 125.05 [P 16-5]



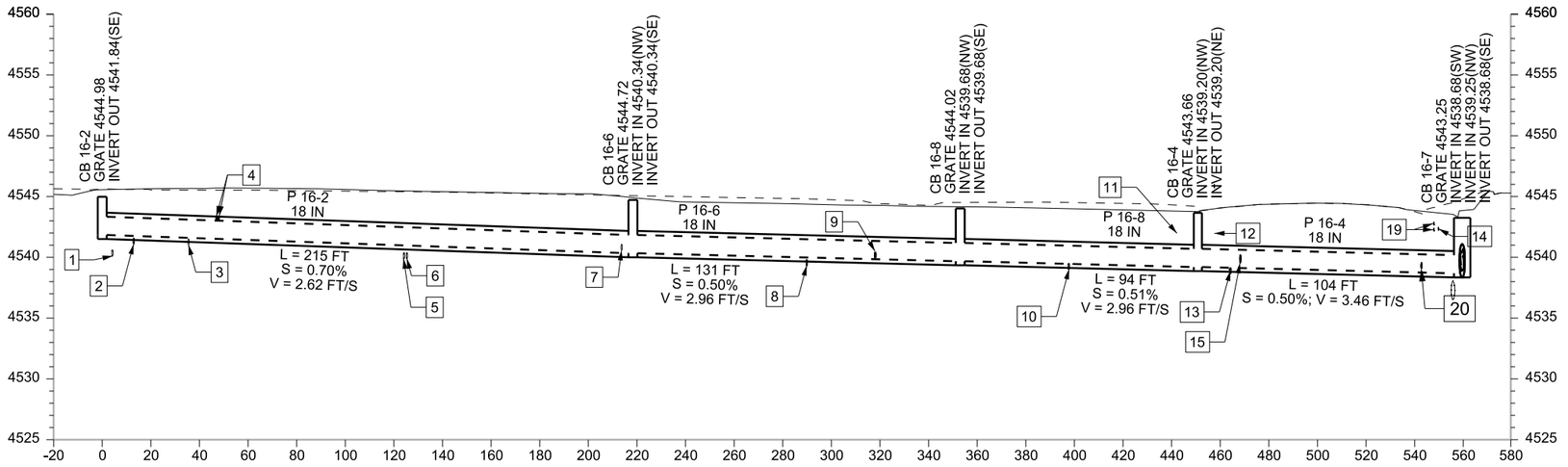
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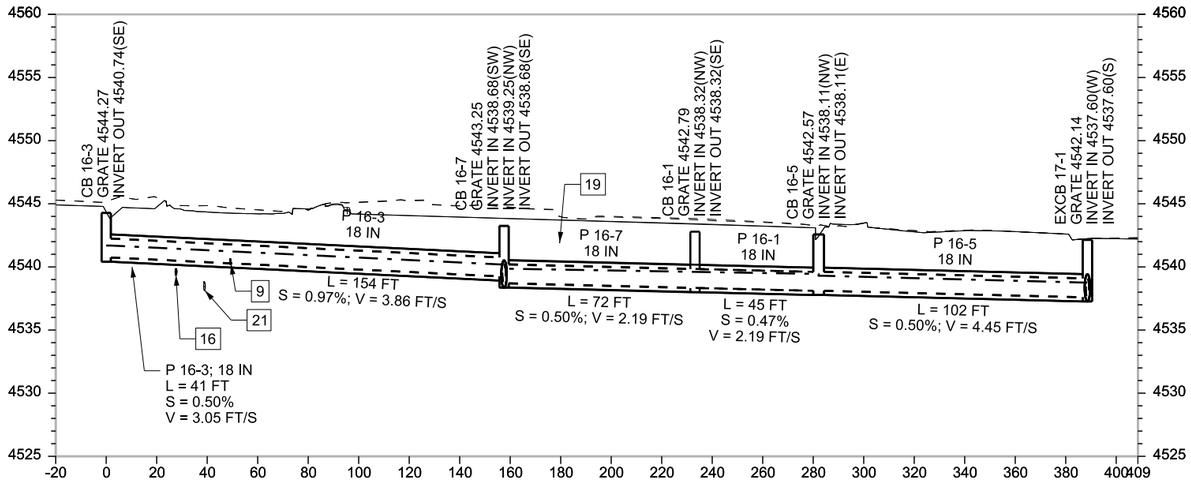
1. SEE GENERAL DRAINAGE NOTES ON DR-01.

SHEET NO. DR-16

PROJECT	US-89; STATE ST.,			UTAH DEPARTMENT OF TRANSPORTATION	REVISIONS
	220 SO P.G. TO 500 EAST A.F.				
PROJECT NUMBER	F-0089(276)345	PIN	9994	APPROVED	DRAWN BY MMM
	DRAINAGE			PROFESSIONAL ENGINEER — 2/27/2019 DATE	QC CHECKED BY CMR

NO. DATE APPROVED BY REMARKS





ID#	UTILITY	OWNER	SIZE	RELOCATION NOTES	COMMENTS
1	GAS	DOMINION	1" STL	LOOP BY DOMINION	
2	WATER	PLEASANT GROVE	6" DI	LOOP BY PLEASANT GROVE	
3	WATER	PLEASANT GROVE		PROTECT IN PLACE	METER CONNECT
4	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
5	GAS	DOMINION	3/4" STL	LOOP BY DOMINION	SERVICE LINE
6	GAS	DOMINION	1" STL	LOOP BY DOMINION	SERVICE LINE
7	WATER	PLEASANT GROVE		PROTECT IN PLACE	METER CONNECT
8	GAS	DOMINION	1 1/4" STL	LOOP BY DOMINION	SERVICE LINE
9	WATER	PLEASANT GROVE	6" DI	LOOP BY PLEASANT GROVE	SERVICE LINE
10	GAS	DOMINION	3/4" STL	RELOCATE BY DOMINION	
11	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
12	FIBER OPTIC	CENTURY LINK		PROTECT IN PLACE	
13	GAS	DOMINION	4" STL	RELOCATE BY DOMINION	SERVICE LINE
14	BURIED COMMUNICATION	UDOT	2" PE	PROTECT IN PLACE	
15	WATER	PLEASANT GROVE	8" DI	LOOP BY PLEASANT GROVE	
16	GAS	DOMINION	1 1/4" STL	RELOCATE BY DOMINION	SERVICE LINE
17	SEWER	PLEASANT GROVE	MH	PROTECT IN PLACE	NEED TO RELOCATE PIPE AROUND MH
18	SEWER	PLEASANT GROVE	18" PVC	PROTECT IN PLACE	
19	CABLE TV	COMCAST	288 COUNT	PROTECT IN PLACE	
20	WATER	PLEASANT GROVE	6" DI	RELOCATE BY PLEASANT GROVE	
21	SEWER	PLEASANT GROVE	MH	PROTECT IN PLACE	NEED TO RELOCATE PIPE

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE
PROFESSIONAL ENGINEER
APPROVED

US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.
PIN 9994
F-0089(276)345
DRAINAGE

PROJECT
PROJECT NUMBER

SHEET NO. DP-16

DGN: Files\P-Pw\Proj\82994\78\19994_DP-16.dgn
27-FEB-2019

CONCRETE DRAINAGE STRUCTURE
3 FT TO 5 FT DEEP - CB 9 REQ'D
813+47.15 RT 49.33 [CB 17-4]

CONCRETE DRAINAGE STRUCTURE
5 FT TO 7 FT DEEP - CB 9 REQ'D
816+21.96 RT 47.33 [CB 17-5] COLUMN H
CONNECT TO EXP 17-2 AND EXP 17-3
NOTE (2)

SHALLOW CATCH BASIN - CB 3 REQ'D
816+12.93 RT 47.17 [CB 17-1]

DRAINAGE PIPE - 18 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 17-1 TO CB 17-5 [P 17-1]

DRAINAGE PIPE - 12 INCH, REINFORCED CONCRETE, LEAK RESISTANT REQ'D
CB 17-4 TO EXCB 17-12
812+59.14 RT 51.59 [P 17-4]

REMOVE CATCH BASIN REQ'D
814+14.91 RT 40.16
814+14.91 RT 42.16

REMOVE PIPE REQ'D
814+14.91 RT 40.16 TO
816+21.89 RT 41.77

RECONSTRUCT CATCH BASIN REQ'D
812+59.14 RT 51.59 [EXCB 17-12]

NOTES:

1. SEE GENERAL DRAINAGE NOTES ON DR-01.
2. REMOVE TWO CATCH BASINS AND REPLACE WITH CB 17-5. CONNECT EXISTING PIPES.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION

DRAWN BY MMM
QC CHECKED BY CMR
2/27/2019 DATE
APPROVED
PROFESSIONAL ENGINEER

PROJECT: US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.
PROJECT NUMBER: F-0089(276)345
PIN 9994

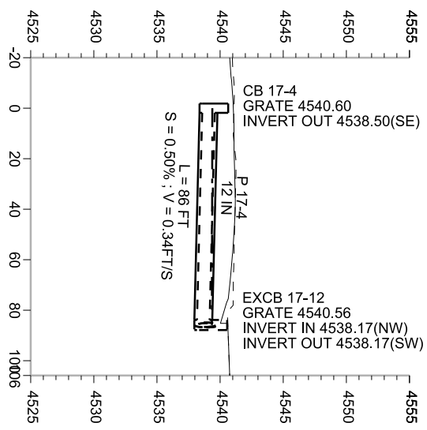
DRAINAGE

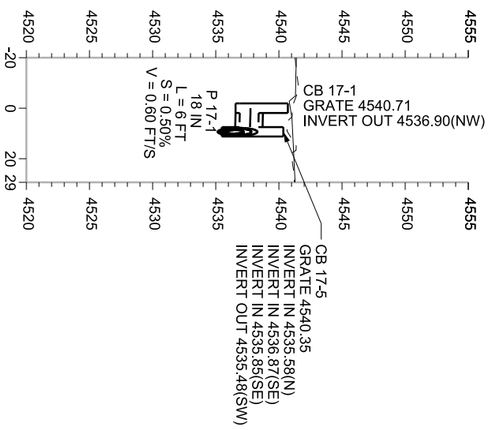
SHEET NO. DR-17

27-FEB-2019 DGN File: IP_PWPad8299478\9994_DR-17.dgn

LEGEND

FINISHED GRADE
Existing Grade
HGL 10-year





SHEET NO. DP-17	PROJECT	US-89; STATE ST., 220 SO P.G. TO 500 EAST A.F.	**UTAH DEPARTMENT OF TRANSPORTATION**		REVISIONS
	PROJECT NUMBER	F-0089(276)345 PIN 9994	APPROVED	DRAWN BY MMM	
	DRAINAGE		PROFESSIONAL ENGINEER 2/27/2019 DATE	QC CHECKED BY CMR	NO. DATE APPROVED BY REMARKS

RESOLUTION NO. 2021-066

A RESOLUTION AUTHORIZING THE MAYOR TO SIGN A GENERAL SERVICE CONTRACT AGREEMENT WITH PACIFICORP dba ROCKY MOUNTAIN POWER TO PROVIDE ELECTRIC SERVICE TO THE PUMP STATION OPERATION AT THE MANILA CREEK POND AT OR NEAR 751 WEST 3300 NORTH, PLEASANT GROVE, UTAH; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Pleasant Grove City is a political subdivision of the State of Utah (the "State") and is duly organized and existing pursuant to the Constitution and laws of the State; and

WHEREAS, PACIFICORP dba Rocky Mountain Power is in the business of generating, transmitting, and distributing electric energy within Pleasant Grove City; and

WHEREAS, Pleasant Grove City is in need of three-phase electric service to the Manila Creek Pond Booster Station site located generally at 751 West 3300 North, Pleasant Grove, Utah; and

WHEREAS, Rocky Mountain Power is able to provide the necessary power and electric service by extending certain infrastructure features to the site; and

WHEREAS, said extension of service entails certain costs; and

WHEREAS, Rocky Mountain Power and City have reached an agreement as to how the service will be provided and the respective parties' responsibility for said costs;

NOW, THEREFORE, be it resolved by the Pleasant Grove City Council as follows:

SECTION 1

The Mayor of Pleasant Grove City is hereby authorized to sign the General Service Contract (1000 KVA or less) Agreement with Rocky Mountain Power to three-phase power to Pleasant Grove City at the Manila Creek Pond booster pump site.

SECTION 2

This resolution is effective immediately.

THIS RESOLUTION APPROVED AND ADOPTED this 7th day of December 2021 by the City Council of Pleasant Grove City, Utah.

_____

Guy L. Fugal, Mayor

ATTEST: (SEAL)

_____

Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

(UT Jan2020)
Account #:55721996-001
Service ID #:771793510-001
Monthly

Brad Kidd
C/C: 11421
Request #: 8079125
Contract #:

GENERAL SERVICE CONTRACT
(1000 KVA OR LESS)
between
ROCKY MOUNTAIN POWER
and
PLEASANT GROVE CITY

This General Service Contract ("Contract"), dated October 20, 2021, is between Rocky Mountain Power, an unincorporated division of PacifiCorp ("Company"), and **Pleasant Grove City** ("Customer"), for electric service for Customer's pump station operation at or near 751 W 3300 N, Pleasant Grove, Utah.

Company's filed tariffs (the "Electric Service Schedules" and the "Electric Service Regulations") and the rules of the Utah Public Service Commission ("Commission"), as they may be amended from time to time, regulate this Contract and are incorporated in this Contract. In the event of any conflict between this Contract and the Electric Service Schedules or the Electric Service Regulations, such schedule and rules shall control. They are available for review at Customer's request.

1. **Delivery of Power.** Company will provide 277/480 volt, three-phase electric service to the Customer facilities.

2. **Contract Demand.** The demand in kVA that Customer requires to meet its load requirement and Company agrees to supply and have available for delivery to Customer, shall be 119 kVA (diversified, based on Customer's submitted load prior to the signing of this Contract)(the "Contract Demand").

   After 36 months of service the Company may reduce Contract Demand to the maximum recorded and billed demand in the previous 36 months. The reduction in Contract Demand shall become effective thirty (30) days after the Company provides notice.

   Within fifteen (15) days of Customer's written request for capacity above the Contract Demand, Company shall advise Customer in writing whether the additional power and energy is currently available, or if not currently available, initiate the processes to determine the costs to make it available.

3. **Extension Costs.** Company agrees to invest $17,971.20 (the "Extension Allowance") to fund a portion of the cost of the improvements (the "Improvements") as per tariff. Customer agrees to pay Company the estimated construction costs in excess of the Extension Allowance ("Customer Advance"). Customer has paid for engineering, design, or other advance payment for Company's facilities in the amount of $0.00, which amount is reflected in the balance due in the Customer selected option below. Customer trenching, conduit, vault and/or right-of-way ("TCVR"), when provided for Company lines and equipment, may also be subject to refund as calculated using Company standard costs. (**Customer must initial** selected option on the blank space at the beginning of the option and pay the balance due given in that option.)

___ **Refund Option.** The total Customer Advance for this work is $10,795.80, and the **balance due is $10,795.80**, and Customer remains eligible for refunds. Company will refund part of the Customer Advance if additional customers connect to the Improvements within ten (10) years of the date Company is ready to supply service. Company will refund 20% of the refundable Customer Advance allocable to the **shared** Improvements for four additional applicants. Company will try to inform Customer when a refund is due. However, in the event Company is unable to locate Customer or has not identified that a refund is due, **Customer is responsible for requesting a refund** within twenty-four (24) months of the additional applicant connecting to the Improvements.

___ **Contract Administration Credit Option.** Customer chooses to receive a Contract Administration Credit of **$250 and waives their right to refunds should additional applicants connect to the Improvements. Accordingly, the balance due is $10,545.80.**

4. **Contract Minimum Billing.** Customer agrees to pay a contract minimum billing (the "Contract Minimum Billing") during the first sixty (60) months beginning from the date Company is ready to supply service. The Contract Minimum Billing shall be the greater of: (1) the **Customer's monthly bill**; or, (2) $251.63 (the **monthly facilities charge**) plus eighty percent (80%) of the **Customer's monthly bill**. Billings will be based on Rate Schedule No. 6 and superseding schedules. Company will reduce the minimum charges by the amount of the facilities charges associated with refunds due from additional applicants connecting to the Improvements.

5. **Effective.** This Contract will expire unless Customer signs and returns an original of this Contract along with any required payment to Company within ninety (90) days of the Contract date shown on page 1 of this Contract.

6. **Contract Minimum Billing Term.** This Contract becomes binding when both Company and Customer have signed it, and will remain in effect for five (5) years following the date when Company is ready to supply service (the "Term").

   In the event Customer terminates service or defaults (which results in termination of service) within the first five (5) years of this Contract, Customer shall be responsible for paying the Contract Minimum Billing for the remainder of the Term.

   If Customer is not ready to receive service from Company within one-hundred fifty (150) days of the date Customer signs this Contract, then Company may terminate this Contract. The Customer's Advance will be applied to Company costs incurred for design, permitting and other associated Contract costs. However, if Company has installed Improvements so that Company is ready to supply service, but Customer is not ready to receive service from Company within such one-hundred fifty (150) day period, then the failure of Customer to receive service may be treated as a Customer default, and Customer shall be responsible for paying the Contract Minimum Billing for remainder of the Term.

7. **Customer Obligations.** Customer agrees to:

   a) Provide legal rights-of-way to Company, at no cost to Company, using Company's standard forms. This includes rights-of-way on Customer's property and/or third party property and any permits, fees, etc. required to cross public lands;

   b) Prepare the route to Company's specifications;

c) Install all Customer provided trench, conduit, equipment foundations, or excavations for equipment foundations within the legal rights-of-ways; and,

d) Comply with all of Company's tariffs, procedures, specifications and requirements.

8. **Special Provisions:** None

9. **Underground Facilities**. If service is provided by an underground line extension, Customer will provide, or Company will provide at Customer's expense: all trenching and backfilling, imported backfill material, conduit and duct, and furnish and install all equipment foundations, as designed by Company. Company may abandon in place any underground cables installed under this Contract that are no longer useful to Company.

   Customer warrants that all Customer provided trench and excavations for equipment foundations, and Customer installed conduit and equipment foundations are installed within legal rights-of-way, and conform to the specifications in Company's Electric Service Requirements Manual, and other specifications as otherwise provided by Company. In the event Customer fails to comply with the foregoing, Customer shall be liable for the cost to Company for relocating the facilities within a legal right-of-way, acquiring right-of-way for Company facilities, repair or replacement of improperly installed conduit or foundations, and paying costs for damages that may arise to any third party as a result of Company facilities being located outside of a legal right-of-way. The provisions of this paragraph 9 shall survive the termination of this Contract.

10. **Design, Construction, Ownership and Operation.** Company shall design, construct, install, and operate the Improvements in accordance with Company's standards. Company will own the Improvements, together with Company's existing electric utility facilities that serve or will serve Customer. Construction of the Improvements shall not begin until (1) both Company and Customer have executed (signed) this Contract, and (2) all other requirements prior to construction have been fulfilled, such as permits, payments received, inspection, etc. Any delays by the Customer concerning site preparation and right-of-way acquisition or trenching, inspection, permits, etc. may correspondingly delay completion of the Improvements.

    Company warrants that its work in constructing and maintaining the Improvements shall be consistent with prudent utility practices. **COMPANY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND SIMILAR WARRANTIES.** Company's liability for breach of warranty, defects in the Improvements, or installation of the Improvements shall be limited to repair or replacement of any non-operating or defective portion of the Improvements or Company's other electric utility facilities. Under no circumstances shall Company be liable for other economic losses, including but not limited to consequential damages. Company shall not be subject to any liability or damages for inability to provide service to the extent that such failure shall be due to causes beyond the reasonable control of Company.

    No other party, including Customer, shall have the right to operate or maintain Company's electric utility facilities or the Improvements. Customer shall not have physical access to Company's electric utility facilities or the Improvements and shall engage in no activities on or related to Company's electric utility facilities or the Improvements.

11. **Payments.** All bills shall be paid by the date specified on the bill, and late charges shall be imposed upon any delinquent amounts. Company reserves the right to require customer

payments be sent by EDI or wire transfer. If Customer disputes any portion of Customer's bill, Customer shall pay the total bill and shall designate the disputed portion. Company shall decide the dispute within sixty (60) days after Customer's notice of dispute. Any refund Company determines Customer is due shall bear interest at the rate then specified by the Commission or, if no rate is specified, the then effective prime rate as quoted in The Wall Street Journal.

Company may request deposits from Customer to the extent permitted under the applicable Electric Service Regulations and the applicable Electric Service Schedule. In the event of a default by Customer in any of its obligations, Company may exercise any or all of its rights and remedies with respect to any such deposits.

12. **Furnishing Information and Deposits.** Customer represents that all information it has furnished or shall furnish to Company in connection with this Contract shall be accurate and complete in all material respects. Company will base its decision with respect to credit, deposits, allowances or any other material matter on information furnished under this section by Customer. Should such information be inaccurate or incomplete, Company shall have the right to revoke or modify this Contract and/or its decision to reflect the determination Company would have made had Company received accurate and complete information. Company may request deposits, for the purpose of guaranteeing payment of electric service bills, as permitted under the Company's Utah Electric Service Regulation No. 9.

13. **Governing Law; Venue.** All provisions of this Contract and the rights and obligations of the parties hereto shall in all cases be governed by and construed in accordance with the laws of the State of Utah applicable to contracts executed in and to be wholly performed in Utah by persons domiciled in the State of Utah. Each party hereto agrees that any suit, action or proceeding in connection with this Contract may only be brought before the Commission, the Federal courts located within the State of Utah, or state courts of the State of Utah, and each party hereby consents to the exclusive jurisdiction of such forums (and of the appellate courts therefrom) in any such suit, action or proceeding.

14. **Assignment.** The obligations under this Contract are obligations at all times of Customer, and may not be assigned without Company's consent except in connection with a sale, assignment, lease or transfer of Customer's interest in Customer's facility. Any such assignment also shall be subject to (i) such successor's qualification as a customer under Company's policies, the Electric Service Regulations, and the applicable Electric Service Schedule, and (ii) such successor being bound by this Contract and assuming the obligation of Customer from the date of assignment, which may be evidenced by written agreement of such successor or other means acceptable to Company. Company may condition this assignment by the posting by the successor of a deposit as permitted under the applicable Electric Service Regulations and the applicable Electric Service Schedule.

    Company may at any time assign its rights and delegate its obligations under this Contract to any: affiliate; successor in interest; corporation; or any other business entity in conjunction with a merger, consolidation or other business reorganization to which Company is a party.

15. **Remedies; Waiver.** Either party may exercise any or all of its rights and remedies under this Contract, the applicable Electric Service Regulations, the applicable Electric Service Schedule and under any applicable laws, rules and regulations. No provision of this Contract, the Electric Service Regulations, or the applicable Electric Service Schedule shall be deemed to have been waived unless such waiver is expressly stated in writing and signed by the waiving party.

16. **Attorneys' Fees.** If any suit or action arising out of or related to this Contract is brought by any party, the prevailing party or parties shall be entitled to recover the costs and fees (including, without limitation, reasonable attorneys' fees, the fees and costs of experts and consultants, copying, courier and telecommunication costs, and deposition costs and all other costs of discovery) incurred by such party or parties in such suit or action, including, without limitation, any post-trial or appellate proceeding, or in the collection or enforcement of any judgment or award entered or made in such suit or action.

17. **Waiver of Jury Trial. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS CONTRACT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.**

18. **Entire Agreement.** This Contract contains the entire agreement of the parties with respect to the subject matter, and replaces and supersedes in their entirety all prior agreements between the parties related to the same subject matter. **This Contract may be modified only by a subsequent written amendment or agreement executed by both parties.**

PLEASANT GROVE CITY

By _____
signature

_____ _____
NAME (type or print legibly) TITLE

_____
DATE

Customer's Mailing Address for Executed Contract

_____
ATTENTION OF

70 S 100 E
ADDRESS

Pleasant Grove, UT 84062
CITY, STATE, ZIP

_____
EMAIL ADDRESS

ROCKY MOUNTAIN POWER

By _____
signature

Austyn Ekker Manager
NAME (type or print legibly) TITLE

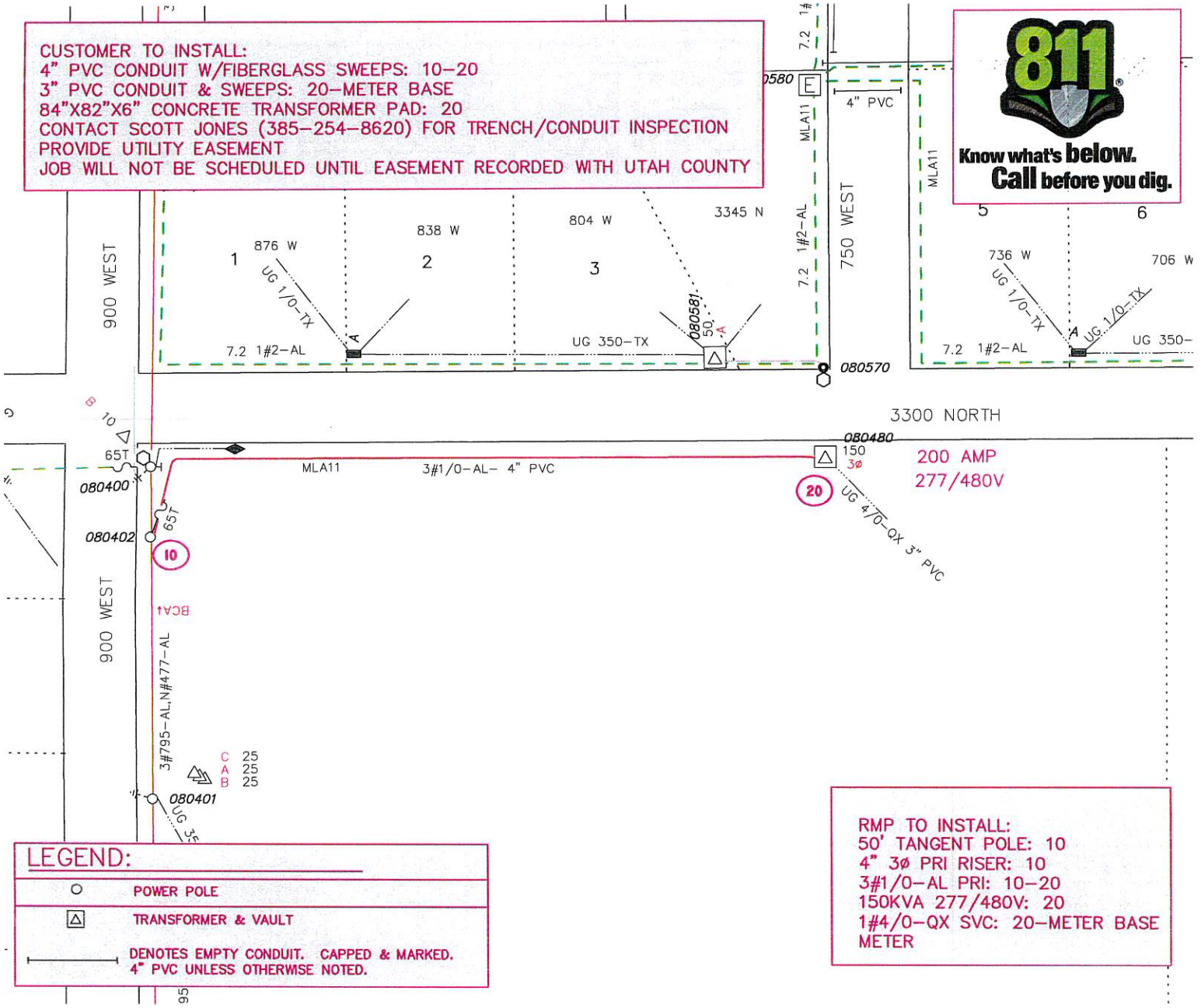
_____
DATE

Rocky Mountain Power's Mailing Address for Executed Contract

70 N 200 E
ADDRESS

American Fork, UT 84003
CITY, STATE, ZIP

_____
EMAIL ADDRESS



PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

1 OF 1

Scale	1=100'
Print Date	10/13/21
EST ID#	12389
Post Jobs	☐
RQII	☐
Posted	☐
Job Start Date	
Job Comp Date	
Circuit	MLA11
Emp #	
Map String	11405002.0
WO# / REQ#	00807912 5
CC#	11421
Foreman	BKIDD

CUSTOMER : PLEASANT GROVE CITY
ADDRESS : 751 W 3300 N
PLEASANT GROVE

RESOLUTION NO. 2021-067

A RESOLUTION AUTHORIZING THE MAYOR TO SIGN A RIGHT-OF-WAY EASEMENT IN FAVOR OF PACIFICORP., D/B/A/ ROCKY MOUNTAIN POWER, FOR THE CONSTRUCTION, RECONSTRUCTION, OPERATION, MAINTENANCE, REPAIR, REPLACEMENT, ENLARGEMENT, OR REMOVAL OF UNDERGROUND ELECTRIC POWER DISTRIBUTION AND COMMUNICATION LINES ON ACROSS OR UNDER PROPERTY OWNED BY PLEASANT GROVE CITY LOCATED AT THE MANILA CREEK POND APPROXIMATELY 3300 NORTH AND 751 WEST, PLEASANT GROVE, UTAH. AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, Pacific Corp., an Oregon Corporation, d/b/a Rocky Mountain Power is requesting a right-of-way easement to construct, reconstruct, maintain, and repair electrical power transmissions and other necessary desirable accessories and appurtenances; and

WHEREAS, said right- of-way easement is located at approximately 3300 North and 751 West at the Manila Creek Pond in Pleasant Grove; and

WHEREAS, the purpose of the easement is to provide power to the proposed Manila Creek Pond Booster Pump Station; and

WHEREAS, Pleasant Grove City desires to grant said right-of-way easement; and

WHEREAS, the City Council finds it to be in the best interests of the citizens of Pleasant Grove City to grant said right-of-way easement to accommodate providing electric power and for the pressurized irrigation system of the City; and

NOW, THEREFORE, be it **RESOLVED** by the Municipal Council of Pleasant Grove City, Utah County, State of Utah, as follows:

SECTION 1

The Mayor is authorized to sign a right-of-way easement in favor or PACIFICORP., d/b/a ROCKY MOUNTAIN POWER, for the construction, reconstruction, operation, maintenance, etc., for electric power distribution and communication lines on real property owned by Pleasant Grove City located approximately 3300 North and 751 West, said easement is more particularly shown in Exhibit "A".

SECTION 2

This Resolution shall take effect immediately.

PASSED AND APPROVED BY THE CITY COUNCIL OF PLEASANT GROVE, UTAH, this 7th day of December, 2021.

_____
Guy L. Fugal, Mayor

ATTEST:

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

REV041216
Return to:
Rocky Mountain Power
Lisa Louder/Brad Kidd
1407 West North Temple Ste. 110
Salt Lake City, UT 84116

Project Name: Manila Pond Pump Station
WO#: 8079125
RW#:

RIGHT OF WAY EASEMENT

For value received, Pleasant Grove City**,** ("Grantor"), hereby grants to Rocky Mountain Power, an unincorporated division of PacifiCorp its successors and assigns, ("Grantee"), an easement for a right of way 10 feet in width and 527 feet in length, more or less, for the construction, reconstruction, operation, maintenance, repair, replacement, enlargement, and removal of electric power transmission, distribution and communication lines and all necessary or desirable accessories and appurtenances thereto, including without limitation: supporting towers, poles, props, guys and anchors, including guys and anchors outside of the right of way; wires, fibers, cables and other conductors and conduits therefore; and pads, transformers, switches, vaults and cabinets, on, over, or under the surface of the real property of Grantor in Utah County, State of Utah more particularly described as follows and as more particularly described and/or shown on Exhibit "A" attached hereto and by this reference made a part hereof:

Legal Description: Beginning at a point 48.91 feet S.00°33'53"E. along the section line and 25.47 feet East from the West Quarter corner of Section 8, Township 5 South, Range 2 East, Salt Lake Base and Meridian; and running thence N.88°09'19"E. 486.80 feet; thence N.56°44'01"E. 9.01 feet; thence North 11.26 feet; thence East 23.00 feet; thence South 12.83 feet; thence West 7.17 feet; thence S.56°44'01"W. 24.20 feet; thence S.88°09'19"W. 479.74 feet; thence S.01°06'48"E. 16.07 feet; thence S.88°53'12"W. 10.00 feet; thence N.01°06'48"W. 25.95 feet to the point of beginning.

Area contains 5,493 square feet

Assessor Parcel No. 14:007:0091

Together with the right of access to the right of way from adjacent lands of Grantor for all activities in connection with the purposes for which this easement has been granted; and together with the present and (without payment therefore) the future right to keep the right of way and adjacent lands clear of all brush, trees, timber, structures, buildings and other hazards which might endanger Grantee's facilities or impede Grantee's activities.

At no time shall Grantor place, use or permit any equipment or material of any kind that exceeds twelve (12) feet in height, light any fires, place or store any flammable materials (other than agricultural crops), on or within the boundaries of the right of way. Subject to the foregoing limitations, the surface of the right of way may be used for agricultural crops and other purposes not inconsistent, as determined by Grantee, with the purposes for which this easement has been granted.

The rights and obligations of the parties hereto shall be binding upon and shall benefit their respective heirs, successors and assigns.

To the fullest extent permitted by law, each of the parties hereto waives any right it may have to a trial by jury in respect of litigation directly or indirectly arising out of, under or in connection with this agreement**.** Each party further waives any right to consolidate any action in which a jury trial has been waived with any other action in which a jury trial cannot be or has not been waived.

Dated this _____ day of _____, 20___.

_____

Pleasant Grove City **GRANTOR**

APPROVED AS TO FORM

By: _____
Rocky Mountain Power representative

Acknowledgment:

STATE OF_____)
) ss.
County of _____)

On this ___ day of _____, 20____, before me, the undersigned Notary Public in and for said State, personally appeared _____, known or identified to me to be the _____ that executed the instrument or the person who executed the instrument on behalf of Pleasant Grove City and acknowledged to me that said entity executed the same.

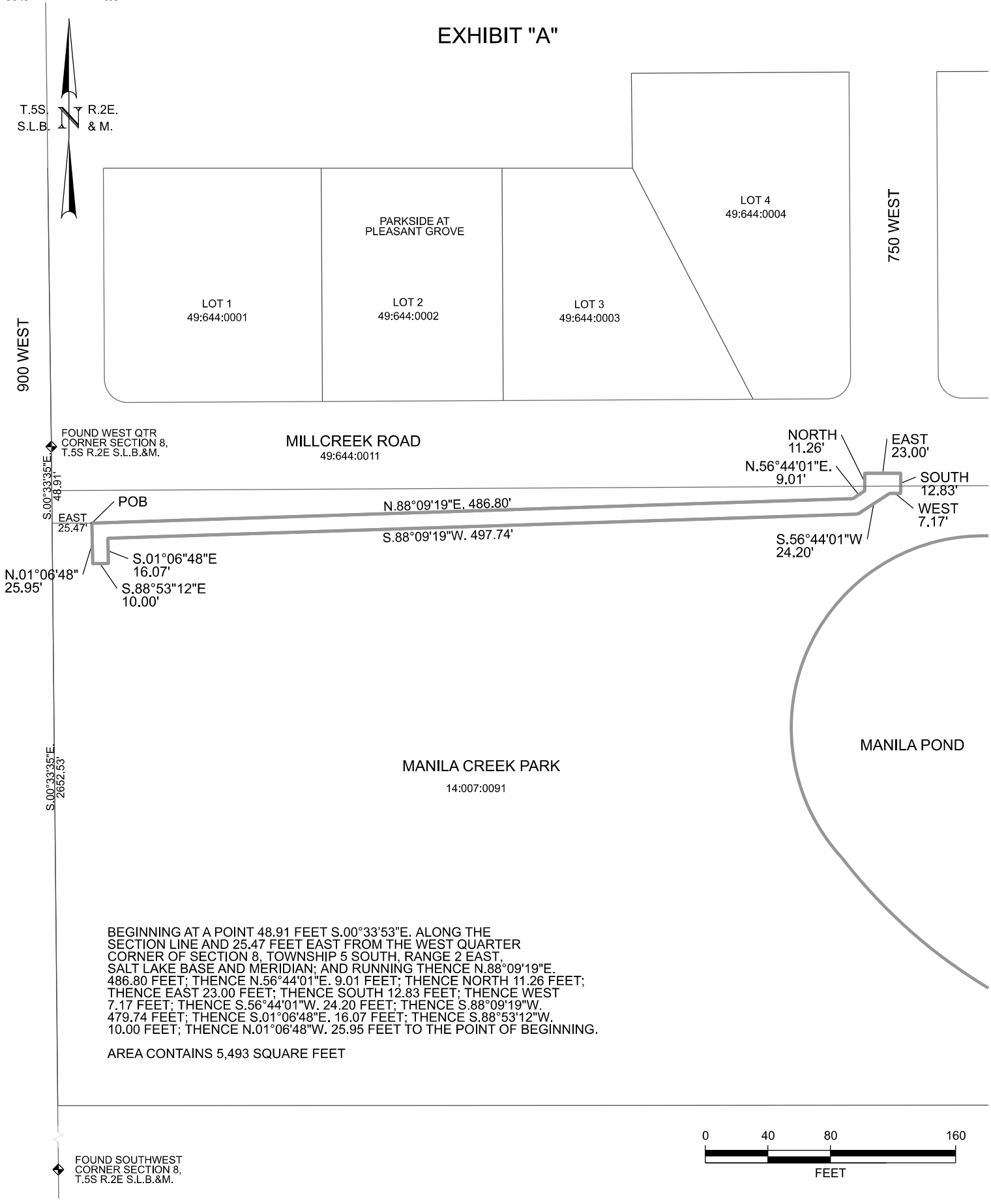
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

_____
(Notary Signature)

NOTARY PUBLIC FOR _____ (state)
Residing at: _____ (city, state)
My Commission Expires: _____ (d/m/y)

$$date$$ $$file$$

EXHIBIT "A"



BEGINNING AT A POINT 48.91 FEET S.00°33'53"E. ALONG THE SECTION LINE AND 25.47 FEET EAST FROM THE WEST QUARTER CORNER OF SECTION 8, TOWNSHIP 5 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE N.88°09'19"E. 486.80 FEET; THENCE N.56°44'01"E. 9.01 FEET; THENCE NORTH 11.26 FEET; THENCE EAST 23.00 FEET; THENCE SOUTH 12.83 FEET; THENCE WEST 7.17 FEET; THENCE S.56°44'01"W. 24.20 FEET; THENCE S.88°09'19"W. 479.74 FEET; THENCE S.01°06'48"E. 16.07 FEET; THENCE S.88°53'12"W. 10.00 FEET; THENCE N.01°06'48"W. 25.95 FEET TO THE POINT OF BEGINNING.

AREA CONTAINS 5,493 SQUARE FEET

SHEET NO. 01	COUNTY UTAH	PROPERTY OWNER: PLEASANT GROVE CITY	
PROJECT	ROCKY MOUNTAIN POWER EASEMENT AT MANILA CREEK POND	PROPERTY ADDRESS: 3190 N 900 WEST, PLEASANT GROVE, UT 84062	
PROJECT NUMBER	UT-0058-2101	ROCKY MOUNTAIN POWER	

Pleasant Grove
Utah's City of Trees

Thursday, November 2, 2021

Mayor Guy Fugal
70 South 100 East
Pleasant Grove, Utah 84062

Subject: Monson Overflow Piping Project

Dear Mayor,

Attached is the bid tabulation for the Monson Overflow Piping Project.
The low bidder was Cody Ecker Construction, Inc. with a Base Bid price of $44,792.00 which was 9.8 percent lower than the engineers estimate. There was a total of three bidders on the project with an average base bid price of $52,155.33.

We recommend the project Base Bid be awarded to Cody Ecker Construction, Inc. for a total of $44,792.00. We have checked their license, and references and have found everything in order.

Attached are two (2) copies of the Notice of Award if the City so chooses to award this project to Cody Ecker Construction, Inc.

Sincerely,

Marty Beaumont

Marty Beaumont, P.E.
Public Works Director

Pleasant Grove City – Engineering Department

323 West 700 South
Pleasant Grove, UT 84062

Office: (801) 785-2941
FAX: (801) 785-5667

DOCUMENT 003600

NOTICE OF AWARD

To: Cody Ecker Construction, Inc.
412 East3200 North
Lehi, UT 84043

PROJECT Description: Pleasant Grove City – Monson Overflow Piping Project

The OWNER has considered the BID submitted by you for the above-described WORK in response to its Advertisement for Bids dated November 2021, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of $44,792.00.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance Bond, and Certificates of Insurance within ten (10) calendar days from the date of this notice to you.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this_____ day of _____ 2020.

Pleasant Grove City
Owner

ACCEPTANCE OF NOTICE

By_____

Receipt of the above NOTICE OF AWARD is hereby acknowledged

Title Mayor

By_____

this the_____ day of _____, 2020.

By_____

Title_____

Monson Overflow Piping Project
Project Number: 2021-44
Bid Tabulation

Contractors	Base Bid
Cody Ecker Construction, Inc	$44,792.00
CB2 Excavation	$50,979.00
S&L Inc	$60,695.00
Average	$52,155.33

UNIT PRICE SCHEDULE - BASE BID A - Micro Surfacing 2021				Engineer's Estimate		Cody Ecker Construction, Inc		CB2 Excavation		S&L Inc	
Item #	Description	Unit	Quantity	Unit Price	COST	Unit Price	COST	Unit Price	COST	Unit Price	COST
1	Mobilization	LS	1	$7,000.00	$ 7,000.00	$5,000.00	$5,000.00	$8,655.00	$8,655.00	$15,000.00	$15,000.00
2	Storm Drain BMP's	LS	1	$2,600.00	$ 2,600.00	$1,000.00	$1,000.00	$3,850.00	$3,850.00	$3,000.00	$3,000.00
3	Concrete Collar Connections	EA	2	$900.00	$ 1,800.00	$1,000.00	$2,000.00	$420.00	$840.00	$700.00	$1,400.00
4	12" Corrugated HDPE Pipe	LF	18	$130.00	$ 2,340.00	$99.00	$1,782.00	$75.50	$1,359.00	$90.00	$1,620.00
5	15" Corrugated HDPE Pipe	LF	100	$120.00	$ 12,000.00	$100.00	$10,000.00	$94.90	$9,490.00	$90.00	$9,000.00
6	15" Class V RCP Pipe	LF	15	$140.00	$ 2,100.00	$150.00	$2,250.00	$110.00	$1,650.00	$125.00	$1,875.00
7	4' x 3' Junction Box	EA	2	$5,300.00	$ 10,600.00	$5,280.00	$10,560.00	$4,100.00	$8,200.00	$6,000.00	$12,000.00
8	RCP Flared End Section w/ Trash Rack for 30" Pipe	EA	1	$2,750.00	$ 2,750.00	$3,450.00	$3,450.00	$1,456.00	$1,456.00	$5,000.00	$5,000.00
9	Abondon Existing Structure and Remove Gates	EA	1	$1,500.00	$ 1,500.00	$1,500.00	$1,500.00	$1,350.00	$1,350.00	$1,000.00	$1,000.00
10	Remove and Dispose Manhole	LS	2	$900.00	$ 1,800.00	$1,000.00	$2,000.00	$927.00	$1,854.00	$800.00	$1,600.00
11	Remove and Dispose Existing Pipe	LF	20	$33.00	$ 660.00	$50.00	$1,000.00	$36.00	$720.00	$60.00	$1,200.00
12	100 North Box Modifications	LS	1	$2,000.00	$ 2,000.00	$1,750.00	$1,750.00	$3,955.00	$3,955.00	$3,000.00	$3,000.00
13	Landscape Restoration	LS	1	$2,500.00	$ 2,500.00	$2,500.00	$2,500.00	$7,600.00	$7,600.00	$5,000.00	$5,000.00
		BASE BID A TOTAL			**$49,650.00**		**$44,792.00**		**$50,979.00**		**$60,695.00**

RESOLUTION NO. 2021-068

A RESOLUTION OF THE GOVERNING BODY OF PLEASANT GROVE CITY AUTHORIZING THE MAYOR TO SIGN A FISCAL ASSISTANCE AGREEMENT WITH UTAH DIVISION OF RECREATION FUNDING FOR A RESTROOM FACILITY AT BATTLE CREEK TRAILHEAD AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The Utah Division of Recreation ("Division") is a State of Utah entity; and

WHEREAS, Pleasant Grove City is a municipal corporation organized under the laws of the State of Utah; and

WHEREAS, the Division receives funding from the Federal Highway Administrations' Recreational Trails Program (RTP); and

WHEREAS, the Division has grant funds available to support the planning, acquisition, construction, or improvement of non-motorized trails and associated facilities; and

WHEREAS, Division has awarded a grant to City of $100,000.00 as a matching grant; and

WHEREAS, City has developed a Project Plan to construct restroom facilities at the Battle Creek Trailhead; and

WHEREAS, the Division requires an Agreement to receive the funds; and

WHEREAS, the Pleasant Grove City Council finds that accepting the grant and agreeing to fund the matching portion of the grant to construct the planned Project is in the best interests of the health, safety and welfare of the community.

NOW THEREFORE, BE IT RESOLVED as follows:

SECTION 1.

The Mayor is authorized to sign a FISCAL ASSISTANCE AGREEMENT with the Utah Division of Recreation for the restroom construction project at Battle Creek Trailhead. Said Agreement is attached hereto and incorporated herein as Exhibit "A."

SECTION 2.

The provisions of this Resolution shall take effect immediately.

PASSED AND ADOPTED BY THE CITY COUNCIL OF PLEASANT GROVE, UTAH this, 7th day of December, 2021

_____
Guy L. Fugal, Mayor

ATTEST: (SEAL)

_____
Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

State Contract #:_____
Vendor #:_____

UTAH DIVISION OF RECREATION
NON-MOTORIZED TRAIL MATCHING FUND PROGRAM

FISCAL ASSISTANCE AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 2021, between the UTAH DIVISION OF RECREATION, hereinafter referred to as the DIVISION, and PLEASANT GROVE CITY, qualifying under this agreement as a federal agency, state agency, political subdivision of the State of Utah, or a nonprofit group and hereinafter referred to as the PARTICIPANT.

WHEREAS, the DIVISION and the PARTICIPANT desire to provide for the planning, acquisition, construction, or improvement of non-motorized trails and associated facilities in Utah; and,

WHEREAS, the Federal Highway Administration's Recreational Trails Program (RTP) funds for this purpose to be matched by the PARTICIPANT for said project of planning, acquisition, construction, or improvement of non-motorized trails and associated facilities herein after described: and,

WHEREAS, federal agencies are authorized to enter into this agreement under provisions of the Granger-Thye Act of April 24, 1950, (16 U.S.C. 490, 504-504a, 555, 557, 571c, 572, 579a, 580c-5801, 581 i-l), specifically Sec. 5; the Cooperative Funds Act of June 30, 1914 (CH. 131, 38 Stat. 415, as amended: 16 U.S.C. 498); and the Federal Land Policy and Management Act of 1976 (FLPMA), Public Law 94-579.

NOW, THEREFORE, the DIVISION and PARTICIPANT hereby agree as follows:

PROJECT EXECUTION FOR:	Battle Creek Trailhead Restroom
TOTAL AMOUNT OF RTP FUNDING	$ 100,000.00
TOTAL AMOUNT OF PARTICIPANT FUNDING	$ 113,000.00
TOTAL TRAIL PROJECT EXPENDITURES	$ 213,000.00

UTAH DIVISION OF RECREATION FISCAL ASSISTANCE AGREEMENT

1. The DIVISION shall reimburse the PARTICIPANT up to a total of **$100,000.00** from funds made available from the Federal Highway Administration's Recreational Trails Program (RTP) upon receipt of satisfactory documentation of total trail project expenditures and certification that the project has been completed as proposed in the project application, which application, by reference has been is made part of this agreement. Said project shall be started within one hundred eighty (180) calendar days and be completed on or before **September 30, 2023**.

2. The PARTICIPANT shall comply with all applicable Federal and State Statutes and will be responsible for obtaining any necessary permits and approvals prior to commencement of the project, such as the RTP Environmental Clearances and Check List.

3. Each contract the PARTICIPANT signs with a contractor (and each subcontractor the prime contractor signs with a subcontractor) must include the following assurance:

> The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the Division deems appropriate.

4. The PARTICIPANT, excluding federal agencies, shall indemnify the State of Utah and its officers, agents, and employees against and hold the same free and harmless from any and all claims, demands, losses, costs, and/or expenses of liability due to, or arising from, either in whole or in part, whether directly or indirectly, and relative to, the execution of this project, subject to and in accordance with the provisions and limitations contained within the Utah Governmental Immunity Act and the Utah Public Employees Indemnification Act.

5. The PARTICIPANT agrees that the project area acquired, developed or improved pursuant to this agreement shall not be converted to other than public non-motorized recreational trail use without written notice to the Director of the Utah Division of Parks and Recreation. Furthermore, if a trail developed with the Federal Recreational Trail Program funds is converted to other use, another trail of comparable value, as mutually agreed by both parties, in the same general location, will be provided by the PARTICIPANT.

6. The PARTICIPANT shall maintain all facilities and property covered by this agreement in a safe, usable, and attractive condition. The DIVISION makes no claims to ownership nor management interests of facilities constructed pursuant to this agreement on lands legally owned by the PARTICIPANT.

7. The PARTICIPANT shall provide suitable permanent public acknowledgment of State participation at the project site. Such acknowledgment shall at least be the display of a sign, the design of which to be made by mutual agreement.

8. *Buy America* - The **PARTICIPANT** agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in federally funded projects are produced in the United States, unless a waiver has been granted by the DIVISION or the product is subject to a general waiver.

The PARTICIPANT must submit to the DIVISION the appropriate Buy America certification (below) with all bids or offers on federally-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

A. Certification requirement for procurement of steel, iron, or manufactured products.
Certificate of Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

Date _____

Signature_____

Company Name_____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

B. Certification requirement for procurement of buses, other rolling stock and associated equipment.

Certificate of Compliance with 49 U.S.C. 5323(j)(2)(C).

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and the regulations at 49 C.F.R. Part 661.11.

Date _____

Signature _____

Company Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(2)(C)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11, but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

9. Any PARTICIPANT that is a nonprofit corporation must disclose whether it meets or exceeds the requirements listed in Subsection 51-2a-102 (6)(f) in the previous fiscal year of the nonprofit corporation; and 51-2a-102 (6)(f): (f) the governing board of any nonprofit corporation that receives:
(i) at least 50% of its funds from federal, state, and local government entities through contracts; or
(ii) an amount from the DIVISION that is equal to or exceeds the amount specified in Subsection 51-2a-201(1) that would require an audit to be made by a competent certified public accountant; and anticipates meeting or exceeding the requirements listed in Subsection 51-2a-102 (6)(f) in the fiscal year the grant is issued.

In addition the PARTICIPANT (nonprofit corporation) shall provide the following to the DIVISION as a supplement of this contract:

(a) bylaws that provide for:
(i) the financial oversight of the state money; and
(ii) compliance with state laws related to the state money;

(b) procedures for the governing board of the nonprofit entity to designate an administrator who manages the state money; and

(c) procedures for the governing board to dismiss the administrator

Further, the PARTICIPANT (nonprofit corporation) shall provide the DIVISION an itemized report at least annually detailing the expenditure of state money. The nonprofit may be required to return to the state entity any amount of money that is expended in violation of 63J-9-201 if the nonprofit fails to comply with the agreement.

B. TERMINATION

1. The PARTICIPANT, upon written notice to the DIVISION and by refunding all monies received pursuant to this agreement, may unilaterally rescind this agreement prior to the commencement of the project. After project commencement, this agreement may be rescinded, modified, or amended only by mutual agreement. The project shall be deemed commenced when the PARTICIPANT makes any expenditure of funds provided in this agreement or incurs any financial obligation with respect to the project.

2. The PARTICIPANT shall, at no cost to the DIVISION, execute, complete, operate and maintain the approved Project in accordance with the approved Project Proposal and applicable plans and specifications, which documents are by this reference made part hereof. Failure to render satisfactory progress or to complete the Project may be cause for the suspension of all obligations of the DIVISION under this agreement. In the event this agreement is terminated under the provisions of this paragraph and in the event the Project has not been brought up to a useful stage at the time of such termination, the PARTICIPANT shall reimburse to the DIVISION all payments, which have been received by the PARTICIPANT under this agreement.

3. Failure by the PARTICIPANT to comply with the terms of this agreement, if not corrected within thirty (30) days after written notice from the DIVISION, shall be cause for suspension of all obligations of the DIVISION hereunder and may result in a declaration by the DIVISION that the PARTICIPANT is ineligible for participation in DIVISION sponsored grant programs.

C. FINANCIAL RECORDS

1. The PARTICIPANT shall conform to generally accepted accounting principles and shall maintain its fiscal accounts in a manner that provides an audit trail of payments adequate to establish that such funds have been used in accordance with this agreement.

2. The PARTICIPANT shall provide to the DIVISION a fiscal report within sixty (60) days after completion of the project, or within sixty (60) days of the contract expiration date on forms to be provided by the DIVISION. Said report shall include an accounting of project expenditures and assurances that all monies paid to the PARTICIPANT by the DIVISION under this agreement were used for the planning, acquisition, construction, or improvement as herein described. Said report shall also include a summary list of all personnel, supplies, materials and construction costs associated with this project in a manner prescribed by the DIVISION.

3. The DIVISION, upon reasonable notice, shall have access to and the right to examine such books, documents, papers or records as the DIVISION may reasonably require.

4. The PARTICIPANT agrees to make immediate monetary restitution for any disallowances of costs or expenditures determined through audit or inspection by the DIVISION.

FURTHER, the PARTICIPANT shall prosecute all phases and aspects of the project in a timely manner and shall in all respects comply with the terms, conditions, covenants and other obligations of this agreement. It is understood and agreed that the PARTICIPANT shall have the basic responsibility for all phases and aspects of the project and that all phases of the project are subject to review and acceptance by the DIVISION.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the year and day first above written:

PLEASANT GROVE CITY

_____

Signature Date

_____

Title

UTAH DIVISION OF RECREATION

_____

Director Date

ORDINANCE No. 2021-36

AN ORDINANCE SETTING THE TIME AND PLACE OF THE REGULAR MEETINGS OF THE CITY COUNCIL, BOARDS, COMMISSIONS AND COMMITTEE MEETINGS OF PLEASANT GROVE CITY FOR THE YEAR 2022 AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, §10-3-502 UCA requires that the time and place of City Council meetings and other Board, Commission and Committee meetings be set by ordinance; and

WHEREAS, § 52-4-202 UCA requires the City to adopt and give notice of its annual meeting schedule.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PLEASANT GROVE:

SECTION 1: The meetings of the Pleasant Grove City Council, Boards, Commissions and Committee meetings for the year 2022 shall be held according to the attached schedule (Exhibit "A").

SECTION 2: This ordinance shall take effect immediately upon its passage and shall be posted or published as required by law.

SECTION 3. APPROVED AND ADOPTED AND MADE EFFECTIVE by the City Council or Pleasant Grove City, State of Utah, on this 7th day of December, 2021.

_____

Guy L. Fugal, Mayor

ATTEST:

(SEAL)

_____

Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____
Second: Council Member _____

ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

CERTIFICATE OF POSTING ORDINANCE
Pleasant Grove City Corporation

I, the duly appointed recorder for the City of Pleasant Grove, hereby certify that copies of the foregoing Ordinance No._____was posted in the Daily Herald Newspaper on this _____ day of _____, 2021.
Dated this _____ day of _____, 2021.

_____
Kathy T. Kresser, MMC, City Recorder

Pleasant Grove
Utah's City of Trees

NOTICE OF PLEASANT GROVE CITY PUBLIC MEETING SCHEDULE 2021

Arts Commission Meetings:
Pleasant Grove City hereby gives notice that the Arts Commission will hold its meetings the fourth Thursday of each month, as needed. The meetings will start at 7:00 p.m. in the Community Center 547 S. Locust Pleasant Grove, Utah. A meeting will not be held in December.

Beautification Commission Meetings:
Pleasant Grove City hereby gives notice that the Beautification Commission will hold its meetings the second Thursday of each month, as needed. The meetings will start 6:00 p.m. in the City Hall downstairs conference room, 108 S 100 E, Pleasant Grove, Utah. A meeting will not be held in December.

City Council and Work Session meetings:
Pleasant Grove City hereby gives notice that the City Council will hold its regular meetings on the first and third Tuesday of the month at 6:00 p.m. (unless otherwise noticed). Work Sessions will be held on the first and third Tuesday of the month starting at 4:30 p.m. in the Community Room, 108 S 100 E, Pleasant Grove, Utah.

Jan 4th	**May 3rd**	**Sept 6th**
Jan 18th	**May 17th**	**Sept 20th**
Feb 1st	**June 7th**	**Oct 4th**
Feb 15th	**June 21st**	**Oct 18th**
March 1st	**July 5th**	**Nov 1st**
March 15th	**July 19th**	**Dec 6th**
March 29th	**Aug 2nd**	
April 12th	**Aug 16th**	

Design Review Board (DRB) Meetings:
Pleasant Grove City hereby gives notice that the Design Review Board of Pleasant Grove will hold meetings, as needed. These meetings will be held in the Community Room 108 S 100 E, Pleasant Grove, Utah.

Development Review Committee (DRC) Meeting:
Pleasant Grove City hereby gives notice that the Development Review Committee of Pleasant Grove will hold meetings on Wednesday at 10:30 a.m. as needed. These meetings will be held at Public Works 323 W 700 S, Pleasant Grove, Utah.

Historical Preservation Committee Meetings:
Pleasant Grove City hereby gives notice that the Pleasant Grove Historical Committee will hold its meeting as needed. These meeting will be held in the Community Room 108 East, Pleasant Grove, Utah starting at 7:00 p.m.

Land Use Hearing Authority:
Pleasant Grove City hereby gives notice that the Land Use Hearing Authority meeting will be held as needed. The meetings will be held in the Community Room, 108 S 100 E, Pleasant Grove, Utah.

Library Board Meetings:
Pleasant Grove City hereby gives notice that the Library Board will hold its meetings the first Thursday of each month except for December. The meetings will at the Library 30 E Center, starting at 7:00 p.m. Persons desiring to be on the agenda should contact Librarian Sheri Britsch, 801-785-3950.

Metropolitan Water District of Pleasant Grove Meetings:
Pleasant Grove City hereby gives notice that the Metropolitan Water District of Pleasant Grove will hold meetings, as needed. These meetings will be held in the Community Room, 108 S. 100 E., Pleasant Grove, Utah at 5:00 p.m.

Municipal Building Authority Meetings:
Pleasant Grove City hereby gives notice that the Municipal Building Authority meetings will be held on the first and third Tuesdays of each month, as needed. The Municipal Building Authority meeting is held in the Community Room 108 South 100 East, Pleasant Grove, Utah. Persons desiring to be on the agenda should contact City Hall (801-785-5045) by 9:00 a.m. the Friday before.

Planning Commission Meetings:
Pleasant Grove City hereby gives notice that the Planning Commission will hold regular meetings on the second and fourth Thursday of each month, starting at 7:00 p.m. in the Community Room 108 S 100 E, Pleasant Grove, Utah. Meetings will be preceded by a work session at 6:00 p.m. Contact should be made with the Community Development Dept. to be placed on the agenda, 801-785-6057.

Jan 13th	**May 12th**	**Sept 8th**
Jan 27th	**May 26th**	**Sept 22nd**
Feb 10th	**June 9th**	**Oct 13th**
Feb 24th	**June 23rd**	**Oct 27th**
March 10th	**July 14th**	**Nov 10th**
March 24th	**July 28th**	**Dec 8th**
April 14th	**Aug 11th**	
April 28th	**Aug 25th**	

Redevelopment Agency Meetings:
Pleasant Grove City hereby gives notice that the Redevelopment Agency will hold meetings on the first and third Tuesdays of each month, as needed. The Redevelopment Agency Meeting is held in the Community Room 108 S 100 E, Grove, Utah. Contact should be made with the City Administrator Scott Darrington to be placed on the agenda, 801-785-5045.

Agendas for the public meetings will be posted in three public places within the Pleasant Grove City limits and on the State and City Website. Inquiries about agendas contact the City Recorder at 801-785-5045.

CERTIFICATE OF POSTING
I certify that the above notice was posted in three public places within the Pleasant Grove City limits on December 30, 2021. Posted at City Hall, Library, Community Room 108 S 100 E and on the State (http://pmn.utah.gov) and City's Website (www.plgrove.org)

/s/ Kathy T. Kresser, City Recorder, MMC ******Please leave posted until Dec. 31, 2022**

RESOLUTION NO. 2021-070

A RESOLUTION ADOPTING THE VOTER PARTICIPATION AREAS MAP AS PREPARED BY THE UTAH COUNTY ELECTIONS OFFICE AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, during the 2019 Legislative General Session HB 119 was adopted relating to Initiatives, Referenda, and other Political Activities; and

WHEREAS, HB 119 included the requirement for municipalities to establish "Voter Participation Areas"; and

WHEREAS, in accordance with State Code §20A-7-401.3, the city shall, no later than January 1, 2022, and January 1 each 10 years after 2022, divide the city into four contiguous and compact voter participation areas of substantially equal population for the purpose of obtaining signatures for initiatives and referenda; and

WHEREAS, the Utah County Elections Office has prepared the Voter Participation Area Maps for each municipality, including Pleasant Grove City.

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

SECTION 1.

1. The Voter Participation Area Map (Exhibit A) prepared by Utah County Elections Office is hereby adopted.

SECTION 2.

The provisions of this Resolution shall take effect immediately.

PASSED by the Pleasant Grove City Council this 7th day of December, 2021.

Guy L. Fugal, Mayor

ATTEST:

Kathy T. Kresser, MMC
City Recorder

Motion: Council Member _____

Second: Council Member _____

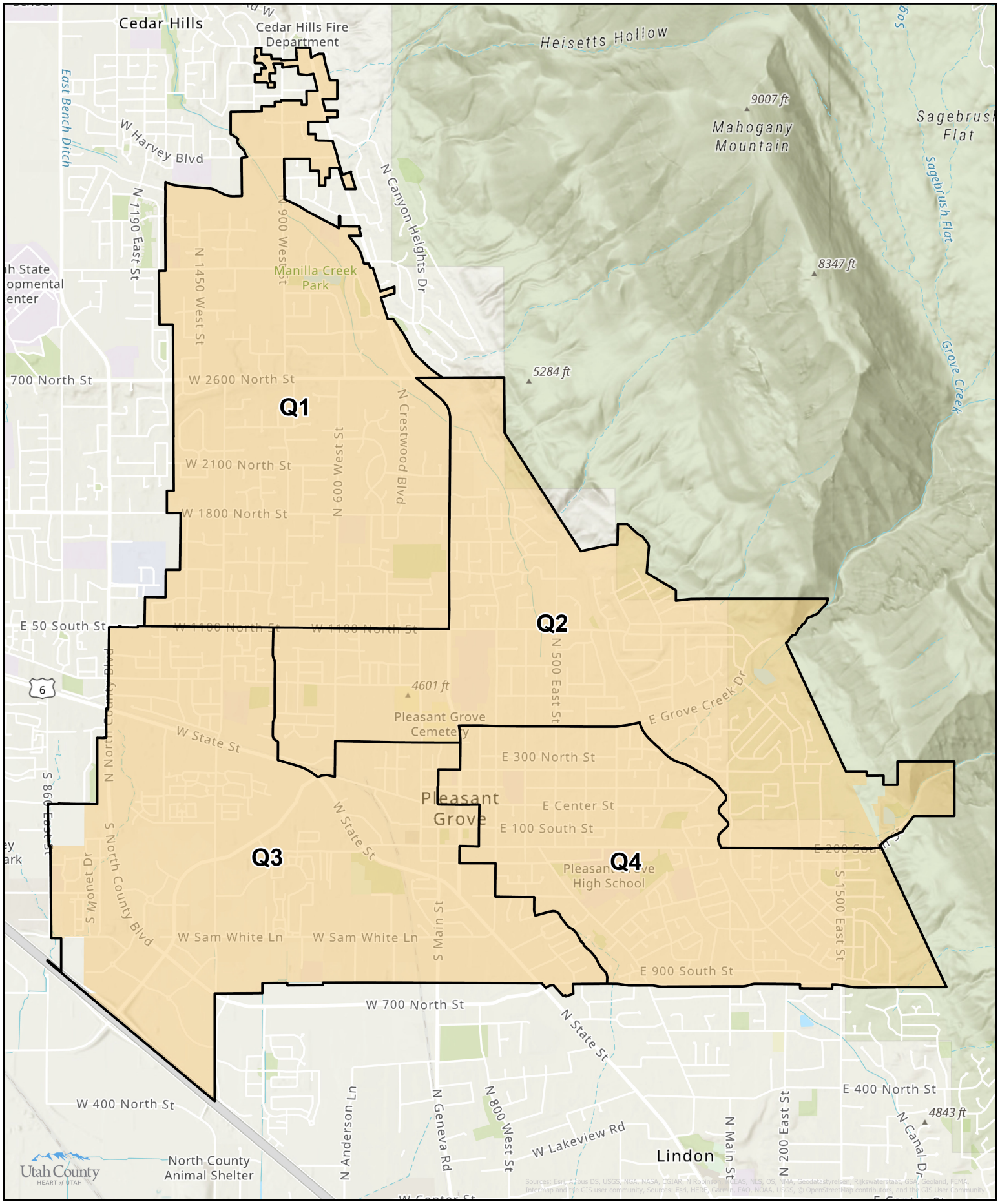
ROLL CALL	**Yea**	**Nay**	**Abstain**
Mayor Guy L. Fugal	_____	_____	_____
Dianna Andersen	_____	_____	_____
Brent Bullock	_____	_____	_____
Eric Jensen	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____

Pleasant Grove Quadrants

Utah County GIS Department

Q1	Q2	Q3	Q4
PG01	PG07	PG02	PG03
PG01S	PG09	PG05	PG04
PG11	PG12	PG05S	PG06
PG14		PG10	
		PG13	

0 0.2 0.4 Miles



December 2021

November '21

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

January '22

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	1	2	3	4
5	6	7 City CouncilWork Session Meeting 4:30 pm Regular Meeting 6pm	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24 Christmas Eve City offices are closed	25 
26	27	28	29	30	31 New Years Eve City Offices are closed	1 
2	3	Notes				

Calendar Templates by Vertex42
https://www.vertex42.com/calendars/

Report Criteria:
Invoices with totals above $0 included.
Only unpaid invoices included.

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
GENERAL FUND							
10-13100 ACCTS REC.- CITY EMPLOYEES							
7505	SKAGGS COMPANIES, IN	450A940241	PD/PERSONAL SUPPLIES-DA	10/21/2021	198.48	.00	
7505	SKAGGS COMPANIES, IN	450A968611	PD/PERSONAL SUPPLIES-RC	11/10/2021	262.88	.00	
7505	SKAGGS COMPANIES, IN	450A974481	PD/PERSONAL SUPPLIES-CR	11/15/2021	78.98	.00	
10-15820 SDA EXPENSE ACCOUNT							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	135.78	.00	
10-21220 RETIREMENT CONTRIBUTIONS A/P							
7866	STANDARD INSURANCE	10182021	DISABILITY PREMIUM	10/18/2021	3,364.91	.00	
10-21230 STATE INSURANCE PAYABLE							
8954	UTAH LOCAL GOVT. INS.	1594793	WORKERS COMP	11/15/2021	9,047.31	.00	
10-21355 CASH BONDS (NEW)							
8544	TRIPLE VIEW, LLC	11172021	WARRANTY BOND RELEASE	11/17/2021	11,000.00	.00	
8544	TRIPLE VIEW, LLC	11182021	WARRANTY BOND RELEASE INTER	11/17/2021	72.25	.00	
10-21370 Construction Inspection Bond							
8544	TRIPLE VIEW, LLC	11152021	TESTING AND INSPECTION BOND	11/17/2021	1,925.00	.00	
8544	TRIPLE VIEW, LLC	11162021	TESTING AND INSPECTION BOND	11/17/2021	23.22	.00	
10-22390 LEGAL SHIELD							
4729	PRE-PAID LEGAL SERVIC	111520215	LEGAL SERVICE FOR EMPLOYEES	11/15/2021	57.85	.00	
10-24260 AMER. FAMILY LIFE PAYABLE							
9288	WASHINGTON NATIONAL	2164078	INSURANCE PREMIUM	10/01/2021	434.90	.00	
9288	WASHINGTON NATIONAL	2172705	INSURANCE PREMIUM	11/01/2021	434.90	.00	
10-34-280 AMBULANCE FEES							
3350	GOLD CROSS SERVICES	2705	AMB/BILLING SERVICES	10/31/2021	4,438.37	.00	
Total :					31,474.83	.00	
JUDICIAL							
10-42-240 OFFICE EXPENSE							
2122	CULLIGAN BOTTLED WA	465X17552201	JUDICIAL/DRINKING WATER	10/31/2021	27.60	.00	
10-42-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	123.40	.00	
Total JUDICIAL:					151.00	.00	
NON-DEPARTMENTAL							
10-43-220 PRINTING AND PUBLICATION							
3151	FREEDOM MAILING SER	41666	NEWSLETTERS	11/03/2021	81.63	.00	
7862	STANDARD EXAMINER	10312021	PUBLIC HEARING NOTICES	10/31/2021	264.00	.00	
8730	UPPER CASE PRINTING,	17675	NEWSLETTER PRINTING	11/04/2021	190.68	.00	
8730	UPPER CASE PRINTING,	17675	NEWSLETTER PRINTING	11/04/2021	794.50	.00	
10-43-310 LEGAL SERVICES							
3996	HOWARD, LEWIS & PETE	346051-10312	LEGAL SERVICES	10/31/2021	37.50	.00	
10-43-320 AUDIT							
3630	HANSEN, BRADSHAW, M	11953	AUDIT SERVICES	08/31/2021	7,000.00	.00	
3630	HANSEN, BRADSHAW, M	12547	AUDIT SERVICES	11/15/2021	21,700.00	.00	
10-43-360 COPIER MAINTENANCE							
4747	LES OLSON COMPANY	1078607	MONTHLY CONTRACTED SERVICE	10/29/2021	663.26	.00	
10-43-510 INSURANCE & BONDS							
8954	UTAH LOCAL GOVT. INS.	1594792	AUTO DAMAGE ENDORSEMENT	11/15/2021	2,672.08	.00	
10-43-610 MISCELLANEOUS EXPENSE							
3151	FREEDOM MAILING SER	41666	UTILITY BILL MAILING	11/03/2021	72.56	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
10-43-760 TECHNOLOGY							
142	AF CONNECT	11172021	INTERNET SERVICE	11/17/2021	735.00	.00	
1480	CENTRACOM INTERACTI	11022021	INTERNET SERVICE	11/02/2021	755.00	.00	
	Total NON-DEPARTMENTAL:				34,966.21	.00	
LEGAL SERVICES							
10-44-220 PUBLICATION EXPENSE							
5091	MATTHEW BENDER & CO	28013778	UT CODE COURT RULES 2021	10/26/2021	72.24	.00	
10-44-400 PROFESSIONAL SERVICES							
3657	HANSEN WRIGHT EDDY	42760	LEGAL SERVICES	10/25/2021	360.00	.00	
	Total LEGAL SERVICES:				432.24	.00	
ADMINISTRATIVE SERVICES							
10-46-240 OFFICE EXPENSE							
1760	CINTAS FIRST AID & SAF	5083908145	ADM/FIRST AID SUPPLIES	11/12/2021	23.73	.00	
5730	OFFICE DEPOT, INC.	207026428002	ADM/OFFICE SUPPLIES	11/12/2021	3.58	.00	
5730	OFFICE DEPOT, INC.	208455791001	ADM/OFFICE SUPPLIES	11/05/2021	47.10	.00	
6645	QUADIENT FINANCE USA	10072021	ADM/POSTAGE	10/07/2021	1,015.00	.00	
10-46-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	382.72	.00	
10-46-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	40.01	.00	
10-46-930 COMMUNITIES THAT CARE GRANT							
8056	SUNDRY STREET LLC	10222021	CTC/CONTRACTED SERVICES	10/22/2021	470.00	.00	
	Total ADMINISTRATIVE SERVICES:				1,982.14	.00	
FACILITIES							
10-47-480 DEPARTMENTAL SUPPLIES							
78	ACE RENTS, INC	306868-1	BUILDING MAINTENANCE	11/01/2021	158.70	.00	
239	ALLRED ACE HARDWAR	299935	BUILDING MAINTENANCE	10/18/2021	28.71	.00	
239	ALLRED ACE HARDWAR	300112	MULT DEPT/DEPARTMENT SUPPLI	10/25/2021	19.19	.00	
239	ALLRED ACE HARDWAR	300214	BUILDING MAINTENANCE	10/28/2021	16.79	.00	
10-47-510 CITY HALL - HEATING EXPENSE							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	64.16	.00	
10-47-520 CITY HALL - POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	1,092.61	.00	
10-47-550 PARKS - LIGHTS							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	167.55	.00	
10-47-560 PARKS - BUILDING MAINTENANCE							
239	ALLRED ACE HARDWAR	300095	BUILDING MAINTENANCE	10/25/2021	10.05	.00	
239	ALLRED ACE HARDWAR	300168	BUILDING MAINTENANCE	10/27/2021	46.06	.00	
970	BJ PLUMBING SUPPLY	933139	BUILDING MAINTENANCE	10/14/2021	144.95	.00	
1028	BORDER STATES INDUS	923081301	BUILDING MAINTENANCE	10/25/2021	1,214.15	.00	
1028	BORDER STATES INDUS	923087708	BUILDING MAINTENANCE	10/25/2021	103.01	.00	
1028	BORDER STATES INDUS	923097177	BUILDING MAINTENANCE	10/27/2021	85.23	.00	
3327	GILES, CRAIG KAY	725740	NEW DOOR LOCKS	10/21/2021	225.00	.00	
3327	GILES, CRAIG KAY	725741	NEW DOOR LOCKS	10/22/2021	905.00	.00	
3327	GILES, CRAIG KAY	725742	NEW DOOR LOCKS	10/22/2021	965.00	.00	
6850	REPUBLIC SERVICES	1648429	MULTI DEPT/GARBAGE COLLECTIO	10/26/2021	14.75	.00	
6850	REPUBLIC SERVICES	1650417	MULTI DEPT/GARBAGE COLLECTIO	10/31/2021	140.92	.00	
10-47-580 OLD BELL SCHOOL - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	85.23	.00	
10-47-590 OLD BELL SCHOOL - BLDG MAINT							
6525	PROFESSIONAL HEATIN	77351	SERVICE CALL	10/12/2021	69.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
10-47-600 POLICE - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	39.19	.00	
10-47-620 POLICE - BLDG MAINT							
5482	MOUNTAINLAND SUPPLY	S104375111.00	BUILDING MAINTENANCE-FILTERS	10/28/2021	336.36	.00	
10-47-640 FIRE/AMBULANCE - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	373.27	.00	
10-47-650 FIRE/AMBULANCE - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	1,258.53	.00	
10-47-660 FIRE/AMBULANCE - BLDG MAINT							
5482	MOUNTAINLAND SUPPLY	S104375111.00	BUILDING MAINTENANCE-FILTERS	10/28/2021	246.92	.00	
10-47-680 CEMETERY BLDG - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	135.02	.00	
10-47-690 CEMETERY BLDG - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	3,042.75	.00	
10-47-710 LIBRARY/SENIOR - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	142.36	.00	
10-47-720 LIBRARY/SENIOR - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	873.21	.00	
10-47-750 PUMP HOUSE - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	40.76	.00	
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	46.86	.00	
10-47-760 PUBLIC WORKS - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	475.98	.00	
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	20.67	.00	
10-47-770 PUBLIC WORKS - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	679.33	.00	
10-47-790 RENTAL PROPERTY EXPENSES							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	62.53	.00	
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	135.14	.00	
10-47-800 GENERAL MAINTENANCE EXPENSES							
1028	BORDER STATES INDUS	923125649	BUILDIING MAINTENANCE	11/01/2021	263.16	.00	
5482	MOUNTAINLAND SUPPLY	S104375111.00	BUILDING MAINTENANCE-FILTERS	10/28/2021	72.22	.00	
10-47-810 SR CENTER - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	69.84	.00	
10-47-820 SR CENTER - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	297.72	.00	
10-47-830 SR CENTER - BLDG MAINT							
1522	CERTIFIED ALARM SERVI	18046	MONITORING SERVICES	11/10/2021	38.00	.00	
3948	HOME DEPOT CREDIT S	7011740	BUILDING MAINTENANCE	10/12/2021	14.68	.00	
10-47-845 LIONS CENTER HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	161.89	.00	
10-47-900 ARTS - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	61.66	.00	
10-47-910 ARTS - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	14.62	.00	
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	90.94	.00	
10-47-930 HISTORIC LIBRARY - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	13.68	.00	
Total FACILITIES:					14,563.35	.00	
ENGINEERING							
10-51-285 CELLULAR SERVICES							
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	76.01	.00	
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	82.24	.00	
10-51-745 SIGNALS & FLASHERS							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	281.79	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Total ENGINEERING:					440.04	.00	
COMMUNITY DEVELOPMENT							
10-52-240 OFFICE EXPENSE							
8730	UPPER CASE PRINTING,	17675	BUSINESS LICENSING ENVELOPES	11/04/2021	55.00	.00	
10-52-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	209.41	.00	
10-52-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	173.92	.00	
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	80.02	.00	
10-52-332 PROFESSIONAL SERVICES							
9765	YEOMAN, JAMES	21-9	COM DEV/PLAN REVIEWS	11/11/2021	2,190.00	.00	
10-52-480 DEPARTMENTAL SUPPLIES							
5730	OFFICE DEPOT, INC.	207009464001	COM DEV/OFFICE SUPPLIES	11/04/2021	126.18	.00	
5730	OFFICE DEPOT, INC.	207011143001	COM DEV/OFFICE SUPPLIES	11/05/2021	206.92	.00	
Total COMMUNITY DEVELOPMENT:					3,041.45	.00	
POLICE DEPARTMENT							
10-54-240 OFFICE EXPENSE							
990	BLUEFIN OFFICE GROUP	427893.00	PD/OFFICE SUPPLIES	10/07/2021	271.76	.00	
990	BLUEFIN OFFICE GROUP	427893.01	PD/OFFICE SUPPLIES	10/08/2021	77.68	.00	
990	BLUEFIN OFFICE GROUP	427893-02	PD/OFFICE SUPPLIES	10/14/2021	103.00	.00	
990	BLUEFIN OFFICE GROUP	7578.00	PD/OFFICE SUPPLIES	11/17/2021	399.90	.00	
8361	THOMSON REUTERS - W	845280131	PD/SOFTWARE SUBSCRIPTION	11/01/2021	223.63	.00	
10-54-250 VEHICLE EXPENSE							
7052	ROCKY MOUNTAIN COLL	27730-2	PD/VEHICLE REPAIR	10/01/2021	6,695.86	.00	
10-54-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	765.76	.00	
1518	CENTURY LINK	10282021	PD/ALARM PHONE LINE	10/28/2021	87.73	.00	
1518	CENTURY LINK	10282021	PD/ALARM PHONE LINE	10/28/2021	87.73	.00	
10-54-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	2,840.89	.00	
10-54-480 DEPARTMENTAL SUPPLIES							
2122	CULLIGAN BOTTLED WA	165X17527005	PD/BOTTLED WATER	10/31/2021	18.90	.00	
3011	FORENSIC NURSING SE	21-337	PD/SPECIMEN COLLECTION	11/09/2021	140.00	.00	
Total POLICE DEPARTMENT:					11,712.84	.00	
FIRE DEPARTMENT							
10-55-250 VEHICLE EXPENSE							
7122	R.P.M. AUTO PARTS	272155	FIRE/VEHICLE EXPENSE	11/05/2021	34.54	.00	
10-55-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	210.95	.00	
9131	VERIZON WIRELESS	9891887725	FIRE/CELL PHONE EXPENSE	10/02/2021	1,039.23	.00	
10-55-480 DEPARTMENTAL SUPPLIES							
1060	BOUNDTREE MEDICAL, L	84275614	FIRE/DEPARTMENTAL SUPPLIES	11/03/2021	145.32	.00	
1060	BOUNDTREE MEDICAL, L	84283048	FIRE/DEPARTMENTAL SUPPLIES	11/09/2021	187.90	.00	
1060	BOUNDTREE MEDICAL, L	84292632	FIRE/DEPARTMENTAL SUPPLIES	11/16/2021	580.30	.00	
2123	CULLIGAN WATER COND	165X17487101	FIRE/DEPARTMENTAL SUPPLIES	10/22/2021	135.00	.00	
3841	HENRY SCHEIN INC.	12397473	FIRE/MEDICAL SUPPLIES	11/05/2021	1,583.65	.00	
9831	ZOLL MEDICAL CORPOR	3394699	FIRE/MEDICAL SUPPLIES	11/05/2021	697.00	.00	
10-55-760 TECHNOLOGY							
162	ALADTEC, INC.	2021-3456	FIRE/ANNUAL MANAGER SYSTEM	11/09/2021	2,679.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total FIRE DEPARTMENT:				7,292.89	.00	
STREETS							
10-60-275	**STREET LIGHT EXPENSE**						
972	BLACK & McDONALD	76-1216127	STR/LIGHT EXPENSE	07/30/2021	5,120.70	.00	
972	BLACK & McDONALD	76-1225778	STR/LIGHT EXPENSE	08/31/2021	5,129.70	.00	
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	2,575.26	.00	
10-60-277	**Street Light Installation**						
972	BLACK & McDONALD	76-1245535	STREET LIGHT INSTALLATION	10/31/2021	13,007.50	.00	
10-60-278	**STREET LIGHT MAINTENANCE**						
972	BLACK & McDONALD	76-1245540	STREET LIGHT EXPENSE	10/31/2021	501.03	.00	
972	BLACK & McDONALD	76-1246285	STR/LIGHT EXPENSE	10/31/2021	332.84	.00	
972	BLACK & McDONALD	76-1248607	STR/LIGHT EXPENSE	11/12/2021	1,057.62	.00	
972	BLACK & McDONALD	76-1249321	STR/LIGHT REPAIR	11/16/2021	1,385.08	.00	
7062	ROCKY MOUNTAIN POW	11012021	STREET LIGHT-LABOR	11/01/2021	230.71	.00	
10-60-285	**CELLULAR SERVICES**						
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	428.23	.00	
10-60-480	**DEPARTMENTAL SUPPLIES**						
974	BISCO	1651306	STR/DEPARTMENTAL SUPPLIES	11/08/2021	124.80	.00	
2493	DUFF SHELLEY MOWER	4475	STR/DEPARTMENTAL SUPPLIES	10/18/2021	105.46	.00	
4208	INTERMOUNTAIN FARME	1015672715-C	STR/DEPARTMENTAL SUPPLIES	07/06/2021	34.99-	.00	
5870	OUT BACK GRAPHICS LL	15684	STR/DEPARTMENTAL SUPPLIES	11/11/2021	162.75	.00	
7420	SHIELD-SAFETY, LLC	2212802756	STR/DEPARTMENTAL SUPPLIES	11/09/2021	131.07	.00	
10-60-610	**MISCELLANEOUS EXPENSE**						
4225	INTERMOUNTAIN WORK	3220145	STR/PHYSICAL EXAM	10/08/2021	67.00	.00	
4225	INTERMOUNTAIN WORK	3220145	STR/PHYSICAL EXAM	10/08/2021	67.00	.00	
	Total STREETS:				30,391.76	.00	
LIBRARY							
10-65-240	**OFFICE EXPENSE**						
5730	OFFICE DEPOT, INC.	207454246001	LIB/OFFICE SUPPLIES	11/11/2021	53.90	.00	
10-65-280	**TELEPHONE EXPENSE**						
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	272.99	.00	
1518	CENTURY LINK	10282021	LIB/ELEVATOR LINE	10/28/2021	94.10	.00	
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	42.23	.00	
	Total LIBRARY:				463.22	.00	
SR. CITIZEN CTR & AUDITORIUM							
10-67-280	**TELEPHONE EXPENSE**						
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	81.58	.00	
	Total SR. CITIZEN CTR & AUDITORIUM:				81.58	.00	
PARKS							
10-70-280	**TELEPHONE**						
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	53.57	.00	
10-70-285	**CELLULAR SERVICES**						
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	496.15	.00	
10-70-330	**PLAYGROUND SUPPLIES**						
2084	CRITICAL LASER TECHN	45658	PARKS/POWDER COAT	11/09/2021	178.66	.00	
10-70-480	**DEPARTMENTAL SUPPLIES**						
8058	SUNRISE ENVIRONMENT	126120	REC/CLEANING SUPPLIES	11/09/2021	302.45	.00	
10-70-482	**TREE MAINTENANCE**						
2477	DREAM SCAPES LANDS	48673	TREE REMOVEL	10/31/2021	5,046.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
2477	DREAM SCAPES LANDS	48684	PARK/GRIND STUMPS	10/28/2021	1,807.00	.00	
10-70-670 SAFETY EQUIP. & SUPPLIES							
1760	CINTAS FIRST AID & SAF	5083908126	PARK/FIRST AID SUPPLIES	11/12/2021	60.62	.00	
10-70-750 CHRISTMAS LIGHTS							
7798	SPRINKLER WORLD	NMDL28	PARK/CHRISTMAS LIGHTS	11/16/2021	1,575.00	.00	
7798	SPRINKLER WORLD	NMDL32	PARK/CHRISTMAS LIGHTS	11/16/2021	300.00	.00	
	Total PARKS:				9,819.45	.00	
RECREATION							
10-71-210 MEETINGS & MEMBERSHIPS							
5730	OFFICE DEPOT, INC.	210191697001	REC/OFFICE SUPPLIES	11/12/2021	374.21	.00	
10-71-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	223.16	.00	
10-71-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	245.13	.00	
1518	CENTURY LINK	10282021	REC/MONITORING & ALARM LINES	10/28/2021	257.84	.00	
10-71-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	84.46	.00	
	Total RECREATION:				1,184.80	.00	
LEISURE SERVIVES							
10-72-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	42.23	.00	
	Total LEISURE SERVIVES:				42.23	.00	
CUSTODIAL SERVICES							
10-74-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	42.23	.00	
10-74-420 CONTRACTED SERVICES							
4316	JANI-KING OF SALT LAKE	11210236	CLEANING SERVICES	11/01/2021	2,565.00	.00	
	Total CUSTODIAL SERVICES:				2,607.23	.00	
	Total GENERAL FUND:				150,647.26	.00	
CLASS C ROAD FUND							
EXPENDITURES							
20-40-480 DEPARTMENTAL SUPPLIES							
579	ASPHALT MATERIALS IN	207742	CLASS C/DEPARTMENTAL SUPPLIE	11/06/2021	121.50	.00	
3312	GENEVA ROCK PRODUC	2461446	CLASS C ROADS/ASPHALT	11/10/2021	624.00	.00	
20-40-800 CAPITAL PROJECTS							
3312	GENEVA ROCK PRODUC	1-10302021	MICRO SURFACING 2021	10/30/2021	451,772.41	.00	
	Total EXPENDITURES:				452,517.91	.00	
	Total CLASS C ROAD FUND:				452,517.91	.00	
CEMETERY							
22-70-200 MOWER EXPENSE							
6278	PLEASANT GROVE BIG O	44250-13695	CEM/TIRES	11/15/2021	375.90	.00	
22-70-420 SPECIAL SERVICES							
3312	GENEVA ROCK PRODUC	10312021	CEMETERY EXPANSION PROJECT	10/31/2021	1,887.38	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
22-70-550 HEADSTONE REPAIR							
9210	WALKER MONUMENT IN	5262	CEM/RE POUR SINGLE STONE	08/06/2021	250.00	.00	
Total :					2,513.28	.00	
Total CEMETERY:					2,513.28	.00	
DONATIONS							
23-40-315 Donations-Trails							
1368	C-A-L RANCH STORES	12001/8	PARK/T-POSTS	11/09/2021	594.15	.00	
Total :					594.15	.00	
Total DONATIONS:					594.15	.00	
STORM DRAIN UTILITY FUND							
GENERAL GOVERNMENT							
48-41-285 CELLULAR SERVICES							
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	372.55	.00	
48-41-480 DEPARTMENTAL SUPPLIES							
5833	O'REILLY AUTOMOTIVE I	3623-406283	STRM DRAIN/DEPARTMENTAL SUP	11/01/2021	24.98	.00	
48-41-600 REPAIR & MAINTENANCE							
3073	FRAMPTON PROPERTY	1115	FENCING PROJECT FOR CLINT PAY	10/19/2021	6,675.00	.00	
48-41-610 MISCELLANEOUS EXPENSE							
3151	FREEDOM MAILING SER	41666	UTILITY BILL MAILING	11/03/2021	529.03	.00	
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	31.10	.00	
48-41-650 SPECIAL PROJECTS							
8583	TWIN D INC.	21354	VIDEO INSPECTION	11/04/2021	932.93	.00	
Total GENERAL GOVERNMENT:					8,565.59	.00	
Total STORM DRAIN UTILITY FUND:					8,565.59	.00	
CAPITAL PROJECTS FUND							
49-60-903 PARKS EQUIPMENT							
4523	KEN GARFF FORD	2021-C0922	NEW FORD F-350 2021	11/16/2021	39,417.18	.00	
Total :					39,417.18	.00	
Total CAPITAL PROJECTS FUND:					39,417.18	.00	
WATER FUND							
EXPENDITURES							
51-40-240 OFFICE EXPENSE							
3151	FREEDOM MAILING SER	41666	UTILITY BILL MAILING	11/03/2021	1,058.07	.00	
51-40-250 VEHICLE EXPENSE							
675	AUTO ZONE STORES, IN	6231820455	WATER/VEHICLE EXPENSE	11/04/2021	5.99	.00	
3468	GREASE MONKEY #790	263340	WATER/VEHICLE MAINTENANCE	11/10/2021	53.54	.00	
51-40-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	23,039.56	.00	
51-40-285 CELLULAR SERVICES							
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	486.69	.00	
9131	VERIZON WIRELESS	9891860648	MULTI DEPT/CELL PHONE EXEPNS	10/02/2021	42.23	.00	
51-40-420 STREET REPAIRS							
3312	GENEVA ROCK PRODUC	2457033	WATER/DEPARTMENTAL SUPPLIES	11/01/2021	467.52	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
3312	GENEVA ROCK PRODUC	2458261	WATER/ASPHALT	11/03/2021	582.72	.00	
51-40-470 METER PURCHASES							
2853	FERGUSON ENTERPRIS	1169476	WATER/DEPARTMENTAL SUPPLIES	11/04/2021	5,433.13	.00	
51-40-480 DEPARTMENTAL SUPPLIES							
5833	O'REILLY AUTOMOTIVE I	3623-406215	WATER/BATTERY CHARGER	11/01/2021	139.99	.00	
9037	UTILISYNC, LLC	1402	BLUE STAKES SOFTWARE	11/05/2021	1,333.33	.00	
51-40-600 REPAIR & MAINTENANCE							
1277	BUSY BEE CONCRETE	149461	WATER/CONCRETE	11/08/2021	270.00	.00	
1870	CODALE ELECTRIC SUP	7580754.001	WATER/REPAIR PARTS	11/01/2021	83.96	.00	
3974	HOSE & RUBBER SUPPL	1596735	WATER/DEPARTMENTAL SUPPLIES	11/03/2021	9.11	.00	
4208	INTERMOUNTAIN FARME	1016171684	WATER/PANTS	10/19/2021	65.44	.00	
6889	RHINEHART OIL COMPA	500553-21	WATER/DEPARTMENTAL SUPPLIES	11/09/2021	1,238.85	.00	
6938	RICHARDS LABORATORI	9869	WATER/TESTING	11/04/2021	468.00	.00	
6938	RICHARDS LABORATORI	9962	WATER/TESTING	11/15/2021	260.00	.00	
8233	THATCHER COMPANY	202110010210	WATER/CHLORINE	11/01/2021	4,874.95	.00	
51-40-603 SECONDARY WATER PHASE 2							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	660.91	.00	
51-40-610 MISCELLANEOUS EXPENSE							
4225	INTERMOUNTAIN WORK	3220145	WATER/PHYSICAL EXAM	10/08/2021	67.00	.00	
	Total EXPENDITURES:				40,640.99	.00	
	Total WATER FUND:				40,640.99	.00	
SEWER FUND							
EXPENDITURES							
52-40-240 OFFICE EXPENSE							
3151	FREEDOM MAILING SER	41666	UTILITY BILL MAILING	11/03/2021	1,058.07	.00	
52-40-250 VEHICLE EXPENSE							
4562	KNB AUTOMOTIVE LLC	28928	SEC WATER/SEAT COVER	11/03/2021	745.00	.00	
52-40-285 CELLULAR SERVICES							
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	403.17	.00	
52-40-350 CHARGES FOR TREATMENT							
8422	TIMP. SPECIAL SERVICE	10312021	WASTEWATER TREATMENT	10/31/2021	232,642.49	.00	
52-40-480 DEPARTMENTAL SUPPLIES							
9037	UTILISYNC, LLC	1402	BLUE STAKES SOFTWARE	11/05/2021	1,333.33	.00	
52-40-600 REPAIR & MAINTENANCE							
974	BISCO	1651100	SEC WATER/DEPARTMENTAL SUPP	11/02/2021	508.68	.00	
	Total EXPENDITURES:				236,690.74	.00	
52-90-888 STATE STREET CROSSING							
5635	NEWMAN CONSTRUCTIO	4-08312021	SEWER IMPROVEMENT PROJECT	08/31/2021	17,426.25	.00	
	Total :				17,426.25	.00	
	Total SEWER FUND:				254,116.99	.00	
METROPOLITAN WATER DIST.							
53-21310 ACCOUNTS PAYABLE							
6581	PROVO RESERVOIR WAT	1301097	WATER ASSESSMENT EXPENSE	03/01/2021	16,996.58	.00	
	Total :				16,996.58	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
53-40-320 AUDIT							
3630	HANSEN, BRADSHAW, M	12547	AUDIT SERVICES	11/15/2021	1,800.00	.00	
Total :					1,800.00	.00	
Total METROPOLITAN WATER DIST.:					18,796.58	.00	
SECONDARY WATER							
54-21310 ACCOUNTS PAYABLE							
6581	PROVO RESERVOIR WAT	1301088	WATER ASSESSMENT EXPENSE	03/01/2021	502.99	.00	
6581	PROVO RESERVOIR WAT	1301089	WATER ASSESSMENT EXPENSE	03/01/2021	215.55	.00	
6581	PROVO RESERVOIR WAT	1301090	WATER ASSESSMENT EXPENSE	03/01/2021	502.99	.00	
Total :					1,221.53	.00	
EXPENDITURES							
54-40-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	135.62	.00	
54-40-285 CELLULAR SERVICES							
625	AT&T MOBILITY	09282021	MULTI DEPT/CELL PHONE EXPENS	09/28/2021	27.84	.00	
9131	VERIZON WIRELESS	9891856330	SEC WATER PUMP HOUSE	10/02/2021	19.97	.00	
54-40-480 DEPARTMENTAL SUPPLIES							
9037	UTILISYNC, LLC	1402	BLUE STAKES SOFTWARE	11/05/2021	1,333.34	.00	
Total EXPENDITURES:					1,516.77	.00	
Total SECONDARY WATER:					2,738.30	.00	
UNEMPLOY & DISAB RESERVE FUND							
EXPENDITURES							
55-40-180 UNEMPLOYMENT RESERVE EXPENSE							
8920	UTAH DEPT OF WORKFO	09012021	UNEMPLOYMENT INSURANCE	09/01/2021	5.47	.00	
8920	UTAH DEPT OF WORKFO	10012021	UNEMPLOYMENT INSURANCE	10/01/2021	134.00	.00	
8920	UTAH DEPT OF WORKFO	11012021	UNEMPLOYMENT INSURANCE	11/01/2021	67.00	.00	
Total EXPENDITURES:					206.47	.00	
Total UNEMPLOY & DISAB RESERVE FUND:					206.47	.00	
CAPITAL EQUIPMENT							
58-40-660 POLICE EQUIPMENT							
4523	KEN GARFF FORD	2021-Z001	NEW FORD F-150 2021	10/22/2021	161,602.00	.00	
Total :					161,602.00	.00	
Total CAPITAL EQUIPMENT:					161,602.00	.00	
SWIMMING POOL							
SWIMMING POOL							
71-73-280 TELEPHONE EXPENSE							
1480	CENTRACOM INTERACTI	11022021	MULTI DEPT/PHONE EXPENSE	11/02/2021	74.46	.00	
71-73-380 HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	388.18	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
71-73-382 POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	1,888.85	.00	
Total SWIMMING POOL:					2,351.49	.00	
Total SWIMMING POOL:					2,351.49	.00	
COMMUNITY CENTER							
72-71-060 COMMUNITY CTR - HEATING							
2465	DOMINION ENERGY	11102021	MULTI DEPT/HEATING EXPENSE	11/10/2021	413.03	.00	
72-71-061 COMMUNITY CTR - POWER							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	5,208.56	.00	
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	12.78	.00	
72-71-062 COMMUNITY CTR - BLDG MAINT							
3327	GILES, CRAIG KAY	725716	NEW DOOR LOCKS	09/26/2021	610.00	.00	
4390	JOHNSTONE SUPPLY	2129838	REC/BUILDING MAINTENANCE	10/27/2021	173.10	.00	
5482	MOUNTAINLAND SUPPLY	S104375111.00	BUILDING MAINTENANCE-FILTERS	10/28/2021	832.15	.00	
72-71-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11042021	MULTI DEPT/ELECTRICITY EXPENS	11/04/2021	631.33	.00	
72-71-410 PROGRAM SUPPLIES & EQUIPMENT							
505	ANYTIME SERVICES LLC	87548	REC/CHEMICAL TOILET	11/03/2021	31.25	.00	
5730	OFFICE DEPOT, INC.	21738766001	REC/OFFICE SUPPLIES	11/16/2021	86.40	.00	
7233	SAM'S CLUB/SYNCHRON	10302021	REC/ASSORTED SUPPLIES	10/30/2021	808.31	.00	
72-71-420 CONTRACTED SERVICES							
1522	CERTIFIED ALARM SERVI	18024	MONITORING SERVICES	11/10/2021	38.00	.00	
1522	CERTIFIED ALARM SERVI	18034	MONITORING SERVICES	11/10/2021	33.00	.00	
5483	MOUNTAIN WEST SECUR	271909	REC/SERVICE CALL	10/26/2021	161.25	.00	
72-71-460 CONCESSION STAND EXPENSE							
1863	SWIRE COCA-COLA USA,	13308224661	REC/CONCESSION STAND EXPENS	11/12/2021	159.36	.00	
7233	SAM'S CLUB/SYNCHRON	10302021	REC/CONCESSION STAND EXPENS	10/30/2021	589.22	.00	
Total :					9,787.74	.00	
Total COMMUNITY CENTER:					9,787.74	.00	
CULTURAL ARTS							
PROGRAM EXPENDITURES							
73-71-552 PG PLAYERS							
1199	BROWN, BRENNA JEAN	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
1348	CALKINS, JOSEPH	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	700.00	.00	
1373	CANTOS, THEA	11082021	PG PLAYERS/CAST STIPEND	10/08/2021	200.00	.00	
1386	CARD, RUSSELL	110820201	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
2679	ELISON, KATHLEEN	11082021	PG PLAYERS/STAGE MANAGER	11/08/2021	800.00	.00	
2683	ELLINGTON, JOEL S.	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
2763	EVERETT, VANCE L.	11152021	PG PLAYERS/REIMB. FOR EXPENS	11/15/2021	1,203.00	.00	
2990	FONTANA, KRISTINA ELIZ	11082021	PG PLAYERS/COSTUMER-SET DES	11/08/2021	1,700.00	.00	
2990	FONTANA, KRISTINA ELIZ	11152021	PG PLAYERS/REIMB. FOR SUPPLIE	11/15/2021	3,983.66	.00	
3730	HARRISON, SEVEN MAX	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
4317	JARDINE, CHAD	11082021	PG PLAYERS/PROGRAMS AND GR	11/08/2021	450.00	.00	
4580	KOHL, MATTHIEU	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
4866	LITTLE, KATHRYN LAYCO	11082021	PG PLAYERS/DIRECTOR	11/08/2021	2,900.00	.00	
6600	PURDIE, DENNIS	11082021	PG PLAYERS/STIPEND & MARKETI	11/08/2021	300.00	.00	
6602	PURDIE, MOLLY JUNE	11082021	PG PLAYERS/TICKETS	11/08/2021	300.00	.00	
7090	ROSEWINTER, TREYDN	11082021	PG PLAYERS/CAST STIPEND	11/08/2021	200.00	.00	
8349	THOMPSON, JEFF	11152021	PG PLAYERS/REIMB. FOR MARKETI	11/15/2021	1,169.86	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total PROGRAM EXPENDITURES:				14,906.52	.00	
	Total CULTURAL ARTS:				14,906.52	.00	
	Grand Totals:				1,159,402.45	.00	

Dated: _____

Mayor: _____

City Council: _____

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City Recorder: _____

City Finance Director: _____ 11/18/2021

Report Criteria:
Invoices with totals above $0 included.
Only unpaid invoices included.

Report Criteria:
Invoices with totals above $0 included.
Only unpaid invoices included.

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
GENERAL FUND							
10-21220 RETIREMENT CONTRIBUTIONS A/P							
7866	STANDARD INSURANCE	11162021	DISABILITY PREMIUM	11/16/2021	3,364.91	.00	
10-21245 VISION INSURANCE PAYABLE							
8070	SUPERIOR VISION INSU	581979	VISION INSURANCE	12/01/2021	1,116.25	.00	
10-21355 CASH BONDS (NEW)							
3504	GREEN, CHARLES S	11242021	WARRANTY BOND RELEASE	11/24/2021	12,404.08	.00	
3504	GREEN, CHARLES S	11252021	WARRANT BOND INTEREST	11/24/2021	2,538.24	.00	
5320	MLC DEVELOPMENT LLC	11242021	WARRANTY BOND RELEASE	11/24/2021	8,800.67	.00	
5320	MLC DEVELOPMENT LLC	11252021	WARRANTY BOND INTEREST	11/24/2021	1,239.95	.00	
8830	UTAH CONCRETE	3156	ANNIES ACRES CONCRETE WORK	11/10/2021	7,938.00	.00	
8830	UTAH CONCRETE	3774	MUIRFIELD CONCRETE WORK	11/10/2021	16,770.00	.00	
9531	WILSON, JEFFERY	11182021	CONSTRUCTION BOND RELEASE	11/18/2021	9,337.00	.00	
10-24260 AMER. FAMILY LIFE PAYABLE							
309	AM. FAMILY LIFE ASSUR	61455	SUSPENSE PREMIUM	12/01/2021	135.82	.00	
10-24350 SENIOR CITIZEN CLEARING							
5478	MOUNTAINLAND ASSOCI	05302021	SR. CNTR/CONTRIBUTION	05/30/2021	983.00	.00	
5478	MOUNTAINLAND ASSOCI	11302021	SR. CNTR/CONTRIBUTION	11/30/2021	2,033.00	.00	
Total :					66,660.92	.00	
JUDICIAL							
10-42-240 OFFICE EXPENSE							
5730	OFFICE DEPOT, INC.	209383778001	JUDICIAL/OFFICE SUPPLIES	12/01/2021	30.98	.00	
10-42-330 PROFESSIONAL SERVICES							
222	ALL PRO SECURITY LLC	2021-2178	JUDICIAL/CONSTABLES	11/18/2021	104.00	.00	
2970	FLORES, ALFONSO	11172021	JUDICIAL/INTERPRETER	11/17/2021	143.50	.00	
Total JUDICIAL:					278.48	.00	
NON-DEPARTMENTAL							
10-43-310 LEGAL SERVICES							
6011	PATTEN, K. SHAWN, LC	11302021	LEGAL SERVICES	11/30/2021	1,266.66	.00	
7983	STEVENS & GAILEY	11524	LEGAL SERVICES	12/01/2021	2,616.00	.00	
10-43-370 EMPLOYEE ASSISTANCE							
988	BLOMQUIST HALE CONS	12012021	MONTHLY FEES	12/01/2021	475.60	.00	
10-43-760 TECHNOLOGY							
343	AMERICAN FORK CITY	2180643	DARK FIBER LEASE	11/01/2021	250.00	.00	
Total NON-DEPARTMENTAL:					4,608.26	.00	
ADMINISTRATIVE SERVICES							
10-46-240 OFFICE EXPENSE							
5730	OFFICE DEPOT, INC.	204570283001	LIB/OFFICE SUPPLIES	10/28/2021	50.34	.00	
10-46-930 COMMUNITIES THAT CARE GRANT							
3571	GURR'S COPYTEC	51931	CTC/COPIES	10/21/2021	119.56	.00	
3571	GURR'S COPYTEC	52008	CTC/COPIES	10/22/2021	50.00	.00	
5033	MACEYS	01-2015737	CTC/SUPPLIES	10/11/2021	57.49	.00	
5033	MACEYS	01-2016654	CTC/SUPPLIES-CARNIVAL TREATS	10/11/2021	56.49	.00	
5033	MACEYS	03-1627587	CTC/SUPPLIES	10/25/2021	33.82	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Total ADMINISTRATIVE SERVICES:					367.70	.00	
FACILITIES							
10-47-250 VEHICLE							
3468	GREASE MONKEY #790	263809	FACILITIES/VEHICLE MAINTENANC	11/22/2021	103.48	.00	
10-47-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/DEPARTMENT SUPPLI	11/30/2021	31.42	.00	
5730	OFFICE DEPOT, INC.	2533450399	FACILITIES/OFFICE SUPPLIES	11/01/2021	99.34	.00	
10-47-530 CITY HALL - BLDG MAINTENANCE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	32.40	.00	
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	239.42	.00	
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	173.65	.00	
10-47-560 PARKS - BUILDING MAINTENANCE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	118.02	.00	
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	2,728.04	.00	
10-47-610 POLICE - POWER							
7062	ROCKY MOUNTAIN POW	11152021	PD/ELECTRICITY EXPENSE	11/15/2021	2,124.99	.00	
10-47-620 POLICE - BLDG MAINT							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	14.39	.00	
5482	MOUNTAINLAND SUPPLY	104375111.002	BUILDING MAINTENANCE	11/10/2021	278.62	.00	
10-47-660 FIRE/AMBULANCE - BLDG MAINT							
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	299.42	.00	
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	375.40	.00	
10-47-670 FIRE/AMBULANCE - BLDG IMPROVE							
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	218.20	.00	
10-47-700 CEMETERY BLDG - BLDG MAINT							
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	352.70	.00	
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	104.15	.00	
10-47-730 LIBRARY/SENIOR - BLDG MAINT							
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	91.55	.00	
10-47-780 PUBLIC WORKS - BLDG MAINT							
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	202.28	.00	
10-47-830 SR CENTER - BLDG MAINT							
970	BJ PLUMBING SUPPLY	931767	BUILDING MAINTENANCE	10/01/2021	61.05	.00	
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	151.16	.00	
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	79.50	.00	
10-47-840 LIONS/SPORTSMAN - BLDG MAINT							
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	189.97	.00	
10-47-920 HISTORIC LIBRARY-HEATING							
2465	DOMINION ENERGY	11112021	MULTI DEPT/HEATING EXPENSE	11/10/2021	24.34	.00	
Total FACILITIES:					8,093.49	.00	
ENGINEERING							
10-51-332 PROFESSIONAL SERVICES							
4292	J.U.B. ENGINEERS, INC.	147752	ENG/GENERAL SERVICES	11/10/2021	997.20	.00	
10-51-760 TECHNOLOGY							
5352	MONSEN ENGINEERING	11390	ENG/EQUIPMENT	11/29/2021	1,305.00	.00	
Total ENGINEERING:					2,302.20	.00	
COMMUNITY DEVELOPMENT							
10-52-240 OFFICE EXPENSE							
6343	PLEASANT GROVE PRIN	9240	COM DEV/ENVELOPES	11/12/2021	580.00	.00	
10-52-480 DEPARTMENTAL SUPPLIES							
4614	L.N. CURTIS & SONS	544550	COM DEV/DEPARTMENTAL SUPPLI	11/17/2021	10.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total COMMUNITY DEVELOPMENT:				590.00	.00	
POLICE DEPARTMENT							
10-54-240 OFFICE EXPENSE							
990	BLUEFIN OFFICE GROUP	757800	PD/OFFICE SUPPLIES	11/17/2021	399.90	.00	
990	BLUEFIN OFFICE GROUP	7578-01	PD/OFFICE SUPPLIES	11/18/2021	113.58	.00	
10-54-250 VEHICLE EXPENSE							
3468	GREASE MONKEY #790	263002	PD/VEHICLE MAINTENANCE	11/02/2021	34.18	.00	
3468	GREASE MONKEY #790	263560	PD/VEHICLE MAINTENANCE	11/15/2021	87.29	.00	
3468	GREASE MONKEY #790	263631	PD/VEHICLE MAINTENANCE	11/17/2021	35.10	.00	
4523	KEN GARFF FORD	4FCS45005	PD/VEHICLE REPAIR	11/15/2021	461.82	.00	
4523	KEN GARFF FORD	4FCS57741	PD/VEHICLE REPAIR	11/16/2021	108.90	.00	
5833	O'REILLY AUTOMOTIVE I	3623-403243	PD/VEHICLE EXPENSE	10/10/2021	15.99	.00	
7168	SAFELITE FULFILLMENT	4249-998453	PD/VEHICLE EXPENSE	07/14/2021	387.65	.00	
10-54-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	51.78	.00	
3011	FORENSIC NURSING SE	21-341	PD/SPECIMEN COLLECTION	11/15/2021	140.00	.00	
9031	UTAH VETERINARY DIAG	21L12001	PD/TESTING NECROPSY	11/12/2021	517.00	.00	
10-54-740 EQUIPMENT							
5833	O'REILLY AUTOMOTIVE I	3623-409634	PD/SUPPLIES	11/29/2021	17.97	.00	
	Total POLICE DEPARTMENT:				2,371.16	.00	
FIRE DEPARTMENT							
10-55-250 VEHICLE EXPENSE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	41.82	.00	
675	AUTO ZONE STORES, IN	6231833186	FIRE/VEHICLE MAINTENANCE	11/24/2021	47.37	.00	
6278	PLEASANT GROVE BIG O	044250-12673	FIRE/VEHICLE EXPENSE	10/09/2021	120.00	.00	
7449	SIDDONS MARTIN EMER	38402948	FIRE/VEHICLE EXPENSE	11/11/2021	849.00	.00	
8923	UTAH DIESEL CENTER, I	15524	FIRE/VEHICLE MAINTENANCE EXP	11/02/2021	374.84	.00	
10-55-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	18.85	.00	
2123	CULLIGAN WATER COND	465X17680804	FIRE/WATER CONDITIONING	11/16/2021	135.00	.00	
3841	HENRY SCHEIN INC.	13161485	FIRE/MEDICAL SUPPLIES	11/23/2021	63.40	.00	
3841	HENRY SCHEIN INC.	13185609	FIRE/MEDICAL SUPPLIES	11/23/2021	40.42	.00	
5033	MACEYS	11162021	FIRE/DEPARTMENTAL SUPPLIES	11/16/2021	113.80	.00	
10-55-740 EQUIPMENT							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	240.42	.00	
2317	DAY WIRELESS SYSTEM	701591	FIRE/EQUIPMENT	11/22/2021	65.00	.00	
10-55-760 TECHNOLOGY							
2436	DISCOUNT CELL, INC	24769	FIRE/CRADLEPOINT 3 YEAR NETCL	07/22/2021	1,188.24	.00	
	Total FIRE DEPARTMENT:				3,298.16	.00	
STREETS							
10-60-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	408.19	.00	
675	AUTO ZONE STORES, IN	6231811257	STR/DEPARTMENTAL SUPPLIES	10/21/2021	5.57	.00	
974	BISCO	1651950	STR/DEPARTMENTAL SUPPLIES	11/23/2021	125.28	.00	
1368	C-A-L RANCH STORES	124047/8	STR/DEPARTMENTAL SUPPLIES	11/24/2021	189.99	.00	
4019	HUMPHRIES, INC.	421083	STR/CONTACT TIPS	11/19/2021	13.00	.00	
4200	INTERMOUNTAIN BOBCA	1368	STR/VEHICLE MAINTENANCE EXPE	12/01/2021	7.04	.00	
5870	OUT BACK GRAPHICS LL	15725	STR/DEPARTMENTAL SUPPLIES	11/17/2021	28.00	.00	
	Total STREETS:				777.07	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
LIBRARY							
10-65-210 MEETINGS & MEMBERSHIPS							
8158	TECH LOGIC CORPORAT	15009736	LIB/RECEIPT PAPER	11/16/2021	201.00	.00	
10-65-240 OFFICE EXPENSE							
307	AMAZON	11052021	LIB/OFFICE SUPPLIES	11/05/2021	11.85	.00	
2122	CULLIGAN BOTTLED WA	465X17607005	LIB/BOTTLED WATER	10/31/2021	16.95	.00	
4747	LES OLSON COMPANY	42777	LIB/TONER	10/29/2021	234.00	.00	
4970	LOTT'S ORIGINALS	8255	LIB/OFFICE SUPPLIES	07/18/2021	27.50	.00	
10-65-420 CHILDRENS PROGRAMING							
5033	MACEYS	01-2026651	LIB/SUPPLIES	10/25/2021	4.76	.00	
5033	MACEYS	02-1375947	LIB/SUPPLIES	09/27/2021	4.47	.00	
10-65-480 BOOKS							
307	AMAZON	11052021	LIB/BOOKS	11/05/2021	616.51	.00	
2598	EASTWEST BOOKS	325387	LIB/BOOKS	11/10/2021	45.98	.00	
4159	INGRAM LIBRARY SERVI	55300067	LIB/BOOKS	10/12/2021	160.31	.00	
4159	INGRAM LIBRARY SERVI	55418671	LIB/BOOKS	10/19/2021	147.70	.00	
4159	INGRAM LIBRARY SERVI	55439940	LIB/BOOKS	10/20/2021	344.50	.00	
4159	INGRAM LIBRARY SERVI	55537389	LIB/BOOKS	10/26/2021	284.06	.00	
4159	INGRAM LIBRARY SERVI	55576908	LIB/BOOKS	10/28/2021	220.28	.00	
4159	INGRAM LIBRARY SERVI	55581552	LIB/BOOKS	10/28/2021	700.48	.00	
4159	INGRAM LIBRARY SERVI	55758094	LIB/BOOKS	11/08/2021	508.33	.00	
4159	INGRAM LIBRARY SERVI	55837903	LIB/BOOKS	11/11/2021	346.72	.00	
4159	INGRAM LIBRARY SERVI	55859849	LIB/BOOKS	11/12/2021	435.73	.00	
10-65-485 AUDIO/VISUAL MATERIALS							
307	AMAZON	11052021	LIB/BOOK BINDING	11/05/2021	18.49	.00	
2402	DESERET BOOK	4690193	LIB/AUDIO BOOKS	11/10/2021	63.97	.00	
2870	FINDAWAY WORLD, LLC	369079	LIB/AUDIO MATERIALS	11/16/2021	599.89	.00	
10-65-640 PROCESSING							
2395	DEMCO, INC.	7031322	LIB/ASSORTED SUPPLIES	10/27/2021	261.80	.00	
4159	INGRAM LIBRARY SERVI	55439940	LIB/BOOK BINDING	10/20/2021	12.24	.00	
4159	INGRAM LIBRARY SERVI	55576908	LIB/BOOK BINDING	10/28/2021	4.32	.00	
4159	INGRAM LIBRARY SERVI	55581552	LIB/BOOK BINDING	10/28/2021	18.00	.00	
4159	INGRAM LIBRARY SERVI	55758094	LIB/BOOK BINDING	11/08/2021	15.84	.00	
4159	INGRAM LIBRARY SERVI	55859849	LIB/BOOK BINDING	11/12/2021	10.08	.00	
	Total LIBRARY:				5,315.76	.00	
SR. CITIZEN CTR & AUDITORIUM							
10-67-210 MEETINGS & MEMBERSHIPS							
8877	UTAH COUNTY HEALTH	11162021	JACOBS SENIOR CENTER FOOD P	11/16/2021	265.00	.00	
10-67-240 OFFICE EXPENSE							
1760	CINTAS FIRST AID & SAF	5085612667	SC/FIRST AID SUPPLIES	11/29/2021	36.93	.00	
1905	COMCAST	11152021	SC/INTERNET SERVICE	11/15/2021	85.99	.00	
	Total SR. CITIZEN CTR & AUDITORIUM:				387.92	.00	
PARKS							
10-70-250 VEHICLE EXPENSE							
3468	GREASE MONKEY #790	263336	PARK/VEHICLE MAINTENANCE	11/10/2021	249.29	.00	
7168	SAFELITE FULFILLMENT	3844-014749	PARKS/VEHICLE EXPENSE	11/16/2021	200.00	.00	
10-70-320 SPRINKLER & LANDSCAPE							
5715	NORTH POINTE SOLID W	116525-113020	PARK/GARBAGE DISPOSAL FEE	11/30/2021	33.00	.00	
10-70-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	334.96	.00	
10-70-670 SAFETY EQUIP. & SUPPLIES							
1368	C-A-L RANCH STORES	12033/8	PARK/BOOTS	11/22/2021	457.96	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
10-70-750 CHRISTMAS LIGHTS							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	268.69	.00	
7798	SPRINKLER WORLD	NMKC58	PARK/CHRISTMAS LIGHTS	11/18/2021	300.00	.00	
7798	SPRINKLER WORLD	NMTB84	PARK/CHRISTMAS LIGHTS	11/23/2021	72.75	.00	
	Total PARKS:				1,916.65	.00	
RECREATION							
10-71-240 OFFICE EXPENSE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	13.43	.00	
5730	OFFICE DEPOT, INC.	212473914001	REC/OFFICE SUPPLIES	11/30/2021	62.70	.00	
10-71-250 VEHICLE EXPENSE							
4523	KEN GARFF FORD	4FCS54280	PARK/VEHICLE REPAIR	11/15/2021	676.23	.00	
	Total RECREATION:				752.36	.00	
LEISURE SERVIVES							
10-72-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	174.69	.00	
	Total LEISURE SERVIVES:				174.69	.00	
CUSTODIAL SERVICES							
10-74-480 DEPARTMENTAL SUPPLIES							
9342	WAXIE'S SANITARY SUPP	80410168	BUILDING MAINTENANCE SUPPLIE	10/28/2021	1,378.42	.00	
	Total CUSTODIAL SERVICES:				1,378.42	.00	
	Total GENERAL FUND:				99,273.24	.00	
CLASS C ROAD FUND							
EXPENDITURES							
20-40-480 DEPARTMENTAL SUPPLIES							
8014	STREETSCAN, INC.	10595	CLASS C ROADS/ANNUAL LICENSE	10/10/2021	8,060.00	.00	
20-40-808 2600 North Reconstruction							
6760	RB & G ENGINEERING, I	210167	2600 N STREET IMPROVEMENTS	11/17/2021	24,827.50	.00	
	Total EXPENDITURES:				32,887.50	.00	
	Total CLASS C ROAD FUND:				32,887.50	.00	
CEMETERY							
22-70-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	51.39	.00	
1905	COMCAST	11132021	CEM/INTERNET SERVICES	11/13/2021	89.73	.00	
	Total :				141.12	.00	
	Total CEMETERY:				141.12	.00	
GEN PURPOSE BOND RETIRE FUND							
BONDS - GENERAL							
32-80-520 BOND INTEREST PAYMENTS							
9802	ZIONS BANK	11162021	LOAN PAYMENT	11/16/2021	38,169.44	.00	
32-80-550 BOND AGENT FEES							
540	ARBITRAGE COMPLIANC	1029541	ARBITRAGE REBATE CALCULATIO	11/18/2021	1,750.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total BONDS - GENERAL:				39,919.44	.00	
	Total GEN PURPOSE BOND RETIRE FUND:				39,919.44	.00	
STORM DRAIN UTILITY FUND							
GENERAL GOVERNMENT							
48-41-250 VEHICLE EXPENSE							
9367	WEST COAST TOWING	10337	STRM DRN/TOWING SERVICES	11/10/2021	450.00	.00	
48-41-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	55.41	.00	
1368	C-A-L RANCH STORES	12045/8	STRM DRN/DEPARTMENTAL SUPPL	11/24/2021	84.97	.00	
1368	C-A-L RANCH STORES	124046/8	STRM DRN/DEPARTMENTAL SUPPL	11/24/2021	49.99	.00	
5715	NORTH POINTE SOLID W	116525-113020	STRM DRN/SWEEPING DISPOSAL F	11/30/2021	322.32	.00	
48-41-740 EQUIPMENT							
7967	STERTIL KONI	166459	VEHICLE LIFTS AND JACK STANDS	11/15/2021	16,001.98	.00	
	Total GENERAL GOVERNMENT:				16,964.67	.00	
	Total STORM DRAIN UTILITY FUND:				16,964.67	.00	
CAPITAL PROJECTS FUND							
EXPENDITURES							
49-40-420 CONTRACTED SERVICES							
8003	STONE SECURTY, LLC	49504	CARD PRINTER AND ACCESSORIE	11/18/2021	5,589.00	.00	
49-40-500 OTHER CAPITAL PROJECT EXPEND.							
4747	LES OLSON COMPANY	259575	LIB/PRINTER	10/25/2021	413.08	.00	
	Total EXPENDITURES:				6,002.08	.00	
MISC PROJECTS							
49-90-814 PUBLIC WORKS VEHICLES							
7967	STERTIL KONI	166459	VEHICLE LIFTS AND JACK STANDS	11/15/2021	15,000.00	.00	
9451	WHEELER MACHINERY C	33226	TILT DECK TRAILER	11/29/2021	13,500.00	.00	
49-90-960 PARKS EXPENDITURES							
6535	PROJECT ENGINEERING	24397	KINDNESS PARK	10/31/2021	11,730.00	.00	
	Total MISC PROJECTS:				40,230.00	.00	
	Total CAPITAL PROJECTS FUND:				46,232.08	.00	
WATER FUND							
EXPENDITURES							
51-40-250 VEHICLE EXPENSE							
4748	LES SCHWAB TIRES	50800408061	WATER/VEHICEL MAINTENANCE	11/18/2021	101.97	.00	
5833	O'REILLY AUTOMOTIVE I	3623-398054	WATER/VEHICLE EXPENSE	09/03/2021	12.44	.00	
5833	O'REILLY AUTOMOTIVE I	3623-404408	WATER/VEHICLE EXPENSE	10/19/2021	49.58	.00	
7498	SIX STATES DISTRIBUTO	14399149	WATER/VEHICLE EXPENSE	10/06/2021	54.82	.00	
51-40-420 STREET REPAIRS							
3312	GENEVA ROCK PRODUC	2464055	WATER/ASPHALT	11/16/2021	244.80	.00	
51-40-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	301.77	.00	
51-40-600 REPAIR & MAINTENANCE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	172.73	.00	
970	BJ PLUMBING SUPPLY	936490	WATER/DEPARTMENTAL SUPPLIES	11/17/2021	1.66	.00	
2192	D AND L SUPPLY CO., IN	122657	WATER/DEPARTMENTAL SUPPLIES	11/18/2021	486.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
51-40-740 EQUIPMENT							
6525	PROFESSIONAL HEATIN	76961	WATER/HEAT PUMP SYSTEM ANDE	07/26/2021	7,900.00	.00	
7967	STERTIL KONI	166459	VEHICLE LIFTS AND JACK STANDS	11/15/2021	16,001.00	.00	
Total EXPENDITURES:					25,326.77	.00	
WATER CAPITAL PROJECTS							
51-70-920 VEHICLES/EQUIPMENT							
4523	KEN GARFF FORD	2021-C0880	2021 FORD F-150	08/16/2021	36,270.34	.00	
Total WATER CAPITAL PROJECTS:					36,270.34	.00	
Total WATER FUND:					61,597.11	.00	
SEWER FUND							
EXPENDITURES							
52-40-350 CHARGES FOR TREATMENT							
1780	CITY OF CEDAR HILLS	12012021	WEDGEWOOD DRIVE SEWER	12/01/2021	156.35	.00	
52-40-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	46.05	.00	
52-40-740 EQUIPMENT							
7967	STERTIL KONI	166459	VEHICLE LIFTS AND JACK STANDS	11/15/2021	16,001.00	.00	
Total EXPENDITURES:					16,203.40	.00	
Total SEWER FUND:					16,203.40	.00	
SECONDARY WATER							
EXPENDITURES							
54-40-250 VEHICLE							
5833	O'REILLY AUTOMOTIVE I	3623-402480	SEC WATER/DEPARTMENTAL SUPP	10/05/2021	52.44	.00	
54-40-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	11232021	WALKER BOOSTER PUMP	11/23/2021	616.38	.00	
54-40-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	117.09	.00	
54-40-540 WATER SHARE ASSESSMENTS							
8937	UTAH LAKE DISTRIBUTIN	55742	SEC WATER/ASSESSMENTS	11/09/2021	1,617.50	.00	
8937	UTAH LAKE DISTRIBUTIN	55743	SEC WATER/ASSESSMENTS	11/09/2021	497.50	.00	
8937	UTAH LAKE DISTRIBUTIN	55744	SEC WATER/ASSESSMENTS	11/09/2021	847.50	.00	
8937	UTAH LAKE DISTRIBUTIN	55745	SEC WATER/ASSESSMENTS	11/09/2021	882.50	.00	
54-40-600 REPAIR & MAINTENANCE							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	38.38	.00	
974	BISCO	1651806	SEC WATER/DEPARTMENTAL SUPP	11/19/2021	621.72	.00	
Total EXPENDITURES:					5,291.01	.00	
Total SECONDARY WATER:					5,291.01	.00	
CAPITAL EQUIPMENT							
58-40-500 PRINCIPAL PAYMENTS							
4411	JP MORGAN EQUIPMENT	20211220	EQUIPMENT LEASE	11/22/2021	15,007.77	.00	
58-40-520 INTEREST PAYMENTS							
4411	JP MORGAN EQUIPMENT	20211220	EQUIPMENT LEASE	11/22/2021	826.94	.00	
Total :					15,834.71	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total CAPITAL EQUIPMENT:				15,834.71	.00	
SANITATION FUND							
EXPENDITURES							
62-40-432 TIPPING FEES							
5715	NORTH POINTE SOLID W	116520-113020	RESIDENTIALGARBAGE DISPOSAL	11/30/2021	33,085.50	.00	
5715	NORTH POINTE SOLID W	116524-113020	GREEN WASTE DISPOSAL FEE	11/30/2021	72.00	.00	
62-40-437 CITY CLEANUP							
5715	NORTH POINTE SOLID W	116521-113020	CLEAN UP COUPONS	11/30/2021	781.00	.00	
	Total EXPENDITURES:				33,938.50	.00	
	Total SANITATION FUND:				33,938.50	.00	
SWIMMING POOL							
SWIMMING POOL							
71-73-240 OFFICE EXPENSE							
1905	COMCAST	11232021	POOL/INTERNET SERVICE	11/23/2021	109.68	.00	
8877	UTAH COUNTY HEALTH	11152021	POOL/SNACH BAR PERMIT	11/16/2021	165.00	.00	
8877	UTAH COUNTY HEALTH	11172021	POOL/HEALTH PERMITS	11/16/2021	395.00	.00	
8877	UTAH COUNTY HEALTH	11182021	POOL SPA PERMIT	11/16/2021	395.00	.00	
8877	UTAH COUNTY HEALTH	11192021	POOL SLIDE PERMIT	11/16/2021	395.00	.00	
71-73-390 BUILDING MAINTENANCE							
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	320.17	.00	
71-73-460 CONCESSION STAND EXPENSE							
1863	SWIRE COCA-COLA USA,	13308223370	POOL/SNACK BAR EXPENSE	07/16/2021	234.68	.00	
71-73-480 DEPARTMENTAL SUPPLIES							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	129.99	.00	
	Total SWIMMING POOL:				2,144.52	.00	
	Total SWIMMING POOL:				2,144.52	.00	
COMMUNITY CENTER							
72-71-062 COMMUNITY CTR - BLDG MAINT							
139	ADVANCED FITNESS RE	9251	REC/EQUIPMENT REPAIR	11/21/2021	111.46	.00	
139	ADVANCED FITNESS RE	9263	REC/NON WARRANTY REPAIRS	11/23/2021	85.00	.00	
139	ADVANCED FITNESS RE	9294	REC/NON WARRANTY REPAIRS	11/29/2021	169.25	.00	
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	7.29	.00	
1870	CODALE ELECTRIC SUP	7591774.001	BUILDING MAINTENANCE	11/08/2021	125.83	.00	
6850	REPUBLIC SERVICES	11302021	MULTI DEPT/GARBAGE COLLECTIO	11/30/2021	417.54	.00	
8678	UNIFIRST CORPORATIO	11222021	RUG CLEANING	11/22/2021	314.05	.00	
72-71-410 PROGRAM SUPPLIES & EQUIPMENT							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	18.36	.00	
72-71-420 CONTRACTED SERVICES							
1905	COMCAST	11162021	REC/INTERNET SERVICE	11/15/2021	230.37	.00	
8877	UTAH COUNTY HEALTH	11202021	MANILA FIELD CONCESSIONS	11/18/2021	165.00	.00	
8877	UTAH COUNTY HEALTH	11212021	SHANNON FIELD CONCESSIONS	11/18/2021	165.00	.00	
72-71-460 CONCESSION STAND EXPENSE							
1863	SWIRE COCA-COLA USA,	13308224840	REC/CONCESSION STAND EXPENS	11/26/2021	126.56	.00	
	Total :				1,935.71	.00	
	Total COMMUNITY CENTER:				1,935.71	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
CULTURAL ARTS							
PROGRAM EXPENDITURES							
73-71-550 ARTS COUNCIL EXPENSE							
6343	PLEASANT GROVE PRIN	9250	ARTS/POSTERS AND FLYERS	11/26/2021	33.00	.00	
73-71-552 PG PLAYERS							
239	ALLRED ACE HARDWAR	11302021	MULT DEPT/SUPPLIES	11/30/2021	47.18	.00	
2763	EVERETT, VANCE L.	12012021	PG PLAYERS/REIMB. FOR TICKETI	12/01/2021	1,641.00	.00	
8349	THOMPSON, JEFF	12012021	PG PLAYERS/REIMB. FOR MARKETI	12/01/2021	256.00	.00	
Total PROGRAM EXPENDITURES:					1,977.18	.00	
Total CULTURAL ARTS:					1,977.18	.00	
Grand Totals:					374,340.19	.00	

Dated: _____

Mayor: _____

City Council: _____

_____

_____

_____

_____

_____

City Recorder: _____

City Finance Director: _____ 12/2/2021

Report Criteria:
Invoices with totals above $0 included.
Only unpaid invoices included.