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 Tuesday September 1, 2026** in the Community Room 108 S 100 E, prior to the **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. Members of the Council may participate electronically.

AGENDA

4:30 P.M. WORK SESSION

a. Introduction of New Employees.
b. Cook Family Park Survey Presentation.
c. 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. To consider for approval Payment No. 6 to Condie Construction Co., LLC for the 800 North Area Waterline, Drainage and Roadway Reconstruction Project.
   b. To consider approval of Payment Reports for August 20, 2026.

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

7. **BOARD, COMMISSION, COMMITTEE APPOINTMENTS:** ***No items at this time.***

8. **PRESENTATIONS:** ***No items at this time.***

9. **PUBLIC HEARING ITEMS:**

A. Public Hearing to consider an Ordinance (2026-025) to adopt the Pleasant Grove Downtown Master Plan. *Presenter: Director Cárdenas*

B. Public Hearing to consider an Ordinance (2026-026) to adopt Vicinity Plan Amendment, located within the area delineated by Murdock Canal Trail, 1590 West, 3620 North, and the western boundary of Pleasant Grove City. Including Parcels #14:004:0362 and 14:004:0365, on approximately 12.079 acres of land. *Presenter: Director Cárdenas*

C. Public Hearing to consider an Ordinance (2026-027) to adopt the updated Storm Water Management Plan (SWMP) updating and including new standard operating procedures; adding new appendices; and other necessary changes. Presenter: *PW Operator Baylor Hatch*

10. ACTION ITEMS READY FOR VOTE:

A. To consider for approval a Commercial Site Plan for a commercial building, located at approximately 224 S. Pleasant Grove Blvd in The Grove – Commercial Sales Zone with the Boulevard Mixed Use Overlay. Applicant: Kartik Patel. *Presenter: Director Cárdenas*

B. To consider a Resolution (2026-041) authorizing the Mayor to sign an Interlocal Cooperation Agreement with Alpine School District for School Resource Officer services. *Presenter: Attorney Petersen*

11. ITEMS FOR DISCUSSION:

a. Continued Items from the Work Session if needed.

12. REVIEW AND DISCUSSION ON THE SEPTEMBER 15, 2026 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.pgcityutah.gov) websites.

Posted by: /s/ Wendy Thorpe, City Recorder
Date: August 28, 2026
Time: 1:00 p.m.
Place: City Hall, Library and Community Room 108 S 100 E.

*Note: In accordance with the Americans with Disabilities Act, Pleasant Grove City will make reasonable accommodation for participation in the meeting. Request assistance by contacting Pleasant Grove City at (801) 785-5045, at least 48 hours prior to the meeting. Members of the Council may participate electronically.

Agenda

ORDINANCE # 2026-025

AN ORDINANCE FOR THE ADOPTION OF THE NEW PLEASANT GROVE CITY DOWNTOWN MASTER PLAN. PLEASANT GROVE CITY, APPLICANT.

WHEREAS, Pleasant Grove City, with the help of Landmark Design, started a public process to create a draft for a new master plan for the Downtown Village Zone, with the required updates to keep the land use policies and programs consistent between the current and future vision for Pleasant Grove City; and

WHEREAS, a new document was created that is intended to serve as a blueprint for making decision regarding the development of the Downtown Village Zone, as such decisions pertain to the evaluation of present and future needs and opportunities on land use regulation and development, future investment, and the allocation of resources; and

WHEREAS, on August 13, 2026, the Pleasant Grove City Planning Commission held a public hearing to consider the creation of the Downtown Master Plan; and

WHEREAS, at its public hearing the Planning Commission found that the proposed Downtown Master Plan was in the public's interest and found it consistent with the intent of the existing General Plan; and

WHEREAS, the Pleasant Grove Planning Commission recommended to the Pleasant Grove City Council that the adoption of the new Downtown Master Plan be approved; and

WHEREAS, on September 1, 2026, 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 creation of the Downtown Master Plan was in the best interest of the public and was consistent with the intent of the existing General Plan; and

WHEREAS, at its meeting the Pleasant Grove City Council adopted a new Downtown Master Plan.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PLEASANT GROVE THAT THE PLEASANT GROVE CITY GENERAL PLAN SHALL BE ADOPTED AS FOLLOWS:

SECTION 1: The proposed Downtown Master Plan to appear as shown on the attached Exhibit "A".

SECTION 2: The proposed Downtown Master Plan shall be filed with the Pleasant Grove City Recorder.

SECTION 3. The Pleasant Grove City Council finds that the proposed Downtown Master Plan request is in the best interest of the public and is consistent with the intent of the Utah State Code.

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 1st day of September 2026.

_____.
Eric Jensen, Mayor

ATTEST:

_____. (SEAL)
Wendy Thorpe
City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yes**	**No**	**Abstain**	**Absent**
Mayor Eric Jensen	____	____	____	____
Dianna Andersen	____	____	____	____
Steve Rogers	____	____	____	____
Cyd LeMone	____	____	____	____
Todd Williams	____	____	____	____
Dustin Phillips	____	____	____	____

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 _____, 2026.

Dated this _____ day of _____, 2026.

_____
Wendy Thorpe, CMC, City Recorder

Pleasant Grove
Utah's City of Trees

City Council Staff Report

September 1, 2026

DOWNTOWN MASTER PLAN

APPLICANT	Pleasant Grove City
REQUEST	Request to amend the Pleasant Grove City General Plan
ZONE	All Zones
ITEM DESCRIPTION	Public Hearing to consider the request of Pleasant Grove City for the adoption of the Pleasant Grove Downtown Master Plan. The Pleasant Grove Downtown Master Plan provides a comprehensive vision, recommendations and priorities for the future of downtown Pleasant Grove. (Legislative Item)
STAFF RECOMMENDATION	Adopt the recommendations for future land use

Background

The Downtown Pleasant Grove Master Plan establishes a long-term vision and implementation framework for Downtown Pleasant Grove. The plan was prepared through a partnership between Pleasant Grove City, the Mountainland Association of Governments (MAG), and a consultant team led by Downtown Redevelopment Services. The plan builds upon previous planning efforts, including the 2008 Downtown 2020 Action Plan and the 2023 Pleasant Grove General Plan and Transportation Master Plan.

The General Plan identifies Downtown as a mixed-use center supporting commercial activity, housing, civic uses, public gathering spaces, and a walkable and connected environment. The Downtown Master Plan builds upon that policy direction by translating these broader goals into a focused downtown vision, specific recommendations, and implementation strategies.

Analysis

Planning Process & Community Input

The planning process began in January 2026 and included stakeholder meetings, a community visioning survey, City Council visioning, stakeholder and public design charrettes, Strawberry Days outreach, draft plan presentations, and a public comment period. Additional review and adoption activities are scheduled through September 2026.

Public input consistently identified three major themes:

1. *Built Environment & Development* – Activate vacant and underutilized properties, encourage compatible mixed-use development and housing, and preserve Downtown's historic character.
2. *Mobility, Streetscape & Connectivity* – Improve pedestrian and bicycle infrastructure and strengthen connections between Downtown, neighborhoods, parks, schools, and other community destinations.
3. *Public Space, Character & Identity* – Strengthen public gathering spaces, improve Downtown's identity, and build upon existing community events and historic resources.

Downtown Vision

The plan's overarching vision is for Downtown Pleasant Grove to become a *vibrant, walkable destination that connects people to civic amenities, local businesses, parks, schools, and surrounding neighborhoods while reflecting the historic character and role of Downtown as the heart of the community.*

Key Recommendations

The Master Plan contains numerous recommendations; however, several are particularly important to the long-term direction of Downtown:

1.- Mobility and Circulation: Downtown Pleasant Grove will circulate safely for people walking, rolling, driving, and taking transit, improving access and strengthening connections to nearby destinations and regional networks.

2.- Community Placemaking: Downtown Pleasant Grove will create welcoming, active public spaces and gateways that celebrate its history, support community gathering, and define a strong sense of place.

3.- Development Approach: Downtown Pleasant Grove will grow as a lively mixed-use place that strengthens Main Street and facilitates thoughtful infill that fits its character and lon-term potential.

Implementation

The Master Plan is intended to guide implementation over multiple years rather than require all recommendations to occur immediately. Implementation will require

coordination between City departments, property owners, developers, businesses, community organizations, and regional partners.

The plan recommends that future implementation be tied to an annual work program and budget so that projects can be prioritized based on community benefit, available resources, grant opportunities, partnerships, and the City's annual budgeting process.

Importantly, the plan does not commit the City to construct every improvement identified in the document. Specific capital projects, code amendments, development agreements, funding mechanisms, and other implementation actions will return to the appropriate boards and legislative bodies for consideration as they are developed.

Recommendation from Planning Commission

Pleasant Grove City Planning Commission took the following action on the described application at their meeting on August 13, 2026.

2. **Public Hearing: Adoption of the Downtown Master Plan (City Wide)**
   Public Hearing to consider the request of Pleasant Grove City for the adoption of the Pleasant Grove Downtown Master Plan. The Pleasant Grove Downtown Master Plan provides a comprehensive vision, recommendations and priorities for the future of downtown Pleasant Grove.

Approval

MOTION: Commissioner Butler moved to forward a recommendation of APPROVAL to the City Council for the Request of Pleasant Grove City for the adoption of the Pleasant Grove Downtown Master Plan; 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 Redding seconded the motion. The Commissioners voted 6–1 in favor. The motion carried.

Motion by: Commissioner Butler

Seconded by: Commissioner Redding

AYE VOTES: Chair Martineau, Commissioners Gregson, Robertson, Butler, Redding, Nelson

NAY VOTES: Commissioners Trickler



Pleasant Grove
Utah's City of Trees

PLEASANT GROVE

DOWNTOWN MASTER PLAN

June
2026

TABLE OF CONTENTS

Introduction 02

Planning History 03

Demographic Overview 04

Existing Conditions Assessment 05

Market Conditions 07

Public Engagement Synopsis 12

Downtown Recommendations Overview 13

Pleasant Grove Vision Framework 15

Overall Downtown Recommendations 16

Site Specific Development Assistance 34

Implementation Strategies 39

Funding Opportunities 43

ACKNOWLEDGEMENTS

This plan was funded by Pleasant Grove City and the Mountainland Association of Governments (MAG). The development of this plan was made possible by residents and stakeholders in Pleasant Grove as well as the following individuals.

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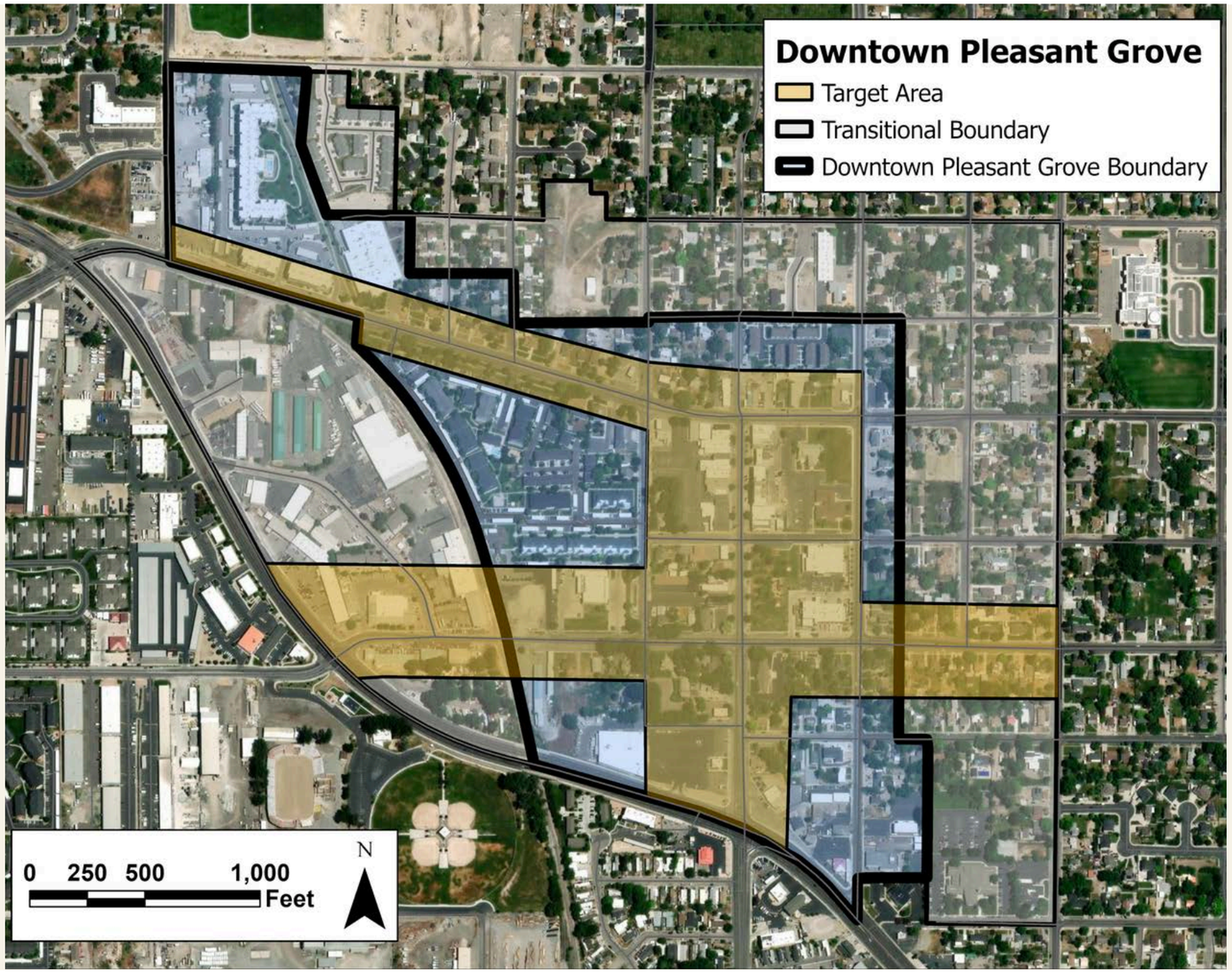
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Emily Seang
Kate Ades

Township + Range
Tim Sullivan

Landmark Design
Sam Taylor

INTRODUCTION

01



The Downtown Pleasant Grove Master Plan provides a long-term vision and implementation framework for the future of Downtown Pleasant Grove. Prepared through a partnership between Pleasant Grove City, the Mountainland Association of Governments (MAG), and a consultant team led by Downtown Redevelopment Services (DRS), the plan builds upon previous planning efforts while responding to current opportunities, community priorities, and development conditions.

Downtown Pleasant Grove serves as the community's historic, civic, and cultural center. Anchored by numerous community destinations, the area plays an important role in the daily life of residents while also serving as a gathering place for community events and celebrations. As Pleasant Grove continues to grow, Downtown has the opportunity to strengthen its role as both a local destination and a regional focal point.

This plan establishes a coordinated strategy for land use, transportation, economic development, public spaces, historic character, wayfinding, and community activation. The recommendations are intended to guide public investment, private development, and organizational efforts over the coming years while providing a clear roadmap for implementation. By focusing on practical, achievable actions and long-term priorities, the Downtown Pleasant Grove Master Plan positions Downtown to remain the heart of the community while supporting continued growth and investment.

02 PLANNING HISTORY

Go To ToC

Downtown Pleasant Grove has been the focus of multiple planning efforts over the past two decades, each aimed at strengthening Downtown as the city's civic, economic, and cultural center. The Downtown Master Plan builds on these efforts by aligning prior recommendations with current conditions and implementation priorities.

DOWNTOWN 2020 ACTION PLAN (2008)

The Downtown 2020 Action Plan established a comprehensive vision for Downtown Pleasant Grove using the Main Street approach. The plan was structured around 28 goals focused on organization, design, economic development, and promotion, while framing Downtown as a mixed-use village and civic center.

The Downtown Master Plan builds on this foundation by updating priorities, refining strategies, and aligning long-standing goals with current conditions, policies, and implementation capacity.

Key themes included:

- Strengthen Downtown as the heart of civic, cultural, and community life
- Focus on placemaking, public spaces, streetscape improvements, and pedestrian connectivity
- Support business recruitment, retention, and downtown events
- Establish a coordinated framework for implementation

PLEASANT GROVE GENERAL PLAN (2023)

The Pleasant Grove General Plan establishes Downtown as a mixed-use center intended to support commercial activity, housing, civic uses, and public gathering spaces within a walkable and connected environment.

As a recently adopted document, many implementation efforts remain in the early stages. The Downtown Master Plan advances the General Plan by translating its recent goals into a focused downtown vision, prioritized actions, and implementable strategies explicitly tailored to Downtown Pleasant Grove.

Key Takeways:

- Clear policy direction supporting Downtown as a priority area for reinvestment and placemaking.
- Alignment of transportation, land use, and economic development policies that reinforce a compact, walkable downtown core.
- Coordinated implementation tools, such as targeted zoning updates, capital improvement prioritization, and redevelopment incentives.

PLEASANT GROVE TRANSPORTATION MASTER PLAN (2023)

The Pleasant Grove Transportation Master Plan (TMP) establishes a multimodal framework that supports Downtown as a key activity center by emphasizing safety, connectivity, and balanced mobility for all users, aligning well with Downtown's role as a destination for employment, commerce, civic uses, and community events. Given the recent adoption of the plan, many implementation efforts remain in the early stages. The Downtown Master Plan advances the TMP by translating its multimodal policies into targeted street concepts, connectivity improvements, and phased implementation priorities tailored to Downtown Pleasant Grove.

Key themes included:

- Emphasis on multimodal transportation, including pedestrian, bicycle, and vehicle networks serving activity centers.
- Street design changes that prioritize downtown activity and placemaking in addition to vehicle movement.
- Coordination between transportation investments, land use decisions, and redevelopment timing.

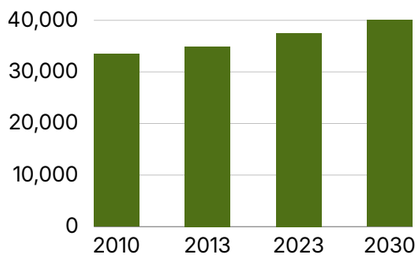
DEMOGRAPHIC OVERVIEW

03

POPULATION SUMMARY

The population of Pleasant Grove is 37,544 as of 2023. This is due to steady population growth over the past 10 years. The table below shows Pleasant Grove's population trends over the past 15 years and projected growth through 2030.

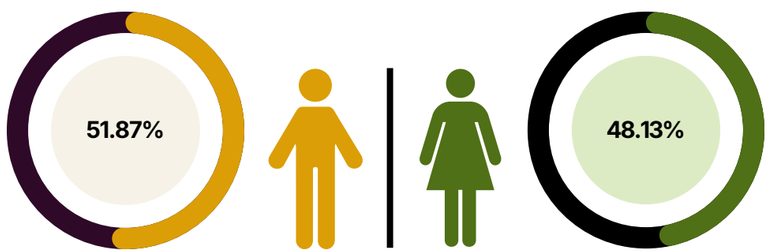
POPULATION SUMMARY	
2010	33,509
2013	34,890
2023	37,544
2030	40,000



*Population forecasting for 2030 is provided by the Mountainland Association of Governments (MAG).

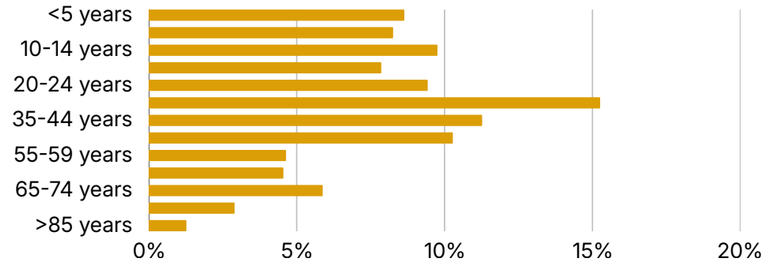
The data indicates that Pleasant Grove has maintained a steady increase in population and will continue to do so for the near future. Downtown Pleasant Grove has the opportunity to capture and contribute to this population growth by providing the necessary amenities, a variety of housing options, and improved connectivity.

The gender mix in the city is evenly distributed, with 51.87% male residents and 48.13% female residents.



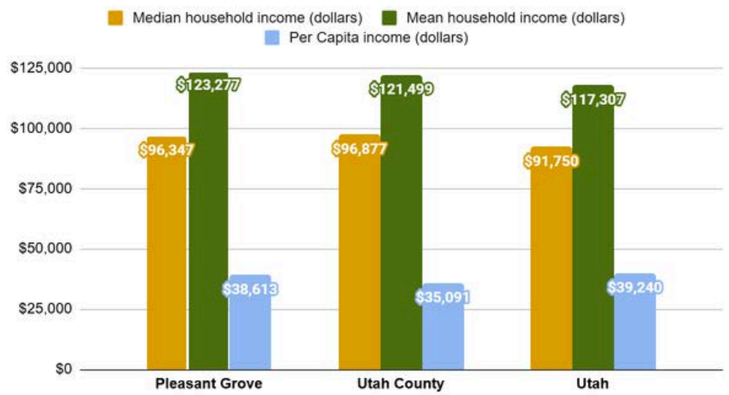
AGE DISTRIBUTION

The median age in Pleasant Grove is 28.2 years, slightly higher than the national median but lower than the state median. The graphic below shows the age distribution in Pleasant Grove.



INCOME COMPARISION ANALYSIS

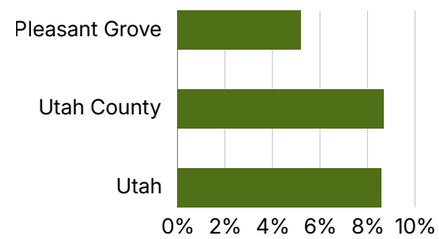
Pleasant Grove's average household income and per capita income reflects a stronger performance compared to county and state figures. Downtown Pleasant Grove has the opportunity to capitalize on this by providing highly in-demand services that could increase spending in the downtown area.



POVERTY RATE COMPARATIVE ANALYSIS

Poverty in Pleasant Grove is reported to be significantly lower at 5.2% than the county's 8.7% and the state's 8.6%. This low poverty rate demonstrates that in Pleasant Grove, economic conditions are more favorable than those seen across Utah County and the state as a whole.

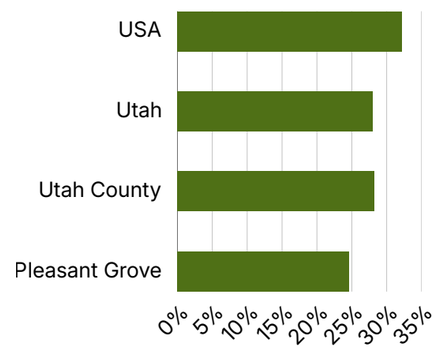
POVERTY RATE	
Pleasant Grove	5.2%
Utah County	8.7%
Utah	8.6%



COST BURDENED HOUSEHOLDS

Pleasant Grove has the lowest percentage of cost-burdened households at 24.6%, compared to 28.2% in Utah County and 28.0% statewide. With more residents having disposable income beyond housing costs, there is potential for increased local spending in retail, dining, and services. However, housing affordability still remains a significant concern for many households.

COST BURDENED HOUSEHOLDS	
USA	32.2%
Utah	28%
Utah County	28.2%
Pleasant Grove	24.6%



04 EXISTING CONDITIONS ASSESSMENT

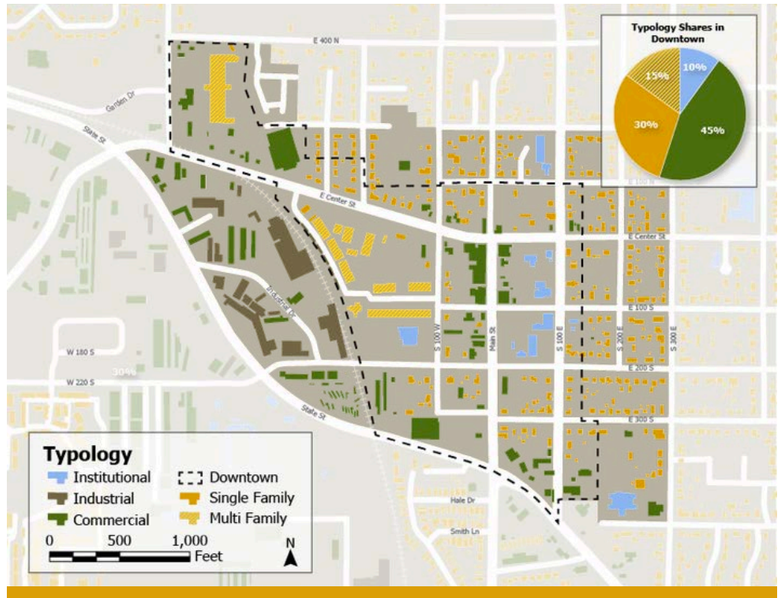
Go To ToC

LAND USE & DEVELOPMENT

The Downtown area is zoned as the Downtown Village district to provide a walkable and livable downtown environment.

The district focuses on balancing the preservation of the historic downtown area while fostering the revitalization of its commercial and retail base. While there are several small vacant lots in the study area, most buildings are occupied.

The diverse mix of building typologies throughout downtown creates a unique experience and their differing facades and uses can create visual interest and vibrant spaces.



Structure Typology | Source: Landmark Design / Township + Range

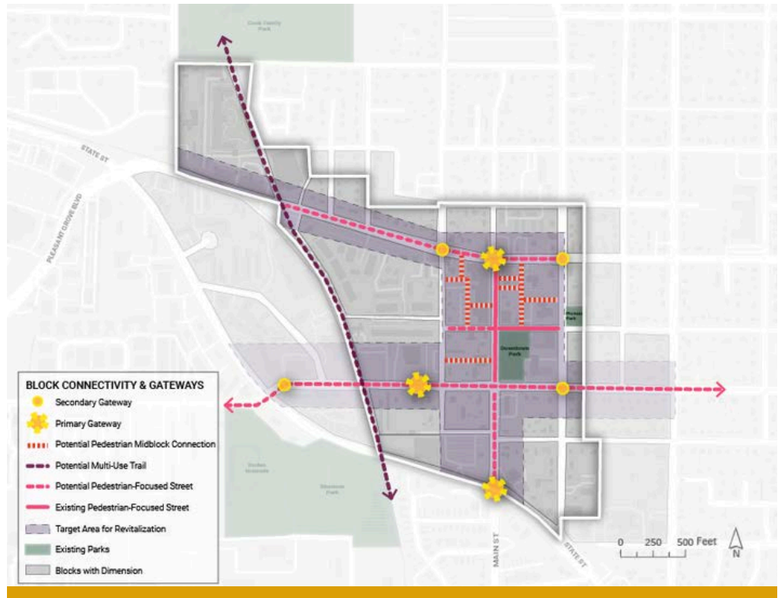
- Smaller commercial spaces found in older buildings and those initially intended for residential use can provide more flexible, affordable options to accommodate local entrepreneurs and niche businesses.
- Increased density in and around the study area is beneficial in creating a critical mass to support commercial activities in the urban core.
- The Old Fort Historic District contains many older, historic buildings which can be difficult and expensive to maintain and preservation-based restrictions and design guidelines can limit flexibility and choice.

PUBLIC REALM & OPEN SPACE

Downtown Pleasant Grove has many key destinations and landmarks that bring together residents and visitors but they can also be seen as individual sites rather than a connected experience.

A complete block grid provides a good level of connectivity but could be enhanced with mid-block connections through the conversion of alleys and rear parking areas to further improve walkability within the block.

Connecting parks, civic spaces, and community destinations can strengthen downtown's identity and provide a foundation for placemaking.



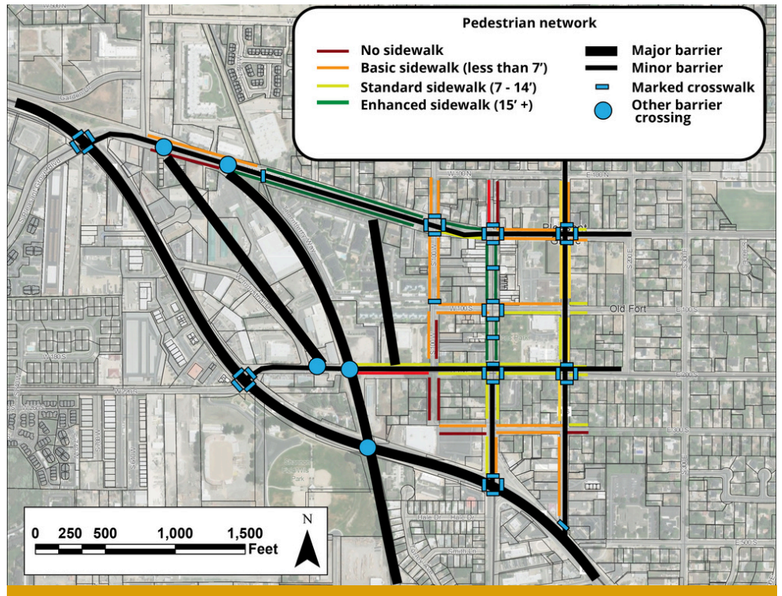
Block Connectivity and Gateways | Source: Landmark Design / Township + Range

- A lack of tree canopy and hardscape surfaces throughout Downtown provide an opportunity to improve the pedestrian experience by creating unique and improved destinations other than the key parks.
- Downtown Park, Shannon Park, Cook Family Park, and the Rail Trail can be transformed into a more connected network of public spaces.
- Main Street is the most pedestrian focused corridor making streetscape improvements and gateway features important to sustain activity provide a true downtown experience.

TRANSPORTATION & MOBILITY

Downtown Pleasant Grove is accessible by walking, biking, driving, and transit, but the quality of those connections varies considerably.

Major barriers such as State Street, the railroad, and several wide roads, many of which extend beyond downtown, limit access and connectivity. Consistent with the intent of SB 195 to identify and address mobility barriers, these challenges should be evaluated at both the downtown and citywide levels while planned improvements strengthen connections between downtown, surrounding neighborhoods, civic destinations, and transportation networks.



Existing pedestrian network | Source: Transportation and Mobility - Landmark Design / Township + Range

- Inconsistent sidewalks, crossings, and ADA facilities create gaps in the pedestrian experience and reduce overall walkability.
- State Street, the railroad corridor, and several wide roadways remain significant barriers to pedestrian and bicycle access into downtown.
- Planned bicycle facilities, trail connections, and corridor improvements could significantly expand non-automobile access to downtown.
- Existing transit routes provide regional connections and create opportunities to improve access between downtown and surrounding destinations is critical to expanding visitation and supporting long-term downtown activity.

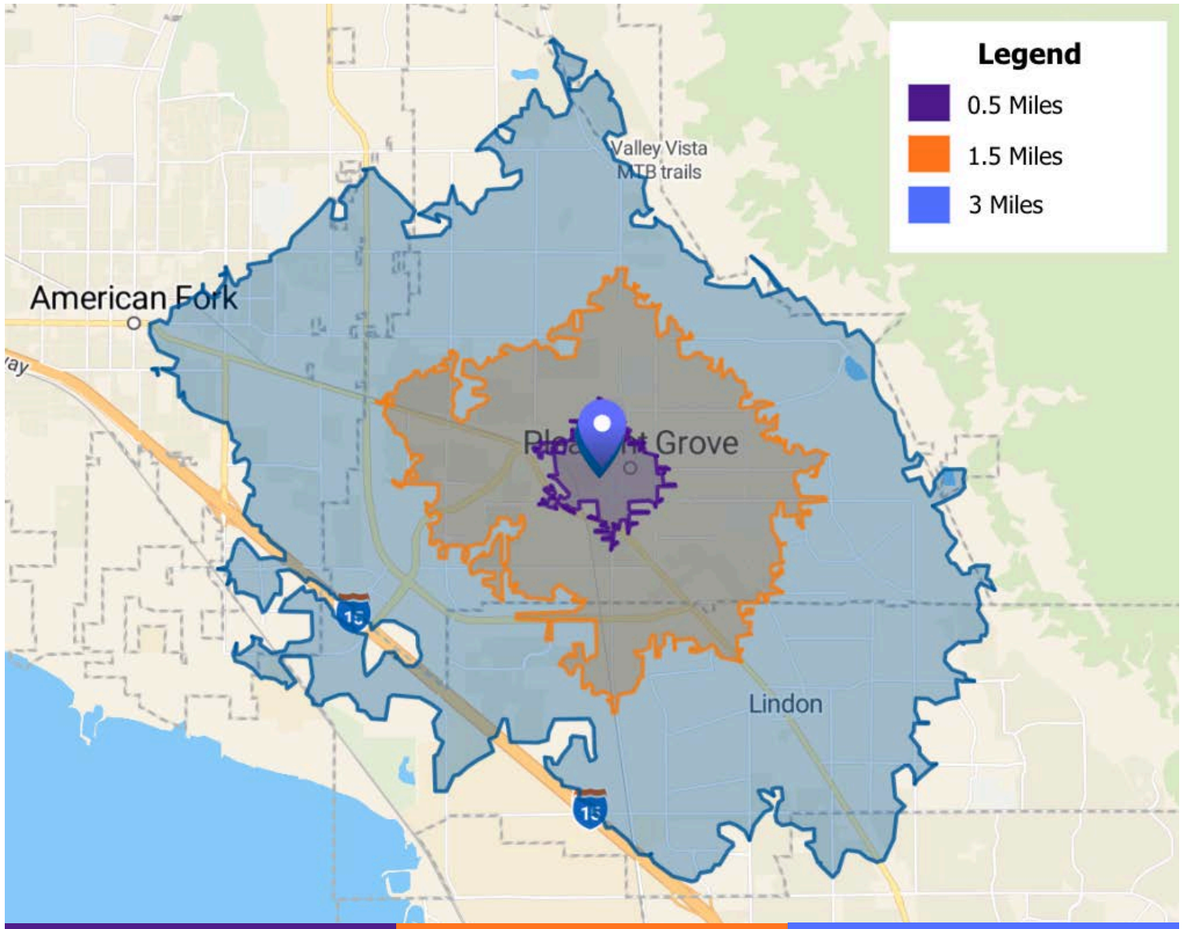
KEY TAKEAWAYS

Downtown Pleasant Grove benefits from a strong foundation of historic character, community destinations, public spaces, but many of those assets also have their tradeoffs and challenges.

Existing Assets	Challenges/Constraints
Downtown has a generally strong connected block grid that provides walkability mainly directly on Main Street.	Rail corridor, alleyways, and rear parking areas reduce connectivity and weaken the pedestrian enclosures needed on Main Street
Parks, community destinations, civic uses, and schools are all closely located within Downtown	These assets are currently seen as independent destinations rather than a connected, cohesive experience
Most roads have wide park strips that can be adapted to accommodate new street trees and expanded pedestrian areas	Expanding pedestrian areas may require reducing roadway space and changes to existing parking areas.
Existing community events create a strong identity for Downtown being a local destination	Most of the pedestrian activity and community experiences happen around a few blocks of downtown leaving other areas less active

05 MARKET CONDITIONS

Go To ToC



0.5 MILES

Represents the immediate downtown area where residents most likely to regularly do their daily errands, shopping, and dining

1.5 MILES

Encompasses surrounding neighborhoods that contribute to day-to-day activity aside from the immediate trade area

3 MILES

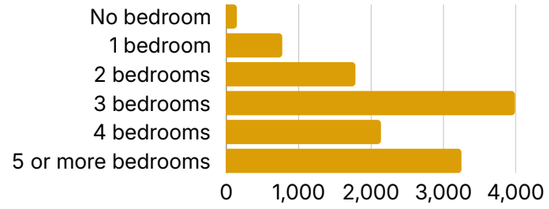
Broader trade area expands into Lindon and American Fork where visits into Downtown are less frequent and usually tied to specific experiences or services not found closer to their area

HOUSING ANALYSIS

Outlined below are the current conditions for the Greater Pleasant Grove housing market using US Census Data. Only key statistics are shown:

CITYWIDE CONDITIONS	
Total Housing Units	**11,821**
Vacancy Rate	**4.2%**
Owner-Occupied	**66%**
Renter-Occupied	**34%**
Average Household Size of Owner-Occupied Units	**3.4**
Average Household Size of Renter-Occupied Units	**3.1**

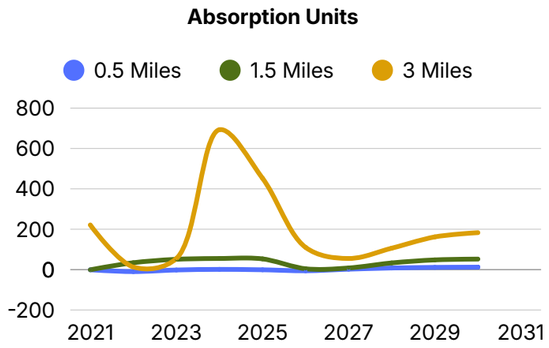
Pleasant Grove's housing stock consists mostly of owner-occupied units, with two-thirds of households owning homes and vacancy remaining low at 4.2%. The existing housing inventory is concentrated in 3-5 bedroom units, reflecting the City's prevalence of larger family households.



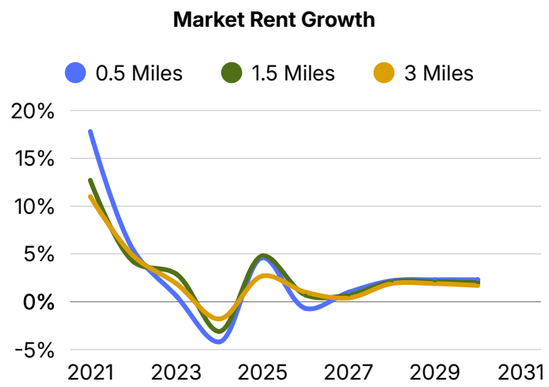
Multifamily market conditions within the 0.5-, 1.5-, and 3-Mile trade areas were analyzed using CoStar data to understand existing inventory, occupancy, pricing, and recent demand trends.

TRADE AREA CONDITIONS - MULTIFAMILY			
	0.5 Miles	**1.5 Miles**	**3 Miles**
Inventory Units	548	1,595	4,727
12 Month Unit Absorption	-7	-1	170
Vacancy Rate	4.0%	3.7%	6.6%
Market Rent/Unit	$1,451	$1,626	$1,733
Market Sale Price/Unit	$198,862	$243,150	$248,685
Market Cap Rate	6.3%	6.1%	5.9%

Most absorption is concentrated in the broader 3-mile trade area which means most housing demand is happening outside the downtown core area. The brief spike in 2024 is likely due to a few new housing developments being completed and coming on to the market.



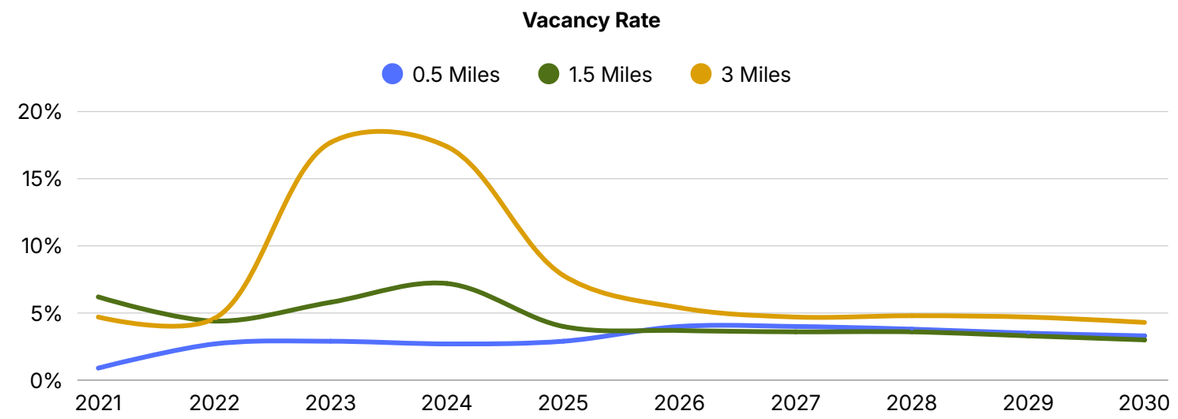
Market rents through all trade areas generally consist with each other, with the 0.5 mile area trending slightly into negative growth in 2026. The market stabilizing afterwards shows that the multifamily rental market will have continued demand throughout future years.



OFFICE ANALYSIS

The 3-mile radius captures the broader office market surrounding Downtown Pleasant Grove detailing office inventory, leasing activity, and market trends to provide insight to what could be added within the downtown area. The market consists primarily of Class B office space with a smaller number of Class C properties throughout the trade area.

3 MILES RADIUS	
Inventory SF	**249,049**
Total Absorption SF	**269**
Vacancy Rate	**3.2%**
Market Rent/SF	**$21.68**
Market Sale Price/SF	**$126**
Market Cap Rate	**11.4%**



Office vacancy rates have remained low throughout the market with few spikes, indicating limited available space. Vacancy is expected to remain relatively stable through 2030, suggesting continued demand for occupied office space.







RETAIL AND SERVICES ANALYSIS

Retail and service opportunity gaps were evaluated using Claritas data to identify categories where local consumer spending exceeds existing business sales within the 0.5-mile, 1.5-mile, and 3-mile market areas.

The majority of the opportunity gaps generally increase with each trade area, with the greatest opportunities occurring in restaurant, clothing, and specialty retail categories. Smaller opportunities within the downtown market may still support niche businesses, shared retail spaces, or mixed-use developments.

RETAIL AND SERVICES OPPORTUNITY GAPS

NAICS SECTOR	0.5 MILE RADIUS	1.5 MILE RADIUS	3 MILE RADIUS
Specialty food stores (NAICS 4452)	$226,778	$2,256,220	$3,852,497
Optical goods stores (NAICS 44613)	$139,610	$513,193	$1,557,769
Clothing stores (NAICS 4481)	$1,546,737	$12,009,797	$24,766,960
Shoe stores (NAICS 4482)	$411,647	$3,432,195	$8,336,255
Jewelry, luggage, and leather goods stores (NAICS 4483)	$556,808	$4,299,917	$2,399,424
Office supplies, stationery, and gift stores (NAICS 4532)	$81,455	$1,563,894	$4,349,374
Pet and pet supplies stores (NAICS 45391)	-$15,925	$1,966,087	$4,505,573
Full-service restaurants (NAICS 722511)	$2,606,342	$29,979,474	$68,053,866
Snack and non-alcoholic beverage bars (NAICS 722515)	$565,450	-$2,427,104	-$3,162,414

NAICS SECTOR	POTENTIAL ESTABLISHMENTS		
	0.5 Miles	1.5 Miles	3 Miles
Specialty food stores (NAICS 4452)	0.25	2.47	4.21
Optical goods stores (NAICS 44613)	0.18	0.67	2.02
Clothing stores (NAICS 4481)	0.97	7.56	15.60
Shoe stores (NAICS 4482)	0.37	3.07	7.45
Jewelry, luggage, and leather goods stores (NAICS 4483)	0.44	3.38	1.89
Office supplies, stationery, and gift stores (NAICS 4532)	0.08	1.53	4.25
Pet and pet supplies stores (NAICS 45391)	-0.01	0.97	2.23
Full-service restaurants (NAICS 722511)	2.40	27.62	62.70
Snack and non-alcoholic beverage bars (NAICS 722515)	1.10	-4.74	-6.17

Potential establishments for each of the sectors represent the estimated number of businesses that could be supported within each market area based on the retail gaps. Values below 1.0 may still represent opportunities that could be accommodated through combined uses or shared retail spaces.

START-UP OPPORTUNITIES

The following business types have the most potential establishments within the 0.5 mile radius area based on the market supply gap and the average sales per establishment for Utah. These sectors also have substantial potential establishments within the 1.5 and 3 mile distance areas.

RESTAURANT OPPORTUNITIES



Example of a Fine Dining Restaurant Source: Yelp

(NAICS 722511)

Fine Dining Establishment

Fine dining restaurants represent an opportunity to expand dining options and strengthen Downtown Pleasant Grove's restaurant mix. When located near public gathering spaces, entertainment venues, or retail, they can help attract visitors, support evening activity, and reinforce downtown as a community destination. These types of restaurants:

- *Prefer prominent, high-visibility locations near cultural venues, entertainment districts, or public plazas.*
- *Enhance downtown's appeal as a local destination and attract visitors seeking elevated experiences.*
- *Support community experiences through special events or chef dinners*

RESTAURANT OPPORTUNITIES



Example of a Fine Dining Restaurant
Source: Yelp

(NAICS 722511)

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Example of a Snacks and Non-Alcoholic Beverages restaurant
Source: Yelp

(NAICS 722515)

Snacks and Non-Alcoholic Beverage Bar

Coffee shops, ice cream shops, and similar businesses can help activate storefronts and public spaces throughout the day. In Downtown Pleasant Grove, they can encourage pedestrian activity, provide informal gathering places, and complement nearby retail, dining, and community destinations. These types of businesses:

- *Create casual gathering spaces that support daily activity and foot traffic*
- *Complement downtown retail, restaurants, and community events*
- *Encourage repeat visitation from locals*

RETAIL OPPORTUNITIES



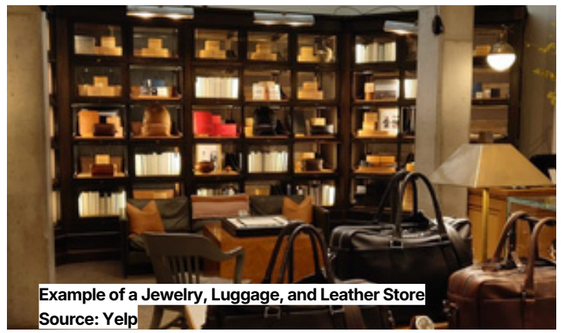
Example of a Clothing Store
Source: Yelp

(NAICS 4481)

Clothing Stores

Clothing stores can help expand Downtown Pleasant Grove's shopping options while supporting foot traffic generated by nearby restaurants, events, and entertainment destinations. This type of retail can help integrate into a walkable downtown environment where visitors can combine shopping with dining and other activities. These types of establishments:

- *Complement existing specialty retail and personal service businesses*
- *Attract consistent daytime and weekend traffic from residents and visitors*
- *Work well in smaller storefronts that highlight visual merchandising and display windows*



Example of a Jewelry, Luggage, and Leather Store
Source: Yelp

(NAICS 4483)

Jewelry, Luggage, and Leather Goods Stores

Jewelry, luggage, and leather goods retailers offer specialty products that can add variety and character to Downtown Pleasant Grove's retail mix. These businesses benefit from pedestrian activity and can serve both local residents and visitors seeking unique or gift-oriented purchases. These types of establishments:

- *Attract customers seeking unique, high-quality, or giftable items*
- *Increase cross-shopping with restaurants, entertainment venues, and events*
- *Strengthen downtown's identity as a destination for specialty retail and artisan products*

RETAIL OPPORTUNITIES



Example of a Shoe Store
Source: Yelp

(NAICS 4482)

Shoe Store

Shoe stores can complement Downtown Pleasant Grove's existing retail mix by providing everyday and specialty footwear for residents and visitors. Customers can browse these stores while they are in the area for dining and events. These types of establishments:

- *Offer practical and high-demand products for year-round sales*
- *Support downtown's identity as a place for both style and everyday essentials*



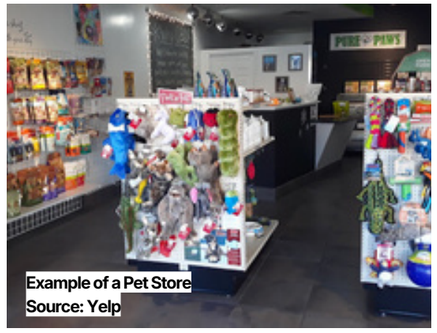
Example of a Specialty Food Store
Source: Yelp

(NAICS 4452)

Specialty Food Stores

Specialty food stores can add variety to Downtown Pleasant Grove's grocery mix by offering products that may not be available through traditional grocery stores. They help support a more active downtown environment by serving both residents and visitors seeking unique and specialty food products. These types of establishments:

- *Fit naturally alongside cafés, restaurants, and public markets where fresh ingredients are used*
- *Create opportunities for local partnerships with downtown restaurants, food vendors, and farmers markets.*



Example of a Pet Store
Source: Yelp

(NAICS 45391)

Pet and Pet Supplies Store

Pet and pet supplies stores provide food, toys, grooming products, and other everyday items for household pets. These businesses can serve nearby residents while supporting regular customer visits and adding another neighborhood-serving use to downtown. These types of establishments:

- *Provide essential supplies that encourage repeat visits and stable revenue*
- *Could be combined with pet services such as grooming and daycare*
- *Appeal to local residents seeking everyday convenience*



Example of a Card Store Paired with a Bookshop
Source: Yelp

(NAICS 4532)

Office supplies, Stationery, and Gift Stores

Office supplies, stationery, and gift stores provide a mix of practical products and specialty items that serve residents, workers, and local businesses. These businesses can help support a more complete downtown retail environment by offering everyday items alongside gift-oriented goods. These types of establishments:

- *Provide essential, frequently used products that encourage repeat visits and steady foot traffic*
- *Support nearby offices, schools, and home-based workers with convenient access to supplies*
- *Complement gift shops, bookstores, and service-oriented retailers*



Example of an Optical Goods Store
Source: Yelp

(NAICS 44613)

Optical Goods Stores

Optical goods stores provide eyewear, vision-care products, and related services that support the daily needs of residents and workers. As a neighborhood-serving use, they can help diversify the downtown business mix while contributing to consistent customer activity. These types of establishments:

- *Provide essential vision products and services that generate repeat visits and long-term customer relationships*
- *Serve residents, downtown employees, and nearby businesses with convenient access to eye care*
- *Pair well with medical offices, pharmacies, and personal service businesses*

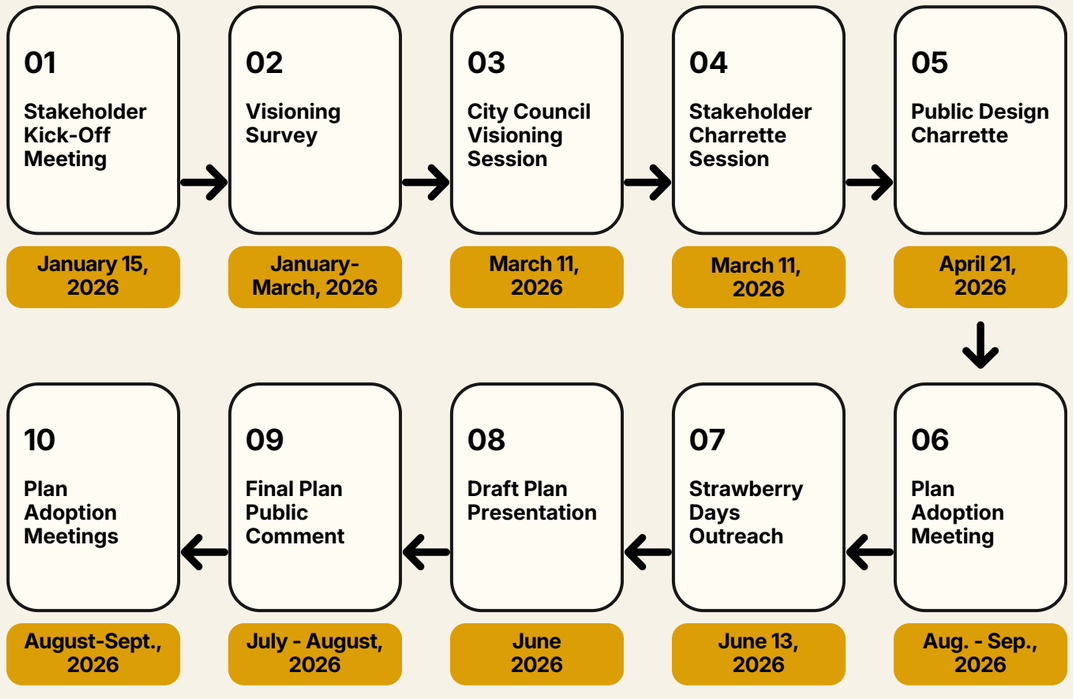
PLEASANT GROVE PUBLIC ENGAGEMENT SYNOPSIS

06

Since January 2026, a series of public engagement and stakeholder outreach activities were completed to inform the Downtown Pleasant Grove Master Plan, with additional review and adoption activities scheduled through September 2026. Input gathered through these efforts has helped establish a shared vision for downtown and identify priorities that will guide future redevelopment, public investment, and implementation strategies.

PUBLIC ENGAGEMENT TIMELINE

SOURCE: DRS



KEY TAKEAWAYS

Public input from surveys and open houses highlighted themes related to redevelopment, transportation, public spaces, and community character. The opportunities and challenges below reflect feedback from residents and stakeholders, with all voices considered and areas of broad agreement given the most weight.

BUILT ENVIRONMENT & DEVELOPMENT

OPPORTUNITIES		CONSTRAINTS	
Activate vacant storefronts and properties along Main St.	Focus compatible mixed-use housing near S Main St. & gateway areas	Underutilized properties interrupt activity	Existing site constraints can increase project costs and complexity

MOBILITY, STREETSCAPE & CONNECTIVITY

OPPORTUNITIES		CONSTRAINTS	
Improve pedestrian and bicycle infrastructure	Strengthen & enhance connections to community destinations	Wide streets & limited pedestrian infrastructure reduce walkability	Streetscape improvements may reduce parking space

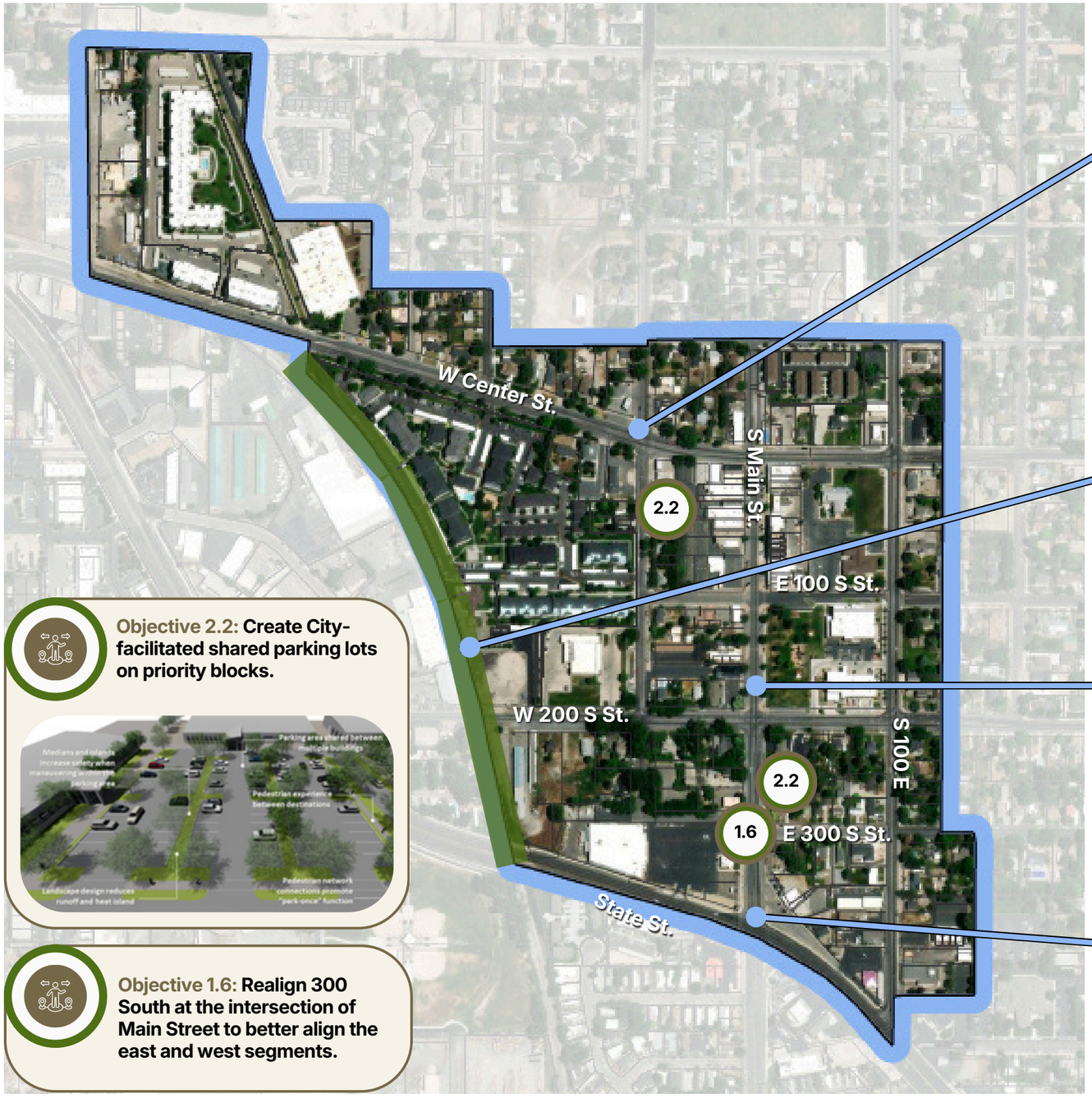
PUBLIC SPACE, CHARACTER & IDENTITY

OPPORTUNITIES		CONSTRAINTS	
Strengthen downtown through more public gathering spaces	Preserve historic character while reinforcing a distinct identity	Activity is concentrated around few destinations & events	Incompatible development may weaken downtown's historic identity

07 DOWNTOWN RECOMMENDATIONS OVERVIEW

Go To ToC

The recommendations below are not a comprehensive set but are the geolocated ones and are also some of the more significant ones that will shape the future of downtown. Refer to Sections 9 and 10 for the full set of recommendations for Downtown Pleasant Grove.



Objective 2.2: Create City-facilitated shared parking lots on priority blocks.

Objective 1.6: Realign 300 South at the intersection of Main Street to better align the east and west segments.

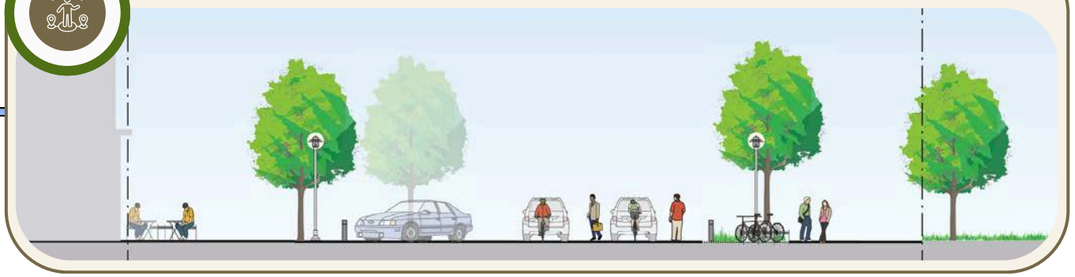
Objective 3.3: Construct the Center Street Greenway linking Downtown and Cook Family Park.



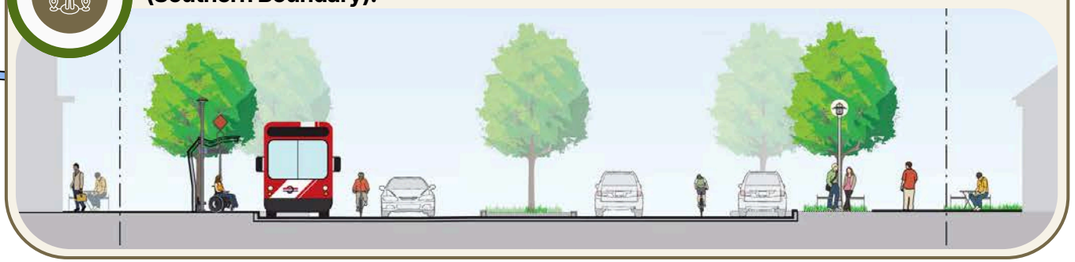
Objective 3.4: Construct the Downtown Greenway along the rail corridor as a signature recreation destination.



Objective 4.1: Design Main Street to support festivals, events, and daily activity.



Objective 3.2: Extend Main Street streetscape improvements south to State Street (Southern Boundary).



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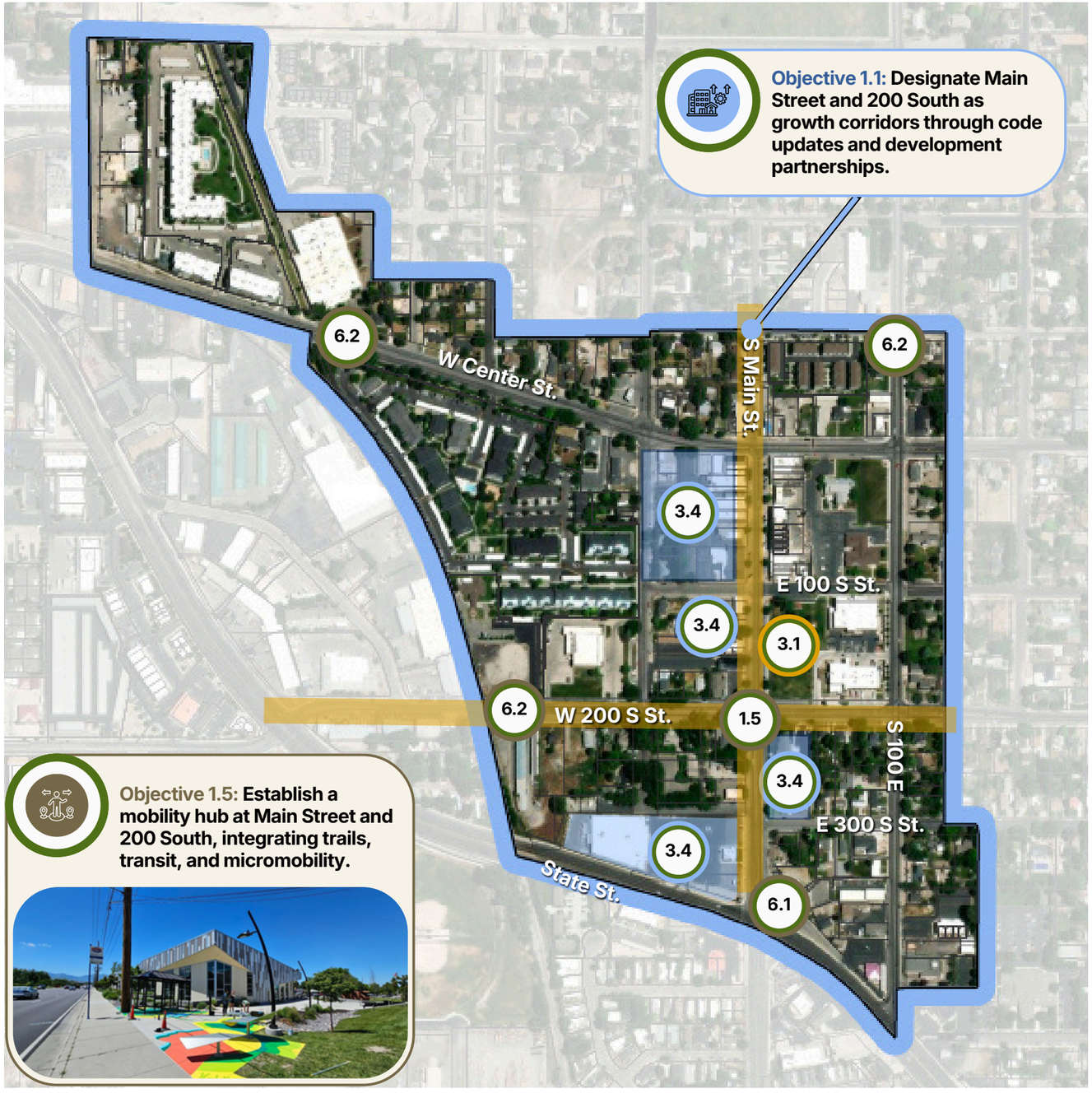
Objective 3.4: Partner with property owners and developers to advance catalyst redevelopment sites.











Objective 1.1: Designate Main Street and 200 South as growth corridors through code updates and development partnerships.

Objective 1.5: Establish a mobility hub at Main Street and 200 South, integrating trails, transit, and micromobility.

Objective 3.1: Install permanent infrastructure in Downtown Park to support events, recreation, and park use.



Objective 6.2: Establish secondary gateways along Center Street, 200 South, and 100 East.



Objective 6.1: Construct a signature gateway at Main Street and State Street.



08 PLEASANT GROVE VISION FRAMEWORK

Go To ToC

Overarching Vision Statement

Downtown Pleasant Grove will become a vibrant, walkable destination that connects people to civic amenities, local businesses, parks, schools, and surrounding neighborhoods while reflecting the historic character and role as the heart of the community.

Mobility and Circulation

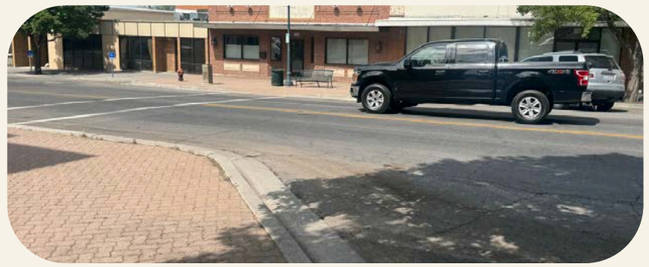
Downtown Pleasant Grove will circulate safely for people walking, rolling, driving, and taking transit, improving access and strengthening connections to nearby destinations and regional networks.

Community Placemaking

Downtown Pleasant Grove will create welcoming, active public spaces and gateways that celebrate its history, support community gathering, and define a strong sense of place.

Development Approach

Downtown Pleasant Grove will grow as a lively mixed-use place that strengthens Main Street and facilitates thoughtful infill that fits its historic character and long-term potential.







MOBILITY & CIRCULATION

GOAL 01

Create a connected multimodal network linking Downtown to community destinations

Objective 1.1: Develop the major elements of a downtown bike and micromobility network.

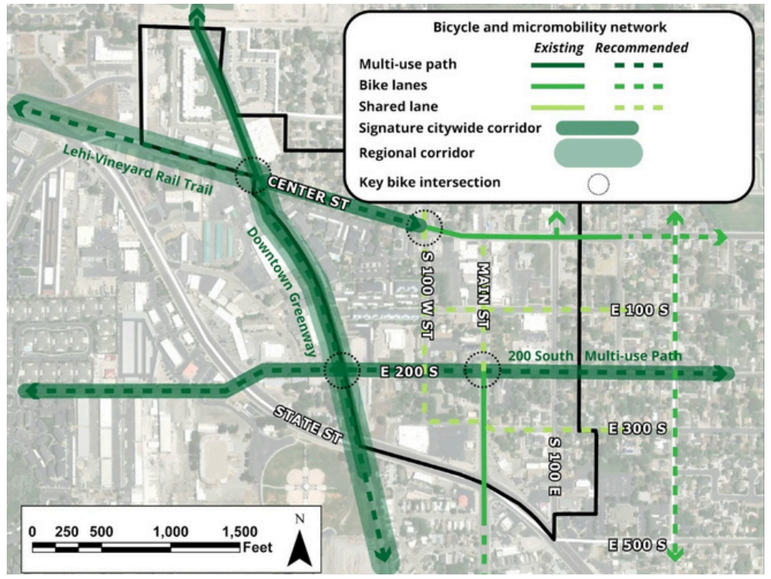
The Downtown Plan presents the opportunity to establish a backbone network of corridors that allow for quality access to Downtown for those riding bicycles and other "micromobility" vehicles like scooters, Onewheels, and skateboards. The backbone network is envisioned along 200 South, Center Street, and Main Street, and the Lehi-Vineyard Rail Trail/Downtown Greenway, providing quality routes to Downtown from all sides. In addition, the Bike and Micromobility Network seeks overall calming and slowing of traffic on secondary streets like 100 West and 300 South to establish all downtown streets as safe and comfortable for those using bikes and micromobility.

Objective 1.2: Partner with UTA to reorient the transit network to Downtown growth and seek expansion opportunities.

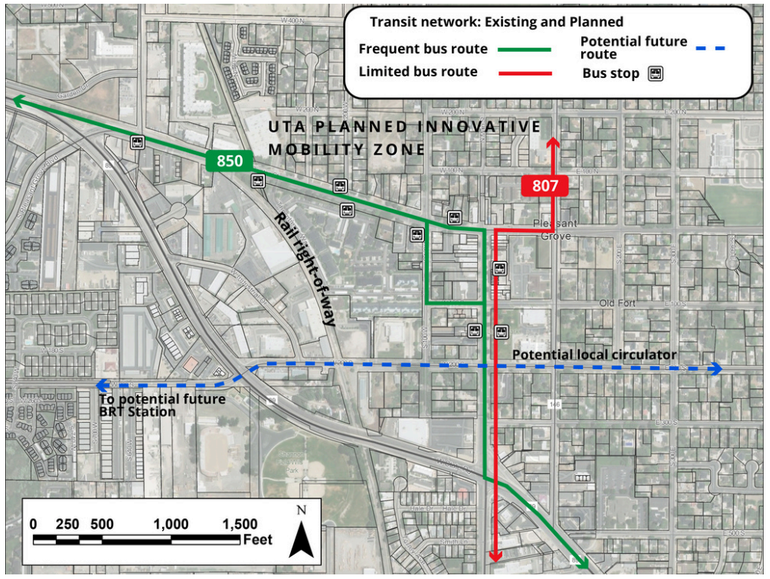
The City should seek to enhance UTA bus routes to improve transit access for current and future downtown residents. By collaborating with UTA, Routes 850 and 807 can be shifted to 200 South and South Main Street, promoting 200 South as a key transit corridor. This adjustment streamlines the 850 route and supports a shared street concept on Main Street. Additionally, the City should introduce complementary transit services, like a circulator shuttle along 200 South, connecting Downtown, the Recreation Center/High School, and the Grove to future bus rapid transit and the proposed community mobility hub. Operation of the circulation may be by UTA or the City.

Objective 1.3: Streamline traffic in entry corridors and intersections

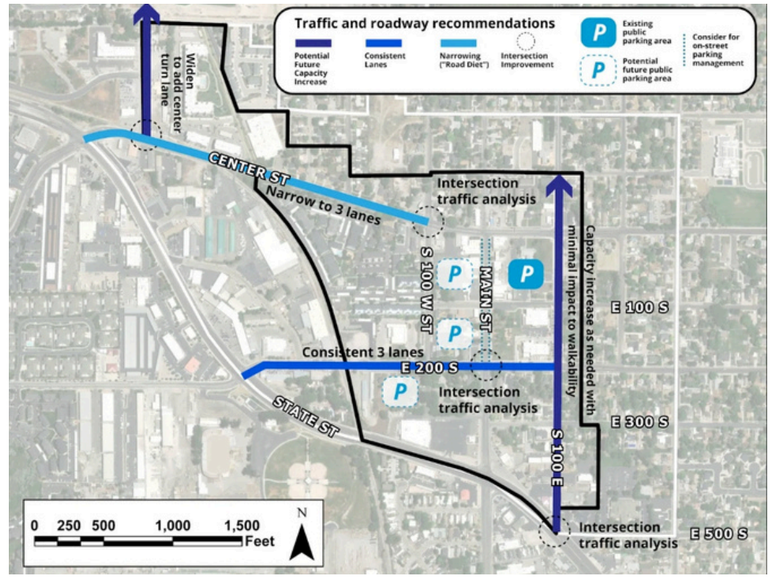
The Transportation Master Plan recommends increasing capacity on 100 East. In addition to this, the City should also seek to improve traffic flow from South Main to 200 South to 100 East without compromising walkability and placemaking. At the 100 West/Center intersection, there is an opportunity to create an arrival into Downtown at the end of Center Street Greenway while addressing traffic control issues with a tighter intersection.



Bike Network Map | Source: Landmark Design / Township + Range



Transit Network Map | Source: Landmark Design / Township + Range

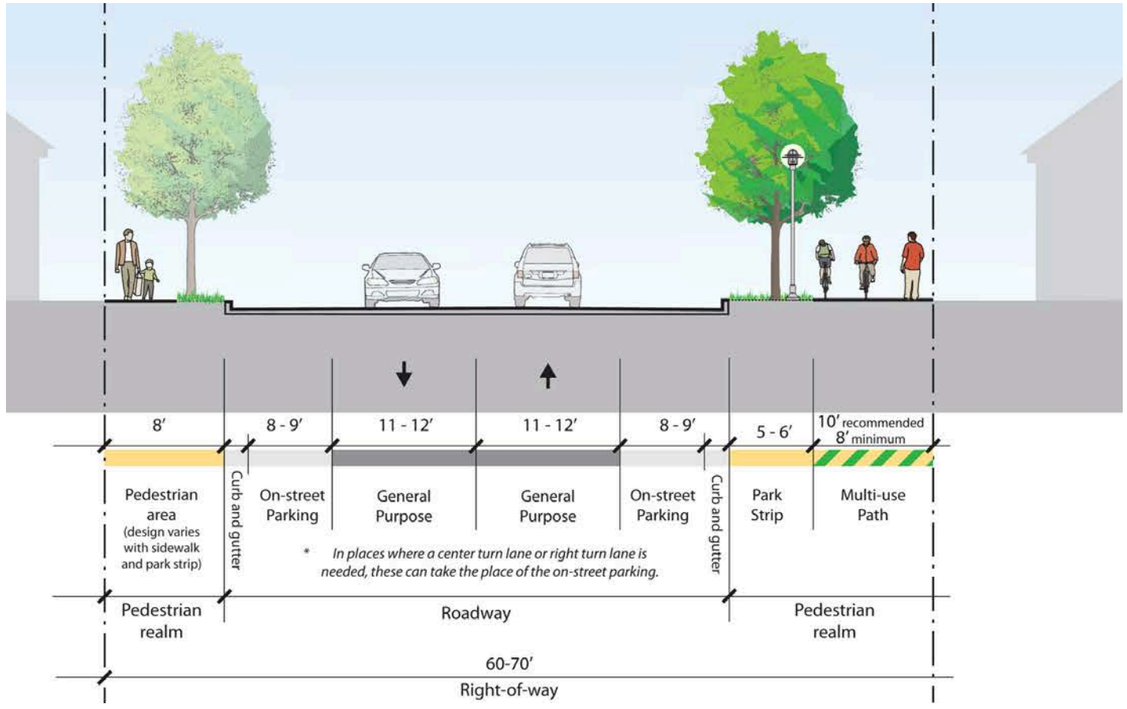


Traffic Network Map | Source: Landmark Design / Township + Range

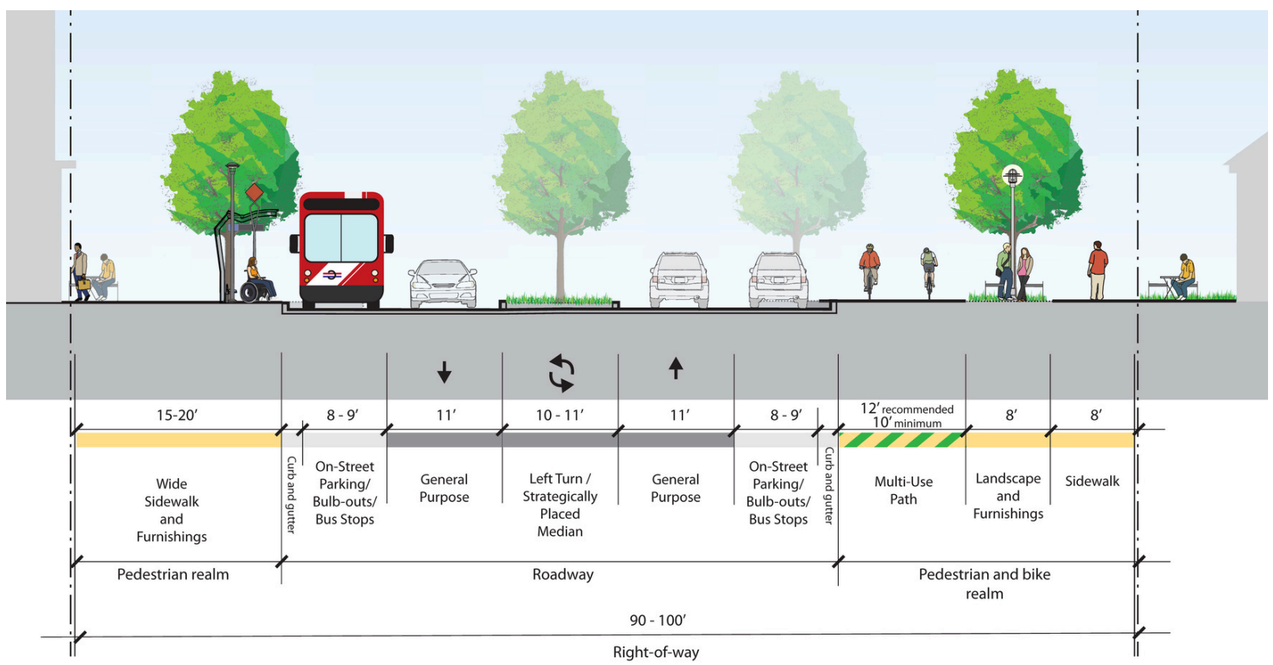
Create a connected multimodal network linking Downtown to community destinations

Objective 1.4: Transform 200 South into Downtown's primary multimodal redevelopment corridor.

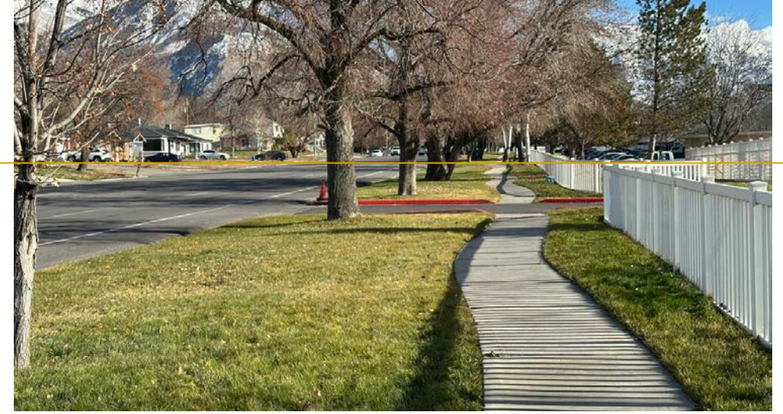
The Transportation Network Concepts identified 200 South as one of the most important opportunities to improve connectivity throughout the community. The corridor connects Downtown to Shannon Park, Battle Creek Canyon, neighborhoods, schools, and future trail facilities while also serving as a key redevelopment corridor. As Downtown evolves, 200 South should function as more than a vehicle route. Future improvements should create a corridor that balances driving, walking, bicycling, transit access, and redevelopment while improving safety and comfort for all users.



Grove Area and East of Downtown Cross Section of 200 South | Source: Landmark Design / Township + Range

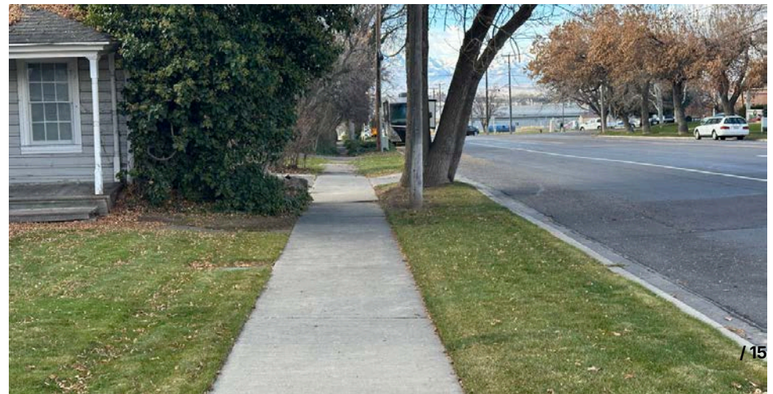


Downtown Core Cross Section of 200 South | Source: Landmark Design / Township + Range









Create a connected multimodal network linking Downtown to community destinations

Objective 1.5: Establish a mobility hub at Main Street and 200 South, integrating trails, transit, and micromobility.

The intersection of Main Street and 200 South sits at the convergence of several key transportation, recreation, and redevelopment initiatives. This location provides an opportunity to create a centralized mobility hub that supports transit users, trail users, bicyclists, pedestrians, rideshare services, and visitors arriving Downtown.

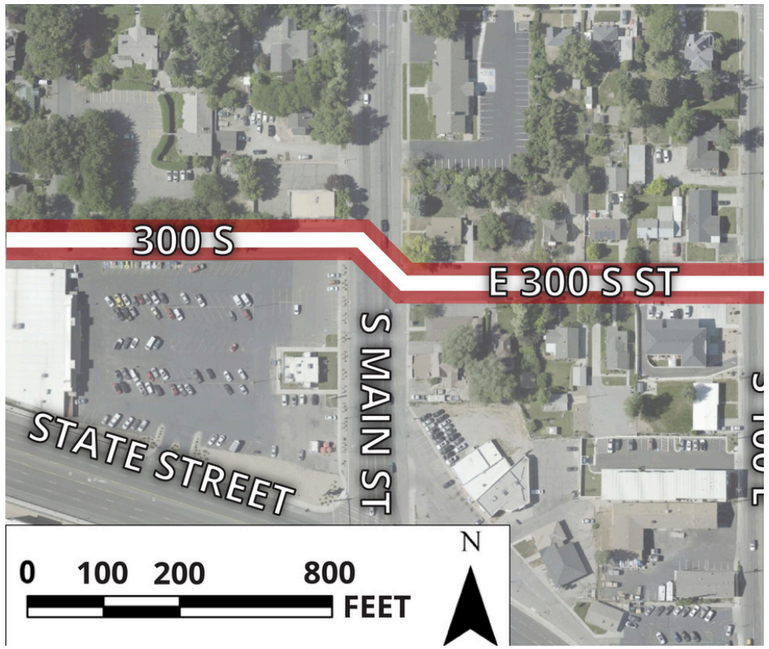


Mobility Hub in Kerns, UT | Source: storymaps.arcgis.com

Establishing a mobility hub can improve transportation choice, strengthen connections between destinations, support future transit investments, and create a highly visible gateway into Downtown while complementing Downtown Park and surrounding redevelopment opportunities.

Objective 1.6: Realign 300 South at the intersection of Main Street to better align the east and west segments.

The existing alignment of 300 South limits connectivity and creates a less intuitive circulation pattern through the study area. This condition reduces access between destinations and can hinder future redevelopment opportunities along the corridor. The City should evaluate opportunities to realign 300 South into a continuous east-west connection across Main Street



Map showing realignment of 300 S | Source: DRS

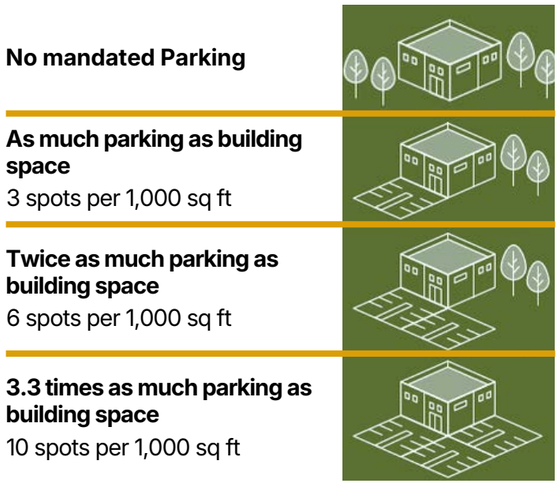
A more direct alignment can improve circulation, strengthen multimodal connectivity, simplify navigation, and support redevelopment of adjacent properties.

GOAL 02

Improve Downtown access through more efficient parking management strategies

Objective 2.1: Modernize residential and commercial parking requirements based on demonstrated demand.

Current parking requirements create a barrier to housing, mixed-use, and incremental infill development in Downtown. Observed parking demand and data for smaller residential units is often lower than existing standards assume, while minimum commercial parking requirements can unnecessarily constrain redevelopment where on-street parking can serve demand.

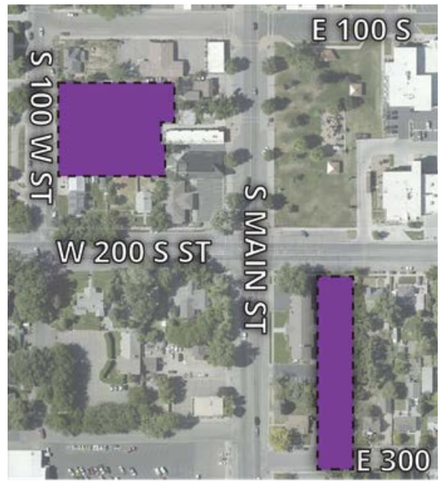


Downtown parking distribution Source: DRS

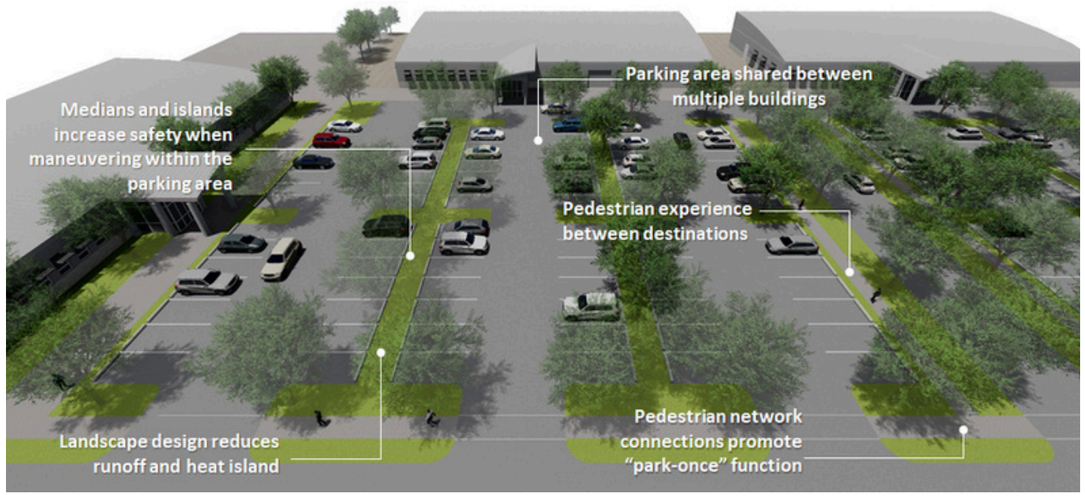
The City should update Downtown parking requirements to require 1.25 spaces for one-bed units, 1.5 spaces for two-bed units, and 2.0 spaces for three-bed units, while considering the elimination of parking requirements for commercial uses where adequate on-street parking exists. These changes should be paired with a City-administered residential permit parking program to protect adjacent neighborhoods from spillover. This approach can support housing, incremental infill development, and commercial investment while maintaining effective parking management.

Objective 2.2: Create City-facilitated shared parking lots on priority blocks.

Many Downtown properties are currently served by small parking lots that operate independently and inefficiently. In several locations, combining adjacent lots through shared-use agreements could increase the number of usable parking spaces while reducing redundant drive aisles, curb cuts, and circulation areas. The City is uniquely positioned to facilitate these partnerships by coordinating property owners, establishing agreements, and helping implement a shared parking framework. This approach can improve parking efficiency, support special events, reduce redevelopment costs, and free additional land for productive development.



Potential locations of shared parking lots | Source: DRS



Demonstration of shared parking lots | Source: Tyndall AFB

Objective 2.3: Implement a coordinated Downtown parking and event management strategy.

The planning process found that many parking concerns stem from visibility, organization, and management rather than an overall shortage of parking spaces. Downtown's parking supply is distributed among public lots, private lots, churches, civic facilities, businesses, and on-street spaces, making it difficult for visitors to understand where parking is available.



Parking management sign | Source: Encore Realty

A coordinated parking management and event parking strategy can improve utilization of existing resources, support major events such as Strawberry Days, reduce conflicts between users, and help ensure parking continues to function effectively as Downtown grows. To emphasize customers and visitors, the City could consider time-restricting on-street parking for the two current core blocks of Main Street, and coordinate to transition employee parking to internal/off-street lots.

GOAL 03

Extend Main Street's character and streetscape experience throughout Downtown

Objective 3.1: Establish a consistent streetscape design framework throughout Downtown

The Historic Main Street streetscape is a key asset of Downtown Pleasant Grove, valued by residents for its street trees, pedestrian lighting, landscaping, decorative furnishings, and improved sidewalks. These elements contribute to a unique sense of place, distinguishing Downtown from nearby commercial areas.

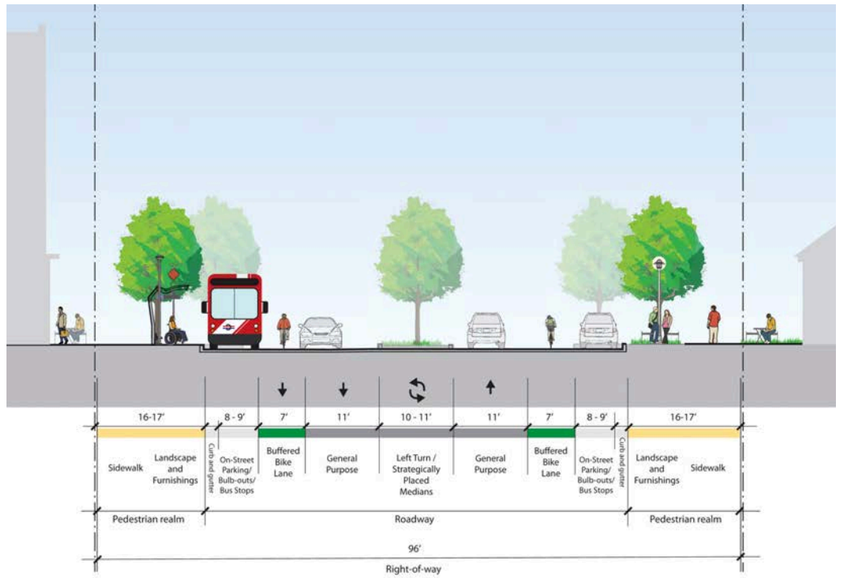


Consistent streetscape design in Bath, ME | Source: DRS

As redevelopment occurs, the City should establish a consistent framework for future public improvements that can be applied throughout Downtown while allowing flexibility based on corridor function and available right-of-way. This consistency should extend to sidewalks; the City should seek to fill gaps in sidewalks as well as bring narrower sidewalks up to the basic historic standard (see Pedestrian Network Recommendations Map in Objective 4.2). A Downtown Streetscape Toolkit can ensure future investments contribute to a cohesive identity and a recognizable Downtown experience.

Objective 3.2: Extend Main Street streetscape improvements south to State Street (Southern Boundary).

The Downtown Plan identifies S Main Street as a redevelopment corridor and the most likely location for future mixed-use development, housing, and private investment. While the existing streetscape creates a strong sense of place within the historic core, that character largely ends near Downtown Park.

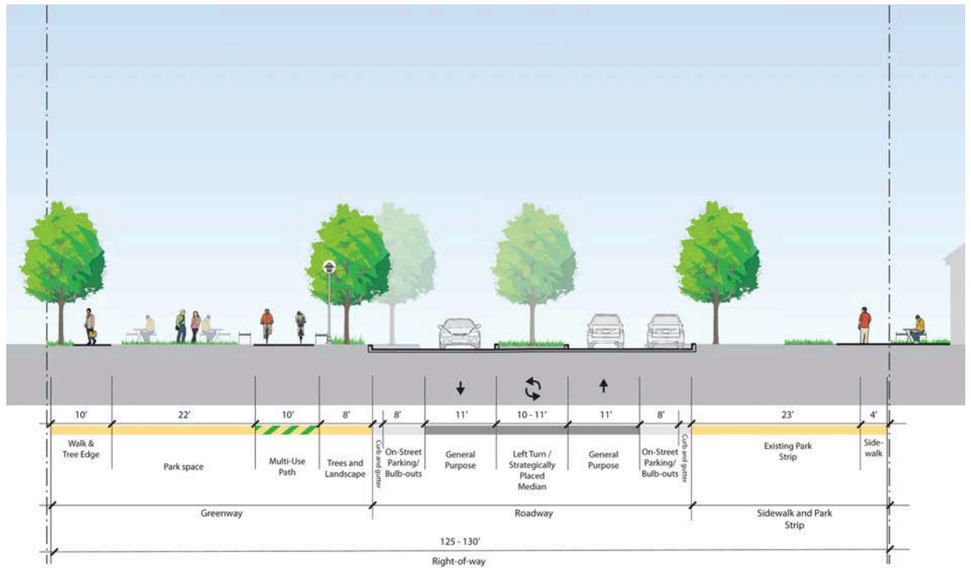


200 South to 300 South Section of Main Street | Source: Landmark Design / Township + Range

Extending streetscape improvements south toward State Street can strengthen connections between Downtown and The Grove, improve pedestrian comfort, support redevelopment, and visually expand the perceived boundaries of Downtown. This investment can help establish South Main Street as a seamless extension of the Downtown district rather than a separate corridor.

Objective 3.3: Construct the Center Street Greenway linking Downtown and Cook Family Park.

Cook Family Park is one of Pleasant Grove's most significant recreational assets, yet the connection between the park and Downtown remains limited. Community feedback consistently identified stronger connections between Downtown, parks, neighborhoods, and recreational destinations as a priority.



Proposed Center Street Greenway | Source: Landmark Design / Township + Range

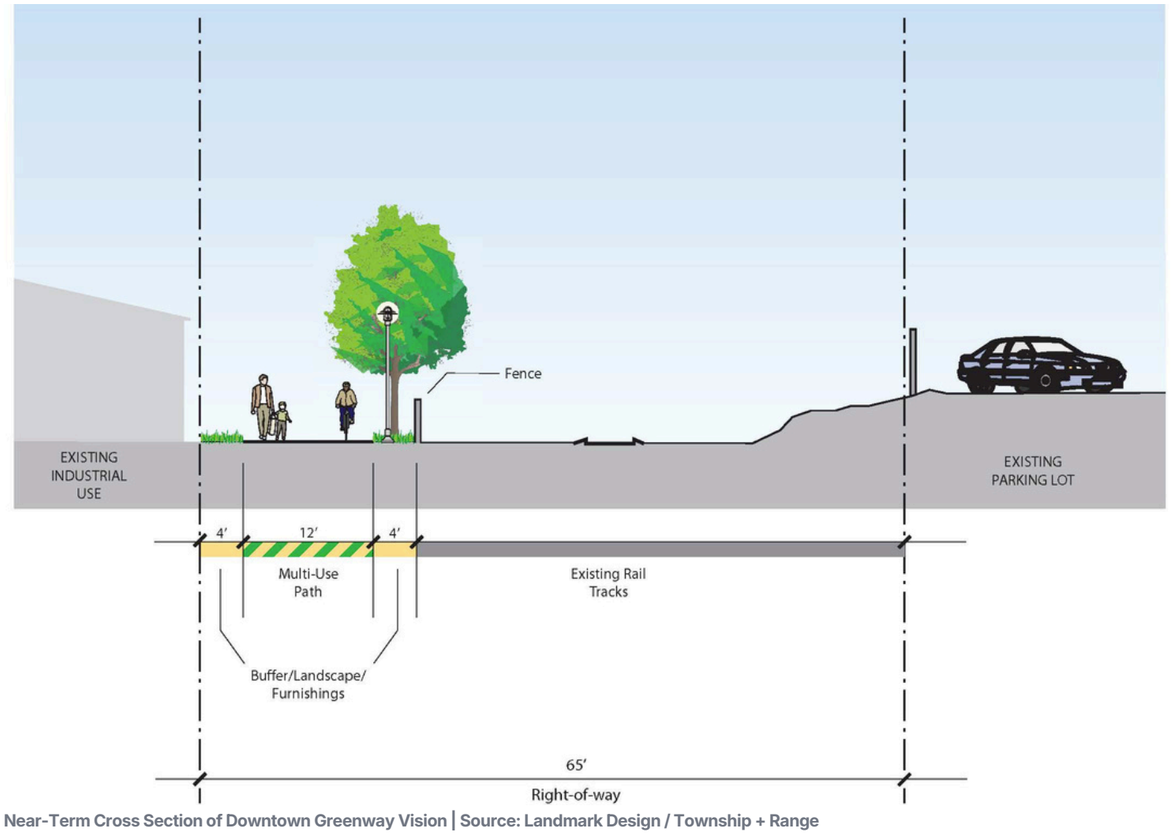
The City should transform Center Street into a landscaped multimodal corridor featuring enhanced pedestrian and bicycle facilities, street trees, public amenities, and improved crossings. These improvements can create a safe and attractive connection between Downtown and Cook Family Park while strengthening the community's network of parks, trails, and public spaces.

GOAL 03

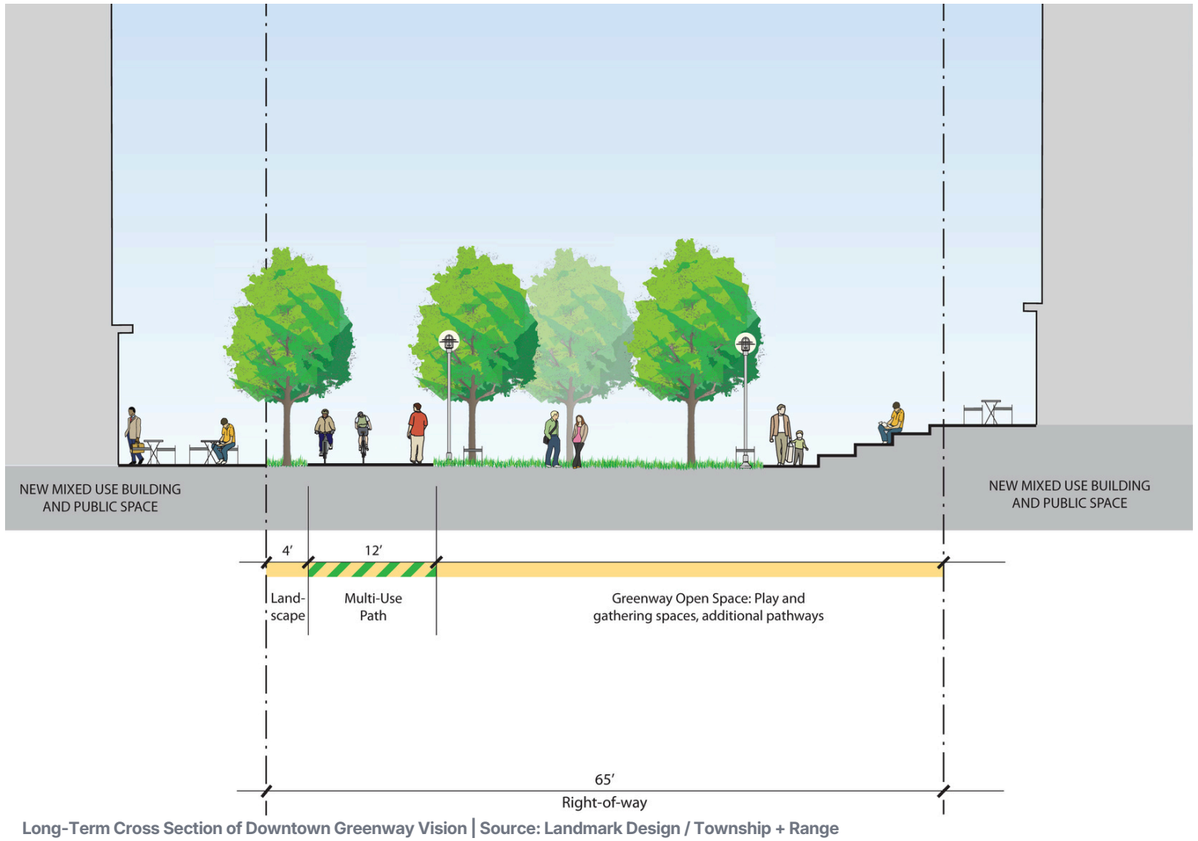
Extend Main Street's character and streetscape experience throughout Downtown

Objective 3.4: Construct the Downtown Greenway along the rail corridor as a signature recreation destination.

The Downtown Greenway represents one of the most transformative long-term investments identified through this planning process. Community members consistently expressed support for safer and more convenient opportunities to walk and bicycle to Downtown while strengthening connections between neighborhoods, parks, schools, and community destinations. Utilizing the UPRR corridor as a Greenway creates a unique opportunity to establish a signature recreational and transportation facility that expands Downtown's reach, attracts new visitors, and reinforces Downtown as the center of community activity. The conceptual illustrations below depict a phased evolution of the corridor, beginning with a multi-use trail adjacent to existing uses, transitioning to a trail integrated with mixed-use development, and ultimately envisioning a linear greenway park if long-term conditions allow. As implementation opportunities emerge, the Greenway can become a defining feature of Pleasant Grove's identity while improving access to businesses, parks, and future redevelopment areas.



Near-Term Cross Section of Downtown Greenway Vision | Source: Landmark Design / Township + Range



Long-Term Cross Section of Downtown Greenway Vision | Source: Landmark Design / Township + Range

GOAL 04

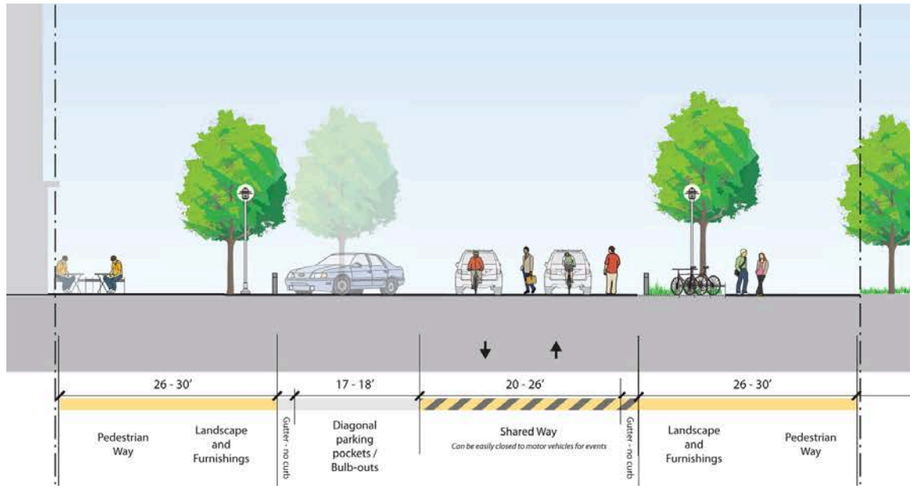
Design Downtown streets as active civic and community gathering spaces.

Objective 4.1: Design Main Street to support festivals, events, and daily activity.

Main Street already serves as the focal point for many community events, festivals, parades, and public gatherings. Community engagement demonstrated strong support for reinforcing Downtown's role as Pleasant Grove's primary gathering place and cultural center. Future street improvements should continue evolving Main Street from a transportation corridor into a civic space that can comfortably accommodate both everyday activity and special events.



Example of a Main Street in Batavia, IL Source: DRS

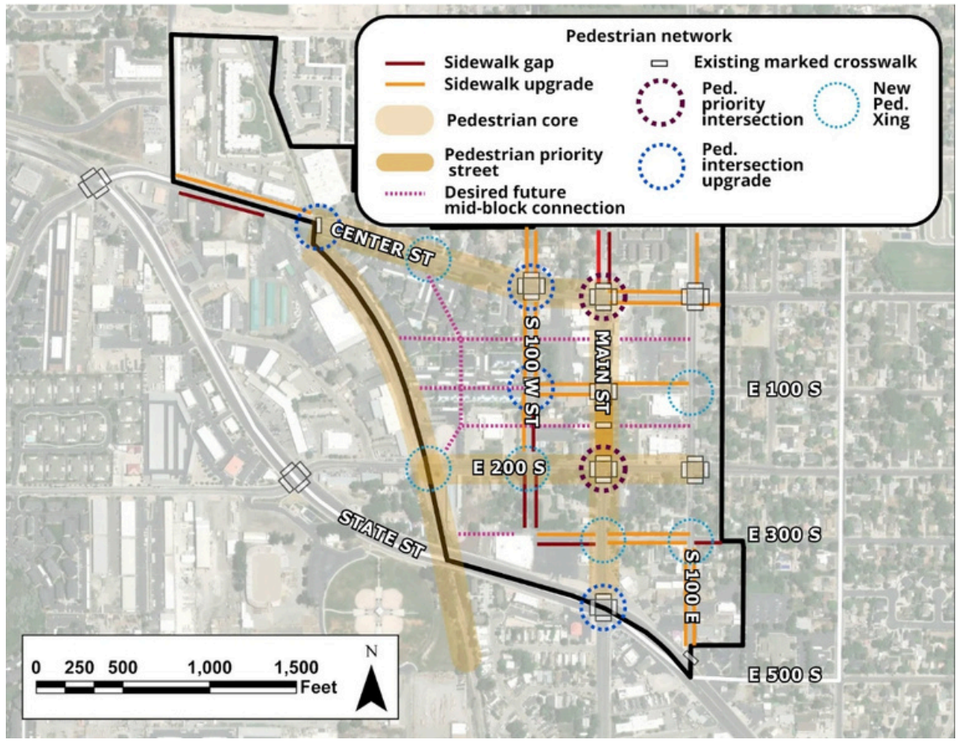


Cross Sections of Main Street | Source: Landmark Design / Township + Range

Streetscape elements, flexible public spaces, event-supportive infrastructure, and pedestrian-oriented design can allow Main Street to function as an extension of Downtown Park during community celebrations while remaining a vibrant commercial corridor throughout the year. As long-term reconstruction opportunities arise, the City should explore converting portions of Main Street to an at-grade shared street (i.e., woonerf) design that further prioritizes pedestrians, supports events, and creates a more flexible public space.

Objective 4.2: Upgrade priority pedestrian crossings connecting Downtown to surrounding neighborhoods.

Residents consistently identified pedestrian comfort and safety as essential components of the downtown vision. While the core offers a strong pedestrian environment, several intersections and crossings create barriers between destinations, particularly along Main Street, Center Street, 200 South, and key gateway locations.



Pedestrian Network Map | Source: Landmark Design / Township + Range

The link between the core to the north across Center Street and south across 200 South is a high priority for improvement. Improving the highest-priority crossings can strengthen connections while making Downtown more accessible for people of all ages and abilities.

GOAL 05 — Make Downtown easier to find, navigate, and explore.

Objective 5.1: Develop and implement a coordinated wayfinding system throughout Downtown Pleasant Grove.

Community engagement showed that residents and visitors often lack awareness of the various destinations, businesses, parks, and amenities in Downtown. While these assets are close together, they tend to operate independently instead of as a unified district.

A Downtown Wayfinding Master Plan can establish a coordinated framework for signs, maps, branding, and directional information that helps people understand where Downtown begins, how destinations relate to one another, and how to navigate the district comfortably.



Example downtown wayfinding | Source: Town of Estes Park, Colorado

A comprehensive system can also support future redevelopment, improve visitor experiences, and reinforce Downtown's identity as a destination rather than simply a geographic location.

Objective 5.2: Design and install a coordinated wayfinding system connecting destinations, historic buildings, trails, and parking

Pleasant Grove's recreational amenities, civic facilities, historic sites, businesses, and public parking represent some of Downtown's greatest assets, yet many remain disconnected from the perspective of residents and visitors. Feedback consistently supported stronger connections between Downtown, parks, The Grove, neighborhoods, schools, historic resources, and future trails.



Examples of coordinated wayfinding signs | Source: DRS

A wayfinding system should direct visitors to key destinations, parking, trails, parks, and historic sites while highlighting how these places connect. Interactive markers at historic sites should feature QR codes linking users to stories, photographs, maps, and other information about the city's history. The system should also create a green loop linking the various parks and greenways to encourage walking, exploration, and learning. Together, these improvements will increase parking awareness, reduce congestion during events, improve the visitor experience, celebrate local history, and support businesses by making destinations easier to find.

GOAL 06 — Create recognizable and memorable arrival experiences at Downtown entrances

Objective 6.1: Construct a signature gateway at Main Street and State Street.

State Street serves as one of Pleasant Grove's most heavily trafficked corridors and is the primary route through which many residents and visitors experience the community. Despite Downtown's proximity, many drivers are unaware they are approaching a distinct district with restaurants, shops, parks, community events, and redevelopment opportunities.

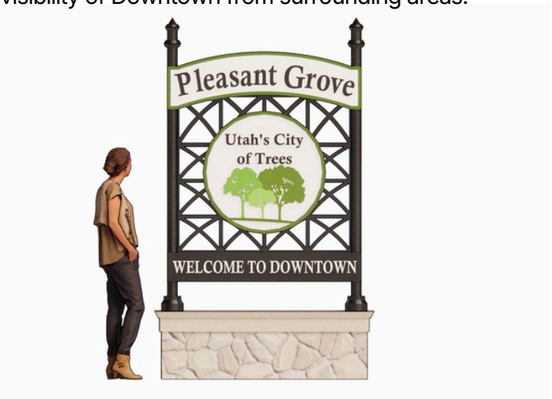


Examples of a gateway sign | Source: DRS

Community engagement highlighted the need for stronger connections between Downtown and The Grove, with State Street as both an opportunity and a barrier. A signature gateway at Main and State Streets should serve as a prominent entry feature, visually linking Downtown, The Grove, and future redevelopment on South Main Street. This gateway aims to be a defining landmark for Pleasant Grove, enhancing the sense of arrival to the community's civic and cultural center.

Objective 6.2: Establish secondary gateways along Center Street, 200 South, and North Canyon Road.

While Main Street and State Street represent Downtown's primary gateway, several additional corridors provide important access into Downtown from surrounding neighborhoods, parks, schools, and community destinations. Community feedback emphasized the importance of creating a stronger sense of identity throughout the district and improving visibility of Downtown from surrounding areas.



Examples of a secondary gateway sign | Source: DRS

A coordinated family of smaller gateway elements should be developed along Center Street, 200 South, and North Canyon Road to ensure a consistent arrival experience. These secondary gateways will be less prominent than the Main Street and State Street gateways but will feature uniform branding, landscaping, signage, public art, and placemaking. These enhancements will strengthen Downtown identity, improve wayfinding, and create a cohesive arrival experience throughout the district.

COMMUNITY PLACEMAKING

GOAL 01

Empower businesses, residents, and organizations to activate Downtown spaces.

Objective 1.1: Create a Downtown Activation Toolkit that enables businesses, organizations, and residents to independently activate Downtown spaces.

Community feedback consistently expressed a desire for a Downtown that feels active beyond major annual events. Pleasant Grove already benefits from a strong calendar of City-led and community-led programming, but many potential organizers are unfamiliar with the process of using public spaces, coordinating activities, or obtaining necessary approvals. Rather than creating additional City-managed events, the City should focus on lowering barriers to participation and making it easier for businesses, nonprofits, schools, churches, and residents to contribute to Downtown activity. A Downtown Activation Toolkit can provide clear guidance, resources, and ideas that encourage community-led placemaking while expanding the variety and frequency of activities occurring throughout Downtown.

ACTIVATION TOOLKIT PROCESS GRAPHIC
SOURCE: DRS



Objective 1.2: Increase community-led programming and everyday use of the Downtown Park.

Downtown Park was repeatedly identified as one of Downtown's greatest assets and serves as the community's primary gathering place. While the park successfully hosts major festivals and community celebrations, it also presents opportunities for smaller-scale activities that occur throughout the year.

Making the park easier to utilize for classes, demonstrations, performances, cultural activities, club gatherings, and community events can increase activity without requiring significant new programming from the City. Expanding community-led use will maximize the value of existing public investments while strengthening Downtown's role as the social and civic center of Pleasant Grove.


Downtown Park, Pleasant Grove | Source: DRS

Objective 1.3: Establish a Downtown Public Art Program for public and private properties.

Public art can help strengthen Downtown's identity, create memorable destinations, and reinforce Pleasant Grove's unique character.The City should establish a Downtown Public Art Program that identifies priority locations for murals, sculptures, utility box wraps, and other installations on both public and private property. The program should feature a streamlined approval process, design guidelines, maintenance expectations, and funding mechanisms like grants and sponsorships and developer contributions. The City should collaborate with property owners to find suitable locations for art installations, including visible walls, vacant lots, and public spaces. A coordinated public art program can enhance Downtown's identity, support placemaking, boost tourism, and foster community pride.



Mural Art in Downtown PG | Source: DRS

GOAL 02

Leverage event attendance to increase patronization of Downtown businesses

Objective 2.1: Create a Downtown Merchant Participation Program for major community events.

Strawberry Days and other established community events already attract substantial attendance and represent some of Downtown's strongest economic opportunities. However, event attendance does not always translate into business activity throughout the district. A Downtown Merchant Participation Program can better connect businesses to community events through coordinated promotions, extended hours, special offerings, event partnerships, and marketing efforts. The objective is not to create new events, but rather to ensure existing events generate greater economic benefit for Downtown businesses and encourage repeat visitation throughout the year.











Previous years of Strawberry Days | Source: PG City

Objective 2.2: Review existing events and expand local-character-based programming.

Pleasant Grove already benefits from a strong calendar of community events, including Strawberry Days, holiday celebrations, and other seasonal activities. Working with the recommended Downtown Advisory Board, the City should regularly evaluate existing events to identify opportunities for enhancement while encouraging additional small- and medium-scale programming that reflects Downtown's unique character. Future activities could include art walks, live music, history tours, outdoor markets, food events, seasonal festivals, and other community-led programming that activates Downtown throughout the year, supports local businesses, and encourages repeat visits from residents and visitors.





Strawberry Days 2026 | Source: DRS

GOAL 03

Transform Downtown Park into Pleasant Grove's central civic space.

Objective 3.1: Install permanent infrastructure in Downtown Park to support events, recreation, and park use

Downtown Park serves a dual role as both a neighborhood park and the community's primary event venue. However, many activities require temporary infrastructure, equipment, and logistical accommodations that can limit programming flexibility. Strategic investments in permanent infrastructure can improve event operations, reduce setup costs, enhance the visitor experience, and increase the range of activities that can occur within the park.

Improvements should focus on supporting both large community events and everyday use while ensuring the park remains adaptable to changing community needs over time.



Example of permanent infrastructure in a park | Source: Rush Dixon Architects

Objective 3.2: Identify a space near or adjacent to the Downtown Park to support a hardscaped civic space.

Downtown Park serves as the community's primary gathering space and hosts many of Pleasant Grove's most important events. As Downtown continues to grow, additional space may be needed to accommodate markets, performances, festivals, food vendors, and other community activities that benefit from durable surfaces, utility access, and flexible layouts. The City should identify a location adjacent to or near Downtown Park that can function as an extension of the community's event and gathering infrastructure.

Future improvements should prioritize flexibility, event support, and year-round usability while complementing the park's existing role as Downtown's premier public space. This approach can expand programming opportunities, increase event capacity, and strengthen Downtown's role as the community's civic and cultural center.



Example of a public space | Source: HDLA

GOAL 04

Connect Downtown parks, trails, and recreation destinations into one network.

Objective 4.1: Prepare a Shannon Park and Rodeo Grounds Master Plan to guide future improvements and investment.



Image of Shannon Park | Source: DRS

Shannon Park and the Rodeo Grounds host some of Pleasant Grove's most important community events such as Strawberry Days. The City should prepare a master plan to evaluate improvements that enhance the facility's role as a year-round event and recreation destination while preserving its historic character.

Potential improvements may include upgraded seating and shade, improved concessions and ticketing, gathering and vendor spaces, more efficient parking and event operations, enhanced trail and pedestrian connections, family-oriented amenities, and stronger gateway features along State Street and 200 South. The master plan should establish priorities, phasing, and funding strategies for future investment.

Objective 4.2: Connect Downtown Park, Shannon Park, Cook Family Park, and the Greenways into a unified network.



Example of Coordinated network through trails I Source: Land Performance Series

Pleasant Grove possesses an exceptional collection of parks, trails, open spaces, and recreational facilities located within and around Downtown. However, these assets often function as individual destinations rather than components of a connected system. Community engagement repeatedly emphasized the importance of improving connections. The City should connect Downtown Park, Shannon Park, Cook Family Park, and greenways into a unified network through enhanced trail connections, wayfinding, and landscaping.

Consistent planting and a continuous tree canopy along key corridors will visually link destinations, strengthen Downtown identity, and create a cohesive recreational network.

Objective 4.3: Preserve and enhance key public open spaces while identifying opportunities for additional gathering spaces in Downtown.



Downtown Park, Pleasant Grove UT | Source: DRS

As Downtown evolves, the City should focus on preserving and enhancing existing public open spaces while exploring new parks and gathering areas. Key locations near the library and senior center should be developed as green spaces with landscaping, seating, and amenities for community use. Additionally, opportunities for smaller plazas and pocket parks should be assessed during redevelopment.

New open spaces must complement current parks, support local businesses and residents, and consider long-term maintenance needs.

GOAL 05

Prioritize infrastructure investments that unlock Downtown redevelopment opportunities.

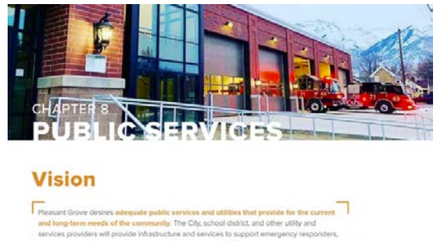
Objective 5.1: Prioritize and coordinate infrastructure improvements that support catalyst redevelopment sites and opportunity areas.



Example of consistent streetscape in Moscow, ID | Source: Aol.com

The planning process did not identify major utility deficiencies as a widespread barrier to Downtown growth. However, several catalyst sites and redevelopment opportunity areas will require targeted infrastructure investments to support redevelopment and improve project feasibility. Infrastructure improvements, redevelopment projects, streetscape investments, gateway enhancements, & public space improvements should be coordinated whenever possible to maximize public investment and avoid unnecessary disruptions. As public resources are limited, infrastructure improvements should be coordinated & directed toward locations where they can unlock private investment, support housing and mixed-use development, improve project certainty, and maximize the return on public investment.

Objective 5.2: Review & Update Chapter 8 of the 2023 General Plan to align public services, infrastructure, and utilities with downtown growth.



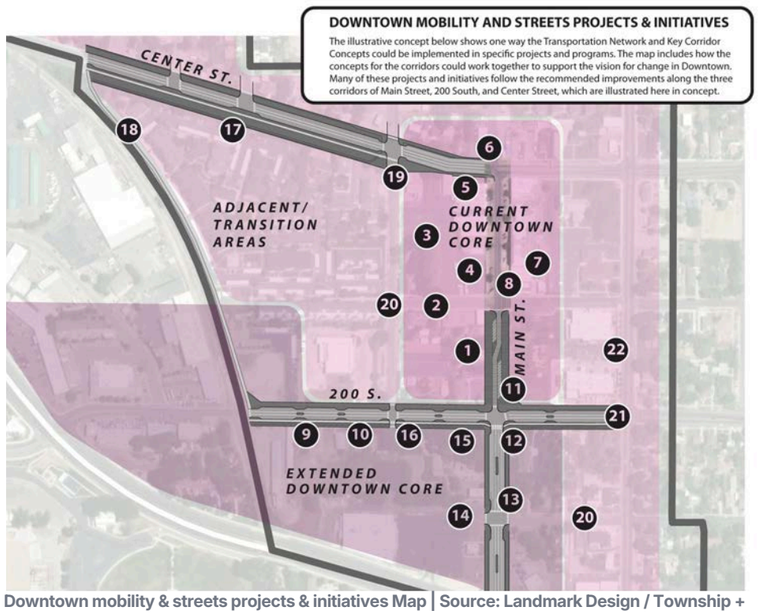
As Downtown continues to evolve, the City should ensure that long-term planning for public services and infrastructure supports future growth and redevelopment. Chapter 8 of the 2023 General Plan should be reviewed and updated, as needed, to reflect the infrastructure, utility, and public facility improvements necessary to accommodate Downtown investment. This review should coordinate planned upgrades to water, sewer, stormwater, streets, broadband, and other public facilities with anticipated redevelopment, helping prioritize capital improvements, identify infrastructure constraints, and ensure public investments support the Downtown vision. The update should also strengthen coordination between future development, utility planning, and the City's Capital Improvements Program.

Downtown Pleasant Grove will grow as a lively mixed-use place that strengthens Main Street and facilitates thoughtful infill that fits its historic character and long-term potential.

GOAL 01

Direct growth to Downtown's primary redevelopment and mixed-use corridors.

Objective 1.1: Designate Main Street and 200 South as growth corridors through code updates and development partnerships.



Downtown mobility & streets projects & initiatives Map | Source: Landmark Design / Township + Range

Public engagement through workshops and surveys showed strong support for more housing and businesses in Downtown, emphasizing that growth should occur in suitable locations that enhance the area's character. Main Street, South Main Street, and 200 South were identified as key corridors for mixed-use redevelopment due to their accessibility and potential. Concentrating growth in these areas will boost the economic base, support local businesses, increase activity, and create a vibrant district while preserving neighborhood character.

Objective 1.2: Permit additional housing types throughout Downtown redevelopment corridors.

MIXED-USE APARTMENTS



TOWNHOMES



LIVE-WORK



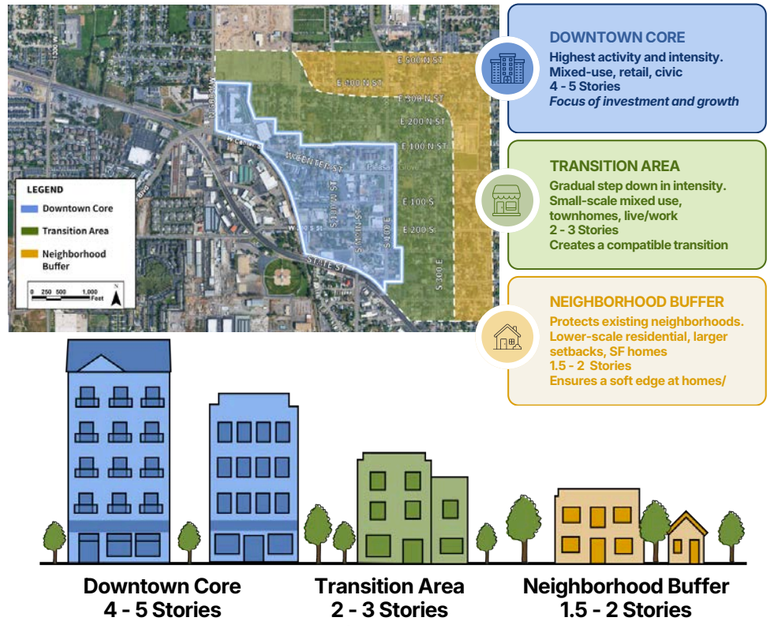
APARTMENTS



Examples of housing types | Source: DRS

The redevelopment analysis indicates that increasing residential density is essential to support community-desired businesses and services. Current regulations limit various successful housing types in downtown areas. The City should revise zoning to allow diverse housing options, such as upper-story units, multifamily housing, townhomes, and mixed-use developments. This would boost resident numbers near Downtown, support local businesses, enhance housing choices, and strengthen the area's economic viability.

Objective 1.3: Establish neighborhood transition standards that allow growth while protecting adjacent residential areas.



Neighborhood transition standards graphic | Source: DRS

Community feedback advocates for Downtown growth while preserving the character of surrounding neighborhoods. Clear transition standards are essential for ensuring new developments align with nearby residential areas, allowing for Downtown's expansion. Design tools like step-backs, landscape buffers, and orientation requirements can facilitate smoother transitions between high-intensity areas and lower-density neighborhoods, promoting predictability for property owners, residents, and developers while minimizing conflicts.

GOAL 02

Modernize Downtown regulations to support walkable mixed-use development.

Objective 2.1: Adopt a Downtown form-based or hybrid code that establishes clear expectations for building form, frontage design, and pedestrian-oriented development.

The community consistently expressed a desire for future development that reinforces Downtown's historic character, supports walkability, and contributes to a cohesive sense of place. Existing regulations were not specifically written to achieve these outcomes and often focus more heavily on the physical character of development.



View from Downtown Heart Concept | Source: MHTN

The City should prepare and adopt a Downtown form-based or hybrid zoning district that establishes clear standards for building placement, frontage design, building height, parking location, streetscape relationships, and transitions to adjacent neighborhoods. This effort would replace many of the existing standards currently applied within Downtown and provide a predictable framework that encourages investment while ensuring future development contributes to the character envisioned by this Plan.

Objective 2.2: Amend Downtown regulations to allow upper-floor housing, adaptive reuse, and mixed-use occupancy by right.

Current downtown standards allow residential dwellings in mixed-use buildings, with the number of units tied to the amount of retail or sales tax-generating space provided. While this still allows upper-floor housing and mixed-use development, property owners seeking to occupy vacant upper floors, convert underutilized spaces, or introduce additional residential and commercial uses may still encounter regulatory barriers that make projects difficult or financially infeasible. Where appropriate, qualifying upper-floor residential, adaptive reuse, and mixed-use projects should be permitted by right when they meet established Downtown development and design standards. Priority should be placed on amending standards that tie residential development to ground-floor commercial square footage, as well as other requirements that may affect the feasibility of rehabilitating older buildings or introducing additional residential units. These changes can increase building occupancy, support adaptive reuse, and encourage reinvestment in existing properties while preserving Downtown's historic character.

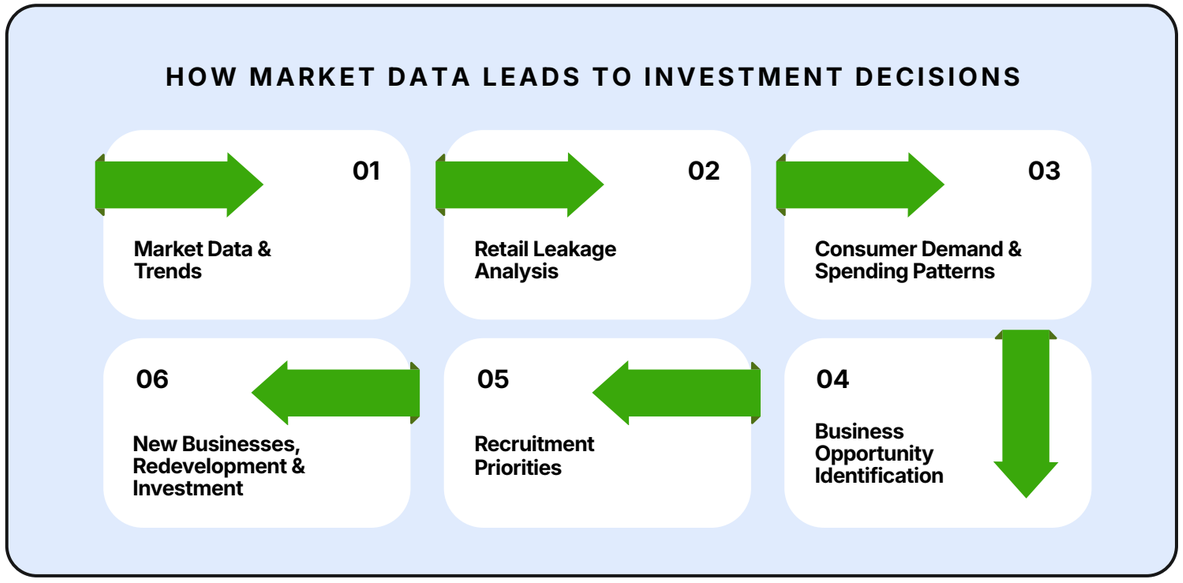


Building with upper-floor housing | Source: pedbikeimages.org

GOAL 03

Modernize Downtown regulations to support walkable mixed-use development.

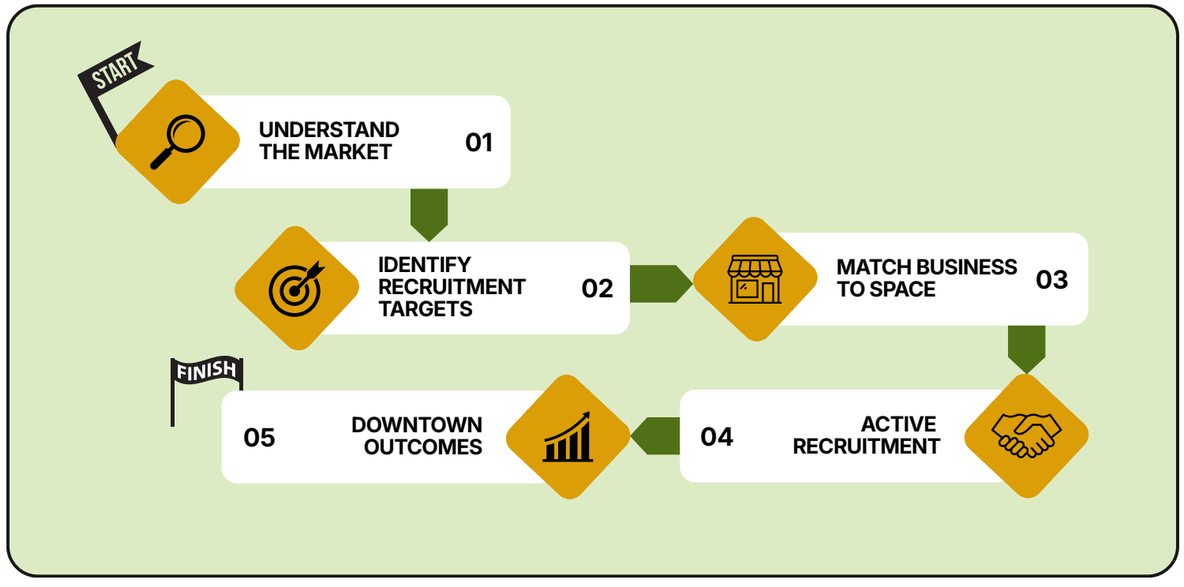
Objective 3.1: Prepare a detailed Downtown Market Analysis to guide business recruitment, redevelopment, and investment decisions.



Process graphic of how market data leads to investment decisions | Source: DRS

While this planning process included a high-level market assessment, Downtown Pleasant Grove would benefit from a more detailed and targeted market analysis focused specifically on commercial, office, retail, restaurant, hospitality, entertainment, and service-sector opportunities. Community engagement consistently identified a desire for additional destinations and experiences within Downtown, but successfully recruiting and retaining businesses requires a clear understanding of market demand, spending patterns, competitive positioning, leakage and surplus conditions, tourism trends, and development feasibility. The City should prepare a comprehensive Downtown Market Analysis that identifies realistic opportunities for business recruitment, expansion, redevelopment, and investment while helping property owners, developers, and economic development partners make informed decisions. The study should also establish recruitment priorities and provide the foundation for future business recruitment, entrepreneurship, and redevelopment efforts.

Objective 3.2: Implement a targeted business recruitment program based on market analysis findings.



Process graphic on how to implement a targeted business recruitment program | Source: DRS

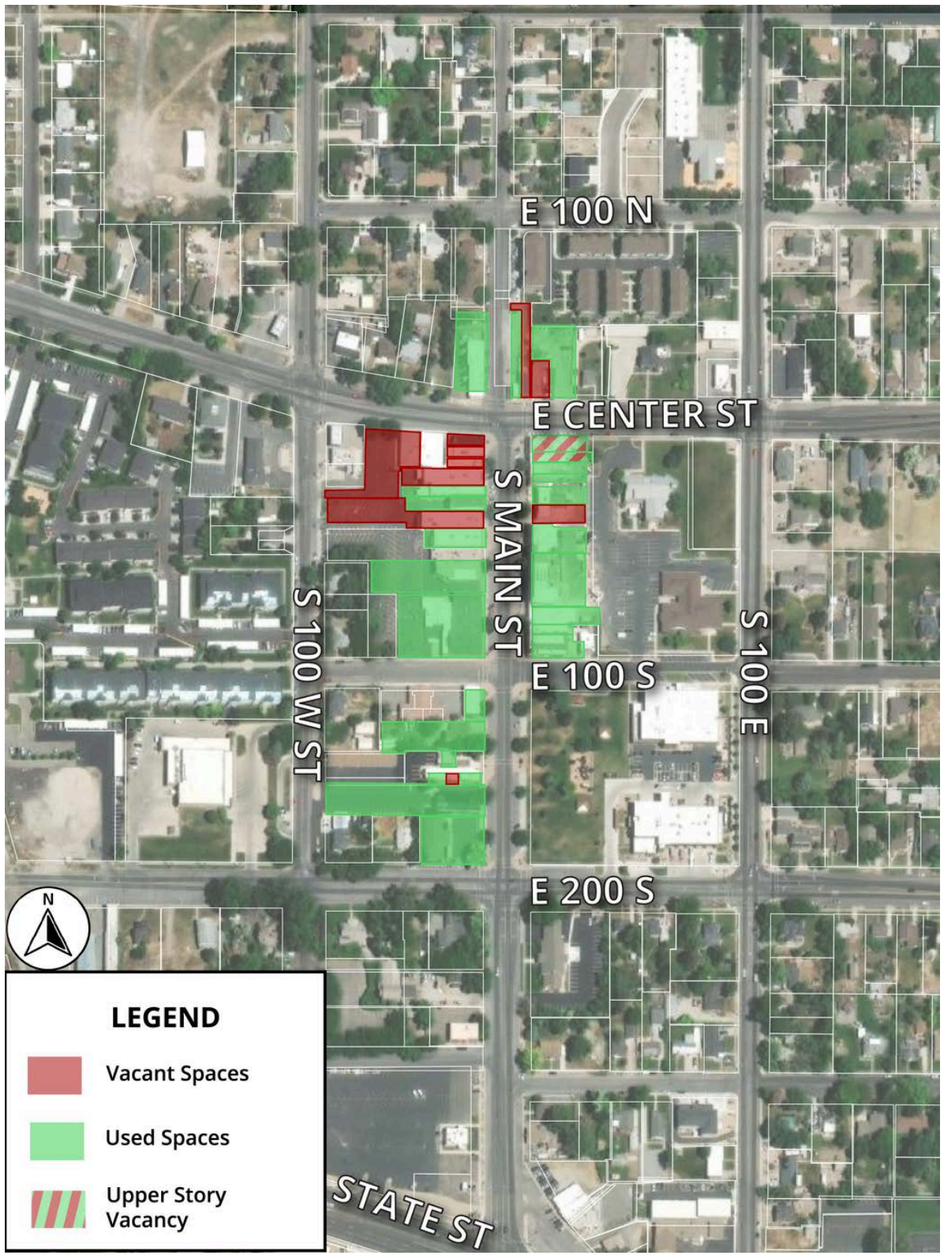
Community engagement, stakeholder interviews, and the market analysis consistently identified demand for additional dining, retail, entertainment, and service businesses that can increase activity throughout the day and evening. Following completion of the Downtown Market Analysis, the City should prepare a targeted recruitment list identifying priority business categories, preferred business types, and specific storefronts or redevelopment sites suitable for each use. The City and its partners should actively market available spaces, maintain an inventory of vacant storefronts, develop recruitment materials for priority sites, and conduct direct outreach to prospective businesses, brokers, franchise operators, and local entrepreneurs. Recruitment efforts should focus on filling identified market gaps, increasing occupancy of vacant spaces, strengthening Main Street as a destination, and expanding the mix of businesses that support a walkable and active Downtown.

Objective 3.3: Inventory vacant spaces in the downtown and partner with property owners to address barriers and fill spaces.

Several Downtown buildings contain vacant storefronts, unused commercial space, or upper floors that are currently used for storage rather than active uses. These spaces represent some of the easiest opportunities to bring more people, businesses, and housing into Downtown without constructing new buildings. The City should create and maintain an inventory of vacant spaces, meet regularly with property owners to understand why spaces remain vacant, and help connect available spaces with interested businesses, entrepreneurs, and potential tenants. Efforts should focus on highly visible storefronts and upper-floor spaces that can quickly contribute to a more active Downtown. By helping property owners overcome common challenges and market available space, the City can increase occupancy, strengthen local businesses, and bring more activity to Downtown.



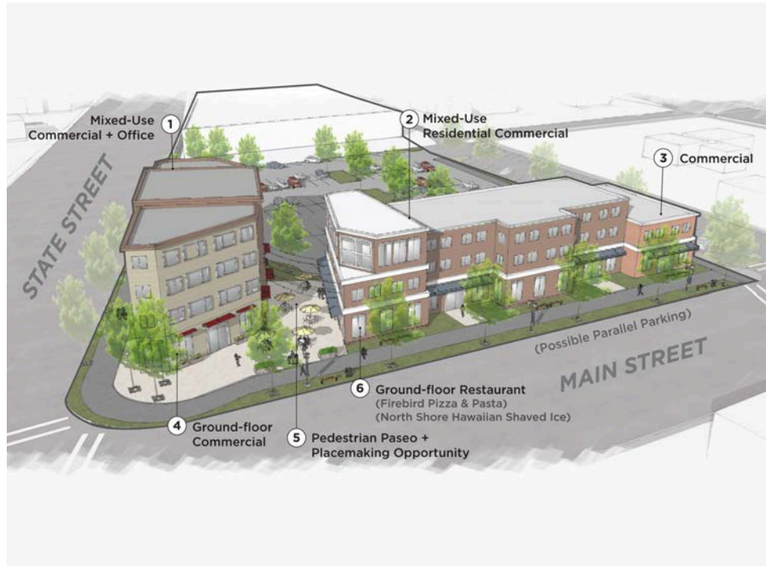
Vacant building in Pleasant Grove | Source: DRS



Map of vacant and occupied spaces in Downtown | Source: DRS

Objective 3.4: Partner with property owners and developers to advance catalyst redevelopment sites, preserving architecturally significant historic buildings where applicable.

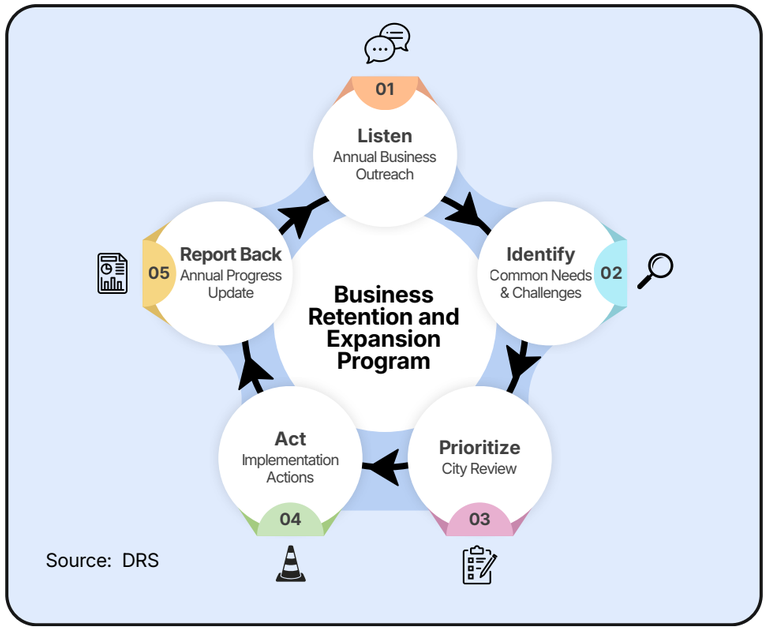
The planning process identified several catalyst sites capable of accommodating new housing, mixed-use development, commercial investment, and public improvements. The City should work with willing property owners to identify redevelopment opportunities, prepare marketing materials for priority sites, and actively connect sites with developers, investors, and development partners. Where appropriate, the City should pursue public-private partnerships that help overcome implementation barriers, improve project feasibility, and advance community priorities. This proactive approach can attract investment, align redevelopment with community goals, and accelerate implementation of the Downtown Plan.



View from Downtown South Gateway Concept | Source: MHTN

Objective 3.5: Establish an annual business retention and expansion program for Downtown businesses.

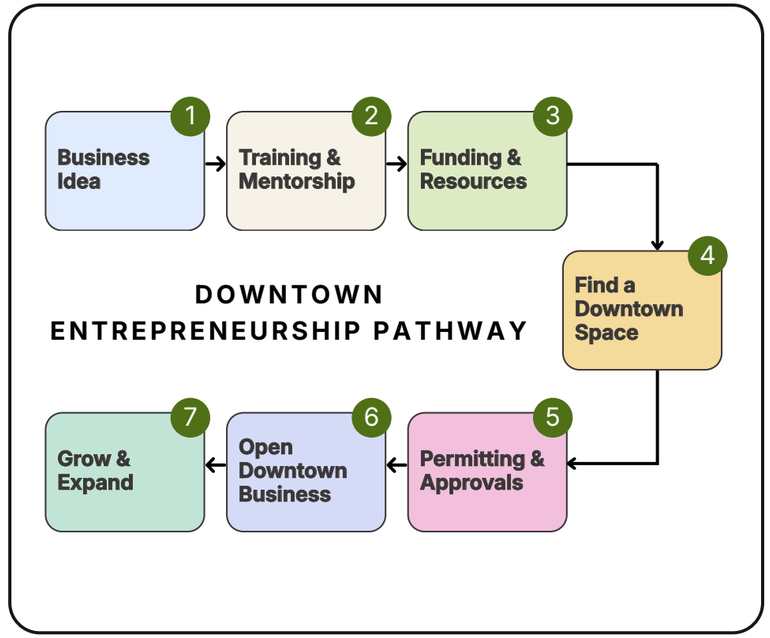
Existing businesses are Downtown's most important economic asset and are often more critical to long-term success than recruiting new businesses. Community engagement consistently emphasized the importance of supporting local businesses and ensuring they remain successful as Downtown evolves. The City and its partners should conduct annual outreach to Downtown businesses through interviews, site visits, roundtables, and surveys to identify common challenges, infrastructure concerns, regulatory issues, workforce needs, and opportunities for improvement. Findings should be summarized and used to inform City work programs, capital projects, economic development initiatives, and policy decisions.



This ongoing dialogue can strengthen relationships with the business community while helping the City proactively respond to issues that affect business success.

Objective 3.6: Create an entrepreneurship pathway that helps local businesses start and grow in Downtown.

Residents consistently expressed a desire for Downtown to retain its local character and support independently owned businesses. However, many entrepreneurs face challenges navigating site selection, permitting, financing, and business planning. The City should work with regional partners, business organizations, educational institutions, and economic development agencies to create a clear entrepreneurship pathway that connects prospective business owners with available spaces, funding opportunities, technical assistance, mentorship, and training resources.



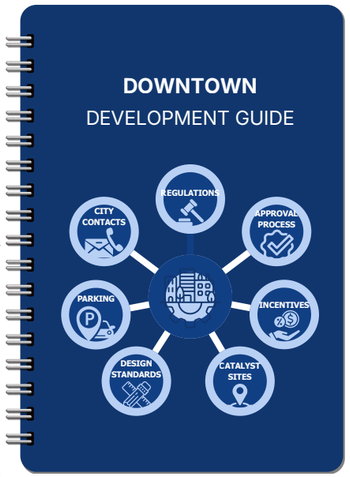
By making it easier for entrepreneurs to establish and expand downtown businesses, the City can cultivate the types of businesses that contribute most directly to its identity and economic vitality.

GOAL 04

Make Downtown redevelopment easier, more predictable, and financially feasible.

Objective 4.1: Create a Downtown Redevelopment Guide that clearly explains the development process, opportunities, and expectations.

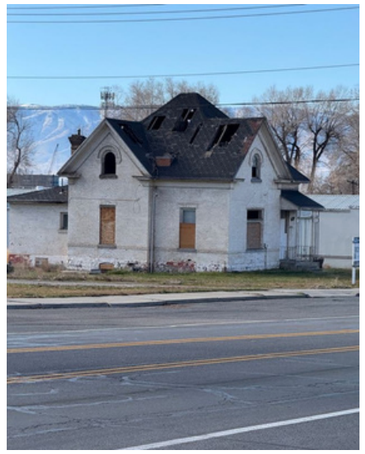
Property owners, business owners, and developers often encounter uncertainty when pursuing redevelopment projects, particularly within established downtown districts where regulations, design expectations, infrastructure considerations, and approval process can be difficult to navigate. Community engagement demonstrated strong interest in reinvestment throughout Downtown, but also highlighted the need for clearer information and better coordination. The City should prepare a Downtown Redevelopment Guide that serves as a one-stop resource for prospective investors and property owners. The guide should explain development regulations, historic preservation guidelines and resources, approval procedures, incentive opportunities, design expectations, catalyst sites, parking strategies, and available City contacts.



Downtown Redevelopment Guide Example Graphic | Source: DRS

Objective 4.2: Establish a Downtown Reinvestment Incentive Program focused on projects that advance the Downtown Vision.

Community members consistently expressed support for reinvestment in Downtown buildings, businesses, and public spaces. Strategic incentives can help encourage the types of projects desired by the community while addressing financial gaps that may prevent implementation. The City should establish a Downtown Reinvestment Incentive Program that prioritizes projects such as historic preservation, façade improvements, adaptive reuse, upper-floor occupancy, mixed-use redevelopment, storefront activation, and public-facing site improvements. Incentives should be structured to support projects that contribute to Downtown's character, increase activity, improve property conditions, and advance the goals identified throughout this Plan.



Example of dilapidated building in downtown

Objective 4.3: Publish Downtown development prototypes that illustrate desired redevelopment outcomes.



Example of live-work building prototype | Source: DRS

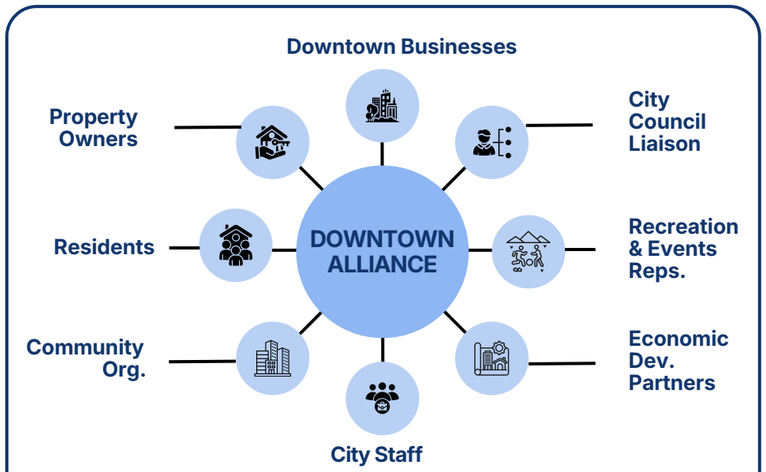
Many property owners, residents, and developers struggle to visualize the types of development envisioned for Downtown. This uncertainty can create resistance to change, misunderstandings regarding development potential, and difficulty evaluating redevelopment opportunities. The City should prepare a series of Downtown development prototypes that illustrate preferred building types, site layouts, redevelopment patterns, parking configurations, streetscape relationships, and transitions to adjacent neighborhoods.

These prototypes can serve as educational tools, development recruitment materials, and implementation resources that improve predictability while demonstrating how future growth can occur in a manner consistent with the community's vision.

GOAL 05

Establish the organizational structure needed to implement the Downtown Plan.

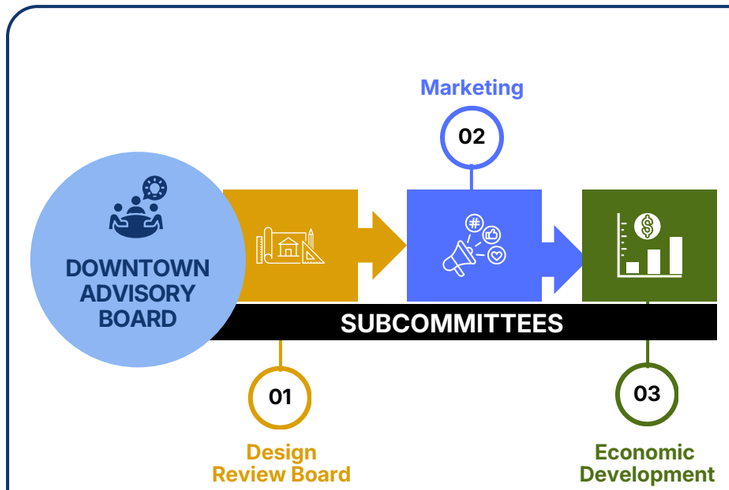
Objective 5.1: Establish a Downtown Alliance with paid City staff to oversee implementation of the Downtown Plan.



Downtown advisory board graphic| Source: DRS

Successful downtowns often benefit from a dedicated group of stakeholders responsible for implementing the downtown master plan. Community engagement demonstrated interest in Downtown's future and a desire for continued engagement beyond completion of the planning process. The City should establish a Downtown Alliance as an official arm of the City that includes a staff member focused on events, placemaking, business support, and development, supported by representatives from Downtown businesses, property owners, residents, and civic organizations. The Board should monitor implementation progress, provide recommendations regarding priorities and funding, and serve as a forum for ongoing collaboration among Downtown stakeholders.

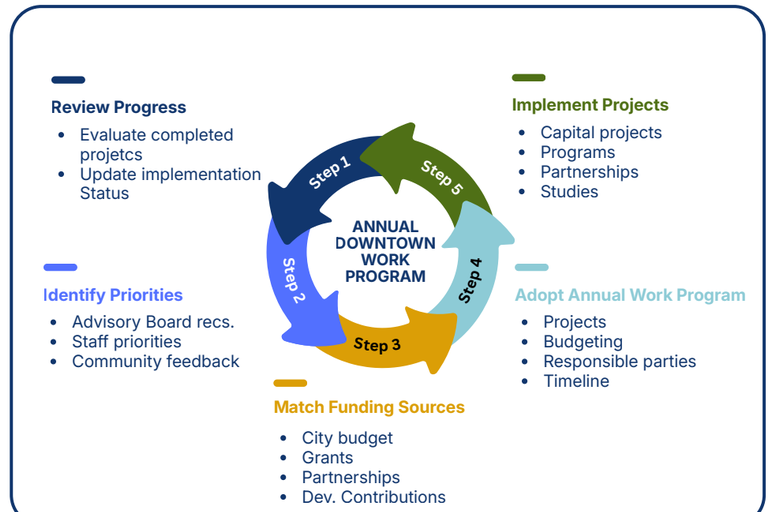
Objective 5.2: Create volunteer implementation committees that support Downtown initiatives.



Downtown advisory board graphic| Source: DRS

Many implementation actions identified throughout this Plan can benefit from the involvement of community volunteers, business owners, residents, and partner organizations. Volunteer committees can expand the City's implementation capacity while creating opportunities for continued community participation in Downtown revitalization efforts. Committees may focus on areas such as economic development, beautification, events and activation, business outreach, or implementation tracking. By creating structured opportunities for involvement, the City can leverage community energy and expertise while building long-term support for Downtown initiatives.

Objective 5.3: Adopt an annual Downtown work program, budget, and funding strategy.



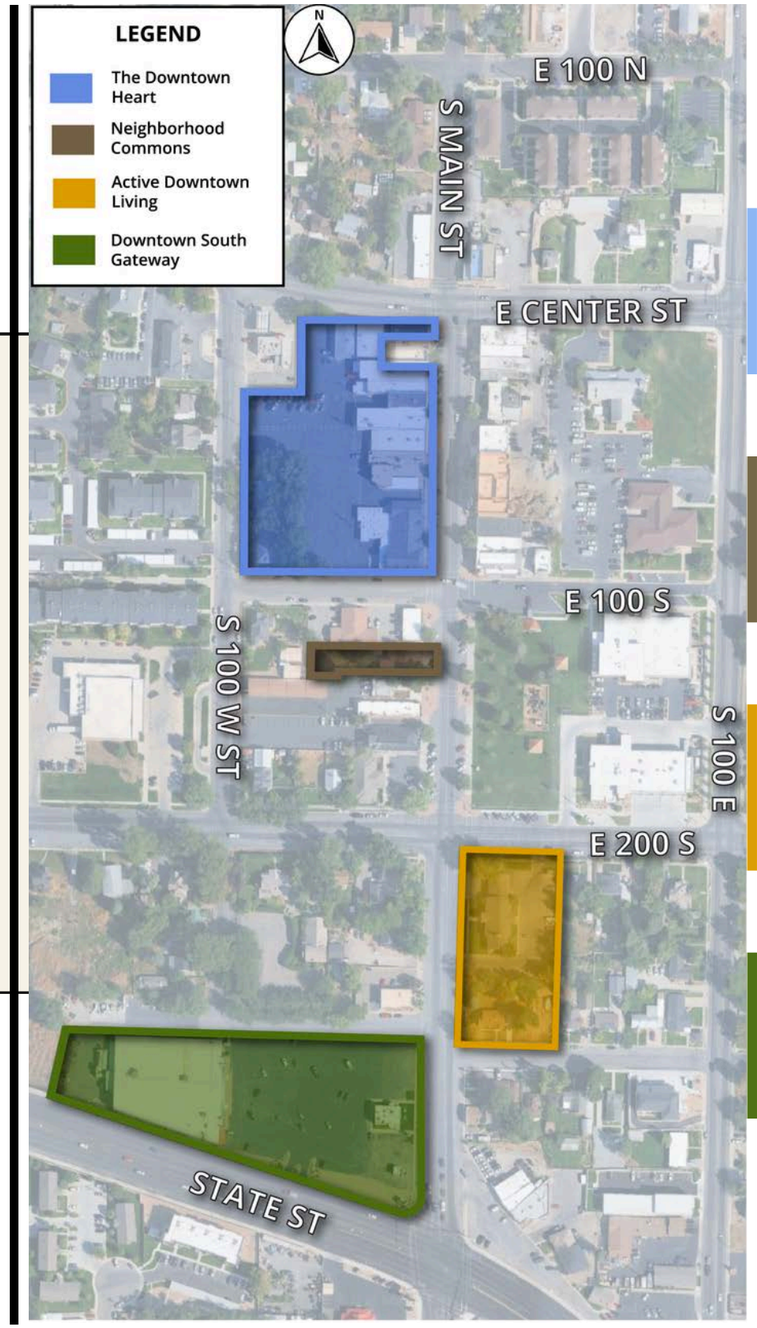
Annual downtown program diagram | Source: DRS

Implementation will require ongoing coordination, prioritization, and resource allocation over many years. Without a structured process for identifying priorities and funding opportunities, implementation efforts can become fragmented or lose momentum over time. The City should adopt an annual Downtown work program that identifies priority projects, implementation activities, funding needs, and responsible parties for the coming year. The work program should be accompanied by a Downtown budget and funding strategy that aligns implementation priorities with available resources, grant opportunities, partnerships, and the City's annual budgeting process. This approach will help ensure that implementation remains focused, measurable, and aligned with the long-term vision for Downtown.

10 SITE SPECIFIC DEVELOPMENT ASSISTANCE

Go To ToC

The site-specific development concepts included in this plan illustrate potential redevelopment and infill opportunities that support the vision, goals, and recommendations of the Downtown Master Plan. Developed with the participation and support of property owners, these concepts demonstrate how key sites could evolve over time to help create a more vibrant, connected, and walkable downtown. The designs are conceptual in nature and do not represent final development proposals. Building locations, site layouts, uses, and design details may change as redevelopment occurs. The concepts show how mixed-use buildings, active ground floor uses, public gathering spaces, parking, and improved pedestrian connections could work together to strengthen Downtown Pleasant Grove and better connect key destinations throughout the district.



THE DOWNTOWN HEART
100 South / Main Street

NEIGHBORHOOD COMMONS
126 South / Main Street

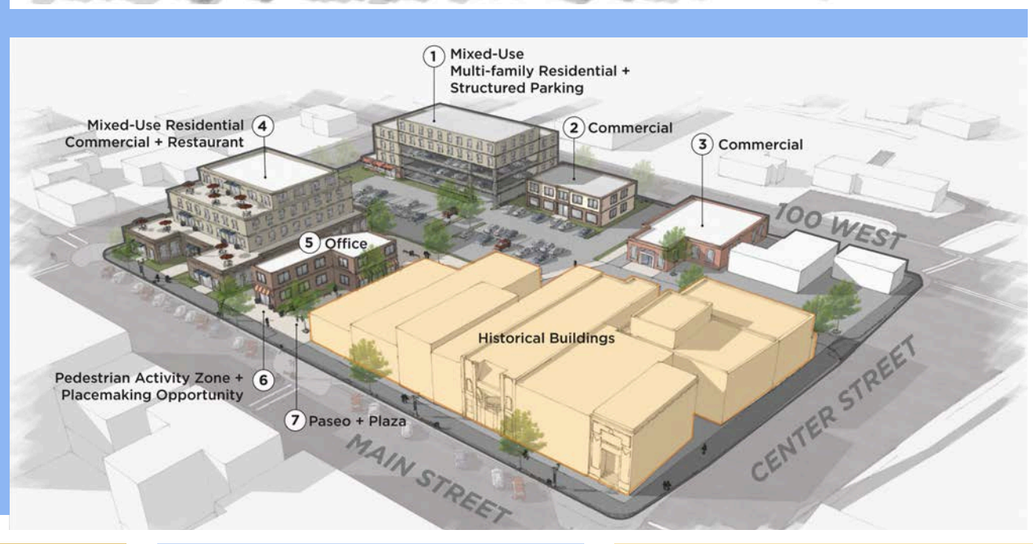
ACTIVE DOWNTOWN LIVING
255 South / Main Street

DOWNTOWN SOUTH GATEWAY
State Street / Main Street

THE DOWNTOWN HEART
100 South / Main Street

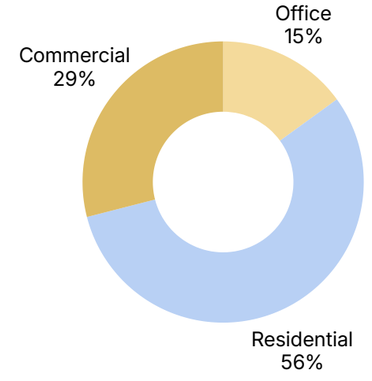






Serves as a historic center of downtown where people gather to dine, shop, and connect.

- Anchor Main Street's North Gateways Corridor.
- Connects to a potential linear park and active corridor along Center St.
- Strengthens walkable connection to Cook Park and Downtown Park.
- Supports small-scale storefronts and active ground floors.
- Allows residents to park once and walk to experience the downtown.
- Preserves the architecturally significant buildings on the northeast side of the block while adding compatible development to the south and west.



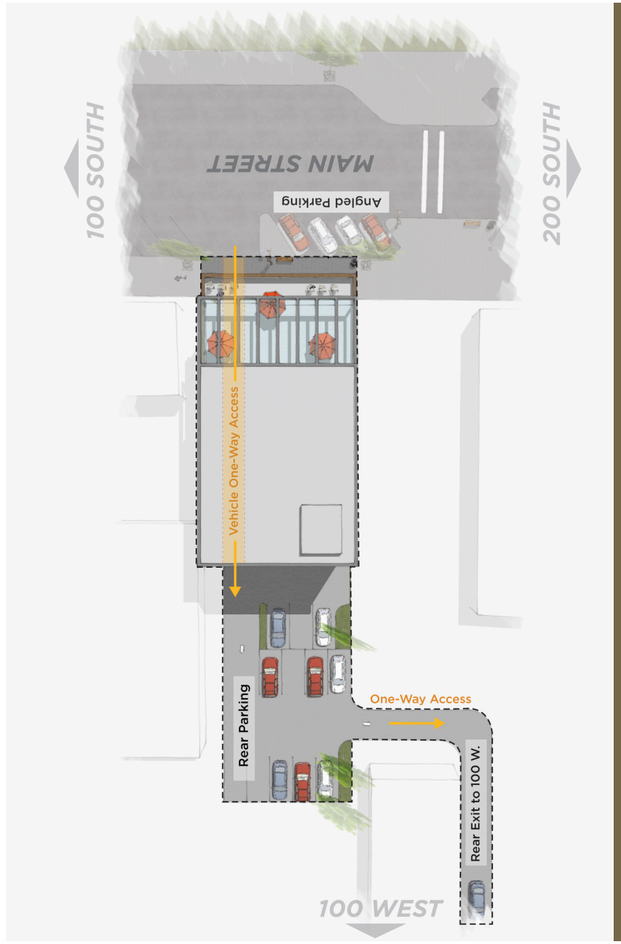
NEW PARKING
62 Stalls, Interior
45 Stalls, Angled

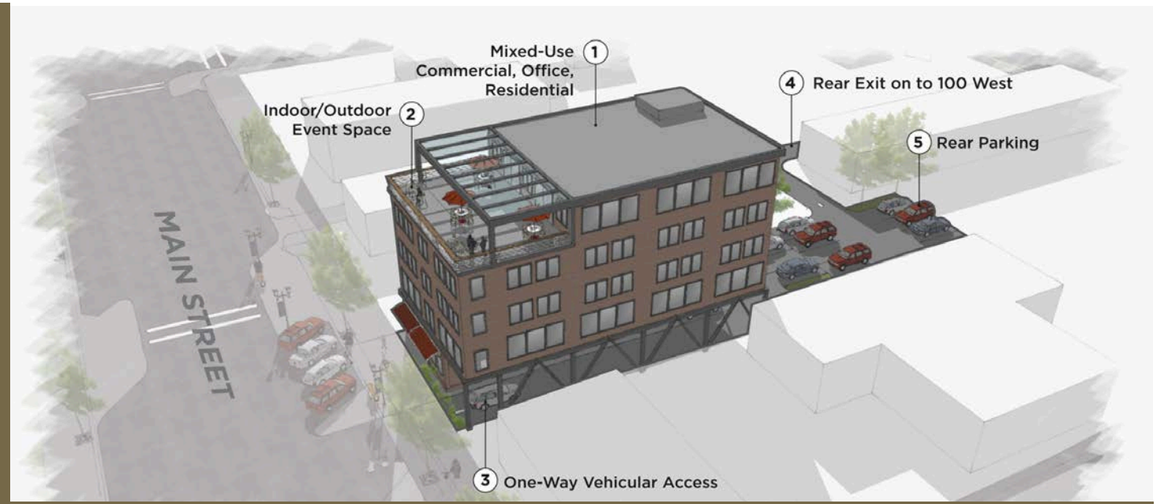
NEW RETAIL
29,170
Square Foot

NEW RESIDENTIAL
56,290 Sq. ft
50 Units

NEW OFFICE
14,506
Square Foot

NEIGHBORHOOD COMMONS
126 South / Main Street



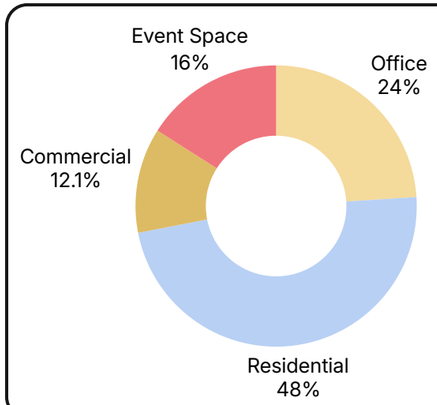






Supports local businesses within a walkable downtown.

- Small-scale redevelopment to build on the human-scale character of the downtown
- Incorporates flexible mid-block uses and visibility from Main Street and Downtown Park.
- Supports and expands the streetscape identity into the interior spaces of the block.



NEW PARKING
15 Stalls, Interior

NEW RETAIL
2,439 Sq. ft Square Foot

NEW RESIDENTIAL
9,692 Sq. Ft
6 Units

NEW OFFICE
4,846 Sq. Ft

NEW EVENT SPACE
3,230 Sq. Ft

ACTIVE DOWNTOWN LIVING
255 South / Main Street

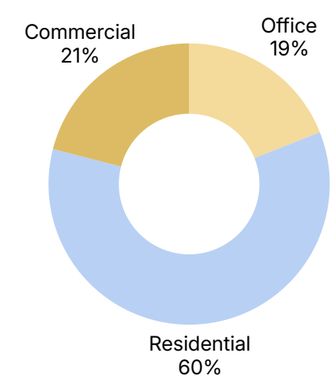






Supports the Downtown's economic vitality within a mixed-use environment.

- Supports active daily downtown activity, connecting workers to walkable retail and dining.
- Enhances streetscape beyond the Main Street Core and Downtown Park.
- Reinforces multi-modal access (walk, bike, car).
- Above housing and/or office spaces that support a growing downtown population.



NEW PARKING
65 Stalls, Interior
13 Stalls, Angled

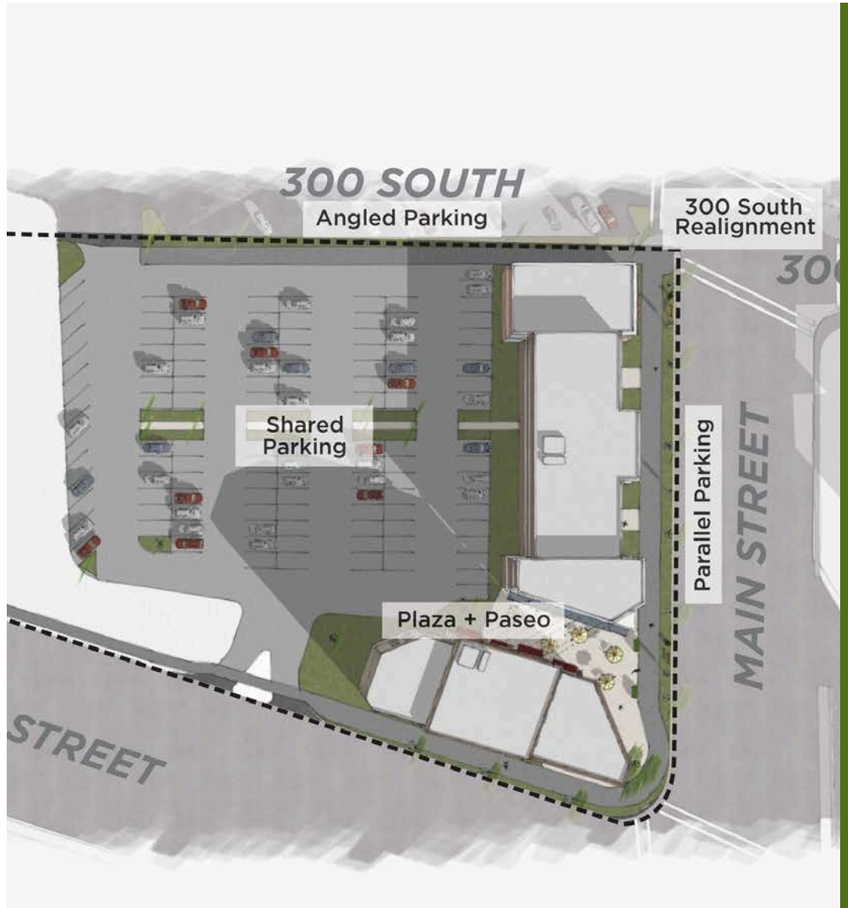
NEW RETAIL
7,090
Square Foot

NEW RESIDENTIAL
20,660 Sq. ft
18 Units

NEW OFFICE
6,480
Square Foot

DOWNTOWN SOUTH GATEWAY

State Street / Main Street

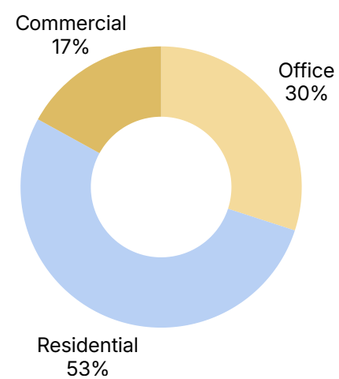






A signature gateway welcoming visitors into Downtown along South Main Street.

- Anchors and encourages interest into the South Main Street gateway corridor.
- Supports gateway design and identity elements.
- Enhances pedestrian safety and streetscape quality buffered from State Street.



NEW PARKING
118 Stalls, Interior
26 Stalls, Angled

NEW RETAIL
10,748
Square Foot

NEW RESIDENTIAL
33,204 Sq. ft
29 Units

NEW OFFICE
18,603
Square Foot

Objective	Timeframe	Responsible Parties	Funding Sources
Goal: Create a connected multimodal network linking Downtown to community destinations			
Objective 1.1	Quarter 4 - 2026	City, MAG, Property Owners, Main Street Organization	Grants, MAG Grant Support, General Obligation Funds
Objective 1.2	Quarter 2 - 2027	UTA, City, MAG	State Grants, MAG Grant Support
Objective 1.3	Quarter 4 - 2027	UDOT, UTA, MAG, City	Grants, MAG Grant Support, State Grants, Federal Grants
Objective 1.4	Quarter 4 - 2028	City, County, Property Owners	Grants, Municipal Bonding, MAG Grant Support, State Grants, Federal Grants
Objective 1.5	Quarter 4 - 2028	UTA, MAG, City	MAG Grant Support, General Obligation Funds
Objective 1.6	Quarter 4 - 2029	City, UDOT, UTA	State Grants, Municipal Bonding, General Obligation Funds
Goal: Improve Downtown access through more efficient parking management strategies			
Objective 2.1	Quarter 1 - 2027	City, Property Owners	General Obligation Funds
Objective 2.2	Quarter 2 - 2027	Property Owners, City	General Obligation Funds
Objective 2.3	Quarter 3 - 2027	Property Owners, City	General Obligation Funds
Goal: Extend Main Street's character and streetscape experience throughout Downtown			
Objective 3.1	Quarter 2 - 2027	City, UDOT, MAG, Property Owners	General Obligation Funds, MAG Grant Support
Objective 3.2	Quarter 2 - 2028	UDOT, UTA, City, County, MAG	Municipal Bonding, State Grants
Objective 3.3	Quarter 4 - 2029	UTA, UDOT, City	Municipal Bonding, General Obligation Funds
Objective 3.4	Quarter 2 - 2026	UDOT, UTA, City, County	Municipal Bonding, General Obligation Funds, State Grants, Federal Grants

Objective	Timeframe	Responsible Parties	Funding Sources
Goal: Design Downtown streets as active civic and community gathering spaces.			
Objective 4.1	Quarter 2 - 2027	City	MAG Grant Support, General Obligation Funds
Objective 4.2	Quarter 4 - 2027	City, UTA, UDOT	State Grants, Federal Grants
Goal: *Make Downtown easier to find, navigate, and explore.*			
Objective 5.1	Quarter 4 - 2026	City	General Obligation Funds
Objective 5.2	Quarter 2 - 2027	City	General Obligation Funds
Goal: Create recognizable and memorable arrival experiences at Downtown entrances			
Objective 6.1	Quarter 4 - 2027	City, UDOT, UTA	General Obligation Funds
Objective 6.2	Quarter 4 - 2027	City, UDOT, UTA	General Obligation Funds
Goal: Empower businesses, residents, and organizations to activate Downtown spaces.			
Objective 1.1	Quarter 4 - 2026	City, Main Street Organization, Property Owners	General Obligation Funds
Objective 1.2	Quarter 2 - 2027	City, Property Owners	General Obligation Funds
Objective 1.3	Quarter 3 - 2027	City, Property Owners	General Obligation Funds
Goal: *Leverage event attendance to increase patronization of Downtown businesses*			
Objective 2.1	Quarter 4 - 2026	City, Property Owners, Main Street Organization	General Obligation Funds
Obkective 2.2	Quarter 1 - 2027	City, Property Owners, Main Street Organization	General Obligation Funds
Goal: *Transform Downtown Park into Pleasant Grove's central civic space.*			
Objective 3.1	Quarter 2 - 2027	City, Main Street Organization	General Obligation Funds, MAG Grant Support, State Grants
Objective 3.2	Quarter 2 - 2027	City, Main Street Organization	General Obligation Funds

Objective	Timeframe	Responsible Parties	Funding Sources
Goal: ***Connect Downtown parks, trails, and recreation destinations into one network.***			
Objective 4.1	Quarter 1 - 2027	City, Council	General Obligation Funds, State Grants
Objective 4.2	Quarter 4 - 2028	City, County, Property Owners	Municipal Bonding
Objective 4.3	Quarter 4 - 2028	City, County, Property Owners, Main Street Organization	Municipal Bonding, General Obligation Funds, MAG Grant Support, State Grants, Federal Grants
Goal: ***Prioritize infrastructure investments that unlock Downtown redevelopment opportunities.***			
Objective 5.1	Quarter 2 - 2027	City, County	General Obligation Funds
Objective 5.2	Quarter 2 - 2027	City	General Obligation Funds
Goal: ***Prioritize infrastructure investments that unlock Downtown redevelopment opportunities.***			
Objective 1.1	Quarter 4 - 2026	City	General Obligation Funds
Objective 1.2	Quarter 2 - 2027	City, Property Owners	General Obligation Funds, MAG Grant Support
Objective 1.3	Quarter 2 - 2027	City, Property Owners, Main Street Organization	General Obligation Funds
Goal: ***Modernize Downtown regulations to support walkable mixed-use development.***			
Obejctive 2.1	Quarter 2 - 2027	City	General Obligation Funds
Objective 2.2	Quarter 2 - 2027	City	General Obligation Funds
Goal: ***Modernize Downtown regulations to support walkable mixed-use development.***			
Objective 3.1	Quarter 1 - 2027	City, MAG	General Obligation Funds, State Grants
Objective 3.2	Quarter 3 - 2027	City, MAG	General Obligation Funds
Objective 3.3	Quarter 2 - 2027	City, Main Street Organization	State Grants
Objective 3.4	Quarter 3 - 2027	City, Property Owners	General Obligation Funds

Objective	Timeframe	Responsible Parties	Funding Sources
Goal: ***Modernize Downtown regulations to support walkable mixed-use development.***			
Objective 3.5	Quarter 4 - 2027	City, Main Street Organization	General Obligation Funds
Objective 3.6	Quarter 4 - 2028	City, County, Property Owners, Main Street Organization	General Obligation Funds
Goal: ***Make Downtown redevelopment easier, more predictable, and financially feasible.***			
Objective 4.1	Quarter 2 - 2027	City, Property Owners, Main Street Organization	General Obligation Funds
Objective 4.2	Quarter 3 - 2027	City, County, MAG, Property Owners, Opportunity Zone, Main Street Organization	Grants, General Obligation Funds, MAG Grant Support, State Grants, Federal Grants
Objective 4.3	Quarter 2 - 2027	City, Property Owners	General Obligation Funds
Goal: ***Establish the organizational structure needed to implement the Downtown Plan.***			
Objective 5.1	Quarter 4 - 2026	City, Main Street Organization, Property Owners	General Obligation Funds
Objective 5.2	Quarter 1 - 2027	Property Owners, Main Street Organization	General Obligation Funds
Objective 5.3	Quarter 2 - 2027	Main Street Organization, City	General Obligation Funds

12 FUNDING OPPORTUNITIES

Go To ToC

Downtown Reinvestment and Development Finance

These tools can help Pleasant Grove fund public improvements, close development gaps, assemble sites, and encourage private investment.

Community Reinvestment Area and Tax Increment Financing

- Evaluate creating a Downtown Community Reinvestment Area, or CRA. Through agreements with participating taxing entities, the City's agency could use an agreed portion of new property tax revenue generated within the area.
- Tax increment financing could support catalyst sites, infrastructure, property acquisition, demolition, remediation, parking, affordable housing, historic rehabilitation, public spaces, and development incentives. Implementation requires a project area plan, budget, public process, and negotiated taxing-entity participation.

Community Development Block Grant

- Pleasant Grove can pursue CDBG funding through Utah County for eligible infrastructure, ADA improvements, public facilities, housing rehabilitation, site preparation, remediation, and economic-development activities.
- Each project must benefit low- and moderate-income people, address qualifying slum or blight conditions, or meet an urgent need. Coordinate with Utah County early to confirm eligibility and documentation requirements.

Opportunity Zone Incentives

- Downtown Pleasant Grove is not currently a Qualified Opportunity Zone and should not be marketed as one.
- Utah will nominate new zones taking effect January 1, 2027. If the Downtown census tract is eligible, the City should seek designation and prepare an investment prospectus covering catalyst sites, vacant buildings, housing, infrastructure, and community benefits. Designation could attract Qualified Opportunity Fund equity but would not provide an automatic grant.

New Markets Tax Credit

- New Markets Tax Credits can provide equity-like financing for substantial projects in eligible low-income census tracts. Eligibility is separate from Opportunity Zone status and must be verified for each site.
- The program is best suited to larger commercial projects, community facilities, business incubators, or qualifying nonresidential portions of mixed-use developments. It requires participation by a Community Development Entity and specialized financing expertise.

Public Infrastructure District

- A Public Infrastructure District can finance roads, water, sewer, drainage, parking, open space, and related public improvements through district taxes, assessments, fees, or debt.
- Use this tool for a large catalyst site or coordinated redevelopment. Before approval, adopt policies addressing eligible costs, maximum debt, overlapping taxes, public benefits, disclosure, developer obligations, and long-term governance.

Special Assessment Area

- A special assessment area allows benefiting property owners to share the cost of sidewalks, streetscape improvements, lighting, utilities, parking, or similar improvements.
- Use this tool where property owners broadly support the project. The City must establish a defensible benefit methodology and complete Utah's required notice, hearing, financing, and collection procedures.

Revenue Bonds

- Revenue bonds can finance projects supported by parking revenue, utility charges, lease payments, facility income, or another dependable revenue source.
- This tool may fit a paid public parking lot, utility improvement, or revenue-producing public facility. Confirm that projected revenue can cover operations and debt service or identify additional credit support.

Public Land and Ground Leases

- City- or agency-owned land can reduce project costs and secure public benefits. A long-term ground lease can preserve public ownership while allowing a private or nonprofit partner to develop the site.
- Public benefits could include affordable housing, parking, commercial space, open space, infrastructure, historic preservation, or design commitments. Obtain an appraisal, follow property-disposition requirements, and include development deadlines, performance standards, maintenance obligations, and remedies.

Housing and Historic Preservation

Focus on programs that can support upper-floor housing, historic rehabilitation, and mixed-use catalyst projects. Most projects will require a combination of public financing, tax credits, private debt, and owner equity.

HOME Investment Partnerships Program

- Pleasant Grove can access HOME through the Utah Valley HOME Consortium for affordable housing acquisition, construction, and rehabilitation.
- Coordinate with the Consortium before project design to align affordability, unit mix, rents, costs, environmental review, and schedule with federal requirements.

RESIDE Program

- RESIDE will provide HOME funding to convert vacant or abandoned commercial and industrial buildings into attainable housing.
- The program is authorized but not yet open. Identify candidate Downtown buildings, document vacancy, and evaluate conversion feasibility with the Utah Valley HOME Consortium while awaiting HUD guidance.

Revive & Reside Grant

- Utah SHPO's Revive & Reside program provides $25,000 to $50,000 for interior rehabilitation of eligible historic buildings creating upper-floor housing or ground-floor commercial space. Current requirements include a 25 percent match and compliance with federal rehabilitation standards.
- Pleasant Grove is not eligible for the remaining rural-only 2026 round. Identify qualifying buildings and pursue a future urban round if funding becomes available.

Federal and Utah Historic Tax Credits

- The federal credit equals 20 percent of qualified rehabilitation costs for certified historic, income-producing buildings. Utah provides a separate 20 percent credit for eligible historic buildings used residentially.
- Residential rental projects may sometimes combine both credits. Begin Utah SHPO and National Park Service review before construction and confirm National Register eligibility, qualified costs, and rehabilitation requirements.

Preservation Utah Financing

- Preservation Utah offers technical assistance and low-interest rehabilitation loans for qualifying historic properties.
- Use this financing to help cover eligible costs not supported by grants or tax-credit equity.

Low-Income Housing Tax Credits and Multifamily Bonds

- Federal and Utah housing tax credits can provide equity for larger income-restricted rental projects. Tax-exempt multifamily bonds provide lower-cost debt and are commonly paired with 4 percent federal credits.
- Use these tools for larger catalyst developments with long-term affordability commitments. They are generally inefficient for small upper-floor conversions.

Olene Walker Housing Loan Fund

- The Olene Walker Housing Loan Fund provides gap financing for affordable rental developments with at least five units.
- Use it for mixed-use catalyst projects containing income-restricted housing. Engage an experienced affordable-housing developer and program staff early, then combine it with HOME, housing or historic tax credits, bonds, tax increment, private debt, and equity.

HUD PRO Housing

- PRO Housing funds implementation activities that remove documented barriers to housing, including zoning reform, permitting improvements, infrastructure planning, and predevelopment.
- Use it to implement Downtown code updates, reduced parking requirements, upper-floor housing provisions, and catalyst-site preparation. Connect the application to measurable housing production and affordability outcomes.

Transportation, Trails, Parks, and the Public Realm

The most realistic programs for Pleasant Grove are those administered through MAG, UDOT, and Utah's recreation agencies. Focus applications on 200 South, the Center Street Greenway, Downtown Park, sidewalk gaps, and connections to schools and surrounding neighborhoods.

MAG Surface Transportation Block Grant

- Funds roads, intersections, bicycle and pedestrian facilities, and transit-supportive improvements.
- Use it for major improvements to 200 South and key Downtown intersections. Coordinate with MAG on regional eligibility, preliminary engineering, cost estimates, and local match.

MAG Transportation Alternatives Program

- Funds sidewalks, trails, bicycle facilities, crossings, and accessibility improvements.
- Prioritize the Center Street Greenway, sidewalk gaps, bicycle connections, and links to parks, schools, and neighborhoods. Keep beautification costs separate.

MAG and UDOT Planning Assistance

- MAG Technical Assistance to Governments and UDOT Transportation Planning Assistance can help define project scope, design, cost, phasing, and funding.
- Use these programs to move 200 South and the Center Street Greenway from concepts to grant-ready projects.

UDOT Safe Routes to School

- Funds sidewalks, crossings, signs, markings, bicycle parking, and safety programs serving school routes.
- Use it for documented Downtown connections to nearby schools. Plan ahead for the delayed funding cycle and current 6.67% local match.

UDOT Safe Sidewalk Program

- Supports missing sidewalks and pedestrian-safety improvements, particularly along state highways.
- Coordinate with UDOT on State Street to confirm eligible locations, design responsibilities, match requirements, and application timing.

Utah Transit Innovation Grant

- Funds transit pilots that increase ridership or improve service in growing areas.
- Pursue a Downtown circulator, microtransit, or improved regional connection only in partnership with UTA and with a defined operator, operating plan, performance measures, and long-term funding source.

Utah Outdoor Recreation Grant

- Funds trails, bicycle facilities, trailheads, and recreation infrastructure.
- Prepare the Center Street Greenway or park connections for the next funding cycle with a defined scope, design, cost estimate, and local match.

Community Parks and Recreation Grant

- Supports construction and rehabilitation of parks, gathering spaces, playgrounds, restrooms, and recreation facilities.
- Use it for a defined phase of Downtown Park improvements. Monitor future State funding cycles.

Recreational Trails Program

- Provides $10,000 to $200,000 for trail construction, rehabilitation, accessibility, facilities, wayfinding, and land or easement acquisition.
- Use it for construction of the Center Street Greenway or connections to the regional trail system. Stand-alone planning is generally ineligible.

Infrastructure, Economic Development, and Business Support

Focus on programs that can address environmental and utility barriers, prepare catalyst sites, and finance Downtown businesses.

EPA Brownfields Funding

- EPA grants can fund environmental inventories, assessments, cleanup planning, cleanup, and revolving loans for properties potentially affected by hazardous substances or petroleum.
- Prepare a Downtown inventory based on historic uses and complete Phase I assessments where warranted. Do not identify properties as contaminated without evidence. Brownfields funds cover environmental work, not ordinary rehabilitation or construction.

Water and Sewer Financing

- Clean Water and Drinking Water State Revolving Funds provide low-interest financing for eligible water, wastewater, stormwater, water-quality, and green-infrastructure projects.
- Add Downtown utility needs to the City's capital plans and coordinate improvements with road and redevelopment projects. Confirm project eligibility, ranking, repayment terms, and potential principal forgiveness with the State.

SBA Business Loans

- SBA-backed financing is available through participating lenders:
  - SBA 7(a) loans can fund owner-occupied real estate, building improvements, equipment, working capital, acquisition, and expansion.
  - SBA 504 loans provide long-term financing for owner-occupied buildings, major improvements, and equipment.
  - SBA Microloans support smaller working-capital, inventory, furniture, fixture, and equipment needs.
- Connect Downtown businesses with participating lenders and pair financing with permitting help, business planning, mentorship, and available-property information.

MAG Small-Business Revolving Loan Fund

- MAG provides gap financing for eligible businesses that cannot obtain all needed capital conventionally.
- Use it for recruitment, retention, expansion, building improvements, equipment, working capital, or property acquisition when eligible. Confirm current terms, collateral, equity, and job requirements with MAG.

Recommended Funding Packages

- Historic Buildings and Upper-Floor Housing - Combine historic tax credits, HOME, future RESIDE or urban Revive & Reside funding, Olene Walker financing, CRA assistance, private debt, and owner equity. Begin historic review before construction.
- Mixed-Use Catalyst Sites - Combine CRA participation, public land or a ground lease, applicable housing financing, conventional debt, and developer equity. Tie assistance to deadlines and measurable public benefits.
- Small Businesses and Storefronts - Combine qualifying CDBG or CRA assistance, MAG loans, SBA financing, historic tax credits, private loans, and owner equity. Pair financial assistance with technical support and performance requirements.

Immediate Actions

- Prepare a Downtown brownfield inventory and complete environmental due diligence before property commitments.
- Add Downtown water, sewer, stormwater, and utility needs to capital plans.
- Create a business-resource guide connecting businesses with MAG, SBA lenders, technical assistance, historic incentives, and local permitting staff.
- Prepare financing plans for priority catalyst sites before pursuing individual grants.
- Maintain an annual funding calendar with responsible staff, prerequisites, match requirements, and deadlines.

PLEASANT GROVE

DOWNTOWN MASTER PLAN

June
2026



Agenda

ORDINANCE # 2026-026

AN ORDINANCE AMENDING THE OFFICIAL VICINITY PLAN OF PLEASANT GROVE CITY, ADOPTING THE NEW PROPOSED VICINITY PLAN FOR THE PROPERTY LOCATED AT APPROXIMATELY 3620 N 1590 W IN THE RR (RURAL RESIDENTIAL) ZONE. LAFE HARRIS, APPLICANT.

WHEREAS, the legislative body has previously adopted codes and plans to provide direction for the future needs, growth and development of the community; and

WHEREAS, City Code Section 10-5-4 calls for the adoption of a vicinity map which will provide long range planning for local neighborhood streets; and

WHEREAS, the current adopted vicinity plan for the area bounded by Murdock Canal Trail, 1450 West, 3620 North, and the western boundary of Pleasant Grove City, including parcels #14:004:0362 and 14:004:0365 allows for orderly development of future subdivisions and meets best practices for the Planning Department as well as for the Public Works Department; and

WHEREAS, on January 9, 2025, the Pleasant Grove City Planning Commission held a public hearing to consider an amendment to the previously adopted Pleasant Grove City Vicinity Map to eliminate a road connecting 1590 West to the future location of Murdock Drive; and

WHEREAS, the applicant intends to develop the area in a way that would remove the necessity of the connecting road between 1590 West to the future location of Murdock Drive; and

WHEREAS, if no site plan is applied for and if residential development is instead proposed for the area, a connecting road between 1590 West to the future location of Murdock Drive will likely be created for further infill development and to meet Engineering requirements, and therefore meet the intent of the current vicinity plan, even if the current vicinity plan is amended; and

WHEREAS, at its public hearing the Planning Commission decided that the requested amendment to the Pleasant Grove City Vicinity Map was in the public interest and consistent with the goals and policies of the City; and

WHEREAS, the Pleasant Grove Planning Commission recommended to the Pleasant Grove City Council that the amendment to Vicinity Map be adopted; and

WHEREAS, on September 1, 2026, 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 request to amend the Pleasant Grove City Vicinity Map was in the best interest of the public and was consistent with the goals and policies of the City; and

WHEREAS, at its meeting the Pleasant Grove City Council approved the request that the Pleasant Grove City Vicinity Map be amended concerning property located at

approximately 3620 N 1590 W, and adjacent properties, in the RR (Rural Residential) Zone.

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

SECTION 1. The Pleasant Grove City Council has evaluated the Amended Pleasant Grove City Vicinity Map (Exhibit A) and supporting document (Exhibit B). The Amended Vicinity Map is hereby ADOPTED.

SECTION 2. The Pleasant Grove City Council finds that the Amended Vicinity Map is in the best interest of the public and is consistent with the goals and policies of the City.

SECTION 3. 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 4. EFFECTIVE DATE. This ordinance shall take effect immediately upon its passage and posting as provided by law.

SECTION 5. **APPROVED AND ADOPTED AND MADE EFFECTIVE** by the City Council or Pleasant Grove City, State of Utah, on this 1st day of September, 2026.

_____.
Erik Jensen, Mayor

ATTEST:

_____. (SEAL)
Wendy Thorpe,
City Recorder

Exhibit "A"

Proposed Vicinity Plan

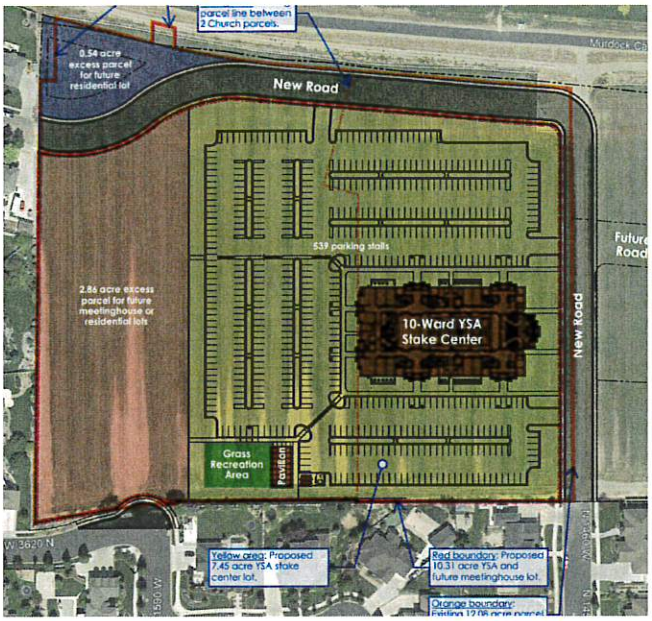


Exhibit "B"

Current Vicinity Plan



Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yes**	**No**	**Abstain**	**Absent**
Mayor Eric Jensen	_____	_____	_____	_____
Dianna Andersen	_____	_____	_____	_____
Steve Rogers	_____	_____	_____	_____
Cyd LeMone	_____	_____	_____	_____
Todd Williams	_____	_____	_____	_____
Dustin Phillips	_____	_____	_____	_____

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 _____, 2026.

Dated this _____ day of _____, 2026.

_____
Wendy Thorpe, CMC, City Recorder

Pleasant Grove
Utah's City of Trees

City Council Staff Report

Sept 1, 2026

VICINITY PLAN AMENDMENT

APPLICANT	Lafe Harris
REQUEST	Request to amend the 2014 Vicinity Plan
ZONE	Rural Residential
APPLICATION COMPLETED	July 1, 2026
ITEM DESCRIPTION	Public Hearing to consider the request of Lafe Harris for a vicinity plan amendment, located within the area delineated by Murdock Canal Trail, 1450 West, 3620 North, and the western boundary of Pleasant Grove City. Including Parcels #14:004:0362 and 14:004:0365, on approximately 12.079 acres of land. (Legislative Item)
STAFF RECOMMENDATION	Approve the Vicinity Plan amendment
ATTACHMENTS	Existing Vicinity Plan **3**
	Proposed Vicinity Plan **4**

Background

History:

The subject area to primarily be affected by the proposed vicinity plan amendment is bounded by Murdock Canal Trail, 1450 West, 3620 North, and the western boundary of Pleasant Grove City.

The existing vicinity plan for this subject area extends Murdock Drive (from American Fork) eastward toward 1450 West and beyond; and then provides both a north/south connection from 1590 West to Murdock Drive and a cul-de-sac extending from Murdock Drive for additional infill development.

Analysis

Proposed Vicinity Plan Amendment:

The applicant is requesting to simply remove the required connection between 1590 West and Murdock Drive, and to eliminate the cul-de-sac for infill development.

Authors: Daniel Cárdenas - Community Development Director and Jacob Hawkins - City Planner

Comments from Staff:

Staff is conditionally in support of the removal of the connection between 1590 West and Murdock Drive, pending approval of a site plan for the area. While no site plan amendment application has been provided yet, the eventual site plan for the subject area will need to address any necessary improvements, including any traffic studies and utility connections.

If a site plan for the subject area is never submitted and a future applicant seeks to develop these properties for more residential uses, the potential future applicant would likely propose the construction of additional roads, including the connection between 1590 West and Murdock Drive, due to the grading of the land and the opportunity to maximize the amount of development in the area.

Recommendation from Planning Commission

Pleasant Grove City Planning Commission took the following action on the described application at their meeting on August 13, 2026.

2. **Public Hearing: Vicinity Plan Amendment – Located at approx. 3620 N 1590 W (Manila Neighborhood)**
   Public Hearing to consider the request of Lafe Harris for a vicinity plan amendment, located within the area delineated by Murdock Canal Trail, 1450 West, 3620 North, and the western boundary of Pleasant Grove City. Including Parcels #14:004:0362 and 14:004:0365, on approximately 12.079 acres of land. (Legislative Item)

Approval

MOTION: Commissioner Gregson moved that the Planning Commission forward a recommendation of APPROVAL to the City Council for the request of consider the request of Lafe Harris for a Vicinity Plan Amendment, located within the area delineated by Murdock Canal Trail, 1450 West, 3620 North, and the western boundary of Pleasant Grove City in the Rural Residential Zone; 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.
2. A traffic study must be conducted.

Commissioner Nelson seconded the motion. The Commissioners unanimously voted "Yes". The motion carried.

Motion by: Commissioner Gregson

Seconded by: Commissioner Nelson

AYE VOTES: Chair Martineau, Commissioners Gregson, Robertson, Butler, Redding, Nelson and Trickler

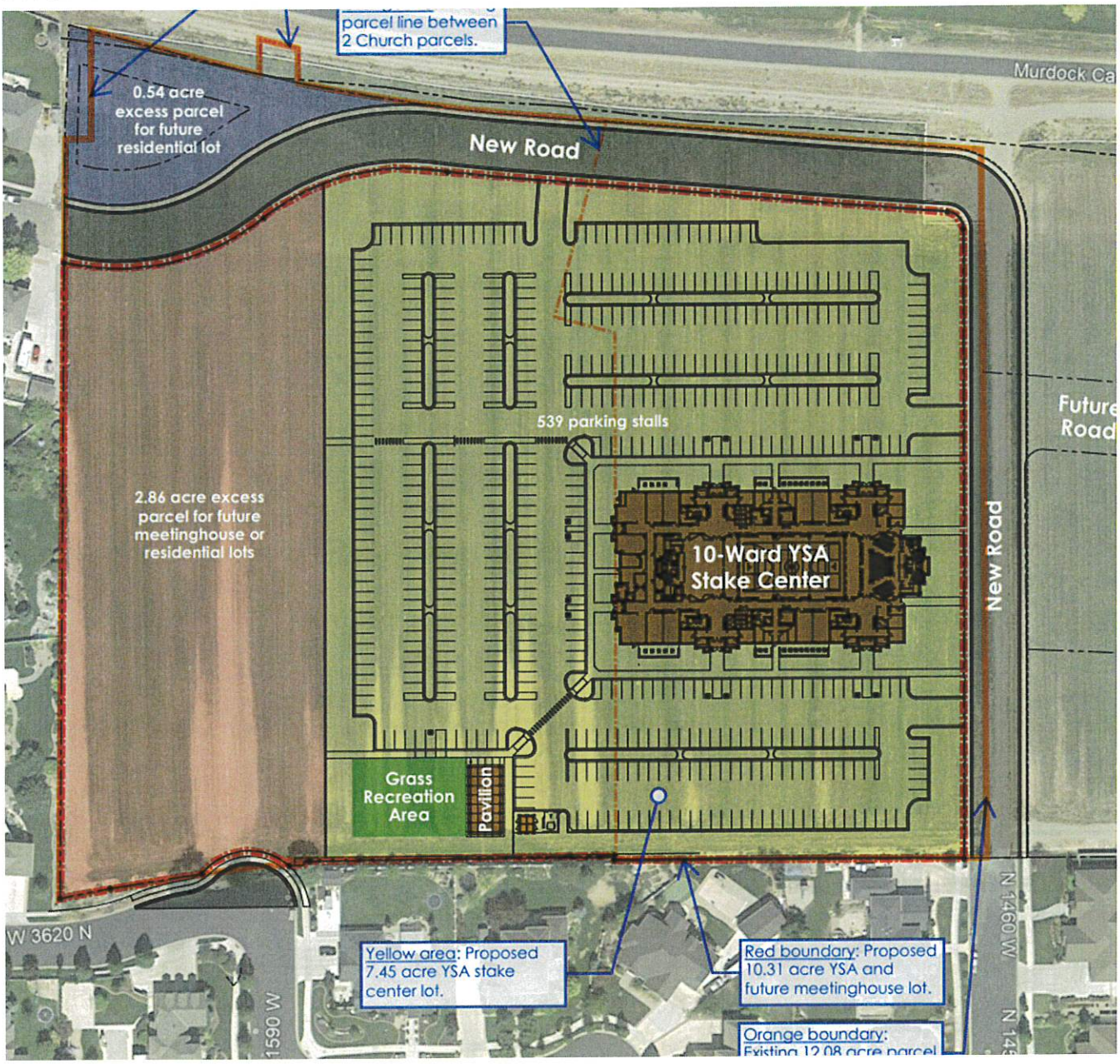
NAY VOTES:

EXISTING VICINITY PLAN:



Authors: Daniel Cárdenas - Community Development Director and Jacob Hawkins - City Planner

PROPOSED VICINITY PLAN



Authors: Daniel Cárdenas - Community Development Director and Jacob Hawkins - City Planner

Agenda

ORDINANCE NO. 2026-027

AN ORDINANCE ADOPTING AN UPDATED STORM WATER MANAGEMENT PLAN (SWMP) UPDATING AND INCLUDING NEW STANDARD OPERATING PROCEDURES; UPDATING CERTAIN APPENDICES; AND OTHER NECESSARY CHANGES AND PROVIDING FOR AN EFFECTIVE DATE.

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

WHEREAS, City prepared an initial Storm Water Management Plan (SWMP) as required by State and Federal Law in order to obtain permission to discharge storm water into the Waters of the State; and

WHEREAS, In August 2010, the Utah State Division of Water Quality issued an updated SWMP permit which requires the City to updates its SWMP annually in order to continue to discharge to Waters of the State; and

WHEREAS, City has subsequently updated its SWMP in 2016 and in 2020; and early 2026; and

WHEREAS, This latest updated SWMP represents the latest updates and outlines the City's commitment to protect water quality; and

WHEREAS, Pleasant Grove City has prepared this latest SWMP to comply with the Small MS4 General UPDES Permit No. UTR090000 and obtain authority to discharge to Waters of the State; and

WHEREAS, an updated permit from the State was issued in March of 2025 and a Notice of Intent has been filed with the Division of Water Quality as required by state law declaring the City's intent to update its SWMP; and

WHEREAS, the proposed updated SWMP creates new SOPs for certain functions; updates certain SOPs to match current processes; updates the Organizational Chart; Updates the Preconstruction Onsite Meeting Form, Updates Appendix B; and adds Sections 4.2.5.4 and 4.2.6.4 and makes various other updates and corrections to the previous Plan; and

WHEREAS, the city desires to adopt the Updated Storm Water Management Plan; and

WHEREAS, a duly noticed public hearing was held on September 1, 2026 for the City Council to receive public input on the updated Storm Water Management Plan; and

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

SECTION 1 the Updated Storm Water Management Plan (SWMP) as shown attached hereto as

Exhibit "A" is now adopted.

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 1st_ day of September, 2026.

_____
Eric Jensen, Mayor

ATTEST:

_____
Wendy Thorpe, City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yes**	**No**	**Abstain**	**Absent**
Mayor Eric Jensen	_____	_____	_____	_____
Dianna Andersen	_____	_____	_____	_____
Steve Rogers	_____	_____	_____	_____
Cyd LeMone	_____	_____	_____	_____
Todd Williams	_____	_____	_____	_____
Dustin Phillips	_____	_____	_____	_____

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 _____, 2026.

Dated this _____ day of _____, 2026.

_____
Wendy Thorpe, CMC, City Recorder

Completed by: Baylor Hatch **8/10/2026**

Resolution to adopt the updated 2026 Storm Water Management Plan

The UPDES General Permit for Discharge from Small Municipal Separate Storm Sewer System (Small MS4 General UPDES Permit) section 4.4.1 states that permittees shall perform an annual review/update of the Storm Water Management Plan in conjunction with preparation for the annual report.

This year's review was conducted in July and August of 2026. The document is now ready for the City Council to adopt the new updated document.

Notable updates to the document:

- Updated topics to consider for public involvement and training
- Updated how often we are to provide educational material to the public, institutional, industrial, and commercial facilities, and MS4 employees.
- Clarified how often inspections on outfalls need to be completed.
- Included location where to take hazardous household materials.
- Added language for the operators to follow and abide the rules of the current UPDES Permit
- Defined a priority construction site, adequate compliance history, frozen conditions, arid locations, new inspection frequency, and electronic oversite inspection
- Added section 4.2.5.4, inspections of storm water controls, and post construction inspections.
- Added section 4.2.6.4 to describe inspections that will be conducted on MS4 owned and operated facilities.
- Updated all tables included in each of the control measures
- Updated B-3, B-4, B-5, B-6, B-8 of Appendix B
- Updated the Storm Water Technical Manuel with new BMPs for Long-Term Construction use.
- Updated the Preconstruction Onsite Meeting Form
- Updated the Organizational Chart in Appendix M

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Updated (July 2026):

TABLE OF CONTENTS



..... 1

1.0 Permit Coverage..... 5

2.0 Notice of Intent 6

2.1 NOI SUBMITTAL 6

3.0 Special Conditions 6

3.1 Discharges to water quality Impaired Waters 6

3.2 Nitrogen and Phosphorus Reduction..... 6

3.3 Co-Permittees 7

4.0 Storm Water Management Program 7

4.1 Requirements..... 7

4.1.1 SWMP 7

4.1.2 Documentation and Financial Resources 7

4.1.3 BMP's..... 8

4.2 Minimum Control Measures 8

4.2.1 Public Education and Outreach on Storm Water Impacts 8

4.2.2 Public Involvement/Participation 12

4.2.3 Illicit Discharge Detection and Elimination (IDDE)..... 14

4.2.4 Construction Site Storm Water Runoff Control 19
4.2.5 Long-Term Storm Water Management in New Development and Redevelopment 25
4.2.6 Pollution Prevention and Good Housekeeping for Municipal Operations 30
4.3 Sharing Responsibility 35
4.4 Reviewing and Updating Storm Water Management Programs 36
4.4.1 Storm Water Management Program Review 36
4.4.2 Storm Water Management Program Update 36
5.0 Narrative Standard, Monitoring, Recordkeeping and Reporting 36
5.1 Narrative Standard 36
5.2 Analytical Monitoring 36
5.2.1 Compliance with TDML's 37
5.2.2 Illicit Discharge Detection 37
5.2.3 Elective analytical monitoring 37
5.3 Non-analytical Monitoring 37
5.4 Record Keeping 37
5.5 Reporting 37
5.6 Legal Authority 37
APPENDIX A – Location Map
APPENDIX B – Storm Water System Maps and Inventories
APPENDIX C – Ordinances
APPENDIX D - Standard Operating Procedures (SOP)
APPENDIX E - Standard Forms and Checklists
APPENDIX F – Storm Water Technical Manual and Best Management Practices
APPENDIX G – Sample Maintenance Agreement

APPENDIX H – Preferred Design Specifications

APPENDIX I – Sample Spill Response Plan

APPENDIX J – Spill/Dumping Notification Information

APPENDIX K – 80th Percentile Storm Documentation

APPENDIX L –LID Handbook

APPENDIX M – Organizational Chart

APPENDIX N – Utah County Coalition Agreement

APPENDIX O – Construction Site Ordinance Enforcement Flow Chart

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 2026 SWMP. This SWMP update will fall under 2026 NOI.

2.1 NOI SUBMITTAL

Renewing the NOI must be done electronically at least 180 days prior to the expiration date of the previous permit using NET the EPA's NPDES eReporting Tool (NET). NET may be accessed at https://cdx.epa.gov/cdx/. An updated copy of the SWMP must be included with the submission.

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 will track effectiveness of the BMP's listed for each minimum control measure. This meeting will be documented and added to the SWMP.

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, email, newsletters, and social media post. These efforts will target specific audiences including general public, institutions, industrial and commercial facilities, engineers, construction contractors, developers, development review staff, land use planners, and other pertinent parties. 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 on an annual basis through the following methods: Monthly newsletter and utility billings, City web site, social media posts, and existing Utah County storm water coalition advertisements. These efforts will cover the following topics at a minimum:

- Maintenance of Septic Systems
- Effects of outdoor activity such as lawn care (use of pesticides, herbicides, and fertilizers)
- Benefit of on-site infiltration of storm water
- Effects of automotive work and car washing on water quality Swimming Pool water disposal
- Proper management of pet waste
- Only rain down the drain

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 on an annual basis through the following methods: Monthly newsletter and utility billings, City web site, business license renewal, social media, 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)
- Benefit of on-site infiltration of storm water
- 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 City's Monthly Newsletter and request the public to complete it 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 for City employees. 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 newsletters and have access to the internet for social media posts.

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 Quarterly on City Web Site	Quarterly	Distributed 2026
B. Distribute Flyers for Institutional, Industrial and Commercial	Include Flyers With Business License Renewal	Annually	Distributed 2025
C. Distribute Flyers in Utility Bills	Distribute Flyers to all Utility Bill Recipients	Annually	Distributed 2026
D. Include Material in City Monthly Newsletter	Include Educational Material in City Monthly Newsletter Quarterly	Quarterly	Distributed 2026

E. Support Utah County Coalition	Pay Dues and Document School Programs Conducted by Coalition	Annually	Paid and Documented 2025
F. Employee Training	Conduct Training for City Employees	Annually	Conducted 2026
G. Measure Program Effectiveness	Web site and water bill survey	Every Five Years	Completed 2025

4.2.1.10 Modifications to Previous Plan

- Updated topics to consider for training.
- Updated how often we are to provide educational material to the general public, institutional, industrial, and commercial facilities, and MS4 employees.
- Changed wording of sections to match updated topic details.
- Updated dates and wording on the Control Measure Summary #1

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.

Annually 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 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 2026 Completed 2026
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 180 days of effective date of new permit	Available 2026
C. Allow Public Review of Annual Reports	Post Annual Reports on Web Site	Annually Beginning 2010	Posted 2026
D. Conduct Public Hearings	Hold annual public hearing	Annually Beginning 2010	Held 2026

4.2.2.6 Modifications to Previous Plan

- Updated dates and wording on the Control Measure Summary #2

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 map of its municipal storm water system including the names and locations of all state waters that receive storm water discharge, the outfalls where storm water is discharged, and other storm water treatment and conveyance structures within the MS4. 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 4.2.3.3.3 of the Permit. The Dry Weather Out Fall Screening form in Appendix E will be utilized to document inspection activities. All outfalls need to be inspected at least once during the 5-year permit term.

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. For household hazardous disposal (chemical product disposal) visit; North Point Solid Waste Special Service District, 2000 West 200 South Lindon, Utah 84042. 801-225-8538. 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 numbers (801-785-2941) and (801-922-4568) 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 Spill Response 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-3 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 2026
Storm Water Ordinance	Review Ordinance Update Ordinance	Annually As-needed	Reviewed 2026 2025
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 2026 Inspected 2025 Inspected 2025 Date
Procedures to Trace Source of Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2026

			Updated 2025
Procedures to Characterize Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2026 Updated 2025
Procedures to Cease Illicit Discharge	Review SOP Update SOP	Annually As-needed	Reviewed 2026 Updated 2025
IDDE Education (Public)	Provide Educational Material	Annually	Provided 2026
Household Hazardous Waste Program	Provide Program	Annually	Provided 2026
Hotline	Advertise Number	Annually	Advertised 2026
Spill/Dumping Response	Review SOP Update SOP	Annually As-needed	Reviewed 2026 Updated 2025
Training	Storm Drain Employees Field Staff and office Personnel	Annually Annually	Completed 2026 Completed 2026
Program Evaluation and Assessment	Review SOP Update SOP	Annually As-needed	Reviewed 2026 Updated 2010

4.2.3.14 Modifications to Previous Plan

- Clarified how often inspections on Outfalls need to be completed.
- Included information where to take household hazardous materials for disposal.
- Updated dates on the Control Measure Summary #3

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 requires construction operators to prepare and implement a SWPPP to protect water quality. The SWPPP requirements shall be consistent with the SWPPP requirements set forth in the most current, applicable UPDES construction storm water permit, which can be found at construction.stormwater.utah.gov.

The City requires construction operators to obtain coverage under the current, applicable UPDES construction storm water permits for the duration of the project. The City will require construction operators to renew coverage, if necessary, and terminate coverage, by obtaining a Notice of Termination (NOT) when appropriate. Coverage can be managed online at: https://npdes-ereporting.epa.gov/net-cgp.

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 annually provides 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.

The City requires compliance with all requirements set forth in the most current, applicable UPDES construction storm water 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 an onsite 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. The City's enforcement policy is reviewed with the operator onsite. 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 annually provides specific authority to inspect construction sites as required.

Monthly Inspections - All new qualifying construction sites shall be inspected by qualified personnel at least monthly using the Construction Storm Water Inspection Form provided by the Division. "Qualified Person"- means a person who has completed a training program that properly trains on the principles and practices of erosion and sediment controls and pollution prevention. "Qualifying Construction Site"- is any site that has a UPDES storm water permit. A copy of the inspection form can be found in Appendix E.

Priority Construction Site – The City shall conduct inspections of priority construction sites at least every month. These inspections shall be conducted by a qualified person and documented. "Priority Construction Site" - means a construction site that has potential to threaten water quality when considering the following factors: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges and past record of non-compliance by the operators of the construction site.

Adequate Compliance History - The City will reduce their monthly inspection frequency to the inspection frequency identified below, if the site is not listed as a "Priority Construction Site" and the site has demonstrated an adequate compliance history. "Adequate Compliance History"- means the qualifying construction site has the following characteristics: 1) consecutive months of oversight inspections which did not result in enforcement, including warnings of enforcement (this may include the inspection prior to land disturbance and the first monthly inspection); 2) no instances of verified complaints; and 3) no observed impacts to waters of the state or the MS4 system. If at any point, the site does not meet the definition of

an adequate compliance history, the City shall resume monthly inspections until the site regains an adequate compliance history.

Frozen Conditions - The City may reduce their monthly inspections to the inspection frequency identified below if the operator has suspended construction activities due to frozen conditions. "Frozen conditions"- means conditions on a construction sites where: 1) Discharges are unlikely due to continuous frozen conditions that are likely to continue at the site for at least three (3) months based on historic seasonal averages; 2) the site has suspended land disturbances; and 3) the site has stabilized disturbed areas of the site, where possible, in accordance with the relevant sections of the current, applicable UPDES construction storm water permit. Monthly inspections shall immediately resume with any thawing conditions. The City is required to conduct site inspections based upon actual conditions e.g., if thawing conditions occur sooner than expected, the Permittee is required to conduct inspections at regular frequency.

Arid Locations - The City may reduce their monthly inspections to the inspection frequency identified below if the site is located within an arid location "Arid location"- means areas with an average annual rainfall of 0 to 10 inches. And if the site is within the seasonally dry period "Seasonally dry period"- means a month or months in which the long-term average total precipitation is less than or equal to 0.5 inches. Monthly inspections shall immediately resume with any rain event even if the seasonally dry period has not ended.

Inspection Frequency - All phases of construction shall be inspected at qualifying construction sites including 1) one inspection prior to land disturbance; 2) one inspection each year during active construction; 3) one inspection following active construction; 4) inspections to investigate any verified complaint. These inspections shall be conducted by qualified personnel and documented using the Construction Oversight Inspection Form provided by the Division.

Electronic Oversight Inspections - The City shall utilize an electronic site inspection to conduct MS4 oversight inspections at qualifying construction sites. The oversight inspection shall meet the requirements of Part 4.2.4.4. The City may complete an on-site inspection if the City has a documented reason for justifying an on-site oversight inspection. Circumstances that may be considered documented reasons include, but are not limited to, 1) inadequate characterization in electronic site inspections of site conditions or portions of a site; 2) verified complaints; 3) contractor has opted-out; 4) or any other evidence of noncompliance with Permit conditions that warrants an on-site inspection. The Permittee shall provide 48-hours advance notice of on-site inspection unless there is an imminent threat of a discharge. The City may resolve documented reasons for inspection under this paragraph electronically in lieu of onsite inspection.

A copy of the Notice of Termination (NOT) shall be filed using NET the EPA's NPDES eReporting Tool (NET). NET may be accessed at https://cdx.epa.gov/cdx/. The City requires this NOT 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 qualified personnel and require the same from contractors in accordance with the UPDES Storm Water General Permit for Construction Activities, UTRC00000.

The 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 on Iworq our work management system. 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 2026 2021

Enforcement Strategy	Review SOP Update SOP	Annually As needed	Reviewed 2026 Updated 2025
SWPPP Review	Review SOP Update SOP	Annually As needed	Reviewed 2026 Updated 2025
Construction Site Inspection	Review SOP Update SOP	Annually As needed	Reviewed 2026 Updated 2026
Training	Employees Third-party Reviewers and Inspectors	Annually Annually	Provided 2026 Provided 2026
Record Keeping	Review SOP Update SOP	Annually As needed	Reviewed 2026 Updated 2025

4.2.4.8 Modifications to Previous Plan

- Added language for contractors to obtain UPDES Permit coverage and create a SWPPP
- Added the operators need to follow and abide by the rules of the current UPDES Permit
- Included month inspection schedule
- Defined a priority construction site, adequate compliance history, frozen conditions, arid locations, new inspection frequency, and electronic oversite inspection.
- Added language that contractors must file for an NOT at the completion of the project
- Updated table
- Updated dates on the Control Measure #4 table.

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. 1) minimize development in areas susceptible to erosion and sediment loss; 2) minimize the disturbance of native soils and vegetation; 3) preserve areas that provide important water quality benefits; 4) implement measures for flood control; and 5) protect the integrity of natural resources and sensitive areas.

The City's storm water management program will 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 utilizes the Rational Method for calculating runoff volumes and flow rates to ensure consistent sizing of structural storm water controls. 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 80^{th} 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 80^{th} 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 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 discharge 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. 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: 1) how long-term storm water controls were selected; 2) the pollutant removal performance expected from the selected controls; and 3) the technical basis that supports the performance claims for the selected controls.

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 person documents the installation was successful. That construction is verified 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. These reports are stored in the City's Development Dropbox. 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. These reports are stored in the City's Development Dropbox. 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 Inspection

The City has implemented SOP's for long-term storm water management ordinance enforcement and long-term storm water management inspections, these SOP's can be found in Appendix D

The City will inspect permanent structural storm water controls at least once during installation. Upon completion of the control the City will verify that the control was constructed as designed. These inspections will be documented and stored in the City development folder in the Dropox.

The City will inspect every privately owned and operated long-term storm water controls that are identified in our post construction control inventory at least every other year. These inspections will be documented and submitted to the contact listed with the property. These inspections will show any corrections that need to be made along with any enforcement actions the City decides to take. The inspection report can be found in Appendix D

4.2.5.5 Inventory

The City maintains an inventory of all post-construction structural storm water control measures installed at new development and re-development sites. Each entry to the inventory shall include: 1) basic information on each project, such as project's name, owner's name and contact information, location, installation date, etc.; 2) short description of each storm water control measure (type, number, design or performance specifications); 3) short description of maintenance requirements (frequency of required maintenance and inspections); and 4) inspection information (date, findings, follow up activities, prioritization of follow-up activities, compliance status).

The inventory will be updated as appropriate to reflect changes in specific control measures implemented at the site or property ownership. The inventory list is a Word Document that can be accessed through the link given to employees. 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 2026 2021
Develop Enforcement Strategy	Review SOP Update SOP	Annually As needed	Reviewed 2026 Updated 2012
Review and Update Development Code With Respect to Section 4.2.5.3	Review and update Development Code	As needed	Reviewed 2026
Retrofit Program	Review Program Update Program	Annually As needed	Reviewed 2026 Updated 2021
Hydrologic Method	Review Method Update Method	Annually As needed	Reviewed 2026 Updated 2026
Site Plan Review Procedures	Review Update Site Plan Review Procedures	Annually As needed	Reviewed 2026 Updated 2025
Storm Water Technical Manual	Review Manual	Annually	Reviewed 2026

	Update Manual	As needed	updated 2026
Inspection and Enforcement	Review SOP Update SOP Document Inspection and Enforcement	Annually As needed Ongoing	Reviewed 2026 Updated 2025 Ongoing
City Staff Education	Yearly Training	Annually	Provided 2026
Maintain Inventory	Update Inventory	Annually	Updated 2026

4.2.5.9 Modifications to Previous Plan

- Added that the City uses the Rational Method to calculate storm water flows
- Updated where documents are stored
- Added Inspection 4.2.5.4 section
- Updated the Inventory section 4.2.5.5 to match the permit
- Updated dates on Control Measure #5 table

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 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 storm water to 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 Appendix B includes the high priority ranking. The following factors were considered when assigning a high priority ranking: 1) pollutants stored at the site; 2) improperly stored materials; 3) potential pollutant-generating activities performed outside, e.g. changing automotive fluids; 4) close proximity to fresh water and water bodies, including but not limited, to streams, canals, rivers, ponds and lakes; or 5) potential to discharge pollutant(s) of concern to impaired water(s).

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

Through this process we have identified 3 High Priority Facility Site. These sites include the Public Works Building, the Pipe Plant Storage Material Area, and the Cemetery.

4.2.6.4 Inspections

The Following inspections will be conducted at the High Priority sites identified.

Monthly Visual Inspections. The City will perform monthly visual inspections of "high priority" facilities and related storm water outfalls in accordance with the developed SOPs to verify and correct the performance of the BMPs and all other systems designed and placed to eliminate pollutant discharges. The City will track the monthly inspections in a log for every facility, and will keep or reference the location of the inspection records within the facility's SWPPP. The

inspection log should also include any identified deficiencies and the corrective actions taken to fix the deficiencies.

Semi-Annual Comprehensive Inspections. The City will perform a comprehensive inspection of "high priority" facilities, including all storm water controls, at least twice per year. The semi-annual inspection shall specifically review and correct issues found with: 1) waste storage areas; dumpsters; vehicle and equipment maintenance/fueling areas; material handling areas and similar pollutant-generating areas; 2) previous monthly or annual inspections conducted at the facility; 3) and the facility's SWPPP. The City will document the semi-annual inspections on an inspection report and will keep or reference the location of the inspection records within the facility's SWPPP. The semi-annual inspection shall be done in accordance with the inspection SOPs. An inspection report shall also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

Annual Visual Observation of Storm Water Discharges. The City will visually observe the quality of the storm water discharges from the "high priority" facilities at least once per year. The City will remedy any observed problems, e.g., color, foam, sheen, turbidity, that can be associated with pollutant sources or controls as soon as practicable, but at a minimum, before the next storm event, to prevent discharge to the storm drain system. The Permittee shall document visual observations on an inspection report and shall keep or reference the location of the records of the visual observations within the facility's SWPPP. This inspection shall be done in accordance with the inspection SOPs. The inspection report will also include any identified deficiencies and the corrective actions taken to remedy the deficiencies.

These inspection reports will be stored on Iworq, our work management system. The SOP's include specific instructions on inspections, documentation, and corrective action if necessary. SOP's can be found in Appendix D.

4.2.6.5 SOP's for Permittee Owned Sites

The inventory and assessment performed in Sections 4.2.6.1 through 3 have identified 3 high priority sites for the City. These sites include the Public Works Building, the Pipe Plant Storage Material Area, and the Cemetery. A facility specific SOP has been created for each site and are included in the SWMP in Appendix D.

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 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.

4.2.6.6 Floor Dain Inventory

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.

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: 1) proximity to a waterbody; 2) current assessment of the waterbody with the goal to improve impaired waterbodies and protect unimpaired waterbodies; 3) hydrologic condition of the receiving waterbody; 4) proximity to a sensitive ecosystem or protected area; and 5) 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.

4.2.6.11 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 2026
Assessment	Review and Update	Annually	Reviewed and updated 2026

High Priority Designation	Review and Update	Annually	Reviewed and Updated 2026
Develop Facility Specific SOP's	Review and Update SOP's	Annually	Reviewed 2026
Floor Drain Inventory	Develop Inventory Update Inventory	Feb 2011 Annually	Reviewed 2026 Updated 2025
Storm Drain Inventory and Map	Develop Inventory Update Inventory	Feb 2011 Annually	Reviewed and updated 2026
Inspections	Perform and Document Required Inspections	Monthly, Semi-Annual, and Annual	Performed 2026
Flood Management Control Structures	Review Process for New Facilities Evaluate Existing Facilities	Annual Update 20 % a year for five years, as needed after	Reviewed 2026 Evaluated 2026
City Staff Education	Yearly Training	Annually	Provided 2026

4.2.6. Modifications to Previous Plan

- Updated Assessments section to match permit
- Updated High Priority section to match permit
- Added Inspection section 4.2.6.4 to describe inspections that will be conducted
- Added Floor Drain Inventory section 4.2.6.6 to describe our floor drain inventory
- Updated dates and High Priority Facility inspection schedule on Control Measure Table # 6

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 and document its 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. "Analytical monitoring" refers to monitoring of water bodies (streams, ponds, lakes, etc.) or of storm water, or to State or Federally established protocols for biomonitoring or stream bio-assessments.

5.2.1 Compliance with TDML's

Water quality sampling may be required to identify pollutants of concern, pursuant to Part 3.1.

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 may be required to sample or test for characterizing illicit discharges pursuant to Parts 4.2.3.4.1 - 4.2.3.4.3.

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 that the City elects to conduct analytical monitoring as part of the SWMP, the Permittee is required to comply with Part 6.12.

5.3 Non-analytical Monitoring

Non-analytical monitoring is included in this SWMP as required in part 4.2.3.3.3 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. Documents are stored on the computer drives on the computers in the storm water office.

5.5 Reporting

The City will submit an annual report to the Division according to part 5.5 of the Permit. The annual report will be submitted using the EPA's NPDES eReporting Tool (NET) website (cdx.epa.gov).

5.6 Legal Authority

The City's ordinance has been updated to give city personnel authority to control all storm water in the city. This includes prohibiting illicit discharges and stopping illicit discharges. Control discharges from spills and dumping or disposing of materials. Control through agreements. We

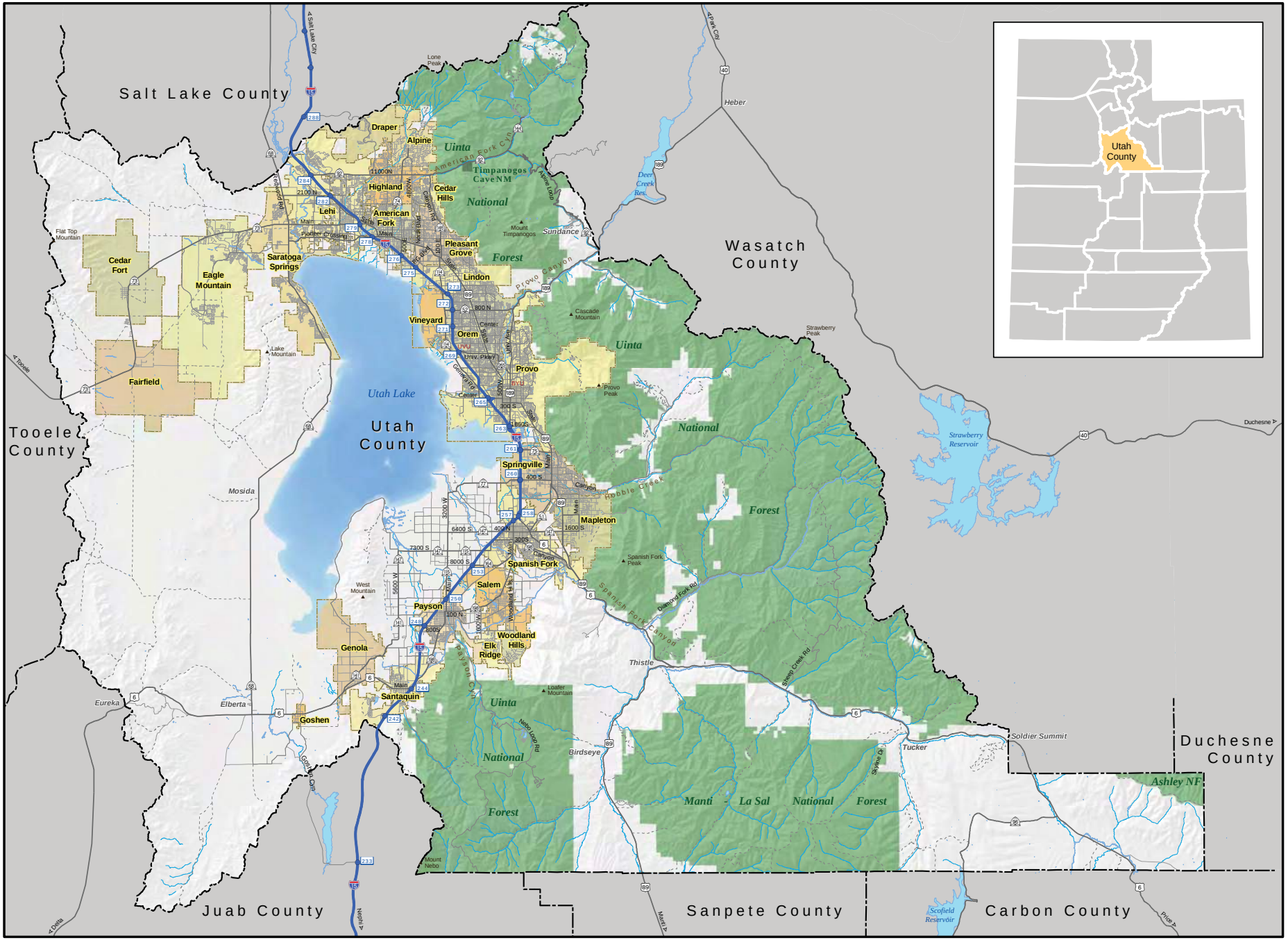
require compliance with conditions in ordinances, permits, and contracts. Conduct all inspections of the sites that we have listed in this document or appendices attached to this document.

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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Map created by Curtis Wursten

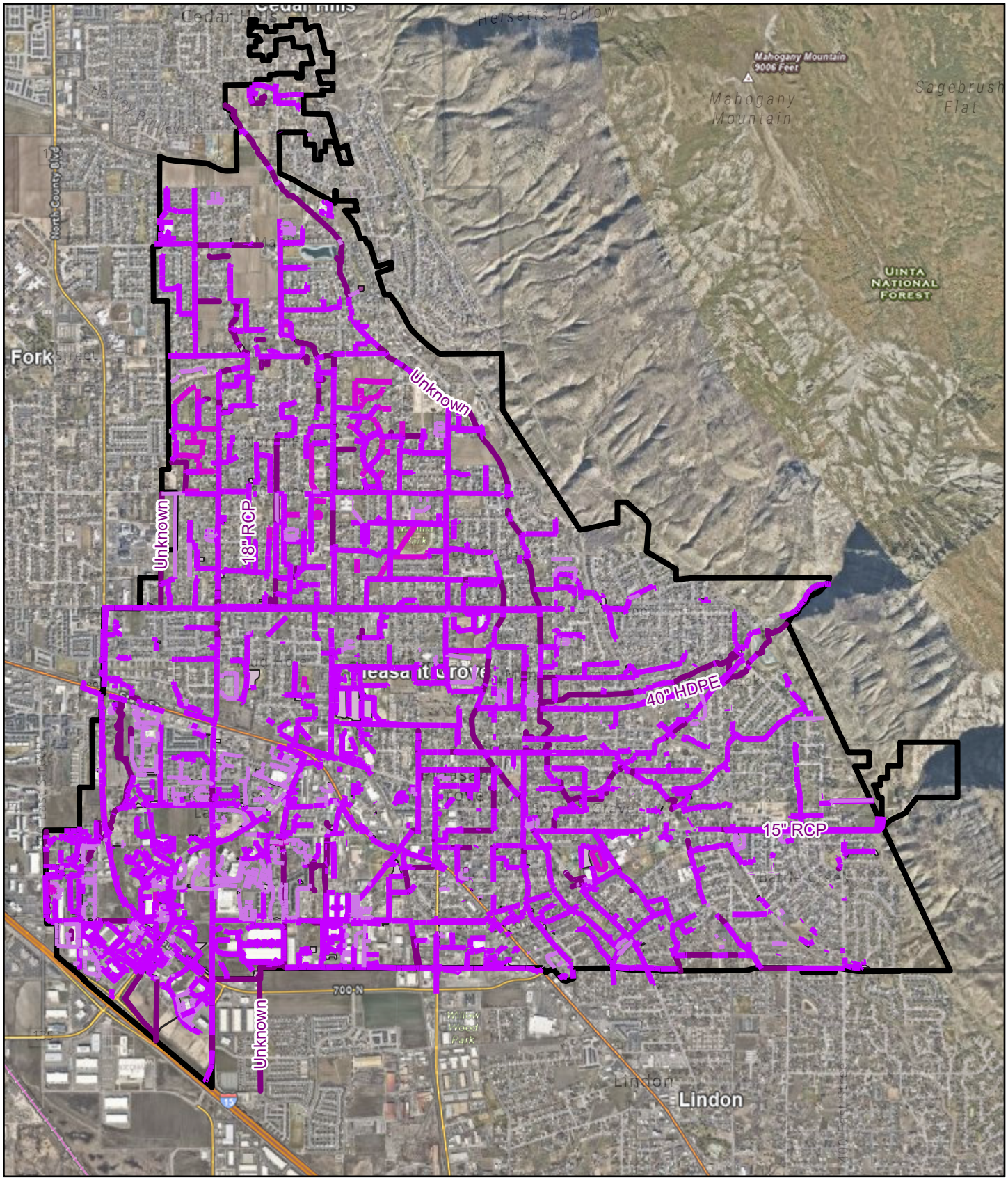
Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX B – STORM WATER SYSTEM MAPS AND INVENTORIES

B-1 Storm Drain System Map



7/30/2026

1:49,985

0 0.33 0.65 1.3 mi

0 0.5 1 2 km

SD Pipes
- Public
- Private
- Public/PGIC
- LD Subsurface Drains
- SD Open Channel

SD Detention Basins
- Above
- Below

Nearmap US Vertical Imagery
- Red: Band_1
- Green: Band_2
- Blue: Band_3

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

N

W E

S

1:24,000

Legend

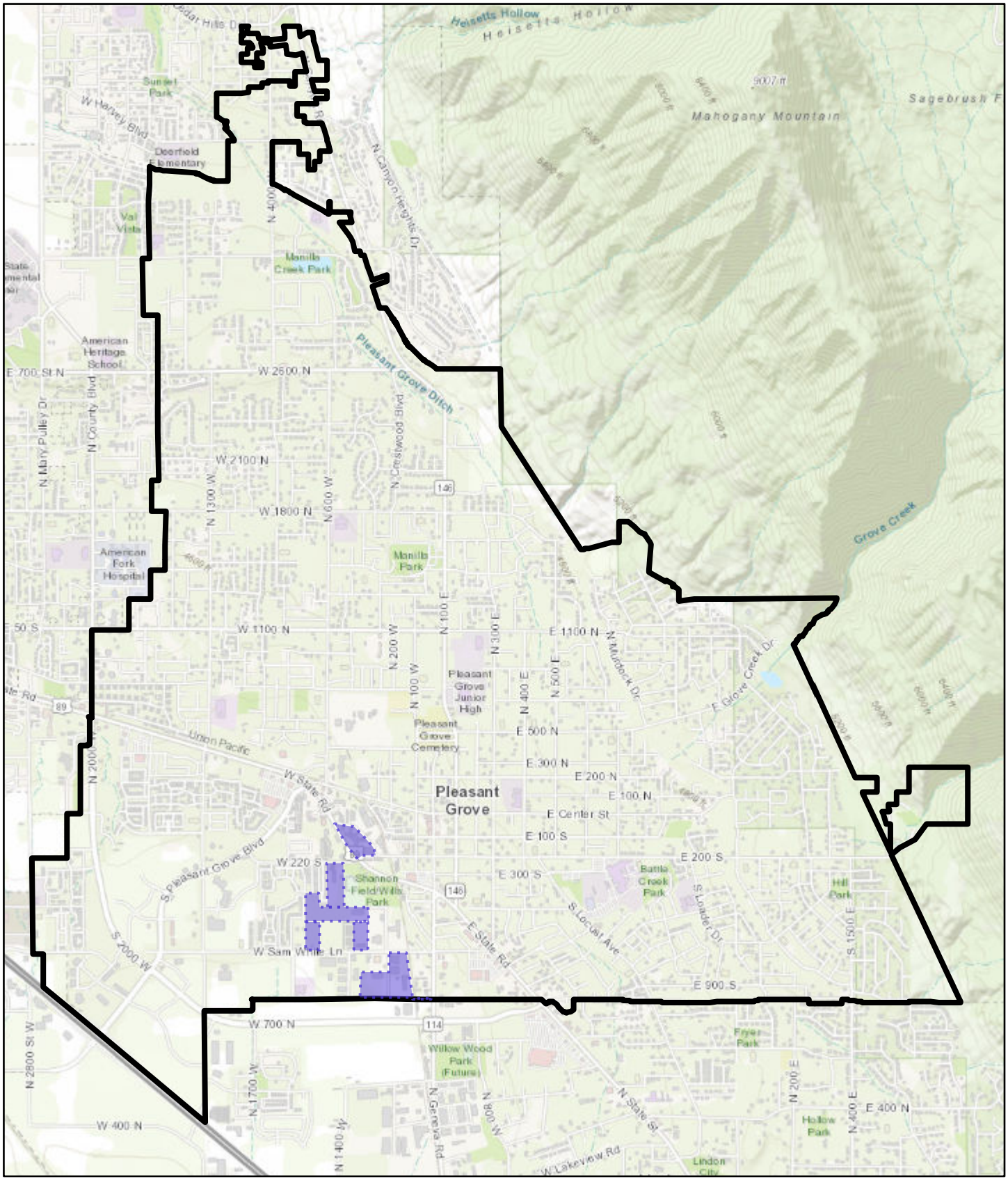
- Grovecreek Sample Location
- 700 South Sample Location
- 1000 South Sample Location
- 600 West Sample Location
- 1300 West Sample Location
- 2000 West Sample Location
- Nameless Stream Sample Location
- Grovecreek Drainage
- 700 South Drainage
- 1000 South Drainage
- 600 West Drainage
- 1300 West Drainage
- 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 Outfall Sampling Location Map

B-3 IDDE Priority Area Map



7/30/2026

1:48,710

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

IDDE Priority Area Map

Pleasant Grove 2024 city boundaries

Citations

County of Utah, Bureau of Land Management, Utah AGRC, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

B-4 IDDE Prioirty Area List

Priority Area #1

Address	Description	Notable Problems
Industrail Dr Pleasant Grove	Industrial area with car repair shop, manufacturing areas, car detailing, and chemical Business.	NA

Priority Area #2

Address	Description	Notable Problems
Area between 700-240 W 500 S	This area is storage for a lot of old vehicles and a brick cutting company.	NA

Priority Area #3

Address	Description	Notable Problems
630 W 700 S	A landscape company that produces and sells landscape materail.	Occasional tracks mud out onto 700 S

Priority Area #4

Address	Description	Notable Problems
240 W 700 S	Dump transfer station and metal fabrication shops	Occasional trash is found on 700 S from the transfer station. 700 S is swept by a third party company.

Priority Area #5

Address	Description	Notable Problems
990 S Geneva Rd	A storm drain line that runs on the south side of the Diesel Center	Occasional diesel will get into the storm drain from the ground. Socks are deployed whenever diesel is detected.

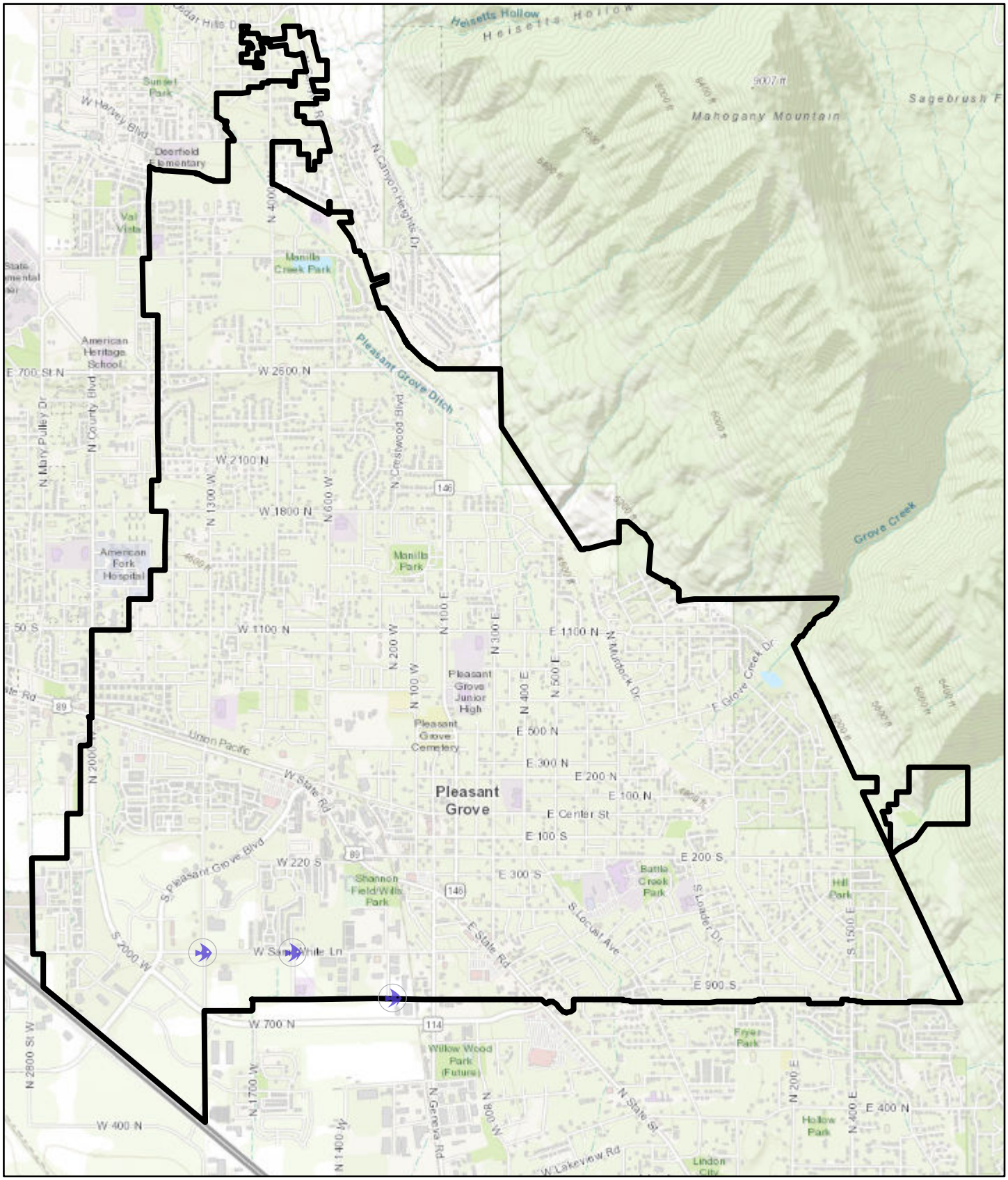
Priority Area #6

Address	Description	Notable Problems
350 W 700 S	Concrete pumping company	Occasional track out from the site. Have had oil in the storm drain storage in the front of the facility.

Priority Area #7

Address	Description	Notable Problems
589-555 W 220 S	Concrete Ready Mix plant, manufacturing, and stone cutting area.	Concrete area occasionally tracks materail out onto street, and deploys concrete dust into the air.

B-5 IDDE Spill Locations



7/30/2026

1:48,710

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

IDDE Spill Location Map

Pleasant Grove 2024 city boundaries

Citations

County of Utah, Bureau of Land Management, Utah AGRC, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

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

Storm Water Controls at each Site:
Storm Drain Inlet - SD
Detention Area - DT
Retention Area - RT
Hydrodynamic Separators- HS
Oil-Water Separators - OWS
Swells - S
Under Ground Chambers - UGC
Pervious Surface - PS

Facility	Sediment	Nutrients	TDS	Metals	Hydrocarbons	Pesticides	Chlorides	Chorine	Organic	Bacteria	Trash	Negatively Impacting Water Quality	Priority	Storm Water Controls at Site
Pipe Plant Property	3	1	3	1	2	1	1	1	3	1	3	no	High	SD,DT,OWS,S,PS
Locust Picklebakll Courts (429 S Locust)	1	2	1	1	2	2	2	1	2	1	2	no		
(375 South Locust) Veterans Park	1	2	1	1	2	2	2	1	2	1	2	no		
90 East Center St	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	1	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	2	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		
Boulvard 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	2	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		
Cook Family Park	1	2	2	1	2	2	2	2	2	1	2	no		
Discovery Park	1	2	2	1	2	2	2	2	3	1	2	no		
Hill Side Park	1	2	2	1	2	2	2	2	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	SD,PS
Rodeo Grounds	2	2	2	1	3	2	1	1	3	2	1	no		PS
Shannon Fields	1	2	2	1	2	2	1	1	2	1	2	no		DT,PS
Public Works Shop	3	3	5	3	3	3	3	3	2	2	3	no	High	SD,OWS
Vetran's Memorial Pool	1	2	2	1	2	2	3	3	3	1	2	no		
Fire Station	1	2	2	1	2	2	3	1	2	1	2	no		
New Rec Center	1	2	2	1	2	2	2	1	2	1	2	no		
Library	1	1	2	1	2	1	2	1	1	1	1	no		
Historic City Hall	1	2	2	1	2	2	2	1	2	1	1	no		
Lions / Sportsman Building	2	1	2	1	2	1	2	1	1	1	2	no		
City Hall / Community Dev	1	2	2	1	2	2	2	1	3	1	2	no		SD,PS
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		
400 N 400 W Detention Basins	1	2	1	1	1	2	1	1	2	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		PS,RT
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
Veteran's Memorial Park	Veteran's Memorial Park	2 1 11	Storage Room drain to sewer Pump Room drains to sewer Men's RR drains to sewer
Veteran's Memorial Pool	Vinking way and locust	13 5 1 2	Women's RR drains to sewer Concessions drains to sewer First Aid drains to sewer Life Guard Room drains to sewer
Home on 600 West 1775 North	600 West 1775 West	1	Drain to sewer
Public Safety Building	30 East 100 South	6 8 8	General floor drains to sewer Women's RR drains to sewer Women's RR drains to sewer
Fire Department	30 East 200 South	8 3 7 7	Bay drains to sewer General floor drains to sewer Women's RR drains to sewer Women's RR drains to sewer
downtown park restrooms	33 east 100 south	1 1	Men's RR women's RR
lions/sportsmen building	600 east center	1	In the basement of the building
City Hall	70 south 100 east	2 1 2 1	Up stairs RR @ the p.d.men and women's Holding area @ the p.d. Downstairs RR@ the p.d. drains to sewer Sally Port @ the p.d. drains to sewer
library building	70 south 100 east	1 2	downstairs in the kitchen downstairs in the RR
manila creek park R.R. building	3300 north 900 weat	1 1 1	Men's RR Women's RR Utillity room
Manila park R.R. North	100 east 1511 N	2	in the RR
Manila Park R.R. South	100 east 1511 N	2	in the RR
Manila Park Scor Tower R.R.	100 east 1511 N	1 1	Men's RR women's RR
Mahogany ridge park R.R.	650 west	1 1	Men's RR women's RR drains to the sewer
Monson Well Buildings	900 east 200 north	2	One in each building,Drains into ditch.
Anderson Park well building	approx. 950 east	1	in building ,Drains into ditch.
Anderson Park R.R.	approx. 950 east	2	In the restrooms Men's and women's
Kiwanis park R.R.	Battle Creek Traill Head	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.
Boulvard Well House Building	150 N North County Blvd	1	Drains into the storm drain basin
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 sewer.
Recreation Center	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

Cook Family Park	600 West 800 North	13	1 drain per family restroom (3) Utility chase/closet (2) Womens Restroom (3) Mens restroom (3) Chemical shower/Filter backwash (2)

B-8 Private Owned Facilities Strom Drain Inventory			
uction	Project Name	Owner Name	Location
	Tru Home 2 Suites V2	Alec Moffitt	1138 S VALLEY GROVE WAY, PLEASANT GROVE, UT
	Battle Creek Hotel	Koloa Wolfgramm	1877 W STATE STREET
	The BLVD Apartments	The Boulevard Development LLC	1288 W Pleasant Grove Blvd
	Take 5 Oil Change	Mitch Vande Guchte	958 S State St
	Valley Grove P, Q, and R	Dayne Nelson	
	PG Business Park 3 Plat B	Dave Allison	365 South 700 West
	Cyprus Credit Union		
	Valley Grove Flex C		
	North Grove Retail		
	Freddys Frozen Custard		
	North Edge Business Park		
	Manila Creek Stake Building		
	X Development		
2025	Project Name	Owner Name	Location
	Valley Grove N&O	Marty Beaumont	2093 & 2067 W PLEASANT GROVE BLVD, PLEASANT GROVE
	Gateway Pines	Dan Ford	2416 W 700 SOUTH, PLEASANT GROVE, UT
	67 South Main	Drew Armstrong	67 S Main St, Pleasant Grove
	Chick-fil-A	Kayla Maxwell	1712 W Pleasant Grove BLVD
	North Grove Retail Site Plan	David Runnells	1563 & 1511 W State St
	Pleasant Grove Town Center	Marlon Hill	172 S Pleasant Grove Blvd
2024	Project Name	Owner Name	Location
	Village Square	Jamie	392 E STATE ST, PLEASANT GROVE, UT
	Jareds Place	Jared Lindstrom	360 S 100 EAST, PLEASANT GROVE, UT
	Pleasant Grove Town Center	Marlon Hill	172 S Pleasant Grove Blvd
	Anderson Office Bldg	Chris Anderson	220 S 2500 WEST, PLEASANT GROVE, UT
	Burger King	David Speters	456 S PLEASANT GROVE BLVD, PLEASANT GROVE, UT
	Hale Theater - The Ruth at doterra	Troy	401 S Pleasant Grove BLVD
	Valley Grove Plat P	Marty Beaumont	Valley Grove Way
	JVO	Marty Beaumont	2135 W 450 SOUTH ST
2023	Project Name	Owner Name	Location
	Soda Time	Dave Runnells	1495 West State St
	Tabithas Way	Merisol Valadez	675 W GARDEN DR #100
	Triple Play	Adam Lambert	295 South 1700 West
	Goldenwest Credit Union	Butch Campbell	1554 W Pleasant Grove Blvd
	Kneaders	David Runnells	1595 W State St
	Turley Ave 16	JD Brisk	383 S TURLEY AVE, PLEASANT GROVE, UT
	Battle Creek Business Park	Brandon Gray	1835 W STATE ST
	Chiplote	Elliott Smith	470 S PLEASANT GROVE BLVD, PLEASANT GROVE, UT
	Grovecrest III	Larry Lindstrom	452 W CENTER, PLEASANT GROVE, UT
	HeeHaw Farms (Olivers Place)	Chalise Smith	150 S 2000 W Pleasant Grove
	Grove Cove	Randy	284 S 2000 W
	Retail J&K - St. Johns	Marty Beaumont	863 & 887 S NORTH COUNTY BLVD, PLEASANT GROVE
	Tagg N Go	Connor Atkins	160 S PLEASANT GROVE BLVD, PLEASANT GROVE, UT
2022	Project Name	Owner Name	Location
	Cornerstone Concrete	Tyler Hampton	720 S MAIN STREET
	Valley Grove Flex A & B	Daniel Thomas	14:054:0155
	Valley Grove III	Daniel Thomas	1333 S VALLEY GROVE WAY, PLEASANT GROVE, UT
	Valley Grove Retail A	Daniel Thomas	758 S North County BLVD
	PG Dealership, Tesla	kenny bush	2265 W 700 S
	Tayside Farm	Michael Brodsky	314 S Garden Grove LN
	Futurity - Cook's Corner Plat A	Cynthia Cook	100 E 300 South
	Wagner Retail Center	Lance Studebaker	612 S Pleasant Grove
2021	Project Name	Owner Name	Location
	Valley Grove Retail H	Daniel Thomas	1048 W North County Blvd
	Sam Whites Plaza Plat C	Kris Hammond	395 W Sam White Ln
	The Boulevard Townhomes	Mckay Christensen	1209 W 120 SOUTH, PLEASANT GROVE, UT
	Dutch Bros	Jack Robinson	442 S PLEASANT GROVE BLVD, PLEASANT GROVE, UT
	Fossil Cove	Jamie	865 S Main
	East 15 Commerce Center	Jason Head	1027 West 700 South
	BLVD Yard Office	Penn Owens	1076 N 2000 W
	Slim Chickens	Rick Stucy	854 S NORTH COUNTY BLVD, PLEASANT GROVE, UT
	Crust Club & North Plat A	Dave Runnells	1427 W STATE ST

2020	Project Name	Owner Name	Location
	Wagner Commercial (Kensington plaza)	David Doty	612, 678 S Pleasant Grove Blvd
	MACU PG Branch	Jeff Johnson	1953 W PG Blvd
	Grove Station	Porche Powell	95 S 2000 W
	Gunn Chiropractic Office	Ben Gunn	472 N County Blvd #1A
	PG Express Oil	Carol Harris	1405 W State St
	Smart Peak Plaza	Nate Smith	1957 W 1100 N
2019	Project Name	Owner Name	Location
	Utah Eye Center	Lisa Jensen	1972 N Grove Parkway
	Grove Creek Center	Kelly Whitworth	2054 W Grove Parkway
	Valley Grove Bldg C&D	Mark Cathemer	1982 W PG Blvd
	ICO Mayfield Apartments	Kaylynn Lee	2340 W 250 S
	Valley Grove Bldg C&D	Marty Beaumont	2054 W Grove Parkway
	Grovecrest (Wildcat) Business Park	Jeff Lindstrom	907 W 700 S
	K&K Office Warehouse	Keven and Karen Wilson	345 W 700 S
	Iceberg	Reed Reinhold	1650 W State St
	Valley Grove Retail F & G	Marty Beaumont	1043 S Valley Grove
	Valley Grove II Office Building (Tower III)	Marty Beaumont	1555 S Valley Grove Way
	ASEA Phase 2	Kenny Stoddard	1488 W PLEASANT VIEW DR, PLEASANT GROVE, UT
	Hidden Springs	Marty Beaumont	1650 W State St
2018	Project Name	Owner Name	Location
	doTerra medical building	Mark Ringger	360 S 1300 W
	R&R BBQ	Josh Merrell	1977 W PG Blvd
	Osmond Retail Plaza (JZ Styles hair salon)	Kiera	285 E STATE
	Interior Concepts	Jacci Miller	175 S Proctor Ln.
	Valley Grove Retail E	Mark Cathemer	1900 W PG Blvd
	PG Office Park	Jacqulyn Brewer	490 W 891 S
	Smart Price Storage	Rob Taylor	100 N 2000 W
	Evergreen Retail		855 W State St.
	L & C Moto	David Linquist	560 S 300 E
	Grovecrest Suites	Russ Robinson	526 W Center St
	doTerra Maintenance Building	Mark Ringger	389 S 1300 W
	Valley Grove 1 Plat D (Tower II)	Mark Cathemer	1064 S N County Blvd
	PEAC (Pinnacle Education & Athletic Center)	Jacob Carter	920 W 2600 N
	Urban Grove	Kevin Bradburn	1740 W 700 S
2017	Project Name	Owner Name	Location
	Quick Quack Utah County	Eric (manager)	1991 W 680 N
	Valley Grove - Grove Tower	Mark Cathemer	220 S PI Grove Blvd.
	Tri-City Nursery	Johnny	630 W 700 S
	Clear Lake Warehouse	Reza Fakhreih/Ryan Litke	500 W 700 S
	Hyatt House	James Heuett	Pl. Grove Blvd. & Garden Grove Ln.
	doTerra Building F	Mark Ringger	1289 W PG
	Doterra Operations Building	Mark Ringger	1289 W PG Blvd
	Welcome Home Assisted Living	Bruce Morrison	921 N 1870 W
	ASEA Office Phase 1	Kenny Stoddard	700 S 1350 W
	Told Plumbing Offices	David Told	505 S Main
	The Void Entertainment Center	Jamey Anthony	1740 W 700 S
2016	Project Name	Owner Name	Location
	Allred Office	Steven & Jeff Allred	200 E State Rd.
	Valley Grove Business Park	Daniel Thomas	PG Blvd & N County Blvd
	Garden Grove	Chloe Arnell	100 South 1300 West
	Evermore Gardens	Jamey Anthony	382 S EVERMORE LN
2015	Project Name	Owner Name	Location
	Spectrum Academy Charter School	Tyson Anderson	867 S 800 W
	Majestic Meadows Phase 6	Reed Swenson	519-527 W State St
	Murphy Express -Gas Station	Clif Coker	1679 W State
	Grove Creek 2	Taylor Jackon	2162 Grove Parkway
	Majestic Meadows Phase 4	Reed Swenson	220 S State RD
2014	Project Name	Owner Name	Location
	Reskin	Toni Christopherson	439 S PLEASANT GROVE BLVD
	Auto Zone	Michael Holt	743 S State St.
	McDonalds	Darin nageli	312 E State St
	Grovecrest Villas	Michelle Martinez	511 W Center St

2013	Project Name	Owner Name	Location
	Majestic Meadows Phase 5	Reed Swenson	550 W State St.
	Holiday Oil	Jay Cahoon	1795 PG Blvd
	My Oil Business (Utah Fertility Center)	April Fisher	1364 Pleasant Grove Blvd
	Extra Space Storage	Ryan Bybee	220 S State St.
	Wal-Mart Neighborhood Market	Karen Plawle	1707 W State St.
	Green House Center	Sherry Platt	135 W Center St
2012	Project Name	Owner Name	Location
	Stone Gate Center for the Arts	Anna	886 W 2600 N
	Somerset Meadows/Viewpoint Apartments	JPR Investments/ DR Horton	1650 W 140 N
	All American Square	Reed Swenson	1402 W State Rd
	Maple Grove Apartments	Bryant Christensen	621 S 350 E
	Proctor Corner	April Fisher	236 S 1300 W
2011	Project Name	Owner Name	Location
	Maverik Inc.	Jamie Smith	300 E State St.
	H&S Auto	Harold Sargent	112 E 700 S
	Grove Pointe		1975 W State St
	Majestic Meadows Phase 3	Reed Swenson	533 W State St
2010	Project Name	Owner Name	Location
	Willow Tree Recovery	Jacob Forsyth	145 S Proctor Lane
	Majestic Meadows Phase 2	Reed Swenson	559 W State St
	Canyon Grove academy	Dale Seay	3400 N 700 W
	Burbs Facility	Burbs LLC	510 W 700 S
2009	Project Name	Owner Name	Location
	Sam White's Park Lot 6 (blue ribbon storage)	Carolyn Hopkins	490 W 700 S
	Mayfield LDS Church	James Hawkins	2500 W 450 S
	Mayfield North Professional Office Suites	Kelly Thueson	260 S 2500 W
	Discovery Grove Office Building	Discovery Investment Group	1955 W Grove Parkway
	Utah State Liquar Store	Eric Parker	658 S PLEASANT GROVE BLVD
2008	Project Name	Owner Name	Location
	Varliano	Matt Evans	1040 W 700 S
	Grove Business Park	Anthony Vicchrilli	513 W 700 S
	PG Gateway Offices	Kurt Mather	233 S Pleasant Grove BLVD
	Majestic Meadows Phase I	Reed Swenson	578 W State St.
	Spinal Rehab	Jordan Smith	930 N 2000 W
2007	Project Name	Owner Name	Location
	Bike Peddler	Brian Fruit	661-665 W State St
	Liahona Preparatory Academy	Jordan Long	2464 W 450 S
	Central Bank	Jeff Simonsen	801 S PG Blvd
	Town Center Plaza	L&T Construction	150 S Pleasant Grove Blvd
2006	Project Name	Owner Name	Location
	LDS Church (Manila)	James Hawkins	3300 N 900 W
	Timpanogos Animal Hospital	Natasha Haslam	815 S Main st.
	BMW of Pleasant Grove	Kade Osborn	2171 W 900 SOUTH
2005	Project Name	Owner Name	Location
	All Star Auto Plaza	Jeff	1983 W 680 N
	Villas At Maplewood Apartments	Cambrie Smith	865 W 260 S
	Gables at Pleasant Grove	Chase Beckstead	174 N 1380 W
	Rockwell Apartments		1550 W 50 S
	LDS Church	James Hawkins	500 N 300 E
2004	Project Name	Owner Name	Location
	Cambria Condominiums	Madelynn	1202 Cambria Way
	Dana Point Plat A	Jenny Tian	597 S Pleasant Grove Blvd
2003	Project Name	Owner Name	Location
	Alpine Pediatrics	ALPINE PEDIATRICS PROPERTY MANAG	1912 W 930 NORTH
	Gateway View Townhomes (1300 W)	Chase Beckstead	190 N 1300 W

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX C – ORDINANCES

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

8-6-9: 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):	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.
CATCH BASIN:	A basin that has a stormwater inlet to trap solids or debris.
CLEAN WATER ACT:	The Clean Water Act of 1987, formerly referred to as the Federal Water Pollution Control Act.

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:	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:	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:	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:	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):	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:	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:	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:	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.

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES):	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). (Ord. 98-34, 12-15-1998; amd. Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020; Ord. 2021-35, 12-7-2021)

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 nonstormwater 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 nonstormwater runoff.

B. It is unlawful for any person to cause any obstruction that inhibits the normal flow of stormwater and/or nonstormwater 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 nonstorm water structure that conveys stormwater and/or nonstormwater, 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 nonstormwater 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 A2 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.

k. Discharge of diverted steam flows.

l. Discharge of springs.

m. Uncontaminated individual residential car washing.

n. Uncontaminated dechlorinated swimming pool water.

o. Discharge of uncontaminated dechlorinated reservoir water.

p. Uncontaminated rising ground water.

q. Uncontaminated residual street wash water.

r. Discharges from potable water sources.

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.

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.

E. 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.

F. 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.

G. 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.

H. 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; Ord. 2021-35, 12-7-2021; Ord. 2025-025, 10-7-2025)

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:

A. 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.

B. 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:

1. Elimination of illicit connections or discharges;

2. That the violating discharges, practices, or operations shall cease and desist;

3. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;

4. Payment to cover remediation costs incurred by the City;

5. 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.

C. 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 correct 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. (Ord. 2021-35, 12-7-2021)

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 subsection 8-6-8A.

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.

a. Any operator of a construction site, common plan of development, or other site as required under state regulations must obtain a valid Utah Pollutant Discharge UPDES Stormwater Permit (such as a Notice of Intent, “NOI”) from the Utah Division of Water Quality before beginning earth disturbance or construction activities that trigger permit coverage.

b. The operator shall maintain active UPDES permit coverage for the duration of the project. If the permit expires before project completion, the operator shall renew the permit in accordance with state requirements.

c. Upon completion of the project, stabilization of site, removal of temporary control measures, equipment, materials, and waste, and once all pollutant generating activities cease, the operator shall submit a Notice of Termination (NOT) to the Utah Division of Water Quality to formally terminate permit coverage.

d. Operators shall provide the City a copy of the UPDES permit (NOI) and any renewal or NOT correspondence.

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 (15) 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 (180) calendar days of issuance, or is not complete within eighteen (18) 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. (Ord. 2021-35, 12-7-2021; amd. Ord. 2025-25, 10-7-2025)

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 one hundred dollar ($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 three hundred dollar ($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 five hundred dollar ($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 (three (3) or more level I or greater violations within twenty four (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 twenty four (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 filed, 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. (Ord. 98-34, 12-15-1998; amd. 2003 Code; Ord. 2020-16, 7-21-2020; Ord. 2020-29, 12-15-2020; Ord. 2021-35, 12-7-2021)

CHAPTER 8

SENSITIVE LANDS

SECTION:

11-8-1: Legislative Intent

11-8-2: General Provisions

11-8-3: Actions Prohibited

11-8-4: Procedure To Develop Real Property

11-8-5: Preliminary Determination By City Engineer

11-8-6: Requirement To Submit A Geotechnical Report

11-8-7: Geotechnical Report

11-8-8: Engineer Qualifications

11-8-9: Post Construction Inspection And Certification

11-8-10: Appeal From Decision Of City Engineer

11-8-11: Scope Of Application

11-8-12: Restrictive Covenant Required

11-8-13: Civil And Criminal Fraud

11-8-14: Hillside Development Standards

11-8-15: Shallow Ground Water Area Development Standards

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 section11-8-7 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 section11-8-10 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 section11-8-12 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 section11-8-3 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 section11-8-5 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 section11-8-3 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)

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX D - STANDARD OPERATING PROCEDURES (SOP)

CONTENTS

APPENDIX D - Standard Operating Procedures (SOP) *1*

Standard Operating Procedure (SOP) – SWMP Implementation and Evaluation 4

Standard Operating Procedure (SOP) – SWMP Training 6

Standard Operating Procedure (SOP) – Locating and Listing Priority Areas 8

Standard Operating Procedure (SOP) – Spill/Dumping Response and Flow Chart 11

Standard Operating Procedure (SOP) – Tracing Illicit Discharge 13

Standard Operating Procedure (SOP) – Characterizing Illicit Discharge 15

Standard Operating Procedure (SOP) – Ceasing illicit Discharge 17

Standard Operating Procedure (SOP) – IDDE Program Evaluation and Assessment 20

Standard Operating Procedure (SOP) – Construction Site Ordinance Enforcement 21

Standard Operating Procedures (SOP) – SWPPP Review and Approval 25

Standard Operating Procedure (SOP) – Construction Site Inspection 31

Standard Operating Procedure (SOP) – Record Keeping 37

Standard Operating Procedure (SOP) – Long-Term Storm Water Management Ordinance Enforcement.....40

Standard Operating Procedure (SOP) – Long Term Storm Water Management Inspection.....42

Standard Operating Procedure (SOP) – Fertilizer, Pesticide, and Herbicide Application 43

Standard Operating Procedures (SOP) – Spill Prevention and Reporting.....46

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for City Buildings and Facilities.....48

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for City Material Storage Areas.....51

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Heavy Equipment Storage Areas and Maintenance Areas.....53

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for City Parks and Open Space.....55

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for City Vehicles and Equipment.....58

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Street Sweeping, Sweeper Cleaning, and Waste Disposal.....60

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Parking Lot Maintenance.....63

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Street and Road Maintenance and Repair.....65

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for City Storm Water Collection and Conveyance System.....68

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for “High Priority” Pipe Plant Property Material Staging Area.....70

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for “High Priority” Cemetery.....73

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Rodeo Grounds 76

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for "High Priority" Public Works Yard 78

Standard Operating Procedure (SOP) – Storm Water Pollutant Management for Green Waste Deposited in Street..... 82

Standard Operating Procedures (SOP) – Storm Water Pollutant Management for Municipally-Sponsored Events & Cleanup (festivals, parades, ect…) 84

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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.
    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.

    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.
3. Review and compare yearly comments from Public from committees, website comments, City Clean-up, and the Chamber of Commerce. Compare to previous years to evaluate effectiveness of education program.

4. Track and compare the participation in the household hazardous waste collection program.
5. Review number and type of illicit discharges reported for the year. Compare results from previous years to evaluate effectiveness of program.
6. Review IDDE inspections and reports. Compare results from previous years to evaluate effectiveness of program.
7. Review enforcement actions for control measures 3, 4, & 5. Compare results from previous years to evaluate effectiveness of program.
8. Review construction and post construction inspection reports. Compare results from previous years to evaluate effectiveness of program.
9. Review City Facility inventory, assessment, and inspections. Compare to previous years to track improvements.
10. Review flood control inspection reports. Compare results from previous years to evaluate effectiveness of program.

Pleasant Grove

Utah's City of Trees

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 storm 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, review, 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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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. Discharges from water line flushing. Discharges from landscape or lawn watering. Uncontaminated ground water. Uncontaminated irrigation water. Discharges from natural riparian habitat or wetland flows. Discharges form air conditioning condensate. Discharges or flows from emergency management or firefighting activities. 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. Discharges resulting from municipal infrastructure management, including street wash water, storm drainage system jetting, hydrant flushing and/or testing, etc.

Discharge of diverted steam flows. Discharge of springs. Uncontaminated individual residential car washing. Uncontaminated dechlorinated swimming pool water. Discharge of uncontaminated dechlorinated reservoir water. Uncontaminated rising ground water. Uncontaminated residual street wash water. Discharges from potable water sources.

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. Commercial 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. Permit 4.2.3.3.1

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 cross connections, 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

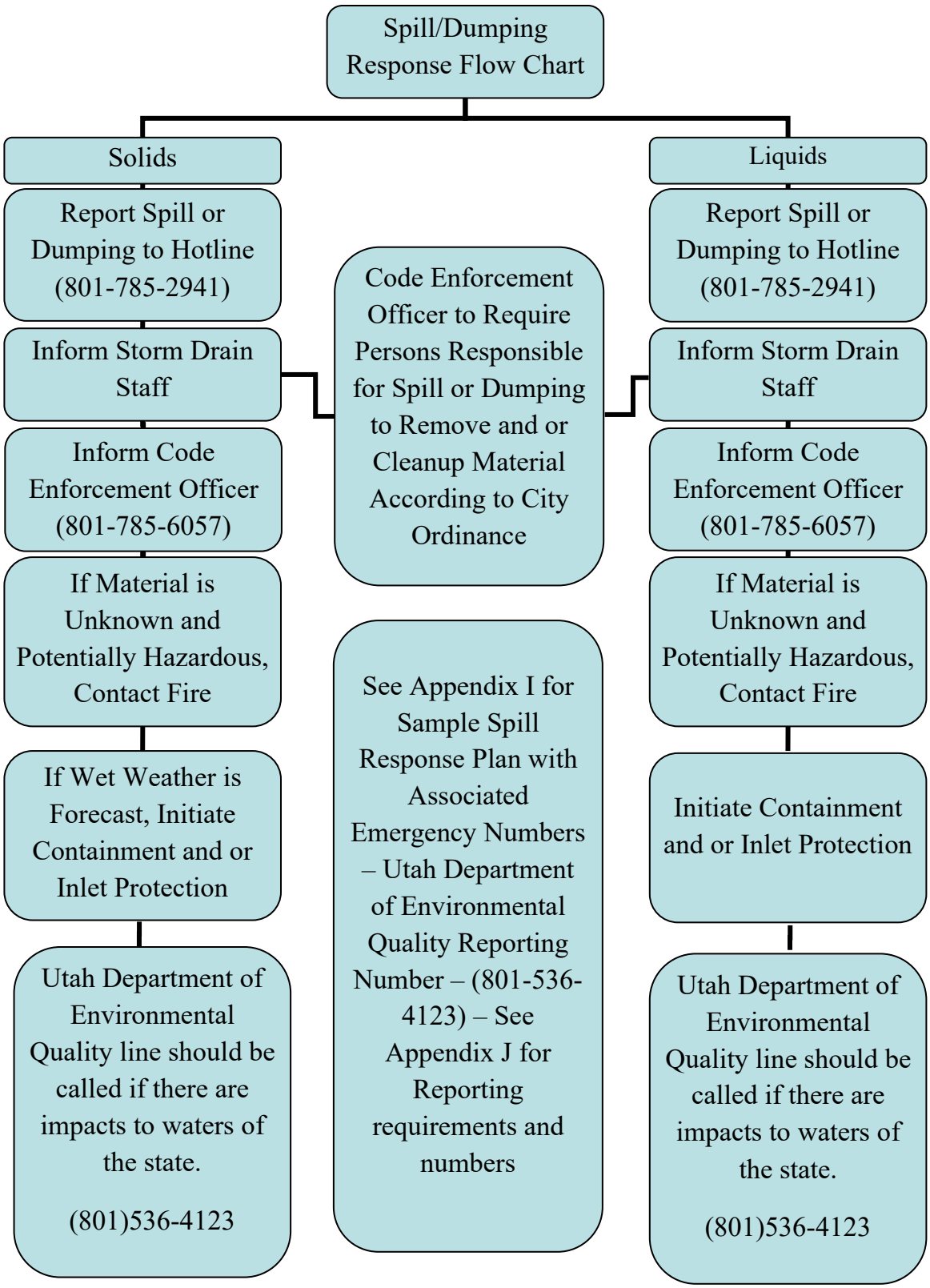
Utah's City of Trees

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 (801-785-2941)
Inform Storm Drain Staff
Inform Code Enforcement Officer (801-785-6057)
If Material is Unknown and Potentially Hazardous, Contact Fire
If Wet Weather is Forecast, Initiate Containment and or Inlet Protection
Utah Department of Environmental Quality line should be called if there are impacts to waters of the state.
(801)536-4123
Code Enforcement Officer to Require Persons Responsible for Spill or Dumping to Remove and or Cleanup Material According to City Ordinance
See Appendix I for Sample Spill Response Plan with Associated Emergency Numbers – Utah Department of Environmental Quality Reporting Number – (801-536-4123) – See Appendix J for Reporting requirements and numbers
Liquids
Report Spill or Dumping to Hotline (801-785-2941)
Inform Storm Drain Staff
Inform Code Enforcement Officer (801-785-6057)
If Material is Unknown and Potentially Hazardous, Contact Fire
Initiate Containment and or Inlet Protection
Utah Department of Environmental Quality line should be called if there are impacts to waters of the state.
(801)536-4123

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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, etc., 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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedure (SOP) – Characterizing Illicit Discharge

Once an Illicit Discharge has been reported, identified, or traced, the following SOP will be followed to characterize the nature of the discharge and evaluate the potential public or environmental threat it may pose. This SOP also includes procedures for determining whether immediate containment is necessary and how to implement containment.

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. Description of repair.
   i. Enforcement actions taken.
   j. Date and method of removal verification.
   k. Fully document any analytical monitoring utilized, including the decision process to use

3. **Evaluate the discharge for immediate containment and threat level.**
   a. Assess whether the discharge poses a threat to public health, safety, or the environment.
   b. If a threat is present, determine if the discharge is active or intermittent.

c. Identify if the discharge is reaching storm drains, waterways, or sensitive areas.

4. **Take Immediate containment actions if needed:**
   a. Attempt to stop the source if safe to do so (e.g., close valves, shut off flow).
   b. Deploy barriers (absorbent booms, sandbags, drain covers) to block or divert flow.
   c. Use vacuum trucks or pumps or pumps to collect any pooling discharge.
   d. Establish control zones to prevent public or wildlife contact.
   e. Document the containment setup with photographs and field notes.

5. **Notify appropriate authorities:**
   a. Notify the SWPPP Foreman for all discharges.
   b. If hazardous materials are involved, follow procedures in Appendix J.

6. **Determine if the discharge qualifies as an allowable non-stormwater discharge under the City's SWMP:**
   a. If allowable, document the discharge type and location for future mapping.
   b. Discharges that may be allowable include:
      a. Waterline flushing
      b. Landscape irrigation
      c. Rising groundwater or foundation drains
      d. Uncontaminated pumped groundwater
      e. Dechlorinated swimming pool discharges
      f. Individual residential car washing
      g. Firefighting activities
      h. Other similar uncontaminated flow

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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 Foreman 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 with written notice.
    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. Permit 4.2.3.6
    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 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.
    b. 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 one hundred dollar ($100.00) fine.
    c. 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 three hundred dollar ($300.00) fine.
    d. 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.
    e. First day of violation with illegal discharges to the City storm drain system is a level II violation or infraction subject to a five hundred dollar ($500.00) fine.
    f. 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.
    g. Each additional day is an additional class C misdemeanor up to a maximum of seven (7) days.
    h. 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.
    i. Each additional day is an additional class B misdemeanor.
    j. 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.
    k. 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.
    l. Repeat offenders (three (3) or more level I or greater violations within twenty four (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.

m. If there are three (3) violations at any level within twenty four (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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedure (SOP) – Construction Site Ordinance Enforcement

1. **Oversight Inspections**
   a. If violations of the CGP/CPP are determined after conducting an inspection (electronic or on-site) as identified in the *Oversight Inspections SOP*, the MS4 must document each violation as part of completing the *Oversight Construction Inspection Form* provided by DWQ. *If the inspection was conducted on-site, justification for an on-site oversight inspection must be documented on the inspection form*.
2. **Violation and Follow-up Procedures**
   1) First Notice of Violation (NOV 1)

a) The MS4 must notify the operator of the violation(s) in writing as part of completing the *Oversight Construction Inspection Form*. The violation notation at minimum must include:
   i) Explanation/Identification of each violation
   ii) Associated citation from the CGP/CPP
   iii) Deadline to correct each violation.
      (1) The deadline to correct violations should be no sooner than one business day.

b) Reinspection
   i) The MS4 shall verify (i.e., reinspection photos, documentation) that each violation has been corrected as soon as is practicable after the deadline given by the MS4.
      (1) If the follow up electronic inspection submitted by the operator is not sufficient for MS4 staff to determine that the specific violation has been corrected, an on-site oversight inspection may be conducted to determine that each violation has been corrected. *If the inspection was conducted on-site, justification for an on-site oversight inspection must be documented on the inspection form.*
      (2) The MS4 should describe to the operator how and when verification of correction will be performed.
   ii) If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in NOV 2.
   iii) If the operator has corrected the violation(s), the operator will be notified by the MS4 that the project is in compliance.

c) Second Notice of Violation (NOV 2)
   i) The MS4 must notify the operator of the violation(s) in writing as part of completing the *Construction Oversight Inspection Form*. The violation notation at minimum must include:
      (1) Explanation/Identification of each remaining violation
      (2) Associated citation from the CGP/CPP
      (3) Written warning that fines can be issued if the violation is not corrected within the new time period specified by the MS4.
         (a) The deadline to correct each violation should be no sooner than one business day.
d) Reinspection
   i) The MS4 shall verify (i.e., reinspection photos, documentation) that each violation has been corrected as soon as is practicable after the deadline within the time period given by the MS4.
      (1) If the follow up is conducted as an electronic inspection submitted by the operator and is not sufficient for MS4 staff to determine that the violation has been corrected, an on-site oversight inspection may be conducted. *If the inspection was conducted on-site, justification for an on-site oversight inspection must be documented on the inspection form.*
      (2) The MS4 should describe to the operator how and when verification of correction will be performed.
   ii) If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in NOV 3.
   iii) If the operator has corrected the violation(s), the operator will be notified by the MS4 that the project is in compliance.
e) Third Notice of Violation (NOV 3)
   i) The MS4 may issue a fine as outlined in Utah Code 19-5-108.3 until the MS4 performs an oversight inspection to verify that the violation has been corrected or the operator shows the violation has been corrected through photos or documentation.
f) Documentation:
   i) The results of all enforcement notices, communications, and inspections including follow-up or reinspections, must be documented through using the original *Oversight Construction Inspection Form* that was completed for the first inspection. The Administrative Citation Form will be a separate form that will be completed and emailed to the operator. The inspection forms and communications will be stored in Iworq our permit management system. All forms/documents will be emailed to the operator through the Iworq email system.

3. **Administrative Fines**

c. If the operator does not correct the specific violation within the timeline set by the MS4 indicated in NOV 2, the MS4 shall notify the operator in writing that the specific violation has not been corrected and **may** impose an administrative fine for each occurrence* as follows:
   a. $500 per occurrence for working without an approved storm water permit;
   b. $300 per occurrence for tracking mud on road;
   c. $250 per occurrence for failure to clean up or report spills;
   d. $100 per occurrence for failure to conduct storm water inspections;

e. $100 per occurrence for failure to maintain storm water records; and
f. $500 per site, per occurrence, for failure to use general best management practices, as determined by the authority;

* *"each* occurrence" i.e. "per occurrence" *means that for each specific violation there is a separate fine associated with that violation each time that it occurs. For example, with two separate spills in different areas of the site, after the violation and follow up process has been exhausted for each spill, the MS4 could impose an administrative fine on the operator at $250 for each spill.*

d. The MS4 may impose the administrative fine:
    a. for each business day the specific violation continues beginning on the day after the day on which the authority issues the administrative fine;
    b. and within 30 days after the day on which the applicant corrects the violation.
e. When the MS4 issues an administrative fine, the MS4 shall:
    a. impose each fine in writing and clearly document the specific violation in the writing; and
    b. deposit collected fines into a restricted account for education and outreach under the storm water program.

3. Special Cases

a. The MS4 may issue a stop work order if the MS4 has clear documentation of an immediate[1] threat to water quality.
b. The MS4 can correct a specific violation for the operator, and recoup the costs associated, if the operator refuses to correct the violation after the enforcement process and there is imminent threat[2] of significant harm to water quality or the stormwater system.
c. Except in cases of immediate threats to water quality the MS4 cannot issue a stop work order if the violation is a result of a properly installed and maintained BMP per specifications for the site conditions from the preferred BMP list.

5. **Communication:**

Each MS4 will utilize a method of communication for enforcement (such as a notice of violation, fines, stop work orders) to the operator.

- The method used for this MS4 will be utilizing emails.
    - The *Oversight Construction Inspection Form* will be sent to operators of the site via email after the Storm Water Inspection of the sight has been completed.
    - Any and all follow-up items for reinspection will be documented on that inspection form.
    - The same inspection form will be used until the original violations have been

completed.

- If an Administrative Citation is issued along with fines the Administrative Citation Form will be emailed to the operator separately from the *Oversight Construction Inspection Form*
- All forms/documents will be stored in Iworq our permit management system.

[1] Immediate threat means contaminants are entering a river, a stream, or a lake.

[1] Imminent threat means contaminants are anticipated to be discharged into a river, a stream, or a lake within 48-hours.

See Appendix O for the Enforcement for Construction Site Flow Chart

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedures (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 off-site 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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

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
- Raincoat
- Digital Camera
- GPS Unit
- Electronic Site Plans
- 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 (cell phone)
- Measuring tape or wheel
- Hand level

First Inspection:

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. 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:

- SWPPP sign is displayed on site.
- Approved SWPPP Template.
- Site Maps
- 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 sign
- UPDES General Construction Permit.
- Copy of approved, stamped 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. 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

.

All aspects of the inspection shall be documented on the inspection form provided by the division. 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 the Construction Oversite Inspection form provided by the Division. Items associated with the inspection shall be noted on the form and emailed to the site operator. The inspection reports will be stored on Iworq the city permit management system. Photos of the site shall be taken during the inspection.
4. If a site has an Adequate Compliance History the City will reduce the monthly site inspection frequency to 1) one inspection prior to land disturbance; 2) one inspection each year during active construction; 3) one inspection following active construction; and 4) inspections to investigate any verified complaint. Adequate compliance history" means the qualifying construction site has the following characteristics: 1) consecutive months of oversight inspections which did not result in enforcement, including warnings of enforcement (this may include the inspection prior to land disturbance and the first monthly inspection); 2) no instances of verified complaints; and 3) no observed impacts to waters of the state or the MS4 system.
5. Priority Construction Sites must be inspected monthly to observe site conditions.
6. All inspections must be documented on the Construction Oversite Inspection form provided by the Division. All the inspections are stored on Iworq, our permit management system.

On-site Inspection Process:

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.

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.

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.

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:
- The Stormwater Project Manager/inspector shall conduct final inspection to confirm that the site, including the detention pond, is stable.

- Final inspection should include site stabilization with final landscaping or temp re-vegetation.
- Detention pond should be measured to insure compliance with the approved plans (ie: size, shape, design). Emergency spillway should be installed per approved plan
- Geotextile material should be properly installed in drainage swales or emergency spillway per manufacturer's specifications
- 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.
- 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

- Upon returning to the office, site inspections shall be recorded in Iworq our permit management work system.
- Photos shall be imported into Iworq.
- Inspection reports will be emailed to the site operator.
- The Storm Water Project Manager/inspector shall maintain all documentation.

***Compliance & Enforcement (Reporting of Violations*)**

- See Enforcement SOP
- Documentation is critical to effective enforcement. Advanced enforcement shall be documented for tracking purposes in an electronic database managed in the Storm water pollution prevention management program.
- 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 manager/inspector will sign the N.O.T portion of the UPDED 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 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.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedure (SOP) – Record Keeping

- All hard copy records shall be scanned and saved on the computers in the storm water office.
- All electronic records shall be kept on the storm water manager's computer.
- All records will be kept for a period of five years unless otherwise noted or required in the Small MS4 General UPDES Permit.
- All storm water management program updates will be noted in the appropriate section of the plan. Old management plans shall be kept for a period of five years after updating.
- Anything involving construction or inspections of any kind will be stored on Iworq our permit management system. All other items will be stored on the computers in the storm water office.

1. Minimum Control Measure 1 – Public Education and Outreach

a. Save electronically educational material sent out on the City Web Site or through social media pages.
b. Save a hard copy of the flyers distributed with business license renewals.
c. Save electronically educational materials sent out in the monthly newsletter.
d. Save a hard copy of the city newsletters that includes 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. This information will be stored on computers in the storm water office.
h. Document all training activities for City employees.

2. Minimum Control Measure 2 – Public Involvement/Participation

a. Save copies of all requests for input and all input from the Neighborhood Committees and Business Advisory Committees.
b. Save copies of all requests for input and all input from the Neighborhood Committees and Business Advisory Committees.
c. Save information that we receive from the Chamber of Commerce regarding the city's SWMP.
d. Record all input given during the City Clean-up Days.
e. This information will be stored on computers in the storm water office.
f. Document all training activities for City employees.

3. 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 copy of all illicit discharge reported from the hotline.
d. Save an electronic copy of all documentation on efforts to detect, trace, characterize, and cease illicit discharge.
e. Save an electronic database of all documented illicit discharges.
f. Save an electronic copy of field assessment of storm water outfalls.
g. All public education efforts will be documented as part of minimum control measure 1.
h. This information will be stored on both computers in the storm water office and on Iworq the city's permit management system.
i. Document all training activities for City employees.

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

a. Save all copies of construction projects (both under and over one acre).
b. These records will be maintained for a period of five years or until construction is completed, whichever is longer.
c. Include all citations and or documentation of legal actions in each respective project file.
d. Records will include construction SWPPP(prevention plan), SWPPP Review checklist, NOI, Preconstruction onsite meeting report, correspondence, inspection reports, follow-up actions, final inspection notes, NOT, etc.
e. This information will be stored on both computers in the storm water office and on Iworq the city's permit management system.
f. Document all training activities for City employees.

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

a. Save a copy of all Long-Term Storm Water Management Plans.
b. Maintain a copy of all executed maintenance agreements.
c. Save an electronic copy of all self-inspection reports for a period of five years.
d. Save an electronic copy of all City inspection reports for a period of five years.

e. Save an electronic copy of all enforcement actions.
f. All information on privately owned facilities will be stored on the Excel file named Private Owned Facilities Storm Drain Inventory. The inventory will have a link to the city's development Dropbox where all the agreements, plans, and other information about the construction of the site are stored.
g. This information will be stored on computers in the storm water office.
h. All training given to businesses will be documented.

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

a. All inspections of basin inlets, outfalls, monthly, semi-annual, and annual inspections of High Priority Facilities will be conducted electronically on Iworq.
b. This information will be stored on Iworq the city's permit management system.
c. Training courses given to staff will be documented.

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 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 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.
    b. Inaction to correct deficiencies by the reasonable time determined, without actual discharges to the City storm drain system is considered a level I violation or infraction and is subject to a one hundred dollar ($100.00) fine.
    c. Each day after with no corrective action, without actual discharges to the City storm drain system is considered a level I violation or infraction and is subject to a three hundred dollar ($300.00) fine.
    d. 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.
    e. First day with illegal discharges to the City Storm Drain System is a level II violation or infraction subject to a five hundred dollar ($500.00) 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 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.
    g. Each additional day is an additional class C misdemeanor up to a maximum of seven (7) days.
    h. 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.
    i. Each additional day is an additional class B misdemeanor.
    j. 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.
    k. 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.
    l. Repeat offenders (three (3) or more level I or greater violations within twenty four (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.
    m. If there are three (3) violations at any level within twenty four (24) months, the next violation is automatically escalated by one level.
    n. No new licenses or permits shall be issued for a property with unresolved violations or penalties.

Pleasant Grove

Utah's City of Trees

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.

Pleasant Grove

Utah's City of Trees

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

- Keep a list of all employees trained in the facility's Stormwater Pollution Prevention stored in the Excel file that was created to document training..
- Records of pesticide application activities are kept at the Public Works Building.
- An inventory of fertilizers, herbicides and pesticides including expiration dates are kept at the Public Works Building.
- Copies of MSD sheets for all pesticides, fertilizers and other hazardous products are kept at the Public Works Building.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedures (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-packaged 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 waste.
   - Keep all containers closed unless you add or remove materials.

2. Spill Kit Maintenance
   - Spill kits are located at the following locations:
   - Three spill kits are located at the Public Works shop. Two along the east side wall inside of the shop and one towards the west side wall of the shop. One spill kit in the cemetery building. One spill kit in the shed at the Pipe Plant Yard.
   - (Name) Baylor Hatch Storm Water Dept. is responsible for spill kit(s) inventory and re- ordering supplies.
   - Inspection of spill kit and re-supplying is done Baylor Hatch, on the Semi- Annual Inspection of the facility.
   - The location of the Spill Response Plan is located inside every spill kit.

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 cleanup 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 waste 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 Division 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 Division 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): Mark Atwood Phone (801) 785-2941
   - 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
- Post signs as to whom to report spills to (Facility Supervisor, Stormwater Coordinator, Fire Department, PG Dispatch, etc.)
- Keep a list of all employees trained on the excel sheet.
- Keep copies of any correspondence with Division of Water Quality 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 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.

Pleasant Grove

Utah's City of Trees

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.
2. Provide and document monthly visual inspections, semiannual comprehensive inspections, and annual sampling inspections.
3. Keep a map of the facility, including storm drain inlets, in the Stormwater office.
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 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.
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 office.

Pleasant Grove

Utah's City of Trees

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 trimming, or other landscape waste appropriately.
- 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.

9. Pet Wastes

- Wear gloves at all times, avoid direct contact with waste.
- Inspect areas for pet waste daily.
- All pet waste needs to be picked up with a shovel or plastic bags and places in a trash can or dumpster for disposal.
- Do not wash waste into the storm drain.

Contracts & Contractors

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

Employee Training

c. 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

- Keep a list of all employees trained in the department's stormwater training Excell sheet.

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.

Record Keeping and Documentation

1. Keep a list of all employees trained in the facility's Stormwater Pollution Prevention:
1. 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 3 and 6 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 4 inches.

2. Sweeping Frequency and Schedule

- The city is broken down into eight different areas. These areas are used for plow routes in the city. Eight different employees are assigned to a specific route. These plow routes are also used for street sweeping. The employee designated over that specific route is also assigned to sweep the route at least twice a year.
- During the employees on-call shift the employee is to sweep their assigned area. An employee goes on-call every eight weeks.
- Routes are to be completely swept twice a year.
- Higher priority routes are to be swept more often or as needed.
- The sweeper is sweeping once a week.
- The sweeper is tracked by a GPS that is installed in the sweeper. You can access the GPS by phone with the correct login information. The manager of the storm water department has that information.
- After fairs or parades the sweeper will go out and sweep the roads the events were held on.

3. Disposal of Sweeper Wastewater and Debris

- Always decant sweeper wastewater into the sanitary sewer. Decant areas are located at: Pleasant Grove Pipe Plant Storage Facility.
- 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.
- The material is placed in the decant facility at the Pipe Plant where it will start to dry out.
- After the material is completely dried out the material is then hauled away to the dump for cleanup.
- Keep receipts from Fair Field dump for record of tons that were hauled away for the year.

4. Priority Sweeping Areas

- Pleasant Grove Main Steet, Pleasant Grove Boulevard, 100 East, 2600 North, 700 South.
- These areas are swept more often or as needed than normal areas.
- Main Street is the center of our town, we try to make sure the street is clean at all times.
- Pleasant Grove Boulevard, 100 East, 2600 North are areas with bigger roads that have more traffic on them, with heavy duty traffic that carries mud and other material to our city. That material fills up the gutter of the road and therefore needs more time and attention.
- 700 South is a priority area because it is mostly industrial business. These businesses usually make more of a mess, so the street requires more maintenance from the street sweeper.
- These areas are high priority to help keep the street looking nice, to help our storm drain system to not get over filled with dirt and other debris, and to help maintain water quality. These are the areas we think have the greatest chance at impacting water quality.

5. 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.
- Only washout at the Pipe Plant Storage Facility into the decant facility which drains to the sanitary sewer.

6. Others SOP's

- 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 801-785-2941

Contracts & Contractors

- Contracts should include stormwater pollution prevention language.
- Ensure that contractor 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 located within our receipts that are in our records.
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 Excell Sheet.

All Employees that operate the street sweeper have been trained in the manner of street sweeping, disposal, and sweeper cleaning.

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 – Use a designated concrete wash out bin that doesn’t leak, or install a lined depression in the ground to wash out in. Let the water evaporate then dispose of the remaining wash out material properly.
- 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.

7. 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.

<u>Record Keeping and Documentation</u>

- Keep al log of maintenance records in at the Public Works Building.
- Keep a log of all employees trained in facility’s Stormwater Pollution Prevention Excel sheet.

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.
- Use a designated concrete washout bin that doesn't leak, or install a lined depression in the ground to washout in. Let the water evaporate then dispose of the remaining washout material properly.
- Concrete trucks must washout in the washout area or into a container such as a kiddy pool or wheelbarrow.
- Maintain the washout area, inspect it for clean out needs, and check for run-on and run-off.
- The debris from the washout 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.
- 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.
- 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. Schedule for Storm Drain Maintenance and Inspection

- All storm drain inlets and lines are to be cleaned once in the 5 year permit term.
- 20% of the city's storm drain infrastructure is cleaned once a year.
- Records of cleanings are stored within GIS, where the description of the storm drain infrastructure is contained with a date when the last cleaning happened.
- Crews are to work from the Southeast side of the city west, cleaning inlets and pipes. The northwest side of the city will be completed near the end of the 5 year permit term.
- Inspection of the storm drain infrastructure are done daily with other crew members looking for potential problems or hazards with the infrastructure.
- All storm drain outfalls are inspected once in the 5 year permit term.

3. Hotspots

- Hotspot areas are identified by a recent illicit discharge that occurred, or areas in the storm drain infrastructure that have problems draining or becoming dirty too quickly.
- The illicit discharge areas are stored in Iworq with inspection reports and all information about the spill including pictures.
- The other areas are in GIS with information about why that area is a Hotspot area.

4. Reporting

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

5. Decanting Wastewater from Vac Trucks and Sweepers

- Always decant Vac trucks and sweepers into the sanitary sewer.
- Decant areas are located at the Pipe Plant Storage Facility Decant Facility.

6. Debris Storage Areas and Disposal

- Dispose of debris at the designated, temporary, storage area.
- The temporary storage area is located at the Pipe Plant Storage Facility.
- 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 Dump in Fair Field.
- All receipts are stored in a filing cabinet in the storm water office of all material and tonnage that have been hauled to the permanent disposal site.

7. 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.
- All employees involved in the storm drain maintenance have been trained on cleaning storm drains, cleaning the Vac Truck, cleaning the decant facility, and hauling the material away.

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 berms.

3. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Pipe Plant Decant Facility, 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 the shop at the Public Works Building. (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.

Monthly Visual Inspection

- Perform monthly visual inspections of the site and complete the form "High Priority Site Monthly Inspection Report".
- Review the SOP for the site.
- Look for evidence of spills, immediately clean up any spills if present. Look at containment structures to make sure they are in good shape. Look for loose trash that is around the site, clean up loose trash if there is any present. Look for uncontained material stockpiles. Look to see if there are any salts or other materials that are not stored properly.
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Semi-Annual Inspection

- Preform semi-annual inspections of the site twice a year and complete the form "High Priority Site Semi-Annual Inspection Report"
- Review both the SOP and the SWPPP (prevention plan) for the site. Review the site map, list of pollutant sources, BMP's, and maintenance procedures.
- Inspect any storm drain inlets to make sure they are clean and free from debris.
- Inspect vehicle maintenance and washing areas.
- Inspect for hazardous waste management areas.
- Inspect waste management areas.
- Inspect Spill Kit that is on site, to make sure it is readily available.
- Document the type of training that the operation and maintenance staff receive of the site
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Annual Visual Observation of Storm Water Discharge

- Preform an Annual Visual Observation of Storm Water Discharge of the site once a year during a storm event. Complete the form "High Priority Site Annual Visual of Storm Water Discharge.
- Describe the storm event
- Inspect the storm water inlets or the storm conveyance system for problems with the storm water, look for color, foam, sheen, turbidity, trash, sediment, and any other problems that there may be.
- Inspect containment structures.
- Inspect material stockpiles to ensure they are contained.

- Inspect site for any other issues may arise.
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

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 documents. 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: 801-785-2941
- Keep all outdoor work areas neat and tidy. Sweep around work areas after each shift and properly dispose of all waste.
- If possible, do not hose down outdoor work areas or trash/waste container storage areas. If these areas must be washed, ensure that the 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 waste 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).
- 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 Pipe Plant Decant Facility, 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 the 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.

Monthly Visual Inspection

- Perform monthly visual inspections of the site and complete the form “High Priority Site Monthly Inspection Report”.
- Review the SOP for the site.
- Look for evidence of spills, immediately clean up any spills if present. Look at containment structures to make sure they are in good shape. Look for loose trash that is around the site, clean up loose trash if there is any present. Look for uncontained material stockpiles. Look to see if there are any fertilizers and salts that are not stored properly.

- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Semi-Annual Inspection

- Preform semi-annual inspections of the site twice a year and complete the form "High Priority Site Semi-Annual Inspection Report"
- Review both the SOP and the SWPPP (prevention plan) for the site. Review the site map, list of pollutant sources, BMP's, and maintenance procedures.
- Inspect any storm drain inlets to make sure they are clean and free from debris.
- Inspect vehicle maintenance and washing areas.
- Inspect for hazardous waste management areas.
- Inspect waste management areas.
- Inspect Spill Kit that is on site, to make sure it is readily available.
- Document the type of training that the operation and maintenance staff receive of the site
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Annual Visual Observation of Storm Water Discharge

- Preform an Annual Visual Observation of Storm Water Discharge of the site once a year during a storm event. Complete the form "High Priority Site Annual Visual of Storm Water Discharge.
- Describe the storm event
- Inspect the storm water inlets or the storm conveyance system for problems with the storm water, look for color, foam, sheen, turbidity, trash, sediment, and any other problems that there may be.
- Inspect containment structures.
- Inspect material stockpiles to ensure they are contained.
- Inspect site for any other issues may arise.
- Make a note of any corrective action that needs to be taken and complete any follow-up inspection if needed for any corrective action.

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 documents. 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 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 yearly clean as needed
- Keep all outdoor work areas neat and tidy. Sweep around work areas after each shift and properly dispose of all waste.
- Remove animal waste and trash immediately after rodeos and other public activities at the site. Remove animal waste 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 the 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. Animal Waste

- Clean up all manure with rakes and power rakes, after rodeos and other public activities at the site. Remove animal waste regularly at other times of the year.
- Place manure in dump trucks and haul all waste to the landfill to dispose of it properly.
- Blowers and rakes are brought out again to make sure all manure is completely cleaned up.
- All garbage and manure are hauled to the landfill by dump truck and disposed there.

3. 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.

4. Vehicle & Equipment Washing and Storage

- Wash vehicles, equipment and mowers at: Pipe Plant Decant Facility, 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 semi-annual comprehensive inspections and complete inspection form.
- Look for evidence of spills and immediately clean them up.
- 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.
- Any observed problems in storm water runoff (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 semi-annual 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"

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 waste.
- 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 waste disposed of or recycled at an approved hazardous waste facility. Never clean tools over a storm drain or outside.

- Promptly clean up 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: Pipe Plant Decant Facility, 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 the 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 berms.

Employee Training

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

Monthly Visual Inspection

- Perform monthly visual inspections of the site and complete the form "High Priority Site Monthly Inspection Report".
- Review the SOP for the site.
- Look for evidence of spills, immediately clean up any spills if present. Look at containment structures to make sure they are in good shape. Look for loose trash that is around the site, clean up loose trash if there is any present. Look for uncontained material stockpiles. Look to see if there are any fertilizers and salts that are not stored properly.
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Semi-Annual Inspection

- Preform semi-annual inspections of the site twice a year and complete the form "High Priority Site Semi-Annual Inspection Report"
- Review both the SOP and the SWPPP (prevention plan) for the site. Review the site map, list of pollutant sources, BMP's, and maintenance procedures.
- Inspect any storm drain inlets to make sure they are clean and free from debris.
- Inspect vehicle maintenance and washing areas.
- Inspect for hazardous waste management areas.
- Inspect waste management areas.
- Inspect Spill Kit that is on site, to make sure it is readily available.
- Document the type of training that the operation and maintenance staff receive of the site
- Make a note of any corrective action that needs to be taken and complete any follow-up inspections if needed for any corrective actions.

Annual Visual Observation of Storm Water Discharge

- Preform an Annual Visual Observation of Storm Water Discharge of the site once a year during a storm event. Complete the form "High Priority Site Annual Visual of Storm Water Discharge.
- Describe the storm event
- Inspect the storm water inlets or the storm conveyance system for problems with the storm water, look for color, foam, sheen, turbidity, trash, sediment, and any other problems that there may be.
- Inspect containment structures.
- Inspect material stockpiles to ensure they are contained.

- Inspect site for any other issues may arise.
- Make a note of any corrective action that needs to be taken and complete any follow-up inspection if needed for any corrective action.

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 documents. 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 Green Waste Deposited in Street

1. Identify The Waste
   - Look for grass, leaves, or branches in the street—especially near curbs, gutters, orstorm drains.
2. Assess Size
   - **Small piles: Use a broom, shovel, or leaf blower to collect and bag.**
   - **Large piles:** Load into a truck or trailer for transport to green waste facility.
3. Clean the Area
   - Remove all debris from gutters and near storm drains
   - Sweep or rinse the area lightly if needed (do not rinse into storm drains)
4. Dispose Properly
   - Take green waste to an approved compost/green waste collection site.
5. Prevention and Public Education
   - Leave door hangers or notices if green waste was dumped by a resident.
   - Educate homeowners and landscapers about proper disposal with doorhanger:
     - Don't blow or sweep into the street.
     - Use green waste bins or compost piles.
6. City Clean-up
   - Twice a year, once in the spring and once in the fall the city host "City Clean-up Days". These are the days the city provides many dumpsters for residents to come and throw away trash that is around their homes. This includes fridges, ovens, stoves, couches, beds, wood, any metal, and green waste.
   - This event is advertised heavily, and the turnout is good.

Employee Training

- All applicable employees should be trained in green waste deposited in the streets and what todo.

Record Keeping and Documentation

- Keep a record of door hangers given out to residents.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Standard Operating Procedures (SOP) – Storm Water Pollutant Management for

Municipally- Sponsored Events & Cleanup (festivals, parades, ect…)

1. During the Event

- Monitor waste levels
- Watch for illegal dumping or improper waste disposal.

2. Post-Event Cleanup

- Clean up any trash that is left behind after bins and other equipment have been removed.
- Sweep all sidewalks, gutters, streets, and parking lots involved in the event clean.
- Conduct a full inspection of the event site to make sure everything is cleaned up and there is no danger to water quality.
- Remove any BMP's if any were installed to protect the storm drain.

3. Record Keeping and Documentation

Keep a list of any Illicit discharges that may happen.

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX E - STANDARD FORMS AND CHECKLISTS

Public Comment Form

Dry Weather Outfall Screening Form

Long-Term Storm Water Management Inspection Report

Pre-Construction Onsite Meeting Report

Construction General Permit SWPPP Review Report

Common Plan Permit SWPPP Review Report

Construction Oversite Inspection Report

Storm Water Administrative Citation Report

Notice of Termination Report

Spill Response Form

High Priority Facility Monthly Inspection Report

High Priority Facility Semi-Annual Inspection Report

High Priority Facility Annual Visual Assessment of Storm Water Discharge Report

MS4 Owned Storm Water Control Inspection Report

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, 323 West 700 South, 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.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Dry Weather Outfall Screening Form	
Name of City or County: Pleasant Grove	Permit Number: 753
Date of Screening (MM/DD/YY):	Time of Screening:
Weather Conditions: ☐ Sunny/Clear ☐ Cloudy/Overcast ☐ Rainy/Raining ☐ Snow/Snowing	
Sampling performed by:	

Outfall Description	
Outfall Location:	Permit Number: 753
Outfall Type/Material: ☐ Closed Pipe (check): ☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Other: ☐ Open Channel (check): ☐ Concrete ☐ Earthen ☐ Grassy ☐ Other:	Outfall Diameter/Dimensions:
Receiving stream and watershed name: Utah Lake	
Land use/industries in drainage area:	
Photos?: ☐ Yes ☐ No	

Field Observations and Measurements
Flow from outfall? ☐ Yes ☐ No Flow Description: ☐ Trickle ☐ Moderate ☐ Substantial
Odor: ☐ None ☐ Sewage ☐ Sulfide (rotten eggs) ☐ Petroleum/gas ☐ Rancid/sour ☐ Other Relative severity: ☐ 0-None ☐ 1-Faint ☐ 2-Easily Detected ☐ 3-Noticeable from a distance
Color: ☐ Clear ☐ White ☐ Gray ☐ Orange/Rust ☐ Red ☐ Yellow ☐ Green ☐ Brown/Black ☐ Other Relative severity: ☐ 0-None ☐ 1-Faint ☐ 2-Clearly visible in bottle ☐ 3-Clearly visible in flow
Turbidity: ☐ None ☐ Cloudy ☐ Opaque ☐ Silty ☐ Muddy ☐ Other Relative severity: ☐ 0-None ☐ Slight cloudiness ☐ 2-Cloudy ☐ 3-Opaque
Floatable: ☐ None ☐ Sewage ☐ Petroleum (oil sheen) ☐ Suds ☐ Other Relative severity: ☐ 0-None ☐ 1-Few/slight ☐ 2-Some ☐ 3-Heavy
Flow Temperature (°F):

Water Quality Sampling			
Field Test Kit Manufacturer:		Model:	
Fluoride (mg/L):		Fecal Coliform (MPN/100ml):	
Surfactants (mg/L):		Analysis Comments:	
Grab sample for lab? (fluoride/surfactants) ☐ Yes ☐ No		Bacteria Grab sample for lab? (fecal coliform) ☐ Yes ☐ No	
Grab Sample ID:		Bacteria Grab Sample ID:	

Outfall Potential for Illicit Discharge:
☐ Unlikely - or- No Flow ☐ Possible (presence of two or more indicators)
☐ Suspect (one or more indicators with severity of 2 or 3) ☐ Obvious - or- Confirmed

Pleasant Grove
Utah's City of Trees

Long Term Storm Water Management Inspection Report

Development Site:	Business Name:
Inspection Date:	Time of Inspection:
Inspector Name(s):	
Site Address:	
Contact Person:	Phone Number:

Long Term (Post Construction) Storm Water Management Plan Report

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 soil, storm drainage facilities, or onto adjacent properties

0=Good 1=Adequate 2=Poor 3=Missing

Long Term Plan Reviewed: ☐ Yes ☐ No

The Plan is Applicable to Site	0☐	1☐	2☐	3☐	NA☐
Objectives are Clearly Stated	0☐	1☐	2☐	3☐	NA☐
BMP's are Clearly Shown	0☐	1☐	2☐	3☐	NA☐
Storm Water Infrastructure Clearly Shown	0☐	1☐	2☐	3☐	NA☐
Owner or Responsible Operator Listed with Contact Info	0☐	1☐	2☐	3☐	NA☐

Comments:

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

Parking Lot, Gutter Street:

1. Trash and Debris in Parking Lot, Gutters, and Street	0☐	1☐	2☐	3☐	NA☐
2. Evidence of Erosion	0☐	1☐	2☐	3☐	NA☐
3. Dumpsters Enclosure are in Good Condition	0☐	1☐	2☐	3☐	NA☐
4. Excessive Landscape Waste/grass clippings, leaves, etc...	0☐	1☐	2☐	3☐	NA☐

Storm Drain Inlets:

1. Excessive Trash, Debris, or Sediment in Inlets	0☐	1☐	2☐	3☐	NA☐
2. Evidence of Pollutants Making it into the Storm Drain Inlet	0☐	1☐	2☐	3☐	NA☐
3. Storm Drain Inlets are Working Properly	0☐	1☐	2☐	3☐	NA☐

Pipes:

1. Excessive Trash, Debris, or Sediment in Inlets	0☐	1☐	2☐	3☐	NA☐

Treatment BMP's(hydrodynamic separators, detention basins, underground chambers, sand filters, ect...)

1. Excessive Trash, Debris, or Sediment in Treatment BMP	0☐	1☐	2☐	3☐	NA☐
2. Evidence of Pollutants Making it Past Treatment BMP	0☐	1☐	2☐	3☐	NA☐
3. Evidence of Erosion	0☐	1☐	2☐	3☐	NA☐
4. Vegetative Cover	0☐	1☐	2☐	3☐	NA☐
5. Treatment BMP Seems to be Working Properly	0☐	1☐	2☐	3☐	NA☐
6. Excessive Trash, Debris, Sediment in Detention Area	0☐	1☐	2☐	3☐	NA☐

Outlet to City Storm Drain					
1. Excessive Trash, Debris, or Sediment in Outlet	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
2. Stable Conveyance into Facility	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
3. Evidence of Erosion	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
4. Outlet Looks Clean and is Free from Pollutants	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

All Items Listed Above Have Been Inspected **Yes** ☐ **NO** ☐

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.

If there are any corrective actions listed, those items must be completed within the deadline given in the "Comments and or Corrective Actions" section. If the items are not completed within the given deadline the site will receive a warning and be granted another deadline to fix any issues. If again the items have not been corrected another warning and deadline will be given. By the end of that deadline, if the items have not been corrected the city may issue fines to the site.

The Following is for City Use:

Inspector:			
(Print Name)	(Title)	(Signature)	(Date)
Operator:			
(Print Name)	(Title)	(Signature)	(Date)

Storm Water On-Site
Pre-Construction Meeting

BACKGROUND INFORMATION			
Site Name:			CGP☐ CPP☐ UPDES Permit #
Site Address:			
Local Jurisdiction or County: Pleasant Grove City			High Priority Yes☐ No☐
Permit Effective Date:		Permit Expiration Date:	
Total Project Area:		Total Disturbed Area:	
Project Type: ☐*Residence* ☐*Subdivision* ☐*Commercial Site* ☐*Capital Project* ☐*Flag Lot*			

OPERATOR CONTACT INFORMATION			
	NAMES	**PHONE NUMBERS**	**E-MAIL**
Owner:			
Operator:			
SWPPP Contact:			
Important Contacts:			

Inspection Report

Was a review of the site design conducted? ☐Yes ☐No

Comments:

Were planned operations at the construction site reviewed? ☐ Yes ☐ No

Comments:

Were BMP's that will be used during the construction phase reviewed? ☐ Yes ☐ No

Which BMP's will be used during the construction phase?

Were post construction BMP's reviewed? ☐ Yes ☐ No				
Which post construction BMP's are planned to be used?				
Was the Construction enforcement procedure reviewed with the operator? ☐ Yes ☐ No				
Inspector:				
	(Print Name)	(Title)	(Signature)	(Date)
Operator:				
	(Print Name)	(Title)	(Signature)	(Date)

UPDES CONSTRUCTION GENERAL PERMIT (CGP) UTRC00000 and COMMON PLAN PERMIT (CPP) UTRH00000 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) COMPLIANCE EVALUATION FORM(S)

Site Name: _____ UPDES Permit #: _____

SECTION 1: Instructions for SWPPP Evaluations

1) The SWPPPs being reviewed with this document are evaluated for their compliance with the corresponding UPDES construction storm water discharge permit; for additional information on those permits, go to the DWQ construction storm water permitting webpage: https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits.
2) The appropriate permit is identified by the applicant during permitting but must be confirmed by evaluation in Section 2 of this form (see below), to demonstrate applicability of coverage under either of the UPDES construction storm water permits:
   a) Construction General Permit (CGP), UTRC00000 (viewable through this link)
   b) Common Plan Permit (CPP), UTRH00000 (viewable through this link)
3) If the appropriate UPDES permit has been selected for coverage and the applicable complete SWPPP has been submitted for review with a complete application, then the SWPPP evaluation must move forward.
4) Per Utah Code Title19-Chapter5-Section108.3, the SWPPP reviewer shall complete the first review of the SWPPP within 14 business days after the day on which the applicant submits a complete SWPPP and application for local storm water permit coverage (if local permit coverage is required).
5) A "No" answer for any questions in the following SWPPP Evaluations (for either CGP in Section 3, or CPP in Section 4) will amount to an incomplete SWPPP and will be returned for modification. Questions answered "N/A" (not applicable) do not affect the approval of the SWPPP unless the reviewer determines it was an incorrect answer to a given question. The final question on both forms is an internal question for MS4s and does not affect approval.
6) Per Utah Code Title19-Chapter5-Section108.3, any non-compliance in the SWPPP (which requires modification to bring the SWPPP into compliance) requires a specific request for modification to be provided to the applicant; such requests must be thorough such that they will bring the SWPPP into compliance upon correction, and must include citations to local ordinances or state/federal law that require the modification. Furthermore, these requested modifications must be logged in an index of requested modifications. Space is provided for listing modifications or can be attached separately.
7) Per Utah Code Title19-Chapter5-Section108.3, the SWPPP reviewer has 14 business days after the day on which the operator submits the modified SWPPP to complete the review of the SWPPP.

NOTE: Pre-Construction SWPPP Review Checklists are a requirement of all UPDES MS4 Permits (Part 4.2.4.3). As such, utilizing these SWPPP Evaluation forms will meet that requirement. Operators and SWPPP Developers can utilize these forms to ensure compliance prior to submitting.

SECTION 2: Confirmation of Appropriate UPDES Construction Storm Water Permit Coverage

1) Will the project disturb at least 1-acre of land? (CGP Part 1.1.2 and CPP Part 1.1)	Yes ☐ | No ☐
2) Is the project part of a Common Plan of Development or Sale (CPoD) that will collectively disturb at least 1-acre of land? (CGP Part 1.1.2 and CPP Part 1.1)	Yes ☐ | No ☐
3) If CPoD, is the lot a single residential lot no more than 1-acre of disturbance? (CPP Part 1.1)	Yes ☐ | No ☐ N/A ☐
How to determine appropriate UPDES construction storm water permit coverage: If **"No"** to both questions **#1** and **#2**, then **no UPDES construction storm water permit is required.** If **"Yes"** to question **#1** and **"No"** to question **#2**, then the project **must obtain CGP (UTRC00000) coverage** and **Section 3** of this evaluation form would be applicable for SWPPP review. If **"No"** to question **#1** and **"Yes"** to both questions **#2** and **#3**, then the project **may obtain CPP (UTRH00000) coverage** and **Section 4** of this evaluation form would be applicable for SWPPP review; **however** the CPP allows only one lot per permit, so if multiple lots in the CPoD will be developed, the operator **may choose to obtain separate CPP coverage for each lot or cover multiple lots under one CGP (UTRC00000) permit**, in which case **Section 3** of this evaluation form would be applicable for SWPPP review. **NOTE: Commercial Common Plans of Development or Sale must be covered under the CGP (UTRC00000).** As such, if **"No"** to question **#1, "Yes"** to question **#2**, and **"No"** to question **#3** (or the **project desires to cover multiple residential lots under a single permit**, then the **CPP (UTRH00000) is not valid and the project must obtain CGP (UTRC00000) coverage** and **Section 3** of this evaluation form would be applicable for SWPPP review).	
4) At the completion of Section 2, has the appropriate UPDES Construction Storm Water Permit coverage been confirmed and obtained? **NOTE:** If **"No"**, then the applicant must resubmit the application with the appropriate permit coverage obtained and included in a revised SWPPP that was written in compliance with the appropriate corresponding UPDES permit.	Yes ☐ | No ☐

If **"Yes"** to question **#4, complete the review of the submitted SWPPP for the appropriate UPDES Construction Storm Water Permit coverage using Section 3 (for CGP) or Section 4 (for CPP).**

Reviewer *(Print Name)*: _____ Title: _____ Signature: _____ Date: _____

UPDES CONSTRUCTION GENERAL PERMIT (CGP) UTRC00000
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) EVALUATION FORM
SECTION 3

SWPPP Review # _____ Common Plan Permit SWPPP Reviewed in Section 4? **Yes** ☐ | **No** ☐

Site Name: _____ UPDES Permit #: _____

Site Address: _____

Local Jurisdiction or County: _____ Total Project Area (acres): _____ Total Disturbed Area (acres): 0

Permit Effective Date: _____ Permit Expiration Date: _____

Project Type: Residential/Subdivision ☐ Commercial ☐ Industrial ☐ Linear (Road/Pipe/Power) ☐ Land Disturbance ☐

OPERATOR CONTACT INFORMATION

Operator: _____ Phone: _____ Email: _____

On-site Facility Contact: _____ Phone: _____ Email: _____

Important Contact: _____ Phone: _____ Email: _____

Owner: _____ Phone: _____ Email: _____

CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION

1) Is the Storm Water Team (including other site Operators) identified by name and position in the SWPPP, including their SWPPP responsibilities and trainings? (CGP Part 7.3.1) **NOTE:** Storm Water Team responsibilities that must be included (CGP Part 6.1): **(1)** design, installation, maintenance, and/or repair of storm water controls (including pollution prevention controls); **(2)** application and storage of treatment chemicals (if applicable); **(3)** conducting inspections (CGP Part 4.1); and **(4)** taking corrective actions (CGP Part 5)	Yes ☐ | No ☐
2) For any Storm Water Team member identified as being responsible for conducting inspections (CGP Part 4), has the SWPPP detailed their training/qualifications for conducting inspections in compliance with CGP Part 6.3? (CGP Part 7.3.1)	Yes ☐ | No ☐
2) For any Storm Water Team member identified as being responsible for conducting inspections (CGP Part 4), has the SWPPP detailed their training/qualifications for conducting inspections in compliance with CGP Part 6.3? (CGP Part 7.3.1	Yes ☐ | No ☐
3) If the project is >5-acres in disturbance, has a perennial surface water within 50 feet of the project, or has a steep slope (70% or 35 degrees, or more), was a "qualified" SWPPP writer listed in the storm water team as having the responsibility and qualification to write/certify the SWPPP? (CGP Part 7.2 and 7.2.1.a-e)	Yes ☐ | No ☐ N/A ☐
4) Are estimates provided for the size of the property (in acres, or length in miles if a linear site) and the total area to be disturbed by construction (including on-site and off-site support activity areas) to the nearest 1/4 acre (or 1/4 mile if linear)? (CGP Part 7.3.2.b-c)	Yes ☐ | No ☐
5) Does the plan describe the nature of construction activities, including the age or dates of past renovations for structures undergoing demolition (CGP Part 7.3.2.a)	Yes ☐ | No ☐
6) Does the plan describe any on-site and off-site construction support activities areas (CGP Part 1.2.1.b)? (CGP Part 7.3.2.d)	Yes ☐ | No ☐ N/A ☐
7) Is there a description of the construction schedule for: **(1)** commencement of activities, **(2)** temporary/permanent cessation of construction activities, **(3)** temporary/final stabilization of exposed areas of the site, and **(4)** removal of temporary storm water controls and construction equipment or vehicles and the cessation of construction related pollutant-generating activities. (CGP Part 7.3.2.e)	Yes ☐ | No ☐
8) Are the business days and hours for the project identified in the SWPPP? (CGP Part 7.3.2.g)	Yes ☐ | No ☐
9) Is a legible Site Map (or maps) included (in an attachment of the SWPPP) which shows the permit required features of the site? (CGP Part 7.3.3) **NOTE:** Required map features include: **a)** boundaries of the property; **b)** locations where construction activities will occur, including: **i)** earth-disturbing and demolition activities (phasing noted), **ii)** approximate slopes before and after grading (steep slopes noted), **iii)** stockpile locations (sediment, soil, materials, etc.), **iv)** any Waters of the State crossings, **v)** designated vehicle exit points (onto paved roads), **vi)** structures and other impervious surfaces upon completion of construction, **vii)** on-site and off-site construction support activity; **c)** all Waters of the State within 1-mile of the site's discharge point (and the impairment/high-quality status of the water body); **d)** type and extent of pre-construction ground cover; **e)** drainage patterns of storm water and authorized non-storm water before and after grading; **f)** storm water and authorized non-storm water discharge locations (including discharges to storm sewer inlets and outfalls to Waters of the State); **g)** pollutant-generating activities (CGP Part 7.3.2.f); **h)** storm water controls (including natural buffers and shared controls); **i)** storage of polymers, flocculants, or other treatment chemicals.	Yes ☐ | No ☐
10) If the site discharges into a Municipal Separate Storm Sewer System (MS4) prior to reaching receiving waters of the state, is the MS4 listed? (CGP Part 1.4 and Part 4.8)	Yes ☐ | No ☐ N/A ☐
11) Are the first downstream receiving waters of the state listed in the SWPPP, identifying the impairment (and TMDL status) or high-quality (Category 1 or 2) status of the water body? (CGP Part 3.2)	Yes ☐ | No ☐
12) If the receiving water is identified as impaired, does the SWPPP list the impairment causing pollutants for the water body, and does it address the control of those impairment causing pollutants in the plan (or state that no impairment causing pollutants are anticipated on-site)? (CGP Part 3.2)	Yes ☐ | No ☐ N/A ☐
13) If the receiving water is identified as high-quality, does the plan describe precautions taken to minimize pollution effects in the water body? (CGP Part 3.2)	Yes ☐ | No ☐

CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION (continued)	
14) Are all potential pollutant-generating activities listed, with the pollutants/constituents listed and their locations identified either by description or reference to the site map? (CGP Part 7.3.2.f)	Yes ☐ | No ☐
15) For each potential pollutant and/or pollutant-generating activity listed, does the SWPPP include: a description of the specific controls to meet requirements of the CGP (CGP Part 2.2 and 2.3), the design specifications (with reference to manufacturer or BMP manuals/ordinances being followed), routine maintenance specifications, and the projected schedule for installation/implementation? (CGP Part 7.3.5.a)	Yes ☐ | No ☐
16) Are the presence/absence of all authorized non-stormwater discharges (CGP Part 1.2.2) identified, with a description of measures used to reduce them or prevent them from contributing pollutants to discharges? (CGP Part 7.3.4)	Yes ☐ | No ☐
17) If the project anticipates a need to dewater, does the plan describe the scope of dewatering and the BMPs used to manage those practices?	Yes ☐ | No ☐ N/A ☐
18) If dewatering is planned, has the appropriate UPDES Dewatering permit coverage been obtained and proof of coverage included in the "Additional Information" attachment of the SWPPP? (CGP Part 1.2.4 and 2.3.7)	Yes ☐ | No ☐ N/A ☐
19) If the project is within 50 feet of a Water of the State (CGP Part 2.2.1 and A.1), was the selected natural buffers compliance alternative (CGP Part A.2.1), or exception (CGP Part A.2.2) identified, and were the required descriptions of equivalent sediment controls, alternatives, and/or infeasibility provided? (CGP Part 7.3.5.b.(1) and A.2.3.)	Yes ☐ | No ☐ N/A ☐
20) Are the selected BMPs for erosion and sediment control (CGP Part 2.2) identified and described, with instructions for installation, maintenance, responsible staff, and design specifications either in the main body of the SWPPP or as an attachment? (CGP Part 7.3.5.a) **NOTE:** CGP requires the following elements to be addressed in the SWPPP: **a)** Preserve vegetation where possible (CGP Part 2.2.2); **b)** Install sediment controls along downslope perimeter areas (CGP Part 2.2.3); **c)** Minimize sediment track-out (CGP Part 2.2.4 and 7.3.5.b. (4)); **d)** Manage stockpiles with perimeter controls and locate away from storm water conveyances (CGP Part 2.2.5); **e)** Minimize dust (CGP Part 2.2.6); **f)** Minimize steep slope disturbances (CGP Part 2.2.7); **g)** Preserve topsoil (CGP Part 2.2.8); **h)** Minimize soil compaction where final cover is vegetation (CGP Part 2.2.9); **i)** Protect storm drain inlets (CGP Part 2.2.10); **j)** Slow down runoff with erosion controls and velocity dissipation devices (CGP Part 2.2.11); **k)** Appropriately design any sediment basins or impoundments (CGP Part 2.2.12 and 7.3.5.b.(4)); **l)** Follow requirements for any treatment chemicals (CGP Part 2.2.13); **m)** Stabilize exposed portions of site with 14-days of inactivity (CGP Part 2.2.14)	Yes ☐ | No ☐
21) If the project is linear (CGP Part 2.2.3), are the areas where perimeter controls are not feasible documented (to support the determination) and are the other practices being implemented to minimize pollutant discharges described? (CGP Part 7.3.5.b.(2))	Yes ☐ | No ☐ N/A ☐
22) Are the specific vegetative/non-vegetative final stabilization measures (CGP Part 2.2.14) described, including location information and deadlines for implementation in accordance with CGP Part 2.2.14.a.? (CGP Part 7.3.5.b.(6))	Yes ☐ | No ☐
23) Are spill prevention and response procedures (CGP Part 1.3.5 and 2.3.6) included that have procedures and responsible parties identified for stopping, containing, cleaning, and reporting spills, leaks and other releases (including notification of appropriate parties if the release contains a hazardous substance or reportable quantity)? (CGP Part 7.3.5.b.(7))	Yes ☐ | No ☐
24) Are the selected BMPs for pollution prevention control (CGP Part 2.3) identified and described, with instructions for installation, maintenance, responsible staff, and design specifications either in the main body of the SWPPP or as an attchment? (CGP Part 7.3.5.a) **NOTE:** CGP requires the following to be described in the SWPPP: **a)** Equipment and vehicle fueling (CGP Part 2.3.1); **b)** Equipment and vehicle washing (CGP Part 2.3.2); **c)** Storage, handling, and disposal of building products and wastes (CGP Part 2.3.3); **d)** Washing of stucco, paint, concrete, form release oils, curing compounds, etc. (CGP Part 2.3.4); **e)** Properly applying fertilizers (CGP Part 2.3.5)	Yes ☐ | No ☐
25) Are waste management procedures (CGP Part 2.3.3) described for handling, storing, and disposing of wastes generated on-site, including documented infeasibility and alternative practice statements for violating setback requirements (CGP Part 2.3.3.c(2)(ii)) or claims of exceptions from CGP Part 2.3.3.e? (CGP Part 7.3.5.b.(8))	Yes ☐ | No ☐
26) If this project is claiming to be an "Emergency related project" special condition, does the plan include a description of the nature of the public emergency and why immediate authorization was necessary? (CGP Part 1.4.1.)	Yes ☐ | No ☐ N/A ☐
27) If there are any Storm Water Drainage Wells (subclass of UIC Class V Injection Wells) planned for the site, does the plan provide documentation of any contact planners have had with DWQ for implementing the requirements for underground injection wells in the Safe Drinking Water Act and DEQ's implementing regulations (Utah Admin. Code R317-7)? (CGP Part 7.3.7.a)	Yes ☐ | No ☐ N/A ☐
28) If treatment chemicals (CGP Part 2.2.13) are planned for the project, are the required elements described (soil types on-site and from fill materials, list of treatment chemicals planned and justification that they are suitable for the site's soil characteristics, dosage of treatment chemicals or the methodology used to determine dosage, information from Safety Data Sheets (SDS), schematic drawings of enhanced controls or treatment systems, description of storage of chemicals (CGP Part 2.2.13.c), references to applicable local requirements for the use of these chemicals, copies of manufacturers specifications regarding their use, and any training that personnel who handle and apply chemicals have received prior to use of those chemicals)? (CGP Part 7.3.5.b.(5))	Yes ☐ | No ☐ N/A ☐
29) Are the inspection, maintenance, and corrective actions procedures detailed in the plan (per CGP Part 2.1.4, Part 4, and Part 5), including the inspection schedule (CGP Part 4.2, Part 4.3, or Part 4.4), the location of the rain gauge or address of the weather station for rainfall monitoring (if applicable to the schedule), and any maintenance or inspection checklists or forms? (CGP Part 7.3.6.a-d)	Yes ☐ | No ☐

CONSTRUCTION GENERAL PERMIT (CGP) SWPPP EVALUATION (continued)	
30) If the project discharges to a water body that is either impaired (for sediment or nutrients) or high-quality (CGP Part 3.2), is the increased inspections frequency of every 7 calendar days and within 24-hours of a 0.5-inch storm event selected? (CGP Part 4.3)	Yes ☐ | No ☐ N/A ☐
31) Is the reduced inspections frequency for stabilized areas, arid/semi-arid/drought-stricken areas, or frozen conditions selected with appropriate description and documentation of the applicability of that frequency? (CGP Part 4.4)	Yes ☐ | No ☐ N/A ☐
32) Was the SWPPP certified by the duly authorized signatories of both the project (property) owner and operator ? (CGP Part 7.3.8, Part 9.9.1-2)	Yes ☐ | No ☐
33) If the project is >5-acres in disturbance, has a perennial surface water within 50 feet of the project, or has a steep slope (70% or 35 degrees, or more), was the SWPPP written/certified by a "qualified" SWPPP writer? (CGP Part 7.2 and 7.2.1.a-e)	Yes ☐ | No ☐ N/A ☐
34) Is a copy of the NOI that was submitted via the CDX NeTCGP for this project included in the SWPPP? (CGP Part 7.3.9.a.) **NOTE:** This would not be applicable if the SWPPP is being reviewed prior to the operator obtaining permit coverage.	Yes ☐ | No ☐ N/A ☐
35) Is a copy of the Authorization to Discharge Letter received from NeT (with the assigned NPDES ID) included in the SWPPP? (CGP Part 7.3.9.b.) **NOTE:** This would not be applicable if the SWPPP is being reviewed prior to the operator obtaining permit coverage.	Yes ☐ | No ☐ N/A ☐
36) Is an example of the inspection report (form) that will be utilized for the project included in the SWPPP? (CGP Part 4.7.1)	Yes ☐ | No ☐
37) Is an example of the corrective action log that will be utilized for the project included in the SWPPP? (CGP Part 5.4)	Yes ☐ | No ☐
38) Is an example of the training log included in the SWPPP that addresses the specific training requirements of CGP Part 6.2 (general functions) and 6.3 (conducting inspections)? (CGP Part 6)	Yes ☐ | No ☐
39) Are any certifications for SWPPP inspectors or SWPPP writers included in the SWPPP? (CGP Part 6.3)	Yes ☐ | No ☐
40) Are any applicable dewatering, stream alteration, or fugitive dust control permits included in the SWPPP? (CGP Part 1.2.4)	Yes ☐ | No ☐ N/A ☐
41) Do all erosion, sediment, and pollution control BMPs (CGP Part 2.2 and 2.3) in the SWPPP include thorough instructions and/or detail specifications for the installation, use, maintenance, and inspection? (CGP Part 7.3.5.a.(1)-(4))	Yes ☐ | No ☐
42) Is a copy of the UPDES Construction General Permit (UTRC00000) included in the SWPPP, or a link by which the permit can be easily accessed by the storm water team if managing the SWPPP electronically? (CGP Part 7.3.9.c.)	Yes ☐ | No ☐
43) **At the completion of this review, is the project's SWPPP now approved and accepted as being in compliance with storm water regulations? If not, specific comments will be provided below (or attached on a separate sheet if corrections are longer than the space provided) to clearly state which corrections are needed to bring the SWPPP into compliance and achieve approval on the next review cycle, if corrected to the satisfaction of the reviewer.**	Yes ☐ | No ☐
44) Is this site designated by the MS4 as "Priority" based on the following factors: Soil erosion potential; Site slope; Project size and type; Sensitivity of receiving water bodies (impaired or high-quality waters); Proximity to receiving water bodies; or, Non-storm water discharges and past record of non-compliance by the operators of the construction site? **NOTE:** This is an internal question for MS4s to meet MS4 Permit requirements for prioritizing certain construction sites for increased inspections and does not affect the approval of the SWPPP. (MS4 Permit Part 4.2.4.3.5) List the applicable prioritization factors:	Yes ☐ | No ☐ N/A ☐

COMMENTS AND CORRECTIONS FOR ACHIEVING SWPPP COMPLIANCE
(attach an additional comments page if more space is needed)

Reviewer *(Print Name)*: _____ Title: _____ Signature: _____ Date: _____

UPDES CONSTRUCTION GENERAL PERMIT (CGP) UTRC00000
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) EVALUATION FORM
SECTION 3

SWPPP Review # _____ Common Plan Permit SWPPP Reviewed in Section 4? **Yes** ☐ | **No** ☐

Site Name: _____ UPDES Permit #: _____

Site Address: _____

Local Jurisdiction or County: _____ Total Project Area (acres): _____ Total Disturbed Area (acres): 0

Permit Effective Date: _____ Permit Expiration Date: _____

OPERATOR CONTACT INFORMATION

Operator: _____ Phone: _____ Email: _____

On-site Facility Contact: _____ Phone: _____ Email: _____

Important Contact: _____ Phone: _____ Email: _____

Owner: _____ Phone: _____ Email: _____

COMMON PLAN PERMIT (CPP) SWPPP EVALUATION

1) Does the SWPPP include the following information: project name, address, and latitude/longitude, and UPDES Permit number?	Yes ☐ | No ☐
2) Does the project meet eligibility criteria for the Common Plan Permit, including the 1-acre maximum disturbance, residential land-use stipulation, multiple site coverage applications (requiring a different permit number for each lot), high-risk sites (as determined by the MS4, if applicable), and limitations of the CPoD (common plan purpose not yet achieved)? (CPP Part 1.1.1-6)	Yes ☐ | No ☐
3) Are the SWPPP contacts listed in the plan, with contact information (name, address, telephone number, email address) for owner, general contractor, or any other party that affects implementation of the SWPPP? (CPP Part 4.2.1)	Yes ☐ | No ☐
4) Does the SWPPP identify an on-site SWPPP sign? (CPP Part 1.9)	Yes ☐ | No ☐
5) If dewatering is anticipated on-site, does the SWPPP identify whether on-site infiltration will be utilized or if an UPDES dewatering permit has been obtained? (CPP Part 2.7)	Yes ☐ | No ☐
6) Does the SWPPP list all the anticipated allowable non-storm water discharges at the site, and describe control methods to be utilized to manage those discharges in a manner that will minimize the discharge of pollutants? (CPP Part 1.3, 2.4.5, and 2.9)	Yes ☐ | No ☐
7) Does the SWPPP identify whether phasing (minimizing the total exposure of disturbed soil at a given time) is possible? (CPP Part 2.3.1)	Yes ☐ | No ☐
8) If phasing is planned, does the SWPPP show the locations on the site map and a summary of the delayed disturbances in the planned phasing? (CPP Part 2.3.1)	Yes ☐ | No ☐ N/A ☐
9) Does the SWPPP identify which perimeter sediment control BMPs will be used to prevent sediment from leaving the site? (CPP Part 2.1.2 and 2.3)	Yes ☐ | No ☐
10) If the project is within 50-feet of a waterbody, does the SWPPP contain descriptions of the placement and dimensions of the 50-foot natural buffer, the substitute control measures, or detailed explanations of why either could not be applied? (CPP Part 2.3.5 and 4.2.4)	Yes ☐ | No ☐ N/A ☐
11) If there are critical or sensitive areas located or adjacent to the site, does the plan specify a BMP to separate or isolate those areas with environmental fencing or another practice? (CPP Part 2.2)	Yes ☐ | No ☐ N/A ☐
12) Does the SWPPP describe what track out controls will be used to prevent dirt from being tracked on streets as vehicles leave the site? (CPP Part 2.4.1)	Yes ☐ | No ☐
13) Does the SWPPP identify whether any storm drain inlets are down gradient of the site and describe what inlet protection BMPs will be used (if inlets are present)? (CPP Part 2.1.3)	Yes ☐ | No ☐
14) Are curb ramps proposed for the site which are made of a non-dirt material that will not wash away in storm water? (CPP Part 2.4.2)	Yes ☐ | No ☐ N/A ☐
15) Are stockpiles or spoil piles planned for the site which have a BMP listed that can contain runoff from those piles? (CPP Part 2.1.1)	Yes ☐ | No ☐ N/A ☐
16) Does the project have a BMP identified to contain, dry, and dispose of any wash water from concrete, masonry, stucco, and paint (water-based)? (CPP Part 2.4.5 and 2.9.1)	Yes ☐ | No ☐
17) Does the SWPPP include waste management procedures including soil removal, clearing debris removal, demolition removal, trash disposal, construction-waste disposal, liquid waste disposal and sanitary waste disposal? (CPP Part 2.4.3, 2.4.4, 2.9, and 4.2.7)	Yes ☐ | No ☐

COMMON PLAN PERMIT (CPP) SWPPP EVALUATION (continued)	
18) Are spill prevention and response measures detailed in the SWPPP with responsible parties identified? (CPP Part 2.8.3)	Yes ☐ | No ☐
19) Does the SWPPP describe methods for the storage of construction materials that minimize exposure of materials with a pollution risk (certain building and landscaping materials, pesticides, herbicides, detergents, etc.)? (CPP Part 2.4.3 and 2.8.2)	Yes ☐ | No ☐
20) If the site has steep slopes (>70%), does the plan include measures to either stabilize those slopes using an appropriate BMP or to avoid disturbing those steeper areas? (CPP Part 2.3.2)	Yes ☐ | No ☐ N/A ☐
21) If the site has conditions that can cause stormwater flows with highly erosive velocities, does the plan describe BMPs to control those flows and minimize sediment transport? (CPP Part 2.3.3 and 2.3.4)	Yes ☐ | No ☐ N/A ☐
22) If the site has a need for dust control (either regulatory, such as in non-attainment areas for air quality, or for practical reasons) does the plan describe BMPs for mitigating fugitive dust? (CPP Part 1.3.2)	Yes ☐ | No ☐ N/A ☐
23) If there are disturbed areas that will be left inactive for 14-days, does the plan provide a method of temporary/permanent stabilization for those areas? (CPP Part 2.6)	Yes ☐ | No ☐ N/A ☐
24) If the site is planned to be sold without landscaping, does the SWPPP include the installation of downslope erosion and sediment controls for the lot, prior to sale? (CPP Part 1.7.2)	Yes ☐ | No ☐ N/A ☐
25) Are the sequence and estimated dates of construction activities listed, which include the start and end of excavation activities, any temporary or permanent cessation of earth-disturbing activities, and the start and end of landscaping if tis is done as part of the construction activity before the home is sold? (CPP Part 4.2.2.a-c)	Yes ☐ | No ☐ N/A ☐
26) Are a site map or chart (may be hand drawn) included in the SWPPP which shows the permit required features? (CPP Part 4.2.3.a-h) NOTE: Permit required map features include: **a)** Boundaries of property (CPP Part 4.2.3.a); **b)** Boundaries of soil surface disturbances, including any outside of the property boundaries (CPP Part 4.2.3.b); **c)** Slopes, including areas of steep slopes (CPP Part 4.2.3.c); **d)** Locations of stockpiles of soils, storage of construction materials, portable toilets, trash containers, concrete washout pits or containers, egress points, and track out pads (CPP Part 4.2.3.d); **e)** Water bodies, wetlands, and natural buffer areas (CPP Part 4.2.3.e); **f)** Locations and types of BMPs (or storm water control measures) for the control and/or treatment of storm water flowing onto, through, and/or off-site (CPP Part 4.2.3.f); **g)** Locations of storm water inlets and/or storm water discharge points going off-site (CPP Part 4.2.3.g); **h)** Areas that will be temporarily or permanently stabilized during the construction period (CPP Part 4.2.3.h)	Yes ☐ | No ☐
27) Does the SWPPP include a list of the construction site pollutants that are anticipated on-site, including the pollutant-generating activities and an inventory of pollutants for each pollutant-generating activity? (CPP Part 4.2.6)	Yes ☐ | No ☐
28) Is a spill prevention and response plan included in the SWPPP which details the measures to reduce the chance of spills, stop the source of spills, contain and cleanup spills, and train personnel responsible for spill prevention and control? (CPP Part 2.8.3)	Yes ☐ | No ☐
29) Are the inspections schedule and procedures described in the SWPPP, including responsible (qualified CPP Part 3.1) staff and time frames for making corrections? (CPP Part 3.2 and 3.3)	Yes ☐ | No ☐
30) Is the subcontractors training list included in the SWPPP for all each subcontractor or utility providers to be informed or their responsibility to keep soil on-site and to prevent pollution? (CPP Part 4.2.8)	Yes ☐ | No ☐
31) Does the SWPPP contain a copy of the Common Plan Permit (UTRH00000) document and the Authorization to Discharge Letter from DWQ? (CPP Part 4.2.9)	Yes ☐ | No ☐
32) If the permit, SWPPP, and/or inspections signatory obligations will be handled by a duly authorized signatory (CPP Part 5.16.1.b), is there a written and signed delegation of authority included in the SWPPP that shows this person/position was delegated signatory responsibilities? (CPP Part 5.16.1.b.i-ii)	Yes ☐ | No ☐ N/A ☐
33) If the project is within and discharges into a regulated MS4's jurisdiction, does the SWPPP identify the MS4, and contain the signature and date of the MS4 reviewer who has approved the proposed project for construction (CPP Part 1.7)? (CPP Part 4.2.11)	Yes ☐ | No ☐ N/A ☐
34) Does the SWPPP identify the first receiving water that the site discharges into, including the impairment/TMDL status of the water body, and any pollutants for which the water body is impaired? (CPP Part 4.2.5)	Yes ☐ | No ☐
35) Is the SWPPP signed and certified by both the Owner and the General Contractor (operator) in accordance with CPP Part 5.16.1.a? (CPP Part 4.2.10)	Yes ☐ | No ☐
36) Does the SWPPP include a copy of the Notice of Intent (NOI) that was submitted to DWQ to obtain coverage under the Common Plan Permit UTRH00000? (CPP Part 1.4)	Yes ☐ | No ☐
37) Does the SWPPP include a template for the daily site check log? (CPP Part 3.2.2)	Yes ☐ | No ☐
38) Does the SWPPP include a template for inspection reports and corrective actions taken? (CPP Part 3.4 and 3.5)	Yes ☐ | No ☐
39) Does the SWPPP include any other permits that affect site operations? (Fugitive Dust Control, Stream Alteration, Dewatering, etc.)	Yes ☐ | No ☐ N/A ☐

COMMON PLAN PERMIT (CPP) SWPPP EVALUATION (continued)	
40) Does the SWPPP include BMP specifications and/or details for all sediment, erosion, and pollution prevention BMPs?	Yes ☐ | No ☐
41) **At the completion of this review, is the project's SWPPP now approved and accepted as being in compliance with storm water regulations? If not, specific comments will be provided below (or attached on a separate sheet if corrections are longer than the space provided) to clearly state which corrections are needed to bring the SWPPP into compliance and achieve approval on the next review cycle, if corrected to the satisfaction of the reviewer.**	Yes ☐ | No ☐
42) Is this site designated by the MS4 as "Priority" based on the following factors: Soil erosion potential; Site slope; Project size and type; Sensitivity of receiving waterbodies (impaired or high-quality waters); Proximity to receiving waterbodies; and, Non-storm water discharges and past record of non-compliance by the operators of the construction site? **NOTE:** This is an internal question for MS4s to meet MS4 Permit requirements for prioritizing certain construction sites for increased inspections and does not affect the approval of the SWPPP. (MS4 Permit Part 4.2.4.3.5) List the applicable prioritization factors:	Yes ☐ | No ☐ N/A ☐

COMMENTS AND CORRECTIONS FOR ACHIEVING SWPPP COMPLIANCE
(attach an additional comments page if more space is needed)

Reviewer *(Print Name)*: _____ Title: _____ Signature: _____ Date: _____

Pleasant Grove
Utah's City of Trees

Construction Oversight Inspection Form

Project Name		**UPDES Permit #**		**Expiration Date**			
Address				**Date**	11/20/2025		
Owner		**Operator**		**Start Time**			
Site Contact		**Phone**		**Stop Time**			
Weather		**Date of last rain event**		**Approximate Rainfall (in)**			
Inspector(s)		**MS4/City**		**Receiving Waters**			
Project Area		**Disturbed Area**		**Project Type**			
Inspection Reason	Scheduled ☐	Complaint/Tip ☐	Random ☐	**Inspector Code**	State ☐	Local ☐	
Inspection Code	SW Sampling ☐	SW non-Sampling ☐	**Inspection Type**	Onsite ☐	Electronic ☐	Reason:	

Part 1: Onsite Compliance Inspection	**List:** Yes, No, N/A
Arrival and Initial Checks: *(Permit Signage; SWPPP Accessibility; Track-Out Control)*	
1. Are roadways free of mud and sediment accumulation? *(CGP 2.2.4.e; CPP 2.4.1; Utah Code § 19-5-108.3 part 7(c)(ii)(B))*	
2. Is a copy of the SWPPP available onsite, or is its location clearly indicated on the posted signage and accessible within a reasonable time? *(CGP 7.4.1; CPP 4.2.12)*	
Perimeter Inspection: *(Perimeter Controls; Natural Buffer Areas; Discharge Points)*	
3. Are perimeter controls (e.g., silt fences, wattles, berms) properly installed and maintained, effectively preventing sediment from leaving the site, with no visible evidence of sediment discharges beyond the site boundary? *(CGP 2.2.3; CPP 2.1.2)*	
4. For disturbances located within 50 feet of waters of the state, are natural buffers (or equivalent controls), properly installed, maintained and effective at minimizing sediment discharges? *(CGP 2.2.1; CPP 2.3.5)*	
5. Are velocity dissipation devices installed at outfalls, along drainage channels, or at other locations to slow down runoff and prevent erosion? *(CGP 2.2.11; CPP 2.3.3)*	
Interior Site Inspection: *(BMPs: Inlet Protection; Stockpiles and Construction Materials; Erosion Controls / Pollution Prevention Controls; Chemical Storage and Fueling Areas; Sanitation and Waste Management; Concrete and Paint Washout)*	
6. Are storm drain inlets within and immediately adjacent to the construction site properly protected with appropriate BMPs (See SWPPP for installation specifications)? Has accumulated sediment in and around the inlet been removed? *(CGP 2.2.10; CPP 2.1.3)*	
7. Are soil and material stockpiles adequately protected from erosion and sediment transport using covers, silt fences, or other appropriate BMPs, and are they located away from stormwater conveyances and inlets? *(CGP 2.2.5; CPP 2.1.1)*	
8. Are effective suppression measures, such as water spraying or mulching, implemented on exposed soil areas to prevent excessive dust generation? *(CGP 2.2.6; CPP N/A)*	
9. Are erosion control measures (e.g., stabilization, mulching, erosion blankets) implemented effectively on slopes, disturbed areas, and other vulnerable areas, including any areas with no construction activities for 30 days (CPP 14 days)? *(CGP 2.2.14; CPP 2.6)*	
10. Is vegetation preservation, slope disturbances, topsoil management, and soil compaction being effectively managed to prevent potential impacts on water quality? *(CGP 2.2.2, 2.2.7-2.2.9; CPP 2.5)*	
11. Are effective spill prevention, containment, and pollutant discharge minimization measures in place for all equipment fueling, maintenance, and washing activities? *(CGP 2.3.1, 2.3.2; CPP 2.8.1)*	
12. Are chemical storage and hazardous waste areas properly managed with secondary containment and spill prevention measures in place, and are these areas free from spills or leaks? *(CGP 2.3.3.c-d; CPP 2.8.3)*	
13. Are all areas free from spills or leaks? Has all evidence of a pollutant spill been properly contained and cleaned? *(CGP 2.3; CPP 2.8.3; Utah Code § 19-5-108.3 part 7(c)(ii)(C))*	
14. Are waste management practices effective, with all construction materials, debris, and waste properly stored, contained, and disposed of to prevent exposure to storm water and overflow? *(CGP 2.3.3.a-b, e; CPP 2.4.3, 2.8.2)*	
15. Are portable sanitation facilities (e.g., port-o-potties) positioned securely, away from drainage features, and maintained to prevent leaks or spills? *(CGP 2.3.3.f; CPP 2.4.4)*	
16. Are designated areas for concrete, paint, and other construction material washout properly managed to prevent contamination of stormwater? *(CGP 2.3.4; CPP 2.4.5)*	
17. Is the operator preventing any visible pollutants, prohibited discharges, or sediment from reaching unprotected storm drains or waters of the state? If an immediate threat is observed *(See Utah Code § 19-5-108.3 part 1(g))*, call the Environmental Incident Response Line (801) 536-4123. *(CGP 1.3, 3.1; CPP 2.3.4)*	
Comments *(Summarize key observations from the inspection, including any violations, corrective actions needed, and any discussions with the site operator):*	

Part 2: SWPPP Pre-Site Review (CGP Part 7; CPP Part 4) *(Ensure all information is accurate and up to date)*	**List:** Yes, No, N/A
1. Is the SWPPP signage posted at the site entrance, clearly visible, and does it include the required information (e.g., UPDES tracking number and site operator contact information)? *(CGP 1.5; CPP 1.9)*	
2. Is a copy of the SWPPP available onsite, or is its location clearly indicated on the posted signage and accessible within a reasonable time? *(CGP 7.4.1; CPP 4.2.12)?*	
3. Are contact names, positions, responsibilities, and telephone numbers of the Storm Water Team and all other responsible parties listed in the SWPPP? *(CGP 7.3.1; CPP 4.2.1)*	
4. Is there documentation verifying that all key personnel have received appropriate training as required by the CGP/CPP, and are these records included in the SWPPP? *(CGP 6.2, 6.3, 2.2.13.f; CPP 4.2.8)*	
5. Is the construction activity described in detail, including an estimate of the area to be disturbed, the sequence of construction activities, and a description of all on-site and off-site construction activity support areas? *(CGP 7.3.2; CPP 4.2.2)*	
6. Does the SWPPP include a detailed site map showing storm drains, slopes, surface drainage patterns, stream buffer zones, stormwater discharge points, construction boundaries, limits of disturbance, surface waters (including the name of receiving waters), and the placement of both structural and non-structural controls? *(CGP 7.3.3; CPP 4.2.3)*	
7. Does the SWPPP include accurate discharge information, including receiving waters, impaired waters, and high-quality waters? Are there specific measures outlined to prevent the discharge of pollutants into these waters? *(CGP 3.2; CPP 2.10.1; 4.2.5)*	
8. Does the SWPPP identify all pollution-generating activities (e.g., concrete washout, solid waste disposal) that could affect stormwater discharges from the site? *(CGP 7.3.2.f; CPP 4.2.6)*	
9. Are non-storm water discharges identified and controlled, with descriptions of allowable discharges (e.g., fire hydrant flushing, uncontaminated groundwater) included in the SWPPP? *(CGP 7.3.4; CPP 1.3)*	
10. Does the SWPPP describe natural buffers and/or equivalent sediment controls (i.e., compliance alternatives)? *(CGP 7.3.5.b(1), Appendix A; CPP 4.2.4)*	
11. Does the SWPPP include detailed specifications for the placement and installation of all required erosion and sediment control measures (e.g., silt fences, sediment basins, check dams, inlet protection)? *(CGP 7.3.5.a; CPP N/A)*	
12. Have specific stabilization measures, including both vegetative and non-vegetative practices, as well as the stabilization deadline, been provided in the SWPPP? *(CGP 7.3.5.b(6); CPP 4.2.3)*	
13. Does the SWPPP include comprehensive spill prevention and response procedures, including personnel responsibilities, cleanup steps, and emergency contact information? *(CGP 7.3.5.b(7); CPP N/A)*	
14. Does the SWPPP include detailed specifications for the placement and installation of all required pollution prevention control measures, (e.g., material storage, construction waste management, sanitary waste management, and spill prevention measures) *(CGP 7.3.5.b(8); CPP 4.2.6, 4.2.7)*	
15. Does the SWPPP show the inspection frequency selected for the site, the rain-guage/weather station location (if applicable), any reduced frequency periods (e.g., frozen or stabilized areas), and the checklists/forms that will be used? *(CGP 7.3.6; CPP 3.2, 3.3)*	
16. Are routine site inspections being conducted at the selected frequency (i.e., every 7 or 14 days + within 24 hours of a 0.50-inch rainfall)? *(CGP 4.2, 4.3, 4.4; CPP 3.2.1; Utah Code § 19-5-108.3 part 7(c)(ii)(D))*	
17. Do the inspection reports document all areas and items required for inspection, including any BMP problems found or non-compliance observed? *(CGP 4.5, 4.6; CPP 3.4)*	
18. Are corrective actions from previous inspections documented and updated in the SWPPP within the required 7-day timeframe, including changes to storm water controls, construction plans, and SWPPP modifications? *(CGP 5, 7.5; CPP 3.5, 3.6)*	
19. Does the SWPPP include the Notice of Intent (NOI) and a copy of the CGP or Common Plan Permit, along with any additional permits required (e.g., dewatering, stream alteration)? *(CGP 7.3.9; CPP 4.2.9)*	
20. Has the SWPPP been signed by the appropriate responsible corporate officer or duly authorized representative? *(CGP 9.9; CPP 4.2.10)*	
21. Has the operator submitted a complete and accurate NOI, signed by a responsible corporate officer? *(CGP 1.4, 9.9.1; CPP 1.4)*	
Comments:	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry into the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector				
	Print Name	Title	Signature	Date

Pleasant Grove
Utah's City of Trees

STORM WATER ADMINISTRATIVE CITATION

STORM WATER POLLUTION PREVENTION CONSTRUCTION ACTIVITY

CITATION #: 753
Effective Date: 11/20/2025
Expiration Date:

City of Pleasant Grove
Department of Public Works
323 West 700 South
Pleasant Grove, UT 84062
(801) 785 2941
https://www.pgcityutah.org

Section I. Citation Issued To:

Site Operator name: _____ Permit Date: _____
Mailing Address: _____
Daytime Phone number: _____ Email Address: _____

Section II. Facility Site/Location Inforamtion

Project's name: _____
Site address: _____
Lot Size (in acres): _____ Total Square Feet of Disturbance Area: _____

Type of Construction (Check all that apply)
☐ Residential ☐ Industrial ☐ Commercial ☐ Road
☐ Capital Project ☐ Subdivision ☐ Landscaping ☐ Other:

Start construction date: 11/20/2025 Completion Date: 11/20/2025

If area of disturbance is over ONE acre, or project is part of a Common Plan of Development, then a UPDES Permit Notice Of Intent number will need to be acquired with the submittal of a Notice Of Intent (NOI) that can be obtained from the following link: *https://waterquality.utah.gov/UPDES/stormwater.html*.

A Storm Water Pollution Prevention Plan has been prepared for this site in compliance with the State ☐ YES ☐ NO and/ or Local Sediment and Erosion Control requirements.

NOI Number: (UPDES Permit) Effective date: 11/20/2025 Expiration date: 11/20/2025

Section III. Citation Issued for Failure to Comply with the following violations:

These are Mandatory conditions of approval. NON COMPLIANCE may cause suspension, termination, or fines may be issued for this permit.

- ☐ Dirt or debris placed on sidewalk
- ☐ Dirt or debris placed on the road, tracking mud/dirt onto road
- ☐ Portable toilets were not staked down
- ☐ SWPPP plan not located on site
- ☐ Failure to conduct storm water inspections
- ☐ Dirt or debris placed on the gutter
- ☐ Working without an approved Storm Water Permit
- ☐ for failure to maintain storm water records
- ☐ Portable toilets not placed on pervious surfaces
- ☐ Poor housekeeping of the site
- ☐ SWPPP sign not on-site
- ☐ Hazardous materials on site
- ☐ Failure to maintain BMPs
- ☐ Failure to install BMPs
- ☐ Failure to cleanup/report spills

Field Notes:

Section IV. Enforcement Actions and Penalties - Pleasant Grove City Municipal Code 864 867

Whenever the City finds a Site Operator has violated a prohibition or failed to comply with a requirement of this permit, the Storm Drain Representative will order compliance by a written Corrective Action Notice to the responsible person.

Corrective Action Notice - Warning ☐ **Fine = $0.00**

A Notice of Violation will be issued by the Storm Drain Representative (SDR) whenever the City finds a person has failed to comply with the requirements set on the Corrective Action Notice. Additional charges for cleaning the site may apply.

☐ **1. $500 per occurrence for working without an approved storm water permit;**

☐ **2. $300 per occurrence for tracking mud on road;**

☐ **3. $250 per occurrence for failure to clean up or report spills;**

☐ **4. $100 per occurrence for failure to conduct storm water inspections;**

☐ **5. $100 per occurrence for failure to maintain storm water records; and**

☐ **6. $500 per site, per occurrence, for failure to use general best management practices, as determined by the authority;**

The MS4 may issue a stop work order if the MS4 has clear documentation of an immediate threat to water quality

The MS4 can correct a specific violation for the operator, and recoup the costs associated, if the operator refuses to correct the violation after the enforcement process and there is imminent threat of significant harm to water quality or the stormwater system.

Except in cases of immediate threats to water quality the MS4 cannot issue a stop work order if the violation is a result of a properly installed and maintained BMP per specifications for the site conditions from the preferred BMP list.

Number of Notice of Violations:		Fine per Day/Week:		Total Fines Due:		Due Date:	

Section V. Certification Statement

I certify under penalty of law that this document and all the attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Inspector's signature	Title	Date
Respondent's signature	Name	Date

Section VI. Citation Delivery Method

☐ Hand Delivered ☐ Faxed

☐ Emailed ☐ Mailed Certified with a Return Receipt

Section VIII. FINAL INSPECTION

Respondent certifies, subject to civil and criminal penalties for making a false statement to the United States Government, the State of Utah and the City of Pleasant Grove, that it has corrected any deficiencies identified in the Form, and to the best of its knowledge, is in compliance with the UPDES permitting program.

Inspector's signature	Title	Date
Respondent's signature	Name	Date

Total amount of fines due: $0.00

Purpose of the Storm Water Pollution Prevention Plan and Enforcement Actions:

The Storm water Pollution Prevention Plan for Construction Activity Permit was instituted as a means to protect the health, safety and welfare of the City and its inhabitants by improving the City's storm sewer system, managing and controlling storm water runoff.

Furthermore, protecting property and preventing polluted waters from entering the City's water supply and other receiving waters and establishing a viable and fair method of financing the construction, operation and maintenance of the storm sewer system.
The SWPPP prevents the discharge of sediment and other construction related pollutants from discharged into storm water runoff. Sediment and debris from construction sites are a major source of pollution to waterways and water systems located within the City and surrounding areas. Each year storm water runoff carries tons of sediment from construction sites into local drainage systems, irrigation systems, canals, rivers, and lakes. Sediment from storm water runoff also clogs and obstructs storm drains, culverts, and canals and causes damage to private property, wildlife habitat and water quality.

Storm water Pollution Prevention Plan is a principal requirement of storm water permits.

A SWPPP identifies all potential sources of pollution, which may reasonably be expected to affect the quality of storm water discharges from the construction site; describes practices to be used to reduce pollutants in storm water discharges from the construction site; and assures compliance with the terms and conditions of the issued permit.

Notice of Appeal:

Any person receiving an administrative citation may appeal the administrative citation to the Hearing Officer. Only the following issues may be appealed to the Hearing Officer:

1. The person charged in the administrative citation as the Responsible Person, is not the Responsible Person as defined by this ordinance.
2. The condition described as a violation in the administrative citation is not a violation as defined by this ordinance.
3. The Responsible Person claims that the requirement(s) of the administrative citation violates his/her constitutional rights.

A person desiring to appeal an administrative citation must file a notice of appeal at the City’s Public Works Office within ten (10) business days of being served with the administrative citation or within fifteen (15) days of the mailing date if the administrative citation is mailed.

Payment can be made at: City of Pleasant Grove
Department of Public Works
323 West 700 South
Pleasant Grove, UT 84062
Or call this number to make a payment: (801) 785 2941

Failure to Pay Fine: The failure of any person to pay the civil fines assessed by an Administrative Citation within the time specified on the citation or after an administrative hearing will result in the collection of the fine by the City. The City may pursue any available legal remedy to collect civil fines, including but not limited to judgments, liens, small claims actions, and collections. The City may also recover its collections costs according to proof.

Pleasant Grove
Utah's City of Trees

Construction Oversight Notice of Termination Form

BACKGROUND INFORMATION			
Site Name:			UPDES Permit #:
Site Address:			
Local Jurisdiction or County:			
Permit Effective Date:		Permit Expiration Date:	
Total Project Area:		Total Disturbed Area: 0	
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:			

NOTICE OF TERMINATION (NOT) INSPECTION		
Inspected By:	Date of Evaluation:	
Title\Organization:		

	List: Yes, No, N/A
1. Has the site achieved final stabilization? (>70% vegetative and/or non-vegetative cover for all disturbed areas) (CGP 8.2.1.a, 2.2.14.b; CPP 1.7.1)*	
2. Have all construction materials, waste and waste handling devices been removed? (CGP 8.2.1.b; CPP 2.4)	
3. Have all temporary storm water controls been removed? (CGP 8.2.1.c)	
4. Have all pollutants and pollutant-generating activities been removed? (CGP 8.2.1.d; CPP 2.8, 2.9)	
5. If landscaping will be completed by the homeowner, have temporary sediment and erosion controls been installed? (CGP 8.2.4; CPP 1.7.2)	

***Provide comments for exceptions under CGP 2.2.14.b(3) (arid conditions, restored ag. land, or areas to remain disturbed).**

COMMENTS:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector:

(Print Name) (Title) (Signature) (Date)

Operator:

(Print Name) (Title) (Signature) (Date)

modified 01/25

Pleasant Grove
Utah's City of Trees

SPILL RESPONSE REPORT FORM

(For Public Works Crew)

General Information

Date of Spill Observed: Time of Spill Observed:
Location:
City: State:

Reporter Information

Name: Phone Number: Address:
Reported Time: Reported Date: Email:
Reported By: ☐ Telephone ☐ Email ☐ Anonymously ☐ Other:

Investigation

Date Investigation Started: Person Investigation:
Time of Investigation:

Chemical Identification

☐ Motor Oil ☐ Detergent ☐ Antifreeze ☐ Fuel ☐ Diesel ☐ Methanol ☐ Chlorine ☐ Grease ☐ Other:
Is this a hazardous substance? ☐ YES ☐ NO ☐ N/A
Estimated Quantity of Spill: ☐ 1-5 Gallons ☐ 5-10 Gallons ☐ More Than 10 Gallons ☐ N/A

Cleaning Investigation

Who Responded to the Spill? ☐ Public Works Department ☐ Fire Department/Hazmat Team ☐ County Health Department ☐ Other:

Cleaning Method Used: ☐ Spill containment ☐ Sweeping ☐ Absorbent ☐ Vacuum Truck ☐ Removal from site ☐ Other:
Disposal Method Used: ☐ Disposal at landfill ☐ HAZMAT Team ☐ Other:
Any Discharge to Storm Drain? ☐ YES ☐ NO

Date of Discharge Removal/Repair: Time of Discharge Removal:

Any Known or Anticipated Acute or Chronic health Risks for Exposed Individuals Associated with the Emergency Spill?
☐ Respiratory ☐ Vision ☐ N/A ☐ Other:

Were Proper Precautions Taken, Including Evacuation, if Necessary? ☐ YES ☐ NO ☐ N/A

Follow-Up Actions:

Were There Any Fines Issued with This Discharge? ☐ YES ☐ NO ☐ N/A
If So, Fine Amount: $

Date of Discharge Removal Verification?
Time of Discharge Removal Verification?
Employee Who Followed Up?

Was the Spill Reported to the Utah State Environmental Emergency Response (801) 536-4123? ☐ YES ☐ NO
If So, Report Number:

Photos Taken? ☐ YES ☐ NO

Additional Comments:

Pleasant Grove City's High Priority Site Monthly Inspection Report

High Priority Site: (Cemetery, Rodeo Grounds, Public Works Shop, Pipe Plant 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:	

Pleasant Grove City's High Priority Site Quarterly Inspection Report

High Priority Site: (Cemetery, Rodeo Grounds, Public Works Shop, Pipe Plant 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 the 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:	

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

MS4 High-Priority Facilities
Annual Visual Assessment of Storm Water Discharges

Sample and Data Collection Instructions: Visual examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for the life of the permit.

High Priority Site: Address:

Storm Event Information

Date of Storm Event:	
Duration of Storm Event (Hours):	
Rain Fall Measurement (Inches):	
Time elapsed Between Recorded & Previous Storm Event (Days):	
Estimated Total Volume of Discharge (include units):	

Visual Assessment Information

Date of Inspection:	
Time of Inspection:	
Inspector Name:	
Total Storm Water Discharge Points for this Facility:	
Name/Number Assigned to this Discharge Point:	
Probable Source of Observed Storm Water Contamination (if applicable):	

Color (Check One):

1. Identification of Color:

- ☐ Black
- ☐ Dark Grey
- ☐ Medium Grey
- ☐ Light Grey
- ☐ Dark Brown
- ☐ Chocolate Brown
- ☐ Medium Brown
- ☐ Light Brown
- ☐ Tan
- ☐ Yellow
- ☐ Green
- ☐ Other

2. Intensity of Color:

- ☐ Very Intense Prominent
- ☐ Moderately Perceptible
- ☐ Hardly Perceptible

Comments:

Clarity (Check One):

- ☐ Totally Opaque
- ☐ Slightly Translucent
- ☐ Translucent
- ☐ Nearly Transparent
- ☐ Transparent

Odor (Check all that Apply):

- ☐ Diesel
- ☐ Gasoline
- ☐ Petroleum
- ☐ Solvent
- ☐ Musty
- ☐ Sewage
- ☐ Chlorine
- ☐ Rotten Egg
- ☐ Sulfur
- ☐ No Odor
- ☐ Noxious
- ☐ Other

Comments:

Solids (Describe Below):

Floating Solids:

Suspended and Settled Solids:

Foam, Oil, Sheen, or other obvious indicators or pollution (Describe Below):

Other Comments (Describe Below):

Pleasant Grove
Utah's City of Trees

MS4 Owned Storm Water Control Inspection Report

What are you inspecting?

☐ Detention Basin (complete Section 1) ☐ Open Ditch (complete Section 2) ☐ Swells (complete Section 3)

Section 1: Detention Basin Inspection:

Address of Basin: Date of Inspection:

Inspector(s): Time of Inspection:

Inspector Observations:

1. Are Inlet and Outlet Pipes in Good Condition?	☐ Yes	☐ No
2. Is Riprap Clean and Free from Debris and Sediment?	☐ Yes	☐ No
3. Are Outlets, Spillways, and/or Orifice Areas Free from Debris?	☐ Yes	☐ No
4. Are Those structures Flowing Properly?	☐ Yes	☐ No
5. Are Inlets, Orifice Boxes, and/or Junction Boxes Free of Sediment?	☐ Yes	☐ No
6. Is There Excess Sediment Buildup in the Basin?	☐ Yes	☐ No
7. Are There Signs of Erosion?	☐ Yes	☐ No
8. Is There Vegetation That is Dead?	☐ Yes	☐ No
9. Does the Basin Show Signs of Pollutants? (gasoline, oil, paints, solvents)	☐ Yes	☐ No
10. Is This Basin in a Good Working Condition?	☐ Yes	☐ No

Comments:

Corrective Actions:

Section 2: Open Ditches:

Location of Ditch: Date of Inspection:

Inspector(s): Time of Inspection:

Inspector Observations:

1. Is the Ditch Free from Trash and Other Debris?	☐ Yes	☐ No
2. Is There an Oil Sheen on the Water?	☐ Yes	☐ No
3. Do You See Any Potential Contaminants?	☐ Yes	☐ No
4. Are There Signs of Erosion on the Ditch Banks?	☐ Yes	☐ No
5. Is Vegetation Overgrown?	☐ Yes	☐ No
6. Is the Outlet Grate Free from Debris?	☐ Yes	☐ No
7. Are You Concerned the Ditch is Polluted?	☐ Yes	☐ No
8. Is the Ditch in a Good Working Condition?	☐ Yes	☐ No

Comments:

Corrective Actions:

Section 3: Swells:

Location of Swell: Date of Inspection:

Inspector(s): Time of Inspection:

Inspector Observations:

1. Is There Evidence of Erosion in the Swell?	☐ Yes	☐ No
2. Do the Banks of the Swell Look Stable?	☐ Yes	☐ No
3. Is the Swell the Proper Shape?	☐ Yes	☐ No
4. Is There Sediment Build-up In the Swell?	☐ Yes	☐ No
5. Does the Vegetation Look Healthy?	☐ Yes	☐ No
6. Is the Swell Free from Debris and Trash?	☐ Yes	☐ No
7. Inlet and Outlet to the Swell Clean with no Blockage?	☐ Yes	☐ No
8. Is the Swell in a Good Operating Condition?	☐ Yes	☐ No
9. Is there a Concern This Swell is Polluted?	☐ Yes	☐ No
10. Is this Area Safe and Stable?	☐ Yes	☐ No

Comments:

Corrective Actions:

Inspector:

(Print Name) (Title) (Signature) (Date)

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX F – STORM WATER TECHNICAL MANUAL AND BEST MANAGEMENT PRACTICES

STORM WATER TECHNICAL MANUAL & BEST MANAGEMENT PRACTICES

(Updated August 2026)

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. 80^{th} 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 80^{th} 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

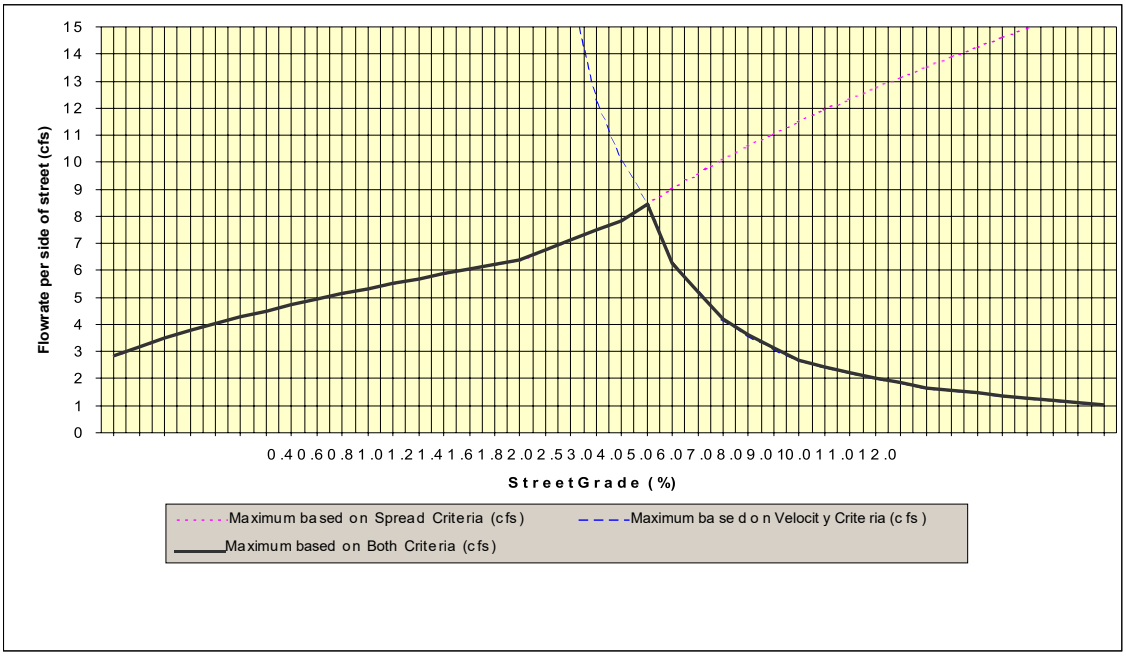
Two criteria must be met:

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:

Dust Control	BMP: 12
Stabilized Construction Entrance	BMP: 23
Street Sweeping	BMP: 25
Sanitary Waste Management (Portable Toilets)	BMP: 27
Washout Areas (Concrete, Stucco, Paint, etc.)	BMP: 28
Solid Waste Management	BMP: 30
Chemical/Hazardous Materials Management	BMP: 31
Vehicle and Equipment Management	BMP: 32
Spill and Leak Containment	BMP: 33
BMP Inspection and Maintenance	BMP: 34
Material Storage	BMP: 35

The following BMPs are required to be a part of all Long-Term Storm Water Management Plans:

Inlet Inspection & Maintenance	BMP: 12
Detention/Infiltration Device Maintenance	BMP: 23
Hazardous Waste Management	BMP: 25
Material Storage	BMP: 27
Parking Lot Sweeping/Vacuuming	BMP: 28
Spill Clean-Up	BMP: 30

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, email, 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 Sites and Long-Term Storm Water Management Plans. As established in Section F.3.A of PART 1, STORM WATER TECHNICAL MANUAL, **The required BMP's for construction and Long-term Management Plans are included in Section F.3.B of PART 1.** Additional LID BMPs are available in the State's LID Guide and should be considered for each site.

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.

Part 1 Construction Site Stormwater BMP's

Part 2 Long-Term Stormwater Management BMP's

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY
WATER QUALITY

Part 1

Preferred List of Stormwater Best Management Practices (BMP) for Construction Activities in Utah

Prepared to Support Compliance with:

Utah Construction General Permit (CGP)

Utah Common Plan Permit (CPP)

Utah Code § 19-5-108.3 (Amended by SB220)

40 CFR Part 450 – Effluent Limitations Guidelines for Construction and Development

Prepared By:
Utah Division of Water Quality
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(801) 536-4300
Construction Storm Water Permit (UPDES) - Utah Department of Environmental Quality
Effective Date: May *27*, 2025
Version: 2.0

Adapted: May 27, 2025 for Utah Storm Water Advisory Committee (USWAC)

Adopted by Pleasant Grove City 1/1/2026

Table of Contents

1. Introduction 5
2. Purpose 5
3. Regulatory Overview 5
4. Stormwater Pollution Prevention 6
5. BMP Selection, Installation, and Compliance 6
6. Responsibilities of Site Operators, Designers, and Inspectors 7
7. Using this Manual Throughout the Project Lifecycle 8
8. Erosion Controls 10
   - 8.1. BMP 1: Erosion Control Blankets 10
   - 8.2. BMP 2: Soil Treatments (Roughening) 15
   - 8.3. BMP 3: Mulching 18
   - 8.4. BMP 4: Preservation of Vegetation 22
   - 8.5. BMP 5: Vegetation and Stabilization 25
   - 8.6. BMP 6: Check Dam 28
   - 8.7. BMP 7: Velocity Dissipation Devices 31
   - 8.8. BMP 8: Straw Wattle Check Dam 34
   - 8.9. BMP 9: Straw Wattle on Slopes 37
   - 8.10. BMP 10: Diversion Dikes 41
   - 8.11. BMP 11: Drainage Swales 45
   - 8.12. BMP 12: Dust Control 47
9. Sediment Controls 49
   - 9.1. BMP 13: Sub-Grade Sediment Trap (Curb Cut-Back) 49
   - 9.2. BMP 14: Vegetated Filter Strips and Buffers 51
   - 9.3. BMP 15: Silt Fence 54
   - 9.4. BMP 16: Organic Filter Tubes (Straw Wattle) 57
   - 9.5. BMP 17: Earth Berm Barrier 60
   - 9.6. BMP 18: Gravel Filter Berms 62
   - 9.7. BMP 19: Inlet Protection 65

9.8. BMP 20: Weighted Filter Berm 70
9.9. BMP 21: Gutter Dam 74
9.10. BMP 22: Sediment Basins and Traps 76
9.11. BMP 23: Stabilized Construction Entrance 81
9.12. BMP 24: Wheel Washing 84
9.13. BMP 25: Street Sweeping 88
9.14. BMP 26: Dewatering Practices 90
10. Pollution Prevention Controls 94
10.1. BMP 27: Sanitary Waste Management (Portable Toilets) 94
10.2. BMP 28: Washout Areas (Concrete, Stucco, Paint, etc.) 97
10.3. BMP 29: Concrete Sawcutting Management 101
10.4. BMP 30: Solid Waste Management (Trash and Debris) 104
10.5. BMP 31: Chemical/Hazardous Materials Management 106
10.6. BMP 32: Vehicle and Equipment Management 108
10.7. BMP 33: Spill and Leak Containment 110
10.8 BMP 34: BMP Inspection and Maintenance 113
10.9 BMP 35: Material Storage 114
11 Template for Operator BMP Modification or Replacement 115

Table of Figures

Figure 1: Schematic diagram for erosion control blanket installation 12
Figure 2: Schematic diagram for anchoring erosion control blankets 13
Figure 3: Graphic showing proper implementation of soil roughening 16
Figure 4: Schematic diagram of a vegetation buffer zone 23
Figure 5: Schematic diagram for check dam installation 29
Figure 6: Schematic diagram for velocity energy dissipator installation 32
Figure 7: Schematic drawing for installation of straw wattle check dams 34
Figure 8: Schematic diagram of straw wattle slope installation 37
Figure 9: Schematic diagram of diversion dike and drainage swale installation 43
Figure 10: Schematic diagram for curb cut-back installation 49
Figure 11: Schematic diagram for vegetation filter strip applications 52
Figure 12: Image detailing installation specifications for silt fencing 55
Figure 13: Schematic diagram for earth berm barrier specifications 61
Figure 14: Schematic diagram of filter berm installation 64
Figure 15: Schematic diagram for storm drain inlet protection (interior protection) 68
Figure 16: Schematic drawing for storm drain inlet protection (exterior protection) 69
Figure 17: Schematic diagram of weighted filter berms for inlet protection 72
Figure 18: Schematic diagram of weighted filter berms for curb inlet protection 73
Figure 19: Schematic diagram of gutter dam installation 75
Figure 20: Schematic diagram of sediment basin installation 79
Figure 21: Schematic diagram of sediment trap installation 80
Figure 22: Schematic diagram for stabilized construction access installation 83
Figure 23: Schematic grading diagram for wheel wash installation 86
Figure 24: Schematic diagram of a rumble rack wheel wash installation 87
Figure 25: Schematic diagram for sediment filter bag installation 93
Figure 26: Schematic diagram showing proper placement of portable toilets 95
Figure 27: Photo showing staking of portable toilets to secure from tipping 96
Figure 28: Photo showing portable toilet secured with tie-down straps 96
Figure 29: Schematic diagram of below-grade concrete washout installation 99
Figure 30: Image of a small-scale portable concrete washout pan 100
Figure 31: Image of perimeter protection surrounding materials stockpile stored onsite 115

1. Introduction

Construction activities can significantly impact water quality if not properly managed. Soil disturbance, materials storage, and heavy equipment use all pose risks of sediment and pollutants washing into Utah's rivers and lakes during storm events. Best Management Practices (BMPs) are the front-line tools to control these impacts. This manual provides guidance on selecting, installing, and maintaining effective BMPs on construction sites in Utah. It is written for contractors, municipal inspectors, engineers, Storm Water Pollution Prevention Plan (SWPPP) developers, and anyone with a role in keeping sediment and contaminants out of stormwater. By following this manual, project teams will better protect water quality and comply with stormwater regulations in a practical and effective way.

2. Purpose

This BMP manual is designed to help users meet Utah's stormwater requirements and implement industry best practices on construction sites. The guidance provided in this manual supports compliance with Utah's construction stormwater permits and aligns with the intent of Utah Code § 19-5-108.3 by detailing the proper use of BMPs to prevent pollution. According to Utah Code § 19-5-108.3, each municipal system authority is responsible for determining and publishing its preferred BMPs on a publicly accessible website. This manual serves as a comprehensive resource, explaining how to effectively implement these BMPs to meet regulatory requirements and protect water quality on construction sites with State and Municipal Separate Storm Sewer (MS4) authority oversight. Overall, the manual's goal is to improve water-quality outcomes by helping users choose the right BMPs, install and maintain them correctly, and thus meet the performance criteria expected by regulators.

3. Regulatory Overview

Construction sites that disturb one acre or more (or less than one acre of land but will be part of a common plan of development or sale that will ultimately disturb one or more acre of land) require stormwater discharge permit under the Clean Water Act. In Utah, this takes the form of a state-issued UPDES Construction General Permit (CGP) or the Common Plan Permit (CPP), which is issued under Utah Code Title 19, Chapter 5 with EPA oversight. Federal regulations set baseline effluent limitation guidelines for construction activities in 40 CFR Part 450, which outline required BMP-based controls known as *Construction and Development Effluent Guidelines*.

Regulations mandate that operators at permitted sites implement controls to minimize erosion and sediment runoff, stabilize disturbed soils promptly, manage dewatering and wash water, and prevent exposure of pollutants or debris to stormwater. Federal rules require effective erosion and sediment controls to be designed, installed, and maintained to minimize pollutant discharges. They also require contractors to implement pollution prevention measures for equipment washing and material storage, and prohibit the discharge of concrete washout, fuels, oils, or other toxic substances. All federal requirements are built into Utah's permits and expectations for BMPs on construction sites.

Utah has adopted state-specific provisions to ensure compliance with these federal standards and to streamline enforcement. Utah Code §19-5-108.3 (2025) amended the Utah Water Quality Act to streamline and unify the implementation of construction stormwater controls. This legislation explicitly defines a "best management practice" as any method or measure that complies with *40 C.F.R. Part 450*. In other words, Utah law aligns its BMP definition and expectations directly with the federal effluent guidelines. This preferred list of BMPs for construction sites ensures that contractors have clear guidance on which BMPs are considered effective and acceptable.

Utah's construction storm water permits (CGP/CPP) further implement these rules by requiring owners/operators of construction projects to develop a SWPPP that incorporates appropriate BMPs and meet specific effluent limitations and inspection routines. The CGP/CPP applies from the commencement of earth-disturbance until final stabilization of the site. Permits mandate regular self-inspections, maintenance of BMPs, and record-keeping to demonstrate that selected BMPs are effectively controlling stormwater pollution. As of May 7, 2025, Utah Code §19-5-108.3, requires oversight authorities to complete oversight inspections via Electronic Site Inspection (ESI). The ESI consists of geo-located, time-stamped photos of on-site BMPs which are taken, evaluated, and sent to the authority by the operator as proof of compliance. Together, the federal and state regulations set the framework that this manual supports: establishing why BMPs are needed, which BMPs are recommended, and how those must be implemented and monitored to stay in compliance.

4. Stormwater Pollution Prevention

BMPs are the core tools used in a SWPPP to prevent polluted runoff from leaving a construction site. When implemented properly, BMPs address the main ways construction can impact water quality: erosion control BMPs keep soil in place, sediment control BMPs capture mobilized sediments, and pollution prevention BMPs prevent spills, trash, and chemicals from entering stormwater. Utah's stormwater approach emphasizes proactive, year-round pollution control. BMPs must be installed before storm events, maintained consistently, and remain in place outside the traditional "rainy season," as both rain and snowmelt can generate runoff throughout the year. In many cases, BMPs are most effective when used in combination. For instance, hydromulch alone may not prevent erosion on large slopes, but when paired with wattles or silt fences at the base, overall control improves. By selecting and maintaining a designed series of BMPs, operators can reduce the risk of stormwater violations and help protect Utah's water quality.

5. BMP Selection, Installation, and Compliance

Choosing the right BMPs, and installing them correctly, is crucial for both effective pollution prevention and legal compliance. The Utah construction storm water permits require that BMPs be selected based on site-specific conditions and that they achieve the permit's performance standards. In practice, the operator is responsible for selecting effective, site-specific BMPs for erosion control, sediment control, and pollution prevention, considering the site's unique conditions throughout all phases of construction. A "qualified person," as defined in the permit, should assess the site and help choose BMPs that will work for that terrain, soil type, slope, proximity to waterways, and the planned construction activities. Factors like steep grades, highly

erodible soils, or sensitive nearby waters will influence which BMPs are appropriate.

Proper installation according to the specifications in this manual (and manufacturer guidelines for proprietary products) is essential. BMPs that are installed poorly or used in the wrong context/setting can fail, leading to polluted runoff leaving the site. BMPs that do not meet their performance criteria can result in notices of violation and potential enforcement actions by the regulatory authority. The enforcement framework is outlined in Utah Code 19-5-108.3. If a site is found out of compliance, the oversight authority will issue a written notice of violation and require the operator to fix the problem within a specified timeframe. Failure to correct issues can lead to escalating responses, including fines. Utah Code (19-5-108.3) allows fines up to $500 per violation (occurrence), for each day that BMP requirements are not met (after 3 written warnings of non-compliance).

Utah Code 19-5-108.3 provides an incentive for proper BMP selection and implementation: an authority generally may not issue a stop-work order solely for a runoff violation if the operator had correctly implemented the jurisdiction's "preferred" BMPs for the site and the problem resulted from an unexpected BMP failure. This underscores the importance of following the recommended BMP standards in this manual, particularly maintenance standards to stay compliant. This manual offers standard details and criteria for each BMP to ensure that when installed as described, they will perform effectively and meet the required standards. Always verify that the BMPs chosen match the site needs and regulatory expectations; when in doubt, consult with the permitting authority or a qualified stormwater professional.

6. Responsibilities of Site Operators, Designers, and Inspectors

Effective stormwater management during construction is a shared responsibility. Different parties have distinct roles to play in implementing and overseeing BMPs:

- **Site Operators (Contractors/Permittees):** The on-site operator (which can be the general contractor and/or owner) has the primary responsibility for executing the SWPPP. This includes installing all required BMPs, conducting routine site inspections, and maintaining BMPs in good working order throughout the project. Under the Utah CGP/CPP, operators must inspect their stormwater controls at regular intervals and keep records of these inspections.

- **SWPPP Designers/Engineers:** Long before construction begins, the project designer or SWPPP developer is responsible for planning appropriate BMPs. They must understand the project scope and site conditions to propose a suite of BMPs in the SWPPP that will meet regulatory requirements. Designers should use this manual during project planning to select BMPs that are from the State's preferred list and suited to the site. They should ensure the construction drawings or SWPPP documentation clearly show where and how each BMP will be implemented. Good design also means accounting for the sequencing of BMP installation and including provisions for maintenance.

Collaboration between the designer and contractor is encouraged; if site conditions change, the SWPPP should be updated with new BMPs or modifications as needed, using the templates provided for alternative BMPs, if necessary (See Part 11). Ultimately, a well-prepared SWPPP and BMP plan make it easier for the operator to do their job and for inspectors to verify compliance.

- **Oversight Authority:** Local MS4 inspectors and Division of Water Quality inspectors provide oversight to ensure that BMPs are implemented as required. Their responsibility is to conduct oversight inspections of construction sites to assess compliance with the CGP and local stormwater ordinances. Inspectors will compare site conditions against the SWPPP and this BMP manual's standards. If violations are observed (such as missing BMPs, improperly maintained controls, or evidence of polluted runoff), regulatory inspectors are empowered by Utah Code to take enforcement actions. Typically, an inspector will issue a written notice detailing the specific violation and requiring corrective action within a set time frame. Inspectors may follow up to verify that problems are fixed, and if not, additional steps can be taken, including warnings of fines or stop-work orders in severe cases. The ultimate responsibility of inspectors is to ensure protection of water quality and that all parties adhere to permit requirements. They also serve as a resource; many inspectors will provide guidance or references (such as this manual) to help the operator correct violations.

7. Using this Manual Throughout the Project Lifecycle

- **During project design and planning:**
  Use this manual to identify which BMPs will effectively manage stormwater on site. Planners and engineers should reference the recommended practices here when writing the SWPPP and drawing erosion control plans, ensuring that chosen BMPs meet Utah's preferred criteria.

- **Before construction starts:**
  Review the installation guidelines for each BMP you will deploy. For example, if silt fence is the chosen perimeter control, consult the manual for the correct trenching depth, stake spacing, and maintenance triggers. Contractor training can be conducted using the illustrations and instructions in this manual.

- **During active construction**:
  The manual should be on hand to troubleshoot and adapt. Site conditions often change, you might encounter unexpected drainage patterns or soil conditions, and the manual can guide you in modifying BMPs or selecting additional measures (see template for adding alternative BMPs not originally in the plan). After major weather events or as different subcontractors come and go, consult the manual to ensure BMPs remain effective. The manual's alignment with regulatory requirements means it can also be used as a reference during inspections; if a question arises about what a proper installation entails, this document provides a common point of understanding for both operators and inspectors.

- **At project completion**:

The manual can guide final stabilization steps (like criteria for seeding and mulching) to ensure permit termination requirements are met.

Consistently referring to the manual helps maintain compliance momentum throughout the project lifecycle, rather than treating stormwater control as a one-time task, it becomes an integrated process. By using the manual proactively, project teams can catch and fix issues early (often preventing formal violations) and ensure that the construction site has minimal environmental impact.

8. Erosion Controls

8.1. BMP 1: Erosion Control Blankets

Purpose & Applicability

Erosion control blankets are used to reduce the impact of rainfall, hold soil in place, and absorb moisture near the soil surface. It is designed to protect disturbed areas during the establishment of vegetative cover and may be used alone or in conjunction with mulch.

- **Appropriate Applications:**
    - Steep slopes (generally steeper than 1:3 vertical to horizontal).
    - Newly vegetated slopes or areas with high erosion potential.
    - Disturbed soils where mulch must be anchored and where plants are slow to develop.
    - Channels with flows exceeding 3 to 7 ft/sec, stockpiles, and slopes adjacent to water bodies.
- **Limitations:**
    - Matting and blankets (e.g., jute, straw, excelsior, glass fiber) have maximum flow rate limitations - consult manufacturer specifications.
    - Blankets and mats are generally more expensive and may not be suitable for excessively rocky sites or areas where final vegetation will be mowed (staples/netting may catch on mowers).
    - Plastic sheeting is vulnerable to vandalism, tearing, photodegradation, and produces 100% runoff; its use should be limited to temporary applications (e.g., covering stockpiles) until seeding and mulching are established.

Installation & Use Procedures

To ensure effective erosion control and facilitate vegetation establishment, follow these steps (See figures 1 and 2):

- **Site Preparation:**
    - After the site has been shaped and graded per approved design, prepare a friable seed bed free of clods, rocks greater than 1.5 inches, and other debris that could inhibit direct contact between the matting and the soil.
- **Planting & Application:**
    - Fertilize and seed according to the approved planting plan.
    - When using jute matting on seeded areas, apply approximately half the seed before laying the mat and the remainder after; matting may also be laid over sprigged areas once grass is planted.
    - For areas where vines or ground covers will be planted, install the matting first and then plant through the mat.
- **Laying and Securing the Matting:**

    - Unroll the matting starting at the upper end of the slope or channel, ensuring a minimum 4-inch overlap.
    - Bury the top edge of the matting in a narrow trench at least 6 inches deep, backfill, and tamp firmly to conform to the cross-section.
    - Secure the matting with staples (minimum 6 inches in length, 1 inch wide, using Number 11-gauge wire or equivalent) placed approximately 12 inches down-slope from the trench.
    - Where matting segments overlap (including at erosion stops), use a double row of staples (staggered pattern) with a minimum 3-foot overlap at ends and a 4-inch overlap at the sides.
- **Final Check:**
    - Verify that the matting is uniformly in contact with the soil.
    - Ensure all lap joints are secure, and all staples are flush with the ground.
    - Confirm that all disturbed areas have been seeded.
- **Recommended Types:**
    - **Jute Mat:** Uniform plain weave of undyed, unbleached jute yarn.
    - **Straw Mat:** Composed of ~70% agricultural straw and 30% coconut fiber, with polypropylene netting overlays.
    - **Excelsior Mat:** Wood excelsior with a reinforcing netting.
    - **Glass Fiber Matting:** Bonded textile glass fibers.
    - **Other Mulch Nettings:** Follow manufacturer recommendations and provide specific specifications in the SWPPP.

Maintenance & Management

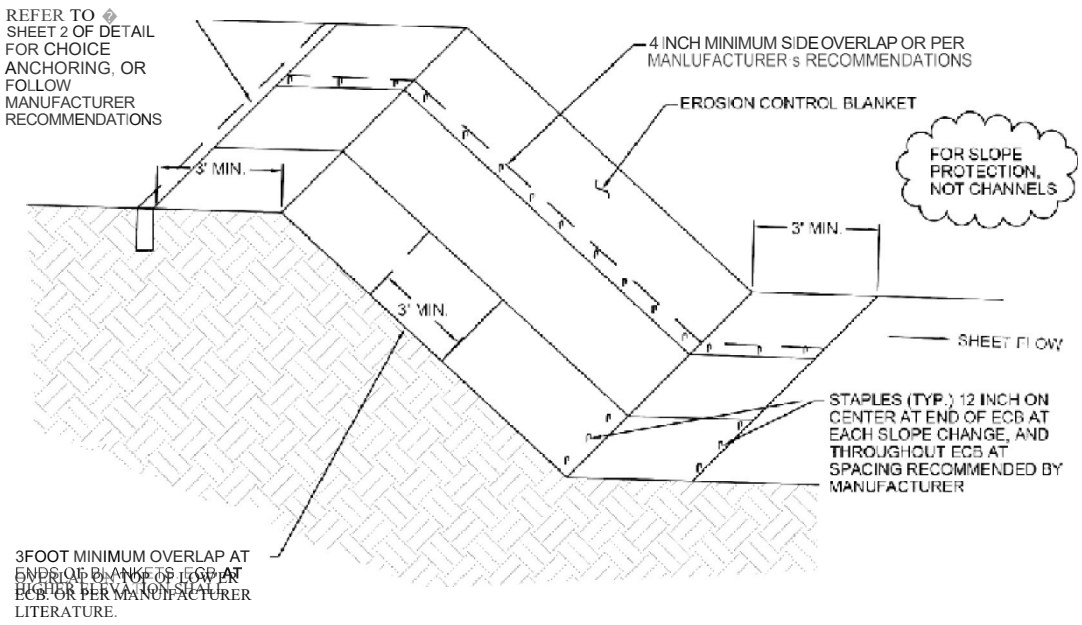
Regular inspection and prompt maintenance are critical to ensure continued performance of the erosion control matting:

- **Inspection Schedule:**
    - Inspect the installed matting during each routine inspection period and after any storm events, to check for erosion, washout, or undermining.
- **Maintenance Actions:**
    - Repair or re-install the matting if it has been damaged or if there are bare spots.
    - Re-anchor loosened nettings, and replace any lost netting or staples as required.
    - Reapply or replace temporary soil stabilization measures if the protected area becomes exposed or exhibits visible erosion.

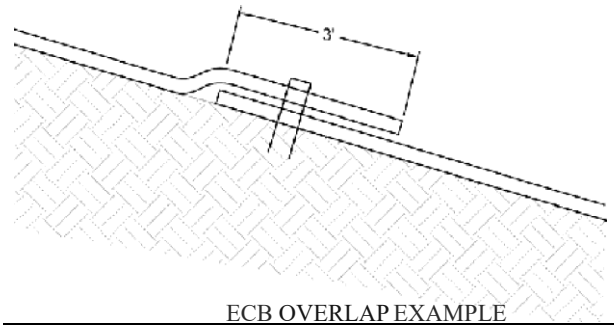
Performance Criteria

This BMP is considered successful when:

- Erosion control matting effectively reduces soil erosion and assists in the establishment of protective vegetative cover.
- The matting remains in full contact with the soil, with secure lap joints and properly anchored edges.
- There is minimal erosion or washout beneath the matting, and the protected area remains stable until vegetation is established.

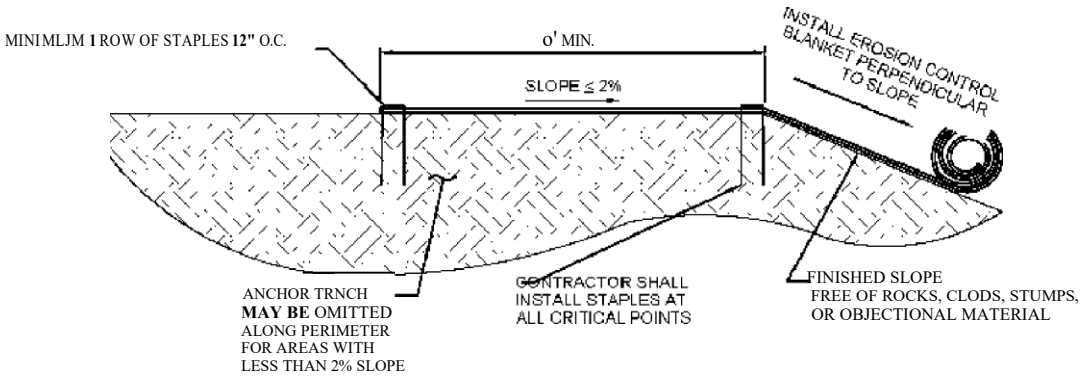


ECB ISOMETRIC PLAN VIEW

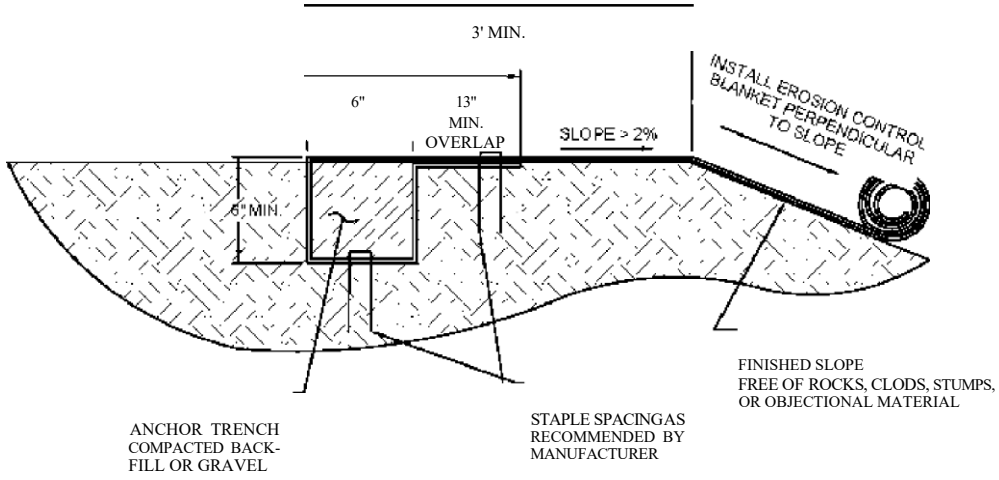


ECB OVERLAP EXAMPLE

Figure 1: Schematic diagram for erosion control blanket installation



TOP OF SLOPE ANCHOR EXAMPLE 1



TOP OF SLOPE ANCHOR TRENCH EXAMPLE 2

Figure 2: Schematic diagram for anchoring erosion control blankets

8.2. BMP 2: Soil Treatments (Roughening)

Purpose & Applicability

This BMP is designed to reduce wind and water erosion by providing temporary stabilization of bare soil through surface treatments, including roughening. It is primarily used for short-term stabilization (less than 30 days) on disturbed sites where dust control and erosion reduction are needed.

- **Applicability:**
  - Use on construction sites where dust is generated and there is potential for air and water pollution from disturbed soils.
  - Applicable to bare soil areas, temporary soil berms, stockpiles, earth-moving activities, and demolition sites.
  - Particularly effective for soils in groups 1 through 4 and 4L; if the soil type is unknown, consult the NRCS Web Soil Survey.

Installation & Use Procedures

To achieve effective erosion and dust control, implement the following procedures:

- **General Design Criteria:**
  - Minimize the area of disturbed soil by limiting clearing and grading to areas required for the immediate construction phase. For larger sites, phase work to keep disturbed areas below 10 acres at any time.
  - Select the surface treatment based on the length of time stabilization is needed.
- **Water Treatments for Dust Control:**
  - Apply water 15–20 minutes before work begins and reapply as needed during the day to moisten the top two inches of soil without generating runoff.
  - For areas with frequent grading, consider installing portable piping and sprinklers to achieve adequate soil moisture.
- **Palliative Treatments (Soil Binders):**
  - Use palliatives (e.g., polyacrylamide, guar-based compounds, or polyvinyl acetates) to bond soil particles and create a cohesive crust.
  - Develop a site-specific palliative mix in consultation with the supplier; avoid "off the shelf" mixes.
  - Apply palliatives only after minimizing soil compaction; loosen compacted surfaces if necessary.
  - Do not apply palliatives during rainy conditions or when the soil is excessively moist; pre-wet excessively dry soils to prevent premature curing.
  - Follow precise dilution and application rates based on soil type, climate, and anticipated traffic.
- **Vegetation Treatments:**
  - For areas undisturbed for one year or longer, establish vegetation as a cost-effective permanent stabilization measure.
  - Refer to established vegetation criteria (see Section 8.5 Vegetation) for temporary stabilization with vegetation.
- **Other Treatments & Roughening Methods:**

    - Apply gravel, recycled concrete, or asphalt to temporary roads and staging areas to prevent dust and erosion.
    - Employ soil roughening techniques (See Figure 3) by driving tracked vehicles, creating irregular patterns to disrupt runoff flow. Methods include:
        - **Stair-step Grading:** Appropriate for steep slopes or soils with soft rock, creating levels that catch eroded materials.
        - **Grooving or Track Walking:** Suitable for less steep slopes to create cleat imprints along contour lines.
        - **Deep Tillage (6-12 inches):** For large open areas to reduce runoff velocity
    - Roughening should be performed immediately after vegetation removal and grading to maximize effectiveness.
- **Installation Documentation:**
    - Provide detailed contractor illustrations and specifications for the selected surface treatment method.
    - Record installation details on the SWPPP BMP map along with any engineering calculations or design criteria.

Maintenance & Management

Regular inspection and timely maintenance are critical to ensuring the continued effectiveness of soil treatments:

- **Inspection:**
    - Inspect treated areas during each routine inspection period and after any storm events.
    - Visually monitor the adequacy of water applications for dust control; if dust is observed, adjust water treatments or implement additional measures.
- **Maintenance Actions:**
    - For areas treated with palliatives, inspect for breaks or eroded spots in the surface crust; re-treat affected areas immediately.
    - If rill erosion (small water channels) is detected, implement additional erosion control measures such as diversion dikes.
    - Re-rough or re-treat areas if heavy storms wash away the treatment, then re-seed or revegetate as necessary.
    - Ensure all equipment and personnel follow established maintenance protocols to prevent re-compaction or disturbance of the treated surface.

Performance Criteria

This BMP is considered effective when:

- Surface treatments successfully reduce runoff velocity, increase infiltration, and trap sediment.
- Dust emissions are minimized, and the soil remains sufficiently stabilized to allow for seed germination and vegetation establishment.
- The treatment maintains its integrity for the required stabilization period, with any rill erosion or treatment breaks addressed promptly.

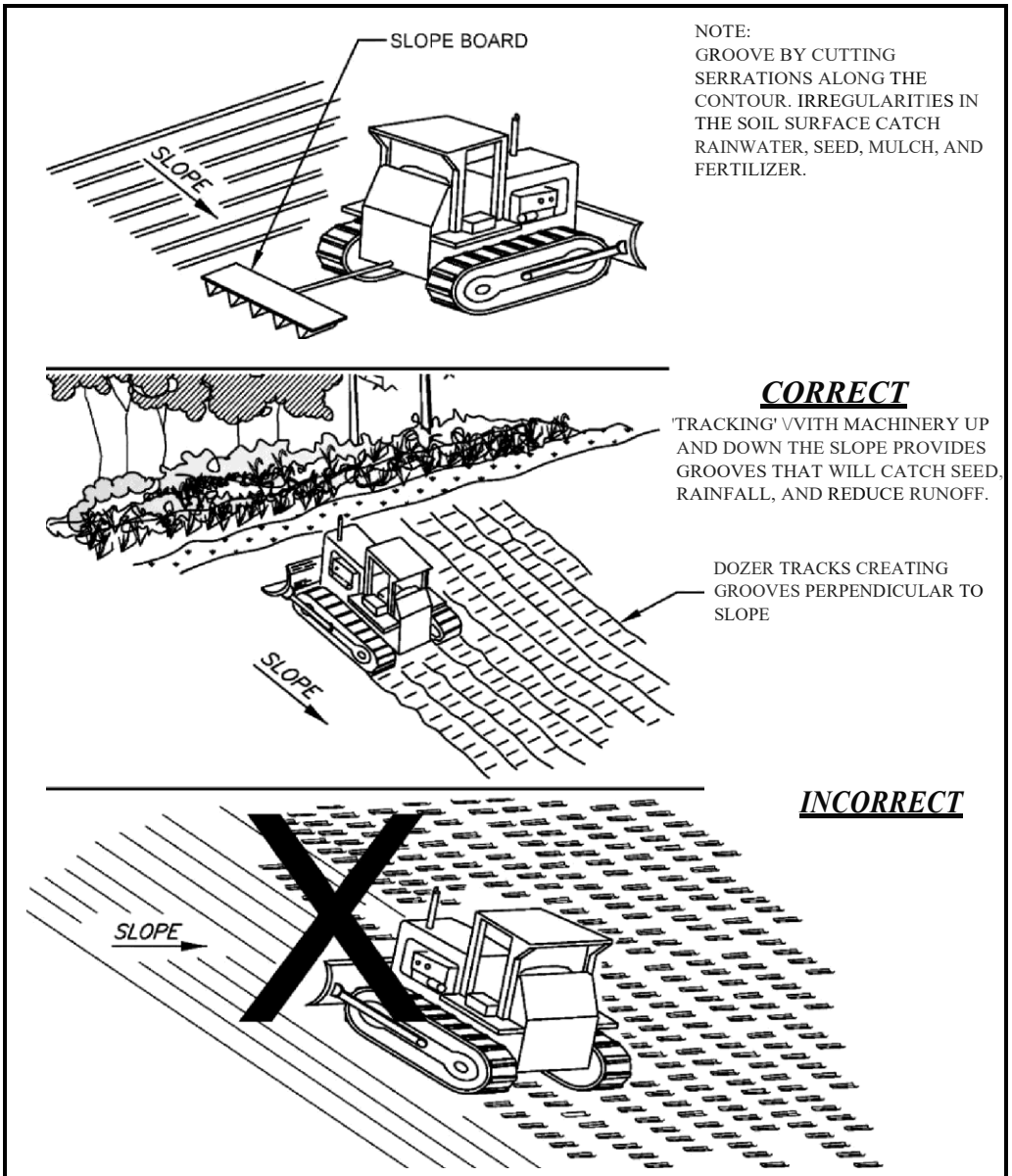


Figure 3: Graphic showing proper implementation of soil roughening

8.3. BMP 3: Mulching

Purpose & Applicability

Mulching is used to temporarily stabilize bare soil areas and promote vegetation establishment by protecting the soil surface from erosive forces and moisture loss. Mulch reduces the velocity of sheet flow, minimizes sediment-laden runoff, and promotes vegetative growth by reducing raindrop impact, conserving soil moisture, and moderating soil temperatures.

- **Applicability:**
  - Use on areas disturbed by construction that require surface protection, including freshly seeded or planted areas, disturbed zones unsuitable for immediate vegetation, or areas needing temporary stabilization.
  - Applicable on steep slopes (up to 2:1 or, with proper anchoring, slopes between 3:1 and 1.5:1) when mulch is anchored using soil stabilizers, netting, or crimping.
  - Mulching may be used alone or with seeding for final stabilization. When used with commercially available polymers for soil surface treatment, it is especially useful on steep slopes.
  - Note: Hay is not acceptable as mulch.

Installation & Use Procedures

Proper design and installation are critical to achieve the desired erosion control and vegetation establishment. The following procedures must be followed:

- **Design Criteria:**
  - The designer shall specify the type of mulch to be used, the application rate (or thickness), and the anchoring method (if required) based on site conditions (slope, soil type, and material availability).
  - Choice of mulch is based on factors including slope, soil type, and availability (See Table 1). Organic mulches (straw, wood fiber, chipped vegetation) are commonly used for temporary stabilization, while permanent controls in arid areas may use gravel or decomposed granite.
  - When applied on slopes steeper than 2:1, additional anchoring methods (e.g., netting, adhesive polymers, crimping) are required. Do not apply mulch on slopes steeper than 1.5:1 unless proper anchoring is provided.
- **Application Methods:**
  - Organic mulches may be applied by hand or mechanically (e.g., mulch-blowing equipment) ensuring an even and uniform layer.
  - For straw mulch:
    - Straw must be free of weed and grass seed, air-dried, and free of mold or rot
    - Straw fibers must be between 4 and 8 inches in length.
    - Anchor straw mulch using a tractor-drawn crimper, degradable netting, or appropriate soil stabilizer.

Table 1: Mulch Standards and Guidelines			
Mulch Material	Quality Standards	Application Rates	Notes
Straw	Air-dried, free of mold and not rotten. Certified Weed Free.	1.5 to 2 tons per acre	Cost-effective when applied with adequate thickness. Straw must be held in place by crimping, netting, or soil stabilizer.
Chipped Site Vegetation	Should include gradation from fine to coarse to promote interlocking properties. Must be free of waste materials such as plastic bags, metal debris, etc.	10 to 12 tons per acre	Cost-effective method to dispose of vegetative debris from site. Best application is for temporary stabilization where construction will resume. Use cautiously on areas where vegetation will be established, as wood chips will deplete soil nitrogen.
Erosion Control Compost (Wood Chip and Compost Mixture)	Shall not contain materials that can contaminate stormwater.	Approx. 10 tons per acre	Special caution is advised regarding the source and composition of wood mulches. Ensure compost is free of herbicides. Ensure wood chips are from unpainted and untreated wood.
Hydraulic Mulch	Must not contain sawdust, cardboard, paper, paper byproducts, plastics, or synthetics. No petroleum-based tackifiers.	Follow the manufacturer's recommendations. Application rate increases with slope steepness.	May be particularly effective on slopes steeper than 3:1. Ensure wood fibers are from unpainted and untreated wood.

    - For chipped vegetation:
        - Ensure vegetation is free of trash, litter, and debris before spreading.
        - Chipped pieces should range from 2 to 6 inches in length.
    - For hydraulic mulch:
        - Use a mixture of shredded wood fiber and a stabilizing binder (non-petroleum-based) applied according to manufacturer recommendations.
        - Protect hydraulically mulched areas from traffic for at least 24-48 hours until the mulch cures.
- **Documentation:**
    - Attach detailed contractor illustrations, design calculations (if applicable), and manufacturer specifications to the SWPPP BMP documentation.
    - Record all mulching application rates and anchoring methods in the SWPPP.

Maintenance & Management

Regular inspection and maintenance are essential to ensure continued erosion control and vegetation establishment:

- **Inspection Schedule:**
    - Inspect mulched areas during each routine inspection period and after any storm events for thinning or bare spots due to natural decomposition or weather-related events.
    - In high-traffic areas, inspect more frequently and replace mulch on a scheduled basis to maintain uniform protection.
- **Maintenance Actions:**
    - Reapply or replenish mulch where needed and use stockpiled excess mulch to dress problem areas.
    - For mulched areas used with seeding for final stabilization, ensure fertilization and soil treatment have been completed prior to mulching (except for hydroseeding or winter straw mulch applications).
    - Repair any areas where mulch has been washed away or where anchoring has failed.
- **Additional Considerations:**
    - Monitor mulch performance and, if necessary, supplement with additional erosion control measures such as geotextile mats or netting on steep slopes.
    - Document maintenance activities and schedule reapplications as required to ensure consistent soil protection.

Performance Criteria

This BMP is considered effective when:

- Mulch is applied uniformly and remains intact during rainfall events, protecting the soil from raindrop impact and reducing overland flow velocity.
- Soil moisture is conserved, and conditions are favorable for vegetation establishment.
- The mulch layer reduces sediment transport by increasing infiltration and providing a protective barrier against erosion.

- Mulch remains in place until vegetation is established; any significant washout, bare spots, or failure of anchoring methods indicates BMP failure and requires corrective action.
- Performance is enhanced when used in conjunction with additional erosion control practices (e.g., seeding, netting, or diversion dikes).

8.4. BMP 4: Preservation of Vegetation

Purpose & Applicability

This BMP is designed to preserve and protect existing natural vegetation, including trees, vines, bushes, and grasses, during construction activities. Preserving vegetation provides multiple benefits such as erosion control, stormwater detention, biofiltration, and enhanced aesthetic value both during and after construction.

- **Applicability:**
  - Applicable to all construction sites where vegetation exists in the predevelopment condition.
  - Particularly beneficial in environmentally sensitive areas such as floodplains, wetlands, stream banks, and steep slopes where erosion controls are difficult to establish.
  - Employed when only the land necessary for building activities and vehicle traffic is cleared, preserving as much natural vegetation as possible.

Installation & Use Procedures (Planning Considerations)

Proper planning and installation are critical to effectively protect existing trees and vegetation (See figure 4):

- **Preconstruction Planning:**
  - Conduct a vegetation inventory and delineate the limits of existing trees, vines, bushes, and grasses on the site.
  - Identify environmentally sensitive areas.
  - Limit clearing to only the areas required for building and vehicle traffic.
- **Protective Measures:**
  - Stake off root system limits (e.g., the drip line of each tree) to prevent inadvertent damage.
  - Fence or mark trees meant to remain in place using barriers or flagging systems.
  - Apply protective mulching (e.g., rock mulch) in accordance with applicable specifications to minimize soil compaction and erosion.
  - Where applicable, incorporate preplanned revegetation measures to enhance existing vegetation during and after construction.
- **Design Considerations:**
  - Ensure that construction operations are coordinated to avoid improper grading that could alter hydrology and lead to vegetation die-off.
  - Consider site hydrology to maintain adequate water supply for preserved vegetation.

- Attach detailed site plans and design drawings illustrating protective measures and vegetation preservation zones on the SWPPP site map.

Maintenance & Management

Ongoing maintenance is essential to ensure that protected vegetation remains healthy and intact during construction:

- **Routine Inspections:**
  - Clearly mark the limits of disturbance and conduct regular inspections to ensure that protective measures (e.g., exclusion fencing) remain intact.
  - Inspect vegetation regularly and immediately repair or replace any damaged trees or plants if applicable to site plans.
- **Irrigation & Care:**
  - Implement irrigation or maintenance programs in accordance with the landscaping plan to support the health of preserved vegetation.
  - Remove any construction debris that may interfere with the growth and health of protected vegetation.
- **Postconstruction Integration:**
  - Incorporate both protected and newly planted vegetation into final landscaping plans to form buffer zones, especially in environmentally sensitive areas.
  - In areas such as streams or natural washes, ensure that buffer zones are a minimum of 50 feet wide and include vegetated ground cover to contain stormwater runoff.

Performance Criteria

This BMP is considered effective when:

- Most natural vegetation remains intact and healthy throughout construction.
- Protective measures (e.g., staking, fencing, tree wells) are in place and maintained, preventing damage to key vegetation.
- Erosion control and stormwater management are enhanced by the preserved vegetation, contributing to improved water quality and site aesthetics.
- Buffer zones are successfully protected, and the preserved vegetation functions by providing additional stormwater filtration.

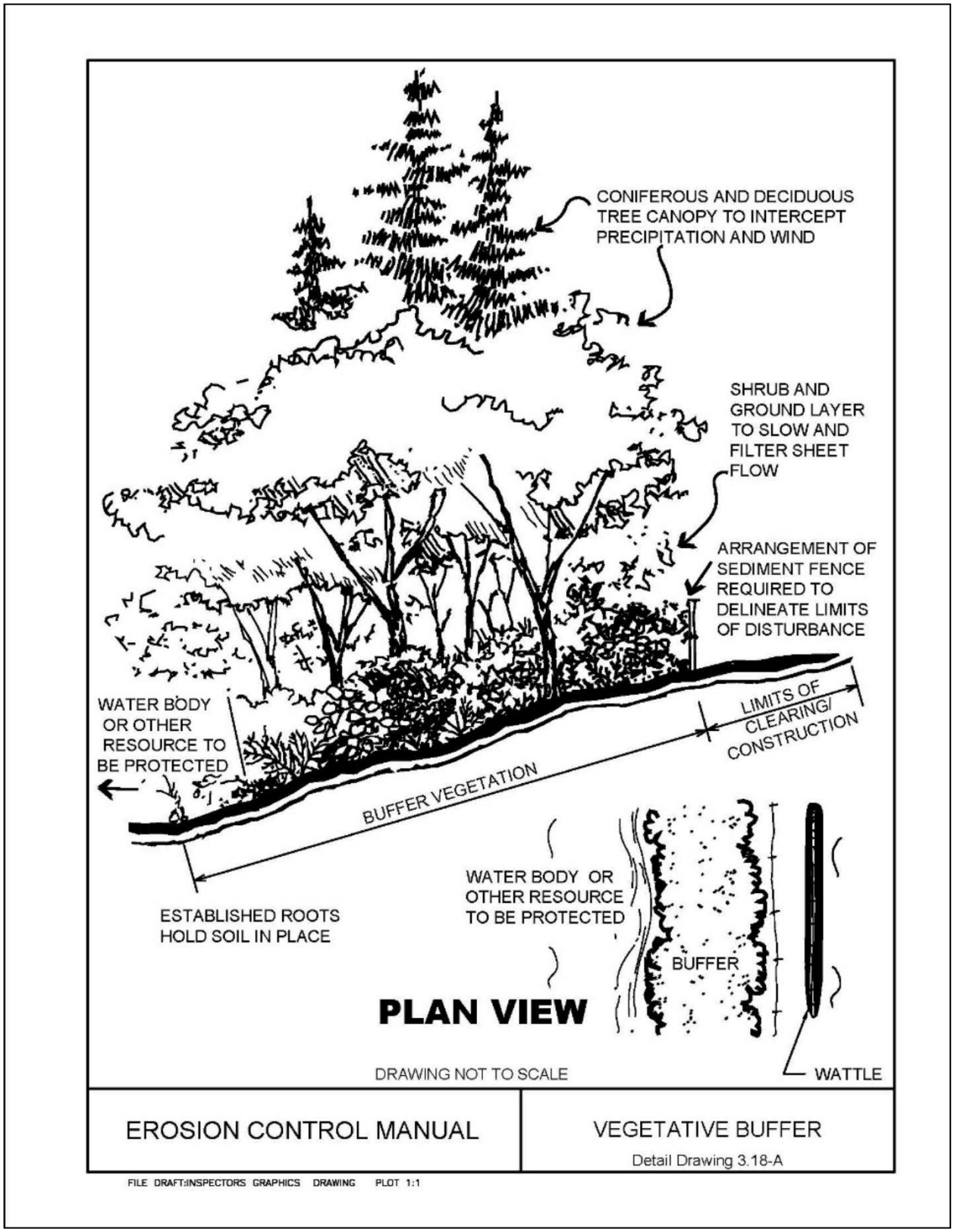


Figure 4: Schematic diagram of a vegetation buffer zone

8.5. BMP 5: Vegetation and Stabilization

Purpose & Applicability

Vegetation is used as both a temporary and final stabilization measure to control erosion on construction-disturbed areas. As a temporary control, vegetation stabilizes stockpiles, earthen dikes, and barren areas inactive for more than 30 days. As a final control, grasses and other plants protect against erosion and filter overland runoff while enhancing site aesthetics.

- **Applicability:**
  - Use for temporary stabilization of stockpiles, earthen dikes, and barren areas until vegetation is established.
  - Use for final stabilization of construction areas by achieving vegetative cover that is at least 70% of the native background.
  - Applicable to channels, swales, mild to medium slopes, and as perimeter protection for utility and site development areas.
  - May be used in conjunction with additional erosion control measures (e.g., erosion control blankets, mulching, diversion dikes, proper grading) to direct flow around newly seeded areas.

Installation & Use Procedures

- **Design Criteria:**
  - Vegetation becomes highly effective once fully established; until then, supplemental controls are needed, and existing sediment controls should not be removed until vegetation is secure.
  - On slopes steeper than 20:1 (5%), use anchored mulch or erosion control blankets to protect seeded areas until establishment.
  - Vegetation alone may stabilize channels if channel grade is less than 2% and runoff velocities (under a 2-year, 24-hour storm) are below 6 ft/s; if velocities exceed 2 ft/s, incorporate erosion control blankets, and if above 6 ft/s, use turf reinforcement mats.
  - Stabilization of channels with vegetation is limited to those with side slopes of 3:1 or flatter.
  - Initiate vegetation establishment (seeding or sodding) immediately after grading, and no later than 30 days following completion of grading on highly erodible areas.
- **Surface Preparation:**
  - Remove and stockpile existing topsoil at the start of grading.
  - Complete interim or final grading before seeding or sodding; limit vehicle and equipment traffic to minimize soil compaction.
  - Install necessary erosion structures (e.g., dikes, swales, diversions) prior to seeding.
  - Spread stockpiled topsoil evenly over disturbed areas to a minimum depth of 4 inches (6 inches over rock or unsuitable material; if needed, amend with compost in a ratio of 3 parts topsoil to 1 part compost.

- Prepare a uniform seed bed by pulverizing and loosening the soil to at least 3 inches depth; on slopes steeper than 3:1, groove or furrow along the contour.

- **Plant Selection, Fertilization, and Seeding/Sodding:**
  - Use high-quality USDA-certified seed or sod adapted to the local climate and soil conditions. Consult local NRCS or extension services for species recommendations and planting schedule (Also see table 2).
  - Follow prescribed seeding rates or use appropriate seeding equipment (seed drills, cultipackers, hydroseeders).
  - For immediate stabilization, sodding may be employed and planted under optimal moisture conditions.
  - After planting, water seeded or sodded areas immediately at a rate that moistens the top 6 inches without causing runoff; provide adequate watering for the first 14 days, then as needed.
  - Use mulching techniques (avoid chipped vegetation mulch if high wood content could deplete nitrogen) to enhance seed protection, moisture retention, and erosion control.

Table 2: Optimal Seeding Window Timeline Guide

Elevation	Date
Below 4,000 ft	October 15 to December 31
4,000 to 6,000 ft	September 15 to November 30
Above 6,000 ft	September 1 to November 15

Maintenance & Management

Proper maintenance is essential to ensure long-term vegetation establishment and erosion control:

- **Inspection & Early Maintenance:**
  - Protect newly seeded areas from excessive runoff and vehicle traffic until vegetation is well established.
  - Follow a detailed watering and fertilizing schedule in the construction plan to facilitate plant establishment.
  - Inspect vegetated areas during each routine inspection period and after any storm events; reseed bare spots and apply mulch or other erosion control measures as necessary.
  - Remove accumulated sediment from the vegetation to prevent smothering and determine the source of excessive sediment to implement further erosion controls.

Performance Criteria

This BMP is considered successful when:

- The established vegetation effectively stabilizes the soil, reduces erosion, and filters stormwater runoff.
- Temporary vegetation (via seeding) supports stabilization until final vegetation reaches at least 70% cover of the native background.

- Supplemental erosion controls (mulching, erosion control blankets, diversion dikes) remain in place until the vegetation is fully established.
- Vegetative cover is maintained according to design criteria, and any bare spots are promptly reseeded.

8.6. BMP 6: Check Dam

Purpose & Applicability

Check dams are installed in swales, drainage ditches, or constructed channels to reduce erosive velocities, provide a barrier to sediment transport, and help disperse concentrated flows. They are used in combination with other channel protection measures (such as vegetation lining and turf reinforcement mats) and may be paired with outlet sediment traps to enhance sediment capture.

- **Applicability:**
  - Use in long drainage swales or ditches along linear projects (e.g., roadways) to mitigate increased runoff and control erosive velocities.
  - Suitable for short swales down steep slopes (e.g., highway embankments) to reduce flow velocities.
  - Do not install check dams in actively flowing stream channels.
  - Install before the contributing drainage area is disturbed; if the swale is graded during construction, install check dams immediately after grading to control velocities until stabilization is complete.
  - It is appropriate for temporary sediment control and energy dissipation and can be used in conjunction with other sediment reduction techniques.

Installation & Use Procedures

Follow these procedures to properly install check dams (See figure 5):

- **General Design Criteria:**
  - **Dimensions & Spacing:**
    - Dam height should generally be between 9 and 36 inches, always less than one-third the channel depth.
    - Space dams so the top of the downstream dam aligns with the toe of the upstream dam; allow spacing to form small pools between dams.
    - The top of the dam's side must be at least 6 inches higher than the center, and the sides must be embedded at least 18 inches into the channel to minimize bypass erosion.
  - **Materials & Construction:**
    - Do not use loose soil, wood chips, compost, or other floatable materials for construction.
  - **Flow Considerations:**
    - Design dams so that larger flows (exceeding a 2-year, 24-hour storm) pass without causing excessive upstream flooding.
    - Use in conjunction with additional sediment reduction measures prior to releasing flow off-site.

- **Alternative Check Dam Options:**
  - **Rock Check Dams:**
    - For dams <24 inches in height, use well-graded stone sized 3-6 inches; for dams >24 inches, use stone sized 4-8 inches.
    - Typical cross-sectional design is triangular, with a minimum top width of 2 feet and side slopes of 2:1 (or flatter).
  - **Rock Bag Check Dams:**
    - Construct with a minimum top width of 16 inches, using bags (24–30 inches long, 16–18 inches wide, 6–8 inches thick, ~40 lbs each) filled with pea gravel or filter stone.
    - Assemble in a pyramid stack (one row on top of two rows) with the dan always one row wider than it is high.
    - Bag material must meet specified strength and durability criteria.
  - **Sack Gabion Check Dams:**
    - Suitable for channels with a drainage area of ≤ 5 acres.
    - Construct using well-graded stone (3-6 inches) contained in sack gabions wrapped in 20-gauge, 1-inch hexagonal woven wire mesh and staked with ¾-inch rebar at ≤ 3-foot spacing.
  - **Organic Filter Tube Check Dams (See BMP 8.8):**
    - Use tubes with a minimum diameter of 12 inches filled with organic material (e.g., coir, straw, aspen fiber) that is slow to decay.
    - Stake tubes at a maximum spacing of 4 feet, alternating stakes through the tube and on the downstream face.
- **Documentation:**
  - Include detailed manufacturer illustrations and specifications for any applicable proprietary products.
  - Record installation locations on the SWPPP site map.

Maintenance & Management

Routine inspection and maintenance are essential for long-term effectiveness:

- **Inspection Schedule:**
  - Inspect the check dam system during each routine inspection period and after any storm events.
- **Maintenance Actions:**
  - Remove accumulated sediment from the upstream side when it reaches approximately one-third the dam height.
  - Inspect for erosion along dam edges, especially where the dam meets the channel, and repair as needed.
  - If erosion persists or dam performance degrades, modify the dam design or add additional controls.

- Exercise caution during removal to avoid leaving loose rock, which can create hazards during subsequent site operations (e.g., mowing).

Performance Criteria

The check dam BMP is considered effective when:

- The system reduces flow velocities to levels that prevent deep erosive gullies and excessive sediment bypass.
- Sediment accumulates primarily on the upstream side of the dam, within acceptable maintenance tolerances.
- The check dams remain in place, conform to design specifications, and are not compromised by erosion or construction operations.

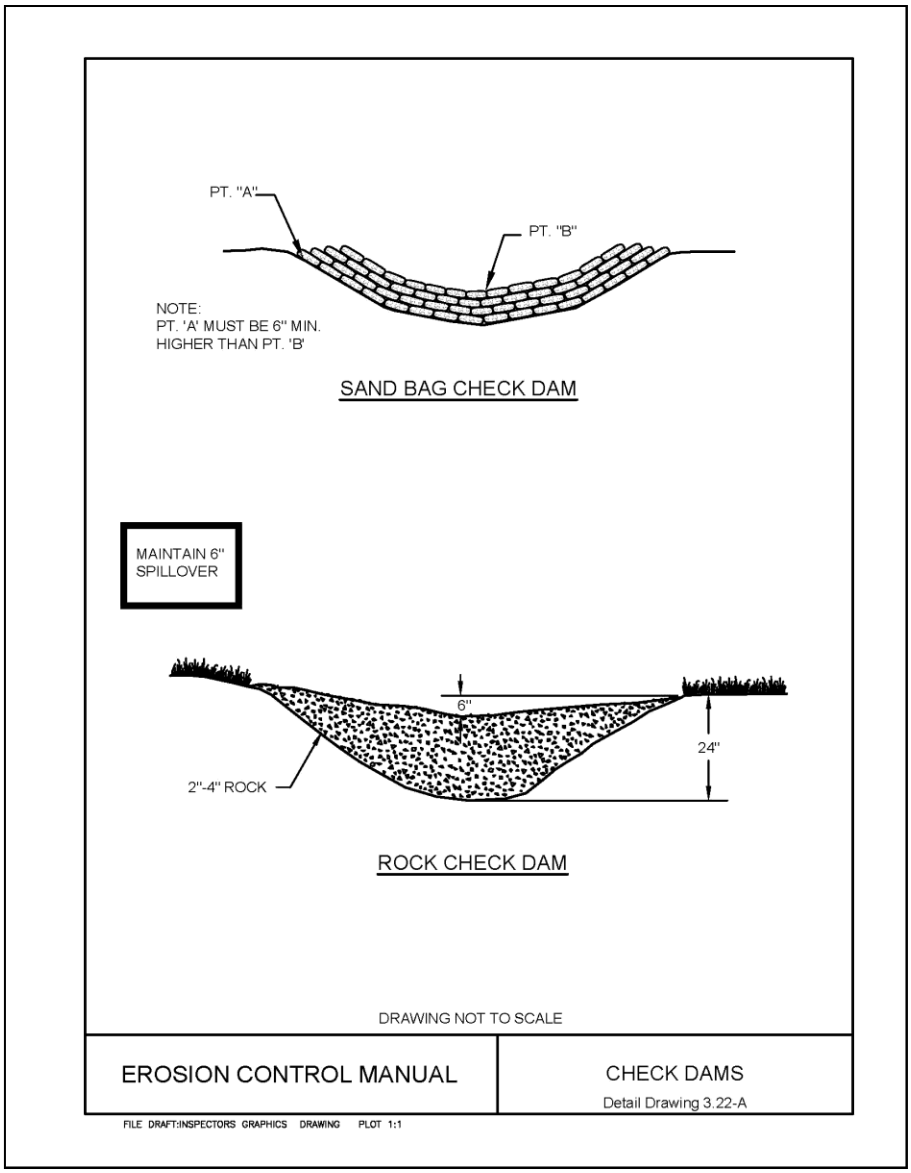


Figure 5: Schematic diagram for check dam installation

8.7. BMP 7: Velocity Dissipation Devices

Purpose & Applicability

This BMP is designed to reduce the velocity and energy of concentrated stormwater flows at discharge points, thereby preventing erosion in downstream vegetated or natural drainage channels. By dispersing flow and encouraging sediment settlement, velocity dissipation devices help protect channel integrity.

- **Applicability:**
  - Use at outlets of constructed conveyance systems (e.g., storm drain pipes, concrete flumes, roadside ditches, culverts) that discharge to unlined or natural channels.
  - Suitable for locations where concentrated flows can cause erosion in unlined channels or where channel protection is pending installation.
  - Can be designed as temporary measures or, when constructed permanently, must meet the municipality's drainage design criteria.

Installation & Use Procedures

To ensure effective operation of velocity dissipation devices, follow these procedures:

- **General Installation Guidelines:**
  - Install temporary velocity dissipation devices at all discharge points where the design storm velocity exceeds 4 feet per second and the flow is directed to an unlined or natural channel.
  - Ensure that temporary devices do not block flow or cause flooding during larger storm events.
  - Coordinate the design and installation of temporary devices with the overall stormwater infrastructure design; permanent devices should be constructed early in the first phase of construction when feasible.
- **Rock Riprap Systems (Primary Option) (See figure 6):**
  - Use well-graded rock (natural stone or recycled concrete) for temporary velocity dissipation.
  - Follow storm water design calculations, including drainage computations, discharge velocity, stone size, and apron dimensions.
  - Select stone with sizes that are a minimum of 6 inches, with a maximum diameter not exceeding 9 inches. The rock surface should be homogeneous with no voids larger than 1½ inches.
  - Construct a riprap apron with a minimum depth of 1.5 times the max stone diameter, a length of at least 4.5 times the outlet pipe diameter (or equivalent for other outlets), and a width of at least 4.0 times the outlet pipe diameter.
  - Place the riprap on a filter fabric lining keyed into the ground at least 6 inches to prevent soil intrusion.
  - Align the riprap apron with the flow direction, ensuring that it does not cause undue blockage or flooding.
  - Note: Riprap systems should not be used where there is a significant elevation difference between the outlet and the receiving channel.

- **Other Devices (Alternative Options):**
    - Alternative devices (e.g., articulating concrete blocks, gabions, stilling basins, manufactured velocity dissipaters) may be used if the designer provides calculations to document the appropriate size and dimensions for the design storm flow.
    - Temporary baffled chutes, gabion drop structures, or stabilized grade breaks may be installed where an elevation difference exists at the outlet until permanent structures are installed.
- **Documentation:**
    - Attach all design calculations, manufacturer illustrations, and product specifications to the SWPPP, and indicate their locations on the site map.
    - Reference additional design guidance if necessary.

Maintenance & Management

Regular inspection and maintenance are critical to ensuring that velocity dissipation devices continue to function effectively:

- **Inspection Schedule:**
    - Inspect discharge points during each routine inspection period and after any storm events.
- **Maintenance Actions:**
    - Repair or replace dislodged or missing rock riprap as necessary.
    - Monitor for the development of head-cuts, channel deepening, or widening, which indicate that additional velocity dissipation measures are needed.
    - Inspect the underlying filter fabric and rekey or repair as required.
    - Remove any debris that may block flow or interfere with the functioning of the velocity dissipater.
    - If temporary devices are used, ensure they are removed once the surrounding drainage area is stabilized or at the completion of construction.

Performance Criteria

This BMP is considered effective when:

- The velocity dissipation device reduces discharge energy and flow velocity sufficiently to prevent erosion in the receiving channel.
- Suspended sediments are allowed to settle within the device, thereby reducing sediment transport downstream.
- The device maintains its structural integrity and does not block flow or cause flooding during larger storm events.
- There is minimal evidence of downstream erosion (e.g., head-cuts, channel widening) attributable to the discharge.

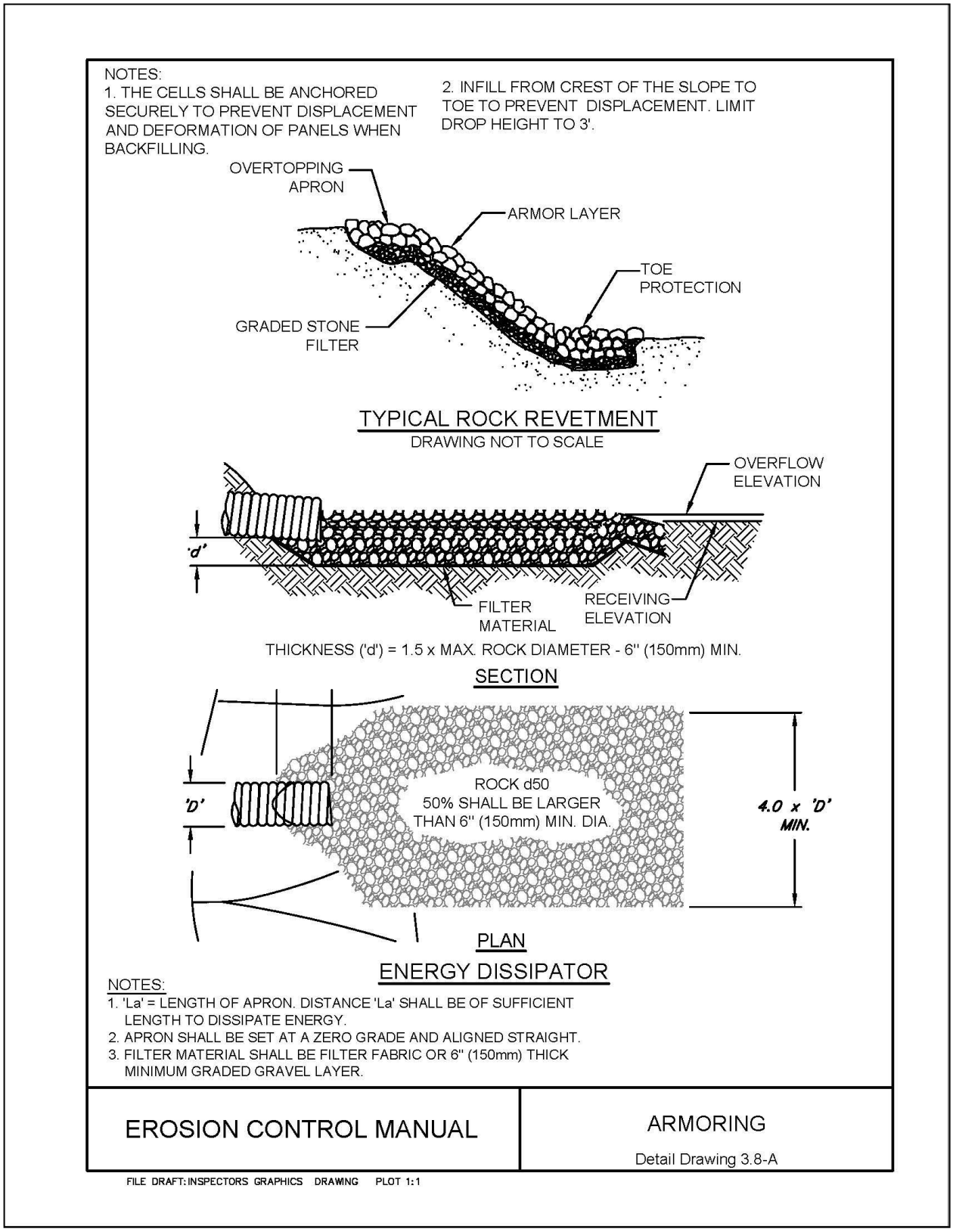


Figure 6: Schematic diagram for velocity energy dissipater installation

8.8. BMP 8: Straw Wattle Check Dam

Purpose & Applicability

This BMP is designed to reduce flow velocities and control sediment in swales and drainage ditches, including those along linear projects such as roadways, using straw wattle check dams. Straw wattle check dams are a temporary measure used during construction, particularly prior to final stabilization, and are not intended for use in live (flowing) stream channels.

- **Applicability:**
  - Use in swales and drainage ditches to mitigate increased runoff effects and reduce velocities.
  - Suitable for short swales down steep slopes to control flow.
  - Must not be installed in in actively flowing stream channels.
  - Install before disturbing the contributing drainage area, or immediately after grading a swale, to control velocities until final stabilization is achieved.

Installation & Use Procedures

Follow these procedures to properly install and operate straw wattle check dams (See figure 7):

- **Design & Dimensions:**
  - The dam height should be between 9 and 36 inches and less than one-third the depth of the channel.
  - Dams should be spaced so that the top of the downstream dam is at the same elevation as the toe of the upstream dam.
  - The top of the side of the check dam shall be at least 6 inches higher than the middle of the dam.
  - Embed the sides of the dam a minimum of 18 inches into the channel, swale, or drainage ditch to minimize the potential for erosive flows around the dam.
  - Stake tubes at a maximum spacing of 4 feet, alternating stakes through the tube and on the downstream face.
- **Supporting Measures:**
  - Use straw wattles in conjunction with other sediment reduction techniques before releasing flow off-site.
  - Do not use loose soil, wood chips, compost, or other floatable materials that may be transported during runoff for the construction of the check dam.
- **Documentation:**
  - Refer to the BMP 6 for alternative design options.
  - Attach contractor illustrations and manufacturer recommendations if necessary and mark the installation location on the SWPPP site map.

Maintenance & Management

Regular maintenance and inspections are critical to ensure the check dam system performs as intended:

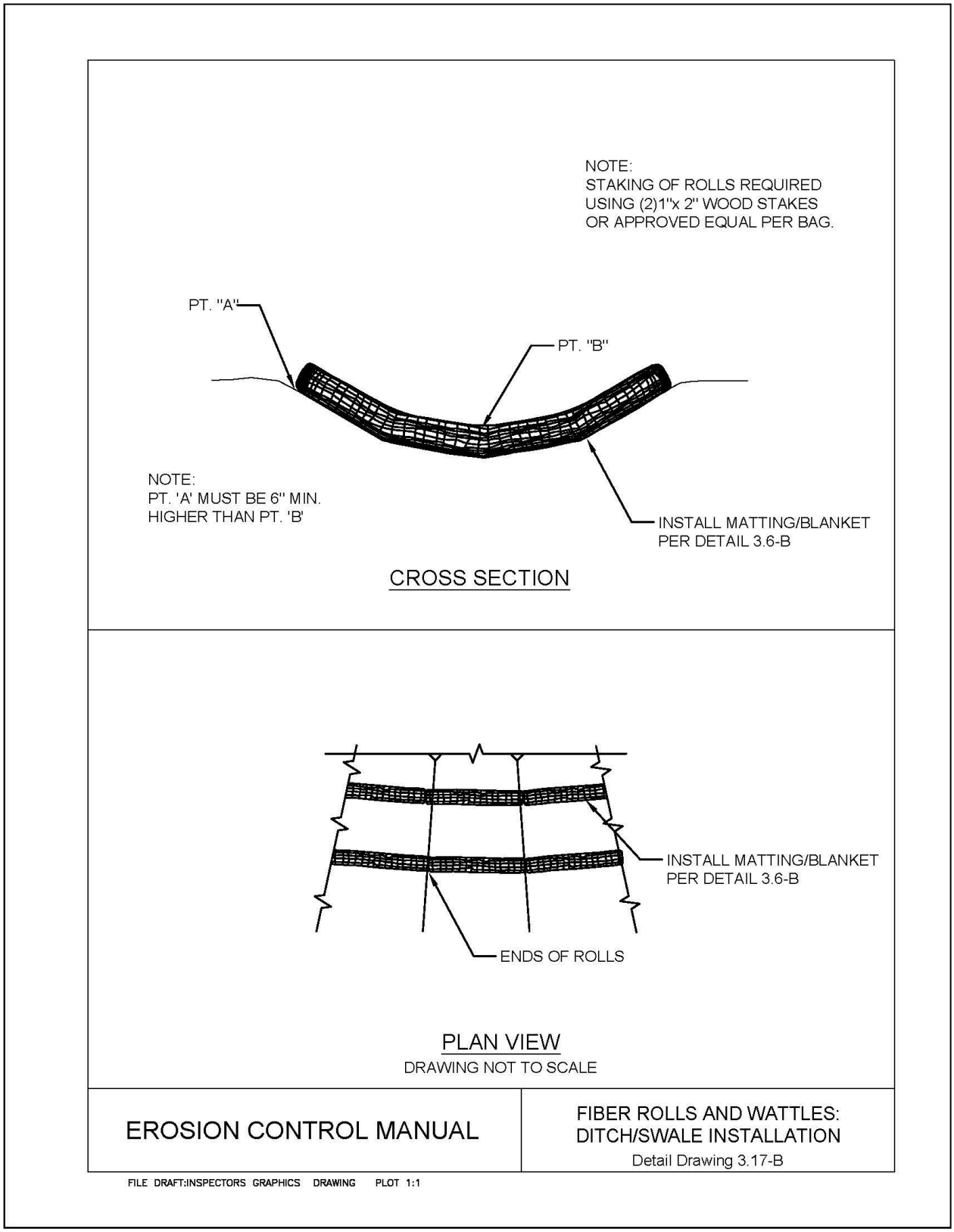


Figure 7: Schematic drawing for installation of straw wattle check dams

- **Inspection Schedule:**
    - Inspect the check dam system during each routine inspection period and after any storm events.
- **Sediment and Erosion Management:**
    - Remove accumulated silt when sediment buildup reaches approximately one-third the height of the dam.
    - Inspect for erosion beneath and around the check dam, particularly where the dam meets the side of the channel and restore or reinforce as needed during each reporting period.
    - If erosion persists, engineer modifications to the check dam or implement additional controls.

Performance Criteria

This BMP is considered effective when:

- The drainage channel protected by the check dams does not develop deep erosive gullies between dams.
- The dam itself remains intact, is not undercut by erosion, and maintains its design dimensions.
- Sediment accumulation on the upstream side of the dam is within acceptable maintenance tolerances.

8.9. BMP 9: Straw Wattle on Slopes

Purpose & Applicability

This BMP utilizes straw wattle, also known as fiber rolls, fiber logs, filter tubes, mulch socks, or coir rolls, as a temporary sediment and erosion control measure on slopes. These tubes can be filled with organic materials (compost, wood chips, straw, coir, aspen fiber, or a mixture) or geosynthetic material. This BMP focuses on managing sheet flow on slopes and controlling sediment discharge.

- **Applicability:**
  - Use on slopes to treat sheet flow over a short distance, functioning as both sediment and erosion control.
  - Can be installed along the contours of a slope as a linear barrier or as a perimeter control downslope of a disturbed area.
  - When filter tubes are intended to remain on-site as part of final stabilization (especially in arid and semi-arid areas with extended stabilization timelines), they must be constructed of 100% biodegradable natural fibers (jute, coir, sisal, etc.) or 100% UV photodegradable plastic, polyester, or geosynthetic material.
  - Most effective in coarse to silty soil types; additional controls may be needed for fine silts and clays.

Installation & Use Procedures

Follow these procedures to properly install and deploy straw wattles on slopes (See figure 8):

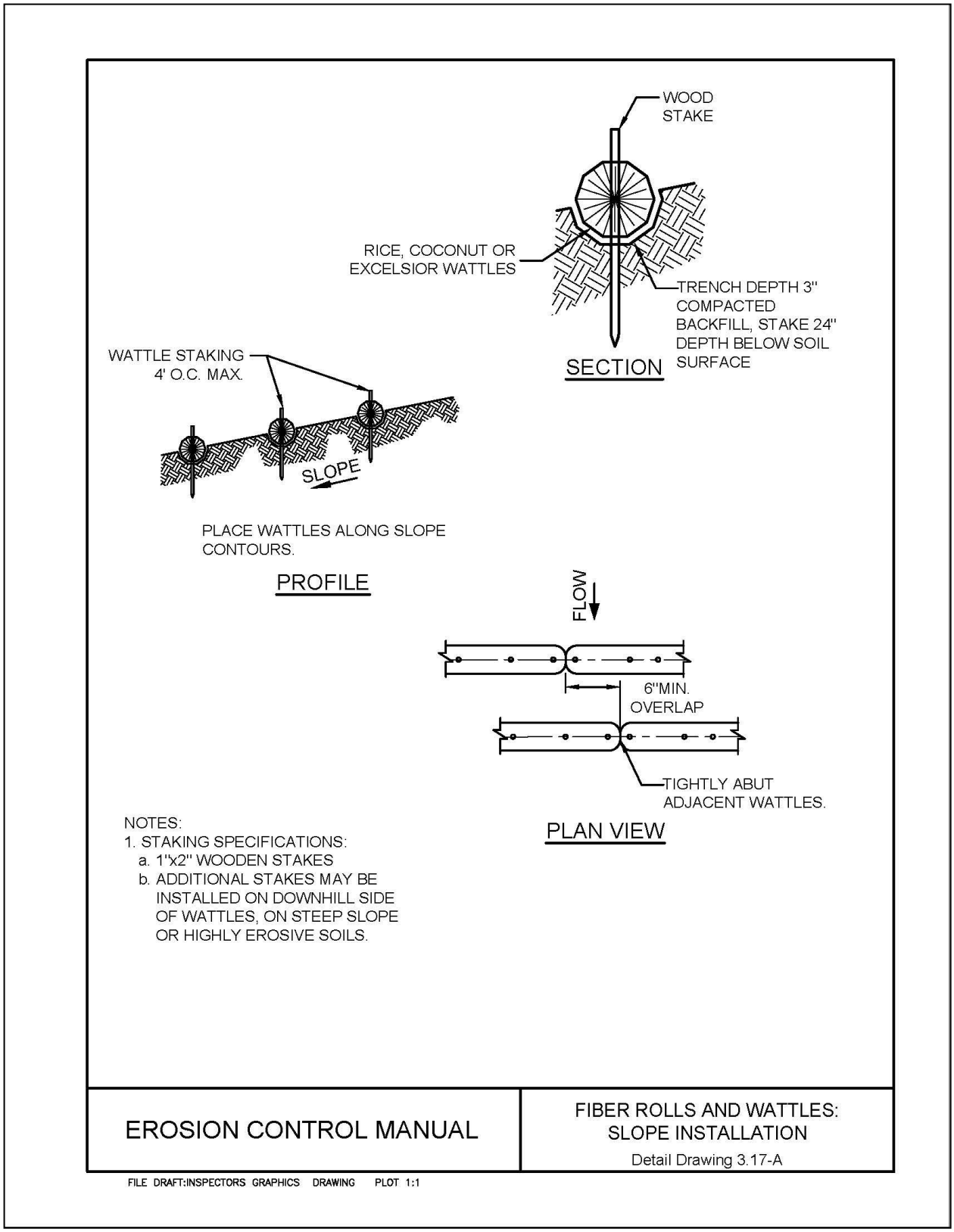


Figure 8: Schematic diagram of straw wattle slope installation

- **Placement and Alignment:**
  - Install filter tubes along the contour of the slope to maximize sediment capture and flow detention.
  - When using manufactured wattles, follow the manufacturer's recommendations for tube diameter, spacing, and installation based on slope, flow velocity, and other site-specific conditions; document these in the SWPPP.
  - Use Table 3 for spacing unless otherwise specified in manufacturer's recommendations.
- **Staking and Embedding:**
  - Stake tubes using 2-inch by 2-inch wooden stakes (or equivalent rebar/metal stakes) at a maximum spacing of 4 feet.
  - When placed on soil, embed filter tubes a minimum of 3 inches to ensure stability.
- **Connection and Overlap:**
  - When multiple tubes are connected to form a continuous linear barrier, overlap adjacent tubes by at least 6 inches.
- **Upstream Protection and Bypass Prevention:**
  - If necessary, place loose sediment or mulch material against the upstream side of the tubes to promote continuous contact with the soil.
  - At the ends of a line of tubes, turn the last 10 feet (or more) upslope to prevent runoff bypass. On longer installations, additional upslope turns may be required every 200–400 linear feet, depending on the slope traverse.
- **Size Considerations:**
  - Common tube diameters range from 6 to 24 inches; tubes as small as 4 inches or as large as 36 inches are available.
  - Tubes less than 8 inches in diameter, when filled, will require more frequent maintenance.

Table 3: Maximum Spacing for Slope Protection

	Tube Diameter (minimum)			
Slope (H:V)	9 inches	12 inches	18 inches	24 inches
10:1 to 5:1	35 feet	40 feet	55 feet	60 feet
4:1	30 feet	40 feet	50 feet	50 feet
3:1	25 feet	35 feet	40 feet	40 feet
2:1	20 feet	25 feet	30 feet	30 feet
1:1	10 feet	15 feet	20 feet	20 feet

Maintenance & Management

Regular maintenance and inspections are critical to ensure the wattle system performs as intended:

- **Inspection Schedule:**
  - Inspect organic filter tubes during each routine inspection period and after any storm events.
  - Verify that the tubes remain in continuous contact with the soil at the bottom of the embedment trench.
- **Maintenance Actions:**

- Check for the development of rill erosion under the filter tubes; repair eroded spots immediately and monitor for recurrence. If erosion persists, implement additional controls.
- Inspect staking to ensure filter tubes remain secure and are not shifting due to stormwater runoff, repair and re-stake any slumping tubes.
- Replace or repair any tubes that are split, torn, or unraveling.
- Remove accumulated sediment from behind the filter tubes before the sediment reaches half the height of the exposed portion.

Performance Criteria

This BMP is considered effective when:

- The filter tube barrier effectively detains flow and captures sediment as runoff passes over or through it, with minimal bypass.
- The barrier minimizes off-site sediment discharge and prevents the development of erosive rills or gullies between tubes.
- Tubes are not undercut or eroded on either side, maintaining structural integrity throughout the storm event.

8.10. BMP 10: Diversion Dikes

Purpose & Applicability

Diversion Dikes are temporary, earthen structures constructed to intercept and divert runoff, thereby reducing erosion from disturbed areas. Depending on their location and design, they can prevent surface sheet flow runoff from entering a disturbed construction site when located upslope or divert sediment-laden runoff from a disturbed area toward sediment trapping devices when installed downslope.

- **Appropriate Applications:**
  - Intercept and divert runoff to avoid sheet flow over sloped surfaces.
  - Direct runoff toward sediment basins, drainage pipes, or channels.
  - Divert runoff from paved surfaces.
- **Installation Locations:**
  - Below steep grades where runoff begins to concentrate.
  - Along roadways and facility improvements subject to flood drainage.
  - At the top of slopes to divert run-on from adjacent undisturbed areas.
  - At mid- to bottom-slope locations to intercept sheet flow and convey concentrated flows.
- **Limitations:**
  - Best suited for upstream drainage areas of 10 acres or less and slopes less than 5%; larger areas require more permanent structures.
  - Must comply with hydraulic design standards set by the local municipality or Flood Control District.
  - Earth dikes may create additional disturbed areas and can impede construction equipment; stabilization and immediate maintenance are required.
  - Diverted stormwater flow may cause flood damage to adjacent areas if not properly managed.
  - Diversion dikes are not intended as sediment trapping devices on their own.

Installation & Use Procedures

To construct effective diversion dikes, follow these design and installation guidelines (See figure 9):

- **Design Considerations:**
  - Determine the primary function: to prevent erosion by diverting runoff away from steep slopes or to direct runoff into a sediment control device.
  - Use diversion dikes as upslope perimeter controls for sites with significant off-site flow or as downslope controls to convey runoff to a sediment basin or protected inlet.
  - An interceptor swale may be installed on the upslope side to enhance performance; refer to applicable swale design criteria (See BMP 11).
- **Design Criteria:**
  - Maximum contributing drainage area should be 5 acres or less, depending on site conditions.
  - Maximum depth of flow at the dike shall be 1 foot based on a 2-year, 24-hour design storm.
  - Side slopes of the diversion dike shall be 3:1 or flatter (2:1 acceptable for

installations under 3 months duration).
    - Minimum width at the top of the dike shall be 2 feet.
    - Minimum embankment height shall be 18 inches (measured from the toe on the upgrade side).
    - For slopes less than 2% and flow velocities below 6 feet per second, stabilization may include grass, erosion control blankets, or anchored mulch; for steeper slopes or higher velocities, turf reinforcement mats or riprap are required.
    - Use on-site soil that is free of rocks larger than three inches in diameter and has adequate plasticity (soil stickiness) or provide armoring if working with loose soils.
    - Ensure the flow line at the dike has a positive grade draining to a controlled outlet.
- **Construction Timing & Location:**
    - Construct diversion dikes prior to clearing and grading, or immediately after grading if the swale is part of the project, to intercept runoff before it impacts disturbed soils.
    - Situate the dike so that diverted runoff is conveyed to a sediment control device (e.g., sediment basin, interceptor swale) without collecting water from wetlands or high groundwater areas.
    - Attach contractor illustrations, design calculations, and referenced topography within the SWPPP and site map.
- **Safety & Coordination:**
    - Ensure that dikes are installed only within property limits where failure would not result in loss of life, property damage, or interruption of public services.
    - Comply with local ordinances and specifications.

Maintenance & Management

Regular inspection and timely maintenance are critical to ensuring the diversion dike remains effective:

- **Inspection Schedule:**
    - Inspect the diversion dike during each routine inspection period and after any storm events.
- **Maintenance Actions:**
    - Check for sediment build up behind the dike and remove sediment in a timely manner.
    - Inspect the face of the dike for erosion; if erosion occurs, stabilize the slopes with mulch, seeding, or by flattening the slope.
    - Ensure that all structural components (e.g., berms, outlets) remain in compliance with the design criteria.
    - Repair any damage immediately to prevent runoff from bypassing the dike.

Performance Criteria

The diversion dike is considered effective when:

- It successfully intercepts and diverts runoff away from disturbed areas, preventing erosion on steep slopes.
- Diverted runoff is conveyed to a designated sediment control (e.g., sediment basin or

interceptor swale) without causing flood damage to adjacent areas.

- The dike maintains its structural integrity under the design storm conditions (up to a 2-year, 24-hour event) with minimal sediment buildup and erosion.

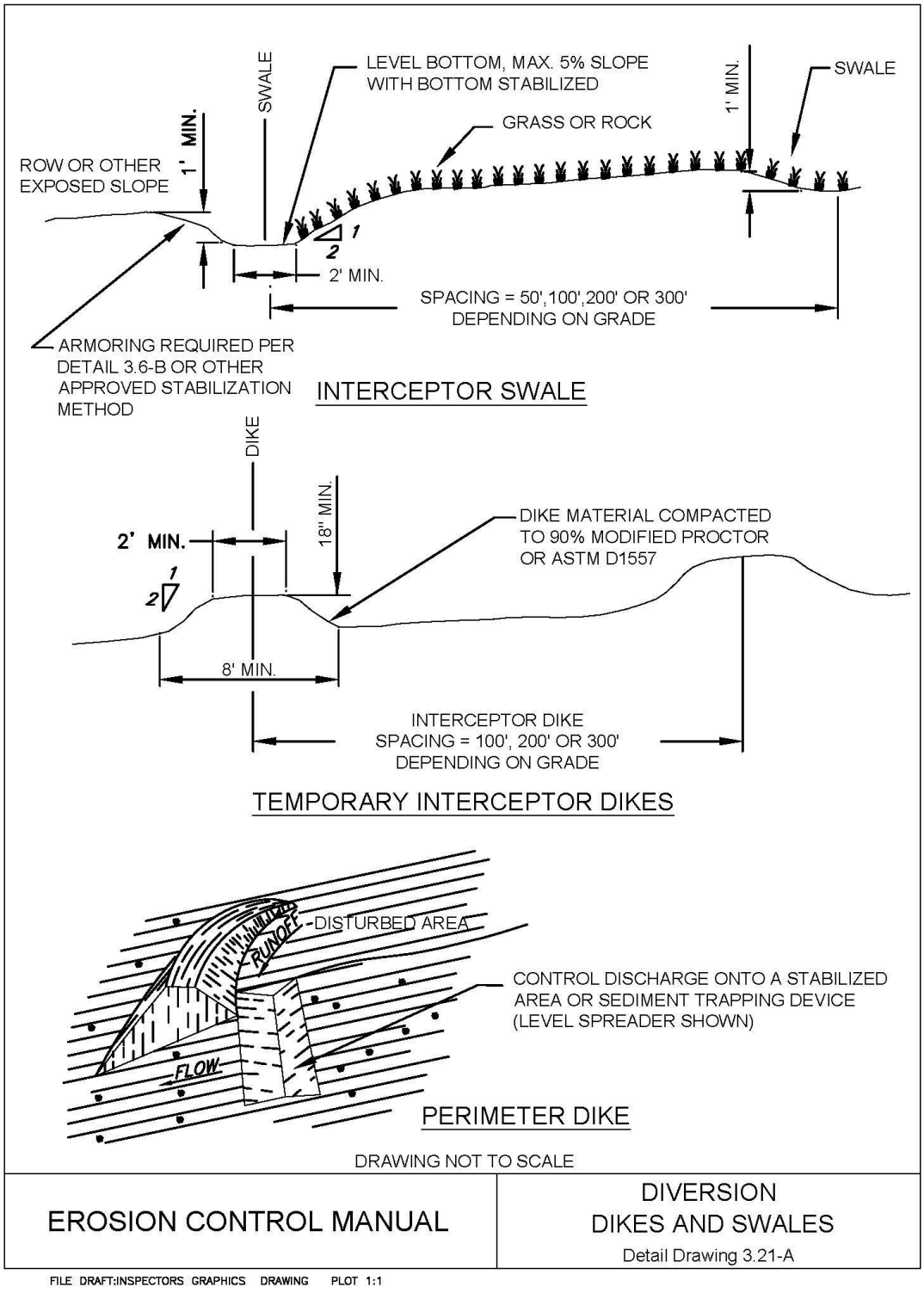


Figure 9: Schematic diagram of diversion dike and drainage swale installation

8.11. BMP 11: Drainage Swales

Purpose & Applicability

Drainage swales are designed to intercept and divert runoff from disturbed areas without causing erosion. They act as a first line of defense by reducing runoff volumes, slowing flow velocities, and directing flows to sediment control devices. Swales can be used either to convey sediment-laden flows to a sediment basin or to divert relatively "clean" runoff around disturbed areas.

- **Applicability:**
  - Convey surface runoff down sloping land while minimizing erosion.
  - Intercept and divert runoff from steep or disturbed slopes, paved surfaces, and concentrated flows.
  - Serve as temporary or permanent controls (e.g., vegetated swales for final stabilization).
  - Can be used in conjunction with diversion dikes, check dams, velocity dissipation devices, and other erosion controls.

Installation & Use Procedures

Proper design and installation of drainage swales require engineered calculations and careful construction practices (See figure 9):

- **Design & Calculations:**
  - Prepare drainage computations to determine channel shape, dimensions, slopes, and freeboard.
  - Design the swale to convey the calculated runoff volume from a 2-year, 24-hour storm.
  - The maximum contributing drainage area should generally be 5 acres or less, depending on site conditions.
  - Set the maximum flow depth to 1.5 feet (with provisions for overflow during larger storms); permanent swales if designed to local municipal standards.
- **Channel Geometry:**
  - Channels may be trapezoidal, parabolic, or V-shaped; note that V-shaped channels are generally used only where flow volumes and velocities are low.
  - For interceptor swales, side slopes should be 3:1 or flatter; temporary swales (less than 3 months) may use slopes of 2:1.
  - Provide a minimum freeboard of 6 inches.
- **Stabilization & Vegetation:**
  - For grades less than 2% and velocities under 6 feet per second, stabilize with grass, erosion control blankets, or anchored mulch.
  - For grades above 2% or velocities exceeding 6 feet per second, use turf reinforcement mats or riprap as appropriate.
  - Vegetated swales should be established to filter sediment and pollutants while reducing erosion.
- **Outlet & Integration:**

    - Design the outlet (discharge point) to ensure non-erosive velocities or incorporate velocity dissipation devices.
    - Ensure diverted runoff from disturbed areas is conveyed to a sediment control (e.g., sediment basin) or treatment facility.
    - Where applicable, integrate diversion dikes with the swale.
- **Documentation:**
    - Attach contractor illustrations, design calculations, and references to applicable standards.
    - Mark swale locations and outlet points on the SWPPP site map.

Maintenance & Management

Regular inspections and timely maintenance are essential to maintain hydraulic capacity and performance:

- **Inspection Schedule:**
    - Inspect temporary swales prior to the rainy season, after rainfall events, and regularly throughout the rainy season.
    - Check channel linings, embankments, and outlets for erosion, washouts, debris, or sediment accumulation.
- **Maintenance Actions:**
    - Remove accumulated sediment to maintain channel capacity.
    - Repair any damage to berms, sidewalls, or outlet structures promptly.
    - Replace lost riprap, damaged linings, or soil stabilizers as needed.
    - Temporary swales should be completely removed once the drainage area is stabilized or at project completion.

Performance Criteria

The effectiveness of the drainage swale BMP is determined by:

- The swale's ability to convey runoff at non-erosive velocities while reducing overall flow volume across disturbed areas.
- Effective interception and diversion of sediment-laden runoff into designated sediment control devices (e.g., sediment basins) without significant bypass.
- For vegetated swales, successful establishment of vegetation that filters sediment and pollutants while reducing erosion.
- Maintenance of hydraulic capacity and proper channel geometry as verified by regular inspections.
- No adverse impacts on upstream or downstream conditions, with all overflows managed safely.

8.12. BMP 12: Dust Control

Purpose & Applicability

This BMP is designed to mitigate wind erosion and control dust emissions from construction sites. Fugitive dust generated from bare earth surfaces, whether by stormwater runoff, wind, erosion, or vehicle track-out, can negatively affect air quality and water quality if transported into storm drains. Effective dust control reduces particulate matter in the air, protecting worker health and nearby residents.

Note: *For certain counties in Utah, construction projects disturbing more than ¼ acre are required to submit a Fugitive Dust Control Plan (FDCP) to the Utah Division of Air Quality (UDAQ) before beginning work. Where required, this plan must outline measures to minimize dust emissions, ensuring compliance with opacity limits of 20% on-site and 10% at the property boundary.*

- **Applicability:**
  - Use on all bare earth areas where vegetation has been removed, such as during grading, earthmoving, or demolition operations.
  - Applicable to areas experiencing high vehicle traffic on unpaved surfaces, soil and debris storage piles, blasting, and wrecking ball operations.
  - Essential for preventing dust from being re-entrained by subsequent vehicular traffic and carried into public storm sewer systems.
  - To be used in conjunction with other erosion control and stormwater BMPs (e.g., revegetation, seeding, mulching).

Installation & Use Procedures

To effectively control fugitive dust, implement the following procedures:

- **Control Methods:**
  - **Mechanical Methods:** Install geotextiles, mats, plastic covers, or other physical barriers over bare soil.
  - **Dust Palliatives:** Apply soil binders or chemical dust suppressants as prescribed by the manufacturer; note that all dust suppressants are temporary and require curing time (often 24 hours or longer) and may need reapplication after storm events.
  - **Revegetation:** Establish vegetation in disturbed areas to provide long-term stabilization and reduce dust generation.
  - **Water Application:** Apply water using a pressurized spray to moisten exposed soils and unpaved surfaces, preventing dust without causing runoff.
- **Documentation & Planning:**
  - Attach a copy of the Fugitive Dust Control Plan and applicable UDAQ permit information.
  - Include detailed descriptions of dust control tools, equipment, and suppression methods.
  - Document the specific locations and extents of treated areas on the SWPPP site map.

Maintenance & Management

Effective dust control is an ongoing process requiring regular monitoring and reapplication as necessary:

- **Implementation:**
  - Implement the Fugitive Dust Control Plan as outlined in the UDAQ permit.
  - Establish and maintain a schedule for reapplication of dust control measures throughout the construction project.
- **Monitoring:**
  - Periodically inspect treated areas to assess the effectiveness of dust control measures.
  - Adjust suppression methods and maintenance schedules based on field performance and weather conditions.
- **Maintenance Actions:**
  - Reapply dust suppressants following a storm event or when visible failures (e.g., spot failures, undercut stabilized soil) occur.
  - Record maintenance activities and any corrective actions taken.

Performance Criteria

This BMP is considered effective when:

- Dust emissions at property boundaries do not exceed established opacity limits (e.g., 10% opacity as per applicable regulations).
- No significant dust-related complaints are received from neighbors, and inspections confirm that dust control measures are in place and effective.
- All dust-generating operations are managed according to the Fugitive Dust Control Plan, with consistent adherence to established procedures.

9. Sediment Controls

9.1. BMP 13: Sub-Grade Sediment Trap (Curb Cut-Back)

Purpose & Applicability

This BMP is designed to capture sediment by creating a depressed grade sediment trap along the back of a curb. It intercepts and retains runoff from very small drainage areas (such as parkways, medians, or pavement edges) and is especially useful at construction sites within rights-of-way or single residential lots where the drainage area is limited, and final site stabilization is pending.

- **Applicability:**
  - Use along project boundaries where the slope directs runoff toward the curb.
  - Suitable for controlling sediment from limited drainage areas at the back of curbs, medians, or where pavement sections are removed.
  - Not applicable for sites without overtopping runoff or where final stabilization is complete.

Installation & Use Procedures

To ensure effective sediment capture, adhere to the following procedures (See figure 10):

- **Excavation Design:**
  - Excavate soil behind the curb to create a depressed area with a minimum width of 4 feet.
  - The longitudinal (along-curb) slope must not exceed 2%, and the transverse (toward-curb) slope must not exceed 3%. Steeper slopes require additional sediment controls.
  - The maximum width of the contributing drainage area should be limited to 12 feet; no other drainage areas should contribute runoff to the trap.
- **Additional Measures:**
  - Install erosion control blankets at low or sag points along the curb where flow may become concentrated.
  - The excavation may be offset up to 5 feet from the curb to avoid utility boxes.
  - Where a curb cut for a driveway is encountered and no driveway is constructed, securely install a wood plank (e.g., 2×4 or 4×4) across the curb to maintain continuity.
- **Documentation:**
  - Clearly identify the location and dimensions of the curb cut-back on the SWPPP site map and attach contractor illustrations detailing the excavation design.

Maintenance & Management

Regular inspection and maintenance are critical to ensuring continued effectiveness:

- **Inspection Frequency:**
  - Inspect the depressed grade sediment trap during each routine inspection period and after any storm events.
- **Maintenance Actions:**

- Use a shovel or blade to remove accumulated sediment when it reaches at least half of the original excavation depth.
- Re-grade the depression if disturbed by construction traffic.
- Monitor low points, particularly where erosion control blankets are installed, during rain events to ensure they are effectively preventing sediment from flowing onto the pavement.
- Add additional controls as needed if erosion or sediment bypass is observed.

Performance Criteria

This BMP is considered effective when:

- Runoff is captured within the depressed area, and sediment-laden water does not overtop the curb.
- The sediment trap retains the expected volume of runoff based on the 2-year, 24-hour storm design without significant sediment loss.
- Structural integrity of the curb and depressed area is maintained, with any sediment accumulation managed through regular maintenance.

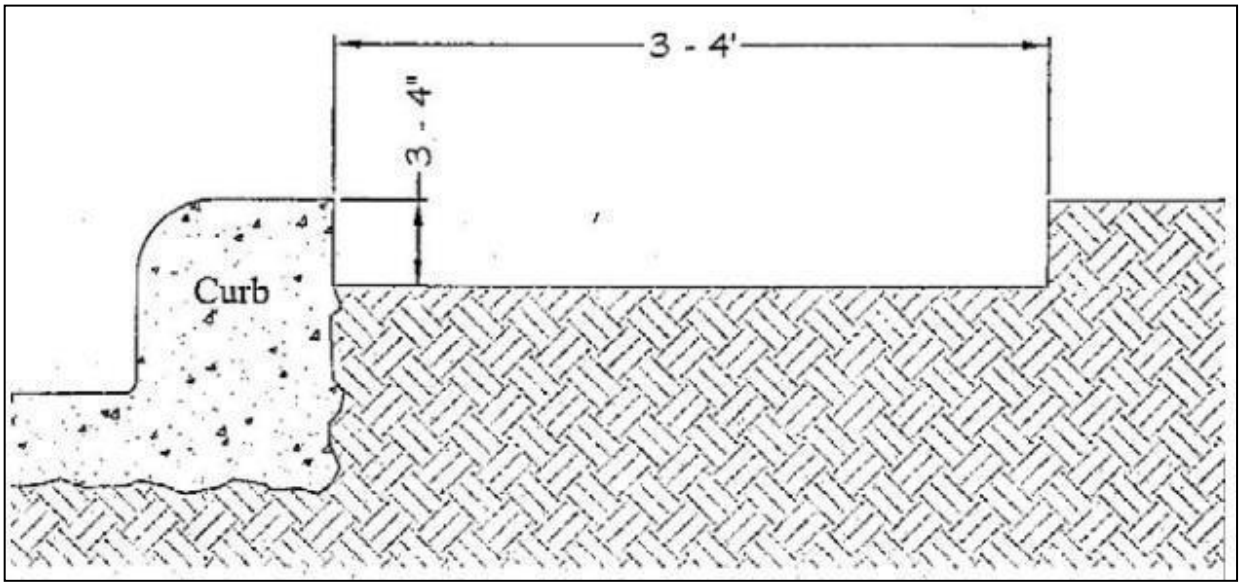


Figure 10: Schematic diagram for curb cut-back installation

9.2. BMP 14: Vegetated Filter Strips and Buffers

Purpose & Applicability

Vegetated filter strips and buffers are designed to reduce the velocity of sheet flow and promote infiltration, thereby removing sediment as runoff is filtered through vegetation. They serve as both primary (in select conditions) and secondary sediment controls.

- **Applicability:**
  - Use along development project perimeters, around stockpiles, along streams, and adjacent to roadways to intercept runoff from disturbed areas.
  - Suitable for sites where sheet flow runoff occurs, particularly on small, disturbed drainage areas (maximum contributing drainage area of 2 acres).
  - Effective when installed along contours in areas not subjected to concentrated flows.
  - Not recommended when high groundwater, shallow bedrock, or low soil permeability inhibit infiltration.

Installation & Use Procedures

To ensure effective sediment control, install vegetated filter strips and buffers following these guidelines (See figure 11):

- **Site Planning & Layout:**
  - Preserve existing vegetation along floodplains, wetlands, and natural waterways whenever possible. When disturbance is necessary, phase development to retain a vegetated buffer until final stabilization.
  - For newly planted strips, establish the filter along a line of constant elevation (contour) to maximize sheet flow interception.
  - Design the width of the vegetated filter strip to be a minimum of 15 feet; increase width based on the slope of the disturbed area, ensuring the maximum slope of the filter is 5% across its width in the direction of flow.
  - Limit the maximum sheet flow path length to 150 feet and ensure that the contributing drainage area is within design limits (e.g., less than 2 acres).
- **Vegetation & Stabilization:**
  - For newly planted areas, immediately establish sod or use erosion control blankets (ECBs) to protect the surface until vegetation is mature.
  - When using established vegetation as a buffer, clearly mark and protect the area using fencing, flagged stakes (maximum spacing 6 feet), or other protective measures to prevent disturbance.
  - If vegetated strips are used for slope protection, plant directly on slopes flatter than 2:1. For slopes of 2:1 or steeper, establish vegetation on terraces (with a transverse slope of about 1% back into the ground).
- **Documentation & Mapping:**
  - Attach contractor illustrations detailing the layout, dimensions, and design criteria (including drainage area, slope limitations, and vegetation specifications) to the SWPPP.
  - Include any engineering calculations or site-specific adjustments based on local conditions and municipal requirements.

Maintenance & Management

Regular maintenance and monitoring are critical for ensuring continued performance of vegetated filter strips and buffers.

- **Inspection Schedule:**
  - Inspect the vegetated buffer during each routine inspection period and after any storm events.
  - Check for rill erosion, bare spots in vegetation, and accumulation of sediment that could bury the vegetated area.
- **Maintenance Actions:**
  - Rake or lightly remove sediment from the vegetation as needed to prevent clogging while avoiding damage to plant cover.
  - Remove trash and debris from the vegetated area promptly.
  - Inspect the established vegetation for bare areas; re-plant sod or install seeded erosion control blankets as necessary to maintain at least 80% ground cover.
  - Mow or trim vegetation as needed after maturation to maintain the integrity of the buffer.
  - If sediment accumulation is excessive, consider installing additional secondary controls (e.g., organic filter tubes or silt fence) along the upslope edge of the buffer.

Performance Criteria

This BMP is considered effective when:

- The vegetated filter strip or buffer reduces sheet flow velocity and effectively filters sediment before runoff enters adjacent water bodies.
- The vegetation remains intact and covers at least 80% of the area, with minimal bare soil exposure.
- No significant rill erosion or sediment bypass occurs along the buffer; runoff is adequately slowed, and sediment is deposited within the buffer.
- The buffer remains stable under design storm events and is not overwhelmed by sediment load.

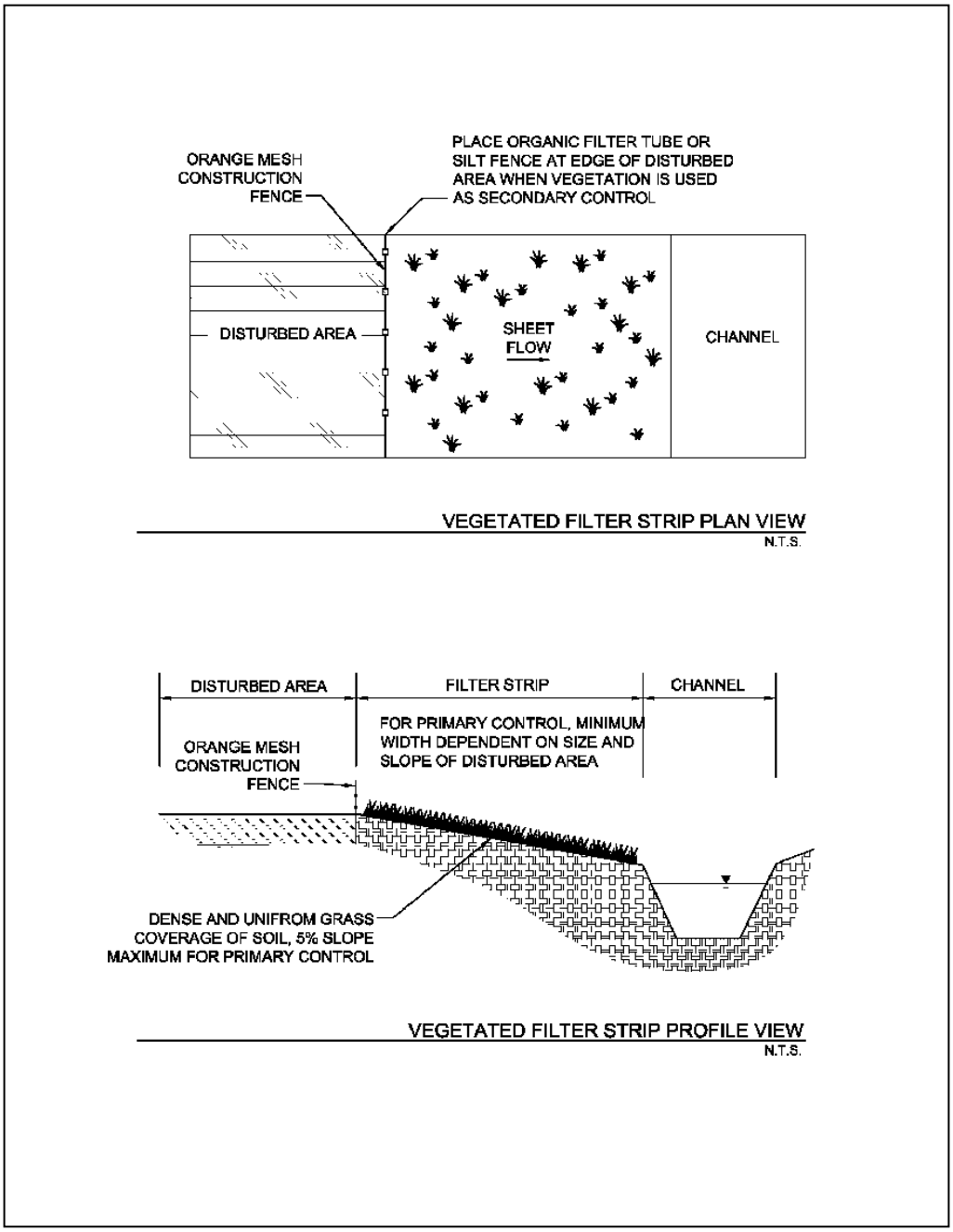


Figure 11: Schematic diagram for vegetation filter strip applications

9.3. BMP 15: Silt Fence

Purpose & Applicability

This BMP is designed to intercept and detain sediment from disturbed areas during construction and to decrease the velocity of sheet flows. It is intended to prevent sediment from leaving the site and entering sensitive downstream resources.

- **Appropriate Applications:**
  - Use along the downstream boundaries of disturbed areas, stockpiled materials, or minor channels where runoff occurs as sheet flow.
  - Apply to construction sites with relatively small drainage areas, generally, not exceeding 0.25 acre per 100 feet of fence length, with a maximum flow rate of 0.5 cfs and a maximum flow path of 200 feet (reduced further on steeper slopes).
  - Most effective in sandy or silty soils; for predominately clay soils, consult a soils engineer.
- **Limitations:**
  - Not suitable for controlling large volumes of concentrated runoff.
  - May create a temporary sedimentation pond upstream of the fence, which can cause temporary flooding if not managed.
  - Effectiveness is highly dependent on proper installation, including correct pore size selection and secure anchoring.

Installation & Use Procedures

To ensure optimal performance, install the silt fence as follows (See figure 12):

- **Installation Requirements:**
  - Construct the fence along a line of constant elevation (contour line).
  - Anchor the filter fabric below the ground surface by excavating a trench (approximately 6 inches wide and 6 inches deep) at the toe of the fence.
  - Silt fence posts shall be set at a minimum depth of 1 foot and spaced no more than 6 feet on center. Position posts on the downslope side of the silt fence.
  - Extend at least 20 inches of filter fabric into the trench and backfill with compacted 3/4-inch washed gravel or native material.
  - Overlap adjacent fabric sections by at least 3 feet and secure joints at support posts to prevent bypass.
  - The ends of the fence should be installed in a “J-hook” configuration, turning upslope for at least the last 10 feet, with additional upslope runs every 200 to 400 feet as required.
- **Design Criteria & Documentation:**
  - Ensure the drainage area contributing to the fence does not exceed the design capacity (0.25 acre per 100 linear feet of fence and maximum flow of 0.5 cfs).
  - Follow manufacturer recommendations for filter fabric selection based on soil type (consider tensile strength, puncture resistance, burst strength, apparent opening size, and UV resistance).

Maintenance & Management

Regular maintenance and monitoring are essential to ensure the silt fence continues to perform as designed.

- **Inspection Schedule:**
  - Inspect the silt fence during each routine inspection period and after any storm event.
  - Check for signs of undercutting, sags, tears, gaps at the ground interface, or clogging of the fabric.
- **Maintenance Actions:**
  - Remove accumulated sediment from the fence base when sediment buildup reaches one-half of the fence height.
  - Repair or replace damaged fabric promptly to prevent bypass or structural failure.
  - If concentrated flows or excessive sediment buildup occur, implement additional measures such as reinforcement with additional control measures.
  - Provide sufficient room for sediment removal equipment and document maintenance activities.

Performance Criteria

This BMP is considered effective when:

- The silt fence allows water to pass while effectively trapping and detaining sediment behind it.
- There is no significant bypass of runoff around, under, or over the fence.
- The fence effectively filters sediment during non-concentrated, sheet flow conditions and does not become overwhelmed by runoff from drainage areas exceeding design capacity.
- Structural integrity and installation details (proper anchoring, overlap, and toe embedment) are maintained.

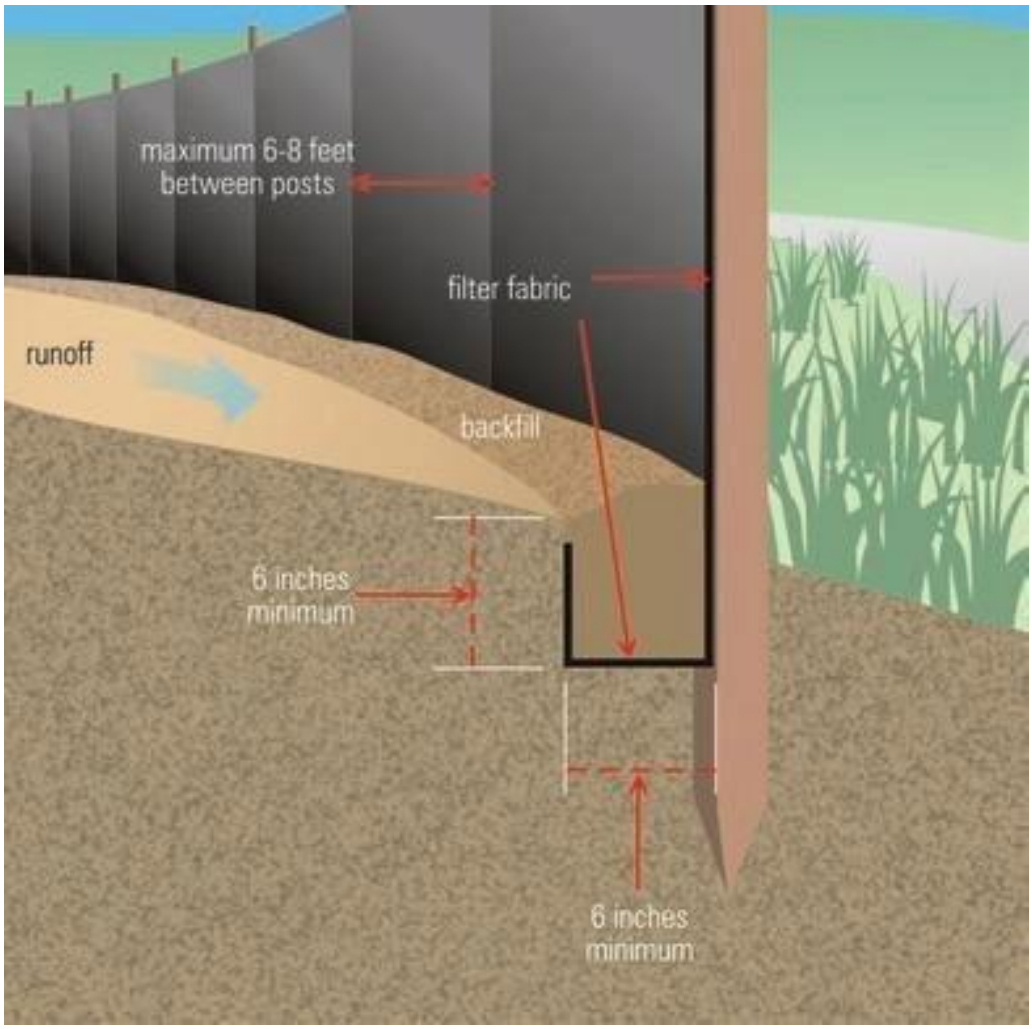


Figure 12: Image detailing installation specifications for silt fencing

9.4. BMP 16: Organic Filter Tubes (Straw Wattle)

Purpose & Applicability

Organic filter tubes are long, flexible controls installed along a line of constant elevation (contour) on slopes to intercept and slow runoff, maintain sheet flow, and capture sediment. They serve as perimeter controls downslope of disturbed areas, around temporary stockpiles, and on side slopes.

- **Applicability:**
  - Use as a temporary sediment barrier on development sites, linear projects (e.g., roadways, utilities), and individual residential lots or redevelopment sites with limited space.
  - Effective in coarse to silty soil types; additional controls may be required for fine silts and clay soils.
  - Can serve for inlet protection or, in limited cases, as check dams in small drainage swales when contact with the soil surface can be maintained.
  - When incorporated into final stabilization, tubes must be constructed of 100% biodegradable natural fibers (e.g., jute, coir, sisal) or 100% UV photodegradable plastic, polyester, or geosynthetic material.
  - Not ideal for use on paved surfaces (See BMP 20 Weighted Filter Berm), but if doing so, use gravel bags draped over the wattle at similar spacing stakes

Installation & Use Procedures

To ensure effective performance of organic filter tubes, follow these installation guidelines (See figure 8):

- **Placement & Alignment:**
  - Install filter tubes along the contour of the slope to maximize sediment capture and maintain sheet flow.
  - Secure tubes using 2-inch by 2-inch wooden stakes (or rebar/metal stakes) spaced no more than 4 feet apart.
- **Embedding & Overlap:**
  - Embed tubes at least three inches into the soil.
  - When connecting multiple tubes to form a continuous barrier, ensure an overlap of at least 6 inches between adjacent tubes.
- **Upstream Edge & Sizing:**
  - Place loose mulch material against the upstream side of the tubes to promote intimate soil contact.
  - Turn the last 10 feet (or more) at the ends of the tube line upslope to prevent bypass by stormwater. Additional upslope turns may be required every 200 to 400 feet depending on the traverse slope.
  - Typical tube diameters range from 6 to 24 inches; tubes may be available from 4 inches up to 36 inches. Note that tubes less than 8 inches in diameter when filled will require more frequent maintenance.
  - Refer to Table 4 for guidance on appropriate sizing and maximum allowable drainage area.
- **Manufacturer Guidance:**
  - When using manufactured organic filter tube products, follow the manufacturer's recommendations for diameter and spacing if they are more stringent than these

design criteria (See Table 4).

- **Material Selection:**
  - **Tube Mesh:** Specify mesh with a rated life of at least one year. The mesh must be open, evenly woven, and have openings sized appropriately for the chosen filter material (generally not exceeding ½ inch).
  - **Filter Material Options:**
    - Straw: Must be Certified Weed Free Forage, in good condition, air-dried, and free of mold.
    - Wood Chips: Use 100% untreated chips, free of inorganic debris, with sizes between 1 and 3 inches and shavings less than 5% of total mass.
    - Coir Fiber: Use natural coconut fiber rolls or mats, free of synthetic additives, suitable for sediment filtration and biodegradable over time.

Table 4: Perimeter Control Applications

Tube Diameter (minimum)	Max Flow Length to the Tube	Drainage Area Max
18 inches	145 feet	1/3 Acre per 100 feet
15 inches	110 feet	1/4 Acre per 100 feet
12 inches	85 feet	1/5 Acre per 100 feet
9 inches	55 feet	1/8 Acre per 100 feet

Maintenance & Management

Routine inspection and prompt maintenance are essential to ensure continued effectiveness of organic filter tubes.

- **Inspection Schedule:**
  - Inspect organic filter tubes during each routine inspection period and after any storm event.
  - Verify that tubes remain in continuous contact with the soil at the bottom of the embedment trench.
- **Maintenance Actions:**
  - Check for rill erosion developing beneath the tubes; repair eroded spots immediately and consider additional controls if erosion persists.
  - Ensure that staking remains secure; re-stake or repair tubes that have shifted due to stormwater runoff.
  - Inspect for signs of splitting, tearing, or unraveling; repair or replace damaged tubes as needed.
  - Remove accumulated sediment from behind the tubes before it reaches half the height of the exposed portion of the tube.
  - When sediment control is no longer required, consider splitting the tubes open and reusing the filter material for mulching during final site stabilization if it meets specified criteria.

Performance Criteria

This BMP is considered effective when:

- Organic filter tubes maintain their position along the contour with full contact at the bottom of the embedment trench.
- Runoff passes over or through the tubes, with sufficient detention to allow sediment to settle, and minimal bypass occurs.
- The tubes capture at least 75% of the sediment load (as verified by manufacturer documentation or testing), thereby reducing sediment transport off-site.
- Regular maintenance prevents clogging; sediment is removed before it reaches half the exposed tube height.

9.5. BMP 17: Earth Berm Barrier

Purpose & Applicability

Earth berms (also referred to as filter berms, diversion berms, or earth berm barriers) are constructed from compacted soil or other organic materials to slow, pond, and filter runoff. They are used as perimeter controls downslope of disturbed areas and alongside slopes to divert or intercept sediment-laden runoff. These berms are particularly well suited for sites with small, disturbed drainage areas that are not subject to concentrated flows and that will ultimately be stabilized (seeded, sodded, or landscaped).

- **Applicability:**
    - Use as a temporary sediment control measure to divert runoff from disturbed areas toward a sediment trap or basin.
    - Suitable for both development sites and linear (roadway) projects with small drainage areas.
    - Most effective on coarse to silty soil types; additional controls may be needed for fine silts and clays.
    - Economical due to ease of installation and potential to be tilled into the soil at project completion, thereby enhancing the organic content of the site.

Installation & Use Procedures

To ensure effective performance of earth berms, follow these detailed procedures (See figure 13):

- **Planning & Site Preparation:**
    - Install berms prior to any major earth-disturbing activities (e.g., clearing, grading) on the downslope boundary of the disturbed area.
    - Plan berm placement along a line of constant elevation (contour line) to maximize the available ponding area and prevent concentration of flow against the berm.
    - Coordinate berm installation with access route planning to minimize interference with construction operations.
- **Design Criteria:**
    - Limit the contributing drainage area to a maximum of 0.25 acre per 100 linear feet of berm.
    - For flow diversion, ensure that the maximum flow to any 20-foot section does not exceed 1 cubic foot per second and that the maximum flow distance to the berm is 200 feet (reduced to less than 50 feet if the slope exceeds 10%).
    - Design berms based on intended shape:
        - **Trapezoidal Berms:** Approximately 1.5 to 3 feet high, with a top width of 2 to 3 feet and a base width of 3 to 6 feet.
        - **Windrow (Triangular) Berms:** Approximately 1 to 2 feet high and 2 to 4 feet wide
    - Berm side slopes should be 2:1 or flatter.
    - Roughen the soil surface before berm placement to improve adherence ofthe organic filter material.

    - If berms are constructed using organic materials (e.g., compost, wood chips), ensure that the material is free of chemical contamination, trash and debris.
- **Stabilization:**
    - Stabilize berms by seeding for long-term or permanent use.
    - Provide additional erosion control measures (e.g., erosion control blankets or turf reinforcement matting) where necessary.
- **Documentation:**
    - Clearly mark the berm location and dimensions on the SWPPP site map.

Maintenance & Management

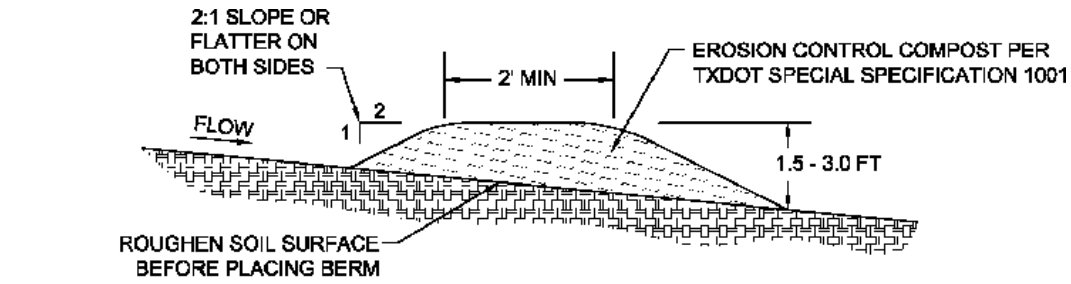
Regular monitoring and prompt maintenance are essential to ensure that earth berms continue to function as intended.

- **Inspection Schedule:**
    - Inspect berms during each routine inspection period and after any storm event.
- **Maintenance Actions:**
    - Remove accumulated sediment from the berm when sediment buildup reaches one-half the height of the berm to prevent overtopping.
    - Rake or redistribute sediment from areas where the berm is becoming clogged, ensuring the berm's dimensions and design are maintained.
    - Repair any signs of erosion, undercutting, or breaches promptly by replacing organic material or adding additional stabilization measures.
    - Stockpile excess organic material on-site for use in repairs to berms disturbed by construction activities.

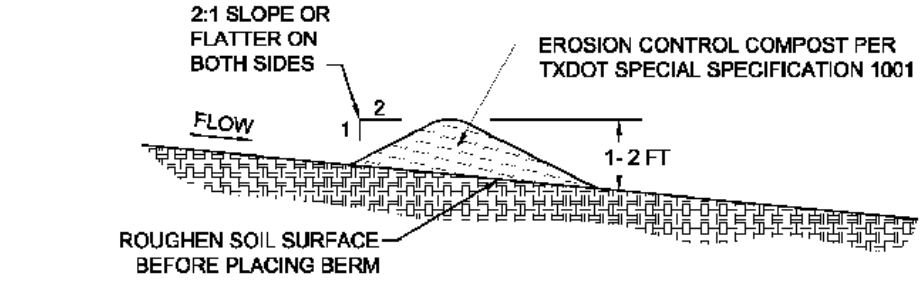
Performance Criteria

This BMP is considered effective when:

- The earth berm effectively intercepts and retains runoff, preventing sediment-laden water from bypassing and leaving the site.
- Runoff is diverted to designated sediment traps or basins, and the berm maintains its designed dimensions and stability.
- There is no significant erosion, breaching, or undercutting along or under the berm.
- Accumulated sediment is removed in a timely manner to prevent overtopping and maintain effective operation.



TRAPEZOIDAL SHAPED ORGANIC FILTER BERM
N.T.S.



TRIANGULAR SHAPED ORGANIC FILTER BERM
N.T.S.

NOTE: DIMENSIONS OF THE BERM SHALL BE DESIGNED BASED ON FLOW CONDITIONS. PROVIDE CALCULATIONS THAT DOCUMENT THE FOLLOWING PARAMETERS TO DESIGN THE SWALE:

- SIZE OF CONTRIBUTING DRAINAGE AREA
- DESIGN STORM
- FLOW RATE
- BERM HEIGHT AND WIDTH

Figure 14: Schematic diagram for earth berm barrier specifications

9.6. BMP 18: Gravel Filter Berms

Purpose & Applicability

Gravel filter berms are designed to intercept and detain sediment-laden water from unprotected areas. They function by slowing runoff, allowing sediments to settle while releasing water in sheet flow.

- **Applicability:**
  - Use as a temporary measure to retain sediments near the toe of slopes and at construction site perimeters.
  - Suitable for areas where runoff from unprotected surfaces (e.g., roadways, unsurfaced rights-of-way) must be treated before discharge.
  - Can be applied as check dams across one or more lanes of temporary construction roads or unsurfaced rights-of-way subject to construction traffic.
- **Limitations:**
  - Limit the contributing drainage area upstream of the barrier to 5 acres and to gently sloping areas.
  - Not recommended for landscaped areas due to cleanup difficulties.
  - Must be routinely maintained because of clogging from mud and soil.

Installation & Use Procedures

To achieve effective sediment retention, install the gravel filter berm according to the following guidelines (See figure 14):

- **Planning & Design:**
  - Construct the berm along a level contour to intercept sheet flow.
  - Provide an undisturbed or stabilized outlet suitable for sheet flow.
  - Ensure ample room is available between the berm and the toe-of-slope for sediment removal equipment.
  - For installations in stream beds, use large rock, secure with woven wire sheathing (gabions), and plan for daily inspections.
- **Materials & Construction (Open Graded Rock Berms):**
  - Build the berm with open graded rock sized as follows: use 3/4 to 3-inch diameter rock for sheet flow and 3 to 5-inch diameter rock for concentrated flow.
  - For non-traffic areas, construct the berm with a minimum height of 12 inches and a minimum width of 18 inches, with side slopes of 2:1 or flatter.
  - If using gravel bag berms, use bags made of woven polypropylene, polyethylene, or polyamide fabric. Typical bag dimensions are approximately 24–30 inches long, 16–18 inches wide, and 6–8 inches thick, with a fill weight of about 90–125 pounds.
  - When used as a linear control, install the gravel bag berm along a level contour, turning the ends upslope to prevent runoff bypass.
  - For concentrated flows, stack gravel bags in a pyramid configuration with upper rows overlapping joints in lower rows; provide a setback of at least 3 feet from the toe of the slope (or as far back as site conditions allow).
- **Integration with Other BMPs:**

    - Combine gravel filter berms with additional erosion control practices (e.g., seeding, mulching, silt fences) to enhance overall performance.
- **Documentation:**
    - Record the berm location on the SWPPP site map.

Maintenance & Management

Regular maintenance is essential to ensure the gravel filter berm continues to function effectively.

- **Inspection Schedule:**
    - Inspect the gravel filter berm during each routine inspection period and after any storm event.
- **Maintenance Actions:**
    - Remove retained sediments when accumulation reaches one-third of the berm height or 1 foot (whichever is less) to maintain storage capacity.
    - Reshape or regrade the berm as needed to restore its original dimensions and functionality.
    - Replace or repair any dislodged or degraded materials (e.g., lost rock in gravel bag berms or damaged bag material).
    - Ensure that any additional erosion control measures (e.g., erosion control blankets) remain intact and effective.
- **Debris Management:**
    - Remove any trash or debris from the berm promptly to prevent clogging and reduced performance.
    - Coordinate maintenance with other site BMPs to ensure overall sediment control.

Performance Criteria

This BMP is considered effective when:

- The gravel filter berm successfully intercepts and detains sediment from runoff while allowing water to pass in sheet flow.
- Sediment is retained within the berm, and any accumulated sediment is removed before reducing the berm's effective storage capacity.
- The berm maintains its structural integrity and proper dimensions over time without significant erosion, undercutting, or bypassing of runoff.
- In traffic areas, the berm functions without posing safety hazards or causing damage to vehicle tires.

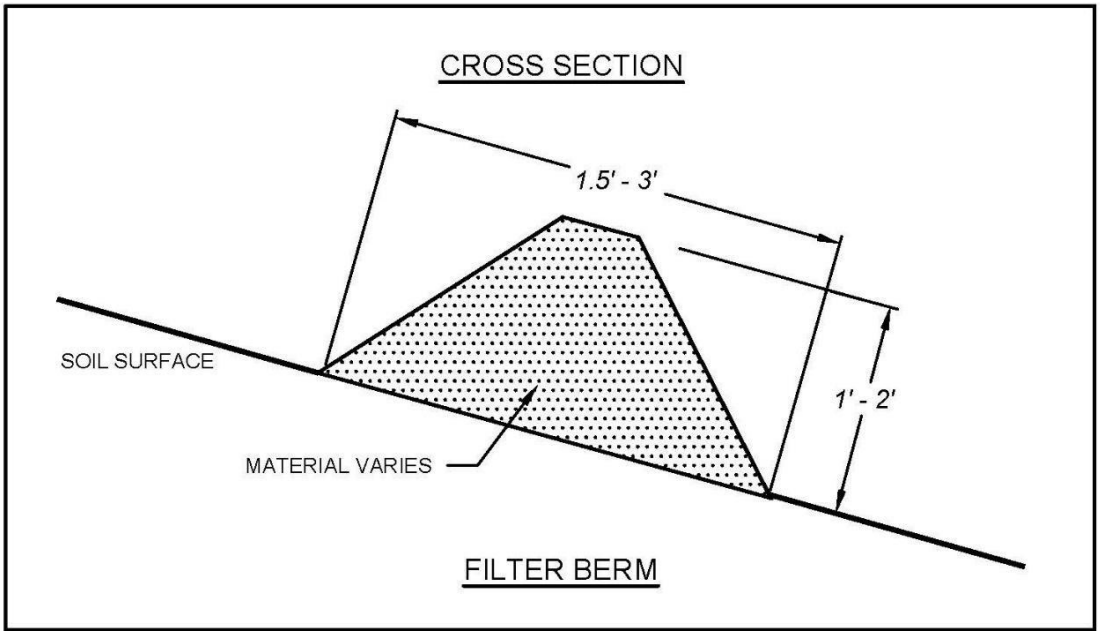


Figure 14: Schematic diagram of filter berm installation

9.7. BMP 19: Inlet Protection

Purpose & Applicability

Inlet protection is designed to reduce the amount of sediment, debris, and pollutants entering storm drain systems by acting as a secondary (or, in select cases, primary) sediment control measure. These measures serve as a backup to newly applied erosion controls or other sediment controls that alone may not achieve adequate sediment removal.

- **Primary Use:**
  - Typically used as a secondary sediment barrier at low point (sump) inlets where stormwater runoff will pond behind the protection measure and then either filter through the device or flow over an overflow weir.
  - May be used as a primary control only when all other primary measures are infeasible due to site configuration or construction activity.
- **Appropriate Applications:**
  - Best applied at low point inlets where runoff can pond, allowing sediment to settle or filter through the device.
  - Suitable for new developments with new inlets and roads not yet in public use; limited applications in developed areas (e.g., parking lot inlets during major roadway repairs) where other controls are not viable.
  - Inlet protection must allow the inlet opening to function (e.g., via inlet inserts) and should not completely block the inlet.
- **Limitations:**
  - Special caution is required on publicly traveled streets due to potential flooding, traffic, and pedestrian safety concerns.
  - Effective inlet protection depends on proper design, including a bypass capability to prevent blockage when the device becomes clogged.

Installation & Use Procedures

To ensure effective inlet protection, follow these procedures, which may be adapted based on site-specific conditions and inlet configurations (See figures 15 and 16):

- **General Installation Requirements:**
  - Evaluate drainage patterns to ensure that the inlet protection does not divert flow or cause flooding of adjacent roadways or properties.
  - Inlet protection devices must never completely block the inlet; they must include a bypass (overflow weir, positive overflow swale, or sufficient storage volume) to handle excess flows during a conveyance storm (typically a 25-year, 24-hour event).
  - Positive overflow drainage is critical; if overflow is not integrated, provide temporary routing of excess flows through established swales, streets, or watercourses.
- **Materials & Methods:**
  - **Filter Fabric and Wire Mesh:** When using fabric-based inlet protection (e.g., filter fabric fences), install according to the material requirements specified for silt fences (see BMP 15).
  - **Block and Gravel (Crushed Stone or Recycled Concrete) Protection:**
    - Use when flows exceed 0.5 cfs, allowing overtopping to prevent flooding.

- **Organic Filter Tube Protection:**
  - Use when contact with soil surface can be maintained.
  - Ensure the tube's diameter is at least 2 inches less than the inlet height and extends to a minimum of 12 inches past the curb opening on each side
- **Bagged Inlet Protection:**
  - Bags used on pavement shall be filled with aggregate, filter stone, or crushed rock (not sand) to minimize washout.
  - Filled bags should be 24-30 inches long, 16-18 inches wide, and 6-8 inches thick
  - Bags must be constructed of polypropylene, polyethylene, or polyamide woven fabric
- **Area Inlet Protection:**
  - Adapt installation methods based on inlet type (drop, "Y," etc.) and surrounding surfaces (parking lot, playground, etc.).
  - For filter fabric protection on area inlets, excavate a 6-inch by 6-inch trench at the toe of the fence, lay the fabric with 32 inches extending out, and backfill with compacted earth or gravel.

- **Documentation & Coordination:**
  - Attach all relevant proprietary illustrations, design calculations, and installation specifications to the SWPPP.
  - Clearly identify the inlet protection system's layout on the site map.
  - Coordinate with local municipalities and oversight authorities regarding any required approvals or modifications.

Maintenance & Management

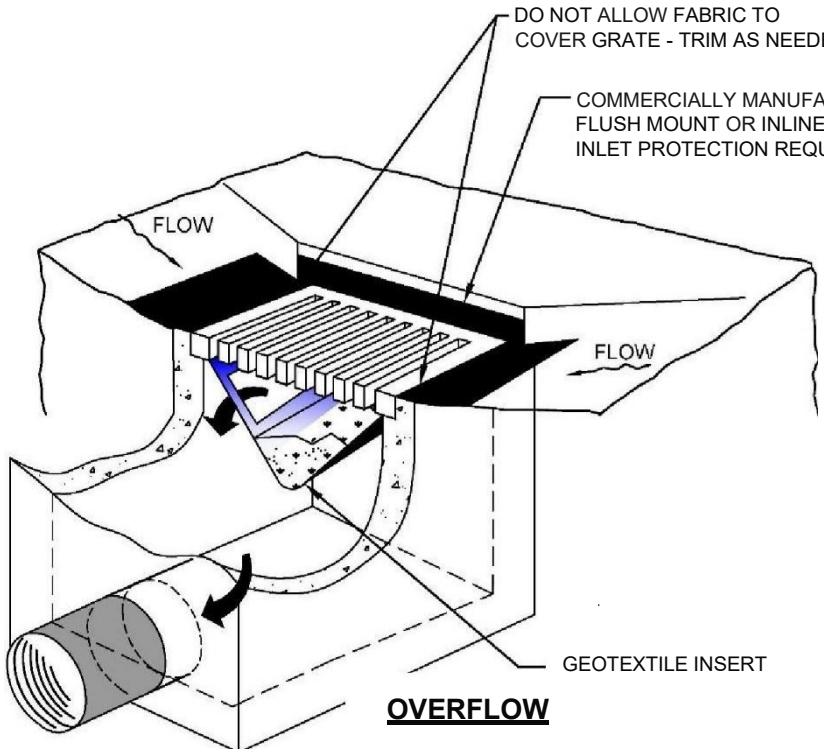
Regular maintenance and monitoring are essential to ensure inlet protection systems continue to perform effectively.

- **Inspection Schedule:**
  - Inspect inlet protection devices during each routine inspection period and after any storm event.
  - For curb inlet protection, check for any blockage, collapse, or damage that might inhibit flow through the inlet.
- **Maintenance Actions:**
  - Remove floatable debris and trash caught by the inlet protection after every storm event.
  - Remove sediment from curb inlet protection after each storm, given the limited storage capacity of curb inlets.
  - For area inlet protection, remove sediment before it reaches half the height of the device (or reduces excavation volume by 50% for impoundment systems).
  - Regularly check and clear weep holes to ensure proper drainage.
  - Inspect all components (filter fabric, organic filter tubes, bags, blocks, and wire mesh) for damage, repairing or replacing items as needed.
  - Remove inlet protection devices as soon as the drainage area contributing runoff is stabilized and permanently vegetated.

Performance Criteria

This BMP is considered successful when:

- The inlet protection system effectively reduces sediment, debris, and pollutants entering the storm drain without completely blocking the inlet.
- A bypass (overflow weir, positive overflow swale, or sufficient storage volume) is provided and functions properly during design storm events (e.g., 25-year, 24-hour storm) without causing roadway or property flooding.
- For curb inlet protection, a minimum 2-inch overflow gap or weir is maintained, and the system allows safe ponding to a depth not exceeding design limitations.
- The system maintains structural integrity, with no significant damage or clogging that compromises its function.
- Regular maintenance prevents excessive sediment accumulation (e.g., sediment must be removed before reaching half the height of the protection device), ensuring continued effective performance.



NOTE:
RECESSED CURB INLET MUST **BE** PROTECTED WHEN CURB INLET IS PRESENT.
SIZE OF FILTER FABRIC INLET SACK TO BE DETERMINED BY MANUFACTURER.

COMMERCIALLY MANUFACTURED DEVICES RATED AS "HIGH FLOW' REQUIRED IN LOCATIONS WHERE FREQUENT FLOODING OCCURS GRATES THAT ARE NOT REMOVABLE MAY UTILIZE COMMERCIALLY MANUFACTURED "TOP OF GRATE" DEVICE.

DRAVVING NOT TO SCALE

EROSION CONTROL MANUAL	STORM DRAIN INLET INSERT Detail Drawing 3.19-B

FILE DRAFT:INSPECTORS GRAPHICS DRAWING PLOT 1:1

Figure 15: Schematic diagram for storm drain inlet protection (interior protection)

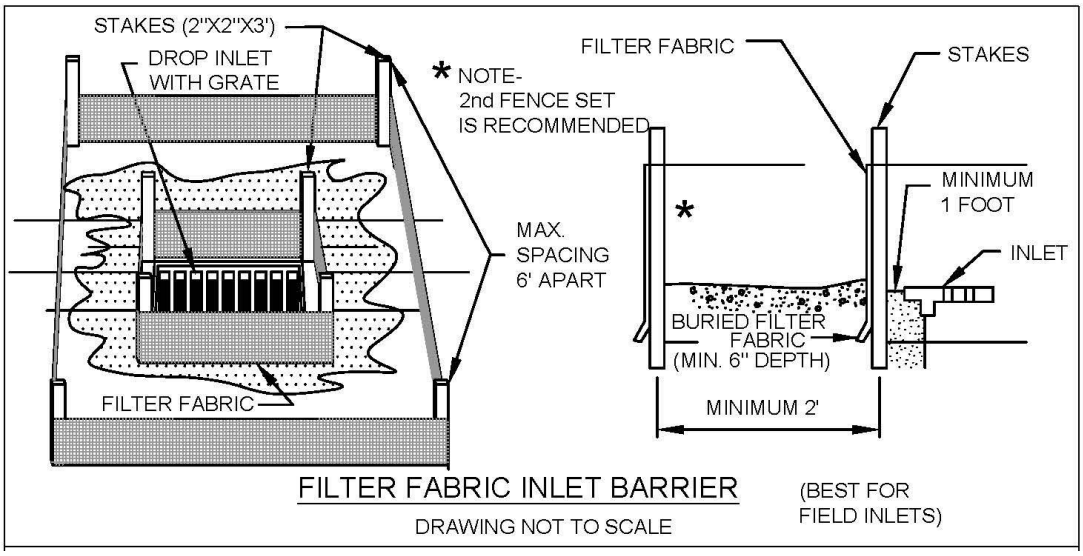


Figure 16: Schematic drawing for storm drain inlet protection (exterior protection)

9.8. BMP 20: Weighted Filter Berm

Purpose & Applicability

This BMP is designed to intercept and slow the flow of sediment-laden runoff by creating a temporary barrier using coarse material such as gravel-filled bags. The barrier allows sediment to settle before the water leaves the construction site on paved surfaces.

- **Applicability:**
  - Suitable for creating temporary sediment traps or retention basins and as an alternative to organic filter barriers or silt fences.
  - Effective for storm drain inlet protection because the sandbag barrier does not require anchoring to paved surfaces.
  - Can be used for both perimeter control (e.g., around stockpiles, along site boundaries, adjacent to fueling or chemical storage areas) and as a temporary diversion structure below the toe of exposed slopes.

Installation & Use Procedures

To ensure effective performance, follow these detailed procedures (See figures 17 and 18):

- **Design and Layout:**
  - Locate the weighted barrier on a level contour so that sheet flow runoff is intercepted and ponded.
  - For slope interruption, determine spacing based on slope steepness:
    - For slope with a 4:1 (H:V) or flatter ration, place sandbags at intervals up to 20 feet (with the first row near the slope toe).
    - For slopes between 4:1 and 2:1, reduce spacing to approximately 15 feet.
    - For slopes steeper than 2:1, use a maximum interval of 10 feet.
  - Turn the ends of the sandbag barrier upslope to prevent runoff from bypassing the barrier.
  - Provide sufficient upslope room for ponding and sediment storage; in some cases, set back the barrier from the slope toe to facilitate cleaning. Where set-back is not feasible, install the barrier at the toe and consider placing cross barriers (bags perpendicular to a berm) to prevent flows behind the barrier.
- **Materials & Construction:**
  - **Sandbag Material:** Use sandbags made of woven polypropylene, polyethylene, or polyamide fabric. Burlap is not acceptable.
  - **Bag Dimensions:** Typical sandbags should be approximately 18 inches long, 12 inches wide, 3 inches thick, and weigh about 33 lbs (nominal dimensions may vary based on locally available materials).
  - **Fill Material:** Use non-cohesive, Class 3 permeable material free from clay and deleterious substances (e.g., recycled concrete or asphalt may be acceptable if properly screened).
  - **Stacking and Layout:**
    - Stack sandbags in a continuous row, at least three bags high, using apyramid approach.
    - Butt the ends of bags tightly; overlap the butt joints of each successive row to create a continuous barrier.
    - Ensure the barrier is constructed to withstand sheet flow without being

overtopped or compromised.

Maintenance & Management

Regular inspection and timely maintenance are critical to ensure continued performance.

- **Inspection Schedule:**
  - Inspect the sandbag barrier during each routine inspection period and after any storm event.
  - Inspect for physical damage, gaps, or signs of sandbag degradation due to UV exposure or mechanical wear.
- **Maintenance Actions:**
  - Remove accumulated sediment when it reaches one-third of the barrier height (or 1 foot, whichever is less) to maintain effective storage capacity.
  - Reshape or replace sandbags as needed; sandbags exposed to sunlight may need to be replaced every 2–3 months.
  - Repair any washouts, breaches, or damage promptly and re-compact or re-stabilize the area as necessary.
  - Ensure that any disturbed or damaged sections are restored to the original design specifications.

Performance Criteria

This BMP is considered effective when:

- The sandbag barrier effectively slows runoff, creating a temporary ponding area that allows sediment to settle out before water leaves the site.
- The barrier maintains its structural integrity with no significant gaps, undercutting, or overtopping during runoff events.
- Regular maintenance keeps sediment accumulation below one-third of the barrier height, ensuring continued performance.

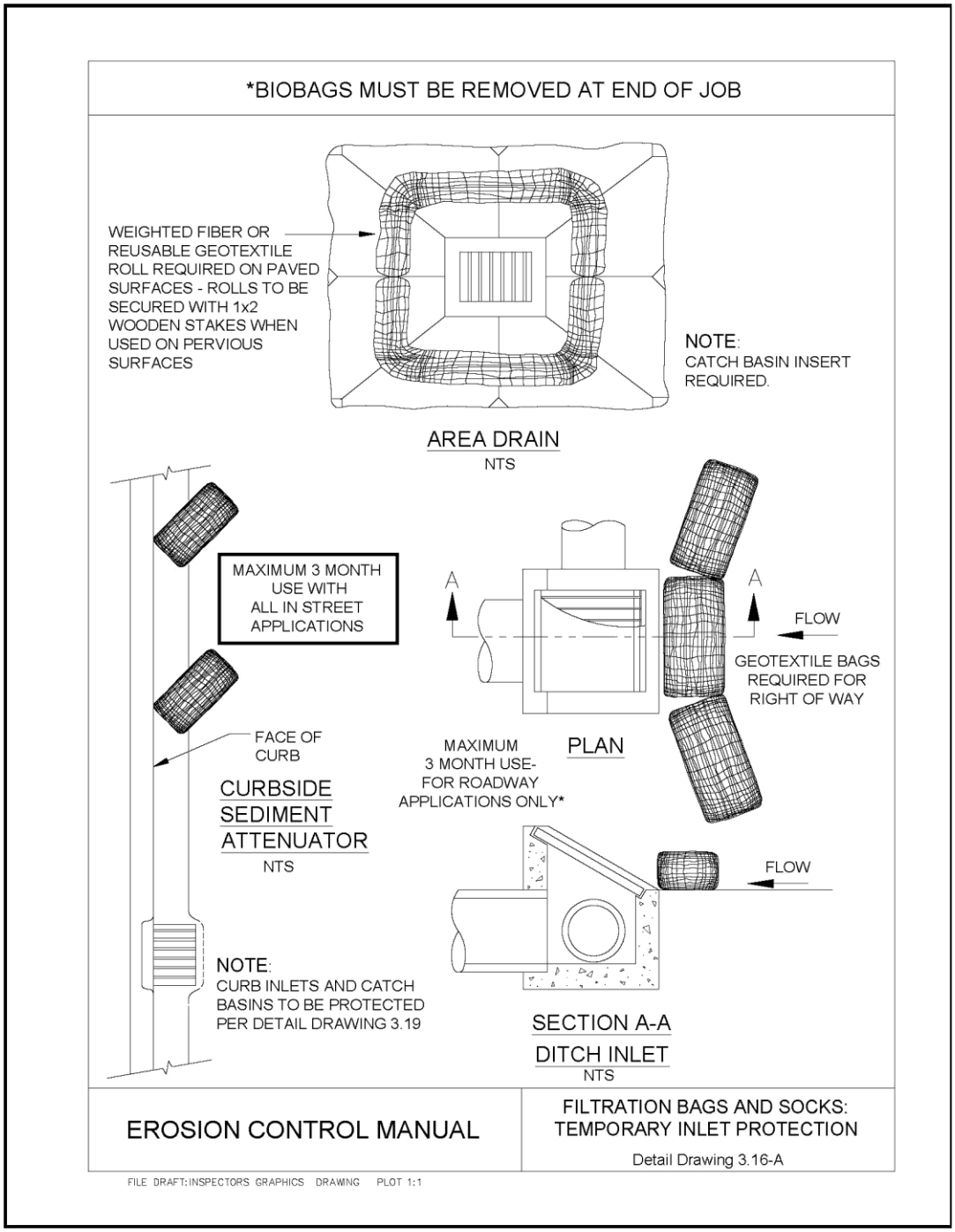


Figure 17: Schematic diagram of weighted filter berms for inlet protection

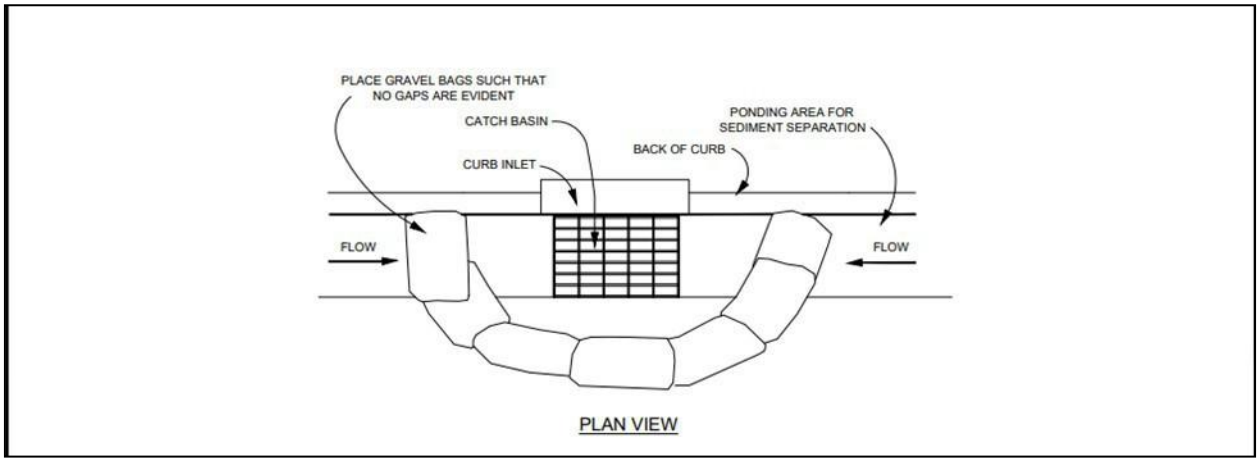


Figure 18: Schematic diagram of weighted filter berms for curb inlet protection

9.9. BMP 21: Gutter Dam

Purpose & Applicability

This BMP is designed to filter sediment-laden stormwater by slowing down flow in the gutter, thereby allowing sediment deposition before water reaches downstream inlets. It serves as a secondary control measure to inlet cover-only BMPs, ensuring that sediment bypass is minimized.

- **Applicability:**
  - Use where sediment-laden runoff is expected to be contained from downstream BMPs, such as in subdivisions with multiple builders.
  - Ideal for protecting inlets by slowing flow, particularly when coupled with other erosion control measures.
  - Not intended for high-flow areas without additional support measures.
  - Warning: This BMP is easily damaged by vehicles parked along the curb and gutter and by snow removal operations.

Installation & Use Procedures

To ensure effective sediment control with a gutter dam system, follow these procedures (See figure 19):

- **Installation Requirements:**
  - Install sand or gravel bags with a minimum diameter of 6 inches; double up bags as necessary.
  - Position the gutter dam upstream of storm drain inlets.
  - Ensure that the system is designed so that the first (upstream) dam holds more sediment than the downstream dams. Equal sediment accumulation among dams indicates system malfunction.

Maintenance & Management

Regular maintenance and inspections are essential to ensure the gutter dam system remains effective:

- **Inspection Schedule:**
  - Inspect the gutter dam system during each routine inspection period and after any storm event.
- **Maintenance Actions:**
  - Repair any damage and remove sediment deposits before storm events that could scour the sediment from the dam.
  - Ensure that following a storm event, the first (upstream) dam holds more sediment than subsequent dams. If sediment accumulation is equal among dams, additional or alternative BMPs may be necessary.
  - Monitor and repair any damage caused by vehicle parking or snow removal operations.
  - Maintain clear access around the gutter dam to facilitate inspections and to prevent hazardous driving conditions due to surface water.

Performance Criteria

This BMP is considered successful when:

- The gutter dam system slows the flow of runoff sufficiently to allow for effective sediment deposition.
- The system operates as a secondary control, in conjunction with erosion control measures, to minimize sediment bypass.
- Under rainfall events, the gutter dam does not experience significant scour. If significant scour occurs, an alternative BMP is warranted.
- The upstream dam consistently collects more sediment than downstream dams. If sediment deposits are equal or greater in downstream dams following storm events, the BMP is not performing as intended.
- Regular damage from traffic or snow removal that impairs function is addressed; persistent damage indicates that an alternative BMP should be considered.

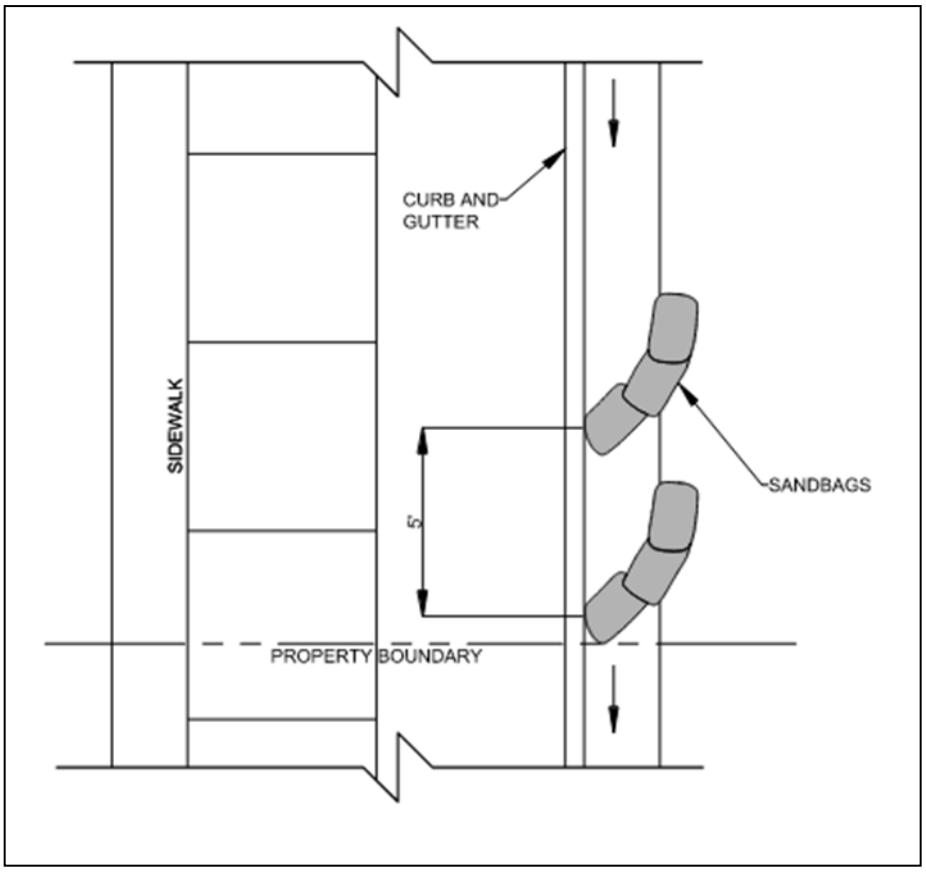


Figure 19: Schematic diagram of gutter dam installation

9.10. BMP 22: Sediment Basins and Traps

Purpose & Applicability

Sediment basins and traps are designed to collect and store sediment-laden water generated during construction activities. They act as treatment devices that temporarily impound runoff, allowing sediment to settle before the water is discharged. These measures help control silt-laden runoff until permanent erosion controls or stabilization measures (e.g., vegetation, permanent detention basins) are implemented.

- **Applicability:**
  - Use on construction projects where large drainage areas contribute runoff (e.g., disturbed areas ≥5 acres) or where a minor stream or off-line drainage channel crosses the site.
  - Applicable at sites where sediment-laden water is expected to enter the drainage system and where sediment control is critical prior to final stabilization.
  - Suitable for temporary use (design life <1 year) until the site is permanently protected against erosion.
  - Sediment traps are best for capturing larger particles (e.g., gravel, sand) and may be used in combination with additional treatment systems for finer particles.

Installation & Use Procedures

To ensure effective sediment capture and storage, install sediment basins and traps according to the following guidelines (See figures 20 and 21):

- **Basin Design & Sizing:**
  - Determine the number and size of basins or traps required based on the contributing drainage area. For smaller drainage areas (≤ 5 acres), multiple smaller basins may be more effective than one large basin.
  - Design the basin to provide for either:
    - The calculated runoff volume from a 2-year, 24-hour storm event, or
    - A volume of approximately 3,600 cubic feet per acre drained.
  - For sediment traps, ensure the structure is designed to capture and temporarily impound runoff from concentrated flows, typically at outlets of diversion structures, channels, or slope drains.
- **Construction Timing & Location:**
  - Construct basins and traps before clearing and grading begin to minimize sediment generation.
  - Locate the basin/impoundment on property limits, away from waters of the state, natural buffers, wetlands, or high groundwater areas.
  - Ensure that the basin is accessible for periodic cleanout and maintenance. Attach relevant topographic maps, grading sheets, and SWPPP site maps showing the basin location.
- **Structural Elements:**
  - **Basin Embankment:** May be formed by partial excavation and/or by constructing a compacted embankment. Embankments should be designed with side slopes of 3:1 or flatter and constructed with clay (meaning with sufficient plasticity) placed in 8-inch lifts and compacted.

- **Outlet & Spillway:**
  - Incorporate a primary outlet (e.g., a solid riser or surface skimmer) with a design dewatering time of at least 36 hours for the 2-year, 24-hour storm.
  - Provide an emergency overflow spillway with a crest elevation approximately 1 foot above the top of the riser.
  - Design the outlet to withdraw water from near the surface, minimizing sediment loss, and to pass the difference between a conveyance storm (e.g., 25-year, 24-hour) and the design storm without damaging the basin.
- **Sediment Trap Specifics:**
  - For excavated sediment traps, maintain a minimum depth of 1 foot (up to 2 feet maximum) and ensure that the volume of the trap is not reduced by more than 50% by sediment accumulation.
  - Install outlet protection (e.g., stone riprap, baffles, or anti-seep collars) to reduce erosion at the discharge point.
- **Emergency Spillway & Safety:**
  - Ensure the basin has a defined emergency spillway and is located such that failure would not result in loss of life or damage to public infrastructure.
  - Install fencing if required by local ordinances to prevent access by children.

- **Integration with Other BMPs:**
  - Use sediment basins and traps in conjunction with upstream erosion controls (e.g., seeding, mulching, diversion dikes) to reduce sediment load and enhance overall effectiveness.

Maintenance & Management

Regular maintenance and inspections are critical for ensuring sediment basins and traps continue to function as designed.

- **Inspection Schedule:**
  - Inspect the sediment basin/trap before and after each rainfall event and as part of regular scheduled inspections.
  - Monitor embankment integrity, outlet function, and the condition of erosion controls and spillways.
- **Maintenance Actions:**
  - Repair any damage to berms, spillways, sidewalls, or outlet structures promptly.
  - Remove accumulated sediment when it reaches approximately one-third of the basin's designed sediment storage capacity to maintain effectiveness.
  - If using an excavated trap, drain the basin within 36 hours after a rainfall event if runoff has not completely drained.
  - Regularly clear obstructions (trash, debris) from the outlet and spillway to maintain proper flow.
  - Coordinate sediment removal and disposal as per site-specific plans, either redistributing sediment to in-fill areas or removing it to an approved off- site location.
  - After the site is permanently stabilized, convert temporary sediment basins to permanent detention basins if required, ensuring that stabilization measures meet local and UPDES requirements.

Performance Criteria

This BMP is considered successful when:

- The sediment basin or trap effectively intercepts and retains sediment, achieving a sediment capture efficiency of approximately 70–80%.
- Runoff is detained long enough to allow for significant sediment settling before discharge, without causing excessive ponding or localized flooding.
- Outlet structures function properly, with the basin draining within the design timeframe (preferably less than 72 hours) and providing adequate overflow capacity for extreme events.
- Regular maintenance prevents clogging, embankment deterioration, or loss of storage capacity.

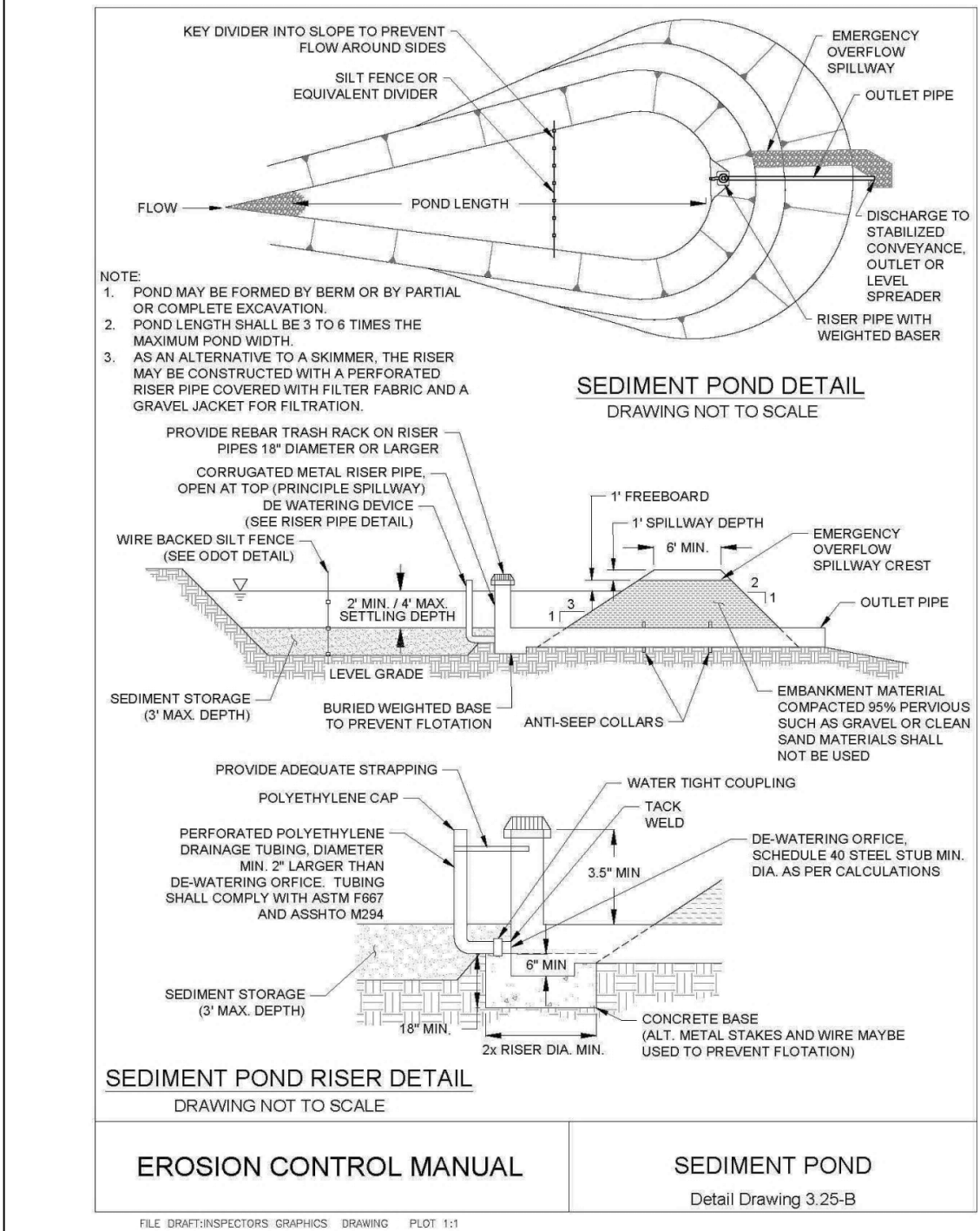


Figure 20: Schematic diagram of sediment basin installation

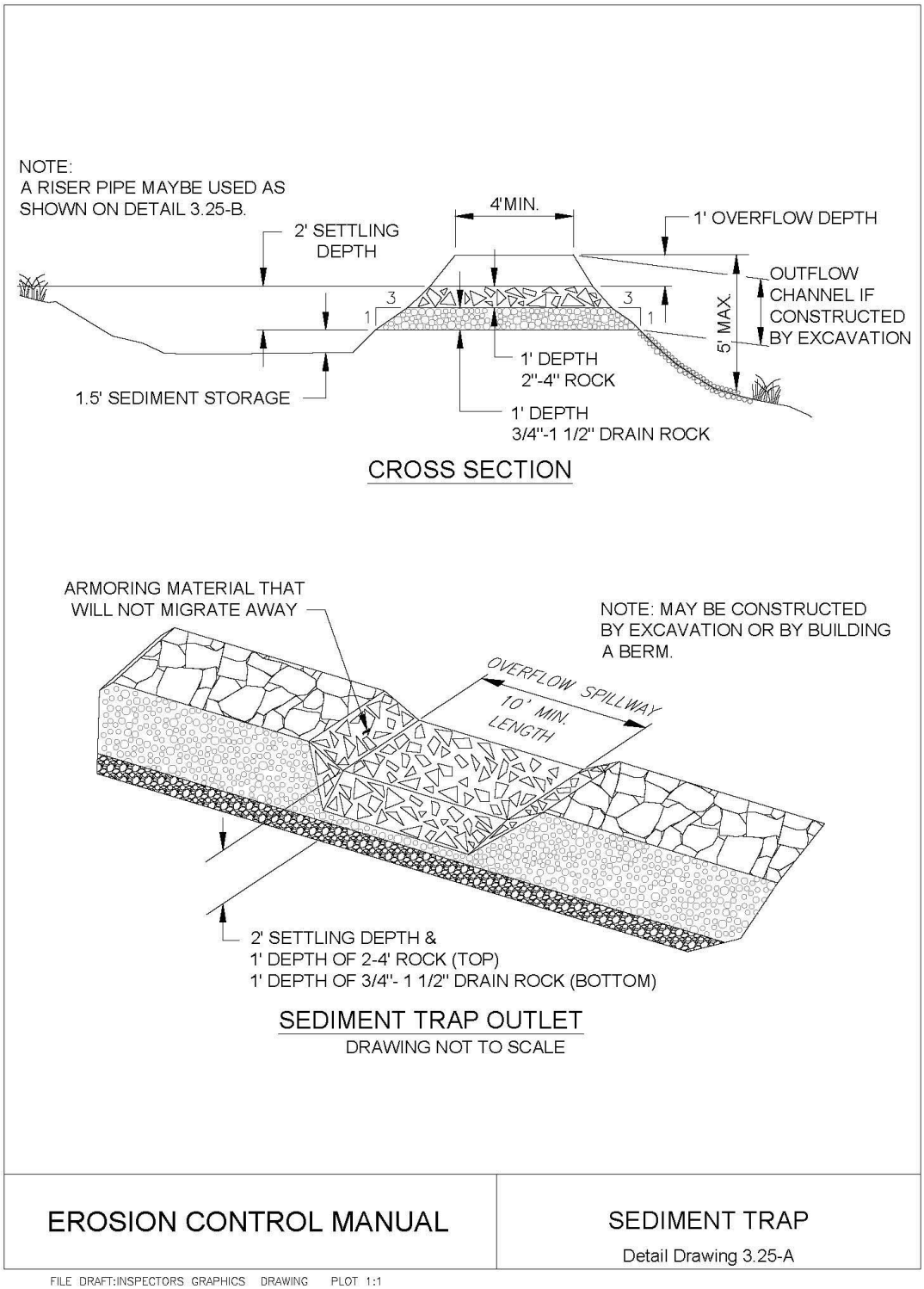


Figure 22: Schematic diagram of sediment trap installation

9.11. BMP 23: Stabilized Construction Entrance

Purpose & Applicability

This BMP is designed to reduce or eliminate the tracking of sediment, soil, and other pollutants onto public rights-of-way by providing a designated, stabilized construction exit for vehicles and equipment. By concentrating vehicle movements to a single area, the BMP minimizes disturbed areas, aids traffic control, and reduces the potential for sediment deposition into storm drains and the production of airborne dust.

- **Applicability:**
  - Use at all points of construction egress where vehicles and equipment may track dirt or mud onto public roads.
  - Particularly applicable on sites adjacent to water bodies, in areas with clay or silty soils, or where dust is problematic during dry conditions.
- **Limitations:**
  - Stabilized entrances may not completely prevent sediment deposition on adjacent paved surfaces; supplementary sweeping or wheel cleaning is recommended.

Installation & Use Procedures

To ensure an effective stabilized construction entrance, follow these guidelines (See figure 22):

- **Planning & Site Design:**
  - Limit construction access to designated, stabilized exits. For larger or linear projects, restrict access to one (or two) defined routes.
  - Design the entrance so that it is located at the upslope side of the construction site, not at the lowest point, to prevent runoff from leaving the site.
  - Incorporate barriers (e.g., silt fence or construction safety fencing) to prevent vehicles from bypassing the full length of the entrance.
- **Design & Construction Requirements:**
  - Construct the entrance apron with washed, well-graded stone or crushed rock having a nominal size of 3 to 5 inches.
  - Ensure the dimensions meet a minimum of 50 feet in length and 20 feet in width (adapted to specific site conditions). The exit should be properly graded to direct runoff away from the site.
  - Install a washrack at ground level to aid in cleaning vehicle tires. If a wheel cleaning system is provided, the entrance width may be reduced to funnel traffic effectively.
  - Construct the stabilized surface to a minimum thickness of 6 inches using stone or recycled concrete with little or no fines.
  - Overlay soil with geotextile fabric beneath the rock as needed in soft soils to prevent rock mixing with underlying soil.
  - When wash areas are provided, ensure that washing is conducted on a stabilized surface that drains into a properly constructed sediment trap or basin.
- **Integration with Other BMPs:**
  - Use in conjunction with other BMPs such as Wheel Washing (BMP 24), Street Sweeping (BMP 25) and Dust Control (BMP 12).

Maintenance & Management

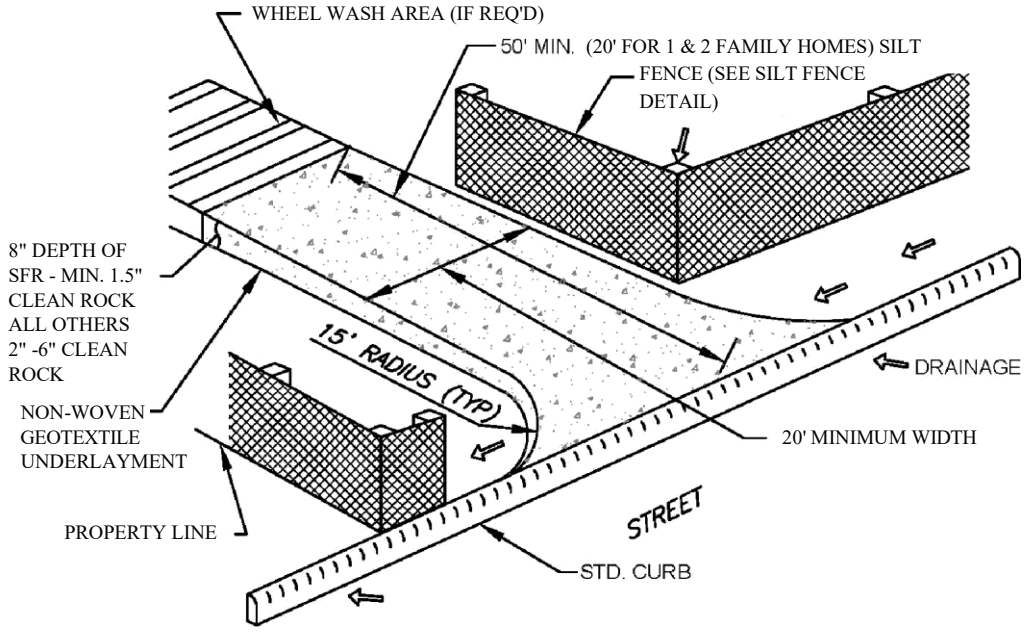
Regular inspections and maintenance are essential to ensure the stabilized entrance continues to function effectively:

- **Inspection Schedule:**
  - Conduct inspections during each routine inspection period and after any storm event.
- **Maintenance Actions:**
  - Periodically re-grade and top dress the entrance with additional stone to maintain a continuous, stable surface.
  - Replace or refresh the gravel mat when surface voids or ruts become evident.
  - Remove any sediments deposited on adjacent paved areas.
  - Upon completion of construction, remove the temporary hardened surface, gravel, and filter fabric and restore the site to blend with the natural ground.

Performance Criteria

This BMP is considered effective when:

- The stabilized construction exit substantially reduces the tracking of soil, mud, and other pollutants onto public roads.
- Traffic is consistently directed to the designated exit, minimizing the number of disturbed areas.
- The entrance surface effectively removes sediment from equipment and does not allow significant sediment to be tracked onto adjacent paved surfaces.
- When used in conjunction with supplementary BMPs (e.g., wheel cleaning systems or road sweeping), overall track-out is minimized.



STABILIZED CONSTRUCTION ACCESS

NOTE
CURB RAMP INSTALLATION SHALL NOT IMPEDED STORMWATER FLOWS, VEHICLE TRAFFIC, AND/OR BICYCLE TRAFFIC.

EROSION CONTROL MANUAL	STABILIZED CONSTRUCTION ACCESS Detail Drawing 3.12-A

FILE DRAFT:INSPECTORS GRAPHICS DRAWING DR 3.3.1 PLOT 1:1

Figure 22: Schematic diagram for stabilized construction access installation

9.12. BMP 24: Wheel Washing

Purpose & Applicability

Wheel cleaning systems are designed to remove soil, mud, sediment, and debris from the tires and undercarriages of construction vehicles and equipment before they exit the site. These systems serve to minimize the tracking of soil onto public roadways and reduce subsequent sediment-related water quality issues. They are especially critical on sites where a stabilized construction exit alone is insufficient.

- **Applicability:**
  - Use when vehicles and equipment egress from the construction site to ensure tires are thoroughly cleaned before entering paved streets.
  - Particularly beneficial on sites with large, disturbed areas (>10 acres), high vehicle/equipment turnover, clay soils, wet conditions, or potentially contaminated soils.
  - Serve as an additional control measure to reduce the need for extensive street cleaning operations.

Installation & Use Procedures

To ensure proper operation of wheel cleaning systems, follow these detailed guidelines (See figures 23 and 24):

- **Site Design & Location:**
  - Determine and mark designated egress locations on the SWPPP site map.
  - Position the wheel cleaning system within the stabilized construction exit, maintaining at least 25 feet of stabilized exit between the cleaning system and the adjacent paved road, to prevent vehicles from picking up additional sediment on disturbed areas.
- **System Components & Operation:**
  - **Rumble Racks:**
    - Install a minimum system consisting of steel grate "rumble racks" that are 10 feet wide and 8 feet long.
    - Ensure the length of the rack is at least equal to the circumference of the largest tire on site; typically, two to three consecutive lengths of grates are needed.
    - Place the grates over an excavated pit (minimum 1 foot deep) and design bar spacing and support based on the expected vehicle size and weight.
  - **Wheel Washes:**
    - Provide a hose or pressure washer for manual or automated cleaning of all wheels
    - Instruct drivers to move forward and reverse as needed to dislodge all mud and debris, and check for rocks edged in dual tires.
  - **Wash Water Collection:**
    - Ensure that all wash water is collected in a designated sediment basin or equivalent sediment control system. Document the required retention volume and attach this information to the BMP documentation.

    - **Safety & Signage:**
        - Post clear signage requiring that all vehicles use the wheel cleaning system before leaving the site.
- **Documentation & Training:**
    - Train the workforce on proper usage, emphasizing that only water (not soap) be used for cleaning and that cleaning must occur in the designated area.

Maintenance & Management

Regular maintenance and prompt management are essential for ensuring continuous effective operation of wheel cleaning systems.

- **Inspection & Routine Maintenance:**
    - Inspect the wheel cleaning system during each routine inspection period and after any storm event.
    - Rake or wash the surfaces (e.g., rumble racks) as necessary if sediment accumulates.
    - Ensure the wash water retention basin is maintained, with sediment removed when accumulation reaches 50% of its capacity.
    - Expand or adjust the wash water basin if necessary to meet the required retention volume.
    - Enforce that vehicles use the system exclusively at the designated area.
- **Debris Management:**
    - Promptly remove any rock, gravel, or sediment track-out from adjacent roadways following observed BMP failure or misuse.
    - Conduct street clean-up operations as needed, noting these are separate from routine wheel cleaning system maintenance.
- **Training & Communication:**
    - Continuously train employees and subcontractors on proper operation, maintenance, and cleaning procedures for the wheel cleaning system.

Performance Criteria

This BMP is considered successful when:

- The wheel cleaning system effectively removes soil, mud, and debris from vehicle tires and undercarriages, significantly reducing off-site tracking.
- The sediment retention basin collects wash water effectively, with minimal visible sediment or a petroleum sheen indicating contamination.
- The system maintains proper operational conditions, with rumble racks and wash areas functioning without obstruction, and regular maintenance prevents clogging and excessive sediment buildup.
- Light tracking, defined as minor residual dirt that does not pose a safety hazard, is managed through routine cleaning.

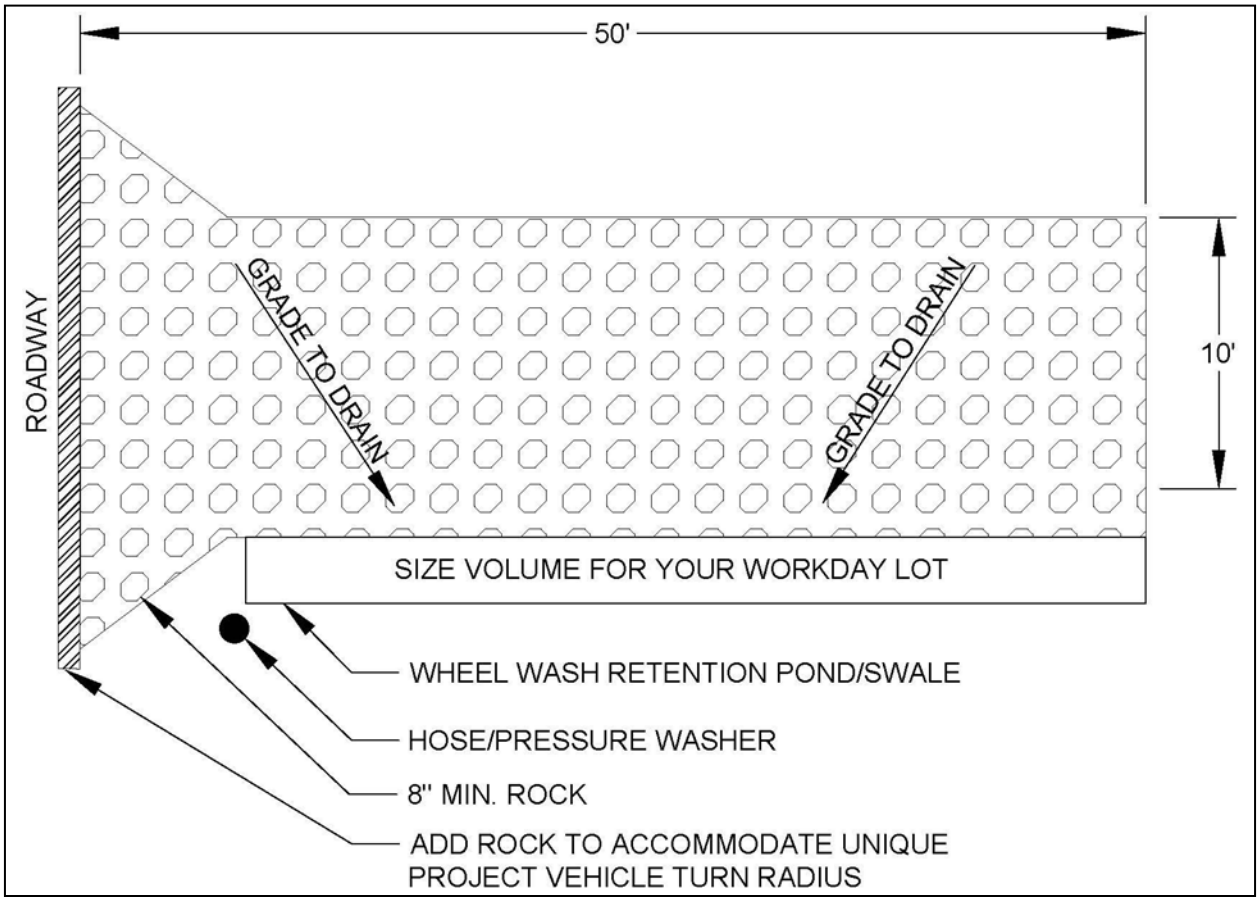
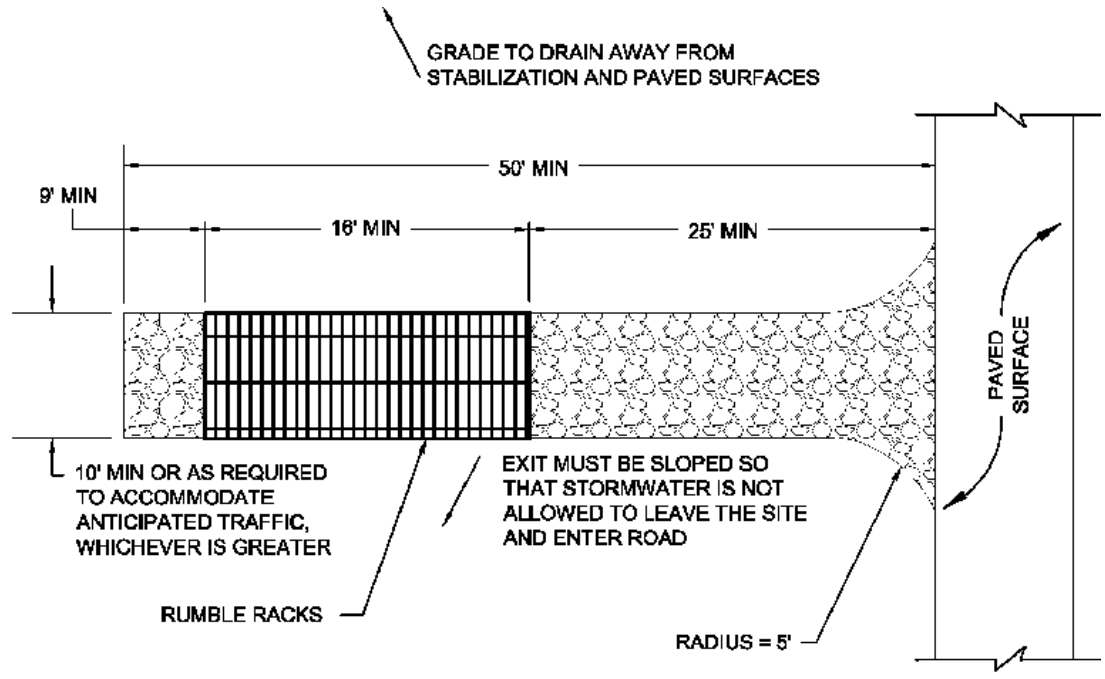
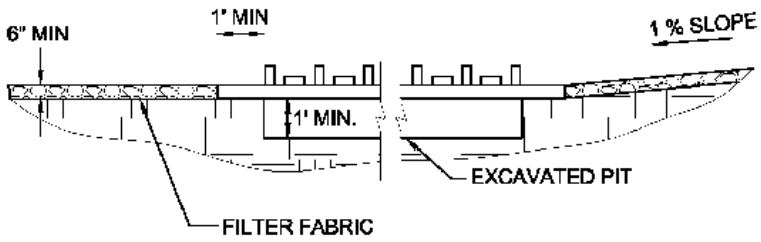


Figure 23: Schematic grading diagram for wheel wash installation



RUMBLE RACK PLAN VIEW
N.T.S.



RUMBLE RACK EXAMPLE INSTALLATION
N.T.S.

NOTE: DESIGNER SHALL SPECIFY SIZE AND SPACING OF THE STEEL BARS AND SUPPORT BEAMS BASED ON SIZE AND WEIGHT OF VEHICLES EXPECTED TO BE EXITING THE CONSTRUCTION SITE.

Figure 24: Schematic diagram of a rumble rack wheel wash installation

9.13. BMP 25: Street Sweeping

Purpose & Applicability

Street sweeping is implemented to remove sediment, debris, and residual mud from roadways and access areas. Effective cleaning of track-out prevents sediment from entering storm drains or watercourses, thereby protecting water quality and ensuring safety.

- **Applicability:**
  - Use at points of egress where sediment is tracked from the project site onto public or private paved roads.
  - Suitable as a supplemental BMP to address the limitations of designated egress track-out controls.
  - Particularly effective when implemented using vacuum or regenerative air street sweepers, which can remove fine dust particles and provide significant runoff quality benefits.

Installation & Use Procedures

To ensure effective street sweeping operations, follow these procedures:

- **Equipment & Operation:**
  - Utilize vacuum-type sweeping machinery to efficiently collect road sediment and debris. For smaller areas, kick brooms may be used; for larger areas, mechanical brush or vacuum sweepers are recommended.
  - Plan sweeping operations to occur at the end of each workday and, if needed, additional sweeps during the day based on the extent of track-out.
- **Site Coordination:**
  - Integrate sweeping operations into the overall site maintenance schedule.
- **Workforce Training:**
  - Train the workforce on proper track-out BMP requirements and the correct operation of sweeping equipment.
  - Instruct personnel to adjust brooms frequently and ensure that any unknown substances or potentially hazardous objects are properly disposed of.

Maintenance & Management

Regular and timely maintenance is critical to ensure the effectiveness of street sweeping operations.

- **Operational Procedures:**
  - Conduct sweeping operations at the end of each workday, and additional sweeps as needed based on site conditions (more frequent during rainy seasons).
  - Inspect ingress/egress access points daily and perform sweeping as needed to remove visible sediment track-out.
  - Adjust sweeping equipment (e.g., brooms) frequently to maximize cleaning efficiency.
- **Debris Management:**

- Properly dispose of any unknown or hazardous substances removed during sweeping.
- After sweeping, ensure that any collected wash water is either reused or disposed of at an approved dump-site in compliance with local regulations.
- The operator is responsible for complying with the Fugitive Dust Control Plan.

Performance Criteria

This BMP is considered effective when:

- Roadways and access areas are maintained free of significant sediment, debris, and residual mud.
- The sweeping operations consistently remove visible sediment and reduce the risk of sediment entering storm drains or watercourses.
- Slick conditions, slurry, mud chunks, and other track-out materials are minimized, thereby reducing water quality risks and driver hazards.
- Light tracking, defined as minor residual dirt not easily picked up by a square-nose shovel, is limited and addressed through regular maintenance.

9.14. BMP 26: Dewatering Practices

Purpose & Applicability

This BMP is designed to manage and correctly discharge water accumulated on construction sites, including stormwater from excavated areas, non-stormwater discharges (e.g., groundwater, cofferdam water, or water from drilling) and water collected in depressed areas, before work proceeds. It encompasses active treatment systems (ATS) for removal of fine silt and clay particles that traditional sediment controls cannot effectively capture, as well as conventional dewatering methods for non-stormwater.

Note: *In Utah, construction projects that involve discharging groundwater or surface water, such as from excavation dewatering or hydrostatic testing, must obtain a UPDES Construction Dewatering and Hydrostatic Testing General Permit (UTG070000) prior to discharge. Operators are required to develop a Dewatering Control Plan (DCP), implement appropriate BMPs, and submit a Notice of Intent (NOI) through the EPA's NeT system to receive permit coverage. Always contact the local MS4 and/or flood control district prior to discharge from dewatering activities; additional local permitting may be required.*

- **Applicability:**
  - Use on sites where water must be removed from excavated work areas, utility repairs, or depressed areas prior to continuing operations.
  - Applicable when sediment-laden water contains a high percentage of fine silt and clay that require extended detention (days or weeks) to settle, beyond the capability of sediment basins.
  - Particularly useful where sensitive receiving waters (e.g., wetlands, spring-fed systems, or waters with TMDLs) require higher levels of treatment or where turbidity effluent limits are established.
  - Dewatering controls are necessary when discharging non-stormwater that may impact water quality and when an UPDES Construction Dewatering permit is required for off-site discharges.

Installation & Use Procedures

Implementation of dewatering practices involves proper design and installation of active treatment systems (ATS) and conventional dewatering measures:

- **Active Treatment Systems (ATS):**
  - **Design & Setup:**
    - An ATS is used when traditional sediment controls cannot remove fine silt and clay particles.
    - Provide a source of electricity (or diesel generators until site power is available) to operate the ATS continuously; maintain generators on-site to cover potential outages.
    - Integrate the ATS with a sediment basin, tank, or retention structure designed to capture the temporary control design storm (typically a 2-year, 24-hour event) while also withstanding larger storm events without damage.
    - ATS can be configured as batch flow or continuous flow (flow-through) systems based on site conditions.

- **Design Considerations:**
  - Consult with ATS suppliers and technical experts to tailor the system to the site's runoff characteristics, including turbidity, pH, suspended solids, and soil particle sizes.
  - Ensure the design accounts for available detention space, required discharge concentrations, flow rate, and overall cost.
  - Ensure the design accounts for available detention space, required discharge concentrations, flow rate, and overall cost.
  - Equip the ATS with instrumentation to automatically record influent/effluent turbidity, pH, and flow rate.
  - Incorporate a recirculation or safe shutdown mode that activates upon system upset, power failure, or other emergencies.
  - Install a velocity dissipation device at the ATS discharge point.
- **Filtration & Chemical Treatment:**
  - Filtration is typically achieved by pumping water through vessels filled with granular media (e.g., sand, gravel, anthracite), with bag or cartridge filters used if extremely low turbidity is required.
  - For sites using chemical-aided flocculation, design the ATS with proper chemical injections (using agents such as chitosan, PAM, alum, or polyaluminum chloride) based on jar tests and monitor residual concentrations and toxicity with field tests or daily bioassays.
  - Pre-treat stormwater with a sediment trap or basin before pumping to the filter to extend the filter life.

- **Conventional Dewatering Controls:**
  - For non-stormwater removal (e.g., from excavated areas, cofferdams, or water diversions), install dewatering tanks or similar systems that separate sediment and debris using fabric filters.
  - Ensure that water used for dust control or diverted to infiltration basins is managed per site-specific plans.
  - Where feasible, employ gravity bag filters (dewatering bags) on a slight slope to facilitate water flow and sediment removal (See figure 25).
- **Documentation & Coordination:**
  - Attach detailed engineering drawings, ATS supplier literature, and manufacturer specifications to the SWPPP.
  - Record the layout of sediment basins, dewatering tanks, and any associated drainage structures on the site map.
  - Include a copy of the Construction Dewatering Permit in the SWPPP.

Maintenance & Management

Regular maintenance and monitoring are crucial to the effective operation of dewatering practices and ATS.

- **Inspection Schedule:**
  - Inspect the overall ATS and conventional dewatering system per the DCP.
  - Regularly check sediment basins, dewatering tanks, and associated structures for physical damage, sediment accumulation, and proper function of outlet structures and overflow systems.
- **Maintenance Actions:**
  - For ATS: Monitor as stormwater characteristics change; regularly sample effluent to ensure turbidity and residual chemical levels are acceptable.
  - For filtration systems: Clean or backwash filters when differential pressure indicates loading; replace media or cartridges when necessary.
  - For conventional dewatering: Remove accumulated sediment from basins or traps when it reaches approximately one-third of the designed capacity and ensure that the system drains within the specified time frame (preferably less than 72 hours) to prevent mosquito breeding.
  - Maintain all components (e.g., pumps, instrumentation, electrical systems) per manufacturer recommendations.
  - Train on-site personnel in system operation, routine maintenance, and emergency response procedures.

Performance Criteria

This BMP is considered effective when:

- The ATS or dewatering system consistently removes fine silt, clay, and other suspended solids to achieve discharge water quality that meets local, state, and federal standards.
- Instrumentation readings (e.g., turbidity, pH, flow rate) indicate that the system operates within the design parameters, with chemical residuals maintained at safe levels.
- The sediment basin or dewatering tank effectively captures the design storm volume (e.g., 2-year, 24-hour event) and drains within the specified time without excessive standing water or clogging.
- Regular maintenance prevents system overload or failures that could result in untreated water discharge.

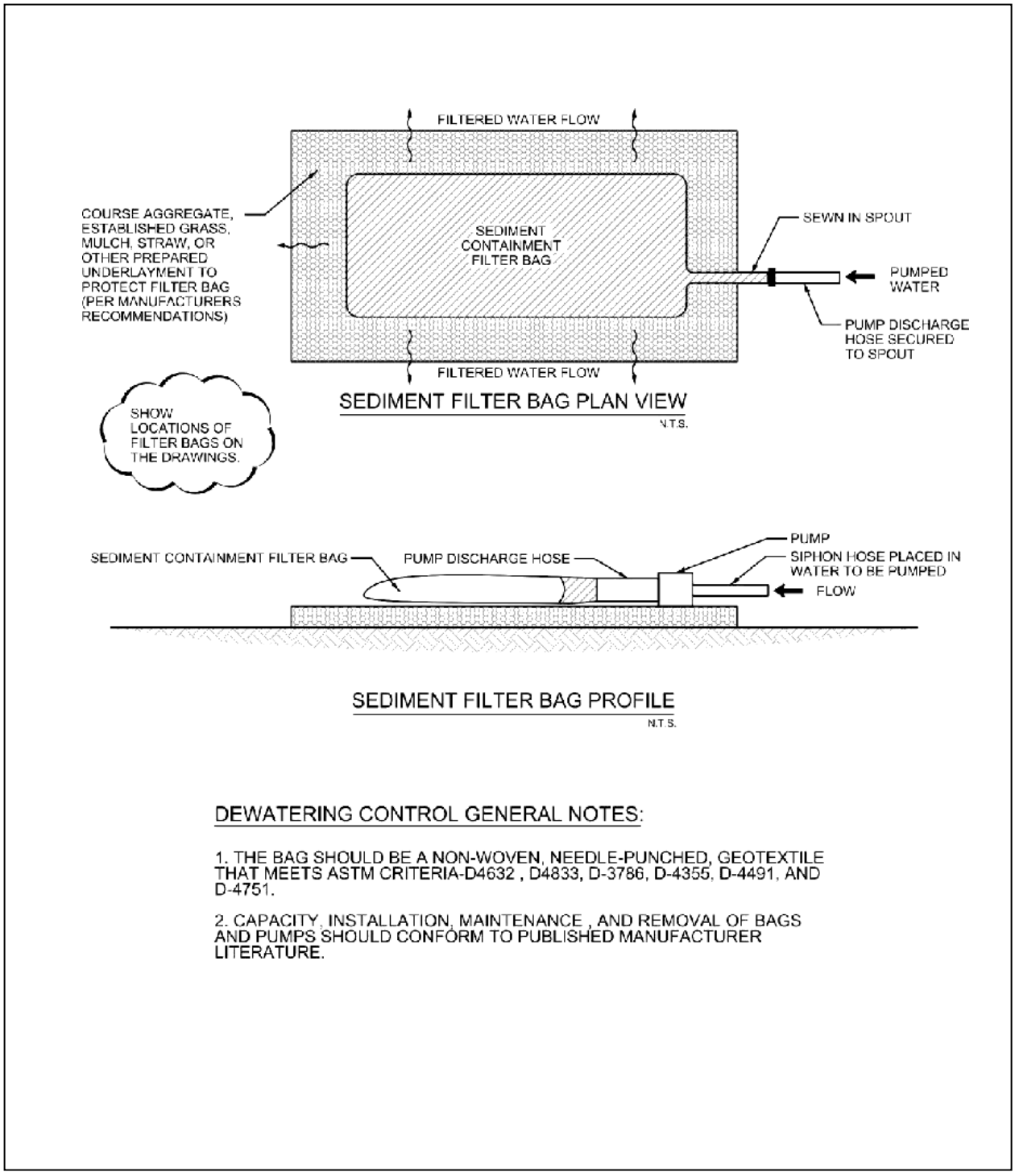


Figure 25: Schematic diagram for sediment filter bag installation

10. Pollution Prevention Controls

10.1. BMP 27: Sanitary Waste Management (Portable Toilets)

Purpose & Applicability

Portable sanitary facilities are provided to properly contain and manage human waste generated on-site during construction activities. This BMP minimizes the risk of sanitary waste exposure to stormwater and nearby waters by ensuring that waste is contained, properly maintained, and promptly serviced.

- **Applicability:**
  - Use at construction sites where permanent sanitary facilities are unavailable or are located too far from active work areas.
  - Applicable to sites where temporary sanitary waste management is necessary to prevent pollutant discharges into stormwater systems.
  - Essential for protecting water quality and public health, particularly at sites with high workforce numbers or extended construction durations.

Installation & Use Procedures

To ensure effective performance and compliance with regulatory requirements, install and operate portable toilets according to the following guidelines (See figures 26-28):

- **Site Selection & Placement:**
  - Locate portable toilets at least 10 feet away from drainage features (i.e., curbs, channels, inlets, etc.). If a 10-foot setback is not feasible due to site configuration, provide secondary containment to manage any spills.
  - Clearly identify and mark the location of portable toilets on the SWPPP site map.
  - Position units in areas accessible to maintenance and service trucks without causing damage to erosion and sediment controls or creating tracking issues.
  - For installations, choose natural, undisturbed ground if feasible.
- **Structural Requirements & Security:**
  - Ensure that portable toilets are fully enclosed to minimize exposure of waste to precipitation and stormwater runoff.
  - Secure portable toilets against tipping using anchoring methods such as stakes or tie-downs.
  - Design facilities to minimize contact between sanitary waste and stormwater, adhering to applicable 40 CFR Part 450 guidelines.
- **Spill Prevention & Response:**
  - Immediately notify the service provider if a toilet is tipped or damaged, potentially resulting in a discharge.
  - In the event of a spill, the responsible company shall vacuum discharged solids and clean contaminated surfaces with a solution of 10 parts water to 1 part bleach.
  - Maintain written spill response procedures and provide training to all relevant personnel.

Maintenance & Management

Regular inspection and servicing of portable toilets are critical to ensure their proper functioning and to prevent environmental contamination.

- **Routine Maintenance:**
  - Portable toilets must be serviced at the frequency recommended by the supplier, typically daily or as specified based on the number of users (commonly one toilet per 10 workers during a 40–50-hour work week).
  - Inspect units daily for signs of leaks, spills, or structural damage, and ensure they remain secure and stable.
  - Confirm that waste is properly collected and transferred to a sanitary sewer system or an approved treatment facility.
- **Repair & Spill Response:**
  - Immediatelyrepair or replace any damaged units to prevent waste discharge.
  - In the event of a spill, implement the established spill response procedures and document the incident for reporting purposes.
  - Notify the municipal system authority if any discharge from the portable toilets reaches the storm drain system or a natural watercourse.

Performance Criteria

This BMP is considered effective when:

- Portable toilets contain all sanitary waste with no exposure to stormwater runoff.
- Units remain secure, leak-free, and fully operational throughout the period ofuse.
- Waste is consistently and properly serviced and transferred to an approved treatment facility.
- Spill response measures are implemented immediately, and any contamination is promptly cleaned, preventing adverse impacts on water quality.

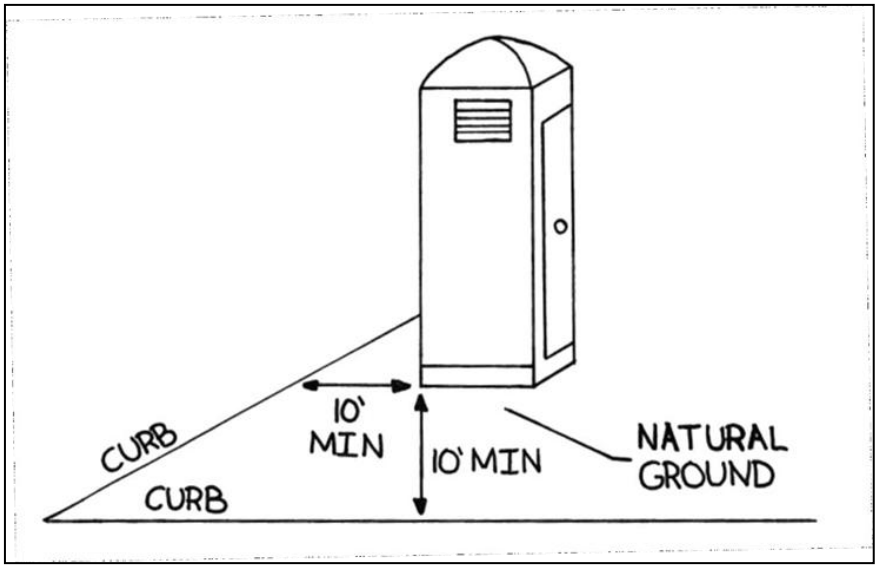


Figure 26: Schematic diagram showing proper placement of portable toilets



Figure 27: Photo showing staking of portable toilets to secure from tipping



Figure 28: Photo showing portable toilet secured with tie-down straps

10.2. BMP 28: Washout Areas (Concrete, Stucco, Paint, etc.)

Purpose & Applicability

Washout areas are designated zones where washout operations for concrete, stucco, paint, and related materials are conducted. These areas are designed to contain and properly manage washout wastewater and solid waste to prevent the discharge of pollutants into storm drains or natural watercourses.

- **Applicability:**
  - Use on construction sites where concrete waste management is required, including operations such as saw cutting, coring, grinding, grooving, or hydro-concrete demolition, as well as at mortar-mixing stations.
  - Applicable when concrete truck drums, chutes, hoses, and other equipment are washed on-site, and complete off-site disposal is not feasible.
  - Can be used for both above-grade and below-grade washout facilities, provided they are designed to contain all liquid and concrete waste generated during washout operations.

Installation & Use Procedures

To ensure effective washout area performance and environmental protection, implement the following procedures (See figures 29 and 30):

- **Site Location & Setup:**
  - Locate the washout facility at least 50 feet from storm drain inlets, open ditches, water bodies, wetlands, or planned infiltration features. If a 50-foot setback is not practicable due to site constraints, provide secondary containment measures.
  - Clearly mark the washout area with signage to instruct concrete equipment operators to use the designated facility for washout.
- **Structural Requirements:**
  - **Above-Grade Facilities:**
    - Construct the facility with a minimum length and width of 10 feet (or larger as needed to provide sufficient capacity).
    - Use a watertight, impermeable design with a plastic lining (minimum 10- mil polyethylene sheeting) that is free of holes, tears, or defects.
  - **Below-Grade Facilities:**
    - Similarly, ensure a minimum footprint of 10 feet by 10 feet with proper volume to contain all liquid and concrete waste generated.
    - Prepare the soil base free of rocks or debris that could compromise the lining's integrity.
  - **Operational Procedures:**
    - During concrete operations, empty excess concrete onto the ground near the pour site until only liquid cement remains on tools and equipment.
    - Wash cement off chutes pump equipment, and tools directly into the washout facility
    - If concrete washout is collected in an impermeable bag, ensure it is properly sealed for adequate disposal.

- **Documentation & Coordination:**
    - Attach detailed contractor illustrations and design specifications (including dimensions, liner details, and secondary containment if applicable) to the SWPPP.
    - Clearly record the washout facility's location on the site plan.
    - Inform and train the workforce, including concrete suppliers and subcontractors, on proper washout procedures and equipment handling.

Maintenance & Management

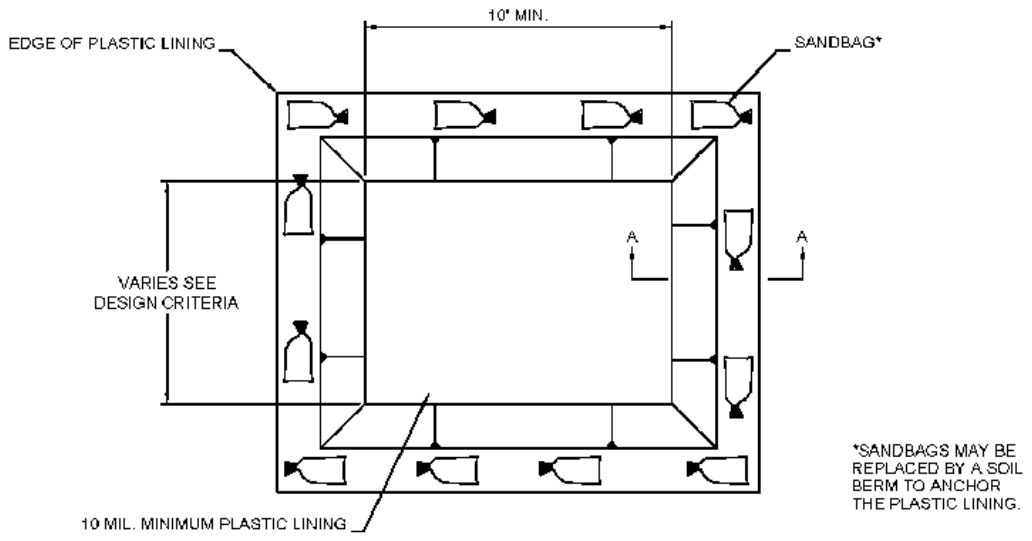
Regular maintenance is essential to ensure that washout areas function as designed and remain compliant with water quality standards.

- **Inspection Schedule:**
    - Inspect washout facilities at least weekly and before and after each concrete operation.
    - During extended wet weather conditions, perform additional inspections to verify that overflow is not occurring.
- **Maintenance Actions:**
    - Maintain a minimum freeboard of at least one foot by removing waste concrete or slurry when the facility reaches 70% capacity.
    - Remove accumulated sediment and debris promptly to prevent overflow or seepage.
    - Repair any damage to the plastic lining or structural components immediately.
    - After the completion of concrete work, if the facility is temporary, remove hardened concrete and debris, then backfill, re-grade, and stabilize the area to prevent erosion.
    - Ensure all waste disposal methods comply with applicable federal, state, and local regulations; discharges to waterways, storm drains, or directly onto the ground are prohibited.

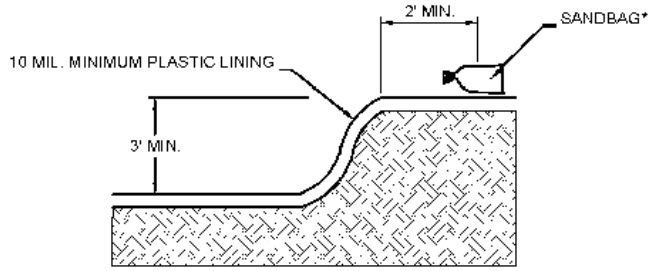
Performance Criteria

This BMP is considered effective when:

- The washout facility remains watertight and maintains sufficient volume with at least one foot of freeboard throughout operations.
- All concrete waste (liquid and solids) is contained with no discharge of pollutants into storm drains or natural watercourses.
- The facility effectively prevents track-out of concrete waste by directing all washout water and debris into the designated area.
- Regular maintenance ensures that the facility does not overflow, leak, or become compromised.



CONCRETE WASHOUT PLAN VIEW



CONCRETE WASHOUT SECTION VIEW

CONCRETE WAHSOUT NOTES:

1. WASHOUT AREA MUST BE CLEARLY MARKED WITH SIGNAGE NOTING THE WASHOUT AREA.

2. WASHOUT STRUCTURES SHALL BE CLEANED OUT WHEN THE STRUCTURE IS 75% FULL. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY.

Figure *29*: Schematic diagram of below-grade concrete washout installation

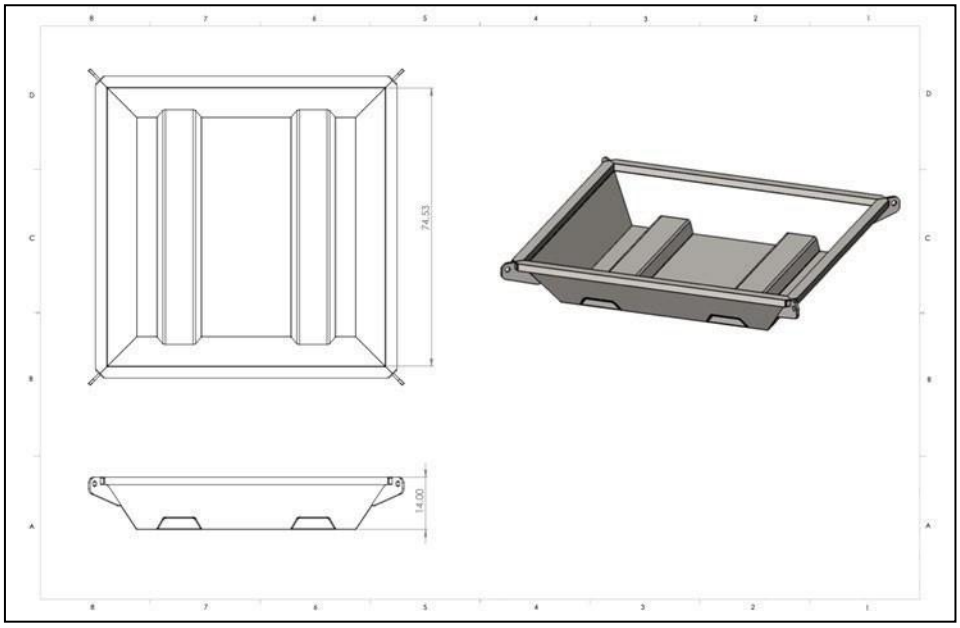


Figure 30: Image of a small-scale portable concrete washout pan

10.3. BMP 29: Concrete Sawcutting Management

Purpose & Applicability

Concrete Sawcutting Management is designed to control and manage waste generated during pavement sawcutting operations. This BMP addresses both wet and dry cutting methods to prevent concrete, mortar, and associated slurry from contaminating stormwater or causing dust and debris track-out.

- **Applicability:**
  - Use for pavement sawcutting operations when a wet saw is employed (wet cutting) to control slurry and reduce airborne dust, particularly in curb and gutter applications where dry cutting is not permitted or dust control is critical.
  - Use for dry pavement cutting operations on directly connected pavements or where cutting dust can be safely managed through drainage systems.
  - Applicable for both new construction and repair/maintenance projects where concrete waste (slurry, cuttings, dust) must be collected and disposed of properly to prevent environmental contamination.

Installation & Use Procedures

- **For Wet Cutting Operations:**
  - Install a series of sand or gravel bags (minimum 6-inch diameter) around the perimeter of the cutting area to intercept and contain slurry moving downslope. Double up bags as needed based on anticipated slurry volume.
  - **Operational Scheduling & Slurry Management:**
    - Schedule cutting operations during dry weather to minimize premature slurry dispersion.
    - Remove accumulated slurry at the end of the day or before forecasted rain events. In wet conditions, mix the slurry with dirt or another absorbent material and immediately remove it:
      - Dump waste into an approved concrete washout containment system.
      - Dry the waste in a contained area and dispose of it in a designated waste management container.
  - **Cleanup Procedures:**
    - Thoroughly sweep the cutting area using a square nose shovel and wire broom until no additional waste is recoverable.
    - Do not sure water for rinsing; employ dry cleanup methods exclusively.
- **For Dry Cutting Operations:**
  - Conduct dry cutting during periods of dry weather to avoid moisture- related complications.
  - **Dust Removal:**
    - Immediately remove cutting dust following the cutting operation by sweeping the area thoroughly with a square-nose shovel until all dust is recovered.
  - **Waste Disposal:**
    - Collect and dispose of the cutting dust in a designated concrete waste

container or approved waste management container.

- **General Concrete Sawcutting Waste Management:**
  - **Slurry Collection & Containment:**
    - For projects where concrete sawcutting generates slurry and cuttings, continuously vacuum or recover waste during operations to prevent discharge from the site.
    - Where pavement is near a storm drain inlet, temporarily block the inlet (e.g., with sandbags) to prevent slurry from entering the system, then remove the blockage promptly after operations (including cleanup).
    - Ensure that slurry and cuttings are not allowed to dry on the pavement.
  - **Disposal Procedures:**
    - Designate safe slurry disposal areas or on-site containment (e.g., excavated or bermed pits lined with plastic, minimum 10-mil thick) and ensure these areas are located at least 50 feet from inlets, swales, or water bodies.
    - If on-site containment is used, remove waste concrete when the containment is half full, maintaining a minimum of one foot freeboard.
    - Alternatively, consider using commercially available portable, prefabricated washout containers.
  - **Integration with Other BMPs:**
    - Coordinate concrete sawcutting waste management with overall concrete waste management practices and ensure employee training and enforcement of proper procedures.

Maintenance & Management

Regular maintenance and prompt management are critical to ensuring that concrete sawcutting waste management systems perform effectively.

- **Inspection Schedule:**
  - Inspect the cutting area and containment facilities during each routine inspection period and after any storm event.
  - For wet cutting operations, verify that all slurry has been removed from the containment system before the onset of additional rain.
  - For dry cutting operations, inspect the pavement each day after operations to ensure all dust has been adequately removed.
- **Maintenance Actions:**
  - Ensure that sand or gravel bag systems used for wet cutting are reinstalled for each new operation and that any accumulated waste is removed and disposed of.
  - Confirm that designated waste management containers (for dust or slurry) are emptied and cleaned regularly to prevent overflow or contamination.
  - Address any deficiencies (e.g., overflow of containment, incomplete removal of dust) immediately with corrective actions.
  - Maintain records of all maintenance activities and disposal methods for review.

Performance Criteria

This BMP is considered successful when:

- **Wet Cutting Operations:**
  - The sand or gravel bag containment system holds all generated slurry with no

overflow, and all slurry is removed and disposed of per BMP procedures before the end of the cutting day or prior to rainfall.

- **Dry Cutting Operations:**
  - All cutting dust is promptly removed from the pavement, with no dust entering drainage systems or affecting water quality.
- **General Sawcutting Waste Management:**
  - Waste (slurry, cuttings, and dust) is collected and contained effectively, preventing any discharge into storm drains or natural water bodies.
  - Contractor and site personnel consistently adhere to established procedures, with documentation reflecting proper cleanup and waste disposal.

10.4. BMP 30: Solid Waste Management (Trash and Debris)

Purpose & Applicability

Solid waste management is implemented to properly collect, store, and dispose of construction-related debris and trash, thereby minimizing floatable/dissolvable pollutants in stormwater. By effectively managing solid waste on-site, overall stormwater quality is improved and cleanup efforts at the end of a project are reduced.

- **Applicability:**
    - Use on all construction sites where workers and equipment generate solid waste, including construction and demolition debris (e.g., lumber, metals, insulation, brick, mortar) and domestic waste (e.g., packaging, food containers, paper, plastics, Styrofoam).
    - Applicable when the waste produced poses a potential risk of contaminating stormwater if not managed appropriately.
    - Emphasizes proper segregation of non-hazardous, hazardous, and recyclable waste.

Installation & Use Procedures

To establish an effective solid waste management system, implement the following procedures:

- **Selection of Waste Containers:**
    - Use durable, watertight containers (e.g., dumpsters, trash receptacles) sized appropriately for the volume of waste generated.
    - Ensure that containers are clearly marked for non-hazardous, hazardous, and recyclable waste, according to site requirements.
- **Placement & Storage:**
    - Position waste storage areas on flat, stabilized surfaces away from storm drains, swales, drainage ways, channels, and watercourses.
    - Locate storage areas a minimum of 50 feet away from sensitive drainage features; if not feasible, maintain at least 20 feet separation and provide secondary containment.
    - Place dumpsters on designated parking or track-out pads to prevent tracking during servicing and to avoid disruption of stormwater controls.
    - Ensure that waste containers are covered to prevent exposure to precipitation, minimize leaching of contaminants, and reduce the risk of wind dispersal.
- **Usage & Handling:**
    - Instruct all personnel to place all construction waste into the designated containers; waste should not extend beyond the sides or top of the container.
    - Segregate hazardous waste from non-hazardous waste by using separately labeled and secured containers.
    - Prohibit on-site disposal methods such as dumping, burning, or burying of waste.
    - Ensure that collected waste is removed at regular intervals (e.g., when containers reach 90% full) by waste haulers approved by the local municipality.
- **Communication & Training:**
    - Clearly communicate waste management procedures through training sessions and regular safety meetings.

- Designate a site supervisor or foreman responsible for monitoring and enforcing waste management protocols.
- Post visible signage indicating proper waste disposal practices and identify container locations on the SWPPP site map.

Maintenance & Management

Regular and systematic maintenance is essential to ensure the solid waste management system remains effective throughout the project.

- **Inspection & Cleaning:**
  - Inspect waste storage areas and containers daily to ensure that waste is contained properly and that no containers are overflowing.
  - Check for any signs of leaks or damage to waste storage units, and repair or replace them as necessary.
  - Collect and remove scattered debris from around the site, particularly in high-traffic areas and near drainage inlets, to prevent potential contamination.
- **Waste Removal & Recycling:**
  - Arrange for waste removal by licensed waste haulers on a regular schedule (e.g., when containers reach 90% capacity, or more frequently if required).
  - Ensure that recyclable materials are segregated and sent to approved recycling facilities.
  - Follow local municipal requirements for the storage and disposal of solid waste.
- **Worker Training & Enforcement:**
  - Regularly train workers and subcontractors on proper waste handling, segregation, and disposal practices.
  - Monitor compliance and enforce waste management procedures through site inspections and corrective action if necessary.

Performance Criteria

This BMP is considered successful when:

- All construction and domestic waste generated on-site is fully contained within designated waste storage containers, with no overflow or spillage.
- Waste storage areas are maintained free of visible litter and debris, and waste is segregated appropriately (hazardous vs. non-hazardous).
- Waste is removed and disposed of on a regular schedule, ensuring that stormwater is not contaminated by leachate or spilled materials.
- The system supports proper recyclingor re-use of materials where possible.

10.5. BMP 31: Chemical/Hazardous Materials Management

Purpose & Applicability

Proper chemical management is essential to prevent, or at least minimize, the pollution of stormwater runoff through spills, leaks, or improper handling of chemicals and hazardous materials. This BMP is not intended to replace normal site assessment and remediation procedures but serves to provide controls at the point of storage and use.

- **Applicability:**
  - Use at all construction sites where chemicals or hazardous materials are stored or used.
  - Target chemicals include paints, solvents, stains, wood preservatives, fuels, lube oils, grease, cutting oils, roofing tar, pesticides, herbicides, fertilizers, and antifreeze.
  - Chemical management practices should be implemented in accordance with applicable OSHA, UDOT, and EPA guidelines and in conjunction with related BMPs such as Solid Waste Management (BMP 30), Vehicle and Equipment Management (BMP 32), and Spill and Leak Containment (BMP 33).

Installation & Use Procedures

To ensure that chemicals and hazardous materials are managed properly, the following procedures must be implemented:

- **Storage and Labeling Procedures:**
  - Store chemicals in their original, sealed, and clearly labeled containers.
  - Where possible, cover stockpiled materials indoors or under a temporary roof to prevent water ponding around stored drums.
  - When multiple drums are moved (e.g., on a pallet), secure them with shrink wrap or steel bands; mark any damaged containers.
  - Do not store chemicals, drums, or bagged materials directly on the ground; instead, use secondary containment platforms or wooden pallets.
- **Secondary Containment:**
  - Provide spill containment dikes around chemical and fuel storage tanks, lining the containment with plastic film (or other compatible material) to prevent soil contamination.
  - For containers larger than 55 gallons or when site conditions require, install secondary containment (e.g., drip pans, spill containment pallets, or berms with impermeable liners).
  - Do not drain containment areas that have collected precipitation until it is confirmed by the site supervisor that drainage will not contaminate surrounding soil.
- **Waste Handling and Disposal:**
  - Ensure that adequate hazardous waste storage space and properly labeled hazardous waste collection containers are available on-site.
  - Store hazardous waste in containers that meet EPA, OSHA, and UDOT regulations.
  - Dispose of oil-based paints, solvents, thinners, and mineral spirits regularly through a licensed waste management firm.

    - Follow manufacturer recommendations for disposal of construction chemicals (e.g., curing compounds, form releases) and use proper devices for chemical transfer.
- **Additional Measures:**
    - Keep Safety Data Sheets (SDS) readily accessible for all chemicals stored or used on-site.

Maintenance & Management

Continual maintenance and proactive management are critical to the effectiveness of chemical management practices:

- **Educating Workers:**
    - Train all employees and subcontractors in safe chemical storage, handling, and spill response procedures.
    - Establish a continuing education program for new and existing workers regarding chemical management risks and procedures.
- **Quality Assurance:**
    - Designated personnel (e.g., foreman or site supervisor) must regularly monitor chemical storage and disposal procedures.
    - Document and, if necessary, discipline workers who violate established procedures.
    - Verify that any hazardous waste disposal contractors are reputable and licensed.
- **Emergency Response:**
    - Maintain an up-to-date Emergency Response Plan for chemical spills.
    - If a spill occurs that equals or exceeds the reportable quantity (as defined by EPA regulations in 40 CFR Parts 110, 117, and 302), report it immediately to the National Response Center (1-800-424-8802), Utah Department of Environmental Quality (1-385-552-0539) and notify local emergency management authorities.

Performance Criteria

This BMP is considered effective when:

- All chemicals and hazardous materials are securely stored in accordance with manufacturer and regulatory requirements, preventing any pollutants from reaching stormwater systems.
- Secondary containment measures remain intact and are sufficient to contain spills or leaks.
- Regular inspections reveal no evidence of spills, leaks, or improper storage practices.
- Spill response procedures are effectively executed, with any incidents promptly addressed and documented.
- Ongoing training and quality assurance measures ensure continuous compliance with applicable regulations.

10.6. BMP 32: Vehicle and Equipment Management

Purpose & Applicability

Proper vehicle and equipment management is critical to minimizing pollutants entering stormwater from fueling, washing, and maintenance activities. By establishing proper procedures for vehicle washing, fueling, storage, and maintenance, this BMP aims to reduce the discharge of fuels, oils, antifreeze, solvents, and other pollutants.

- **Applicability:**
  - Use on all construction sites where vehicles and equipment are present.
  - Applies to both fueling operations and routine maintenance tasks, including vehicle washing and storage of maintenance fluids.
  - Works in conjunction with spill and leak containment procedures (BMP 33) and supports compliance with relevant OSHA, UDOT, EPA, and DEQ requirements.

Installation & Use Procedures

To ensure effective management of vehicles and equipment, the following procedures must be implemented:

- **Fueling Operations:**
  - **Location & Setback:**
    - Locate fueling operations at least 50 feet from receiving waters, drainage features, and storm drain inlets.
    - If a 50-foot setback is not feasible, document the reasons in the SWPPP.
  - **Storage & Handling:**
    - Store fuels in sealed, clearly labeled containers.
    - Provide secondary containment for fuel tanks and containers (e.g., curbing, spill berms, or double-walled tanks).
    - Use drip pans or spill containment devices during fueling operations.
  - **Operational Requirements:**
    - Discourage topping-off of tanks.
    - Ensure fueling is performed only in designated areas; if many vehicles are fueled, consider using an off-site fueling station.
    - Train workers on proper fueling procedures and spill response.
- **Vehicle Washing:**
  - **Designated Wash Area:**
    - If vehicle washing is required on-site, designate a specific wash area.
    - Ensure the wash area is graded so that all wash water is directed into a sediment basin or equivalent sediment control.
  - **Prohibitions:**
    - Do not use soap during vehicle washing, as soaps are not removed by sediment controls and may lead to water quality violations.
    - Use water solely to remove soil and debris from tires and undercarriages.
  - **Additional Controls:**
    - Ensure that any wash water collected is treated by a sediment control (e.g., sediment basin or swale) before discharge.
- **Maintenance Operations:**

    - **On-site Repairs:**
        - Limit on-site maintenance to routine preventive measures.
        - If maintenance is required that involves fluids, ensure these fluids are stored in closed, appropriate containers and under cover.
        - Place drip pans under parked vehicles and equipment to catch leaks.
    - **Vehicle Removal:**
        - Remove vehicles or equipment that consistently leak or drip until repairs are completed.
- **Documentation & Signage:**
    - Clearly mark the locations of fueling and wash areas on the SWPPP site map.
    - Provide contractor illustrations and detailed specifications for fueling, washing, and maintenance setups.

Maintenance & Management

Regular maintenance and vigilant management are essential to the long-term effectiveness of vehicle and equipment management:

- **Inspection & Monitoring:**
    - Inspect fueling tanks, hoses, and storage areas regularly for signs of leaks or damage.
    - Check vehicle wash areas for proper function and ensure that wash water is directed to the designated sediment control.
    - Monitor maintenance areas for spills or leaks from equipment fluids; use drip pans where necessary.
- **Worker Training & Communication:**
    - Train all workers and subcontractors on proper fueling, washing, and maintenance procedures, including spill response protocols.
    - Conduct regular safety meetings to reinforce proper handling and disposal of vehicle and equipment fluids.
- **Repair & Response:**
    - Immediately repair any damaged equipment or containment systems.
    - Remove vehicles or equipment with persistent leaks from the site until repairs are made.
    - Ensure that any spilled fuels, oils, or other pollutants are promptly cleaned up and disposed of using approved methods.

Performance Criteria

This BMP is considered effective when:

- No fuel, oil, lubricants, or other maintenance fluids discharge into stormwater or adjacent water resources.
- Fueling and vehicle washing operations are confined to designated areas with appropriate secondary containment.
- Maintenance areas and equipment storage locations remain free of leaks, spills, and improperly managed waste.
- Regular inspections and worker training confirm compliance with established procedures.

10.7. BMP 33: Spill and Leak Containment

Purpose & Applicability

This BMP is designed to prevent and control spills and leaks of chemicals, fuels, hazardous materials, and wastes at construction sites to minimize or prevent pollutant discharges into stormwater drainage systems and watercourses. It provides procedures for immediate spill response and proper containment to protect human health and the environment.

- **Applicability:**
  - Use on all construction sites where chemicals, fuels, or hazardous substances are stored or used.
  - Applicable to emergency spill situations involving soil stabilizers, dust palliatives, herbicides, fertilizers, deicing chemicals, fuels, lubricants, sanitary wastes, and other hazardous materials.
  - Functions as a secondary control to prevent contaminants from entering storm drains and water bodies, complementing primary chemical management practices.

Installation & Use Procedures

To ensure effective spill and leak containment and response, implement the following procedures:

- **Spill Prevention Setup:**
  - **Material Storage:**
    - Store chemicals and hazardous materials in sealed, clearly labeled containers within designated storage areas.
    - Ensure storage areas are located at least 50 feet from storm drain inlets, swales, and other sensitive water bodies; if not possible, provide secondary containment measures.
  - **Secondary Containment:**
    - For containers larger than 55 gallons or as required by site conditions, install secondary containment systems (e.g., drip pans, spill containment pallets, or spill berms lined with impermeable material).
    - Submit detailed design illustrations of secondary containment systems with the SWPPP.
  - **Spill Kits & Emergency Equipment:**
    - Equip the site with spill containment kits appropriate for the types and quantities of chemical stored.
    - Post emergency contact information and spill response procedures in an open, conspicuous, and accessible location near storage areas.
- **Spill Response Procedures:**
  - **Immediate Actions:**
    - Upon detection of a spill, immediately cease operations in the affected area and clear the area upwind of the spill.
    - Remove ignition sources and notify the designated Spill and Leak Response Coordinator.
    - If the spill poses an immediate danger, contact 911 and then the local emergency response team.

    - **Containment & Cleanup:**
        - For small spills (typically less than 5 gallons), use on-site spill kits and absorbent materials to contain and clean up the spill promptly.
        - For spills that exceed reportable quantities, follow federal and state reporting requirements (e.g., notify the National Response Center at 1-800-424-8802, Utah Department of Environmental Quality at 1-385-552-0539, and local emergency management agencies).
    - **Post-Spill Actions:**
        - Do not bury or wash the spill with water.
        - Collect and properly dispose of all contaminated materials and cleanup residues using a licensed waste hauler.
        - Document the spill incident, including quantity, cleanup actions taken, and corrective measures implemented.
- **Documentation & Training:**
    - Attach a site-specific Spill Response Plan to the SWPPP.
    - Train all employees and subcontractors on spill identification, response procedures, and proper use of spill kits and containment equipment.

Maintenance & Management

Ongoing maintenance and management are essential for effective spill and leak containment and response:

- **Routine Inspections:**
    - Inspect spill containment materials (spill kits, secondary containment structures, posted procedures, and emergency contact information) at least weekly and after any spill event.
    - Verify that all storage areas and containment systems are intact, properly labeled, and free of leaks or degradation.
- **Replenishment & Repairs:**
    - Immediately replenish or repair any used or damaged spill kits, secondary containment structures, or signage.
    - Update the Spill Response Plan and associated documentation whenever changes occur in the types or quantities of chemicals stored on-site.
- **Employee Training:**
    - Maintain a continuing education program for all employees regarding spill prevention, containment, and response procedures.
    - Ensure that new hires receive training and that regular safety meetings reinforce proper practices.
- **Documentation:**
    - Retain records of all spill incidents, cleanup actions, repairs, and training sessions for regulatory review and internal quality assurance.

Performance Criteria

This BMP is considered successful when:

- Spill containment materials are readily available, intact, and effective, with emergency contact information and spill response procedures posted visibly on-site.
- All spills or leaks are promptly contained, cleaned up, and documented in accordance with the Spill Response Plan, with no discharge of pollutants into stormwater or nearby watercourses.
- Regular inspections and employee training ensure that spill prevention and response procedures are followed consistently.

10.8 BMP 34: BMP Inspection and Maintenance

Purpose and Applicability

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.

Installation and Use Procedures

Regular maintenance of all structural BMP's is necessary to ensure their proper functionality.

- Weekly 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.

Maintenance and Management

- Keep a record of all inspections, repairs, and/or maintenance that have been completed onsite.
- Keep BMP's in good working order so they can operate properly.
- If a BMP selected for onsite use is determined to be ineffective, a replacement BMP shall be selected from the City's approved BMP list.

Performance Criteria

This BMP is considered effective when:

- All BMPs that are chosen to be used onsite need to be properly maintained and inspected weekly to ensure they are functioning as intended and remain effective in preventing pollutant discharge.

10.9 BMP 35: Construction Material Storage

Purpose and Applicability

Proper construction material storage (gravel, road base, dirt, sand, etc..) shall be implemented immediately upon delivery onsite to maintain site safety and prevent materials from contributing to pollution. Where applicable, all construction materials stored outdoors or on pervious surfaces must be properly secured, protected, and contained to minimize exposure to stormwater and reduce the potential for sediment or debris discharge.

Installation and Use Procedures

- Select storage locations that are stable, level, and away from storm drains, drainage channels, and surface waters.
- Install perimeter controls, such as silt fence, wattles, earth berms, or other approved BMPs, where applicable to prevent runoff from contacting stored materials.
- If possible place materials on pallets, racks, or other elevated surfaces when stored on pervious ground.
- Secure materials to prevent movement from wind, equipment, or storm events.
- Cover materials with tarps, plastic sheeting, or other protective coverings, as necessary, to minimize exposure to precipitation.
- Ensure storage areas remain accessible for inspection and maintenance activities.

Maintenance and Management

- Inspect storage areas at least weekly and after significant rain events to ensure materials remain properly secured and protected.
- Repair or replace damaged covers, pallets, racks, or containment measures immediately to prevent exposure to stormwater.
- Keep storage areas organized, minimizing loose debris or scattered materials that could be carried offsite.
- Remove any accumulated sediment, debris, or spilled materials promptly to prevent pollution.
- Document inspections and maintenance actions to demonstrate compliance with site BMP requirements.

Performance Criteria

This BMP is considered effective when:

- Stored materials remain properly secured, covered, and protected from stormwater exposure.
- No visible sediment, debris, or construction material is observed leaving the storage area and entering drainage channels, pervious surfaces, or stormwater systems.
- Storage areas remain organized, free of loose materials, and accessible for inspection and maintenance.
- Weekly inspections and maintenance activities are completed and documented as required.
- No materials stored onsite contribute to pollution of surface waters, soil, or stormwater runoff.

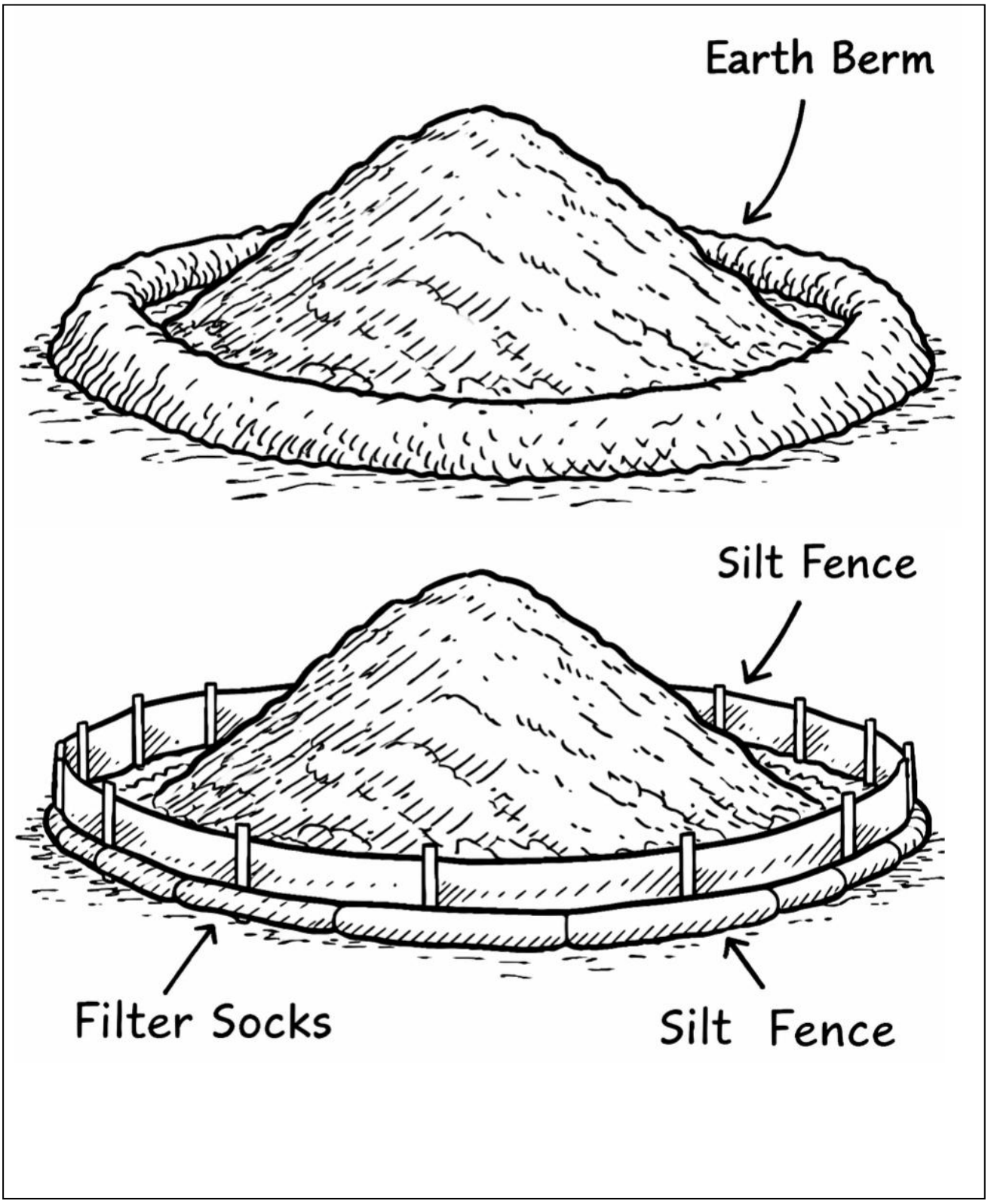


Figure 31: Image of perimeter protection surrounding material stockpile stored onsite

11 Template for Operator BMP Modification or Replacement

Operators are invited to use an alternative BMP or modify a BMP from the State Preferred List so long as the BMP has the same performance criteria or better as the preferred BMP. Any deviations from the preferred BMP installation and use parameters must be reviewed and accepted by the oversight authority.

Replace all blue text in brackets with BMP specific data. Then delete any remaining unnecessary blue instructional text.

[BMP Title]

[Insert the BMP detail drawing specific to the proprietary device you will use. It should illustrate the structure of the BMP, installation requirements, and any typical variances due to site conditions.]

[IMAGE]

Purpose and Applicability

- [Describe specifically when and where this BMP will be used on site]

Installation and Use Procedures

- [Describe how this BMP should be installed or how it should be practiced]
- [Describe further so that it is very clear, such as minimum length of structure, etc]

BMP Replacement or Modification Justification

Use only one of the two following bullets

- This BMP is replacing or augmenting [list the preferred BMP that is being replaced] OR
- This BMP is being added and implemented as the conditions or operations cannot be adequately managed by a BMP from the State Preferred List.

Maintenance and Management

- [Add maintenance criteria for proper BMP performance]
- [Describe how the BMP should look or function during an inspection]
- [Describe when maintenance is necessary]
- [Describe when replacement is necessary]
- [Describe when no action is needed]

Performance Criteria

- [Describe performance expectations of the alternative BMP. This includes how it protects water resources, manages hazards, and limits public complaints]

PART 2

Long-Term Storm Water Management BMP List

Table of Contents

BMP 1: Biofilters 1

BMP 2: Inlet Inspection and Maintenance 2

BMP 3: Catch Basin Cleaning 3

BMP 4: Constructed Wetlands 4

BMP 5: Detention/Infiltration Device Maintenance 5

BMP 6: Erosion Control Blankets 6

BMP 7: Extended Detention Basins 7

BMP 8: Geotextiles and Mats 8

BMP 9: Grassed Swales 9

BMP 10: Hazardous Waste Management 10

BMP 11: In-Line Storage 11

BMP 12: Materials Storage 12

BMP 13: Mulching 13

BMP 14: Outlet Protection 14

BMP 15: Parking Lot Sweeping/Vacuuming 15

BMP 16: Riprap 16

BMP 17: Spill Clean-Up 17

BMP 18: Storm Drain Flushing 18

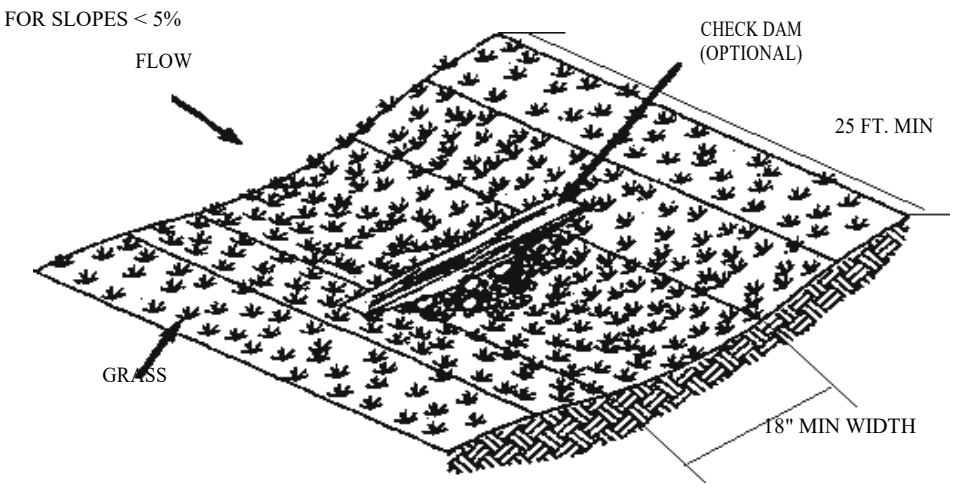
BMP 19: Vehicle And Equipment Cleaning 19

BMP 20: Vehicle And Equipment Fueling 20

BMP 21: Waste Disposal 21

BMP 22: Wet Ponds 22

BMP 1: Biofilters



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 soil is 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 2: Inlet Inspection and Maintenance



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

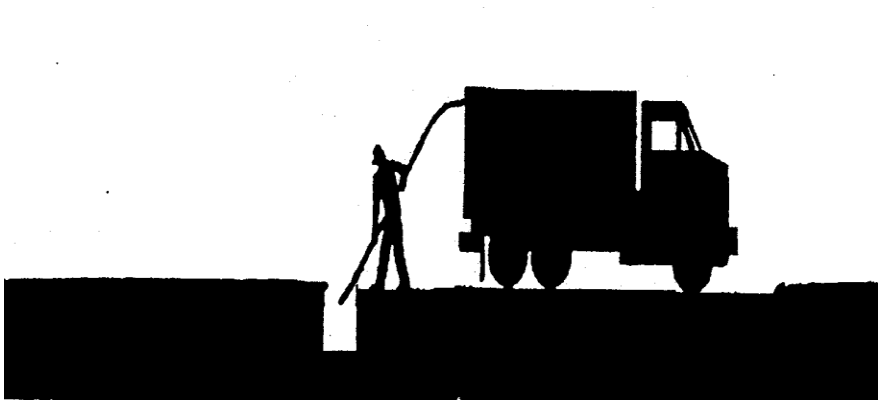
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ☒ Staffing
- ☐ Training
- ☐ Administrative

■ High ☒ Medium ☐ Low

BMP 3: Catch Basin Cleaning



PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☐ Commercial Activities
- ☐ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

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.

Adapted from Salt Lake County BMP Fact Sheet

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.

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ☐ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☒ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

LIMITATIONS:

- There are no major limitations to this best management practice.

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

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:

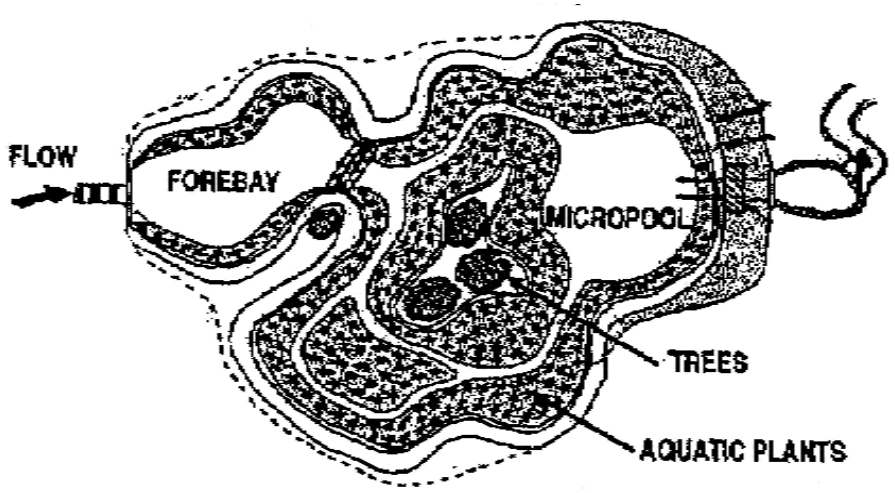
- Annual/monthly inspection of public and private facilities to ensure structural integrity, a clean sump, and a stenciling of catch basins and inlets.
- Keep logs of the number of catch basins cleaned.
- Record the amount of waste collected.

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ■ O&M Costs
- ☒ Regulatory
- ☐ Training
- ■ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP 4: Constructed Wetlands



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 soil for wetland vegetation is 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

BMP 5: Detention/Infiltration Device Maintenance



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

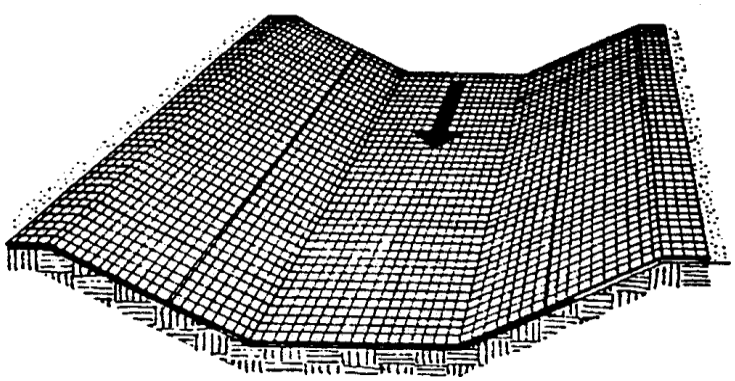
■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
■ O&M Costs
☐ Regulatory
☐ Training
☒ Staffing
☐ Administrative

■ High ☒ Medium ☐ Low

BMP 6: Erosion Control Blankets



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.

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

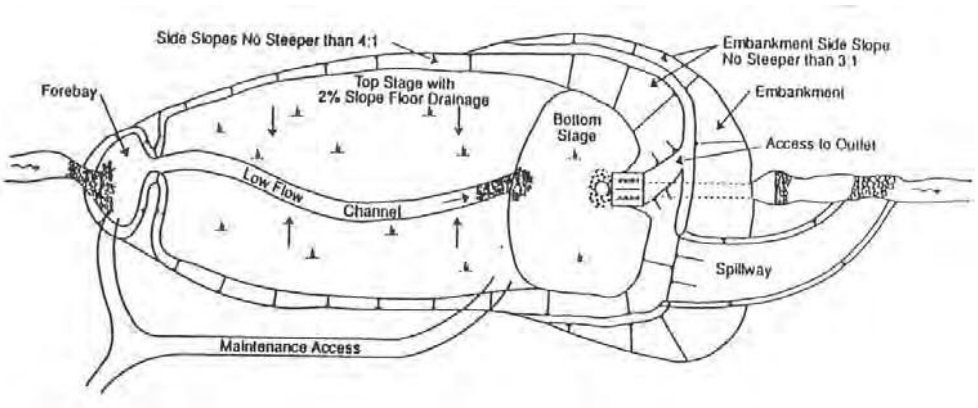
■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

■ Capital Costs
☒ O&M Costs
☒ Maintenance
☐ Training

■ High ☒ Medium ☐ Low

BMP 7: Extended Detention Basins



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 outlets 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

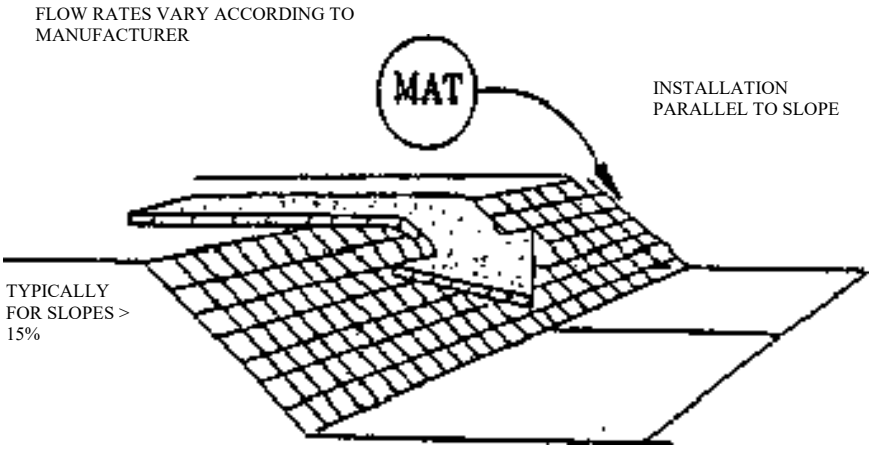
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP 8: Geotextiles and Mats



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: excelsiormatting, 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 9: Grassed Swales



Grassed swales can be used along roadsides and parking lots to collect and treat storm water runoff

APPLICATIONS

- ☐ Manufacturing
- ☐ Material Handling
- ☐ Vehicle Maintenance
- ☒ Construction
- ☒ Commercial Activities
- ☐ Roadways
- ☐ Waste Containment
- ☐ Housekeeping Practices

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.

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 10: Hazardous Waste Management

BMP 10



PROGRAM ELEMENTS

- ☒ New Development
- ☒ Residential
- ☒ Commercial Activities
- ☒ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

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 ensure 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, pesticides, and fertilizers; acids for cleaning masonry; and concrete curing compounds.

In addition, sites with existing structures may contain waste 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 waste:

- 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, pesticides, and fertilizers. 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.

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

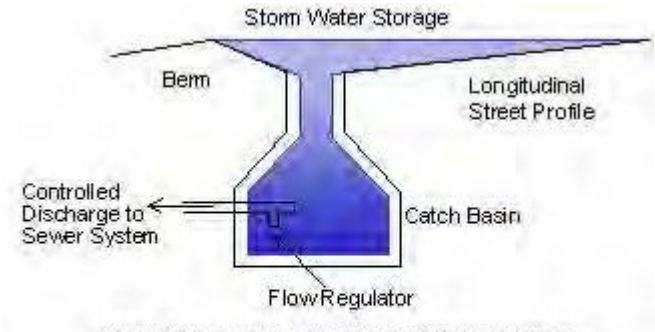
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☐ Capital Costs
- ☒ O&M Costs
- ☒ Regulatory
- ☒ Training
- ☒ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP 11: In-Line Storage



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 cannot 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

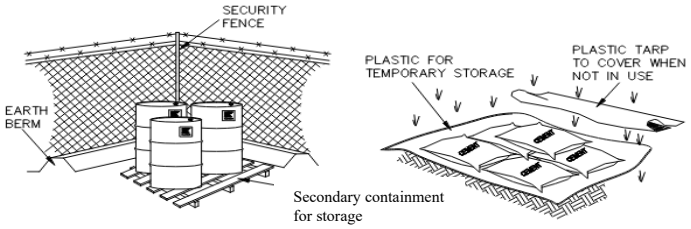
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP 12: Materials Storage



- 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 site with outside storage of materials.

INSTALLATION/APPLICATION CRITERIA:

- Designate a secure area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- 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.
- Use secondary containment when storing any chemical substances outside.

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 13: Mulching

DESCRIPTION:

Placement of material such as straw, grass, woodchips, woodfibers or fabricated matting over open area.

APPLICATION:

- Any exposed area remaining 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 depression 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

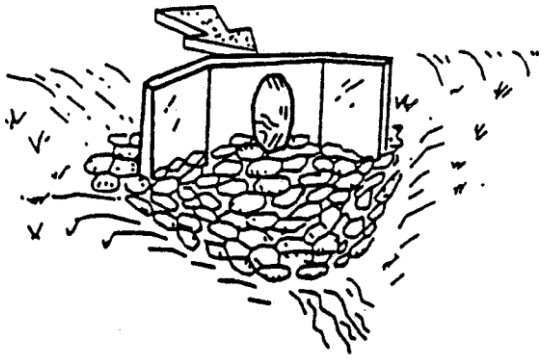
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☒ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP 14: Outlet Protection



OBJECTIVES

- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

DESCRIPTION:

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 scouring 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 because 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 15: Parking Lot Sweeping/Vacuuming



PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☒ Commercial Activities
- ☒ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

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 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 cannot 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, climatic conditions, and condition of curbs.

MAINTENANCE:

- Acquisition and maintenance of equipment is generally handled by the company hired to perform the sweeping/vacuuming.

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 16: Riprap



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 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 ripraps 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 17: Spill Clean-Up



OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:

Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving water.

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.
- Report spills to Pleasant Grove Public Works Office (801-785-2941) and the Utah Department of Environmental Quality (801-536-4123) for any spill of reportable quantity.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

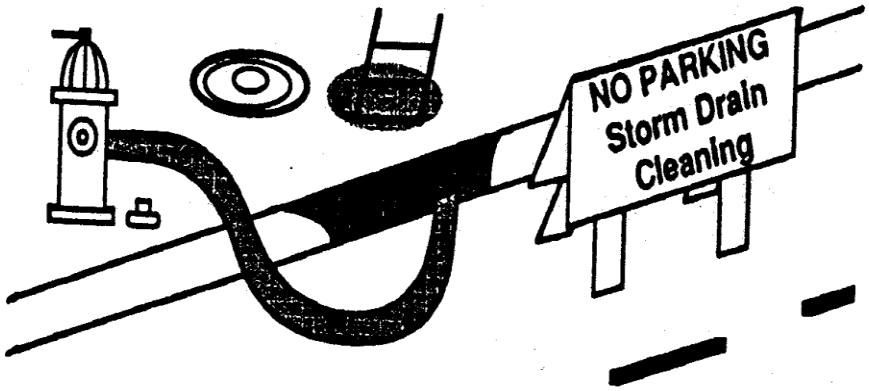
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP 18: Storm Drain Flushing



DESCRIPTION:

A storm drain is "flushed" with water to suspend and remove deposited materials. Flushing is particularly beneficial for storm drainpipes 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 sources 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

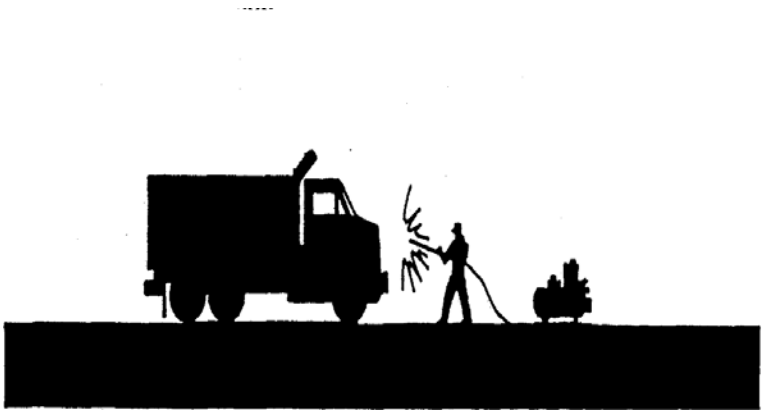
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ■ O&M Costs
- ☐ Regulatory
- ☒ Training
- ■ Staffing
- ☐ Administrative

■ High ☒ Medium ☐ Low

BMP 19: Vehicle And Equipment Cleaning



OBJECTIVES

- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

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 water properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- 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.

MAINTENANCE:

- Minimal

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ☒ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

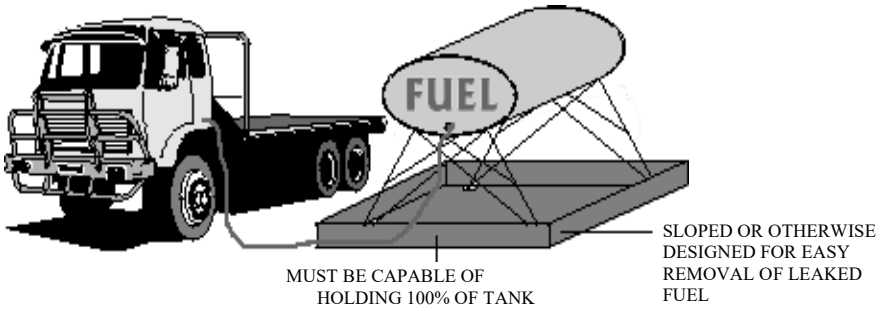
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☐ Training

■ High ☒ Medium ☐ Low

BMP 20: Vehicle And Equipment Fueling



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 storm drain conveyance systems, 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 stationery above ground storage tanks. (40 CF Sub. J)

LIMITATIONS:
- There are no major limitations to this best management practice.

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

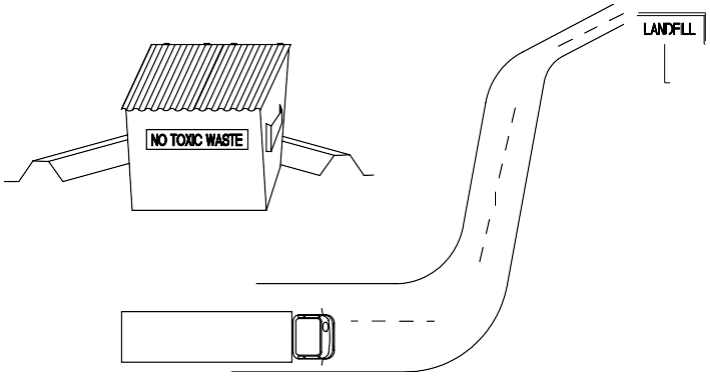
■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

☒ Capital Costs
☐ O&M Costs
☒ Maintenance
☒ Training

■ High ☒ Medium ☐ Low

BMP 21: Waste Disposal



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 vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Use watertight 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 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).

OBJECTIVS
- ☒ 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

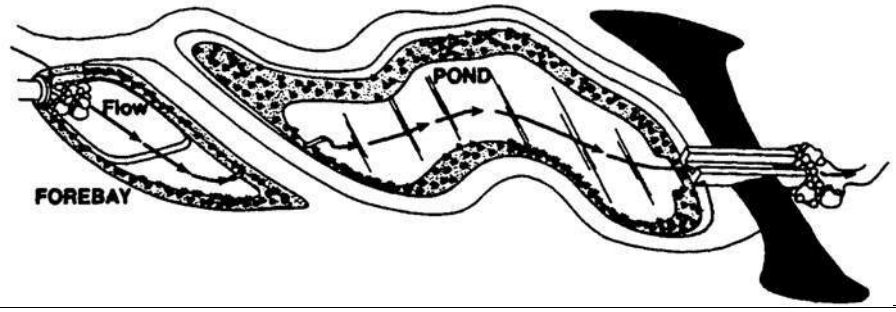
TARGETED POLLUTANTS
- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS
- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP 22: Wet Ponds



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 that are greater than the 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

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

Appendix G – Storm Water Maintenance Agreement

Pleasant Grove
Utah's City of Trees

STORM WATER 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 Storm 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:

_____

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 (see Exhibit A) 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 systems 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 ensure 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

_____/_____/_____
Date Signed

(Signature must be notarized, as applicable, on page four or five of this document.)

PLEASANT GROVE CITY

AUTHORIZED CITY OFFICIAL

_____
(Print Name)

_____
Signature

_____
Title

_____/_____/_____
Date Signed

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 _____

(Complete only if APPLICANT is a Limited Liability Company (LLC))

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 limited liability company, and that the foregoing instrument was signed in behalf of said limited liability company after a lawful meeting held or by authority of its operating agreement and signed in behalf of said limited liability company and that s/he is authorized to sign on behalf of said limited liability company.

NOTARY PUBLIC

_____
(Print Name)

_____ _____/_____/_____
Signature My Commission Expires

Residing in _____ County, State

(City Notary)

STATE OF UTAH)
COUNTY OF UTAH) 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 _____

Exhibit A

Pleasant Grove
Utah's City of Trees

Long Term Storm Water Management Inspection Report

Development Site:	Business Name:
Inspection Date:	Time of Inspection:
Inspector Name(s):	
Site Address:	
Contact Person:	Phone Number:

Long Term (Post Construction) Storm Water Management Plan Report

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 soil, storm drainage facilities, or onto adjacent properties

0=Good 1=Adequate 2=Poor 3=Missing

Long Term Plan Reviewed: ☐ YES ☐ NO

The Plan is Applicable to Site	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
Objectives are Clearly Stated	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
BMP's are Clearly Shown	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
Storm Water Infrastructure Clearly Shown	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
Owner or Responsible Operator Listed with Contact Info	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

Comments:

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

Parking Lot, Gutter Street:

1. Trash and Debris in Parking Lot, Gutters, and Street	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
2. Evidence of Erosion	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
3.Dumsters Enclosure are in Good Condition	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
4. Excessive Landscape Waste/grass clippings, leaves, etc....	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

Storm Drain Inlets:

1. Excessive Trash, Debris, or Sediment in Inlets	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
2. Evidence of Pollutants Making it into the Storm Drain Inlet	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
3.Storm Drain Inlets are Working Properly	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

Pipes:

1. Excessive Trash, Debris, or Sediment in Inlets	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

Treatment BMP's (hydrodynamic separators, detention basins, underground chambers, sand filters, ect...)

1. Excessive Trash, Debris, or Sediment in Treatment BMP	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
2. Evidence of Pollutants Making it Past Treatment BMP	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

3. Evidence of Erosion	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
4. Vegetative Cover	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
5. Treatment BMP Seems to be Working Properly	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
6. Excessive Trash, Debris, Sediment in Detention Area	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

Outlet to City Storm Drain

1. Excessive Trash, Debris, or Sediment in Outlet	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
2. Stable Conveyance into Facility	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
3. Evidence of Erosion	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐
4. Outlet Looks Clean and is Free from Pollutants	0 ☐	1 ☐	2 ☐	3 ☐	NA ☐

All Items Listed Above Have Been Inspected **Yes ☐ NO ☐**

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.

If there are any corrective actions listed, those items must be completed within the deadline given in the "Comments and or Corrective Actions" section. If the items are not completed within the given deadline the site will receive a warning and be granted another deadline to fix any issues. If again the items have not been corrected another warning and deadline will be given. By the end of that deadline, if the items have not been corrected the city may issue fines to the site.

The Following is for City Use:

Inspector:				
	(Print Name)	(Title)	(Signature)	(Date)
Operator:				
	(Print Name)	(Title)	(Signature)	(Date)

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX H – PREFERRED DESIGN SPECIFICATIONS

CONTENTS

APPENDIX H – Preferred Design Specifications 1

Retail Gasoline Outlets (BMP PD-1) 2

Auto Repair Shops (BMP PD-2) 5

Kennels (BMP PD-3) 9

Auto Dealers (BMP PD-4) 11

Equipment Rentals (BMP PD-5) 15

Restaurants (BMP PD-6) 18

Auto Body Shops (BMP PD-7) 21

Dry Cleaning (BMP PD-8) 25

Nurseries (BMP PD-9) 28

Concrete Applications (BMP PD-10) 31

Heavy Equipment & Earth Moving Activities (BMP PD-11) 32

Roadwork and Paving (BMP PD-12) 33

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

Pleasant Grove

Utah's City of Trees

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

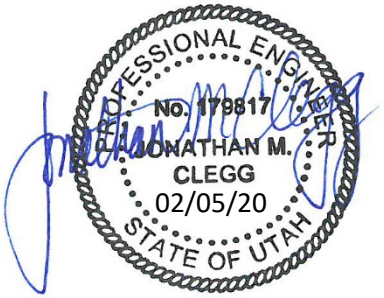
HORROCKS ENGINEERS

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

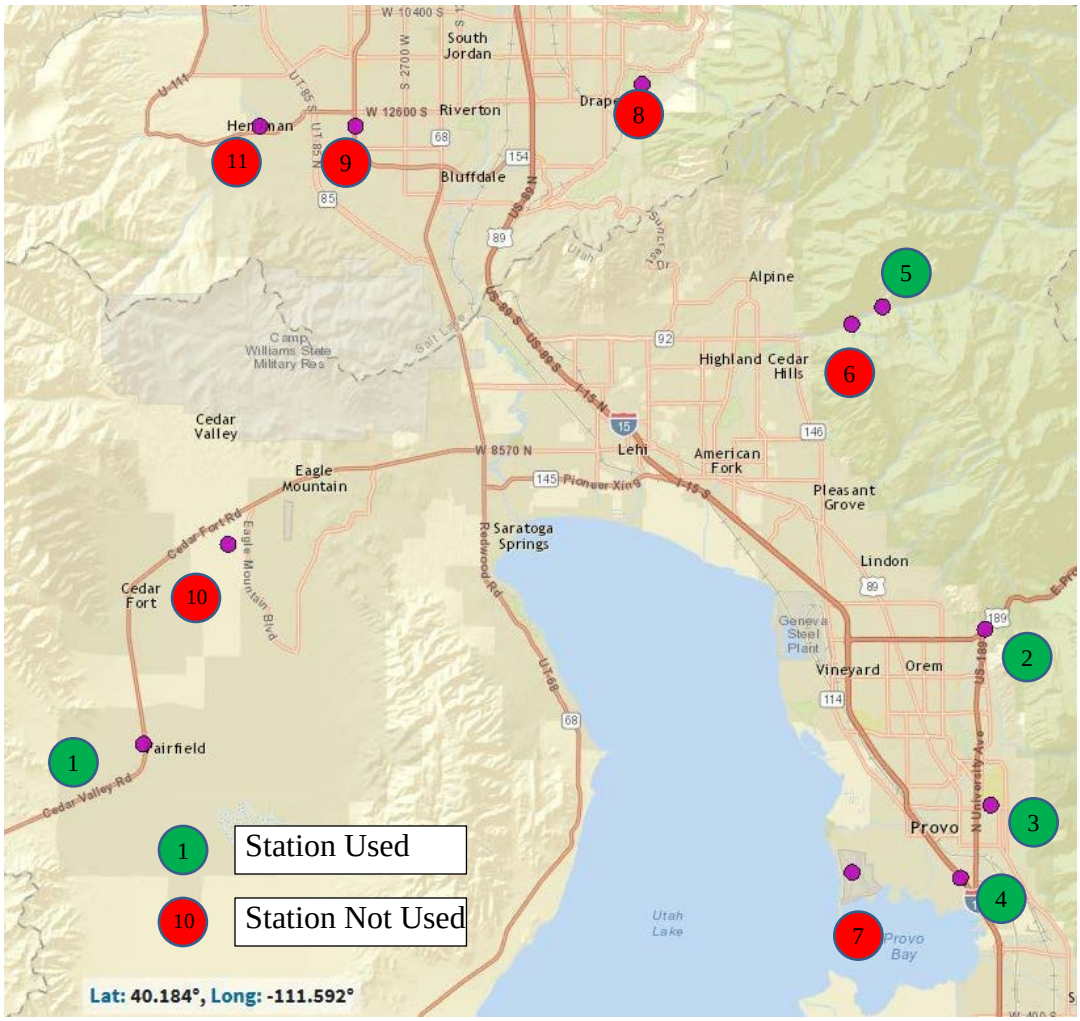


Table 4: Nearby Weather Stations

		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

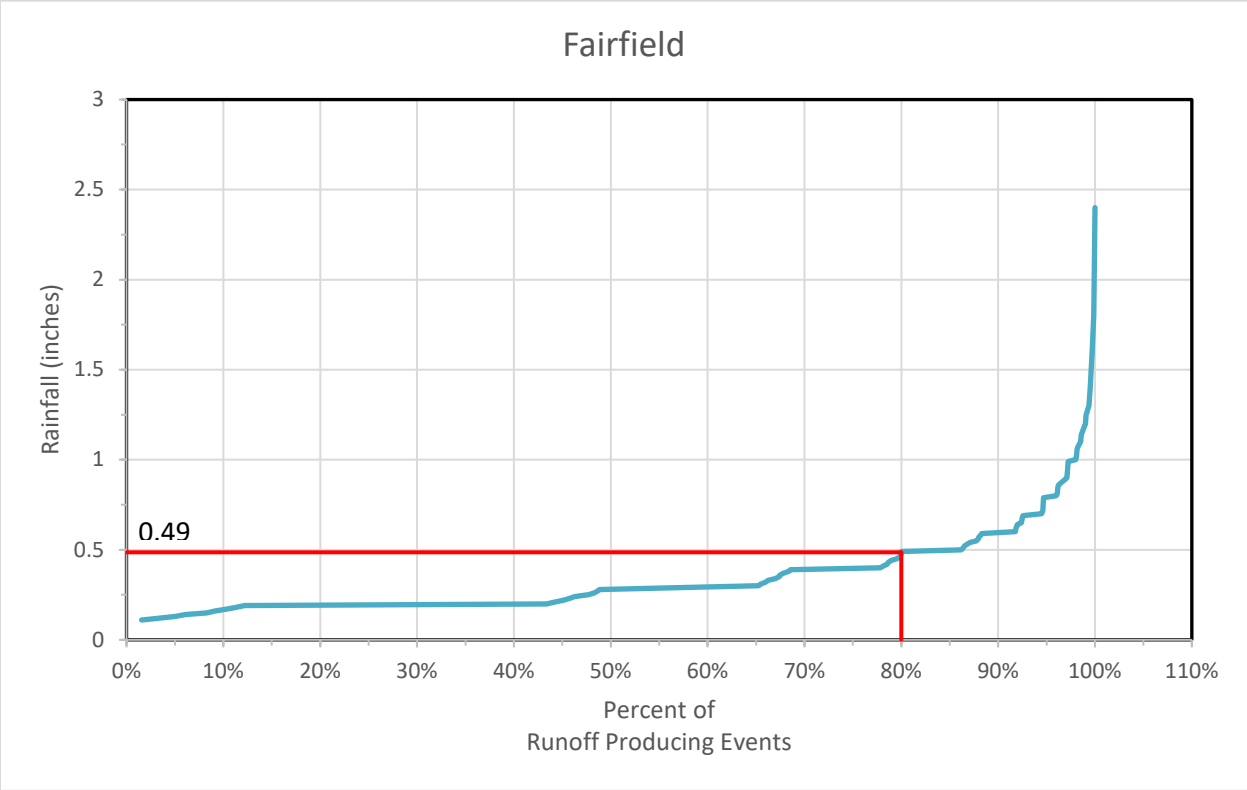


Figure 3: Olmstead PH

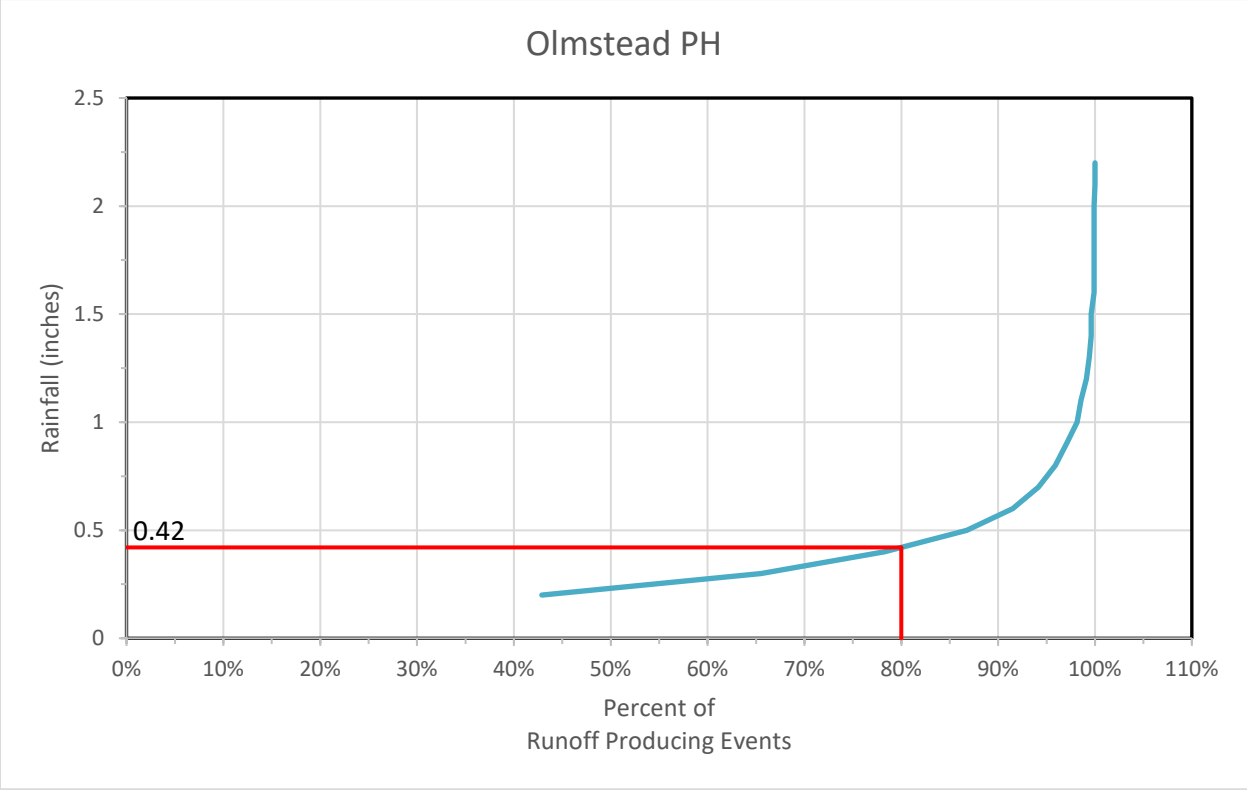


Figure 4: Provo BYU

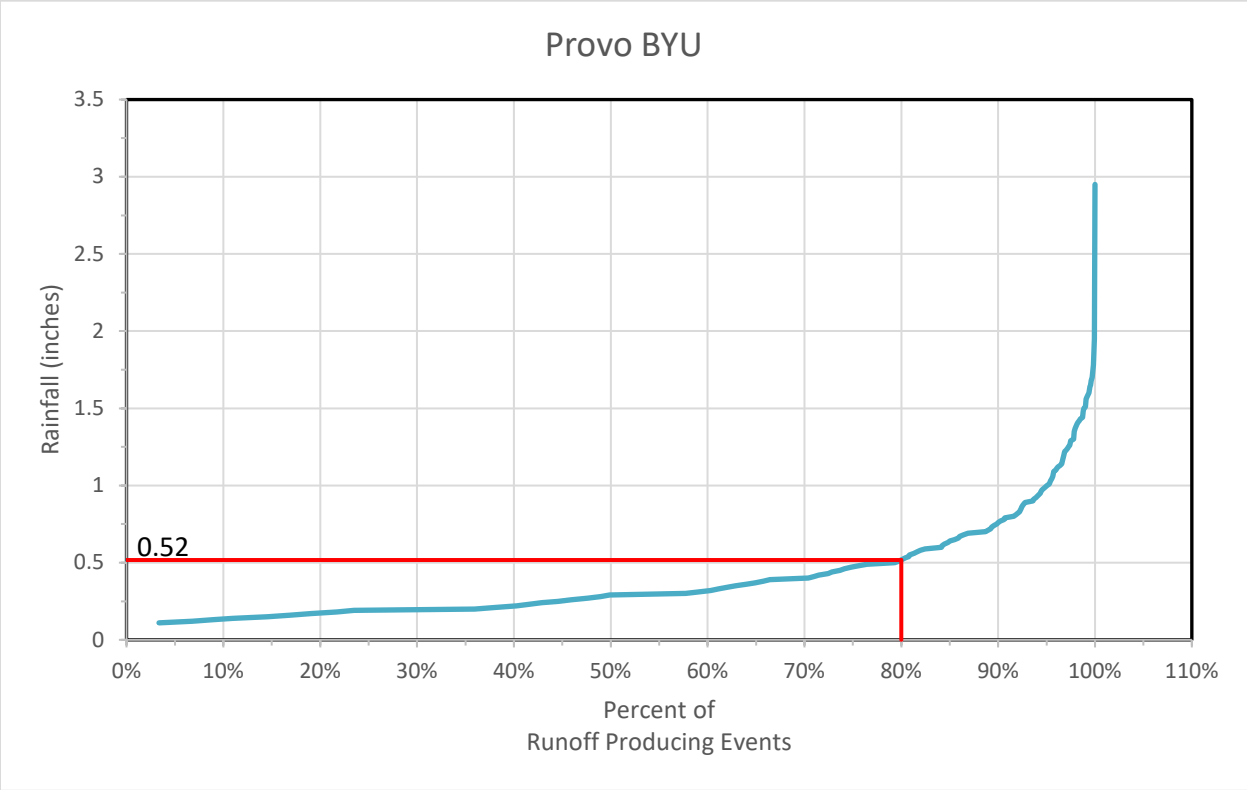


Figure 5: Provo KAYK

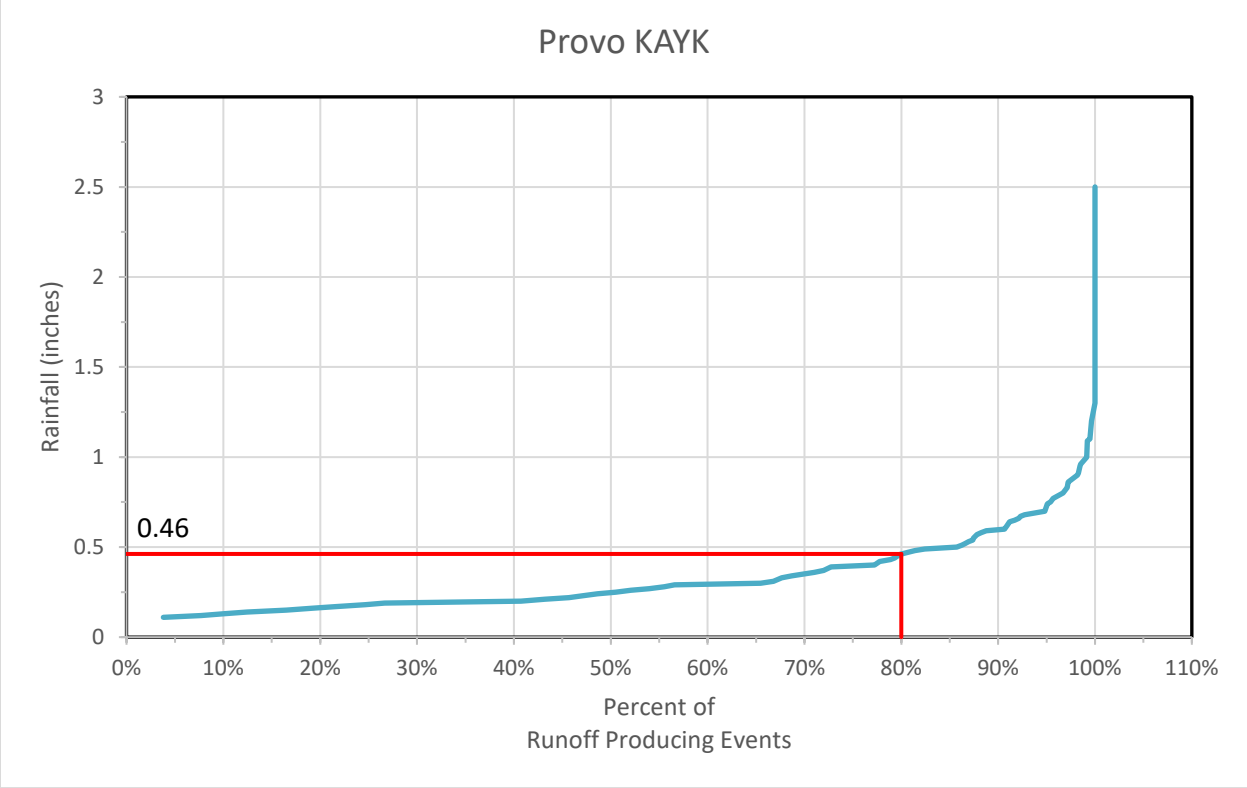
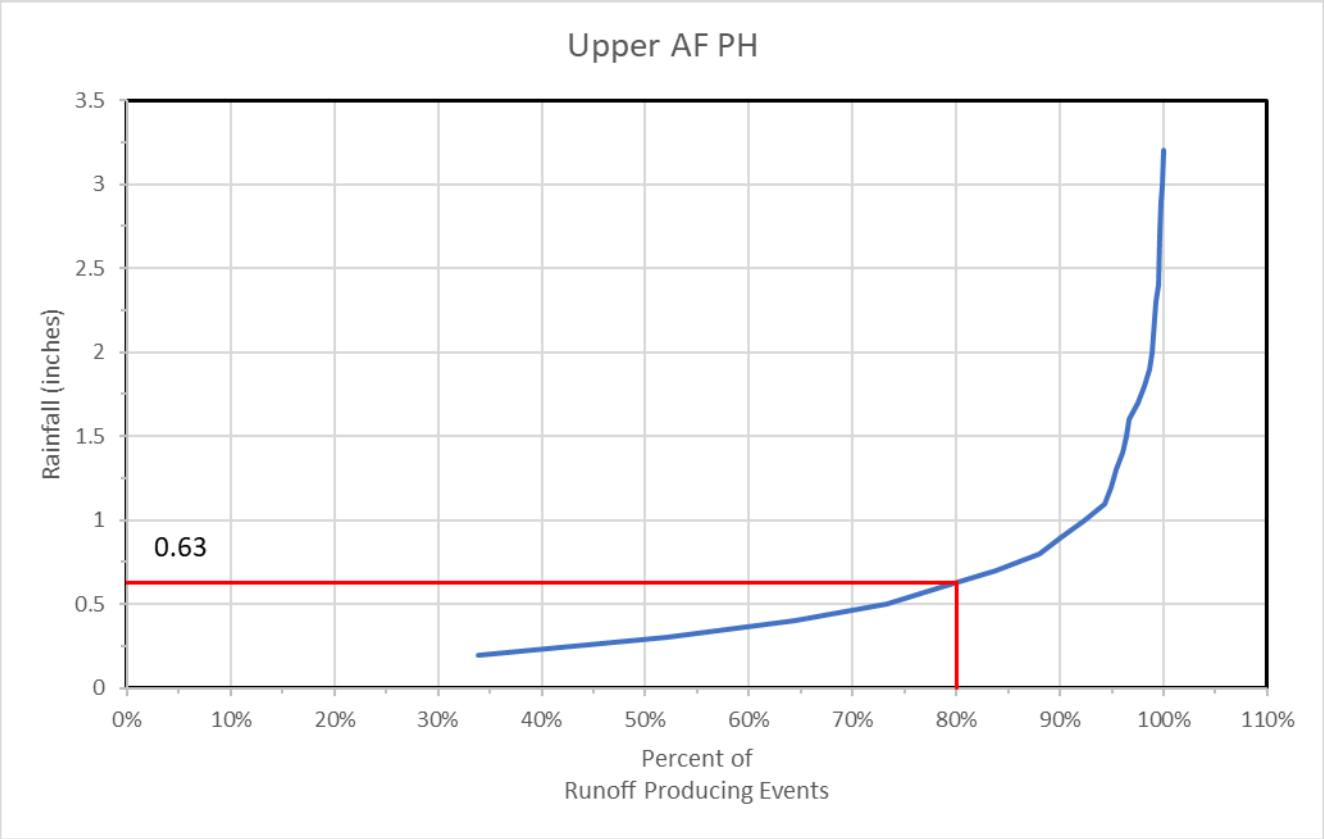


Figure 6: Upper American Fork PH



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 L – LID HANDBOOK

See State of Utah Division of Water Quality "A Guide to Low Impact Development within Utah"

Also see Appendix F - Storm Water Technical Manual

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX M – ORGANIZATIONAL CHART

Streets and Storm Water Division Manager

Gene Ellington

Fleet Management for Division
Snowplow Operations Manager
New Infrastructure Planning and Budget
Ongoing Pavement Management Plan
Equipment Budget Recommendations to Public Works Director
Personnel Management - HR, Timecard, Evaluations
Safety and Progress Training for Division
Plan Review for development and CIP for Division
Street Lights
City Clean Up
Flood Prevention and Management

Asphalt Foreman

Nate Lloyd

Pavement Jobs
Pothole Repairs
Vegetation Control (Spraying)
Striping

Concrete Foreman

Scott Bezzant

Concrete Repairs
New Concrete Installation
Sign Installation
Tree Trimming

Storm Water Foreman

Robbie Clayton

Storm Drainpipe Cleaning
Storm Drain Manhole/Box Cleaning
Street Sweeping Coordination
Hazardous cleanup/Spill Response
Storm Water Inventory

SWPPP Foreman

Mark Attwood

SWPPP Plan Review
SWPPP Inspections
Long-term Storm Water Management Plans
Metro Water Quality Sampling
Storm Water Management Plan Annual Review/Rep
Public Education/Outreach

Streets and Storm Water Operators

Shaun Angus
(Street Repairs)

Tristan Madsen
(Training)

McKlain Cook
(Storm Maintenance)

Bodey Maynard
(LTSWMP)
(Storm Maintenance)

Baylor Hatch
(SWPPP Specialist)
(Dry Weather Screening)

Pleasant Grove

Utah's City of Trees

Storm Water Management Plan

APPENDIX N – UTAH COUNTY COALITION AGREEMENT

Agreement No. 2014-111

INTERLOCAL COOPERATION AGREEMENT FOR NPDES PHASE II STORM WATER PUBLIC EDUCATION AND OUTREACH BEST MANAGEMENT PRACTICE COMPLIANCE

THIS AGREEMENT, is entered into this 11th day of February, 2014, by and between PROVO, OREM, PLEASANT GROVE, AMERICAN FORK, SPRINGVILLE, SPANISH FORK, LEHI, PAYSON, UTAH COUNTY, LINDON, HIGHLAND, ALPINE, MAPLETON, SALEM, CEDAR HILLS, and EAGLE MOUNTAIN, political subdivisions of the State of Utah.

WITNESSETH:

WHEREAS, pursuant to the provisions of the Interlocal Cooperation Act, Title 11, Chapter 13, Utah Code Annotated, 1953 as amended, public agencies, including political subdivisions of the State of Utah as therein defined, are authorized to enter into written agreements with one another for joint or cooperative action; and

WHEREAS, the parties to this Agreement are public agencies as defined in the Interlocal Cooperation Act; and

WHEREAS, the parties desire to establish a joint undertaking to comply with National Pollution Discharge Elimination System (NPDES) Phase II Storm Water Permit Coverage;

NOW, THEREFORE, the parties do mutually agree, pursuant to the terms and provisions of the Interlocal Cooperation Act, as follows:

Section 1. EFFECTIVE DATE; DURATION

This Interlocal Cooperation Agreement shall become effective and shall enter into force, within the meaning of the Interlocal Cooperation Act, upon the submission of this Interlocal Cooperation Agreement to, and the approval and execution thereof by Resolution of the governing

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bodies of each of the parties to this Agreement. Unless otherwise terminated as provided for herein, this Interlocal Cooperation Agreement shall be effective for a period of up to, but not exceeding, fifty (50) years. This Interlocal Cooperation Agreement shall not become effective until it has been approved by Resolution of all parties and reviewed as to proper form and compliance with applicable law by the attorney authorized to represent each of the parties hereto. Prior to becoming effective, this Interlocal Cooperation Agreement shall be filed with the official keeper of records of each of the parties hereto.

Section 2. ADMINISTRATION OF AGREEMENT

The parties to this Agreement do not contemplate nor intend to establish a separate legal entity under the terms of this Interlocal Cooperation Agreement. The parties hereto agree that, pursuant to Section 11-13-207, Utah Code Annotated, 1953 as amended, UTAH COUNTY shall act as the administrator responsible for the administration of this Interlocal Cooperation Agreement. The parties further agree that this Interlocal Cooperation Agreement does not anticipate nor provide for any organizational changes in the parties. The administrator agrees to keep all books and records in such form and manner as the Utah County Clerk/Auditor shall specify and further agrees that said books shall be open for examination by all parties to this Agreement, at reasonable times. The parties agree that they will not acquire, hold nor dispose of real or personal property pursuant to this Interlocal Agreement during this joint undertaking.

Section 3. PURPOSES

This Interlocal Cooperation Agreement has been established and entered into between the parties, for the purpose of a joint undertaking to comply with NPDES Phase II Storm Water Permit Public Education and Outreach Best Management Practices.

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Section 4. MANNER OF FINANCING

The parties agree that they shall provide the following resources and/or assistance for this joint undertaking:

a. COUNTY shall act as the administrator of this Agreement, pursuant to the terms of Section 2 hereof, and shall :

1. Schedule and conduct Utah County Storm Water Coalition meetings which are necessary to correlate activities, set proposed budgets, and provide training opportunities.

2. Provide information regarding best management practices for preventing storm water pollution that can be placed in a newsletter or other form of communication as determined by each member agency to be distributed to the public as each agency deems appropriate.

3. Maintain contract with approved Storm Water Educational Instructor and ensure proper teaching material is being presented. Maintain a master list of approved schools to be given to approved Storm Water Educational Instructor. Provide for each member agency a list of schools visited, the dates of all visits, an estimated number of attending students, and the number of classes taught.

4. Become a central warehouse for storm water educational materials and provide on demand materials for distribution. These materials could include informational pamphlets, activity books, pencils, note pads, magnets, videos, etc.

5. Maintain storage of display information for booths to be used for city and

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county activities and other events.

6. Provide, maintain, and promote an information system to the public for the disposal of household materials and chemicals to include internet and phone services. Citizens will be able to call a local, countywide phone number or access a website where gathered information for disposal sites will be distributed.

b. Each party to this agreement will pay to Utah County within 30 days of receipt of an annual invoice from Utah County, the sums listed in Exhibit A to this Agreement, said sums to be used solely for the NPDES Storm Water Phase II Public Education and Outreach Best Management Practices. The sums listed in Exhibit A shall be reviewed, approved, and modified by agency representatives on an annual basis, based on a combination of the percentage of the party's total population to the total population of the County as determined by the most recent Mountainland Association of Government figures and the percentage of the party's total number of schools to the total school count as submitted by the member agencies.

Section 5. METHOD OF TERMINATION

This Interlocal Cooperation Agreement will automatically terminate at the end of its term herein, pursuant to the provisions of paragraph one (1) of this Agreement. Prior to the automatic termination at the end of the term of this Agreement, any party to this Agreement may terminate its participation in and responsibilities under this Agreement at any time and for any reason by providing a sixty (60) day written notice of termination to the other parties. This Agreement may not be terminated in any event, if termination would cause a violation of the parties' NPDES Storm Water Permit.

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Section 6. INDEMNIFICATION

The parties to this Agreement are public entities. Each party agrees to indemnify and save harmless the other for damages, claims, suits, and actions arising out of a negligent error or omission of its own officials or employees in connection with this Agreement.

Section 7. ADDITION OF OTHER MEMBERS

Other entities may become parties to this Interlocal Cooperation Agreement, by executing an Addendum to this Agreement. In order for an entity to be added to this Agreement by Addendum, the Addendum must be approved by resolution of the governing body of the entity to be added and the Addendum must be reviewed for proper form and compliance with applicable law by the attorney for the entity to be added. Prior to becoming effective, this Interlocal Cooperation Agreement and any Addendum shall be filed with the official keeper of records of the entity being added to this Agreement.

Section 8. FILING OF INTERLOCAL COOPERATION AGREEMENT

Executed copies of this Interlocal Cooperation Agreement shall be filed with the official keeper of records of all parties to this Agreement and shall remain on file for public inspection during the term of this Interlocal Cooperation Agreement.

Section 9. ADOPTION REQUIREMENTS

This Interlocal Cooperation Agreement shall be (a) approved by Resolution of the governing body of each of the parties, (b) executed by a duly authorized official of each of the parties (c) submitted to and approved by an Authorized Attorney of each of the parties, as required by Section 11-13-202.5(3), Utah Code Annotated, 1953 as amended, and (d) filed in the official records of each party.

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Section 10. LAWFUL AGREEMENT

The parties represent that each of them has lawfully entered into this Agreement, having complied with all relevant statutes, ordinances, resolutions, by-laws, and other legal requirements applicable to their operation.

Section 11. AMENDMENTS

This Interlocal Cooperation Agreement may not be amended, changed, modified or altered except by an instrument in writing which shall be (a) approved by Resolution of the governing body of each of the parties, (b) executed by a duly authorized official of each of the parties, (c) submitted to and approved by an Authorized Attorney of each of the parties, as required by Section 11-13-202.5(3), Utah Code Annotated, 1953 as amended, and (d) filed in the official records of each party.

Section 12. SEVERABILITY

If any term or provision of the Interlocal Cooperation Agreement or the application thereof shall to any extent be invalid or unenforceable, the remainder of this Interlocal Cooperation Agreement, or the application of such term or provision to circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and shall be enforced to the extent permitted by law. To the extent permitted by applicable law, the parties hereby waive any provision of law which would render any of the terms of this Interlocal Cooperation Agreement unenforceable.

Section 13. NO PRESUMPTION

Should any provision of this Agreement require judicial interpretation, the Court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against the party, by reason of the rule of construction that a document is to be construed more strictly against the person who himself or through his agents prepared the same, it being

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acknowledged that all parties have participated in the preparation hereof.

Section 14. BINDING AGREEMENT

This Agreement shall be binding upon the heirs, successors, administrators, and assigns of each of the parties hereto.

Section 15. NOTICES

All notices, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given if delivered by hand or by certified mail, return receipt requested, postage paid, to the parties' recorder or clerk/auditor as the case may be; or at such other addresses as may be designated by notice given hereunder.

Section 16. ASSIGNMENT

The parties to this Agreement shall not assign this Agreement, or any part hereof, without the prior written consent of all other parties to this Agreement. No assignment shall relieve the original parties from any liability hereunder.

Section 17. GOVERNING LAW

All questions with respect to the construction of this Interlocal Cooperation Agreement, and the rights and liability of the parties hereto, shall be governed by the laws of the State of Utah.

Section 18. ENTIRE AGREEMENT

This Agreement shall constitute the entire Agreement between the parties and any prior understanding or representation of any kind proceeding the date of this Agreement shall not be binding upon either party except to the extent incorporated in this Agreement.

IN WITNESS WHEREOF, the parties have signed and executed this Interlocal Cooperation Agreement, after resolutions duly and lawfully passed, on the dates listed below:

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UTAH COUNTY

Authorized by Resolution No. 2014-20, authorized and passed on the 11th day of February, 2014.

BOARD OF COUNTY COMMISSIONERS
UTAH COUNTY, UTAH

By: _____
GARY J. ANDERSON, Chairman

ATTEST: Bryan Thompson
Utah County Clerk/Auditor

By: _____
Deputy

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:
Jeff Buhman, Utah County Attorney

By: _____
Deputy Utah County Attorney

PROVO CITY STORM WATER SERVICE DISTRICT

_____
Mayor of Provo
TITLE

ATTEST: _____
RECORDER FOR DISTRICT

PROVO CITY SEAL
INDUSTRY AND COMMERCE
UTAH COUNTY, UTAH

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR DISTRICT

CITY OF OREM

Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF PLEASANT GROVE

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

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CITY OF AMERICAN FORK

Mayor

ATTEST: _____
DEPUTY RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF SPRINGVILLE

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF SPANISH FORK

Mayor

ATTEST: Kent R. Clark
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

Asst. ATTORNEY FOR CITY

CITY OF LEHI

Mayor

ATTEST: Kathy Bonasky
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

Ryan V. Wood
ATTORNEY FOR CITY

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CITY OF PAYSON

Mayor

ATTEST: Jeanette C. Wineteer
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

ATTORNEY FOR CITY

CITY OF LINDON

Mayor

ATTEST: Kathryn Moosman
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

ATTORNEY FOR CITY

CITY OF HIGHLAND

Mayor

ATTEST: _____
RECORDER FOR CITY

HIGHLAND CITY CORPORATE SEAL STATE OF UTAH

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF ALPINE

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

Alpine City CORPORATE Seal Utah County, Utah

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

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CITY OF MAPLETON

Mayor

ATTEST: _____
RECORDER FOR CITY

MAPLETON CITY CORPORATION
UTAH COUNTY-STATE OF UTAH

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF SALEM

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

SALEM CITY
CORPORATE
SEAL
UTAH COUNTY, UTAH

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF CEDAR HILLS

Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF EAGLE MOUNTAIN

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF SARATOGA SPRINGS

Mayor

ATTEST: _____
RECORDER FOR CITY

APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH ~~APPLICABLE~~ LAWS:

ATTORNEY FOR CITY

CITY OF SARATOGA SPRINGS

_____
Mayor

ATTEST: _____
RECORDER FOR CITY

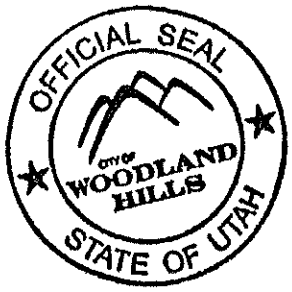
APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

CITY OF WOODLAND HILLS

Wendy J Ray
Mayor Pro Tempore

ATTEST: Jody Stones
RECORDER FOR CITY



APPROVED AS TO PROPER FORM AND
COMPLIANCE WITH APPLICABLE LAWS:

_____
ATTORNEY FOR CITY

Based on 2023-2024 Total Schools to be Visited

STORM WATER COALITION

MEMBER AGENCY ANNUAL FEE SCHEDULE

CITY	POPULATION COUNT	%	$	SCHOOL COUNT	%	$	BILL AMOUNT $
PROVO	115162	17.46%	$ 2,620	16	14.04%	$ 6,316	$ 8,935
OREM	98129	14.88%	$ 2,232	17	14.91%	$ 6,711	$ 8,943
PLEASANT GROVE	37726	5.72%	$ 858	7	6.14%	$ 2,763	$ 3,621
AMERICAN FORK	33337	5.06%	$ 758	6	5.26%	$ 2,368	$ 3,127
SPRINGVILLE	35268	5.35%	$ 802	6	5.26%	$ 2,368	$ 3,171
SPANISH FORK	42602	6.46%	$ 969	10	8.77%	$ 3,947	$ 4,916
LEHI	75907	11.51%	$ 1,727	12	10.53%	$ 4,737	$ 6,464
PAYSON	21101	3.20%	$ 480	5	4.39%	$ 1,974	$ 2,454
COUNTY	32636	4.95%	$ 742				$ 742
LINDON	11397	1.73%	$ 259	3	2.63%	$ 1,184	$ 1,443
HIGHLAND	19348	2.93%	$ 440	4	3.51%	$ 1,579	$ 2,019
ALPINE	10251	1.55%	$ 233	3	2.63%	$ 1,184	$ 1,417
MAPLETON	11365	1.72%	$ 259	3	2.63%	$ 1,184	$ 1,443
SALEM	9298	1.41%	$ 212	4	3.51%	$ 1,579	$ 1,790
CEDAR HILLS	10019	1.52%	$ 228	2	1.75%	$ 789	$ 1,017
EAGLE MOUNTAIN	43623	6.62%	$ 992	6	5.26%	$ 2,368	$ 3,361
SARATOGA SPRINGS	37969	5.76%	$ 864	7	6.14%	$ 2,763	$ 3,627
WOODLAND HILLS	1718	0.26%	$ 39				$ 39
VINEYARD	12543	1.90%	$ 285	3	2.63%	$ 1,184	$ 1,470
TOTAL	659399	100.00%	$ 15,000	114	100.00%	$ 45,000	$ 60,000
			$ 15,000			$ 45,000	

*Population count based on 2020 Census figures as per Mountainland Association of Governments
**Estimated population count for Woodland Hills

Pleasant Grove

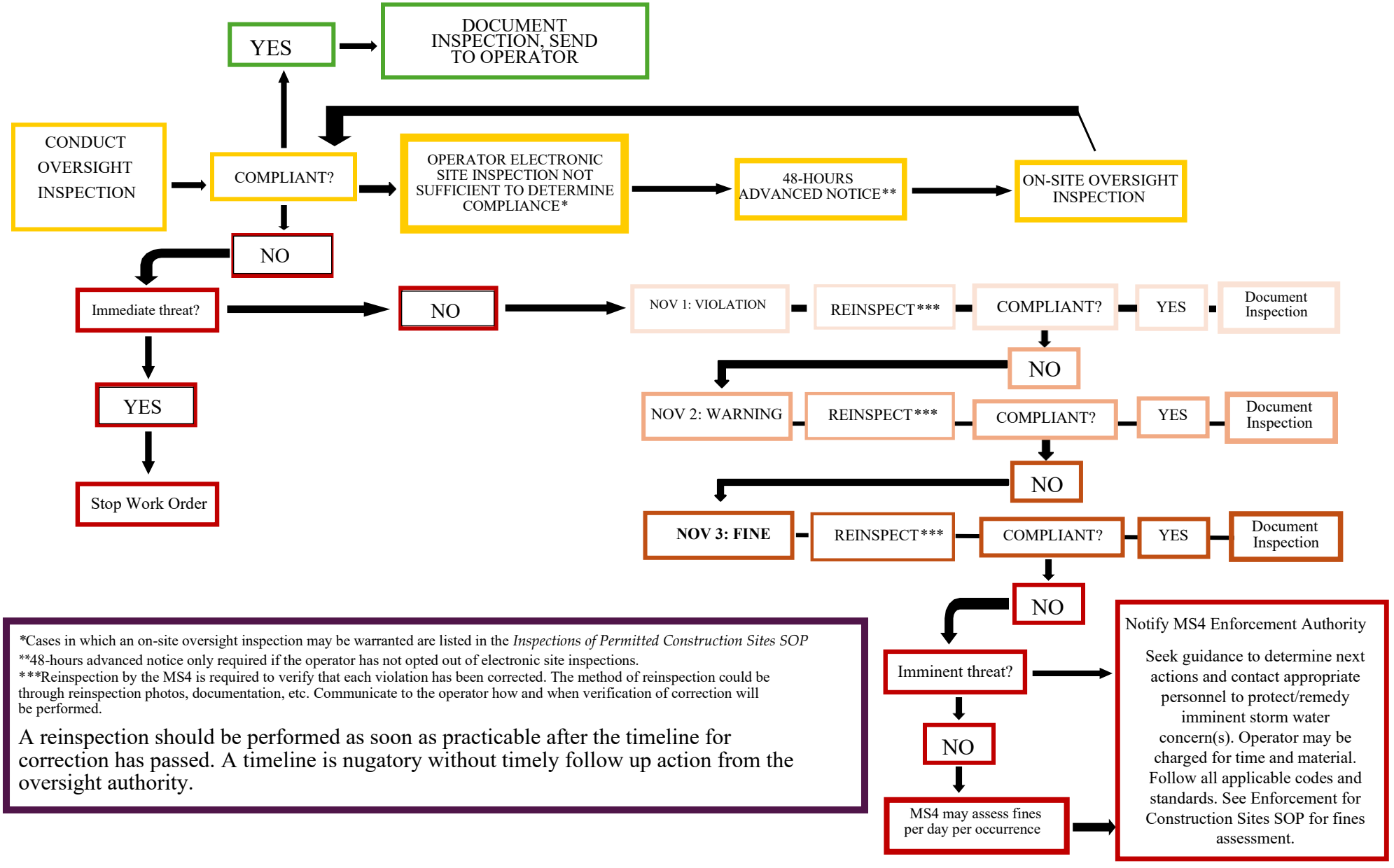
Utah's City of Trees

Storm Water Management Plan

APPENDIX O – CONSTRUCTION SITE ORDINACNE ENFORCEMENT FLOW CHART

Enforcement for Construction Sites

Flow Chart



*Cases in which an on-site oversight inspection may be warranted are listed in the *Inspections of Permitted Construction Sites SOP*
**48-hours advanced notice only required if the operator has not opted out of electronic site inspections.
***Reinspection by the MS4 is required to verify that each violation has been corrected. The method of reinspection could be through reinspection photos, documentation, etc. Communicate to the operator how and when verification of correction will be performed.

A reinspection should be performed as soon as practicable after the timeline for correction has passed. A timeline is nugatory without timely follow up action from the oversight authority.

Agenda

City Council Staff Report

September 1, 2026

COMMERCIAL SITE PLAN

APPLICANT	Kartik Patel
REQUEST	Request for a site plan for a commercial building.
ADDRESS	224 S Pleasant Grove Boulevard
ZONE	The Grove – Commercial Sales Subdistrict with the Boulevard Mixed Use Overlay
GENERAL PLAN	Grove Commercial
ITEM DESCRIPTION	Public Hearing to consider the request of Kartik Patel for a commercial site plan for a commercial building, located at approximately 224 S Pleasant Grove Boulevard in The Grove – Commercial Sales Zone with the Boulevard Mixed Use Overlay. (Administrative Item)
APPLICATION COMPLETED	May 26, 2026
STAFF RECOMMENDATION	Approve the proposed commercial site plan

ATTACHMENTS

Property Zoning Map	**6**
Property Aerial Map	**7**
Subdivision Plat	**8**
Site Plan	**9**
Landscape Plans	**10**
Overall Open Space	**12**
Elevation Plans	**13**
Materials and Renderings	**15**

Background

In March 2024, a site plan was brought to the Planning Commission for The Boulevard Apartments, located at approximately 238 S Pleasant Grove Boulevard. While The Boulevard Apartments were being designed, the applicant for the apartments provided a general master plan for the entire development bounded by 100 S, Pleasant Grove Boulevard, and 1300 W, including the current applicant's project area at 224 S Pleasant Grove Boulevard. This was done because of

the strict requirements for parking, landscaping, open space, and required commercial retail use for in the Boulevard Mixed Use Overlay.

The current applicant has mirrored the plans originally proposed by the owners of The Boulevard Apartments.

Analysis

The Boulevard Mixed Use Overlay has standards that affect the overall development rather than each individual site, such as landscaping and open space requirements, special parking requirements, and requirements for the amount of commercial retail space provided.

Required Parking:

The commercial unit does not have a specific use yet but must be a sales-tax generating use to contribute to the required 25,000 s.f. of commercial space, per Section 10-14-27-3-D.

The proposed commercial building is split up into five separate units having a square footage of 1233 square feet for the smaller units and 1350 square feet for the larger units.

Retail uses require a parking ratio of 1:200, and restaurant uses generally have a higher parking ratio at 1 space for every 3.5 seats or 1:100, excluding the kitchen, storage, etc., whichever is more restrictive. If the building is entirely retail in nature, then the total number of required parking spaces would be 32 stalls.

Restaurant uses have a parking ratio of 1 space for every 100 square feet of gross floor area, excluding kitchen and storage areas; or a parking ratio of 1 space for every 3.5 seats within the establishment, whichever is greater. The final parking count will be procured at the time each unit applies for a business license. 32 parking stalls have been provided on the subject property.

As a reminder, The Boulevard Apartments are not permitted to have any residential parking within 64 feet of the property line adjacent to Pleasant Grove Boulevard, so officially the parking spaces for the proposed commercial building are located within the 64-foot buffer area where residents may not park, with three joint parking spaces and one unshared parking space located directly on the south westernmost corner of the building.

Landscaping and open space:

Section 10-14-27-8: Open Space requires that 20% of the development area must be dedicated to open space and landscaping. The overall site plan provides for approximately 92,389 s.f. (20.2%), as calculated within the property boundaries of the overall development.

Landscaping requirements within The Grove Zone – Commercial Sales Subdistrict require a mix of landscape elements, including evergreens. At least one tree is required per 1,000 SF of required landscaped areas, and at least 30% of the total number of required trees shall be evergreen. On this property alone, the proposed site plan has 17 trees total, 10 of which are evergreen (58.8%). Landscaped parking islands are also provided at the edges of each parking area and for every 10 stalls.

Screening, height, and materials:

The proposed building is approximately 25 feet tall at the highest point, which includes any parapet walls that cover necessary utilities, which meets the height requirement in The Grove Zone.

The elevation plans outline that the building will be built of brick, fiber cement siding, glass, metal panels, and stucco. Stucco is the largest accent material on the northeast side of the building, at approximately 36.4%, and metal paneling is the largest accent material on the southeast side of the building, at approximately 45.3%.

Design Review Board:

The provided site plan is scheduled to be brought before the Design Review Board on July 20, 2026, prior to final approval from the City Council. If there are any significant changes to the elevation plan, the proposed changes will be re-reviewed by the Planning Commission.

Staff recommends approval of the proposed site plan, subject to a recommendation of approval from the Design Review Board.

Recommendation from Planning Commission

Pleasant Grove City Planning Commission took the following action on the described application at their meeting on July 9, 2026.

2. **Public Hearing: Site Plan – Located at Approx. 224 S Pleasant Grove Blvd (Sam White's Lane Neighborhood)**
   Public Hearing to consider the request of Kartik Patel for a commercial site plan for a commercial building, located at approximately 224 S Pleasant Grove Blvd in The Grove – Commercial Sales Zone with the Boulevard Mixed Use Overlay. (Administrative Item)

Approval

MOTION: Commissioner Redding moved that the Planning Commission forward a positive recommendation of approval for the request of Kartik Patel for a commercial site plan for a commercial building located at approximately 224 South Pleasant Grove Boulevard on property zoned The Grove – Commercial Sales Subdistrict and the Boulevard Mixed Use Overlay; and adopting the exhibits, conditions, and findings of the staff report, and as modified by the condition(s) below:

1. The proposed plans receive a recommendation of approval from the Design Review Board; and
2. All Final Planning, Engineering, and Fire Department requirements are met.

Commissioner Shirley seconded the motion. The Commissioners unanimously voted “Yes”. The motion carried.

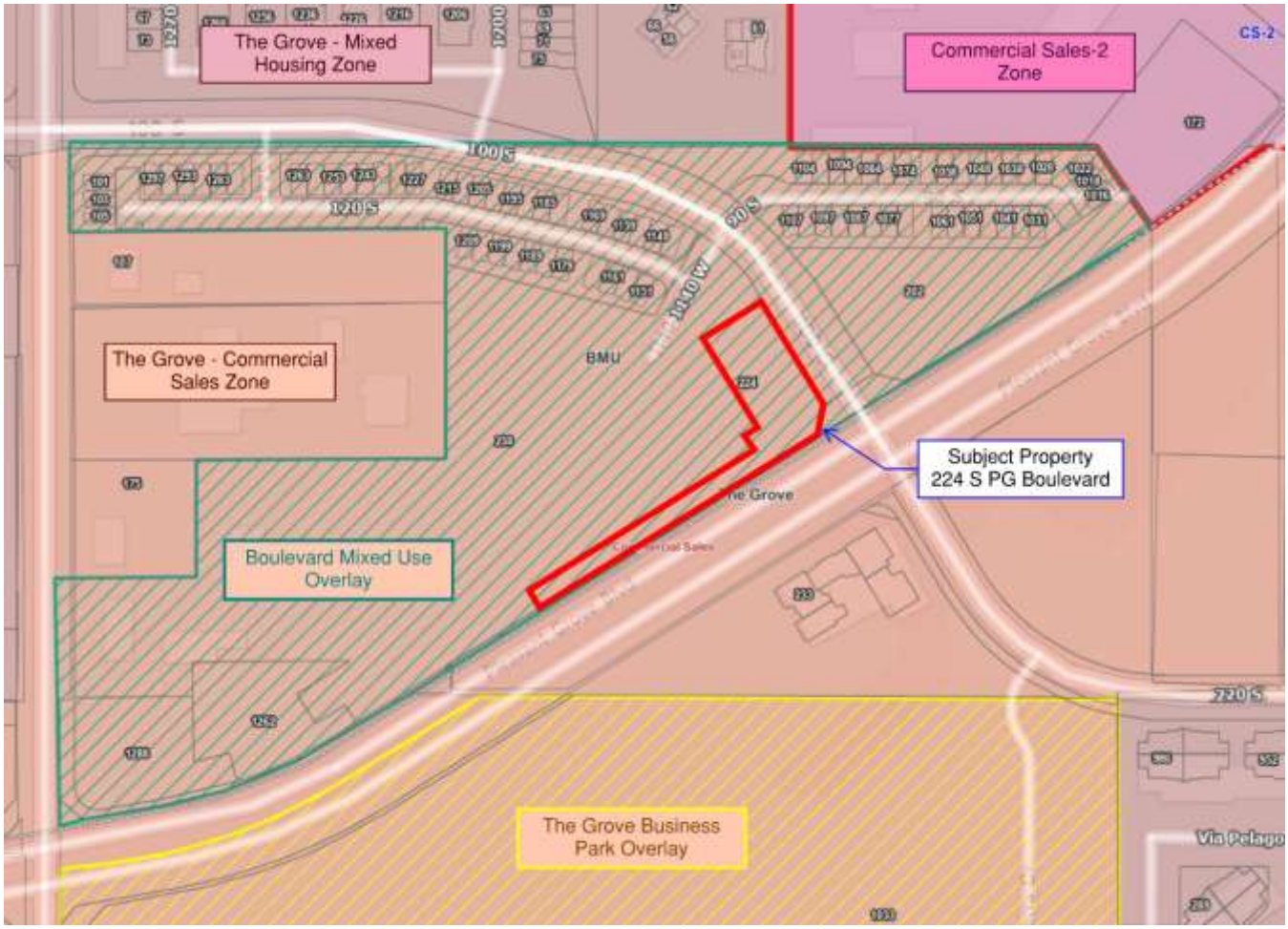
Motion by: Commissioner Redding

Seconded by: Commissioner Shirley

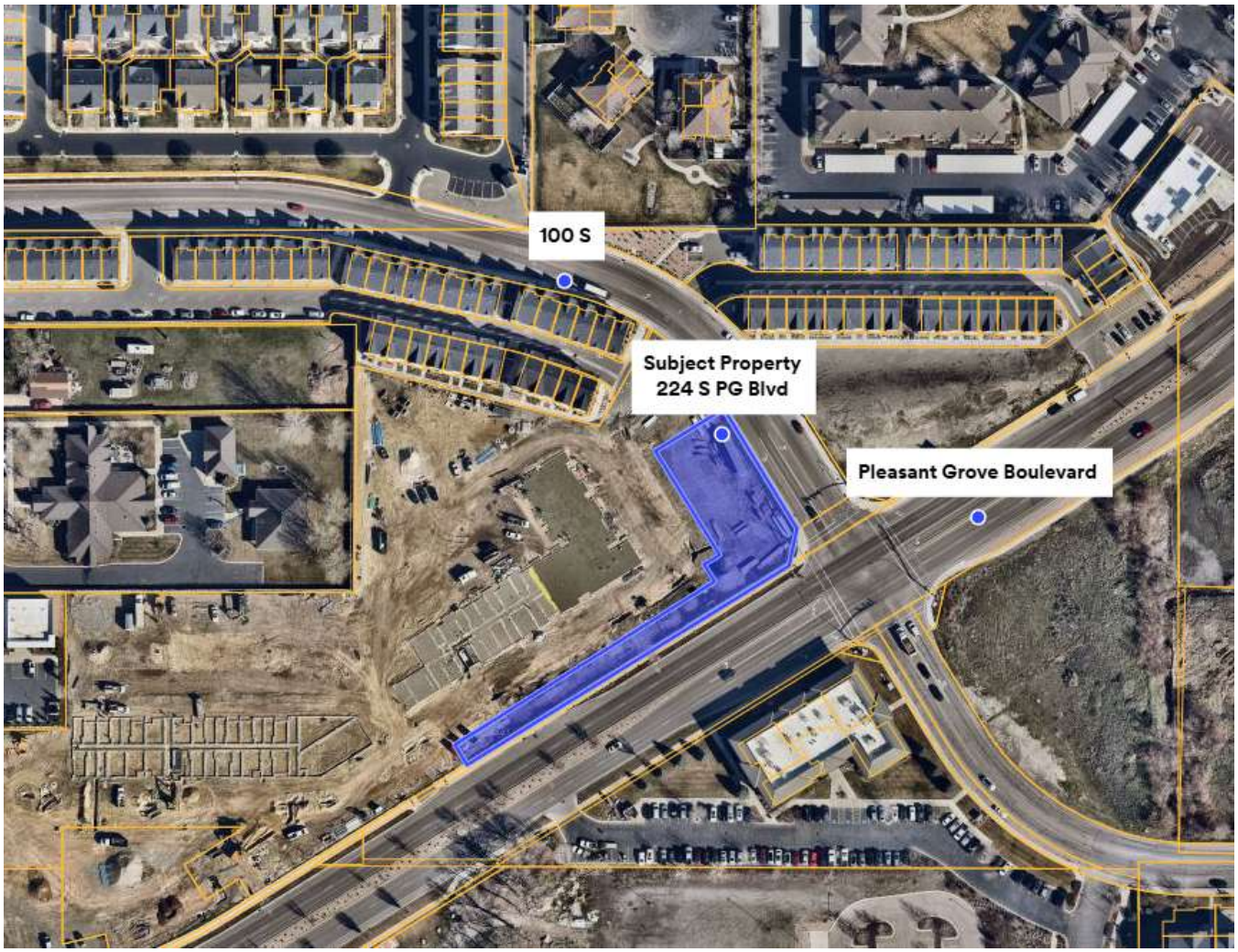
AYE VOTES: Chair Martineau, Commissioners Butler, Nelson, Trickler, Patten, Redding, and Shirley

NAY VOTES:

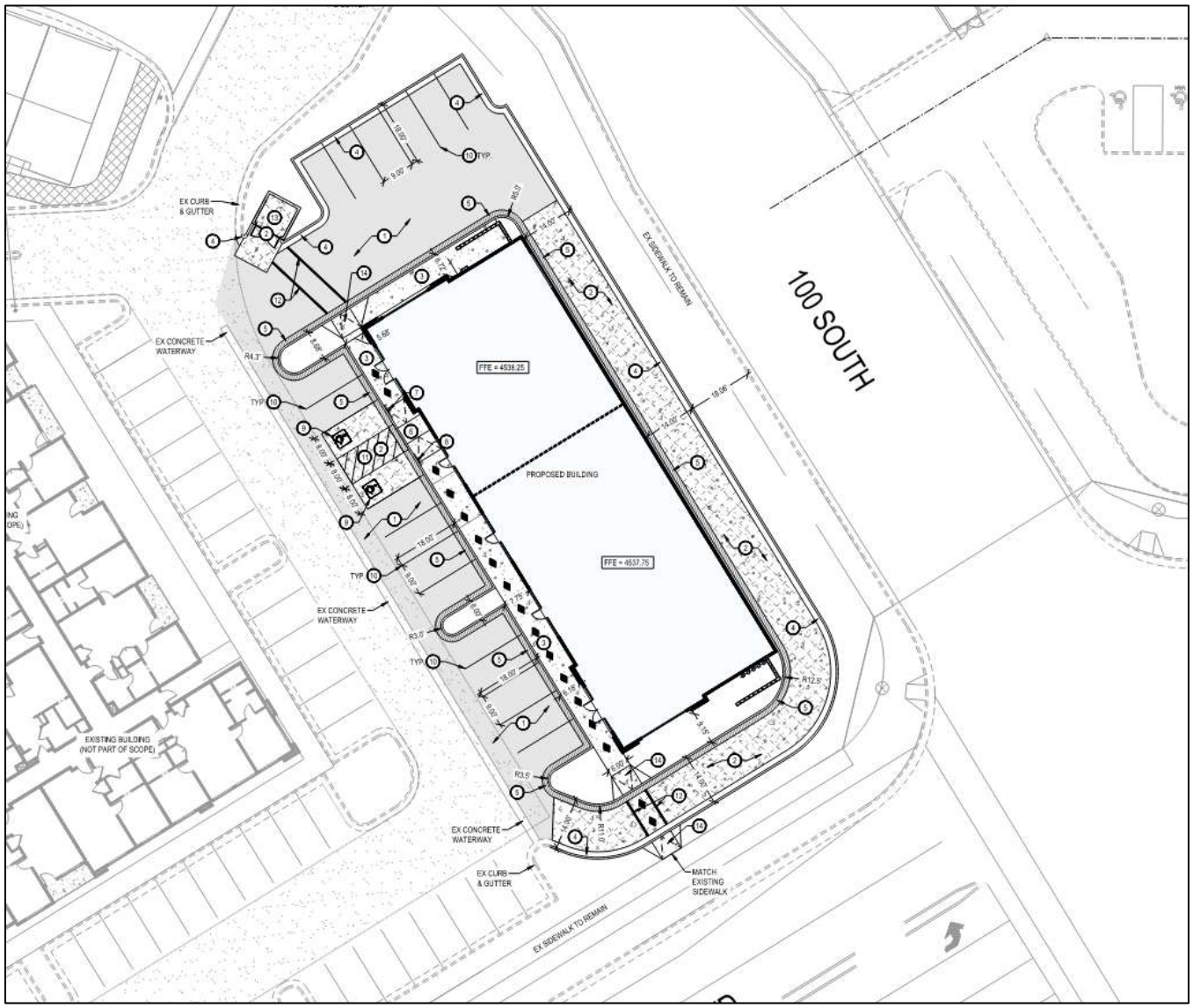
PROPERTY ZONING MAP



PROPERTY AERIAL MAP

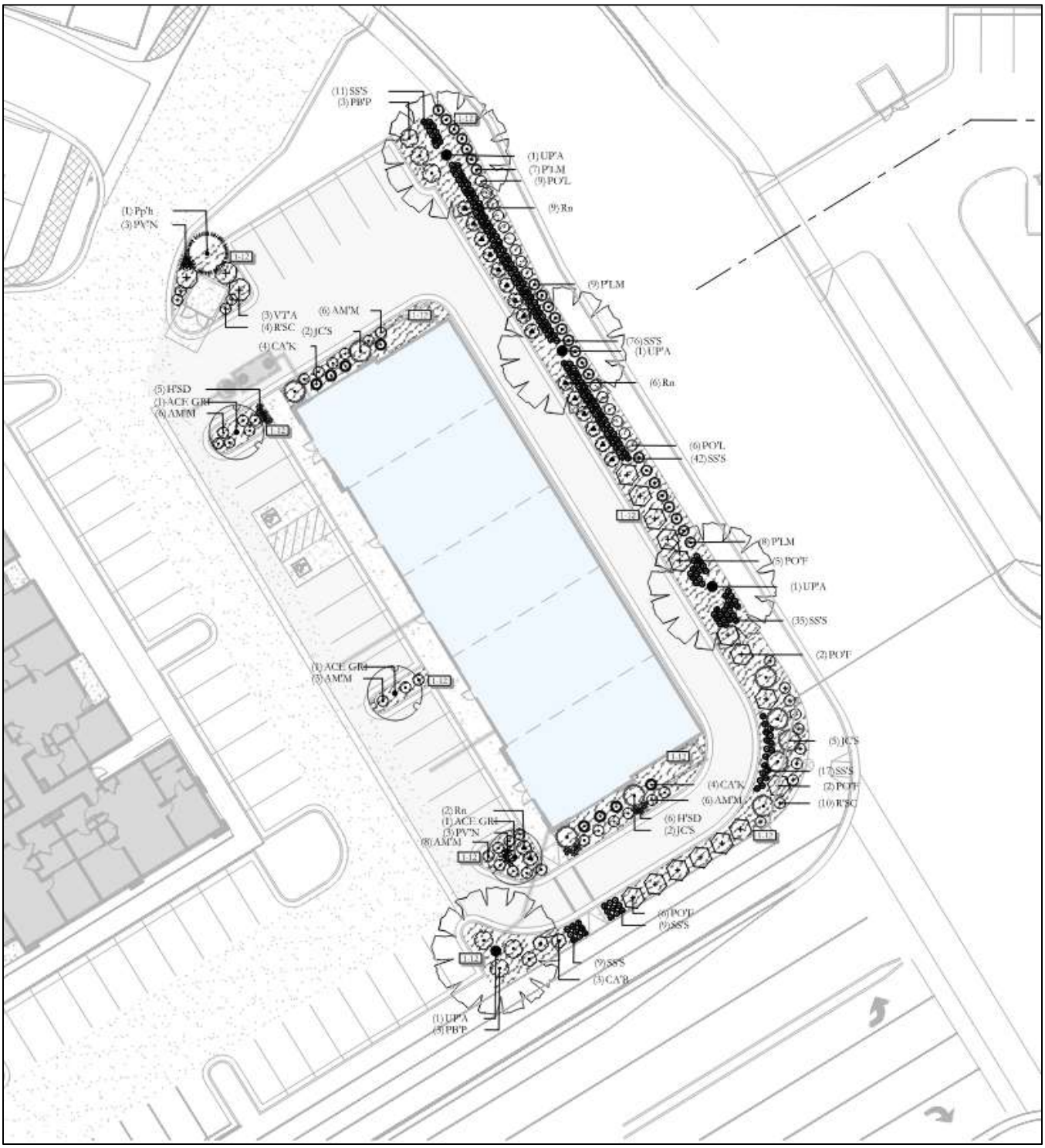


SITE PLAN

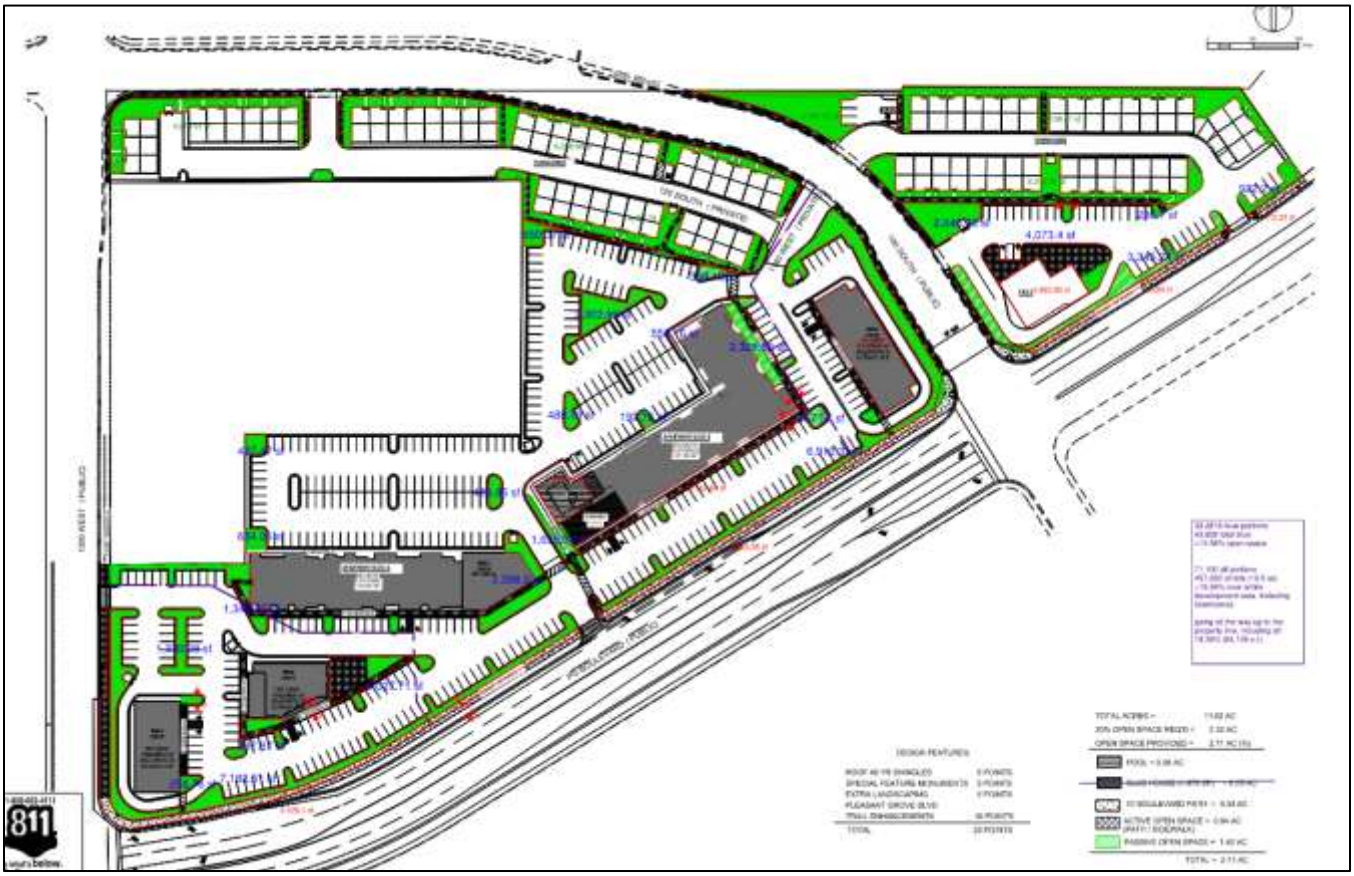


Note: the parking areas to the southwest and northwest (highlighted in gray) are located on Lot 9 of the PG Boulevard Subdivision Plat B, and the building is located on Lot 8. The parking spaces outlined in this plan are only being constructed at the same time as the building.

LANDSCAPE PLAN



OVERALL OPEN SPACE PLAN



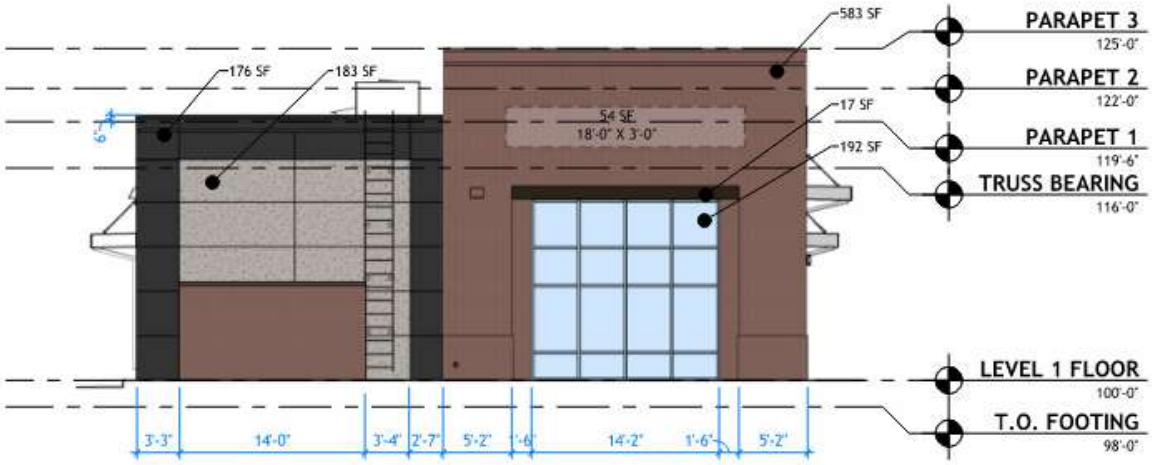
ELEVATION PLANS AND MATERIALS



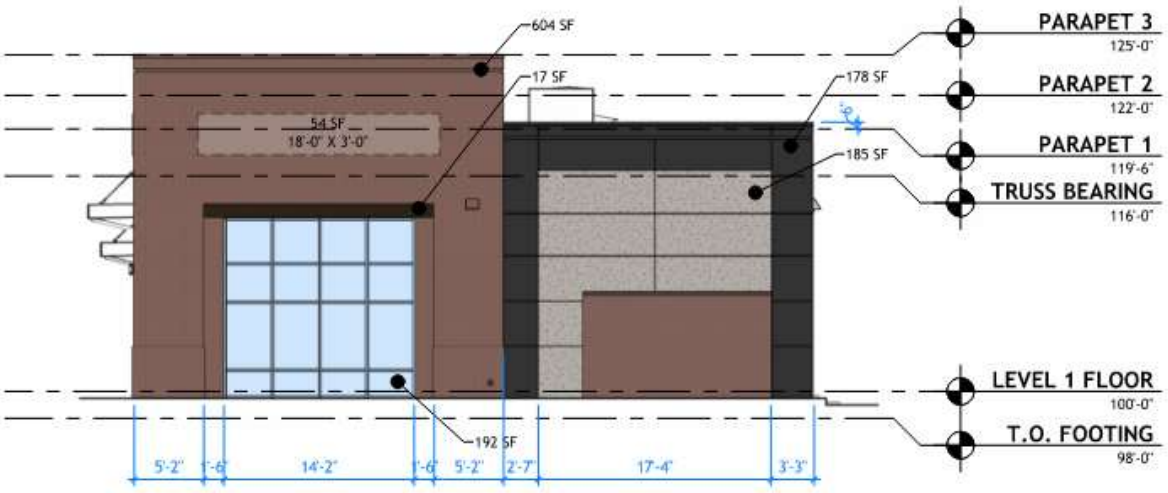
Northeast side (facing 100 S)



Southwest side (facing apartments)

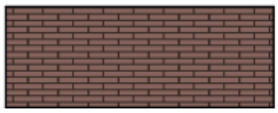
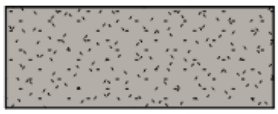


Northwest side (facing townhomes)

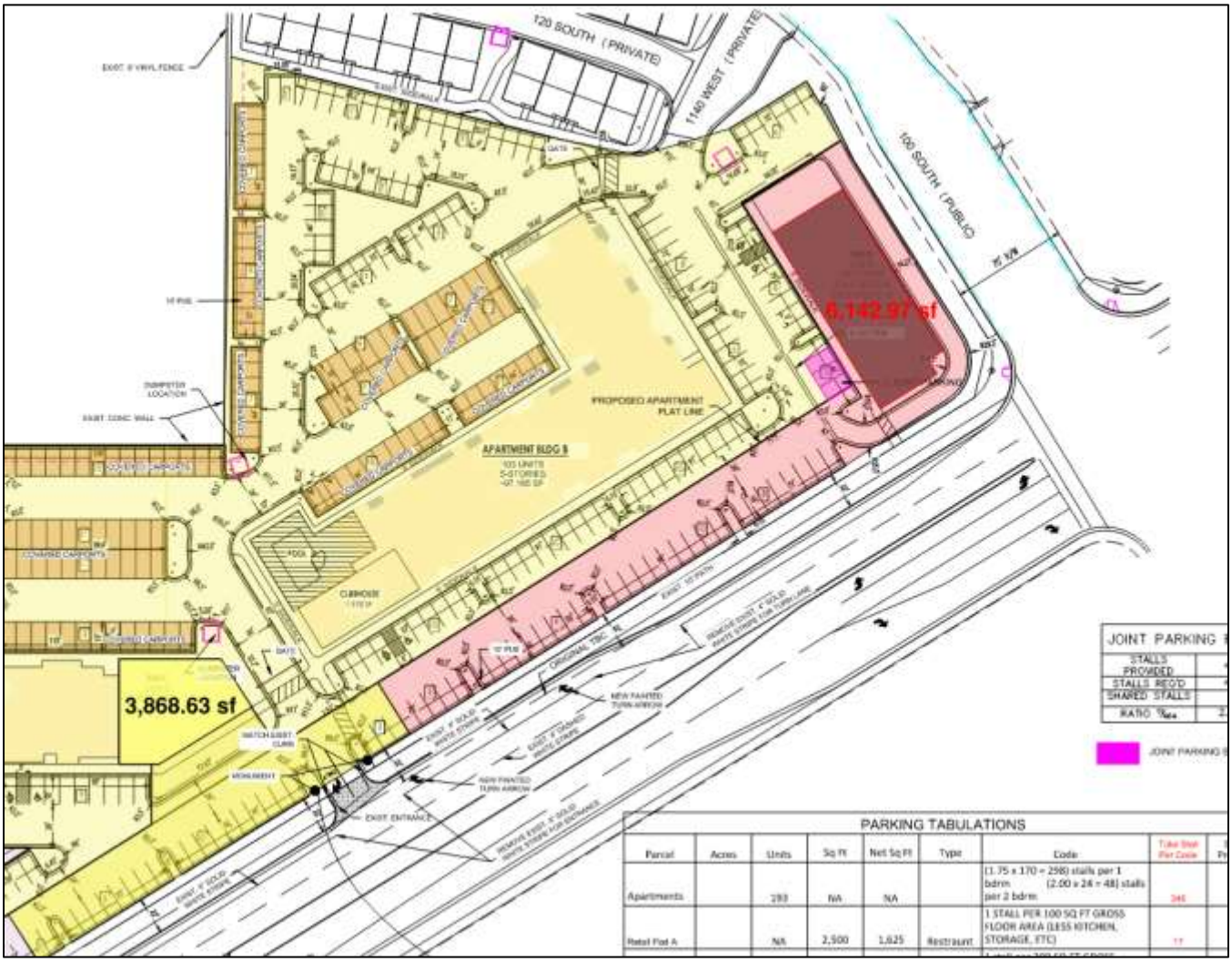


Southeast side (facing PG Boulevard)

EXTERIOR MATERIAL LEGEND

EM1		INTERSTATE BRICK - THIN NORMAN - MATTE -MOUNTAIN RED
EM2		UNEEKE - SUMMIT 40 - DARK BRONZE
EM3		STUCCO - FINE TEXTURE - SW 7017 DORIAN GRAY
EM4		MIRATEC - FIBER CEMENT BOARD - SW 6258 TRICORN BLACK
EM5		METAL TRIM - DARK BRONZE

PARKING MAP


120 SOUTH (PRIVATE)
1140 WEST (PRIVATE)
100 SOUTH (PUBLIC)
8,142.97 sf
PROPOSED APARTMENT PLAT LINE
APARTMENT BLDG 5
CLUBHOUSE
3,868.63 sf
EXIST ENTRANCE
JOINT PARKING
STALLS PROVIDED
STALLS REQ'D
SHARED STALLS
RATIO
PARKING TABULATIONS
Parcel
Acres
Units
Sq Ft
Net Sq Ft
Type
Code
Apartments
283
NA
NA
(1.75 x 170 = 298) stalls per 1 bdrm (2.00 x 24 = 48) stalls per 2 bdrm
Retail Pad A
NA
2,500
1,625
Restraunt
1 STALL PER 100 SQ FT GROSS FLOOR AREA (LESS KITCHEN, STORAGE, ETC)

Agenda

RESOLUTION NO. 2026-041

A RESOLUTION AUTHORIZING THE MAYOR TO SIGN AN INTERLOCAL COOPERATION AGREEMENT WITH ALPINE SCHOOL DISTRICT FOR SCHOOL RESOURCE OFFICER SERVICES.

WHEREAS, pursuant to the provisions of the Utah Interlocal Cooperation Act, Utah Code Annotated, Section 11-13-101, et seq., as amended, public agencies, including political subdivisions of the State of Utah as defined therein, are authorized to enter into mutually advantageous agreements for joint or cooperative action;

WHEREAS, Utah Code Annotated, Section 53G-8-703 provides that the School District may contract with a law enforcement agency to provide School Resource Officer services at its schools after Board of Education review and approval of the Agreement;

WHEREAS, the School District and City (collectively referred to as "Parties"), through their respective governing bodies, have voluntarily determined that the interests and welfare of the public within their respective jurisdictions will best be served by this Agreement to provide for joint and cooperative action in regards to having a School Resource Officer ("SRO") serve within the middle schools and high schools located within their city boundaries.

WHEREAS, the Parties intend to cooperate to provide for the health, safety and welfare of School District students, personnel, volunteers, and authorized visitors; maintain a safe and secure environment in School District facilities and at School District programs by the Parties acting swiftly and cooperatively when responding to major disruptions and criminal offenses at school; report serious crimes that occur on campus to ensure cooperation with law enforcement officials in their investigation; and to foster educational programs and activities that will increase student knowledge of and respect for the rule of law and the function of law enforcement agencies; to improve school climate; and encourage SRO's to attend extra-curricular activities held at schools, when possible, such as athletic events, PTSA meetings, plays, and concerts.

WHEREAS, the governing bodies of the School District and the City have by resolution or motion agreed to adopt this Agreement to provide for the joint and cooperative action contained herein; and

WHEREAS, the Pleasant Grove City Council finds that it is in the best interests of the health, safety and welfare of the citizens of the City to enter into this Interlocal Agreement.

NOW, THEREFORE, BE IT RESOLVED by the Municipal Council of Pleasant Grove City, Utah County, State of Utah, as follows:

SECTION 1.

1. The Mayor of Pleasant Grove City is hereby authorized to execute the Interlocal Agreement with Alpine School District for School Resource Officer Services. Said Agreement is attached hereto and incorporated herein as Exhibit "A."

SECTION 2.

This resolution is effective immediately.

THIS RESOLUTION APPROVED AND ADOPTED this 1st day of September, 2026 by the City Council of Pleasant Grove City, Utah.

_____
Eric Jensen, Mayor

ATTEST: (SEAL)

_____
Wendy Thorpe, City Recorder

Motion: Council Member _____

Second: Council Member _____

ROLL CALL	**Yes**	**No**	**Absent**
Mayor Eric Jensen	_____	_____	_____
Dianna Andersen	_____	_____	_____
Steve Rogers	_____	_____	_____
Cyd LeMone	_____	_____	_____
Todd Williams	_____	_____	_____
Dustin Phillips	_____	_____	_____

ALPINE SCHOOL DISTRICT SCHOOL DISTRICT AND PLEASANT GROVE CITY SCHOOL RESOURCES OFFICER INTERLOCAL COOPERATION AGREEMENT

This Agreement is executed in duplicate this __ day of _____, 20____ by and between the Board of Education of Alpine School District of the State of Utah, a corporation and political subdivision of the State of Utah, with its principal offices located at 575 North 100 East, American Fork, Utah, (hereinafter referred to as the "School District"), and the City of Pleasant Grove (hereinafter referred to as the "City"), with its principal offices located at 70 South 100 East, Pleasant Grove, Utah County, Utah.

WITNESSETH

WHEREAS, pursuant to the provisions of the Utah Interlocal Cooperation Act, Utah Code Annotated, Section 11-13-101, et seq., as amended, public agencies, including political subdivisions of the State of Utah as defined therein, are authorized to enter into mutually advantageous agreements for joint or cooperative action;

WHEREAS, Utah Code Annotated, Section 53G-8-703 provides that the School District may contract with a law enforcement agency to provide School Resource Officer services at its schools after Board of Education review and approval of the Agreement;

WHEREAS, the School District and City (collectively referred to as "Parties"), through their respective governing bodies, have voluntarily determined that the interests and welfare of the public within their respective jurisdictions will best be served by this Agreement to provide for joint and cooperative action in regards to having a School Resource Officer ("SRO") serve within the middle schools and high schools located within their city boundaries.

WHEREAS, the Parties intend to cooperate to provide for the health, safety and welfare of School District students, personnel, volunteers, and authorized visitors; maintain a safe and secure environment in School District facilities and at School District programs by the Parties acting swiftly and cooperatively when responding to major disruptions and criminal offenses at school; report serious crimes that occur on campus to ensure cooperation with law enforcement officials in their investigation; and to foster educational programs and activities that will increase student knowledge of and respect for the rule of law and the function of law enforcement agencies; to improve school climate; and encourage SRO's to attend extra-curricular activities held at schools, when possible, such as athletic events, PTSA meetings, plays, and concerts.

WHEREAS, the governing bodies of the School District and the City have by resolution or motion agreed to adopt this Agreement to provide for the joint and cooperative action contained herein;
and

WHEREAS, this Agreement shall replace and supersede any agreements or memoranda of understanding approved and executed previously by the School District and the City regarding SRO's.

THEREFORE, this Agreement is entered into by both the School District and the City.

COVENANTS

NOW THEREFORE, the School District and the City agree as follows:

1. **Term**. The term of this Agreement shall begin on July 1, 2026 and shall continue for a period of up to five (5) July 1 - June 30 fiscal years, terminating on June 30, 2031 unless terminated sooner as provided herein. This agreement is entered into with Alpine School District for the first year, and may be entered into by the new school district, in which the school is located, upon their adoption and signature, for the remaining four (4) years of the initial term. Following the initial five-year term, this Agreement shall be automatically renewed for successive one-year periods unless either party requests termination or modification of this Agreement, with a total term not to exceed ten (10) years. Such a termination or modification will be made in writing.

2. **Administrator**. Pursuant to Utah Code Annotated, Section 11-13-101, et seq., the parties agree that the City shall act as administrator responsible for this Agreement. This Agreement does not anticipate nor provide for any organizational changes in the City or the School District.

3. **Manner of Financing**. Each party shall be responsible for its own obligations under this Agreement. The City shall budget and be responsible for all payments related to the employment of the SRO. The City shall budget and be responsible for all other costs and matters associated with employing and maintaining the SROs, including, but not limited to, salaries, payroll taxes, workers compensation insurance, benefits, automobile, uniforms, training, equipment, etc. The City shall send an invoice to the School District on an annual basis following the completion of the school year for payment of services of the SRO's as agreed to in writing between the School District and City, which total cost to the School District is:

- Fifty-four thousand eight hundred and forty-seven dollars and no cents ($54,847.00) per full-time, Middle/Jr. High and High School, SRO; twenty-seven thousand, four hundred and twenty-three dollars and fifty cents ($27,423.50,) per half-time, Middle/Jr. High and High School, SRO

The invoice shall be paid within thirty (30) days of receipt by the School District. If this Agreement is terminated during the budget year, the School District and the City agree to divide the costs associated with the payment of the services of the SRO's on a pro-rated basis.

4. **Filing of Agreement**. A copy of this Agreement shall be placed on file in the Office of the City Recorder of the City and with the Business Administrator of the School District and shall remain on file for public inspection during the term of this Agreement.

5. **Description of Arrangement**.

5.1 Employment of the School Resource Officer

1. The City agrees to employ and provide a full-time police officer at _Pleasant Grove High School and Pleasant Grove Jr. High Schools and a part-time police officer at _____ High during the school year (referred to herein as the "School Resource Officer" or "SRO"). It is clearly understood, acknowledged, and agreed to by the parties that the SRO is an employee of the City, subject to the administration, supervision, and control of the City.
2. The City will furnish training, uniforms, equipment, and schedule of deployment required under Utah law or that is needed for the operation of this Agreement.
3. The SRO shall be subject to all personnel policies and practices of the City, except as such policies or practices may be modified by the terms and conditions of this Agreement.
4. The SRO shall also be subject to all District policies while on district property and in their role as SRO and a school official, insomuch as they are not in conflict with the City's/Police department's personnel policies.
5. The principal of the school or the principal's designee will be the SRO's primary contact for any and all school related issues and will collaborate with and provide direction to the SRO, while on school property.
6. The City, in its sole discretion, shall have the power and authority to hire, replace and rotate, discharge, and discipline the SRO; however, prior to assigning an SRO, the City shall discuss the applicants for the position with the District and shall accept input from the District.
7. As an employee of the City, the SRO will be subject to the chain of command of the City's Police Department.
8. If the principal of Pleasant Grove High School or Pleasant Grove Jr. High School is dissatisfied, with justifiable reason, with the SRO who has been assigned to the school, then the principal may request that the City's Chief of Police assign a different police officer as the SRO for the school. Unless the nature of the concerns warrant immediate replacement, such a request should normally occur after the principal has previously met with the City's Chief of Police (or designee) to discuss concerns and allow a reasonable amount of time for the City to remediate the issues. If mutually agreed by the City and School District, the City's Chief of Police shall assign a new SRO to the school. The City reserves the right to remove/re-assign any SRO with notification given to the principal of Pleasant Grove High School and Pleasant Grove Jr. High School and to the School District.

5.2 Duties of the School Resource Officer

1. The SRO will seek to provide for and maintain a safe, healthy, and productive learning environment, emphasizing the use of restorative approaches to address negative behavior, while acting as a positive role model for students by working in a cooperative, proactive, problem-solving manner collaboratively with the City and the School District.

2. The SRO will build relationships, enhance community-policing activities, identify safety concerns within the schools, develop problem solving strategies with school administrators and staff, and collaboratively develop a comprehensive school safety plan with school administrators and staff.
3. For purposes of GRAMA and FERPA, the SRO will be considered a school official, while acting within their SRO role, which role will not extend to criminal investigations which are not against the school or students.
4. The SRO will be expected to attend and participate in applicable school meetings, and to communicate and coordinate with the school principal and other appropriate school administrators concerning the needs of the school and its students.
    i. The SRO will be present at the assigned school during regular school hours unless an emergency, training, meeting, or other emergent need arise. If the SRO will not be present at school, the School District and County/City's Police Department will coordinate together to provide coverage for the SRO's classes and responsibilities at the school.
    ii. At the request of the school the SRO may teach a vocational law enforcement class.
5. In coordination with school administrators, the SRO may provide presentations to the school on safety, crime prevention, bullying, etc., and may also provide additional services to the school as available and mutually agreed to.
6. The City and the SRO will work closely with School District officials to improve the social and behavioral skills of students in order to maximize their ability to achieve academically and become successful, contributing citizens.
    i. Issues to be addressed may include substance abuse, violence reduction, social skills, problem-solving skills, and other areas of School District and community concern.
7. The SRO will act to satisfy the requirement of the school safety personnel requirements of 53G-8-701.5.
8. The City and School District understand that the SRO may use measures to secure school property as followed through established protocols of the City's Police Department and the School District policies and procedures in the event of an emergency situation that requires the activation of emergency response procedures (i.e., critical incident protocols such as "lockdown" and "Secure").
9. When requested, the SRO will be a visible, active law enforcement figure dealing with the school's law enforcement matters at school and at school activities and events.
10. The SRO will be on call to assist at other schools in the area during the hours they are at their assigned school or other duties as assigned by the Chief.
11. The SRO and school administrators will coordinate to differentiate between school disciplinary issues (school administrator responsibility) and criminal issues (SRO responsibility) and respond appropriately, de-escalating school-based incidents whenever possible.

i. SROs are responsible for criminal law issues, not school discipline issues.
ii. Absent a real and immediate threat, the SRO shall refer to school administration any offenses identified by the SRO which fall within the scope of Utah Code § 53G-8-211(3); such offenses shall be handled as student discipline matters and not referred to juvenile court or other law enforcement officers.
iii. Student suicide threats wherein the student and possibly others may be placed at risk should be handled expeditiously and coordinated between the SRO and school administrators to determine the best course of action in which to address the situation.
iv. The SRO will be involved in school discipline only when it pertains to certain criminal matters and preventing a disruption that would, if ignored, place students, school personnel, and others at risk of harm, so the SRO may resolve the problem to preserve the safe school climate.
v. In all other cases, disciplining students for policy violations is a school responsibility. In those situations, the SRO may, if appropriate under the circumstances, take students who violate School District conduct policies to the administration offices for discipline to be taken by school administrators.

12. The SRO will confer with school administrators to resolve an offense that is a minor violation of the law but would not violate the law if committed by an adult, which originates or continues on school property.
13. The SRO will initiate positive interaction with students in the classroom and general areas of the school campus to promote the profession of police officers and be a positive role model, while increasing the visibility and accessibility of police to the school community.
14. The SRO will share information with the school's administrators about persons and conditions pertaining to school campus safety concerns to the extent allowed by law and the City's Police Department policies.
15. The SRO may assist with resolving law enforcement issues that affect the students, the school, the School District, or the broader community. However, matters that are not of a significant or urgent nature or do not directly relate to the students, the school, the School District, or to issues concerning child abuse or neglect, but only concern the broader community, should first be coordinated between school administration and law enforcement, and not be conducted on campus, in order to minimize the effect on student education and the school environment. Outside law enforcement agencies shall first coordinate with school administration.
16. The SRO shall notify school administration prior to or immediately upon removing a student from the school campus.
17. The SRO shall notify a parent as soon as possible when students are issued a criminal citation or arrested. The SRO, in accordance with Section 53G-8-211, may refer a student to juvenile court.

18. If a student arrest is warranted, the SRO shall, while protecting the safety of all parties, use the least disruptive and the least intrusive manner reasonably available to conduct the arrest of the student. The SRO should be accompanied by a school principal or assistant principal, if available, when arresting a student unless exigent circumstances require otherwise for the safety of the student, the SRO, and/or others.
19. The SRO will notify the school's principal of any arrest or referral arising out of any incident on school property.
20. The SRO shall not use physical force or restraints on a student, including handcuffs, Tasers, mace, or other physical or chemical restraints unless a student's actions pose a threat or they are subject to arrest.
21. The SRO shall question students in a manner and a time when it has the least impact on the student's education so long as the delay in questioning does not interfere with the effectiveness of an investigation, the disappearance or unavailability of a criminal suspect or evidence, or risk public safety or significant damage to property.
22. The SRO shall become familiar with the School District's student conduct and discipline policies.
23. The SRO and the principal of Pleasant Grove High School and Pleasant Grove Junior High School, or his/her designee, will jointly complete the school resource officer training program described in Utah Code Annotated, Section 53G-8-702. The training program curriculum and materials are to be developed by the Utah State Board of Education and will include training on the following topics: (a) childhood and adolescent development; (b) responding age-appropriately to students; (c) working with disabled students; (d) techniques to de-escalate and resolve conflict; (e) cultural awareness; (f) restorative justice practices; (g) identifying a student exposed to violence or trauma and referring the student to appropriate resources; (h) student privacy rights; (i) negative consequences associated with youth involvement in the juvenile and criminal justice systems; (j) strategies to reduce juvenile justice involvement; and (k) roles of and distinctions between a school resource officer and other school staff who help keep a school secure. If training is required during the school day, the School District and the City's Police Department will coordinate together to provide coverage for the SRO's classes and responsibilities at the school.
24. The City and School District may coordinate and jointly fund other beneficial training opportunities for the SRO and school administrators.
25. The SRO will work during the school's normal posted hours. and shall be at the school on all days that students are in attendance, except for vacation, sick and holidays officially recognized by the Department.
    i. When on vacation, sick or other days that the officer is unable to be at the school, they will coordinate with the school administration and their department to provide for appropriate coverage in their absence.
26. After-school and extra-curricular activities requiring law enforcement will be governed separately from this MOU.

5.3 Duties of District and School Administrators

1. School administrators will provide the City's Police Department with appropriate school administrator names and contact information to facilitate communication.
2. School administrators will provide an office/storage or workspace for the SRO's materials and personal effects.
3. School administrators will provide students, classroom, equipment, and supplies for classes taught by the SRO.
4. SRO's will be provided keys or other necessary means of access to the building
5. School administrators will arrange meetings with the SRO as needed by the school administration.
6. School Administrators and the SRO will coordinate to differentiate between school disciplinary issues (school administrator responsibility) and criminal issues (SRO responsibility) and respond appropriately, de-escalating school-based incidents whenever possible. Upon referring a student to the school administration, it is understood that the school shall inform the SRO of the outcome of the administrative issue.
7. School administrators shall confer with the SRO to resolve an offense that is a minor violation of the law but would not violate the law if committed by an adult, which originates or continues on school property.
8. School administrators will make an effort to handle routine student conduct and disciplinary matters without involving the SRO in a law enforcement capacity, unless it is absolutely necessary or required by law.
9. School administrators will facilitate SRO-initiated investigations and actions (see 5.4 and 5.6).
10. School administrators will provide ongoing feedback to the City's Police Department for SRO evaluation purposes, upon the request from the City, or at least on an annual basis.
11. The School District acknowledges that the SRO is required by City policies and procedures to attend mandatory training and/or meetings.
12. If applicable and as necessary, school administrators will provide opportunities for the SRO and school administration to meet with parents and community members during the school year.
13. The SRO and the principal of Pleasant Grove High School and Pleasant Grove Jr. High School, or his/her designee, will jointly complete the school resource officer training program described in Utah Code Annotated, Section 53G-8-702.
14. The City and School District may coordinate and jointly fund and provide other beneficial training opportunities for the SRO and school administrators.
15. School administrators shall comply with the provisions of student conduct and discipline policies, including Alpine School District Policies and other student conduct and discipline related policies.

5.4 Student Rights SRO Search and Seizure

1. The SRO may conduct or participate in a search of a student's person, school locker, personal belongings, electronic devices, or vehicle only where there is "reasonable suspicion" as defined by USBE, or a particularized and objective basis, supported by specific articulable facts for suspecting a person of criminal activity.
2. The SRO shall follow state and federal law and the City's Police Department policies and procedures when conducting searches of persons and property which may require a search warrant.
3. Except in the event of exigent circumstances, the SRO shall inform school administrators prior to conducting a "probable cause" search where practicable.
4. The SRO shall not ask school administrators to search a student's person, school locker, personal belongings, electronic devices, or vehicle in an effort to circumvent the student's legal rights and protections. Strip searches of students are prohibited.

5.5 School Administrators Search and Seizure

1. A school administrator may conduct a search of a student's person, school locker, personal belongings, electronic devices, or vehicle in accordance with the "reasonable suspicion" legal standards.
2. An administrator may ask the SRO to be present or participate in a search whenever reasonable suspicion has been established.
3. Strip searches are prohibited.

5.6 Student Questioning

1. SRO - Student as Alleged Perpetrator. The SRO may question a student about conduct that could expose the student to arrest or criminal charges according to the following guidelines:
    a. Student is Fourteen (14) Years of Age or Older. Before interviewing a student who is of the age of fourteen (14) years or older and who is a suspected perpetrator of a criminal matter, the SRO may make an effort to first contact the student's parent/ legal guardian if deemed appropriate under the circumstances. Nevertheless, the SRO may interview a student who is fourteen (14) years of age or older so long as applicable legal criteria has been satisfied. The parent / legal guardian of a student who is interviewed by the SRO should be informed as soon as reasonably practicable that an interview has taken place.
    b. Student is Under the Age of Fourteen (14) Years. Before interviewing a student who is under the age of fourteen (14) years and who is a suspected perpetrator of a criminal matter, the SRO must first contact the student's parent / legal guardian to either obtain their physical presence or obtain a waiver of physical presence prior to conducting the interview. The SRO may interview the student who is under the age of fourteen (14) years so long as applicable legal criteria has been satisfied.

c. The SRO shall inform school administrators prior to questioning the student where practicable.
d. The SRO shall not ask a school administrator to question a student in an effort to circumvent the student's rights and protections.

2. SRO - Student as Alleged Victim or Witness. The SRO may question a student who is the alleged victim or witness to a possible criminal matter according to the following guidelines:
    a. Student is Fourteen (14) Years of Age or Older. Generally, the SRO may question a student who is of the age of fourteen (14) years or older if the student is an alleged victim or witness to a criminal matter. School administrators and the SRO should use their best judgment in determining whether specific circumstances would warrant contacting the student's parent / legal guardian prior to the interview. In the event of an investigation involving alleged child abuse or neglect, the parent / legal guardian of a student who is interviewed by the SRO should be informed in accordance with applicable Utah law that an interview has taken place.
    b. Student is Under the Age of Fourteen (14) Years. Before interviewing a student who is under the age of fourteen (14) years and who is an alleged victim or witness to a criminal matter, school administrators and the SRO should use their best judgment in determining whether specific circumstances would warrant contacting the student's parent / legal guardian prior to the interview. In the event of an investigation involving alleged child abuse or neglect, the parent / legal guardian of a student who is interviewed by the SRO should be informed in accordance with applicable Utah law that an interview has taken place.
    c. The SRO shall inform school administrators prior to questioning the student where practicable.
    d. The SRO shall not ask a school administrator to question a student in an effort to circumvent the student's rights and protections.
3. SRO - Student Conversations. In general, conversations between the SRO and students will be on the premise of building relationships to help develop a healthy learning environment and promote prosocial behaviors.
4. School Administrators - Student Interviews and Questioning.
    i. School administrators have the responsibility to oversee the proper and efficient operation of their schools.
    ii. Students should be educated in a safe, secure, and supervised environment.
    iii. Utah law defines "in loco parentis" in Utah Code Ann., Section 53E-6-703(1)(b) as "the power of professional school personnel to exercise the rights, duties, and responsibilities of a reasonable, responsible parent in dealing with students in school-related matters."
    iv. Accordingly, school administrators are free to communicate, interview, and question students for any academic and non-

academic matters, including, but not limited to, issues relating to school and student safety, policy compliance and violations, student discipline, etc.

v. In addition, school personnel have a legal responsibility and protocol in cooperating with the Division of Child and Family Services (DCFS) and law enforcement officials relating to suspected child abuse or neglect.

5.7 Access to Education Records

1. School administrators shall allow the SRO to inspect and copy any public records, including student "directory information," maintained by the school to the extent allowed by state and federal law.
2. If some information in a student's educational record is needed in an emergency to protect the health or safety of the student or others, school administrators shall disclose to the SRO the information that is needed to respond to the emergency situation based on: (i) the seriousness of the threat to the health or safety of an individual; (ii) the need of the information to meet the emergency situation; and (iii) the extent to which time is of the essence.
3. If the SRO needs confidential student educational record information, but no emergency situation exists, the information may be disclosed only as allowed by applicable state and federal law.
4. The SRO shall maintain records regarding law enforcement issues while the school administration shall maintain educational records.
5. SRO's will be given rights and/or logins to the District's Student Information System, with access rights to the following: directory information, attendance, grades and class schedules. Any requests for student records not included in the SRO's access rights should go through the principal of the school and be based on a need to know basis similar to other school staff.

6. **Lawful Agreement**. The parties represent that each of them has lawfully entered into this Agreement, having complied with all relevant statutes, ordinances, resolutions, by-laws, and other legal requirements applicable to their operation.

7. **Termination**. Either party may terminate this Agreement upon sixty (60) days prior written notice to the end of the school year, and termination will become effective at the end of the school year. Termination may be for no reason and without cause. Termination of this Agreement shall constitute withdrawal from the cooperative undertaking established by the Agreement.

8. **Utah Law**. This Agreement shall be interpreted pursuant to the laws of the State of Utah. This Agreement, including the rights, obligations, and investigative and law enforcement duties of the SRO, shall not supersede Utah Code § 53G-8-101 et seq., "Public Education System-Local Administration; Discipline and Safety." In the event of a conflict between this Agreement and

Utah Code § 53G-8-101 et seq., as amended, the SRO shall follow the requirements in Utah Code § 53G-8-101 et seq.

9. **Attorney's Fees**. In the event that either party should be required to retain an attorney because of the default or breach of the other to pursue any other remedy provided by law, then the non-breaching or non-defaulting party shall be entitled to reasonable attorney's fees, whether or not the matter is actually litigated.

10. **Severability and Interpretation of this Agreement**. The invalidity of any portion of this Agreement shall not prevent the remainder from being carried into effect. Whenever the context of any provision shall require it, the singular number shall be held to include the plural number, and vice versa, and the use of any gender shall include any other and all genders. The paragraph and section headings in this Agreement are for convenience only and do not constitute a part of the provisions hereof.

11. **Amendment**. No waiver, consent, amendment, change of terms, or modification of this Agreement shall bind either party unless in writing and signed by both parties.

12. **No Presumption**. Should any provision of this Agreement require judicial interpretation, the Court interpreting or construing the same shall not apply a presumption the terms hereof shall be more strictly construed against one party, by reason of rule of construction that a document is to be construed more strictly against the person who himself or through his agents prepared the same, it being acknowledged that all parties have participated in the preparation thereof.

13. **Binding**. This Agreement shall be binding upon the heirs, successors, administrators, and assigns of each of the parties hereto. The Parties understand and agree that when the District ceases operations on June 30, 2026, that this MOU may be adopted by the new school districts, subject only to new school district signatures.

14. **Liability and Indemnification**. Both parties are governmental entities under the Governmental Immunity Act of Utah (the "Governmental Immunity Act"), Utah Code Annotated, Section 63G-7-101, et seq., as amended. Consistent with the terms of the Governmental Immunity Act, it is mutually agreed that each party is responsible and liable for its own wrongful or negligent acts which it commits or which are committed by its employees, officers, agents, or volunteers. It is understood and agreed that the SRO is and remains the employee and agent of the City and that the City is responsible for any wrongful acts or omissions by the SRO, regardless of what role they are fulfilling while at the school or on school property. Neither party waives any defenses otherwise available under the Governmental Immunity Act, nor does any party waive any limits of liability now or hereafter provided by law. Subject to the foregoing, each party agrees to save, keep, hold harmless, and indemnify the other party, its employees, officers, agents, and volunteers from all damages, costs, or expenses in law or equity, including attorneys' fees, that may at any time arise or be set up because of damages to property and/or personal injury incurred by reason of or in the course of performing the services under this Agreement which may be occasioned by any willful, negligent, or wrongful acts or omissions of

the party, its employees, officers, agents, or volunteers. The terms of this section shall survive the termination of this Agreement.

15. **Notices**. All notices, demands and other communications required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given if delivered by hand or by certified mail, return receipt requested, postage paid, to the parties at their addresses given hereunder.

16. **Assignment**. The parties to this Agreement shall not assign this Agreement, or any part hereof, without the prior written consent of all other parties to this Agreement.

IN WITNESS WHEREOF, the parties have signed and executed this _____ SCHOOL RESOURCE OFFICER INTERLOCAL COOPERATION AGREEMENT, after resolutions duly and lawfully passed, on the dates listed below.

DATED this ____day of _____, 20____.

_____ CITY

By: _____, Mayor / Chief of Police

DATED this ____day of _____, 20____.

BOARD OF EDUCATION OF _____

By: _____
Board President / Superintendent / Business Administrator

DATED this ____day of _____, 20____.

BOARD OF EDUCATION OF _____

By: _____
Board President / Superintendent / Business Administrator

DATED this ____day of _____, 20____.

BOARD OF EDUCATION OF _____

By: _____
Board President / Superintendent / Business Administrator

DATED this ____day of _____, 20____.

BOARD OF EDUCATION OF _____

By: _____
Board President / Superintendent / Business Administrator

Agenda

PARTIAL PAYMENT ESTIMATE
NO. 6

Name of Contractor:	***Condie Construction Co., LLC***		
Name of Owner:	***Pleasant Grove City***		
Date of Completion:	Amount of Contract:		Dates of Estimate:
Original: November 15, 2026	Original:	$3,556,724.10	From: August 7, 2026
Revised: n/a	Revised:	$4,894,808.21	To: August 21, 2026
Description of Job:	***800 North Area Waterline, Drainage and Roadway Reconstruction Project***		

Amount	This Period	Total To Date
Amount Earned	$518,756.39	$2,361,297.35
Retainage Held	$25,937.82	$118,064.87
Retainage Being Released	$0.00	$0.00
Previous Payments	-	$1,750,413.91
Amount Due	$492,818.57	$492,818.57

This project is on schedule

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 corr been shown on previous estimates and the work has been performed in accorda Contract Documents.

After the mayor has signed, this pay request may be paid

51-70-987 $140,099.94
16-70-987 $110,078.52
20-40-987 $115,069.54

BJT

Recommended by: Pleasant Grove City Engineering

Date: 8/27/2026

Digitally signed by Britton Tveten
Date: 2026.08.27 13:30:48-06'00'

Accepted by: Condie Construction Co., LLC

Date: Bronson Brandt

Digitally signed by Bronson Brandt
DN: C=US, E=bbrandt@condieconstruction.com, O=Condie Construction Company, OU=Project Manager, CN=Bronson Brandt
Date: 2026.08.27 12:37:26-06'00'

Approved by: Pleasant Grove City Mayor

Date:

Schedule of Values

PROJECT: Pleasant Grove City – 800 North Area Waterline, Drainage and Roadway Reconstruction Project

PAY PERIOD: 1 | PAY PERIOD: 2 | PAY PERIOD: 3 | PAY PERIOD: 4 | PAY PERIOD: 5 | PAY PERIOD: 6 | 8/31/2026

ITEM NO.	NATURE OF WORK	CONTRACT ITEMS Qty	Units	Unit Price	Bid Amt.	QUANTITY This Month	QUANTITY To Date	QUANTITY This Month	QUANTITY To Date	QUANTITY This Month	QUANTITY To Date	QUANTITY This Month	QUANTITY To Date	QUANTITY This Month	QUANTITY To Date	EARNINGS This Month	EARNINGS To Date
	SCHEDULE 1 - 800 NORTH AREA BASE BID																
1	MOBILIZATION AND DEMOBILIZATION	1	LUMP	$21,000.00	$213,000.00	0.30	0.30	0.30	0.30	0.25	0.55		0.55		0.55	0.25	0.80	$53,250.00	$170,400.00
2	CONSTRUCTION TRAFFIC CONTROL	1	LUMP	$44,158.00	$44,158.00	0.30	0.30	0.30	0.30		0.30	0.10	0.40		0.40	0.25	0.65	$11,039.50	$28,702.70
3	SURVEY	1	LUMP	$6,933.00	$6,933.00	0.30	0.30	0.30	0.30		0.30	0.10	0.40		0.40	0.25	0.65	$1,733.25	$4,506.45
4	PUBLIC INVOLVEMENT AND INFORMATION SERVICES	1	LUMP	$20,263.00	$20,263.00	0.30	0.30	0.30	0.30		0.30	0.10	0.40		0.40	0.25	0.65	$5,065.75	$13,170.95
5	TEMPORARY CONSTROLS AND BMPS	1	LUMP	$7,848.00	$7,848.00	0.30	0.30	0.30	0.30		0.30	0.10	0.40		0.40	0.25	0.65	$1,962.00	$5,101.20
6	REMOVE CONCRETE FLATWORK (Includes Sidewalk, Driveways, Pad Ramps, C&G)	400	SQ YD	$18.20	$7,280.00		0.00		0.00	30.00	30.00	62.15	92.15	300.08	392.23		392.23	$0.00	$7,138.59
7	REMOVE CONCRETE WATERWAY	175	SQ YD	$23.40	$4,095.00		0.00		0.00		0.00	30.00	30.00	137.12	167.12	7.88	175.00	$184.39	$4,095.00
8	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)	24,750	SQ YD	$3.60	$64,238.00		0.00		0.00	2197.00	2197.00		2197.00		2197.00	11885.00	14082.00	$30,901.00	$36,613.20
9	GRANULAR BORROW (Soft Spot Repair)	500	CU YD	$71.80	$37,050.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
10	OVEREXCAVATION (Soft Spot Repair)	500	CU YD	$21.50	$10,750.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
11	UNTREATED BASE COURSE (SUPPLEMENTAL)	2,400	TON	$27.50	$72,280.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
12	CEMENT	52	TON	$197.00	$10,644.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
13	CEMENT TREAT BASE COURSE (8 Inch Thick)	24,750	SQ YD	$5.80	$143,434.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
14	HMA - 1/2 INCH (PG 64 -34)	4,760	TON	$103.00	$490,280.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
15	MONOLITHIC CURB & GUTTER AND SIDEWALK	260	SQ YD	$150.00	$39,600.00		0.00		0.00		0.00	50.57	50.57	110.60	161.17	38.83	200.00	$7,688.34	$39,600.00
16	CONCRETE WATERWAY	175	SQ YD	$192.00	$33,600.00		0.00		0.00		0.00	30.00	30.00	112.16	142.16	32.84	175.00	$6,305.28	$33,600.00
17	PEDESTRIAN ACCESS RAMP	14	EACH	$3,247.00	$45,458.00		0.00		0.00		0.00		0.00		0.00	6.00	6.00	$19,452.00	$19,452.00
18	RECONSTRUCT VALVE BOX	54	EACH	$352.00	$19,008.00		0.00		0.00		0.00		0.00	27.00	27.00		27.00	$0.00	$14,904.00
19	RECONSTRUCT MANHOLE	33	EACH	$908.00	$29,964.00		0.00		0.00		0.00		0.00	16.50	16.50		16.50	$0.00	$14,982.00
20	6 INCH RESILIENT WEDGE GATE VALVE	15	EACH	$5,133.00	$77,599.00	6.00	6.00	6.00	7.00		13.00		13.00		13.00		13.00	$0.00	$27,559.00
21	8 INCH RESILIENT WEDGE GATE VALVE	33	EACH	$5,937.00	$65,251.00	11.00	11.00	11.00	7.00		18.00		18.00	4.00	22.00		22.00	$0.00	$62,414.00
22	8 INCH 45° BEND	11	EACH	$725.00	$7,975.00	2.00	2.00	2.00	9.00		11.00		11.00		11.00		11.00	$0.00	$7,975.00
23	8 INCH 11.25° OR 22.5° BEND	12	EACH	$752.00	$8,688.00	2.00	2.00	2.00	10.00		12.00		12.00		12.00		12.00	$0.00	$8,688.00
24	8 INCH TEE	20	EACH	$1,203.00	$24,060.00	5.00	5.00	5.00	15.00		20.00		20.00		20.00		20.00	$0.00	$24,060.00
25	8 INCH TO 6 INCH REDUCER	4	EACH	$614.00	$2,456.00		0.00		0.00	4.00	4.00		4.00		4.00		4.00	$0.00	$2,456.00
26	8 INCH C900, DR-18 PVC WATERLINE PIPE	5,450	FOOT	$63.50	$357,645.00	1587.50	1587.50	662.50	2650.00	2137.50	4787.50		4787.50	862.50	5650.00		5650.00	$0.00	$357,645.00
27	CUT, CAP, & AND ABANDON WATERLINE	1	LUMP	$5,283.00	$5,283.00		0.00		0.00	0.50	0.50		0.50	0.50	1.00		1.00	$0.00	$5,283.00
28	REPLACE FIRE HYDRANT	12	EACH	$5,776.00	$92,712.00		0.00	4.00	4.00	8.00	12.00		12.00		12.00		12.00	$0.00	$92,712.00
29	1 INCH BRASS TAPPING SADDLE	26	EACH	$727.00	$18,902.00		0.00		0.00	26.00	26.00		26.00		26.00		26.00	$0.00	$18,902.00
30	1 INCH BRASS TAPPING SADDLE F	65	EACH	$756.00	$49,116.00		0.00		0.00	18.00	18.00		18.00	6.00	24.00	21.00	45.00	$15,876.00	$34,020.00
31	2 INCH CULINARY SERVICE MANIFOLD WITH (4) 1 INCH SERVICES	68	EACH	$5,376.00	$175,436.00		0.00		0.00	16.00	16.00		16.00	6.00	22.00	23.00	45.00	$66,148.00	$129,420.00
33	1 INCH PRESSURIZED IRRIGATION SERVICE LINE	99	EACH	$367.00	$83,338.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
33	4 INCH PRESSURIZED IRRIGATION DRAIN	1	EACH	$3,830.00	$3,830.00		0.00		0.00		0.00		0.00		0.00	1.00	1.00	$3,830.00	$3,830.00
34	PRESSURIZED IRRIGATION BLOW OFF	1	EACH	$4,375.00	$4,375.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
35	RECONSTRUCT CULINARY WATER SERVICE	76	EACH	$2,325.00	$55,146.00		0.00		0.00	92.00	92.00		92.00	25.00	117.00	114.00	231.00	$241,794.00	$489,951.00
	SCHEDULE 2 - 540 NORTH TO 1570 WEST AREA ADDITIVE ALT. 1																
36	MOBILIZATION AND DEMOBILIZATION	1	LUMP	$104,443.00	$104,443.00		0.00	0.30	0.30	0.25	0.55		0.55		0.55	0.25	0.80	$26,110.75	$83,554.40
37	CONSTRUCTION TRAFFIC CONTROL	1	LUMP	$18,120.00	$18,120.00		0.00	0.25	0.25		0.25	0.15	0.40		0.40	0.25	0.65	$4,530.00	$11,778.00
38	SURVEY	1	LUMP	$5,739.00	$5,739.00		0.00	0.25	0.25		0.25	0.15	0.40		0.40	0.25	0.65	$1,304.75	$3,392.35
39	PUBLIC INVOLVEMENT AND INFORMATION SERVICES	1	LUMP	$4,605.00	$4,605.00		0.00	0.25	0.25		0.25	0.15	0.40		0.40	0.25	0.65	$1,151.25	$2,993.25
40	TEMPORARY CONTROLS AND BMPS	1	LUMP	$1,806.00	$1,806.00		0.00	0.25	0.25		0.25	0.15	0.40		0.40	0.25	0.65	$451.50	$1,173.90
41	REMOVE CONCRETE FLATWORK (Includes Sidewalk,	400	SQ YD	$18.20	$7,280.00		0.00		0.00		0.00		0.00	396.00	396.00	10.00	406.00	$182.00	$7,389.20
42	REMOVE CONCRETE WATERWAY	115	SQ YD	$23.10	$2,426.50		0.00		0.00		0.00		0.00	111.00	111.00	4.00	115.00	$84.40	$2,426.50
43	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)	12208	SQ YD	$2.75	$32,961.60		0.00		0.00	1050.00	1050.00		1050.00		1050.00		1050.00	$0.00	$2,835.00
44	GRANULAR BORROW (Soft Spot Repair)	500	CU	$74.13	$37,050.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
45	OVEREXCAVATION (Soft Spot Repair)	500	CU	$21.50	$10,750.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
46	UNTREATED BASE COURSE (SUPPLEMENTAL)	1275	TON	$31.00	$39,525.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
47	CEMENT	26	TON	$397.00	$10,322.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
48	CEMENT TREAT BASE COURSE (8 Inch Thick)	12204	SQ	$5.90	$67,144.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
49	HMA - 1/2 INCH (PG 64 -34)	2025	TON	$103.00	$208,575.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
50	MONOLITHIC CURB & GUTTER AND SIDEWALK	250	SQ YD	$175.00	$43,750.00		0.00		0.00		0.00		0.00	216.50	216.50		216.50	$0.00	$37,905.00
51	CONCRETE DRIVEWAY 6 INCHES THICK	80	SQ YD	$170.00	$14,320.00		0.00		0.00		0.00	11.58	11.58	64.60	76.48	3.52	80.00	$598.08	$14,320.00
52	CONCRETE WATERWAY	115	SQ YD	$119.00	$71,735.00		0.00		0.00		0.00		0.00	52.65	52.65	32.35	85.00	$6,134.15	$16,065.00
53	PEDESTRIAN ACCESS RAMP	8	EACH	$3,242.00	$25,936.00		0.00		0.00		0.00		0.00		0.00	4.00	4.00	$12,968.00	$12,968.00
54	RECONSTRUCT VALVE BOX	17	EACH	$352.00	$10,424.00		0.00		0.00		0.00		0.00	18.50	18.50		18.50	$0.00	$10,212.00
55	RECONSTRUCT MANHOLE	11	EACH	$908.00	$9,988.00		0.00		0.00		0.00		0.00	5.50	5.50		5.50	$0.00	$4,994.00
56	8 INCH RESILIENT WEDGE GATE VALVE	17	EACH	$2,838.00	$48,246.00		0.00	15.00	15.00		15.00		15.00	2.00	17.00		17.00	$0.00	$48,246.00
57	8 INCH 45° BEND	1	EACH	$743.00	$743.00		0.00	1.00	1.00		1.00		1.00		1.00		1.00	$0.00	$743.00
58	8 INCH 11.25° OR 22.5° BEND	9	EACH	$772.00	$6,588.00		0.00	5.00	5.00	4.00	9.00		9.00		9.00		9.00	$0.00	$6,588.00
59	8 INCH TEE	8	EACH	$1,310.00	$10,680.00		0.00	3.00	3.00	5.00	8.00		8.00		8.00		8.00	$0.00	$10,680.00
60	8 INCH TO 6 INCH REDUCER	2	EACH	$618.00	$1,236.00		0.00	1.00	1.00	1.00	2.00		2.00		2.00		2.00	$0.00	$1,236.00
61	8 INCH C900, DR-18 PVC WATERLINE PIPE	2700	FOOT	$62.30	$168,210.00		0.00	2025.00	2025.00	675.00	2700.00		2700.00		2700.00		2700.00	$0.00	$168,210.00
62	CUT, CAP, & AND ABANDON WATERLINE	1	LUMP	$5,004.00	$5,004.00		0.00	1.00	1.00		1.00		1.00		1.00		1.00	$0.00	$5,004.00
63	REPLACE FIRE HYDRANT	5	EACH	$14,413.00	$42,065.00		0.00	3.00	3.00		3.00	2.00	5.00		5.00		5.00	$0.00	$42,065.00
64	1 INCH BRASS TAPPING SADDLE	54	EACH	$727.00	$39,258.00		0.00		0.00		0.00	29.00	29.00	25.00	54.00		54.00	$0.00	$39,258.00
65	1 INCH PRESSURIZED IRRIGATION SERVICE LINE	54	EACH	$351.00	$43,954.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
66	RECONSTRUCT CULINARY WATER SERVICE	54	EACH	$2,125.00	$114,750.00		0.00		0.00	1.00	1.00	29.00	30.00	24.00	54.00		54.00	$0.00	$114,750.00
67	EARLY COMPLETION BONUS	1	LUMP	$75,000.00	$75,000.00		0.00		0.00		0.00		0.00		0.00		0.00	$0.00	$0.00
68	6 INCH RESILIENT WEDGE GATE VALVE	5	EACH	$2,125.00	$10,625.00		0.00		0.00	5.00	5.00		5.00		5.00		5.00	$0.00	$10,625.00
		Subtotal			$3,556,724.10													$518,756.39	$2,316,892.69
	Change Order # 1																
101	PC01A - Change all steel nuts and bolts hardware to stainless steel	1	Lump	$6,142.68	$6,142.68		0.00	0.50	0.50		0.50	0.50	1.00		1.00		1.00	$0.00	$6,142.68
102	8" Pipe Joint restraints as required by Drew or Ferguson to mitigate close proximity to the sewer to be paid as each as needed	4	each	$304.07	$1,216.28		0.00		0.00	8.00	8.00		8.00		8.00		8.00	$0.00	$2,432.56
103	PC01B - 8X8 W 90 W Revere Health fire suppression 4" connection with hot tap and bends	1	Lump	$8,966.00	$8,966.00		0.00		0.00		0.00	1.00	1.00		1.00		1.00	$0.00	$8,966.00
104	PC02 - Significant Slag/Rewable removal within waterline trenches from 600 N to 597 N along 1550 W and service stubs crossing on 1600 W and 540 N	1	Lump	$4,022.32	$4,022.32		0.00	1.00	1.00		1.00		1.00		1.00		1.00	$0.00	$4,022.32
107	PC03- 2" service meter connections (meter to main is severed, lid and box are covered)	2	each	$12,048.00	$24,096.00		0.00		0.00		0.00	1.00	1.00		1.00		1.00	$0.00	$12,048.00
108	PC04 down time for mismarked sewer lateral, water main leak, other mismarked water lines	1	Lump	$3,115.03	$3,115.03		0.00	1.00	1.00		1.00		1.00		1.00		1.00	$0.00	$3,115.03
		Subtotal			$47,558.31													$0.00	$36,726.59
	Change Order # 2 800 N area change orders																
+35	Change line item 35 "RECONSTRUCT CULINARY WATER SERVICE" to account for the 4 risers at the new bid price	244	each	$5,137.00	$317,524.00	items placed under the base bid											
200	PC2 -06 mismarked utilities on 8/12/2026	1	Lump	$5,621.26	$5,621.26	0.0		0.00	1.00	1.00			1.00		1.00		1.00	$0.00	$5,621.26
200	PC2 -07 mismarked utilities on 8/14/8/2026	1	Lump	$5,316.82	$10,633.64	0.0		0.00	1.00	1.00			1.00		1.00		1.00	$0.00	$5,316.82
		Subtotal			$530,778.90													$0.00	$7,938.08
	Change Order # 3 - Mahogany Line Items																
301	MOBILIZATION AND DEMOBILIZATION	1	LUMP	$80,000.00	$80,000.00						0.00		0.00		0.00		0.00	$0.00	$0.00
302	CONSTRUCTION TRAFFIC CONTROL	1	LUMP	$10,000.00	$10,000.00						0.00		0.00		0.00		0.00	$0.00	$0.00
303	SURVEY	1	LUMP	$3,875.00	$3,875.00						0.00		0.00		0.00		0.00	$0.00	$0.00
304	PUBLIC INVOLVEMENT AND INFORMATION SERVICES	1	LUMP	$4,500.00	$4,500.00						0.00		0.00		0.00		0.00	$0.00	$0.00
305	TEMPORARY CONSTROLS AND BMPS	1	LUMP	$5,573.00	$5,573.00						0.00		0.00		0.00		0.00	$0.00	$0.00
306	REMOVE CONCRETE FLATWORK (Includes S dewalk, Driveways, Pad Ramps, C&G)	12	SQ YD	$32.60	$391.20						0.00		0.00		0.00		0.00	$0.00	$0.00
307	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)	6,875	SQ YD	$3.30	$22,687.50						0.00		0.00		0.00		0.00	$0.00	$0.00
308	GRANULAR BORROW (Soft Spot Repair)	250	CU YD	$37.10	$9,275.00						0.00		0.00		0.00		0.00	$0.00	$0.00
309	OVEREXCAVATION (Soft Spot Repair)	250	CU YD	$36.10	$9,025.00						0.00		0.00		0.00		0.00	$0.00	$0.00
310	UNTREATED BASE COURSE (SUPPLEMENTAL)	750	TON	$31.30	$23,475.00						0.00		0.00		0.00		0.00	$0.00	$0.00
311	CEMENT	140	TON	$417.00	$58,380.00						0.00		0.00		0.00		0.00	$0.00	$0.00
312	CEMENT TREAT BASE COURSE (8 Inch Thick)	6,875	SQ YD	$6.50	$44,687.50						0.00		0.00		0.00		0.00	$0.00	$0.00
313	HMA - 1/2 INCH (PG 64 -34)	1,200	TON	$109.00	$130,800.00						0.00		0.00		0.00		0.00	$0.00	$0.00
314	MONOLITHIC CURB & GUTTER AND SIDEWALK	10	SQ YD	$795.00	$7,950.00						0.00		0.00		0.00		0.00	$0.00	$0.00
315	24" Concrete Curb and Gutter	30	LF	$107.00	$3,210.00						0.00		0.00		0.00		0.00	$0.00	$0.00
316	RECONSTRUCT VALVE BOX	17	EACH	$720.00	$12,240.00						0.00		0.00		0.00		0.00	$0.00	$0.00
317	RECONSTRUCT MANHOLE	7	EACH	$1,067.00	$7,469.00						0.00		0.00		0.00		0.00	$0.00	$0.00
318	6 INCH RESILIENT WEDGE GATE VALVE	3	EACH	$1,388.00	$4,164.00						0.00		0.00		0.00		0.00	$0.00	$0.00
319	8 INCH RESILIENT WEDGE GATE VALVE	3	EACH	$1,259.00	$3,777.00						0.00		0.00		0.00		0.00	$0.00	$0.00
320	10 INCH RESILIENT WEDGE GATE VALVE	1	EACH	$4,522.00	$4,522.00						0.00		0.00		0.00		0.00	$0.00	$0.00
321	8 INCH 45° BEND	2	EACH	$966.00	$1,932.00						0.00		0.00		0.00		0.00	$0.00	$0.00
322	8 INCH 11.25° OR 22.5° BEND	1	EACH	$958.00	$958.00						0.00		0.00		0.00		0.00	$0.00	$0.00
323	10 INCH X 8 INCH X 10 INCH TEE	1	EACH	$4,464.00	$4,464.00						0.00		0.00		0.00		0.00	$0.00	$0.00
324	8 INCH by 6 inch TEE	3	EACH	$2,115.00	$6,345.00						0.00		0.00		0.00		0.00	$0.00	$0.00
325	8 INCH TO 6 INCH REDUCER	1	EACH	$849.00	$849.00						0.00		0.00		0.00		0.00	$0.00	$0.00
326	8 INCH C900, DR-18 PVC WATERLINE PIPE	1,675	FOOT	$57.70	$53,597.50						0.00		0.00		0.00		0.00	$0.00	$0.00
327	CUT, CAP, & AND ABANDON WATERLINE	1	LUMP	$4,623.00	$4,623.00						0.00		0.00		0.00		0.00	$0.00	$0.00
328	REPLACE FIRE HYDRANT	3	EACH	$9,351.00	$28,053.00						0.00		0.00		0.00		0.00	$0.00	$0.00
329	1 INCH BRASS TAPPING SADDLE	12	EACH	$3,544.00	$27,328.00						0.00		0.00		0.00		0.00	$0.00	$0.00
330	1 INCH PRESSURIZED IRRIGATION SERVICE LINE	5	EACH	$1,796.00	$8,980.00						0.00		0.00		0.00		0.00	$0.00	$0.00
331	RECONSTRUCT CULINARY WATER SERVICE	32	EACH	$3,164.00	$101,248.00						0.00		0.00		0.00		0.00	$0.00	$0.00
332	8 INCH TEE	2	EACH	$2,093.00	$4,186.00						0.00		0.00		0.00		0.00	$0.00	$0.00
333	Remove CONCRETE WATERWAY	22	SQ YD	$23.80	$523.60						0.00		0.00		0.00		0.00	$0.00	$0.00
334	CONCRETE WATERWAY	28	SQ YD	$199.00	$5,572.00						0.00		0.00		0.00		0.00	$0.00	$0.00
335	1 INCH BRASS CORP STOP	10	EACH	$733.00	$7,330.00						0.00		0.00		0.00		0.00	$0.00	$0.00
		Subtotal			$759,746.90													$0.00	$0.00
		Total			$4,894,808.21														

TOTAL	$518,756.39	$2,161,297.35
AMOUNT RETAINED	$25,937.82	$118,064.87
RETAINAGE RELEASED		$0.00
PREVIOUS RETAINAGE		$92,127.05
PREVIOUS PAYMENTS		$1,750,413.91
AMOUNT DUE	$492,818.57	$492,818.57

Item 30, 32, 35 Still need to be confirmed in the field, these will need to be adjusted at a later date if they are wrong

As per requested by Reanson 6 was removed from the 2" and placed on the 1"

Condie Consturction Company
53 N 1650 W
Springville, UT 84663

Pay Application-06

To: Pleasant Grove City	**Application Period:** **From:** Condie Construction Company	**Application Date:** 8/7/26-8/21/26 **Engineer : Shawn Pitts/BrittonTveten, RB&G Engineering**
Project: Pleasant Grove 800 North Area Waterline, Drainage And Roadway Reconstruct	**Contractor's Project No:** 2602	**Engineer's Project No:**

Contract Change Orders				
Number	**Additions**		**Deductions**	
CO 1 Combined	$	47,558.31		
CO 2 Reconstruct Culinary/Mismarked Utilites	$	530,778.90		
Co 3 Mahogany	$	759,746.90		
Co-4 Half Loop 1450 West	$	-		
Down Time Corroded Sadle				
1.5 " Service All Star				
2" Service Quick Quack				
Service Strike Mahogany 1072 North (2 Hours)				
			$	-
TOTAL NET CHANGE	$	1,338,084.11	$	-

1. ORIGINAL CONTRACT PRICE	$3,556,724.10
2. Net Change by Change Requests	$ 1,338,084.11
3. Current Contract Price (Line 1 & Line 2)	**$4,894,808.21**
4. TOTAL COMPLETED	$2,370,363.36
4a MATERIAL ON HAND	$0.00
5. RETAINAGE: 5%	
a. Work Completed	$118,518.17
b. Material on Hand	$0.00
c. Total Retainage (Line 5a = Line 5b)	
6. AMOUNT ELIGIBLE TO DATE (Line 4 + Line 4a - Line 5c)	$2,251,845.19
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	$1,750,413.91
8. AMOUNT DUE THIS APPLICATION	**$501,431.28**
9. BALANCE TO FINISH (Column G on Progress Estimate + Line 5 above)	$2,642,963.02
Percent Complete of the Contract:	*46.00%*

Contractor's Certification

The Contractor certifies that all work including materials and equipment on hand, covered by this Partial Payment has been completed or delivered in accordance with the Contract Documents, that all amounts have been paid by him for work, materials, and equipment for which previous Partial Payments were issued and received from the Owner, and that the current payment shown herein is now due.

Requested By:

Bronson Brandt — Date
Condie Construction Company

Approved By:

Owner — Date
Pleasant Grove City

Engineer — Date
Britton Tveten

Condie Construction Company

For:	Project: Pleasant Grove 800 North Area Waterline, Drainage And Roadway Reconstruct							Contractor's Application for Payment No. 06				
Application Period:								Application Date: 8/21/2026				
Item No.	Description	Specification	Quantity	Unit	Unit Price	Extended Amt	Previous Quantity	Previous Amount	Current Quantity	Current Amount	Total Quantity	Total Amount
1	MOBILIZATION AND DEMOBILIZATION		1	LS	$213,000.00	$213,000.00	0.55	$117,150.00	0.25	$53,250.00	0.80	$170,400.00
2	CONSTRUCTION TRAFFIC CONTROL		1	LS	$44,158.00	$44,158.00	0.4	$17,663.20	0.25	$11,039.50	0.65	$28,702.70
3	SURVEY		1	LS	$6,933.00	$6,933.00	0.4	$2,773.20	0.25	$1,733.25	0.65	$4,506.45
4	PUBLIC INVOLVEMENT AND INFORMATION SERVICES		1	LS	$20,263.00	$20,263.00	0.4	$8,105.20	0.25	$5,065.75	0.65	$13,170.95
5	TEMPORARY CONTROLS AND BMPS	101	1	SY	$7,848.00	$7,848.00	0.4	$3,139.20	0.25	$1,962.00	0.65	$5,101.20
6	REMOVE CONCRETE FLATWORK (walk,driveways,ramp, C&G)	102	400	SY	$18.20	$7,280.00	392.23	$7,138.59		$0.00	392.23	$7,138.59
7	REMOVE CONCRETE WATERWAY	103	175	SY	$23.40	$4,095.00	167.12	$3,910.61	7.88	$184.39	175.00	$4,095.00
8	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)	104	24730	SY	$2.60	$64,298.00	2197	$5,712.20	11,885.00	$30,901.00	14,082.00	$36,613.20
9	GRANULAR BORROW (Soft Spot Repair)	105	500	CY	$74.10	$37,050.00		$0.00		$0.00	-	$0.00
10	OVER EXCAVATION (Soft Spot Repair)	106	500	CY	$21.50	$10,750.00		$0.00		$0.00	-	$0.00
11	UNTREATED BASE COURSE (Supplemental)	107	2600	TON	$27.80	$72,280.00		$0.00		$0.00	-	$0.00
12	CEMENT	108	52	TON	$397.00	$20,644.00		$0.00		$0.00	-	$0.00
13	CEMENT TREATED BASE COURSE (8 INCH THICK)	109	24730	SY	$5.80	$143,434.00		$0.00		$0.00	-	$0.00
14	HMA 1/2 INCH (Pg 64-34)	110	4760	TON	$103.00	$490,280.00		$0.00		$0.00	-	$0.00
15	MONOLITHIC C&G AND SIDEWALK	111	200	SY	$198.00	$39,600.00	161.17	$31,911.66	38.83	$7,688.34	200.00	$39,600.00
16	CONCRETE WATERWAY	112	175	SY	$192.00	$33,600.00	142.16	$27,294.72	32.84	$6,305.28	175.00	$33,600.00
17	PEDESTRIAN ACCESS RAMP	113	14	EA	$3,242.00	$45,388.00		$0.00	6.00	$19,452.00	6.00	$19,452.00
18	RECONSTRUCT VALVE BOX	114	54	EA	$552.00	$29,808.00	27	$14,904.00		$0.00	27.00	$14,904.00
19	RECONSTRUCT MANHOLE	115	33	EA	$908.00	$29,964.00	16.5	$14,982.00		$0.00	16.50	$14,982.00
20	6 INCH RESILIENT WEDGE GATE VALVE	216	13	EA	$2,123.00	$27,599.00	13	$27,599.00		$0.00	13.00	$27,599.00
21	8 INCH RESILIENT WEDGE GATE VALVE	204	23	EA	$2,837.00	$65,251.00	22	$62,414.00		$0.00	22.00	$62,414.00
22	8 INCH 45 BEND	205	11	EA	$725.00	$7,975.00	11	$7,975.00		$0.00	11.00	$7,975.00
23	8 INCH 11.25 OR 22.5 BEND	206	12	EA	$724.00	$8,688.00	12	$8,688.00		$0.00	12.00	$8,688.00
24	8 INCH TEE	207	20	EA	$1,203.00	$24,060.00	20	$24,060.00		$0.00	20.00	$24,060.00
25	8 INCH TO 6 INCH REDUCER	208	4	EA	$614.00	$2,456.00	4	$2,456.00		$0.00	4.00	$2,456.00
26	8 INCH C900,DR-18 PVC WATERLINE PIPE	209	5650	LF	$63.30	$357,645.00	5650	$357,645.00		$0.00	5,650.00	$357,645.00
27	CUT,CAP & ABANDON WATERLINE	210	1	LS	$5,283.00	$5,283.00	1	$5,283.00		$0.00	1.00	$5,283.00
28	REPLACE FIRE HYDRANT	202	12	EA	$7,726.00	$92,712.00	12	$92,712.00		$0.00	12.00	$92,712.00
29	1 INCH BRASS TAPPING SADDLE	213	26	EA	$727.00	$18,902.00	26	$18,902.00		$0.00	26.00	$18,902.00

30	2 INCH BRASS TAPPING SADDLE	212	61	EA	$756.00	$46,116.00	24	$18,144.00	27.00	$20,412.00	51.00	$38,556.00
31	2 INCH CULINARY SERVICE MANIFOLD WITH (4) 1 INCH SERVICES	211	61	EA	$2,876.00	$175,436.00	22	$63,272.00	29.00	$83,404.00	51.00	$146,676.00
32	1 INCH PRESSURIZED IRRIGATION SERVICE LINE	214	99	EA	$862.00	$85,338.00		$0.00		$0.00	-	$0.00
33	4 INCH PRESSURIZED IRRIGATION DRAIN	217	1	EA	$3,830.00	$3,830.00		$0.00	1.00	$3,830.00	1.00	$3,830.00
34	PRESSURIZED IRRIGATION BLOW OFF	218	1	EA	$4,875.00	$4,875.00		$0.00		$0.00	-	$0.00
35	RECONSTRUCT CULINARY WATER SERVICE	215	26	EA	$2,121.00	$55,146.00	117	$248,157.00	108.00	$229,068.00	225.00	$477,225.00
	SCHEDULE 2-540 NORTH TO 1570 WEST AREA ADDITIVE ALT.1							$0.00		$0.00	-	$0.00
36	MOBILIZTAION/DEMOBILIZATION		1	LS	$104,443.00	$104,443.00	0.55	$57,443.65	0.25	$26,110.75	0.80	$83,554.40
37	CONSTRUCTION TRAFFIC CONTROL		1	LS	$18,120.00	$18,120.00	0.4	$7,248.00	0.25	$4,530.00	0.65	$11,778.00
38	SURVEY		1	LS	$5,219.00	$5,219.00	0.4	$2,087.60	0.25	$1,304.75	0.65	$3,392.35
39	PUBLIC INVOLVEMENT AND INFORMATION SERVICES		1	LS	$4,605.00	$4,605.00	0.4	$1,842.00	0.25	$1,151.25	0.65	$2,993.25
40	TEMPORARY CONTROLS AND BMPS	101	1	LS	$1,806.00	$1,806.00	0.4	$722.40	0.25	$451.50	0.65	$1,173.90
41	REMOVE CONCRETE FLATWORK (walk,driveways,ramp, C&G)	102	400	SY	$18.20	$7,280.00	396	$7,207.20	10.00	$182.00	406.00	$7,389.20
42	REMOVE CONCRETE WATERWAY	103	115	SY	$21.10	$2,426.50	111	$2,342.10	4.00	$84.40	115.00	$2,426.50
43	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)	104	12208	SY	$2.70	$32,961.60	1050	$2,835.00		$0.00	1,050.00	$2,835.00
44	GRANULAR BARROW (Soft Spot Repair)	105	500	CY	$74.10	$37,050.00		$0.00		$0.00	-	$0.00
45	OVER EXCAVATION (Soft Spot Repair)	106	500	CY	$21.50	$10,750.00		$0.00		$0.00	-	$0.00
46	UNTREATED BASE COURSE (Supplemental)	107	1275	TON	$31.00	$39,525.00		$0.00		$0.00	-	$0.00
47	CEMENT	108	26	TON	$397.00	$10,322.00		$0.00		$0.00	-	$0.00
48	CEMENT TREATED BASE COURSE (8 INCH THICK)	109	12208	SY	$5.50	$67,144.00		$0.00		$0.00	-	$0.00
49	HMA 1/2 INCH (Pg 64-34)	110	2025	TON	$103.00	$208,575.00		$0.00		$0.00	-	$0.00
50	MONOLITHIC C&G AND SIDEWALK	111	250	SY	$175.00	$43,750.00	216.6	$37,905.00		$0.00	216.60	$37,905.00
51	CONCRETE DRIVEWAY 6 INCHES THICK	116	80	SY	$179.00	$14,320.00	76.48	$13,689.92	3.52	$630.08	80.00	$14,320.00
52	CONCRETE WATERWAY	112	115	SY	$189.00	$21,735.00	52.65	$9,950.85	32.35	$6,114.15	85.00	$16,065.00
53	PEDESTRIAN ACCESS RAMP	113	8	EA	$3,242.00	$25,936.00		$0.00	4.00	$12,968.00	4.00	$12,968.00
54	RECONSTRUCT VALVE BOX	114	37	EA	$552.00	$20,424.00	18.5	$10,212.00		$0.00	18.50	$10,212.00
55	RECONSTRUCT MANHOLE	115	11	EA	$908.00	$9,988.00	5.5	$4,994.00		$0.00	5.50	$4,994.00
56	8 INCH RESILIENT WEDGE GATE VALVE	204	17	EA	$2,838.00	$48,246.00	17	$48,246.00		$0.00	17.00	$48,246.00
57	8 INCH 45 BEND	205	1	EA	$743.00	$743.00	1	$743.00		$0.00	1.00	$743.00
58	8 INCH 11.25 OR 22.5 BEND	206	9	EA	$732.00	$6,588.00	9	$6,588.00		$0.00	9.00	$6,588.00
59	8 INCH TEE	207	8	EA	$1,335.00	$10,680.00	8	$10,680.00		$0.00	8.00	$10,680.00
60	8 INCH TO 6 INCH REDUCER	208	2	EA	$618.00	$1,236.00	2	$1,236.00		$0.00	2.00	$1,236.00
61	8 INCH C900,DR-18 PVC WATERLINE PIPE	209	2700	LF	$62.30	$168,210.00	2700	$168,210.00		$0.00	2,700.00	$168,210.00
62	CUT,CAP & ABANDON WATERLINE	210	1	LS	$5,004.00	$5,004.00	1	$5,004.00		$0.00	1.00	$5,004.00
63	REPLACE FIRE HYDRANT	202	5	EA	$8,413.00	$42,065.00	5	$42,065.00		$0.00	5.00	$42,065.00
64	1 INCH BRASS TAPPING SADDLE	213	54	EA	$727.00	$39,258.00	54	$39,258.00		$0.00	54.00	$39,258.00
65	1 INCH PRESSURIZED IRRIGATION SERVICE LINE	214	54	EA	$851.00	$45,954.00		$0.00		$0.00	-	$0.00
66	RECONSTRUCT CULINARY WATER SERVICE	215	54	EA	$2,125.00	$114,750.00	54	$114,750.00		$0.00	54.00	$114,750.00
67	EARLY COMPLETION BONUS		1	LS	$75,000.00	$75,000.00		$0.00		$0.00	-	$0.00
68	6 INCH RESILIENT WEDGE GATE VALVE	216	5	EA	$2,125.00	$10,625.00	5	$10,625.00		$0.00	5.00	$10,625.00

	Original Contract Total:					**$3,556,724.10**							
	Change Order Sequence:												
101	PCO1A-Change all steel nuts/bolts to stainless		1	LS	$ 6,142.68	$ 6,142.68	1.00	$6,142.68		$0.00	1.00	$6,142.68
102	8" Pipe Joint Restraints (Pais as needed)		4	EA	$ 304.07	$ 1,216.28	8.00	$2,432.56		$0.00	8.00	$2,432.56
103	PCO1B-830 W 800 N Premiere Health		1	LS	$ 8,966.00	$ 8,966.00	1.00	$8,966.00		$0.00	1.00	$8,966.00
104	PCO-02 Slag/Flowable Fill Removal Trench		1	LS	$ 4,022.32	$ 4,022.32	1.00	$4,022.32		$0.00	1.00	$4,022.32
107	PCO2- 2" Service Meter connections.		2	EA	$ 12,048.00	$ 24,096.00	1.00	$12,048.00		$0.00	1.00	$12,048.00
108	PCO-4 Down Time for mismarked sewer lateral-Leak		1	LS	$ 3,115.03	$ 3,115.03	1.00	$3,115.03		$0.00	1.00	$3,115.03
	PCO-1 Cobminded Total	1	1	LS	$ 47,558.31	$ 47,558.31		$0.00		$0.00	-	$0.00
*35	Overrun Line Item 35 Recon Cul Water Svc's 4 Plexes					$ -		$0.00		$0.00	-	$0.00
201	PCO-06 Mismarked Utilities 5/12/26		1	LS	$ 2,621.26	$ 2,621.26	1.00	$2,621.26		$0.00	1.00	$2,621.26
202	PCO-07 Mismarked Utilities 5/14-15/26		2	LS	$ 5,316.82	$ 10,633.64	1.00	$5,316.82		$0.00	1.00	$5,316.82
	PCO-02 Combined Total	2	1	LS	$ 530,778.90	$ 530,778.90		$0.00		$0.00	-	$0.00
401	1450 West Half Loop		1	LS	$ 7,882.07	$ 7,882.07				$0.00		$0.00
402	Down Time Corroded Sadle		1	LS	$ 1,408.01	$ 1,408.01				$0.00		$0.00
403	1.5 " Service All Star		1	LS	$ 10,609.67							
404	2" Service Quick Quack		1	LS	$ 12,084.14							
405	Service Strike Mahogany 1072 North (2 Hours)		1	LS	$ 1,557.51							
	Mahogany PCO-03					$ -						
301	MOBILIZATION AND DEMOBILIZATION		1	LS	$ 80,000.00	$ 80,000.00		$0.00		$0.00	-	$0.00
302	CONSTRUCTION TRAFFIC CONTROL		1	LS	$ 10,000.00	$ 10,000.00		$0.00		$0.00	-	$0.00
303	SURVEY		1	LS	$ 3,876.00	$ 3,876.00		$0.00		$0.00	-	$0.00
304	PUBLIC INVOLVEMENT AND INFO		1	LS	$ 4,500.00	$ 4,500.00		$0.00		$0.00	-	$0.00
305	TEMPORARY CONTROLLS BMPS		1	LS	$ 5,523.00	$ 5,523.00		$0.00		$0.00	-	$0.00
306	REMOVE CONCRETE FLATWORK (walk,driveways,ramp, C&G)		12	SY	$ 32.60	$ 391.20		$0.00		$0.00	-	$0.00
307	REMOVE ASPHALT PAVEMENT (PLAN QUANTITY)		6,875	SY	$ 3.30	$ 22,687.50		$0.00		$0.00	-	$0.00
308	GRANULAR BARROW (Soft Spot Repair)		250	CY	$ 91.40	$ 22,850.00		$0.00		$0.00	-	$0.00
309	OVER EXCAVATION (Soft Spot Repair)		250	CY	$ 36.10	$ 9,025.00		$0.00		$0.00	-	$0.00
310	UNTREATED BASE COURSE (Supplemental)		750	TN	$ 31.30	$ 23,475.00		$0.00		$0.00	-	$0.00
311	CEMENT		140	TN	$ 417.00	$ 58,380.00		$0.00		$0.00	-	$0.00
312	CEMENT TREATED BASE COURSE (8 INCH THICK)		6,875	SY	$ 6.50	$ 44,687.50		$0.00		$0.00	-	$0.00
313	HMA 1/2 INCH (Pg 64-34)		1,200	TN	$ 109.00	$ 130,800.00		$0.00		$0.00	-	$0.00
314	MONOLITHIC C&G AND SIDEWALK		10	SY	$ 295.00	$ 2,950.00		$0.00		$0.00	-	$0.00
315	24" CONCRETE CURB AND GUTTER		30	LF	$ 107.00	$ 3,210.00		$0.00		$0.00	-	$0.00
316	RECONSTRUCT VALVE BOX		17	EA	$ 720.00	$ 12,240.00		$0.00		$0.00	-	$0.00
317	RECONSTRUCT MANHOLE		7	EA	$ 1,047.00	$ 7,329.00		$0.00		$0.00	-	$0.00
318	6 INCH RESILIENT WEDGE GATE VALVE		3	EA	$ 2,388.00	$ 7,164.00		$0.00		$0.00	-	$0.00
319	8 INCH RESILIENT WEDGE GATE VALVE		3	EA	$ 3,259.00	$ 9,777.00		$0.00		$0.00	-	$0.00
320	10 INCH RESILIENT GATE VALVE		1	EA	$ 4,522.00	$ 4,522.00		$0.00		$0.00	-	$0.00

321	8 INCH 45 BEND		2	EA	$ 966.00	$ 1,932.00		$0.00		$0.00	-	$0.00
322	8 INCH 11.25 OR 22.5 BEND		1	EA	$ 958.00	$ 958.00		$0.00		$0.00	-	$0.00
323	10 INCH X 8 INCH X 10 INCH TEE		1	EA	$ 4,464.00	$ 4,464.00		$0.00		$0.00	-	$0.00
324	8 INCH BY 6 INCH TEE		3	EA	$ 2,115.00	$ 6,345.00		$0.00		$0.00	-	$0.00
325	8 INCH TO 6 INCH REDUCER		1	EA	$ 849.00	$ 849.00		$0.00		$0.00	-	$0.00
326	8 INCH C900 DR-18 PVC WATERLINE PIPE		1,025	LF	$ 91.70	$ 93,992.50		$0.00		$0.00	-	$0.00
327	CUT,CAP & ABANDOND WATERLINE		1	LS	$ 4,623.00	$ 4,623.00		$0.00		$0.00	-	$0.00
328	REPLACE FIRE HYDRANT		3	EA	$ 9,351.00	$ 28,053.00		$0.00		$0.00	-	$0.00
329	1" BRASS TAPPING SADDLE		32	EA	$ 854.00	$ 27,328.00		$0.00		$0.00	-	$0.00
330	1 INCH PRESSSURIZED IRRIGATION SERVICE LINE		5	EA	$ 1,796.00	$ 8,980.00		$0.00		$0.00	-	$0.00
331	RECONSTRUCT CULINARY WATER SERVICE		32	EA	$ 3,164.00	$ 101,248.00		$0.00		$0.00	-	$0.00
332	8 INCH TEE		2	EA	$ 2,083.00	$ 4,166.00		$0.00		$0.00	-	$0.00
333	REMOVE CONCRETE WATERWAY		22	SY	$ 23.60	$ 519.20		$0.00		$0.00	-	$0.00
334	CONCRETE WATERWAY		28	SY	$ 199.00	$ 5,572.00		$0.00		$0.00	-	$0.00
335	1 INCH BRASS CORP STOP		10	EA	$ 733.00	$ 7,330.00		$0.00		$0.00	-	$0.00
												$0.00
										$0.00		$0.00
				Change Order Total:		$ 1,345,966.18						
				Current Contract Amount:		$ 4,902,690.28	Previous Billings:	$1,842,540.96	PA-05 TOTAL:	$527,822.39	BTD:	$2,370,363.36

Agenda

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							
3080	FRATERNAL ORDER OF	08122026	PD/DUES	08/12/2026	621.00	.00	
10-15820 SDA EXPENSE ACCOUNT							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	405.61	.00	
10-21230 STATE INSURANCE PAYABLE							
8954	UTAH LOCAL GOVT. INS.	M1628289	WORKERS COMP	08/03/2026	12,837.95	.00	
10-21250 LIFE INSURANCE PAYABLE							
8265	THE LINCOLN NATIONAL	08012026	INSURANCE PREMIUM	08/01/2026	7,203.97	.00	
10-21355 CASH BONDS (NEW)							
6208	PG AQUISITIONS LLC	08182026	CONSTRUCTION BOND RELEASE	08/18/2026	80,000.00	.00	
9150	VILLAGE SQUARE PG, LL	07072026	STREET LIGHT BOND INTEREST	07/06/2026	48.50	.00	
10-24260 VOLUNTARY INSURANCE PAYABLE							
309	AM. FAMILY LIFE ASSUR	830608	SUSPENSE PREMIUM	08/12/2026	205.90	.00	
9288	WASHINGTON NATIONAL	P2665681	INSURANCE PREMIUM	08/01/2026	309.90	.00	
10-24350 SENIOR CITIZEN CLEARING							
5478	MOUNTAINLAND ASSOCI	07302026	SR. CNTR/CONTRIBUTION	07/30/2026	2,705.86	.00	
10-34-280 AMBULANCE FEES							
3350	GOLD CROSS SERVICES	4988	AMBULANCE BILLING SERVICES	07/31/2026	3,750.49	.00	
10-34-450 DEVELOPMENT INSPECTION FEES							
4815	LINDON CITY	6824	CULINARY WATER INSPCTION FEE	07/28/2026	70.00	.00	
4815	LINDON CITY	6824	SEWER INSPECTION FEE	07/28/2026	70.00	.00	
Total :					108,229.18	.00	
JUDICIAL							
10-42-240 OFFICE EXPENSE							
2122	CULLIGAN BOTTLED WA	465X30532909	JUDICIAL/DRINKING WATER	08/01/2026	34.60	.00	
6203	PETTY CASH-TREASURE	06302026	ADM/PETTY CASH EXPENSE	06/30/2026	19.33	.00	
10-42-330 PROFESSIONAL SERVICES							
1350	CAMPBELL SOLUTIONS L	251500227	JUDICIAL/INYTERPRETER SERVICE	06/17/2026	114.00	.00	
Total JUDICIAL:					167.93	.00	
NON-DEPARTMENTAL							
10-43-220 PRINTING AND PUBLICATION							
3151	FREEDOM MAILING SER	53558	NEWSLETTERS	08/04/2026	76.10	.00	
8730	UPPER CASE PRINTING,	4731	NEWLETTER PRINTING	08/04/2026	1,171.62	.00	
10-43-310 LEGAL SERVICES							
7862	STANDARD EXAMINER	070475	LEGAL NOTICES	07/31/2026	1,090.00	.00	
10-43-330 PROFESSIONAL SERVICES							
9018	UTAH TRANSPARENCY S	2026-0116	QUARTERLY UPLOAD	08/11/2026	500.00	.00	
10-43-385 SPECIAL EVENTS							
5033	MACEYS	394767	CITY SUMMER PARTY	08/06/2026	261.58	.00	
5033	MACEYS	394768	CITY SUMMER PARTY	08/05/2026	39.90	.00	
10-43-610 MISCELLANEOUS EXPENSE							
3151	FREEDOM MAILING SER	53558	EXTRA INSERTS & MENU	08/04/2026	67.65	.00	
8730	UPPER CASE PRINTING,	4731	MENU PRINTING EXPENSE	08/04/2026	280.17	.00	
10-43-770 Public Safety Trust Fund							
2890	FIRST WATCH WELLNES	1000JULY2026	COUNSELING SERVICES	08/05/2026	356.00	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total NON-DEPARTMENTAL:				3,843.02	.00	
LEGAL SERVICES							
10-44-240 OFFICE EXPENSE							
6203	PETTY CASH-TREASURE	06302026	ADM/PETTY CASH EXPENSE	06/30/2026	11.95	.00	
	Total LEGAL SERVICES:				11.95	.00	
ADMINISTRATIVE SERVICES							
10-46-220 PRINTING AND PUBLICATION							
5721	NOTATEK	105883	LOOK UP SLOW DOWN YARD SIGN	08/14/2026	503.77	.00	
10-46-240 OFFICE EXPENSE							
6343	PLEASANT GROVE PRIN	11967	ADM/ENVELOPES	08/05/2026	590.50	.00	
10-46-250 VEHICLE EXPENSE							
6203	PETTY CASH-TREASURE	06302026	ADM/PETTY CASH EXPENSE	06/30/2026	7.20	.00	
10-46-280 TELEPHONE EXPENSE							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	40.01	.00	
10-46-610 MISCELLANEOUS EXPENSE							
5033	MACEYS	437496	ADM/WATER	08/12/2026	191.52	.00	
6343	PLEASANT GROVE PRIN	11966	ADM/PICTURES ON FOAM CORE	08/05/2026	315.00	.00	
	Total ADMINISTRATIVE SERVICES:				1,648.00	.00	
FACILITIES							
10-47-480 DEPARTMENTAL SUPPLIES							
239	ALLRED'S ACE HARDWA	K39150/1	BUILDING MAINTENANCE	07/30/2026	8.63	.00	
10-47-520 CITY HALL - POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	1,908.38	.00	
10-47-530 CITY HALL - BLDG MAINTENANCE							
3327	GILES, CRAIG KAY	977949	CITY HALL/BACKDOOR REPAIR	07/30/2026	170.00	.00	
10-47-540 CITY HALL - BLDGE MAINT							
239	ALLRED'S ACE HARDWA	D81044/1	BUILDING MAINTENANCE-SMOKE	07/28/2026	8.64-	.00	
239	ALLRED'S ACE HARDWA	K39111/1	BUILDING MAINTENANCE	07/28/2026	27.83	.00	
10-47-550 PARKS - LIGHTS							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	537.77	.00	
10-47-560 PARKS - BUILDING MAINTENANCE							
239	ALLRED'S ACE HARDWA	K39130/1	BUILDING MAINTENANCE	07/29/2026	1.57	.00	
1870	CODALE ELECTRIC SUP	S010121062.0	BUILDING MAINTENANCE	07/27/2026	27.32	.00	
10-47-580 OLD BELL SCHOOL - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.16	.00	
10-47-600 POLICE - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	72.28	.00	
10-47-620 POLICE - BLDG MAINT							
3327	GILES, CRAIG KAY	977948	PD/ADA OPENERS	08/01/2026	9,950.00	.00	
10-47-640 FIRE/AMBULANCE - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	62.72	.00	
10-47-650 FIRE/AMBULANCE - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	2,135.49	.00	
10-47-660 FIRE/AMBULANCE - BLDG MAINT							
6640	PYE-BAKER FIRE & SAFE	8872864	SERVICE CALL	07/24/2026	259.95	.00	
10-47-680 CEMETERY BLDG - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.16	.00	
10-47-690 CEMETERY BLDG - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	25.92	.00	
10-47-710 LIBRARY/SENIOR - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	24.57	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
10-47-720 LIBRARY/SENIOR - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	1,618.77	.00	
10-47-730 LIBRARY/SENIOR - BLDG MAINT							
6640	PYE-BAKER FIRE & SAFE	8780333	LIB/FIRE MONITORING	08/01/2026	247.20	.00	
6640	PYE-BAKER FIRE & SAFE	8780334	LIB/ELEVATOR MONITORING	08/01/2026	91.83	.00	
10-47-750 PUMP HOUSE - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.66	.00	
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.15	.00	
10-47-760 PUBLIC WORKS - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.16	.00	
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	20.71	.00	
10-47-770 PUBLIC WORKS - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	1,485.87	.00	
10-47-780 PUBLIC WORKS - BLDG MAINT							
6525	PROFESSIONAL HEATIN	85181	PUB WORKS/SERVICE CALL	07/22/2026	379.00	.00	
10-47-790 RENTAL PROPERTY EXPENSES							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.66	.00	
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	316.29	.00	
10-47-810 SR CENTER - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	12.26	.00	
10-47-820 SR CENTER - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	589.52	.00	
10-47-845 LIONS CENTER HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	12.44	.00	
10-47-910 ARTS - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	371.83	.00	
10-47-920 HISTORIC LIBRARY-HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	7.66	.00	
10-47-930 HISTORIC LIBRARY - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	104.75	.00	
Total FACILITIES:					20,505.87	.00	
ENGINEERING							
10-51-210 MEETINGS & MEMBERSHIPS							
5033	MACEYS	407618	PUBLIC WORKS/SUPPLIES	06/08/2026	49.63	.00	
10-51-300 PPE SAFETY & UNIFORM							
1368	C-A-L RANCH STORES	16929/8	ENG/CLOTHING	08/18/2026	278.94	.00	
10-51-332 PROFESSIONAL SERVICES							
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	246.08	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	2,606.84	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	3,067.04	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	1,791.04	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	162.00	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	808.32	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	332.28	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	162.00	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	657.10	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	159.50	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	159.50	.00	
10-51-610 MISCELLANEOUS EXPENSE							
6343	PLEASANT GROVE PRIN	11966	PICTURES ON FOAM CORE	08/05/2026	105.00	.00	
10-51-745 SIGNALS & FLASHERS							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	141.47	.00	
Total ENGINEERING:					10,726.74	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
COMMUNITY DEVELOPMENT							
10-52-210 MEETINGS & MEMBERSHIPS							
8954	UTAH LOCAL GOVT. INS.	M1628288	NOYTARY FOR MARIA ARTEAGA	08/03/2026	40.00	.00	
10-52-240 OFFICE EXPENSE							
6343	PLEASANT GROVE PRIN	11965	COM DEV/BUSINESS CARDS	08/05/2026	285.00	.00	
10-52-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	198.76	.00	
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	80.02	.00	
10-52-332 PROFESSIONAL SERVICES							
6130	PETERSON, KENNETH C	26-006	COM DEV/CONTRACTED SERVICE	07/29/2026	980.00	.00	
Total COMMUNITY DEVELOPMENT:					1,583.78	.00	
POLICE DEPARTMENT							
10-54-240 OFFICE EXPENSE							
990	BLUEFIN OFFICE GROUP	025719.00	PD/OFFICE SUPPLIES	08/11/2026	43.48	.00	
2122	CULLIGAN BOTTLED WA	465X30512307	PD/OFFICE SUPPLIES	07/31/2026	39.85	.00	
10-54-250 VEHICLE EXPENSE							
3468	GREASE MONKEY #790	334739	PD/VEHICLE EXPENSE	08/05/2026	136.78	.00	
3468	GREASE MONKEY #790	334841	PD/VEHICLE EXPENSE	08/07/2026	181.76	.00	
3468	GREASE MONKEY #790	334991	PD/VEHICLE EXPENSE	08/10/2026	136.18	.00	
3468	GREASE MONKEY #790	335072	PD/VEHICLE EXPENSE	08/12/2026	132.28	.00	
3468	GREASE MONKEY #790	335350	PD/VEHICLE EXPENSE	08/19/2026	109.79	.00	
10-54-280 TELEPHONE EXPENSE							
1518	CENTURY LINK	07282026	PD/ALARM PHONE LINE	07/28/2026	101.60	.00	
1518	CENTURY LINK	07282026	PD/ALARM PHONE LINE	07/28/2026	101.60	.00	
1518	CENTURY LINK	07282026	PD/ELEVATOR PHONE LINE	07/28/2026	82.17	.00	
10-54-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	832.04	.00	
10-54-300 UNIFORM EXPENSE							
7505	SKAGGS COMPANIES, IN	450A3480451	PD/UNIFORM EXPENSE	08/10/2026	1,633.00	.00	
10-54-421 CROSSING GUARDS							
7169	SAFETY SUPPLY & SIGN	199014	PD/VESTS	08/11/2026	362.86	.00	
10-54-480 DEPARTMENTAL SUPPLIES							
3012	FORENSIC NURSING SE	2803	PD/SPECIMEN COLLECTION	08/11/2026	647.00	.00	
3012	FORENSIC NURSING SE	2812	PD/SPECIMEN COLLECTION	08/18/2026	420.00	.00	
7238	SANDERSON, CASSIE	350	PD/FOAM MACHINE RENTAL AND S	08/04/2026	275.00	.00	
Total POLICE DEPARTMENT:					5,235.39	.00	
FIRE DEPARTMENT							
10-55-250 VEHICLE EXPENSE							
675	AUTO ZONE STORES, IN	06231940343	FIRE/VEHICLE MAINTENANCE	08/12/2026	35.63	.00	
3468	GREASE MONKEY #790	335011	FIRE/VEHICLE EXPENSE	08/11/2026	131.39	.00	
10-55-280 TELEPHONE EXPENSE							
9131	VERIZON WIRELESS	6150057039	FIRE/CRADLE POINT SERVICE	08/01/2026	120.10	.00	
10-55-300 UNIFORM EXPENSE							
7505	SKAGGS COMPANIES, IN	450A3568152	FIRE/UNIFORM EXPENSE	08/06/2026	1,746.60	.00	
10-55-480 DEPARTMENTAL SUPPLIES							
2123	CULLIGAN WATER COND	465X30505202	FIRE/WATER CONDITIONING	07/31/2026	153.50	.00	
10-55-490 SCHOOLING AND TRAINING							
9029	UTAH VALLEY UNIVERSI	AC30633	FIRE/SKILLS EXAM	07/27/2026	75.00	.00	
9029	UTAH VALLEY UNIVERSI	AC30638	FIRE/SKILLS EXAM	07/27/2026	85.00	.00	
Total FIRE DEPARTMENT:					2,347.22	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
STREETS							
10-60-210 MEETINGS & MEMBERSHIPS							
5033	MACEYS	407618	PUBLIC WORKS/SUPPLIES	06/08/2026	49.63	.00	
10-60-250 VEHICLE EXPENSE							
675	AUTO ZONE STORES, IN	06231930288	STREETS/VEHICLE EXPENSE	07/29/2026	8.72	.00	
10-60-275 STREET LIGHT POWER							
7062	ROCKY MOUNTAIN POW	07312026	STREET LIGHT	07/31/2026	111.84	.00	
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	2,964.90	.00	
10-60-277 Street Light Installation Dev							
7062	ROCKY MOUNTAIN POW	07212026	STREET LIGHTS 2320 N CANYON R	07/21/2026	1,605.60	.00	
7062	ROCKY MOUNTAIN POW	08042026	STREET LIGHT-LABOR-880 S STAT	08/04/2026	69.80	.00	
10-60-278 STREET LIGHT MAINTENANCE							
972	BLACK & McDONALD	76-1936912	STREET LIGHT MAINTENANCE	04/30/2026	159.33	.00	
972	BLACK & McDONALD	76-1936915	STREET LIGHT MAINTENANCE	04/30/2026	55.16	.00	
972	BLACK & McDONALD	76-1936917	STREET LIGHT MAINTENANCE	04/30/2026	55.16	.00	
972	BLACK & McDONALD	76-1937264	STREET LIGHT MAINTENANCE	04/30/2026	6,225.29	.00	
972	BLACK & McDONALD	76-1977320	STREET LIGHT MAINTENANCE	07/31/2026	282.08	.00	
972	BLACK & McDONALD	76-1977321	STREET LIGHT MAINTENANCE	07/31/2026	282.08	.00	
972	BLACK & McDONALD	76-1977323	STREET LIGHT MAINTENANCE	07/31/2026	110.32	.00	
972	BLACK & McDONALD	76-1977326	STREET LIGHT MAINTENANCE	07/31/2026	211.21	.00	
10-60-480 DEPARTMENTAL SUPPLIES							
1760	CINTAS CORP	5350375302	MULTI DEPT/FIRST AID SUPPLIES	07/28/2026	43.33	.00	
2467	DOUBLE D BOLT	296287	STREETS/DEPARTMENTAL SUPPLI	01/03/2024	298.26	.00	
10-60-610 MISCELLANEOUS EXPENSE							
6343	PLEASANT GROVE PRIN	11966	PICTURES ON FOAM CORE	08/05/2026	105.00	.00	
Total STREETS:					12,637.71	.00	
LIBRARY							
10-65-240 OFFICE EXPENSE							
308	AMAZON CAPITAL SERVI	14GV-LJX6-G9	LIB/ASSORTED SUPPLIES	08/01/2026	83.18	.00	
308	AMAZON CAPITAL SERVI	16VL-6MDH-J	LIB/ASSORTED SUPPLIES	08/01/2026	53.23	.00	
308	AMAZON CAPITAL SERVI	1CXY-61GT-W	LIB/OFFICE SUPPLIES	08/01/2026	3.99	.00	
308	AMAZON CAPITAL SERVI	1HQQ-VPCW-	LIB/OFFICE SUPPLIES	08/01/2026	328.36	.00	
308	AMAZON CAPITAL SERVI	1LMR-YXQN-G	LIB/OFFICE SUPPLIES	08/01/2026	106.76	.00	
308	AMAZON CAPITAL SERVI	1YCL-R9VJ-KD	LIB/ASSORTED SUPPLIES	08/01/2026	62.91	.00	
2122	CULLIGAN BOTTLED WA	465X30576401	LIB/BOTTLED WATER	07/31/2026	43.80	.00	
5729	ODP BUSINESS SOLUTIO	476186535001	LIB/OFFICE SUPPLIES	08/07/2026	42.31	.00	
10-65-280 TELEPHONE EXPENSE							
1518	CENTURY LINK	07282026	LIB/ELEVATOR LINE	07/28/2026	107.75	.00	
10-65-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	39.68	.00	
10-65-420 PROGRAMING							
308	AMAZON CAPITAL SERVI	16VL-6MDH-D	LIB/ASSORTED SUPPLIES	08/01/2026	635.90	.00	
308	AMAZON CAPITAL SERVI	16VL-6MDH-R	LIB/ASSORTED SUPPLIES	08/01/2026	33.98	.00	
308	AMAZON CAPITAL SERVI	1CXY-61GT-X9	LIB/ASSORTED SUPPLIES	08/01/2026	108.33	.00	
308	AMAZON CAPITAL SERVI	1VGT-JYNG-N	LIB/CREDIT	08/01/2026	71.76-	.00	
10-65-480 BOOKS							
308	AMAZON CAPITAL SERVI	1116F-FMF3-1	LIB/DEPARTMENTAL SUPPLIES	08/01/2026	25.04	.00	
308	AMAZON CAPITAL SERVI	1LC1-69X3-J7	LIB/ASSORTED SUPPLIES	08/01/2026	17.98	.00	
308	AMAZON CAPITAL SERVI	1T97-XQ7Q-D	LIB/BOOKS-CREDIT	08/05/2026	22.70-	.00	
308	AMAZON CAPITAL SERVI	1TCH-1N7L-G	LIB/ASSORTED SUPPLIES	08/01/2026	25.83	.00	
308	AMAZON CAPITAL SERVI	1TCH-1N7L-Y9	LIB/ASSORTED SUPPLIES	08/01/2026	8.00	.00	
308	AMAZON CAPITAL SERVI	1VGT-JYNG-9	LIB/ASSORTED SUPPLIES	08/01/2026	170.66	.00	
4159	INGRAM LIBRARY SERVI	97634050	LIB/BOOKS	07/01/2026	300.69	.00	
4159	INGRAM LIBRARY SERVI	97637846	LIB/BOOKS	07/01/2026	268.54	.00	
4159	INGRAM LIBRARY SERVI	97765769	LIB/BOOKS	07/08/2026	467.48	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
4159	INGRAM LIBRARY SERVI	97791424	LIB/BOOKS	07/09/2026	649.01	.00	
4159	INGRAM LIBRARY SERVI	97926029	LIB/BOOKS	07/15/2026	1,202.83	.00	
4159	INGRAM LIBRARY SERVI	98043400	LIB/BOOKS	07/21/2026	939.74	.00	
4159	INGRAM LIBRARY SERVI	98127046	LIB/BOOKS	07/24/2026	1,287.95	.00	
4159	INGRAM LIBRARY SERVI	98226386	LIB/BOOKS	07/29/2026	213.59	.00	
4159	INGRAM LIBRARY SERVI	98288756	LIB/BOOKS	07/31/2026	376.78	.00	
4159	INGRAM LIBRARY SERVI	98410431	LIB/BOOKS	08/06/2026	271.99	.00	
4159	INGRAM LIBRARY SERVI	98627813	LIB/BOOKS	08/17/2026	224.69	.00	
10-65-485	**AUDIO/VISUAL MATERIALS**						
6270	PLAYAWAY PRODUCTS L	544371	LIB/AUDIO MATERIALS	08/06/2026	352.44	.00	
6270	PLAYAWAY PRODUCTS L	544791	LIB/AUDIO MATERIALS	08/11/2026	461.08	.00	
6270	PLAYAWAY PRODUCTS L	544925	LIB/AUDIO MATERIALS	08/11/2026	503.47	.00	
6270	PLAYAWAY PRODUCTS L	544929	LIB/AUDIO MATERIALS	08/11/2026	166.24	.00	
10-65-640	**PROCESSING**						
308	AMAZON CAPITAL SERVI	1NR6-1W61-C	LIB/ASSORTED SUPPLIES	08/01/2026	22.99	.00	
2395	DEMCO, INC.	7835265	LIB/ASSORTED SUPPLIES	07/30/2026	741.89	.00	
10-65-750	**FURNITURE & FIXTURES**						
308	AMAZON CAPITAL SERVI	14GV-LJX6-H4	LIB/ASSORTED SUPPLIES	08/01/2026	13.52	.00	
308	AMAZON CAPITAL SERVI	1NR6-1W61-36	LIB/ASSORTED SUPPLIES	08/01/2026	46.83	.00	
308	AMAZON CAPITAL SERVI	1TQV-RN47-W	LIB/ASSORTED SUPPLIES	08/01/2026	130.72	.00	
10-65-760	**TECHNOLOGY**						
8158	TECH LOGIC CORPORAT	21005220	LIB/HARDWARE RENEWAL	07/06/2026	88.43	.00	
	Total LIBRARY:				10,534.13	.00	
SR. CITIZEN CTR & AUDITORIUM							
10-67-240	**OFFICE EXPENSE**						
8668	ULINE	211744019	SR CNTR/PAPER PRODUCTS	08/10/2026	554.44	.00	
	Total SR. CITIZEN CTR & AUDITORIUM:				554.44	.00	
PARKS							
10-70-200	**MOWER EXPENSE**						
675	AUTO ZONE STORES, IN	06231925328	PARKS/BATTERY	07/22/2026	65.99	.00	
6278	PLEASANT GROVE BIG O	4250-116469	PARKS/NEW TIRE	06/04/2026	116.99	.00	
10-70-250	**VEHICLE EXPENSE**						
675	AUTO ZONE STORES, IN	06231939676	PARKS/VEHICLE EXPENSE	08/11/2026	24.45	.00	
675	AUTO ZONE STORES, IN	06231939842	PARKS/VEHICLE EXPENSE	08/11/2026	18.54	.00	
3468	GREASE MONKEY #790	335036	PARKS/VEHICLE MAINTENANCE	08/11/2026	109.79	.00	
10-70-285	**CELLULAR SERVICES**						
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	595.20	.00	
10-70-320	**SPRINKLER & LANDSCAPE**						
970	BJ PLUMBING SUPPLY	001107413	PARK/DEPARTMENTAL SUPPLIES	08/04/2026	191.45	.00	
2766	EWING IRRIGATION PRO	31403204	PARK/DEPARTMENTAL SUPPLIES	08/04/2026	164.57	.00	
2766	EWING IRRIGATION PRO	31452350	PARK/DEPARTMENTAL SUPPLIES	08/07/2026	1,144.91	.00	
2766	EWING IRRIGATION PRO	31510995	PARK/DEPARTMENTAL SUPPLIES	08/12/2026	200.70	.00	
10-70-480	**DEPARTMENTAL SUPPLIES**						
2178	CUTLERS, INC.	767472	PARKS/NEW EQUIPMENT	08/11/2026	27.89	.00	
10-70-481	**CHEMICALS**						
1338	C.E.M.	25860	PARKS/COOK PARK SPLASH PAD	07/15/2026	704.61	.00	
1338	C.E.M.	25888	PARKS/COOK PARK SPLASH PAD	08/05/2026	450.10	.00	
	Total PARKS:				3,815.19	.00	
RECREATION							
10-71-240	**OFFICE EXPENSE**						
8219	TEXTILE TEAM OUTLET	10088	REC/T-SHIRTS	07/21/2026	56.37	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
10-71-260 BUILDING MAINTENANCE							
5272	MINT CLEANING SERIVE	607518864160	REC/WINDOW CLEANING	08/06/2026	1,680.00	.00	
10-71-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	264.79	.00	
10-71-280 TELEPHONE EXPENSE							
1518	CENTURY LINK	07282026	REC/MONITORING & ALARM LINES	07/28/2026	328.68	.00	
10-71-410 PROGRAM SUPPLIES & EQUIPMENT							
4740	LES MILLS UNITED STAT	SIV0678904	REC/ESSENTIAL LIVE PROGRAMS	08/03/2026	1,028.00	.00	
10-71-480 DEPARTMENTAL SUPPLIES							
8219	TEXTILE TEAM OUTLET	10152	REC/SHIRTS	08/12/2026	250.86	.00	
Total RECREATION:					3,608.70	.00	
LEISURE SERVIVES							
10-72-250 VEHICLE							
3468	GREASE MONKEY #790	335359	LEISURE/VEHICLE MAINTENANCE	08/19/2026	132.28	.00	
10-72-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	39.68	.00	
10-72-420 CONTRACTED SERVICES							
5055	MAINTAIN X, INC.	48277164-001	LEISURE/PREMIUM PLAN LEGACY	08/05/2026	7,200.00	.00	
Total LEISURE SERVIVES:					7,371.96	.00	
SWIMMING POOL							
10-73-460 CONCESSION STAND EXPENSE							
1863	SWIRE COCA-COLA, USA	53635491038	POOL/CONCESSION STAND EXPEN	08/05/2026	378.36	.00	
Total SWIMMING POOL:					378.36	.00	
CUSTODIAL SERVICES							
10-74-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150033636	MULTI DEPT/CELL PHONE EXEPNS	08/01/2026	39.68	.00	
10-74-420 CONTRACTED SERVICES							
4316	JANI-KING OF SALT LAKE	SLC08260195	CLEANING SERVICES	08/01/2026	2,821.50	.00	
10-74-480 DEPARTMENTAL SUPPLIES							
1113	BRADY INDUSTRIES OF	12035086	BUILDING MAINTENANCE SUPPLIE	07/29/2026	3,478.04	.00	
1113	BRADY INDUSTRIES OF	12050562	BUILDING MAINTENANCE	08/03/2026	15.43	.00	
1113	BRADY INDUSTRIES OF	12091386	BUILDING MAINTENANCE	08/12/2026	193.35	.00	
10-74-740 EQUIPMENT							
8193	TENNANT SALES AND SE	US91095166	BUILDING MAINTENANCE EQUIPM	08/12/2026	1,514.33	.00	
Total CUSTODIAL SERVICES:					8,062.33	.00	
Total GENERAL FUND:					201,261.90	.00	
WATER IMPACT FEES							
16-35-110 IMPACT FEES - WATER							
4815	LINDON CITY	6824	CULINARY WATER IMPACT FEE	07/28/2026	1,467.00	.00	
Total :					1,467.00	.00	
16-70-986 1100 EAST AREA							
971	BLACK FOREST PAVING	08122026	1100 E RECONSTRUCTION	08/12/2026	19,532.95	.00	
16-70-987 800 NORTH AND 680 NORTH							
1962	CONDIE CONSTRUCTION	08072026	800 N ROADWAY RECONSTRUCTIO	08/07/2026	110,078.52	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Total :					129,611.47	.00	
Total WATER IMPACT FEES:					131,078.47	.00	
SEWER IMPACT FEES							
17-35-110 IMPACT FEES - SEWER							
4815	LINDON CITY	6824	SEWER IMPACT FEE	07/28/2026	1,809.00	.00	
Total :					1,809.00	.00	
Total SEWER IMPACT FEES:					1,809.00	.00	
CLASS C ROAD FUND							
EXPENDITURES							
20-40-480 DEPARTMENTAL SUPPLIES							
1420	CART AWAY CONCRETE,	40380	CLASS C ROADS/CONCRETE	08/11/2026	280.00	.00	
7398	SHERWIN-WILLIAMS CO.	678901677508	CLASS C ROADS/ PAINT	08/06/2026	464.25	.00	
20-40-819 4000 NORTH MAG MATCH							
1780	CITY OF CEDAR HILLS	2922	REIMB. FOR JACQUES & ASSOC PA	06/30/2026	566.96	.00	
20-40-987 800 NORTH AND 680 NORTH							
1962	CONDIE CONSTRUCTION	08072026	800 N ROADWAY RECONSTRUCTIO	08/07/2026	115,069.54	.00	
Total EXPENDITURES:					116,380.75	.00	
Total CLASS C ROAD FUND:					116,380.75	.00	
CEMETERY							
22-70-320 SPRINKLER & LANDSCAPE							
2766	EWING IRRIGATION PRO	31510397	CEM/DEPARTMENTAL SUPPLIES	08/12/2026	936.79	.00	
22-70-740 EQUIPMENT							
2178	CUTLERS, INC.	766959	CEM/SPRAYER	08/07/2026	19,399.99	.00	
Total :					20,336.78	.00	
Total CEMETERY:					20,336.78	.00	
STORM DRAIN UTILITY FUND							
GENERAL GOVERNMENT							
48-41-250 VEHICLE EXPENSE							
4727	LEGACY EQUIPMENT CO	00124982	STRM DRN/DEPARTMENTAL SUPPL	08/05/2026	107.83	.00	
5833	O'REILLY AUTOMOTIVE I	3623-237497	STRM DRN/DEPARTMENTAL SUPPL	06/08/2026	30.06	.00	
5833	O'REILLY AUTOMOTIVE I	3623-243086	STRM DRN/DEPARTMENTAL SUPPL	07/15/2026	46.96	.00	
5833	O'REILLY AUTOMOTIVE I	3623-243304	STRM DRN/DEPARTMENTAL SUPPL	07/16/2026	63.67	.00	
8557	TRUCKPRO, LLC	277-0046519	STRM DRN/VEHICLE MAINTENANC	07/30/2026	3.99	.00	
8557	TRUCKPRO, LLC	277-0046562	STRM DRN/VEHICLE MAINTENANC	07/30/2026	8.09	.00	
48-41-480 DEPARTMENTAL SUPPLIES							
3974	HOSE & RUBBER SUPPL	02222257	STRM DRN/DEPARTMENTAL SUPPL	07/10/2026	67.11	.00	
5482	MOUNTAINLAND SUPPLY	S108092337.0	STRM DRN/DEPARTMENTAL SUPPL	08/11/2026	65.05	.00	
48-41-610 MISCELLANEOUS EXPENSE							
3151	FREEDOM MAILING SER	53558	UTILITY BILL MAILING	08/04/2026	675.03	.00	
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	32.82	.00	
Total GENERAL GOVERNMENT:					1,100.61	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
	Total STORM DRAIN UTILITY FUND:				1,100.61	.00	
CAPITAL PROJECTS FUND							
EXPENDITURES							
49-40-104 FIRE 2027							
8255	THE EMS TRAINING SCH	5671	FIRE/PARAMEDIC TUITION AND BO	07/13/2026	25,410.57	.00	
	Total EXPENDITURES:				25,410.57	.00	
MISC PROJECTS							
49-90-912 LIBRARY 2027							
308	AMAZON CAPITAL SERVI	1YYJ-11XV-LX	LIB/ASSORTED SUPPLIES	08/01/2026	1,585.20	.00	
	Total MISC PROJECTS:				1,585.20	.00	
	Total CAPITAL PROJECTS FUND:				26,995.77	.00	
WATER FUND							
51-23310 CUST WATER METER RENAL DEP							
58	AWOLF CONSTRUCTION,	08182026	REFUND FIRE HYDRANT METER D	08/18/2026	2,500.00	.00	
971	BLACK FOREST PAVING	08162026	REFUND FIRE HYDRANT METER D	08/16/2026	2,500.00	.00	
7159	S & L INCORPORATED	08182026	REFUND FIRE HYDRANT METER D	08/18/2026	2,500.00	.00	
51-37-100 HYDRANT WATER RENTAL							
58	AWOLF CONSTRUCTION,	08182026	METER USAGE	08/18/2026	150.00-	.00	
51-37-110 WATER SALES REVENUE							
58	AWOLF CONSTRUCTION,	08182026	WATER USAGE	08/18/2026	87.62-	.00	
51-37-120 INSTALLATION FEES							
4815	LINDON CITY	6824	CULINARY WATER METER INSTALL	07/28/2026	650.00	.00	
	Total :				7,912.38	.00	
EXPENDITURES							
51-40-210 MEETINGS & MEMBERSHIPS							
5033	MACEYS	407618	PUBLIC WORKS/SUPPLIES	06/08/2026	49.64	.00	
51-40-240 OFFICE EXPENSE							
3151	FREEDOM MAILING SER	53558	UTILITY BILL MAILING	08/04/2026	1,350.04	.00	
51-40-250 VEHICLE EXPENSE							
239	ALLRED'S ACE HARDWA	339168/1	WATER/WINDSHIELD WASH FLUID	07/30/2026	21.55	.00	
675	AUTO ZONE STORES, IN	06231938739	WATER/VEHICLE MAINTENANCE	08/10/2026	175.26	.00	
51-40-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	34,443.78	.00	
51-40-285 CELLULAR SERVICES							
9131	VERIZON WIRELESS	6150025365	WATER/CELL PHONE EXPENSE	08/01/2026	92.14	.00	
51-40-300 PPE SAFETY & UNIFORM							
1760	CINTAS CORP	5350375302	MULTI DEPT/FIRST AID SUPPLIES	07/28/2026	43.34	.00	
51-40-340 TESTING & ANALYSIS							
3424	GRAINGER, W.W. INC.	9037918506	PARKS/SAFETY CABNIT & CHLORI	08/10/2026	142.66	.00	
6938	RICHARDS LABORATORI	120080	WATER TESTING	08/12/2026	676.00	.00	
51-40-420 STREET REPAIRS							
3312	GENEVA ROCK PRODUC	003CINV00014	WATER/GRAVEL	08/13/2026	711.36	.00	
51-40-470 METER PURCHASES - NEW							
4040	HYDRO SPECIALTIES CO	31177	WATER/BADGER METERS	08/06/2026	4,600.46	.00	
51-40-600 REPAIR & MAINTENANCE							
520	AQUA ENVIRONMENTAL	3810	WATER/GENERAL ENGINERING	08/11/2026	2,407.33	.00	
3312	GENEVA ROCK PRODUC	003CINV00014	WATER/ASPHALT	08/12/2026	440.64	.00	
5482	MOUNTAINLAND SUPPLY	S108083399.0	WATER/DEPARTMENTAL SUPPLIES	08/10/2026	1,013.44	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
5482	MOUNTAINLAND SUPPLY	S1080935153.	WATER/DEPARTMENTAL SUPPLIES	08/13/2026	1,425.00	.00	
51-40-610 MISCELLANEOUS EXPENSE							
6343	PLEASANT GROVE PRIN	11966	PICTURES ON FOAM CORE	08/05/2026	105.00	.00	
	Total EXPENDITURES:				47,697.64	.00	
WATER CAPITAL PROJECTS							
51-70-972 WELL SITES							
4730	LEGEND FENCE	9919	WATER/FENCE INSTALLATION	08/13/2026	51,601.00	.00	
51-70-974 SCADA							
7510	SKM ENGINEERING, LLC	33702	SCADA	08/11/2026	1,520.00	.00	
51-70-986 1100 EAST AREA							
971	BLACK FOREST PAVING	08122026	1100 E RECONSTRUCTION	08/12/2026	11,330.18	.00	
51-70-987 800 NORTH AND 680 NORTH							
1962	CONDIE CONSTRUCTION	08072026	800 N ROADWAY RECONSTRUCTIO	08/07/2026	140,099.94	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	2,366.86	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	159.50	.00	
5482	MOUNTAINLAND SUPPLY	S108083399.0	WATER/DEPARTMENTAL SUPPLIES	08/10/2026	5,348.00	.00	
	Total WATER CAPITAL PROJECTS:				212,425.48	.00	
	Total WATER FUND:				268,035.50	.00	
SEWER FUND							
52-21320 ACCTS PAYABLE-TIMP SERV DIST.							
8422	TIMP. SPECIAL SERVICE	07302026	IMPACT FEES	07/30/2026	61,116.15	.00	
	Total :				61,116.15	.00	
EXPENDITURES							
52-40-240 OFFICE EXPENSE							
3151	FREEDOM MAILING SER	53558	UTILITY BILL MAILING	08/04/2026	1,350.04	.00	
52-40-300 PPE SAFETY & UNIFORM							
1760	CINTAS CORP	5350375302	MULTI DEPT/FIRST AID SUPPLIES	07/28/2026	43.33	.00	
52-40-350 CHARGES FOR TREATMENT							
8422	TIMP. SPECIAL SERVICE	07312026	WASTEWATER TREATMENT	07/31/2026	458,651.71	.00	
52-40-480 DEPARTMENTAL SUPPLIES							
5482	MOUNTAINLAND SUPPLY	S108108931.0	SEWER/DEPARTMENTAL SUPPLIES	08/17/2026	1,022.06	.00	
52-40-600 REPAIR & MAINTENANCE							
1870	CODALE ELECTRIC SUP	S0101462843.	SEC WATER/DEPARMENTAL SUPPL	08/06/2026	180.87	.00	
	Total EXPENDITURES:				461,248.01	.00	
	Total SEWER FUND:				522,364.16	.00	
SECONDARY WATER							
EXPENDITURES							
54-40-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	6,507.24	.00	
54-40-300 PPE SAFETY & UNIFORM							
1760	CINTAS CORP	5350375302	MULTI DEPT/FIRST AID SUPPLIES	07/28/2026	43.33	.00	
54-40-420 STREET REPAIRS							
3312	GENEVA ROCK PRODUC	003CINV00014	SEC WATER/GRAVEL	08/04/2026	567.30	.00	
54-40-600 REPAIR & MAINTENANCE							
5482	MOUNTAINLAND SUPPLY	S108093232.0	SEC WATER/DEPARTMENTAL SUPP	08/14/2026	1,580.04	.00	
5482	MOUNTAINLAND SUPPLY	S1081022123.	SEC WATER/DEPARTMENTAL SUPP	08/13/2026	2,118.46	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
5482	MOUNTAINLAND SUPPLY	S108113055.00	SEC WATER/DEPARTMENTAL SUPP	08/18/2026	109.26	.00	
54-40-603 SECONDARY WATER PHASE 2							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	2,618.49	.00	
	Total EXPENDITURES:				13,544.12	.00	
CAPITAL PROJECTS							
54-70-972 WELL SITES							
688	B AND D PUMP & ELECT	5349	WATER/WELL MAINTENANCE	08/03/2026	300.00	.00	
688	B AND D PUMP & ELECT	5350	WATER/WELL MAINTENANCE	08/04/2026	13,304.60	.00	
54-70-974 SCADA							
7510	SKM ENGINEERING, LLC	33702	SCADA	08/11/2026	3,521.91	.00	
	Total CAPITAL PROJECTS:				17,126.51	.00	
	Total SECONDARY WATER:				30,670.63	.00	
SWIMMING POOL							
SWIMMING POOL							
71-73-380 HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	2,711.34	.00	
71-73-382 POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	3,698.57	.00	
71-73-390 BUILDING MAINTENANCE							
970	BJ PLUMBING SUPPLY	001106881	POOL/BUILDING MAINTENANCE	07/30/2026	37.39	.00	
9259	WASATCH AQUATIC SPE	2348	POOL/ANCHOR PAD AT BOTTOM O	08/11/2026	450.00	.00	
71-73-420 CONTRACTED SERVICES							
8156	TCI SECURITY OF UTAH	42437	POOL/SECURITY MONITORING	07/20/2026	45.00	.00	
71-73-460 CONCESSION STAND EXPENSE							
5033	MACEYS	393002	POOL/DEPARTMENTAL SUPPLIES	06/15/2026	18.00	.00	
5033	MACEYS	405261	POOL/DEPARTMENTAL SUPPLIES	06/13/2026	18.00	.00	
5033	MACEYS	405268	POOL/DEPARTMENTAL SUPPLIES	06/19/2026	12.64	.00	
5033	MACEYS	405269	POOL/DEPARTMENTAL SUPPLIES	06/20/2026	12.00	.00	
5033	MACEYS	405274	POOL/DEPARTMENTAL SUPPLIES	06/24/2026	16.76	.00	
5033	MACEYS	407617	POOL/DEPARTMENTAL SUPPLIES	06/17/2026	15.00	.00	
5033	MACEYS	435925	POOL/DEPARTMENTAL SUPPLIES	07/04/2026	15.98	.00	
5033	MACEYS	435926	POOL/DEPARTMENTAL SUPPLIES	07/10/2026	54.51	.00	
5033	MACEYS	435936	POOL/DEPARTMENTAL SUPPLIES	07/31/2026	17.45	.00	
8088	SYSCO INTERMOUNTAIN	785514814	POOL/CONCESSIONS	08/05/2026	1,063.06	.00	
8088	SYSCO INTERMOUNTAIN	785530378	POOL/CONCESSIONS	08/12/2026	1,306.33	.00	
8219	TEXTILE TEAM OUTLET	9864	POOL/MENS COMO T-SHIRTS	05/22/2026	440.00	.00	
71-73-480 DEPARTMENTAL SUPPLIES							
6196	PETTY CASH-RECREATI	07102026	PETTY CASH RECREATION	07/10/2026	42.97	.00	
71-73-481 CHEMICALS							
9259	WASATCH AQUATIC SPE	2348	POOL/CHEMICALS	08/11/2026	352.02	.00	
	Total SWIMMING POOL:				10,327.02	.00	
	Total SWIMMING POOL:				10,327.02	.00	
COMMUNITY CENTER							
72-71-060 COMMUNITY CTR - HEATING							
2716	ENBRIDGE GAS UT WY I	08112026	MULTI DEPT/HEATING EXPENSE	08/11/2026	123.01	.00	
72-71-061 COMMUNITY CTR - POWER							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	8,092.97	.00	
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	65.56	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
72-71-062 COMMUNITY CTR - BLDG MAINT							
239	ALLRED'S ACE HARDWA	339029/1	REC/BUILDING MAINTENANCE	07/22/2026	28.79	.00	
239	ALLRED'S ACE HARDWA	339159/1	REC/BUILDING MAINTENANCE	07/30/2026	17.26	.00	
813	COBBLESTONE GROUP I	P93893007	REC/BATTERIES	08/10/2026	17.54	.00	
970	BJ PLUMBING SUPPLY	001105956	REC/BUILDING IMPROVEMENTS	07/20/2026	35.10	.00	
1028	BORDER STATES INDUS	932915441	BUILDING MAINTENANCE	08/05/2026	252.75	.00	
1870	CODALE ELECTRIC SUP	S010142268.0	REC/BUILDING MAINTENANCE	08/06/2026	1,023.50	.00	
1870	CODALE ELECTRIC SUP	S010150522.0	REC/BUILDING MAINTENANCE	08/10/2026	508.00	.00	
8436	TOLD PLUMBING LLC	50293051226	REC/PLUMBING REPAIRS	05/15/2026	205.00	.00	
72-71-270 POWER EXPENSE							
7062	ROCKY MOUNTAIN POW	08072026	MULTI DEPT/ELECTRICITY EXPENS	08/07/2026	4,573.45	.00	
72-71-410 PROGRAM SUPPLIES & EQUIPMENT							
3055	FOX HOLLOW GOLF CLU	2026-18	REC/JUNIOR GOLF LESSONS	08/11/2026	5,531.20	.00	
72-71-412 YOUTH SPORTS							
2985	FOLD A GOAL	272663A	REC/EQUIPMENT	08/11/2026	295.00	.00	
8219	TEXTILE TEAM OUTLET	10098	REC/UNIFORMS	07/27/2026	35.54	.00	
72-71-414 ENRICHMENT PROGRAMS							
6196	PETTY CASH-RECREATI	07102026	PETTY CASH RECREATION	07/10/2026	104.75	.00	
72-71-417 ADAPTIVE							
5033	MACEYS	405279	REC/ADAPTIVE PROGRAM SUPPLI	06/26/2026	9.68	.00	
5033	MACEYS	435929	REC/ASSORTED SUPPLIES	07/21/2026	40.24	.00	
72-71-420 CONTRACTED SERVICES							
19	603 ALARMS	2491	REC/MONITORING	08/01/2026	38.00	.00	
19	603 ALARMS	2496	REC/MONITORING	08/01/2026	38.00	.00	
6540	PRO TECH PEST MANAG	28482	REC/PEST CONTROL	07/23/2026	115.00	.00	
7420	SHIELD-SAFETY, LLC	02203335466	REC/FIRST AID SUPPLIES	07/27/2026	345.30	.00	
7420	SHIELD-SAFETY, LLC	02203335526	REC/AED BATTERY RERPLACEME	08/04/2026	220.93	.00	
8071	SUPERIOR WATER & AIR,	669670909	REC/RENTAL AGREEMENT	08/03/2026	30.00	.00	
8156	TCI SECURITY OF UTAH	42437	REC/ALARM MONITORING	07/20/2026	75.00	.00	
	Total :				21,821.57	.00	
	Total COMMUNITY CENTER:				21,821.57	.00	
75-40-489 700 NORTH 300-400 EAST							
970	BJ PLUMBING SUPPLY	001105525	REC/BUILDING IMPROVEMENTS	07/16/2026	1.50	.00	
75-40-986 1100 EAST AREA							
971	BLACK FOREST PAVING	08122026	1100 E RECONSTRUCTION	08/12/2026	148,911.97	.00	
3970	HORROCKS, LLC.	313000006555	MULTI DEPT ENGINEERING	08/06/2026	3,728.28	.00	
	Total :				152,641.75	.00	
	Total :				152,641.75	.00	
RECREATION							
CARE TAX							
76-76-703 SPECIAL PROJECTS							
7034	ROCK THE MIC ENTERTA	20260130-03	REC/DJ SERVICES FOR BOO BASH	08/11/2026	1,750.00	.00	
76-76-970 ARTS PROJECT 2024							
308	AMAZON CAPITAL SERVI	1YCL-R9VJ-W	LIB/ASSORTED SUPPLIES	08/01/2026	44.75	.00	
	Total CARE TAX:				1,794.75	.00	
	Total RECREATION:				1,794.75	.00	

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Net Invoice Amount	Amount Paid	Date Paid
Grand Totals:					1,506,618.66	.00	

Dated: _____

Mayor: _____

City Council: _____

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City Recorder: _____

City Finance Director: _____

Report Criteria:
Invoices with totals above $0 included.
Only unpaid invoices included.