

When recorded, mail to: 3175 East Gregson Ave. Salt Lake City, UT 84109

3055 N. 1200 W. Lehi, UT 84043



Affects Parcel No(s): 391910044

ENT 1068-2026 PG 1 of 41  
ANDREA ALLEN  
UTAH COUNTY RECORDER  
2026 Jan 6 03:34 PM FEE 0.00 BY KC  
RECORDED FOR LEHI CITY

## STORMWATER SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT

This Long-Term Stormwater Management Agreement ("Agreement") is made and entered into this 2nd day of December, 2025, by and between Lehi City, a Utah municipal corporation ("City"), and Dr. Alex Park, an individual ("Owner").

### RECITALS

WHEREAS, the City is authorized and required to regulate and control the disposition of storm and surface waters within the MS4, as set forth in the Lehi City Stormwater Ordinance, as amended ("Ordinance"), adopted pursuant to the Utah Water Quality Act, as set forth in *Utah Code Ann.* §§ 19-5-101, *et seq.*, as amended ("Act"); and

WHEREAS, the Owner hereby represents and acknowledges that it is the owner in fee simple of certain real property more particularly described in Exhibit "A," attached hereto and incorporated herein by this reference ("Property"); and

WHEREAS, the Owner desires to build or develop the Property and/or to conduct certain regulated construction activities on the Property which will alter existing storm and surface water conditions on the Property and/or adjacent lands; and

WHEREAS, in order to accommodate and regulate these anticipated changes in existing storm and surface water flow conditions, the Owner is required to build and maintain at Owner's expense a storm and surface water management facility or improvements ("Stormwater Facilities"); and

WHEREAS, the Stormwater Facilities are more particularly described and shown in the final site plan or subdivision approved for the Property and related engineering drawings, and any amendments thereto, which plans and drawings are on file with the City and are hereby incorporated herein by this reference ("Development Plan"); and

WHEREAS, summary description of all Stormwater Facilities, details and all appurtenance draining to and affecting the Stormwater Facilities and establishing the standard operation and routine maintenance procedures for the Stormwater Facilities, and control measures installed on the Property, ("Stormwater System Operations and Maintenance Plan") more particularly shown in Exhibit "B" on file with the City Recorder and,

WHEREAS, a condition of Development Plan approval, and as required as part of the City's Small MS4 UPDES General Permit from the State of Utah, Owner is required to enter into this Agreement establishing a means of documenting the execution of the Stormwater System Operations and Maintenance Plan and,

NOW, THEREFORE, in consideration of the benefits received and to be received by the Owner, its successors and assigns, as a result of the City's approval of the Stormwater System Operations and Maintenance Plan, and the mutual covenants contained herein, the parties agree as follows:

## AGREEMENT

### Section 1

**Construction of Stormwater Facilities.** The Owner shall, at its sole cost and expense, construct the Stormwater Facilities in accordance with the Development Plans and specifications, and any amendments thereto which have been approved by the City.

### Section 2

**Maintenance of Stormwater Facilities.** The Owner shall, at its sole cost and expense, adequately maintain the Stormwater Facilities. Owner's maintenance obligations shall include all system and appurtenance built to convey stormwater, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance, for purposes of this Agreement, is defined as good working condition so that the Stormwater Facilities are performing their design functions. The Owner shall, at its sole cost and expense, perform all work necessary to keep the Stormwater Facilities in good working condition.

### Section 3

**Annual Maintenance Report of Stormwater Facilities.** The Owner shall, at its sole cost and expense, inspect the Stormwater Facilities and submit an inspection report and certification to the MS4 annually. The purpose of the inspection and certification is to assure safe and proper functioning of the Stormwater Facilities. The annual inspection shall cover all aspects of the Stormwater Facilities, including, but not limited to, the parking lots, structural improvements, berms, channels, outlet structure, pond areas, access roads, vegetation, landscaping, etc. Deficiencies shall be noted in the inspection report. The report shall also contain a certification as to whether adequate maintenance has been performed and whether the structural controls are operating as

designed to protect water quality. The annual inspection report and certification shall be due by June 30<sup>th</sup> of each year and shall be on forms acceptable to the City.

#### Section 4

**Access and Inspections.** The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Stormwater Facilities upon reasonable notice not less than three business days to the Owner. Such inspections shall be conducted in a reasonable manner and at reasonable times, as determined appropriate by the City. The purpose of the inspection shall be to determine and ensure that the Stormwater Facilities are being adequately maintained, are continuing to perform in an adequate manner, and are in compliance with the Act, the Ordinance, and the Stormwater Facilities Maintenance Plan.

#### Section 5

**Notice of Deficiencies.** If the City finds that the Stormwater Facilities contain any defects or are not being maintained adequately, the City shall send Owner written notice of the defects or deficiencies and provide Owner with a reasonable time. Such notice shall be confirmed delivery to the Owner or sent certified mail to the Owner at the address listed on the County Tax Assessor.

#### Section 6

**Owner to Make Repairs.** The Owner shall, at its sole cost and expense, make such repairs, changes or modifications to the Stormwater Facilities as may be determined as reasonably necessary by the City within a risk specific determined cure period to ensure that the Stormwater Facilities are adequately maintained and continue to operate as designed and approved. The Owner acknowledges any damage resulting from such defects and deficiencies is their cost liability.

#### Section 7

**City's Corrective Action Authority.** In the event the Owner fails to adequately maintain the Stormwater Facilities in good working condition acceptable to the City, after due notice of deficiencies as provided in Section 5 and failure to cure, then, upon Owner's failure to cure or correct within thirty days following a second notice delivered to Owner, the City may issue a Citation punishable as a Misdemeanor in addition to any State or EPA fine. The City may also give written notice that the facility storm drain connection will be disconnected. Any damage resulting from the disconnection is subject to the foregoing cure periods. It is expressly understood and agreed that the City is under no obligation to maintain or repair the Stormwater Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. The actions described in this Section are in addition to and not in lieu of any and all equitable remedies available to the City as provided by law for Owner's failure to remedy deficiencies or any other failure to perform under the terms and conditions of this Agreement.

#### Section 8

**Reimbursement of Costs.** In the event the City, pursuant to this Agreement, incurs any costs, or expends any funds resulting from enforcement or cost for labor, use of equipment, supplies, materials, and the like related to storm drain disconnection from the City system, the Owner shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City. After said thirty (30) days, such amount shall be deemed delinquent and shall be subject to interest at the rate of ten percent (10%) per annum. Owner shall also be liable for any collection costs, including attorneys' fees and court costs, incurred by the City in collection of delinquent payments.

### **Section 9**

**Successor and Assigns.** This Agreement shall be recorded in the County Recorder's Office and the covenants and agreements contained herein shall run with the land and whenever the Property shall be held, sold, conveyed or otherwise transferred, it shall be subject to the covenants, stipulations, agreements and provisions of this Agreement which shall apply to, bind and be obligatory upon the Owner hereto, its successors and assigns, and shall bind all present and subsequent owners of the Property described herein.

### **Section 10**

**Severability Clause.** The provisions of this Agreement shall be severable and if any phrase, clause, sentence or provision is declared unconstitutional, or the applicability thereof to the Owner, its successors and assigns, is held invalid, the remainder of this Covenant shall not be affected thereby.

### **Section 11**

**Utah Law and Venue.** This Agreement shall be interpreted under the laws of the State of Utah. Any and all suits for any claims or for any and every breach or dispute arising out of this Agreement shall be maintained in the appropriate court of competent jurisdiction in Salt Lake County, Utah.

### **Section 12**

**Indemnification.** This Agreement imposes no liability of any kind whatsoever on the City, and the Owner agrees to hold the City harmless from any liability in the event the Stormwater Facilities fail to operate properly. The Owner shall indemnify and hold the City harmless for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the City from failure of Owner to comply with its obligations under this agreement relating to the Stormwater Facilities.

### **Section 13**

**Amendments.** This Agreement shall not be modified except by written instrument executed by the City and the Owner of the Property at the time of modification, and no modification shall be effective until recorded in the Salt Lake County Recorder's Office.

### **Section 14**

**Subordination Requirement.** If there is a lien, trust deed or other property interest recorded against the Property, the trustee, lien holder, etc., shall be required to execute a subordination agreement or other acceptable recorded document agreeing to subordinate their interest to the Agreement.

### Section 15

**Exhibit B.** The Stormwater Operations and Maintenance Plan must adapt to change in good judgment when site conditions and operations change and when existing programs are ineffective. Exhibit B will not be filed with the agreement at County Recorder but is included by reference and kept on file with the City Recorder. Revision applications must be filed with the [INSERT MUNICIPALITY] and amended into the Stormwater System Operations and Maintenance Plan on file with the [INSERT MUNICIPALITY] City recorder.

## STORMWATER SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT

## PROPERTY OWNER

By:   
Alex Park

Title: Owner, manager

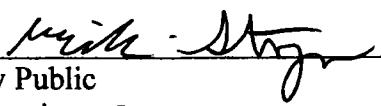
By: \_\_\_\_\_ Title: \_\_\_\_\_

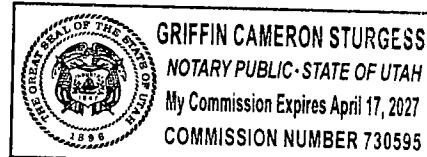
STATE OF UTAH )

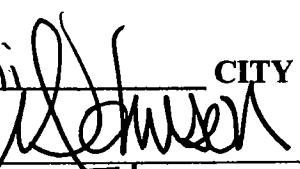
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COUNTY OF Salt Lake )

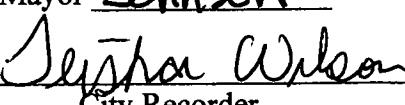
The above instrument was acknowledged before me by Alex Park, this 3 day of December, 2025.

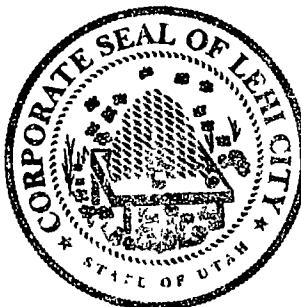
  
Notary Public  
Residing in: Draper, UT  
My commission expires: 4/17/2027



Lehi CITY  
By:   
Mayor Johnson

Date: 12/11/25

Attest:   
City Recorder  
Teisha Wilson

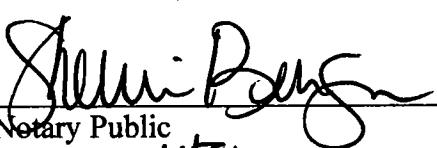


STATE OF UTAH )

:ss.

COUNTY OF Utah )

The above instrument was acknowledged before me by Mark Johnson, this 11 day of December, 2025.

  
Notary Public  
Residing in: Utah  
My commission expires: May 15, 2027  
Attachments:

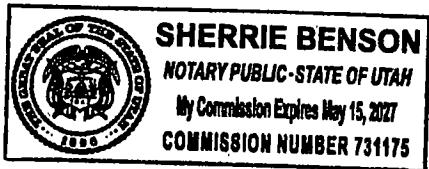


Exhibit A: Legal Description

Exhibit B: Stormwater System Operations and Maintenance Plan; Filed with [INSERT MUNICIPALITY] City Recorder

## EXHIBIT A

{Include this EXHIBIT with this agreement document to be recorded. The text below that does not apply will need to be deleted along with the blue instruction text.}

{For properties that are not a part of a residential or commercial subdivision, provide the parcel number and a legal description for the property.}

Replace this text with the new parcel #(s)

Replace this text with the new legal description of the subject parcels

OR

{For commercial subdivisions, provide parcel #(s), provide the LOT#(s) and refer to the newly recorded subdivision by the title as it is recorded by in the Salt Lake County Recorder's Office.}

Replace this text with the subdivided parcel #(s)

All lots of [...or the pertinent lots of]

Replace this text with the plat title and the township and range as it is recorded on the plat

Replace this text with the subdivided legal description of the subject parcel(s)

OR

{For residential subdivision, include all new parcel #s, lots and refer to the newly recorded subdivision by the title as it is recorded by in the Salt Lake County Recorder's Office.}

Replace this text subdivisions new parcel #(s),

All lots of [...or the pertinent lots of]

Replace this text with the plat title and township and range as it is recorded on the plat.

Replace this text with the subdivided legal description of the subject parcel(s)

Long-Term Stormwater Management Plan  
VALLEY VETERINARY LEHI

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## EXHIBIT A

Parcel #: 392120013

Legal Description:

40°25'32"N 111°52'05"W

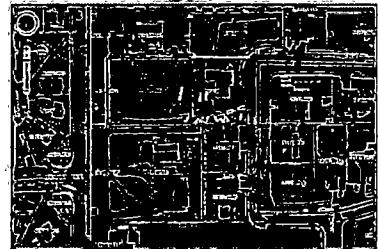
*See Attached*



FNT 1068-2026 PG 10 of 41

**PROPERTY INFORMATION**

Serial Number: 39:212:0013 Serial Life: 2019...

**Property Address:** LEHI**Mailing Address:** 4685 HIGHLAND DR STE 224 MILLCREEK, UT 84117**Acreage:** 0.638658**Last Document:** 210603-2021Subdivision Map Filing

Total Photos: 4

**Taxing Description:** PART LOT 1, FOX HUNT SUB DESCRIBED AS FOLLOWS; COM S 0 DEG.0' 12" W 496.43 FT & S 89 DEG.59'48" E 36.59 FT FR W 1/4 COR. SEC. 32, T4S; R1E, SLB&M.; N 89 DEG.54'26" E 188.19 FT; S 147.8 FT; S 89 DEG.54'26" W 188.18 FT; N 0 DEG 7' 1" W 147.8 FT TO BEG. AREA 0.639 AC.

**\*Taxing description NOT FOR LEGAL DOCUMENTS**

Owner Names	Value History	Tax History	Location	Photos	Documents	Aerial Image
2022...	<a href="#">TOWN SQUARE LAND LLC</a>					
2022NV	<a href="#">SOLSTICE HOMES LLC</a>					
2020-2021	<a href="#">SMUIN INVESTMENTS LLC</a>					
2019	<a href="#">HARPER, SHARON</a>					
2019	<a href="#">HARPER, SHON</a>					

Additional InformationMain Menu[Comments or Concerns on Value/Appraisal - Assessor's Office](#)[Documents/Owner/Parcel information - Recorder's Office](#)[Address Change for Tax Notice](#)

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Long-Term Stormwater Management Plan  
VALLEY VETERINARY LEHI

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## EXHIBIT B

### Long-Term Stormwater Management Plan

Site:

Valley Pet Lehi  
3055 N 1200 W  
Lehi, UT 84043

Owner:

AP Real Estate Holding LLC  
Address  
3055 N 1200W Lehi, UT 84043

Maintenance Contact:

Alex Park  
586-214-0237  
a.parkdvm@gmail.com

Prepared By:

Erosion Control Services  
42 E 200 N Suite 4  
American Fork, UT 84003  
801-302-3021

## **PURPOSE AND RESPONSIBILITY**

As required by the Clean Water Act and resultant local regulations, including Lehi Municipal Separate Storm Sewer Systems (MS4) Permit, those who develop land are required to build and maintain systems to minimize litter and contaminants in stormwater runoff that pollutes waters of the state.

This Long-Term Stormwater Management Plan (LTSWMP) describes the systems, operations, and the minimum standard operating procedures (SOPs) necessary to manage pollutants originating from or generated on this property. Any activities or site operations at this property that contaminate water entering the City's stormwater system, groundwater, and generate loose litter must be prohibited.

The Utah Lake is currently impaired with high levels of phosphorus and total dissolved solids, as well as harmful algae blooms. The LTSWMP is aimed at protecting these waters and preventing the discharge of pollutants that contribute to impairments in addition to all other pollutants that can be generated by this property.

## **CONTENTS**

**SECTION 1: SITE DESCRIPTION, USE AND IMPACT**

**SECTION 2: TRAINING**

**SECTION 3: RECORDKEEPING**

**SECTION 4: APPENDICES**

## SECTION 1: SITE DESCRIPTION, USE AND IMPACT

The site infrastructure is limited to controlling and containing pollutants from operations, which, if managed improperly, can contaminate the receiving waters. This LTSWMP includes standard operating procedures (SOPs) that are intended to minimize and eliminate pollutants associated with the operations of the site infrastructure, to direct the maintenance operations, and to responsibly manage site grounds. SOPs are filed in appendix B.

### **Parking, Sidewalk and Flatwork**

Any sediment, leaves, debris, spilled fluids or other waste that collects on the parking areas and sidewalks will be carried by runoff to the storm drain system. These solids will fill in the storm drain system requiring future cleaning. Any liquids and dissolved solids can also contaminate groundwater. The site is approximately 71.95 % impervious surface. Impervious areas will principally consist of concrete sidewalks and asphalt parking lots.

Maintenance of inlets and catch basins is critical to the proper drainage of water from the site.

### **Landscaping**

Landscape operations can result in grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides, and other pollutants to fall or be left on the paved areas. Buildup of these materials in the catch basins of the storm drain inlets hinders the ability of the drainage system to remove pollutants and to reduce the discharging of sediment-laden water flows. Buildup of this kind would result in polluting the Utah Lake. A primary pollutant impairing Utah Lake is organic material so it is vital that landscape debris and pollutants are contained. If not prevented from accumulating, these solids will fill in the storm drain system requiring future dredging and cleaning.

### **Flood and Water Quality Control System**

The flood and water quality control system includes directing runoff to the storm drain system onsite. The infiltration system is designed to drain the first 80th percentile of runoff into the ground required by the UPDES Permit requirement. Infiltrating runoff helps keep streams and rivers clean, but, if maintenance operations are not performed, this can contaminate stormwater runoff. Anything placed or left on impervious surfaces will eventually be carried to the infiltration system, filling it with sediment and debris, increasing maintenance costs, and lowering the flood control function. Dissolved and liquid pollutants can increase the risk for contaminating groundwater as well. In addition, very intense storm events can scour debris from the catch basins and deposit in the storm drain system. It is important that the flood control volume and water quality system is adequately maintained to function properly.

### **Waste Management**

**Long-Term Stormwater Management Plan  
VALLEY VETERINARY LEHI**

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Good waste management systems can become the source of the exact pollution they were intended to prevent, if managed improperly. The lids of the dumpster and trash receptacles are intended to prevent lightweight trash from being carried off by wind and precipitation exposure. Closing lids prior to any precipitation can also minimize runoff of the waste materials inside the dumpster. Maintaining the integrity of waste containers and careful use of haul trucks will work to minimize liquids that can leak to the pavement.

### **Utility System**

The rooftop utility system is exposed to the roof drains which drain to the pavement. These heating and air conditioner units contain oils and other chemicals, which, if not maintained, can leak into and harm groundwater and Utah Lake if allowed to drain off site. If a leak or other deficiency is present, it must be repaired and remediated according to the spill control SOP in Appendix B.

### **Snow and Ice Removal Management**

Salt, while a pollutant, is often used to create safer parking and pedestrian walkways. Salt and other ice management chemicals unnecessarily increase the salt impact on vegetation and local water resources. If used, salt application is best kept to a minimum. Much of the salt runoff drains to the storm drain system. Minimizing salt application decreases the volume of salt discharge to groundwater.

### **Storm Drain System**

Storm drain inlets onsite are equipped with catch basins that serve as sumps to sequester dry weather pollutants from the storm drain pipe. However, these catch basins can also introduce material, which, when deposited into the storm drain system, have a connection to groundwater. Unmaintained catch basins will accumulate material from the activities listed above and risk discharge during storm events.

### **Vehicle Storage**

As a site for residential parking, pollutants from vehicles are a primary concern. The cleaning of vehicles, leaks, spills, and metals from car brakes can all introduce pollutants into the area. When carried by runoff, these can enter the storm drain system. Vehicle waste which accumulates on the pavement is best removed with methods that do not introduce additional contaminants. The use of detergents is discouraged for this reason.

## **SECTION 2: TRAINING**

Ensure that all employees and maintenance contractors know and understand the SOPs specifically written to manage and maintain the property. Maintenance contractors must use the more specific of their Company and the LTSWMP SOPs. File all training records in Appendix C.

## **SECTION 3: RECORDKEEPING**

Maintain records of operation and maintenance activities in accordance with SOPs. Mail a copy of the record to Lehi Stormwater Division annually.

## **SECTION 4: APPENDICES**

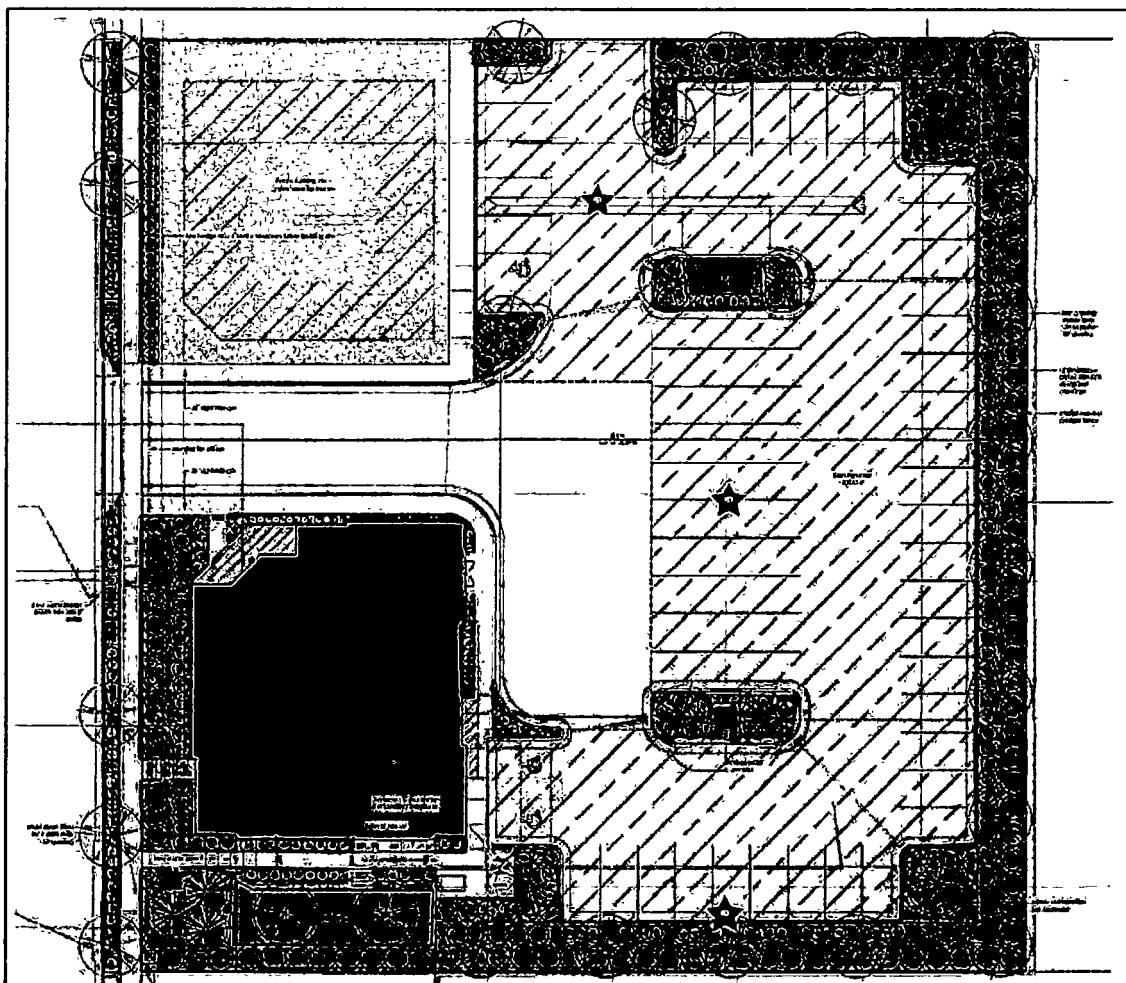
Appendix A - Site Drawings and Details

Appendix B - SOPs

Appendix C - Plan Recordkeeping Documents

Appendix D - Spec Sheets

## APPENDIX A - SITE DRAWINGS AND DETAILS



Valley Vet Lehi  
Erosion Control Services  
Valley Vet.pdf

## LEGEND

- Artificial Turf (1)
- Landscaping (19)
- Waste Enclosure (1)
- Storm Drain (3)

## **APPENDIX B – SOPs**

## Pavement Sweeping

### General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety and the proper, effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### ***1. Purpose:***

- a) One of the primary contaminants in the Utah Lake is organic material.
- b) Any sediment, leaves, debris, spilled fluids or other waste that collects on the parking areas and sidewalks will fill in the storm drain system, increasing maintenance costs.

### ***2. Regular Procedure:***

- a) Remain aware of minor sediment/debris and hand sweep or remove material by other means as needed. Significant deposits will likely collect in autumn with leaf fall and early spring after winter thaw. Usually sweeping machinery is the best tool for this application.
- b) Regularly manage outside activities that spread debris onto the pavement. This involves outside functions including but not limited to: yard sales, yard storage, fundraisers, etc.
- c) Do not allow car wash fundraisers or other related activities. Detergents will damage water resources and washed pollutants will fill the storm drain system, draining into the ground for which we are responsible.

### ***3. Disposal Procedure:***

- a) Dispose of hand collected material in the dumpster.
- b) Use licensed facilities when haul off is necessary.

### ***4. Training:***

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## Landscape Maintenance

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety and the proper, effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### ***1. Purpose:***

- a) One of the primary contaminants in the Utah Lake is organic material.
- b) Grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides and other pollutants will fill the storm drain system requiring future dredging and cleaning, increasing the maintenance cost. Removing these debris after they have washed to the flood and water quality system will be very expensive.

### ***2. Maintenance Procedure:***

- a) Maintain healthy vegetation root systems. Healthy root systems will help improve permeable soils, maintaining more desirable infiltration rates of the landscape areas which receive pavement runoff.
- b) Grooming
  - Lawn Mowing – Immediately following operation sweep or blow clippings onto vegetated ground.
  - Fertilizer Operation – Prevent overspray. Sweep or blow granular fertilizer onto vegetated ground immediately following operation.
  - Herbicide Operation – Prevent overspray. Sweep or blow granular herbicide onto vegetated ground immediately following operation.
- c) Remove or contain all erodible or loose material before forecasted wind and precipitation events, before any non-stormwater will pass through the property, and at the end of the work period. Lightweight debris and landscape materials can require immediate attention when wind or rain is expected.
- d) Landscape project materials and waste can usually be contained or controlled by operational best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement
    - Avoiding multiple day staging of landscaping backfill and spoil on pavements

- Haul off spoil daily and as generated
- Scheduling work when weather forecasts are clear

e) Cleanup:

- Use dry cleanup methods, e.g. square-nose shovel and broom. Conditions are usually sufficient when no more material can be swept onto the square-nose shovel.
- Power blowing tools

### ***3. Waste Disposal:***

a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.

### ***4. Equipment:***

a) Tools sufficient for proper containment of pollutants and removal.

### ***5. Training:***

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.
- c) Landscape Service Contractors must use equal or better SOPs.

## Waste Management

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Trash can easily blow out of the dumpster and trash receptacles.
- b) Liquids can leak from the dumpster, polluting waterways, subsurface soils, staining the pavement and causing unwanted smells.

### **2. Procedure:**

- a) Remain aware of the lids and keep them closed.
- b) Remain aware of leaking and fix. Minimize allowing disposal of liquids in receptacles and dumpsters. Also liquids can leak from the waste haul trucks.
- c) Beware of dumpster capacity. Solve capacity issues. Leaving bags outside of the dumpster is not acceptable.

### **3. Waste Disposal Restrictions for all waste Scheduled for the North Utah County District Landfill**

- a) Generally most waste generated at this property, and waste from spill and clean up operations can be disposed of in the dumpsters under the conditions listed in this SOP. Unless specific disposal requirements are identified by the product SDS or otherwise specified in other SOPs.

Generally the waste prohibited by the North Utah County District Landfill are:

- Paint
- Pesticides/Fertilizers
- Oil
- Antifreeze
- Batteries

***4. Training:***

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## Flood and Water Quality System

### General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety and the proper, effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### ***1. Purpose:***

- a) The storm drain system will collect anything we leave in the way of runoff which will fill the storm drain system, increasing maintenance cost.
- b) Any liquids or dissolved pollutants can increase the risk for contaminating groundwater for which we are responsible.
- c) During very intense storm events pollutants in excess runoff can by-pass the system increasing risk of contaminating groundwater and the Utah lake.

### ***2. Inspections:***

- a) Inspect the storm drain system. Remove any floating trash at each inspection interval with a rake or other means. Remove sediment accumulations when 2" and more. Remove oil accumulations with the heavy sediment unless oil amounts are excessive. Oil can also be removed with absorbent materials, but sediments will require vacuum-operated machinery.
- b) Inspect the storm drain system for mosquito larvae. Contact the Utah County Health Department at 801-851-7637 when necessary.
- c) Inspect the storm drain system for water. Water should not remain for more than 48 hours. Contact an engineer or equal industry with adequate knowledge when water is not draining.
- d) Inspect the storm drain system for sediment accumulations. Remove sediment and debris accumulation when volume capacities drop below 90%. Removal will require hydro-vacuum machinery.
- e) Inspect for sediment accumulations in aboveground detention and retention infrastructure. Remove sediment and debris accumulation when volume capacities drop below 90%.
- f) Inspect low impact flood control swale and landscape area infrastructure for sediment accumulation. Remove sediment accumulation when volume capacities drop below 90%.
- g) Inspect low impact flood control swale and landscape area for adequate drainage and vegetation coverage. Poor drainage can be improved by maintaining healthy plant root systems.

- h) Regularly remove trash and debris from the storm drain system and landscape infrastructure. Remove accumulations with regular grooming operations.

***2. Disposal Procedure:***

- a) Remove and dispose of sediment and debris at licensed facilities. Also dry waste can be disposed of in your dumpster as permitted by the North Utah County District Landfill.
- b) Disposal of hazardous waste
  - 1. Dispose of hazardous waste at regulated disposal facilities. Follow SDS Sheets. Also see Waste Management and Spill Control SOP

***3. Training:***

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## Pavement Washing

### General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### ***1. Purpose:***

- a) Pavement washing involving detergents can potentially contaminate groundwater with phosphates and with whatever we are washing.
- b) Pavement washing can fill the storm drain system, including sediment and debris increasing maintenance costs.

### ***2. Procedure:***

- a) Prevent waste fluids and any detergents, if used, from entering the storm drain system. The following methods are acceptable for this operation:
  - Dam the inlet using a boom material that seals itself to the pavement and picks up the wastewater with shop-vacuum or absorbent materials.
  - Collect wastewater with a shop-vacuum simultaneously with the washing operation.
  - Collect wastewater with a vacuum truck or trailer simultaneously with the washing operation.
- b) This procedure must not be used to clean the initial spills. First apply the Spill Containment and cleanup SOP followed by pavement washing when desired or necessary.

### ***3. Disposal Procedure:***

- a) Small volumes of diluted washing waste can usually be drained to the local sanitary sewer. Contact the Lehi City Water and Sewer Department at (385) 201-1700.
- b) Large volumes must be disposed of at regulated facilities.

### ***4. Pavement Cleaning Frequency:***

- a) There is no regular pavement washing regimen. The routine for pavement washing is determined by conditions that warrant it, including but not limited to: prevention of slick or other hazardous conditions or restoring acceptable appearance to the pavement.

***5. Training:***

- a) Annually and at hire
- b) Inform staff/service contractors when incorrect SOP implementation is observed.

## **Snow and Ice Removal Management**

### **General:**

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Salt and other ice management chemicals, if improperly managed or used to excess, will needlessly increase the salt impact to vegetation and local water resources.
- b) We need to maintain healthy root systems to help maintain optimum infiltration rates.

### **2. De-Icing Procedure:**

- a) Do not store or allow salt or equivalent to be stored on outside paved surfaces.
- b) Minimize salt use by varying salt amounts relative to hazard potential.
- c) Sweep excessive piles left by the spreader.
- d) Watch forecasts and adjust salt amounts when warm ups are expected the same day.

### **3. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the more specific SOP and their company SOPs.

## General Construction Maintenance

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Any sediment, debris, or construction waste will fill in the storm drain system increasing maintenance costs.

### **2. Construction Procedure:**

- a) Remove or contain all erodible or loose material prior forecast wind and precipitation events or before non-stormwater will pass through the project site. For light weight debris maintenance can require immediate attention for wind and runoff events. Many times daily maintenance is necessary or as needed per random, precipitation or non-stormwater events.
- b) Project materials and waste can be contained or controlled by operational or structural best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement
    - Avoiding multiple day staging of backfill and spoil
    - Haul off spoil as generated or daily
    - Schedule work during clear forecast
  - Structural; including but not limited to:
    - Inlet protection, e.g. wattles, filter fabric, drop inlet bags, boards, planks
    - Gutter dams, e.g. wattles, sandbags, dirt dams
    - Boundary containment, e.g. wattles, silt fence
    - Dust control, e.g. water hose,
    - Waste control, e.g. construction solid or liquid waste containment, dumpster, receptacles
- c) Inspect often to ensure the structural best management practices are in good operating condition and do so at least prior to the workday's end. Promptly repair damaged best management practices achieving effective containment.
- d) Cleanup:

- Use dry cleanup methods, e.g. square-nose shovel and broom.
- Wet methods are allowed if wastewater is prevented from entering the stormwater system, e.g. wet/dry vacuum, disposal to the landscaped areas.

e) Cleanup Standard:

- When a broom and a square-nose shovel cannot pick any appreciable amount of material.

### **3. Waste Disposal:**

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.
- b) Never discharge waste material to storm drains.

### **4. Equipment:**

- a) Tools sufficient for proper containment of pollutants and cleanup.
- b) Push broom and square-blade shovel should be a minimum.

### **5. Training:**

- c) Annually and at hire.
- d) Require snow and ice service contractors to follow the more specific SOP and their company SOPs.

## Spill Control

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Spilled liquids and solids will reach the storm drain system potentially contaminating groundwater for which we are responsible.
- b) It is vital we contain all spills on the surface. Spills reaching the underground flood control storage system can result in expensive spill mitigation, including potential tear out and replacement.

### **2. Containment Procedure:**

- a) Priority is to dam and contain flowing spills.
- b) Use spill kits booms if available or any material available to stop flowing liquids; including but not limited to, nearby sand, dirt, landscaping materials, etc.
- c) Hazardous or unknown waste material spills
  - 1. Critical Emergency constitutes large quantities of flowing uncontained liquid that people at risk or reach storm drain systems. Generally burst or tipped tanks and containment is still critical. Call HAZMAT, DWQ, Utah County Health Department.  
Also report spills to DWQ of quantities of 25 gallons and more and when the spill of lesser quantity causes a sheen on downstream water bodies
  - 2. Minor Emergency constitutes a spill that is no longer flowing but has reached a storm drain and adequate cleanup is still critical. Call Lehi City at (385) 201-1700.
  - 3. Spills that are contained on the surface, typically do not meet the criteria for Critical and Minor Emergencies and may be managed by the responsible implementation of this SOP.
  - 4. Contact Numbers:  
INSERT HAZMAT - 911  
DWQ - (801) 536-4000  
Utah County Health Department - (801) 851-3000  
Lehi City - (385) 201-1000

**3. Cleanup Procedure:**

- a) NEVER WASH SPILLS TO THE STORM DRAIN SYSTEMS.
- b) Clean per SDS requirements but generally most spills can be cleaned up according to the following:
  - Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
  - Remove immediately using dry cleanup methods, e.g. broom and shovel, or vacuum operations.
  - Cleanup with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods or vacuum machinery. See Pavement Washing SOP.
  - Repeat this process when residue material remains.

**4. DISPOSAL:**

- a) Follow SDS requirements but usually most spills can be disposed per the following b. & c.
- b) Generally most spills absorbed into solid forms can be disposed of to the dumpster and receptacles. Follow Waste Management SOP.
- c) Generally liquid waste from surface cleansing processes may be disposed to the sanitary sewer system after the following conditions have been met:
  - Dry cleanup methods have been used to remove the bulk of the spill and disposed per the Waste Management SOP.
  - The liquid waste amounts are small and diluted with water. This is intended for spill cleanup waste only and never for the disposal of unused or spent liquids.

**5. Documentation:**

- a) Document all spills in Appendix C.

**6. SDS sheets:**

- a) SDS Manual is filed on-site.

**7. Materials:**

- a) Generally sand or dirt will work for most cleanup operations and for containment. However, it is the responsibility of the owner to select the absorbent materials and

cleanup methods required by the SDS Manuals for chemicals used by the company.

***8. Training:***

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the more specific SOP and their company SOPs.

## APPENDIX C – PLAN RECORDKEEPING DOCUMENTS

## MAINTENANCE/INSPECTION SCHEDULE

Inspection Frequency Key: A=annual, B=biannual, Q=Quarterly, M=monthly, W=weekly, S=following appreciable storm event, U=Unique infrastructure specific (specify)

## RECORD INSPECTIONS IN THE MAINTENANCE LOG

## **Inspection Means Either:**

- A traditional walkthrough
- General awareness/observations
- Noting efficiencies/inefficiencies/concerns found, etc. during regular maintenance operations

# MAINTENANCE LOG

## Annual Summary of LT SWMP effectiveness, inefficiencies, problems, necessary changes etc.

\*You may create your own form that provides this same information or request a word copy of this document.

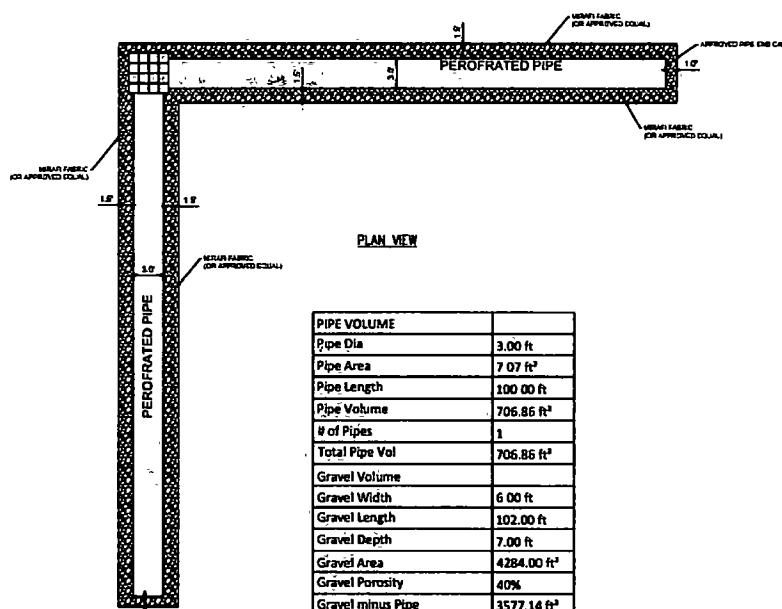
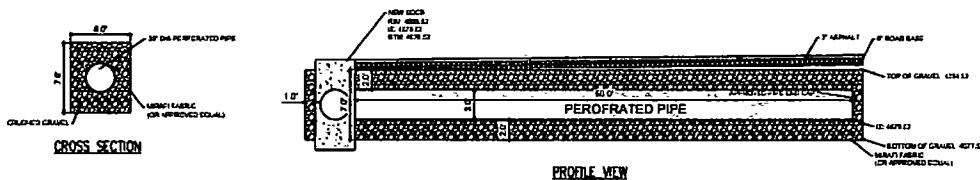
## Annual SOP Training Log per Section 2

\*You may create your own form that provides this same information or request a word copy of this document.

Long-Term Stormwater Management Plan  
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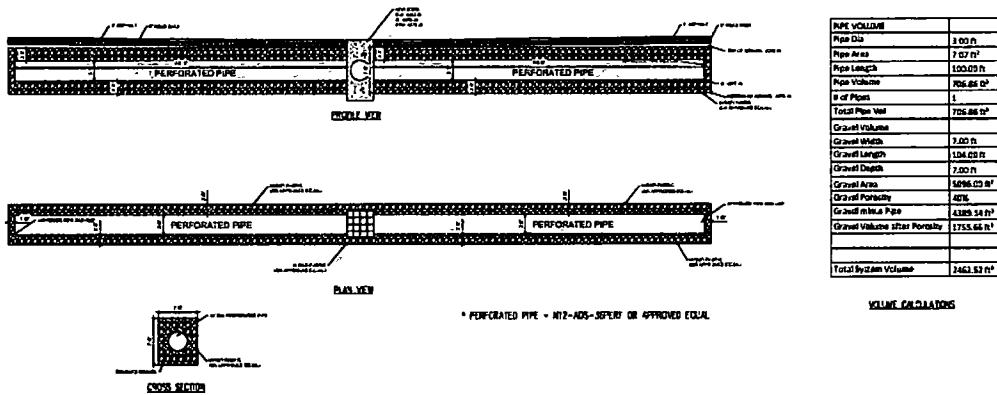
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## APPENDIX D – SPEC SHEETS



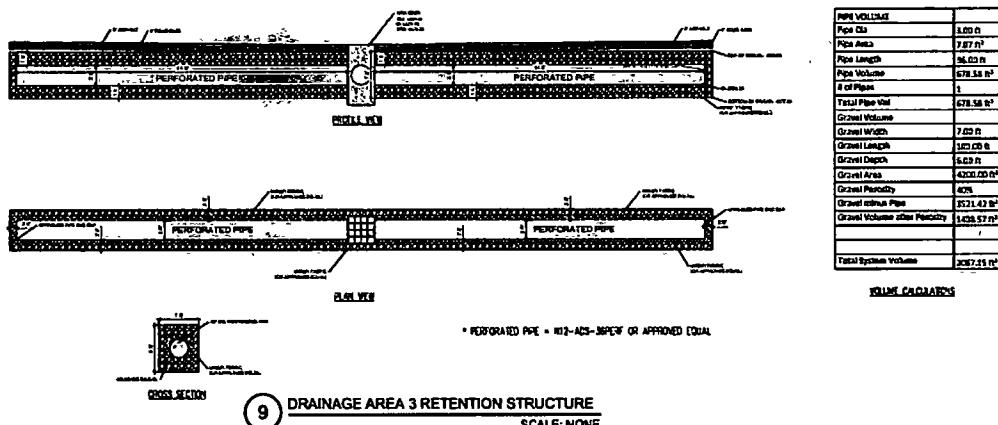
PIPE VOLUME	
Pipe Dia	3.00 ft
Pipe Area	7.07 ft <sup>2</sup>
Pipe Length	100.00 ft
Pipe Volume	706.86 ft <sup>3</sup>
# of Pipes	1
Total Pipe Vol	706.86 ft <sup>3</sup>
Gravel Volume	
Gravel Width	6.00 ft
Gravel Length	102.00 ft
Gravel Depth	7.00 ft
Gravel Area	4284.00 ft <sup>2</sup>
Gravel Porosity	40%
Gravel minus Pipe	3577.14 ft <sup>3</sup>
Gravel Volume after Porosity	1430.86 ft <sup>3</sup>
Total System Volume	2137.72 ft <sup>3</sup>

VOLUME CALCULATIONS

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VALLEY VETERINARY LEHI

8 DRAINAGE AREA 2 RETENTION STRUCTURE

SCALE: NONE



9 DRAINAGE AREA 3 RETENTION STRUCTURE

SCALE: NONE

## STORM CALCULATIONS

	AREA	RATIONAL RUNOFF COEFFICIENT 'C'		WEIGHTED C
Building Area	8689.22 ft <sup>2</sup>	C <sub>b</sub>	0.9	0.17
Pavement Area	23320.18 ft <sup>2</sup>	C <sub>p</sub>	0.9	0.45
Landscape Area	15078.97 ft <sup>2</sup>	C <sub>l</sub>	0.2	0.06
Total Area 'A'	47088.37 ft <sup>2</sup>	WEIGHTED C	0.15	0.68
	1.08 Acres			
CA	0.79			

DESIGN FREQUENCY	100 year NOAA Storm	Release Rate 'R'	0.00 ft <sup>3</sup> /sec/Acre
Rain fall data from NOAA			

T	RAIN FALL	C*A	RAIN FALL * C*A	DISCHARGE, D	STORAGE
15 min	4.04 in/hr	31824.25 ft <sup>3</sup>	2678.54 ft <sup>3</sup>	0.00 ft <sup>3</sup>	2678.54 ft <sup>3</sup>
30 min	2.72 in/hr	31824.25 ft <sup>3</sup>	3606.75 ft <sup>3</sup>	0.00 ft <sup>3</sup>	3606.75 ft <sup>3</sup>
60 min	1.68 in/hr	31824.25 ft <sup>3</sup>	4455.40 ft <sup>3</sup>	0.00 ft <sup>3</sup>	4455.40 ft <sup>3</sup>
180 min	0.63 in/hr	31824.25 ft <sup>3</sup>	4980.50 ft <sup>3</sup>	0.00 ft <sup>3</sup>	4980.50 ft <sup>3</sup>
360 min	0.34 in/hr	31824.25 ft <sup>3</sup>	5378.30 ft <sup>3</sup>	0.00 ft <sup>3</sup>	5378.30 ft <sup>3</sup>
720 min	0.20 in/hr	31824.25 ft <sup>3</sup>	6269.38 ft <sup>3</sup>	0.00 ft <sup>3</sup>	6269.38 ft <sup>3</sup>
1440 min	0.10 in/hr	31824.25 ft <sup>3</sup>	6364.85 ft <sup>3</sup>	0.00 ft <sup>3</sup>	6364.85 ft <sup>3</sup>
EQUATION		CA = C*A	F = d/12*C*A	D=R*A*60*T	Storage = F-D