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MAIL RECORDED COPY TO  
OWNER:

**DOC # 20200028788**

Agreement Page 1 of 33  
Russell Shirts Washington County Recorder  
06/09/2020 10:44:58 AM Fee \$ 0.00  
By ST GEORGE CITY



AND MAIL RECORDED COPY TO:  
St. George City  
175 East 200 North  
St. George, UT 84770

Tax ID: SG-5-3-18-310-SLL

**CITY OF ST. GEORGE LONG-TERM STORMWATER MAINTENANCE  
AGREEMENT WITH IVORY SOUTHERN LLC FOR VILLA HIGHLANDS PHASE 3**

This Long-Term Stormwater Maintenance Agreement (“Agreement”) is made and entered into this 2nd day of June, 2020, by and between the City of St. George, a municipal corporation, with offices at 175 East 200 North, St. George, Utah 84770 (“City”), and Ivory Southern LLC, with offices at 978 E Woodoak Ln, Salt Lake City, Utah 84117 (“Owner”).

**RECITALS**

**WHEREAS**, City is authorized and required to regulate and control the disposition of storm and surface waters within its boundaries, as set forth in the City of St. George Code, Stormwater Management, Title 9 Chapter 14, as amended (“Ordinance”), adopted pursuant to the Utah Water Quality Act, and pursuant to City’s MS4 Permit which requires stormwater runoff to be managed by the use of Stormwater Facilities and best management practices; and

**WHEREAS**, Owner owns real property located in the City of St. George, Washington County, Utah and more particularly described in Exhibit A and incorporated herein as part of this Agreement (“Property”); and

**WHEREAS**, Owner recognizes that post construction storm water facilities (“Facilities”) shall be installed or were installed pursuant to the approved development plans and specifications for the Property and must be maintained; and

**WHEREAS**, City and Owner have determined that it is in the best interest of the health, safety and welfare of the citizens of the City that the Facilities be constructed and maintained on the property and that Owner must maintain those Facilities.

**AGREEMENT**

**NOW, THEREFORE**, in consideration of the foregoing, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

- 1. **RECITALS.** The Recitals above are hereby incorporated as part of this Agreement and are

SG Legal Approved as to Form: 10/10/19

binding on the parties.

2. **FACILITIES.** The Facilities shall be or have been constructed by Owner in accordance with the approved plans and specifications for the development. Owner shall, at its sole cost and expense, operate and maintain the Facilities in good working condition and in accordance with the Schedule of Long-Term Maintenance Activities agreed hereto and attached as Exhibit B. Owner shall report annually to the City on the City's approved forms or City's online reporting system detailing compliance with the requirements of this Agreement. Owner's Long-Term Stormwater Management Plan, (LTSWMP), is attached as Exhibit C. The LTSWMP must be adapted when site conditions and operations change and when existing programs are ineffective. Owner shall maintain the Property in compliance with this plan. When the plan is updated, the new LTSWMP shall be filed with the City Public Works Department and shall replace the LTSWMP on file with the City. The updated LTSWMP shall not be recorded.
3. **ACCESS AND INSPECTIONS.** Owner hereby grants permission to City, its authorized agents and employees, to enter upon the Property to inspect the Facilities whenever City deems necessary. City shall not unreasonably interfere with the business operations on Property. Except in case of an emergency, City shall give at least a 24-hour notice to Owner prior to entry. Notice may be given by posting the Property. Facilities shall be maintained in a manner that makes them available for inspection and maintenance. All inspections shall be conducted in a reasonable manner and at reasonable times. The purpose of the inspection shall be to determine and insure that the Facilities are adequately maintained, are continuing to perform in an adequate manner, and are in compliance with all City requirements.
4. **FAILURE TO MAINTAIN.** In the event Owner fails to maintain the Facilities in good working order and in a manner that makes them available for inspection, City shall give written notice to Owner to cure such defects or deficiencies with a reasonable time frame for compliance. If Owner fails to comply within the timeframe, City may enter the Property to cure the defects.
5. **RIGHT TO CURE DEFECTS.** Owner hereby authorizes City, its authorized agents and employees, to enter upon the Property to cure the defects if Owner has failed to cure them within the reasonable time frame given for compliance. In case of an emergency, City may enter the Property immediately, without notice, and make the repairs. Owner is solely liable for maintenance of the Facilities. It is agreed that City shall have the right, but not the obligation, to elect to perform any or all of the maintenance activities if, in the City's sole judgment, Owner has failed to perform the same. City makes no representation that it intends to or will perform any of the maintenance activities and any election by City to perform any of the maintenance activities, shall in no way relieve Owner of its continuing maintenance obligations under this Agreement. If City elects to perform any of the maintenance activities, City shall be deemed to perform such work without warranty or representation as to the safety or effectiveness of such work, the work shall be deemed to be accepted by Owner "as is" and shall be covered by Owner's indemnity provisions below. If City performs any of the necessary maintenance activities Owner shall pay all of City's reasonable costs incurred in performing those necessary maintenance activities. Owner's

obligation to pay City's costs of performing necessary maintenance activities is a continuing obligation.

6. **COSTS.** Owner shall reimburse City within thirty (30) days of receipt of an invoice for the costs incurred by City in performing necessary maintenance activities. If not paid within the prescribed time period, City shall have the right to file a lien against the Property in the amount of such reasonable costs. The actions described in this section are in addition to and not in lieu of any and all legal remedies available to City as a result of Owner's failure to maintain the Facilities.
7. **NO ADDITIONAL LIABILITY.** It is the intent of this Agreement to insure the proper maintenance of the Facilities by the Owner. This Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or caused by storm water runoff.
8. **EXHIBITS.** All exhibits/figures attached hereto are incorporated as part of this Agreement, except updates to Exhibit C shall not be recorded but shall be kept at the City Public Works Department.
9. **AGREEMENT TO RUN WITH THE LAND.** This Agreement shall be recorded at the Recorder's Office of Washington County and shall constitute a covenant running with the land and shall be binding on Owner only for such time as Owner holds title to the Property and shall run with the land and pass to subsequent owners while they own the Property.
10. **COMPLIANCE WITH APPLICABLE LAWS.** Owner expressly acknowledges and agrees that nothing in this Agreement shall be deemed to relieve Owner from any obligation to comply with all applicable requirements of City, state and federal law including the payment of fees and compliance with all other applicable ordinances, resolutions, regulations, policies and procedures of City, except as modified, waived or declared in this Agreement.
11. **INTEGRATION.** This Agreement contains the entire Agreement with respect to the subject matter hereof and integrates all prior conversations, discussions or understanding of whatever kind or nature and may only be modified by a subsequent writing duly executed by the parties hereto. In the event of a conflict between this Agreement and any other documents with Owner, this Agreement shall govern.
12. **RESERVED LEGISLATIVE POWERS.** Nothing in this Agreement shall limit the future exercise of the police power by the City in enacting zoning, subdivision, development, transportation, environmental, open space and related land use plans, policies, ordinances and regulations after the date of this Agreement. This Agreement is not intended to and does not bind the St. George City Council in the independent exercise of its legislative discretion with respect to such zoning regulations.
13. **INDEMNITY AND LIABILITY.** City shall not be liable for Owner's stormwater or the Facilities. Owner shall indemnify, defend and hold harmless City, employees, elected

officials, officers, and agents to the extent each of them is acting in their official capacity on behalf of the City (collectively "City") against all claims, demands, causes or action, suits or judgments, including but not limited to all claims, demands, causes of action, suits or judgments for death or injuries to persons or for loss of or damage to property, arising out of Owner's breach of this Agreement. Notwithstanding, this indemnification obligation shall not include an indemnification of the City for claims, demands, causes or action, liabilities, damages, suits or judgments arising out of the City's negligence. In the event of any such claims made or suits filed against City, City shall give Owner prompt written notice. Owner agrees to defend against any such claims brought or actions filed against City, whether such claims or actions are rightfully or wrongfully brought or filed. Owner agrees that City may employ attorneys of its own selection to appear and defend the claim or action on its own behalf at the expense of Owner. Said attorney fees shall be reasonable and subject to review by Owner. Owner shall be responsible for all reasonable costs associated with any claim, demand, action, suit or judgment including reasonable attorney fees for which they indemnify or defend City. If any judgment or claims are entered against City, its authorized agents or employees, Owner shall pay for all reasonable costs and expenses in connection herewith.

14. **COMMON INTEREST DEVELOPMENTS.** If the Property is developed as a Common Interest Development which is defined as membership in or ownership of an "Association" which is responsible for some or all of the commonly owned or controlled area, then the following provisions shall apply during such time as the Property is encumbered by a "Declaration", and the Common Area is managed and controlled by the Association:
- (a) The Association, through its Board of Directors, shall assume full responsibility to perform the maintenance activities required pursuant to this Agreement, and shall undertake all actions and efforts necessary to accomplish the maintenance activities, including but not limited to, levying regular or special assessments against each member of the Association sufficient to provide funding for the maintenance activities, conducting a vote of the membership related to such assessments if required.
  - (b) No provision of the Declaration, nor any other governing document of the Association or grant of authority to its members, shall grant or recognize a right of any member or other person to alter, improve, maintain or repair any of the Property in any manner which would impair the functioning of the Facilities. In the event of any conflict between the terms of this Agreement and the Declaration or other Association governing documents, the provisions of this Agreement shall prevail.
15. **NO WAIVER OF GOVERNMENTAL IMMUNITY.** Nothing in this Agreement is intended to or shall be deemed to be a waiver of the City's governmental immunity as set forth in applicable statutory law and case law except as otherwise set forth herein.
16. **GOVERNING LAW AND VENUE.** This Agreement shall be construed according to the laws of the State of Utah. The parties agree that jurisdiction and venue for all legal actions, unless they involve a cause of action with mandatory federal jurisdiction, shall be the Fifth District Court, Washington County, State of Utah. The parties further agree that the Federal District Court for the District of Utah shall be the venue for any cause of action with mandatory federal jurisdiction.

17. **LEGAL FEES.** Should any party default on any of the covenants or agreements contained herein, the defaulting party shall pay all costs and expenses, including reasonable attorney's fees, which may arise or accrue from enforcing this Agreement or in pursuing any remedy provided hereunder or by applicable law, whether such remedy is pursued by filing a lawsuit or otherwise. This obligation of the defaulting party to pay costs and expenses includes, without limitation, all costs and expenses, including reasonable attorney's fees incurred for appeals and bankruptcy proceedings. If either party commences legal action to interpret any term of this Agreement, the prevailing party shall be entitled to recover all reasonable attorneys' fees, court costs, and any other costs incurred in connection with such action.
18. **NOTICES.** All notices required herein, and subsequent correspondence in connection with this Agreement shall be mailed to the following:

City of St. George  
Attn: City Attorney  
175 East 200 North  
St. George, Utah, 84770

Ivory Southern LLC  
Attn: Jair Almaraz  
978 E Woodoak Ln  
Salt Lake City, Utah 84117

Such notices shall be deemed delivered following the mailing of such notices in the United States mail. Adequate notice shall be deemed given at the addresses set forth herein unless written notice is given by either party of a change of address.

19. **SUCCESSORS AND ASSIGNS.** Owner shall not assign, sublet, sell, transfer, or otherwise dispose of any interest in this Agreement, including to any type of owner's association, without assigning the rights and the responsibilities under this Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors and permitted assigns, but shall not inure to the benefit of any third party or other person.
20. **NO JOINT VENTURE, PARTNERSHIP OR THIRD-PARTY RIGHTS.** It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture or other arrangement between the parties. No term or provision of this Agreement is intended to or shall be for the benefit of any person, firm, organization or corporation not a party hereto, and no such other person, firm, organization or corporation shall have any right or cause of action hereunder.
21. **SEVERABILITY.** If any provision of this Agreement is declared invalid by a court of competent jurisdiction, the remaining provisions shall not be affected, and shall remain in full force and effect.
22. **CONSTRUCTION.** Each of the parties hereto has had the opportunity to review this Agreement with counsel of their choosing and the rule of contracts requiring interpretation of a contract against the party drafting the same is hereby waived and shall not apply in interpreting this Agreement.



**LONG-TERM STORMWATER MAINTENANCE AGREEMENT**

**EXHIBIT A**

Legal Description(s)

**Parcel SG-5-3-18-310-SLL**

BEGINNING AT A POINT THAT LIES NORTH 88°52'18" WEST ALONG THE SECTION LINE 1408.76 FEET AND SOUTH 2467.70 FEET FROM THE NORTH QUARTER CORNER OF SECTION 18, TOWNSHIP 43 SOUTH, RANGE 15 WEST, SALT LAKE BASE AND MERIDIAN, SAID POINT ALSO BEING ON THE SOUTH BOUNDARY LINE OF VILLA HIGHLANDS AT HIDDEN VALLEY PHASE 2, OFFICIAL RECORDS WASHINGTON COUNTY, UTAH, AND RUNNING ALONG SAID LINE THE FOLLOWING EIGHT (8) COURSES, 1) NORTH 78°44'24" EAST 122.37 FEET, 2) SOUTH 06°51'46" EAST 14.46 FEET, 3) SOUTH 21°26'54" EAST 31.60 FEET, 4) NORTH 66°59'06" EAST 143.92 FEET, 5) SOUTH 87°27'24" EAST 35.17 FEET, 6) NORTH 65°30'59" EAST 112.09 FEET, 7) NORTH 47°09'23" EAST 121.85 FEET, AND 8) SOUTH 37°25'58" EAST 105.31 FEET; THENCE SOUTH 52°34'02" WEST 93.40 FEET; THENCE SOUTH 56°27'04" WEST 67.05 FEET; THENCE SOUTH 59°15'43" WEST 75.77 FEET; THENCE SOUTH 70°33'34" WEST 53.27 FEET; THENCE SOUTH 66°59'06" WEST 80.05 FEET; THENCE SOUTH 68°33'06" WEST 67.00 FEET; THENCE NORTH 21°26'54" WEST 65.84 FEET; THENCE SOUTH 69°14'23" WEST 142.36 FEET; THENCE NORTH 25°00'59" WEST 40.17 FEET; THENCE NORTH 14°44'19" WEST 77.10 FEET; THENCE NORTH 78°44'24" EAST 19.35 FEET, TO THE POINT OF BEGINNING.

CONTAINING 59,464 SQUARE FEET OR 1.37 ACRES.

**LONG-TERM STORMWATER MAINTENANCE AGREEMENT**

Exhibit B

Schedule of Long-Term Maintenance Activities  
City of St. George, Utah

Activity	Frequency	Notes
Inspection	Annually	Owner shall report annually to the City on the City's approved forms or City's online reporting system, detailing compliance with the requirements of this Agreement.
Mowing and maintenance of vegetation	Variable, depending on vegetation and desired aesthetics	Landscaping and vegetation should be cared for throughout the year to ensure that proper sediment removal and infiltration is maintained. All trimmings shall be removed from the Property.
Remove trash and debris	As needed or following each storm	Trash and debris shall be removed from the Property regularly to ensure that the Facilities function properly and operate effectively. Trash often collects at inlet and outlet structures. These need to be cleaned regularly.
Inspect and maintain inlet and outlet structures	Monthly	The inlet and outlet structures should be inspected for damage and proper operation.
Sediment removal	Variable (2-5 years is typical)	The removal of sediment is necessary if the Facilities begin to lose capacity or effectiveness. The Owner will remove and dispose of all accumulated sediments which shall be disposed of properly, offsite.



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## EXHIBIT C

### Long-Term Stormwater Management Plan

for:

Hidden Valley Developments  
Villa Highlands phase 3 and future  
St. George, Utah 84790

Owner:

Ivory Development  
3143 South 840 East  
St George, UT 84790  
skylart@ivorydevelopment.com

Property Manager:

FCS Community Management  
285 Tabernacle St, Ste 202  
St George, UT 84770  
435-627-1776

**SG-5-3-18-310-SLL**

***Legal Description:***

BEGINNING AT SWLY MOST COR OF U S LOT 12, SEC 7 T43S R15W, SD PT LOC S88°51'13" E ALG SEC/L 1280.54 FT FM S1/4 COR OF SD SEC 7, TH N58°55'47" E ALG NWLY LN OF SD LOT 12, 193.80 FT; TH S23°58'48" E TO & ALG PARCEL DESC IN ENTRY #907610, 254.69 FT TO PT OF 1600.00 FT RAD CUR LFT; TH ALG ARC OF SD CUR & SD PARCEL THRU CTL ANG OF 16°07'34" DIST OF 450.33 FT; TH S40°06'22" E ALG SD PARCEL 27.61 FT TO PT ON WLY BDY OF DESERT HILLS SUB; TH CONT ALG BDY OF SD DHS SUB FOL 17 CRSES, S47°34'45" W 34.35 FT TO PT ON 30.00 FT RAD NON-TNGT CUR RGT, CTR BEARS S43°50'17" W; TH SELY & SWLY ALG ARC OF SD CUR THRU CTL ANG OF 93°01'41" DIST OF 48.71 FT; TH S46°51'58" W 237.84 FT TO PT OF 429.00 FT RAD CUR LFT; TH ALG ARC OF SD CUR THRU CTL ANG OF 16°37'39" DIST OF 124.50 FT; TH S87°58'10" W 148.89 FT; TH N78°10'16" W 93.39 FT; TH S3°44'58" E 249.26 FT; TH S61°50'59" E 190.14 FT; TH S1°10'21" E 267.46 FT TO PT OF 2442.00 FT RAD CUR RGT; TH ALG ARC OF SD CUR THRU CTL ANG OF 8°14'22" DIST OF 351.17 FT; TH N80°22'46" W 117.57 FT; TH S9°37'14" W 367.14 FT; TH S32°15'04" W 122.28 FT; TH S79°17'00" W 279.39 FT; TH S6°18'11" E 239.00 FT; TH S25°10'55" E 156.72 FT; TH S9°19'20" W 245.83 FT; TH LEAV SD SUB

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S6°21'28" W 839.87 FT; TH S77°22'21" W 3554.83 FT; TH N88°32'22" W 439.98 FT TO PT ON ELY LN OF SEC 13, T43S R16W; TH N1°15'11" E ALG SEC/L 650.60 FT TO S1/16 COR OF SD SEC 13; TH N88°45'06" W ALG 1/16 LN 1321.56 FT TO SE1/16 COR OF SD SEC 13; TH N1°15'11" E ALG 1/16 LN 1169.62 FT TO PT ON NWLY BDRY OF PARCEL DESC IN ENTRY #644932; TH N56°53'27" E ALG SD BDRY 1600.72 FT TO PT ON ELY LN OF SD SEC 13, SD PT ALSO BEING ON SLY BDRY OF PARCEL DESC IN ENTRY #642028; TH ALG SD BDRY FOL 3 CRSES, N56°53'27" E 530.39 FT; TH N81°07'00" E 604.88 FT; TH N66°00'27" E 3485.32 FT TO POB.  
LESS: LAND IN ESTATES AT HIDDEN VALLEY PH 1.  
LESS: LAND IN VILLAS AT HIDDEN VALLEY.  
LESS: LAND IN CASITAS AT HIDDEN VALLEY.  
LESS: LAND IN ESTATES AT HIDDEN VALLEY PH 2.  
LESS: LAND IN VILLAS AT HIDDEN VALLEY AMD & EXT.  
LESS: LAND IN CASITAS AT HIDDEN VALLEY AMD & EXT.  
LESS: LAND IN ESTATES AT HIDDEN VALLEY PH 4.  
LESS: LAND IN HIDDEN VALLEY OPEN SPACE.  
LESS: LAND IN ESTATES AT HIDDEN VALLEY PH 8.  
LESS: LAND IN ESTATES AT HIDDEN VALLEY PH 7.  
LESS: LAND IN VILLA HIGHLANDS AT HIDDEN VALLEY PH 1.  
LESS: HIDDEN VALLEY PH 9  
LESS: LAND IN VILLA HIGHLANDS AT HIDDEN VALLEY PH 2.

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## **PURPOSE AND RESPONSIBILITY**

As required by the Clean Water Act and resultant local regulations, including St. George 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 pollute 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, unless SOPs are written to manage those activities or operations, and amended into this LTSWMP.

## **CONTENTS**

SECTION 1: SITE DESCRIPTION, USE AND IMPACT  
SECTION 2: TRAINING  
SECTION 3: RECORDKEEPING  
SECTION 4 APPENDICES

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

The site infrastructure at Hidden Valley is limited at controlling and containing pollutants and our operations if managed improperly can contaminate the environment. This LTSWMP includes standard operations procedures (SOP)s that are intended to compensate for the pollution containment limitations of our site infrastructure and direct our maintenance operations to responsibly manage our grounds.

### **Private Streets, Parking, Sidewalk and Flatwork**

Any sediment, leaves, debris, spilt fluids or other waste that collects on our private streets, parking lots, and sidewalks will be carried by runoff to our storm drain inlets. This waste material will settle in our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff can pass through our system ultimately polluting the Virgin River.

Maintenance involves regular sweeping, but it can also involve pavement washing to remove stains, slick spots and improve appearance when necessary. Use our Pavement Maintenance and the Pavement Washing SOPs to manage pollutants that collect on our pavements.

### **Landscaping**

Our landscape operations can result in grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides and other pollutants to fall or be left on our paved areas. This waste material will settle in our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff can pass through our storm drain system ultimately polluting the Virgin River. The primary pollutant impairing the Virgin River is organic material, so it is vital that our paved areas with direct connection to the City storm drain systems remain clean of landscape debris. Use our Landscape Maintenance SOP to prevent this potential pollution source from affecting the Virgin River.

### **Storm Drain System**

The storm drain inlets direct all runoff to a regional detention pond. This system is susceptible to sediment and dissolved pollutant transport during large storm events that can harm the Virgin River. Also our stormwater treatment system may hold water that can breed mosquitoes. It is important to regularly maintain this system to protect the Virgin River and prevent mosquito breeding. Use our Storm Drain Maintenance and Retention/Retention Basin Maintenance SOPs to manage our storm drain system responsibly.

### **Amenity Pool(s)**

Maintenance of the pools in this project makes a possibility of contamination of stormwater runoff. Chemicals used in pool maintenance can harm the Virgin River if allowed to drain off our property. Liquids and other waste generated by maintenance of

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amenity pools can be appropriately managed by our Swimming Pool, Spa and Landscaping Pond Drainage SOP.

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## **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 stronger of their Company and the LTSWMP SOPs. File all training records in an attached spreadsheet.

## **SECTION 3: RECORDKEEPING**

Maintain records of operation and maintenance activities in accordance with SOPs. Mail a copy of the record to St. George City Stormwater division annually.

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## SECTION 4:

Site Drawings and Details  
SOPs  
Recordkeeping Documents

### Long-Term BMP's inspection and maintenance schedule

Long-Term BMP's are required to be inspected by a qualified person during the installation to ensure the control is properly installed, with follow up inspections and a maintenance schedule as provided below. A list of BMP's and inspection schedule is shown below as listed in Exhibit B.

List of BMP's	Describe the inspection and maintenance schedule
Parking Lots Cleaning/Maintenance	Weekly walk-through and twice annual comprehensive
Mulch and Soils	Twice annually
Mowing and Trimming	Walkthrough and Clean up following regular maintenance
Fertilizer	Walkthrough and Clean up following each application
Storm Inlets	Twice annually
Cleanout box	Twice annually
Roof Drains	Twice annually
Floor Drains	Twice annually
Leaves – Autumn Cleanup	Once annually in the fall (prior to cold weather conditions)
Trash and Debris	Twice annually
HVAC	Twice annually
Underground Injection Control (UIC)	Twice annually

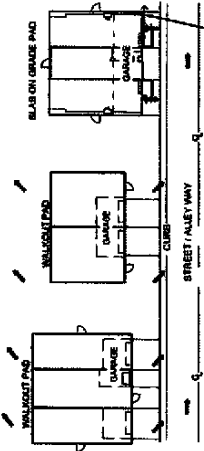
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## SITE DRAWINGS AND DETAILS



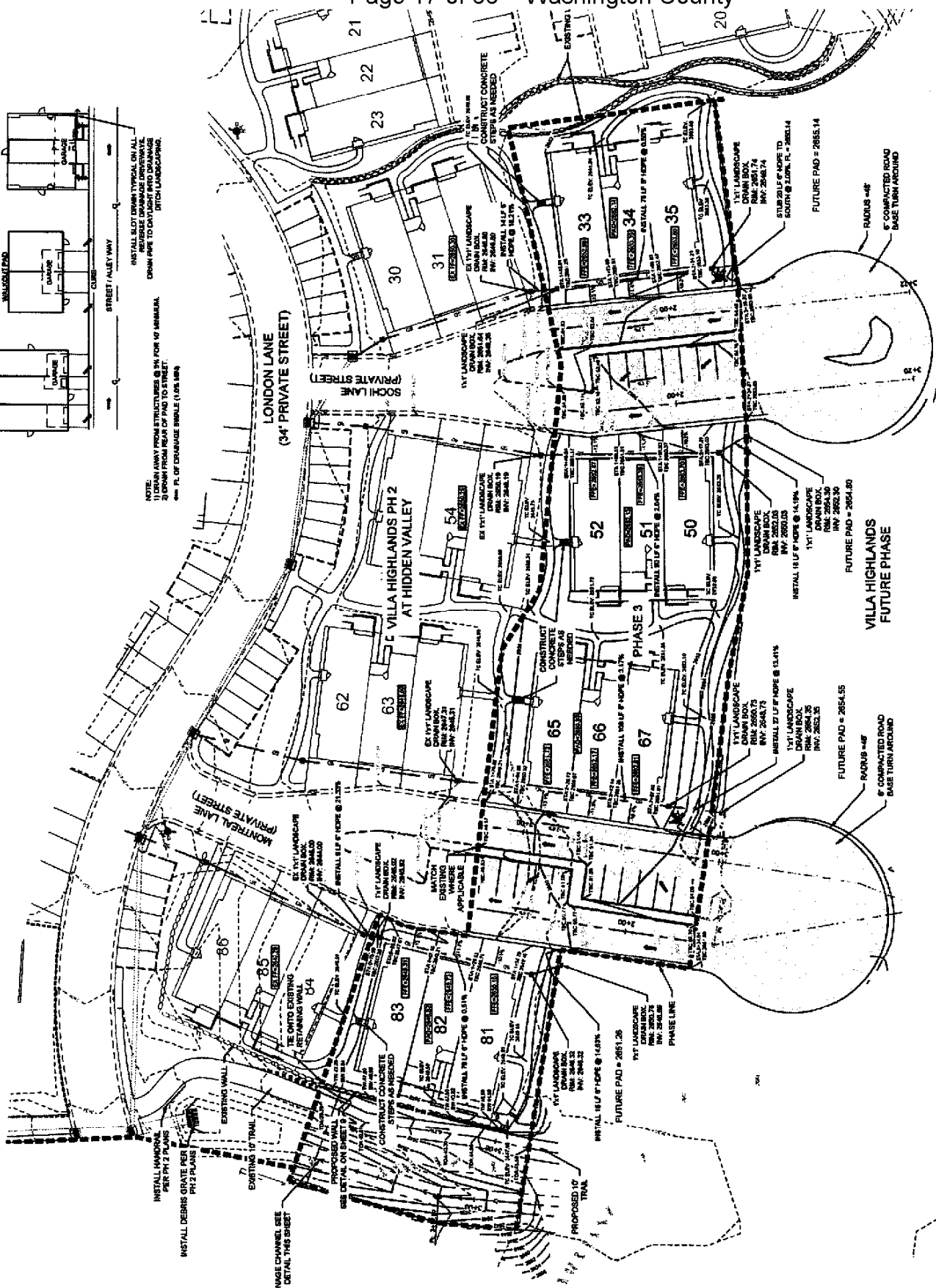
EAF  
 CUT  
 FILL  
 NET

TYPICAL PAD DRAINAGE



INSTALL SLOTTED DRAIN TYPICAL ON ALL WALLETS AND WALLOUTS FOR DRIVEWAYS. DRAIN PIPE TO STORM SEWER WITH DITCHES, DITCHES AND LANDSCAPING.

NOTE:  
 1) DRAIN AWAY FROM STRUCTURES @ 2% FOR 10' MINIMUM  
 2) DRAIN FROM REAR OF PAD TO STREET  
 3) PL OF DRAINAGE FINISH (1.0% MIN)



VILLA HIGHLANDS  
 FUTURE PHASE

SG-S-3-18-310-SLL

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## SOPs

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## ***Buildings – Parking Lot Maintenance***

### Standard Operating Procedure

**PURPOSE:** To prevent pollution of stormwater run-off from private streets and parking lots.

**PROCEDURE:**

1. Preparation:
  - a. Conduct employee training to reinforce proper housekeeping annually and at hire.
  - b. Restrict parking in areas to be swept prior to and during sweeping.
  - c. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.
2. Process:
  - a. Sweep private roads and parking areas, as needed, or as directed.
  - b. Hand sweep sections of gutter if soil and debris accumulate.
  - c. Pick-up litter as required to keep private roads and parking areas clean and orderly.
3. Clean-up:
  - a. Dispose of sweepings properly (designated solid waste facility).
  - b. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into the storm drain.
  - c. Swept materials will not be stored in locations where stormwater could transport fines into the storm drain system.
4. Documentation:
  - a. Retain work orders to track swept parking areas and approximate quantities.
  - b. Log training activities along with regular required safety training.

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## ***Landscape Maintenance Operations***

### Standard Operating Procedure

**PURPOSE:** To protect stormwater by properly preventing any solids, liquids or any light weight material from being carried away from the building by wind or water including application of pesticides, herbicides, & fertilizers.

**PROCEDURE:**

1. Preparation:
  - a. Make sure to follow all recommended SDS and MSDS instructions before handling any chemicals.
  - b. Make sure all pesticide application is conducted following manufacturer's recommendations.
  - c. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
  - d. Use pesticides only if there is an actual pest problem.
  - e. Time and apply the application of fertilizers, herbicides or pesticides according to the manufacturer's recommendation for best results ("Read the Label").
  - f. Know the weather conditions. Do not use pesticides if rain is expected within a 24-hour period. Apply pesticides only when wind speeds are low (less than 5 mph).
  
2. Process:
  - a. Follow the manufacturer's recommendations for mixing, applying, and disposing of pesticides ("Read the Label").
  - b. Grooming:
    - Lawn Mowing – Immediately following operation sweep or blow clippings onto vegetated ground.
    - Fertilizer Operation – Prevent overspray. Sweep or blow fertilizer onto vegetated ground immediately following operation.
    - Pesticide Operation – Prevent overspray, use spot treatment, sweep or blow dry pesticide onto vegetated ground immediately.
    - Remove or contain all erodible or loose material prior to forecast wind and precipitation events, before any non-stormwater will pass through or over the site.
    - Landscape project materials and waste can usually be contained or controlled by operational BMP's.
    - 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 as generated or daily
  - Scheduling work when weather forecasts are clear.
3. Cleanup
- a. Remove or contain all erodible or loose material prior to forecast wind and precipitation events, before any non-stormwater will pass through and over the project site and at end of work period. Light weight debris and landscape materials can require immediately attention when wind expected.
  - b. 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 as generated or daily
      - Scheduling work when weather forecasts are clear.
    - Use dry cleanup methods, e.g. square nose shovel and broom and it is usually sufficient when no more material can be swept onto the square nosed shovel.
    - Power blowing tools
4. Waste Disposal:
- a. Dispose of waste according to Building Waste Management SOP, unless superseded by specific SOPs for the operation.
5. Equipment:
- a. Tools sufficient for proper containment of pollutants and cleanup.
  - b. Push broom and square blade shovel should be a minimum.
6. Training:
- a. Annually and at hire
  - b. Landscape Service Contractors must have equal or better SOPs.

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## **Storm Drain Maintenance Operations**

### Standard Operating Procedure

**PURPOSE:** To prevent pollution of stormwater from sediment and debris.

**PROCEDURE:**

1. Preparation:
  - a. Train all employees at hire and annually.
  - b. Locate Storm Drain
  - c. Inspect for need
  
2. Process:
  - a. Schedule cleaning for boxes and pipe that contain 2" or more of sediment and debris.
  - b. Remove debris from inlets and junction boxes by vacuum operated machinery
  - c. Remove debris from underground detention with hose jet cleaning
  - d. When accumulations are mostly floating debris this material can be removed with a net.
  
3. Cleanup
  - a. Dispose of waste collected by machinery at regulated facilities.
  - b. Floating materials and floating absorbent materials may be disposed in dumpster when dried out. Dry dirt and slurry may also be disposed in the dumpster.
  - c. Disposal of hazardous waste
    1. Dispose of hazardous waste at regulated disposal facilities, see Waste Management and Spill Control SOP
    - ii. Disposal of waste collected from sanitary sewer device at regulated facilities.

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## **Retention/Detention Basin Maintenance**

### Standard Operating Procedure

**PURPOSE:** To protect stormwater by maintaining the ability of retention/detention basins to trap sediment, and organic matter. This reduces clogging the storm drain system as well as the transport of sediments and pollutants into receiving water bodies.

**PROCEDURE:**

1. Preparation:
  - a. Inspect detention/retention basins for structural integrity and evidence of illicit discharges. If gross contamination is present (sewage or oil) stop cleaning and report to supervisor for follow-up and notify City Stormwater Supervisor
  - b. Conduct visual inspection outside of the basin
  - c. Conduct visual inspection inside the basin to prevent and remove sediment build up in stormwater tanks or silt trap.
2. Process:
  - a. Contact Facilities Manager if drain appears to be clogged or in need of service.
  - b. Clean using a high powered vacuum truck to start vacuum standing water and sediment.
  - c. Systematically clean basin per maintenance plan
  - d. Dispose solids in a sealed waste container that will be transferred to a permitted, lined solid waste landfill or other solid waste treatment facility. Fluids collected during cleaning shall be discharged to a sanitary sewer or buffered detention area.
3. Cleanup:
  - a. When the vacuum truck is full of sediment, take it to the designated location to dump all sediment out of truck and into a drying bed.
  - b. Wash down area before leaving the designated dump location.
  - c. Never discharge waste material to storm drains
4. Documentation
  - a. Keep records of number of basins cleaned, date cleaned and any other issues resolved.
  - b. Record the amount of waste collected and number of basins cleaned and the area in which they were cleaned.

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## **Pavement Washing Operations**

### **Standard Operating Procedure**

**PURPOSE:** To prevent waste fluids and detergents from entering the storm drain system.

**PROCEDURE:**

1. Preparation:
  - a. Dam the inlet using a boom material that seals itself to the pavement and pick up the wastewater with shop vacuum or absorbent material.
  - b. Training annually and at hire
2. Process:
  - a. Collect wastewater with a shop vacuum simultaneously with the washing operation.
3. Cleanup
  - a. Small volumes can usually be drained to the local sanitary sewer. Contact St. George City Wastewater department at 435-627-4256
  - b. Large volumes must be disposed at regulated facilities.
  - c. Pavement washing is determined by conditions that warrant it, including but not limited to prevention of slick or other hazardous conditions or restore acceptable appearance of pavements.



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## Swimming Pool, Spa and Landscaping Pond Drainage

### Standard Operating Procedure

**PURPOSE:** To prevent chemicals and algae from entering the storm drain.

**PROCEDURE:**

1. Preparation:
  - a. Contact the city prior to draining any pool or pond into the storm drain and provide documentation verifying that the water is chlorine and algae free.
  - b. Conduct employee training to reinforce proper housekeeping annually and at hire.
2. Process:
  - a. Dechlorinate Pool/spa or pond. Pool/Spa may be emptied into the storm drain if the chlorine or bromine content is <1 part per million, pH level of the water must fall within a range of 7 to 8, and be free of other chemicals. Test pool water to verify that the water is free from chlorine, other chemicals and algae
  - b. Pool/spa discharges should be maintained on private property or in a sanitary sewer clean-out on private property, if water is not dechlorinated.
  - c. Draining water temperature should NOT exceed 100 degrees Fahrenheit.
  - d. The recommended flow rate when draining a swimming pool/spa should never exceed twelve (12) gallons per minute. Safe flow rates may differ depending on the size of drain line, distance to sewer clean-out and conditions of pipes.
3. Clean-up:
  - a. Small volumes can usually be drained to the local sanitary sewer. Contact St. George City Wastewater department at 435-627-4256 with questions.
  - b. Remember, only clean water, is allowed to enter into the City Storm drain, no dirt, sediment or debris.

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## General Construction Maintenance

### Standard Operating Procedure

**PURPOSE:** To prevent any solids, liquids or light-weight materials from being carried away from the construction or maintenance project by wind or water to the storm drain.

**PROCEDURE:**

1. Preparation:
  - a. This SOP should provide sufficient direction for many of the general operations, e.g., building maintenance, curb/sidewalk/flatwork, overlay/patching, landscape renovations, misc. maintenance/repairs, etc.
  - b. Training at hire and annually.
2. Process:
  - a. Remove or contain all erodible or loose material prior to forecast wind and precipitation events or before non-stormwater will pass through the project site. Light weight debris can require immediate attention for wind events and may be needed many times daily. Maintain as needed for wind, 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 insure the structural best management practices are in good operating condition and at least prior to the workday end. Promptly repair damaged best management practices achieving effective containment.
3. Cleanup:
  - a. Use dry cleanup methods, e.g. square nose shovel and broom.

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- b. Wet methods are allowed if wastewater is prevented from entering the stormwater system, e.g. wet/dry vacuum, disposal to landscaped areas.
  - c. When a broom and a square nosed shovel cannot pick any appreciable amount of material.
  - d. Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.
  - e. Never discharge waste material to storm drains

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## Spill Control

### Standard Operating Procedure

**PURPOSE:** To protect stormwater by educating employees on proper spill cleanup procedures, state reporting requirements, and preventative actions.

**PROCEDURE:**

1. Always:
  - a. Stop the source of the spill, if possible to safely do so.
  - b. Contain any liquids, if possible to safely do so.
  - c. Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Do not use straw or water.
  - d. Petroleum spills involve, but are not limited to: crude oil, gasoline, various fuel oils, lubricating oil, hydraulic oil, asphaltic residuals.
  - e. Report a petroleum spill (435) 627-4142 if:
    - i. The spill is greater than 25 gallons, or
    - ii. The spill cannot be immediately contained, or
    - iii. The spill and/or contamination cannot be completely removed within 24 hours, or
    - iv. There is an impact or potential impact to ground/surface water.
    - v. **IF IN DOUBT, REPORT THE SPILL!**
  - f. Hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
    - i. Report any discharge of hazardous waste immediately (within one hour) to local emergency officials (fire department), then contact Health Department Emergency Response Team (435) 673-3528.
    - ii. Contact local fire department (435) 627-4150
    - iii. Develop and maintain a Spill Prevention, Control, and Countermeasure (SPCC) Plan if the facility stores more than 1,320 gallons of petroleum.
    - g. Fit petroleum and chemical storage containers with secondary containment structures.
    - h. Keep a spill kit in areas where petroleum or hazardous materials are stored.
    - i. Train employees in spill response procedures and equipment.
    - j. Deploy containment booms if spill could potentially reach a storm drain or water body.
    - k. Position mats to contain drips from equipment or vehicles until they can be repaired.
2. Cleanup:
  - a. **NEVER WASH SPILLS TO THE STORM DRAIN SYSTEM**
  - b. Clean per SDS requirements but generally most spills can be cleaned up according to the following:

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- 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. See Pavement Washing SOP.
  - Repeat process when residue material remains.
- c. Follow SDS requirements but usually most spills can be disposed per the following d. & e.
- d. Generally, most spills absorbed into solid forms can be disposed to the dumpster and receptacles. Follow Waste Management SOP.
- e. 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.
3. Documentation:
- a. Document all spills in spreadsheet.
4. SDS sheets:
- a. SDS Manual is filed with the HOA or property maintenance company.
5. 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 that are required by the SDS Manuals for chemicals used by the company.
6. Training:
- a. Annually and at hire.

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## PLAN RECORDKEEPING DOCUMENTS



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**MAINTENANCE LOG**

	Maintenance per SOPs	System Performance (reflects assessment of system performance and necessary changes...)	

Contact the Stormwater Division for an example of a maintenance/inspection log



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



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## 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.