ENT 48068:2024 PG 1 of 53
ANDREA ALLEN
UTAH COUNTY RECORDER
2024 Jul 19 10:42 AM FEE 0.00 BY MG
RECORDED FOR LEHI CITY

When recorded, mail to:

Lehi City Recorder
153 North 100 East
Lehi City, UT 84043

Affects Parcel No(s): 67:057:0002; 67:057:0001

LONG-TERM STORMWATER MANAGEMENT AGREEMENT

This Long-Term Stormwater Management Agreement ("Agreement") is made and entered into this 3rd day of July, 2024, by and between Lehi City, a Utah municipal corporation ("City"), and Garff Properties-Meadow Pointe, LLC, a Utah limited liability company ("Owner").

RECITALS

WHEREAS, the City is authorized and required to regulate and control the disposition of storm and surface waters within the City, 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, a 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, ("Long-Term Stormwater Management Plan" or "LTSWMP") are more particularly shown in Exhibit "B" on file with the Lehi City Recorder and,

WHEREAS, as 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, the Owner is required to enter into this Agreement establishing a means of documenting the execution of the Long-Term Stormwater Management Plan;

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 Long-Term Stormwater Management Plan, and the mutual covenants contained herein, the parties agree as follows:

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 City 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 30th of each year and shall be on forms acceptable to the City.

Section 4

City Oversight Inspection Authority. 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 (3) 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 Long-Term Stormwater Management 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 the Owner written notice of the defects or deficiencies and provide Owner with a reasonable time, but not less than sixty (60) days, to cure such defects or deficiencies. Such notice shall be confirmed delivery to the Owner or sent certified mail to the Owner at the address listed on the records of the Utah 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 the required cure period to ensure that the Stormwater Facilities are adequately maintained and continue to operate as designed and approved.

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 the deficiencies as provided in Section 5 and failure to cure, then, upon Owner's failure to cure or correct within thirty (30) days following a second notice delivered to Owner, the City may issue a Citation punishable as a Misdemeanor in addition to any 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 the 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 the thirty (30) days, such amount shall be deemed delinquent and shall be subject to interest at the rate of ten percent (10%) per annum. The 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 Utah County Recorder's Office and the covenants and agreements contained herein shall run with the land. 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 Agreement 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 Utah 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 the 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. No modification shall be effective until recorded in the Utah 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 this Agreement.

Section 15

Exhibit B. The Long-Term Stormwater Management Plan (LTSWMP) 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 this Agreement at the County Recorder but is included by this reference and shall kept on file with the City Recorder. Revision applications must be filed with the City Stormwater Division and amended into the LTSWMP on file with the Lehi City recorder.

STORMWATER SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT

PROPERTY OWNER

By: _____ Title: Manager

By: John Garff Title: _____

STATE OF UTAH)
:ss.
COUNTY OF Salt Lake)

The above instrument was acknowledged before me by John K. Garff, this 8 day of July, 2024.

Madison Wee
Notary Public
Residing in: Salt lake County
My commission expires: December 20, 2027

MADISON WEE
NOTARY PUBLIC - STATE OF UTAH
My Commission Expires December 20, 2027
COMMISSION NUMBER 734763

LEHI CITY

By: _____ Date: 7/18/24
Mayor Mark Johnson

Attest: _____
City Recorder

CORPORATE SEAL OF LEHI CITY STATE OF UTAH

STATE OF UTAH)
:ss.
COUNTY OF)

The above instrument was acknowledged before me by mark Johnson, this 18 day of July, 2024.

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

SHERRIE BENSON
NOTARY PUBLIC - STATE OF UTAH
My Commission Expires May 15, 2027
COMMISSION NUMBER 731175

Exhibit A: Legal Description and Survey
Exhibit B: Long-Term Stormwater Management Plan, on file with the Lehi City Recorder

EXHIBIT A

67:057:0002; 67:057:0001

Legal Description

ALL OF LOTS 1 AND 2, MEADOW POINTE SUBDIVISION PLAT "B", A COMMERCIAL SUBDIVISION, AS RECORDED IN THE OFFICE OF THE UTAH COUNTY RECORDER, STATE OF UTAH ON JUNE 13, 2019 AS ENTRY NO. 53715:2019, BEING A PART OF THE NORTHEAST QUARTER OF SECTION 6, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, LEHI CITY, UTAH COUNTY, UTAH, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 6; AND RUNNING THENCE NORTH 0°03'00" EAST 621.28 FEET AND NORTH 89°57'00" WEST 1288.63 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF INTERSTATE 15 BEING A POINT ON A CURVE;

THENCE SOUTHWESTERLY 730.85 FEET ALONG THE ARC OF A 578.01 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 72°26'46" AND A LONG CHORD BEARING SOUTH 33°23'58" WEST 683.13 FEET ALONG SAID WESTERLY RIGHT-OF-WAY LINE TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF 2100 SOUTH STREET AND A POINT OF NON-TANGENCY;

THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY LINE THE FOLLOWING FOUR (4) COURSES:

1) SOUTH 89°35'51" WEST 320.62 FEET;
2) SOUTH 88°30'37" WEST 100.80 FEET;
3) SOUTH 0°38'04" EAST 21.05 FEET; AND
4) WEST 60.64 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF ASHTON BOULEVARD;

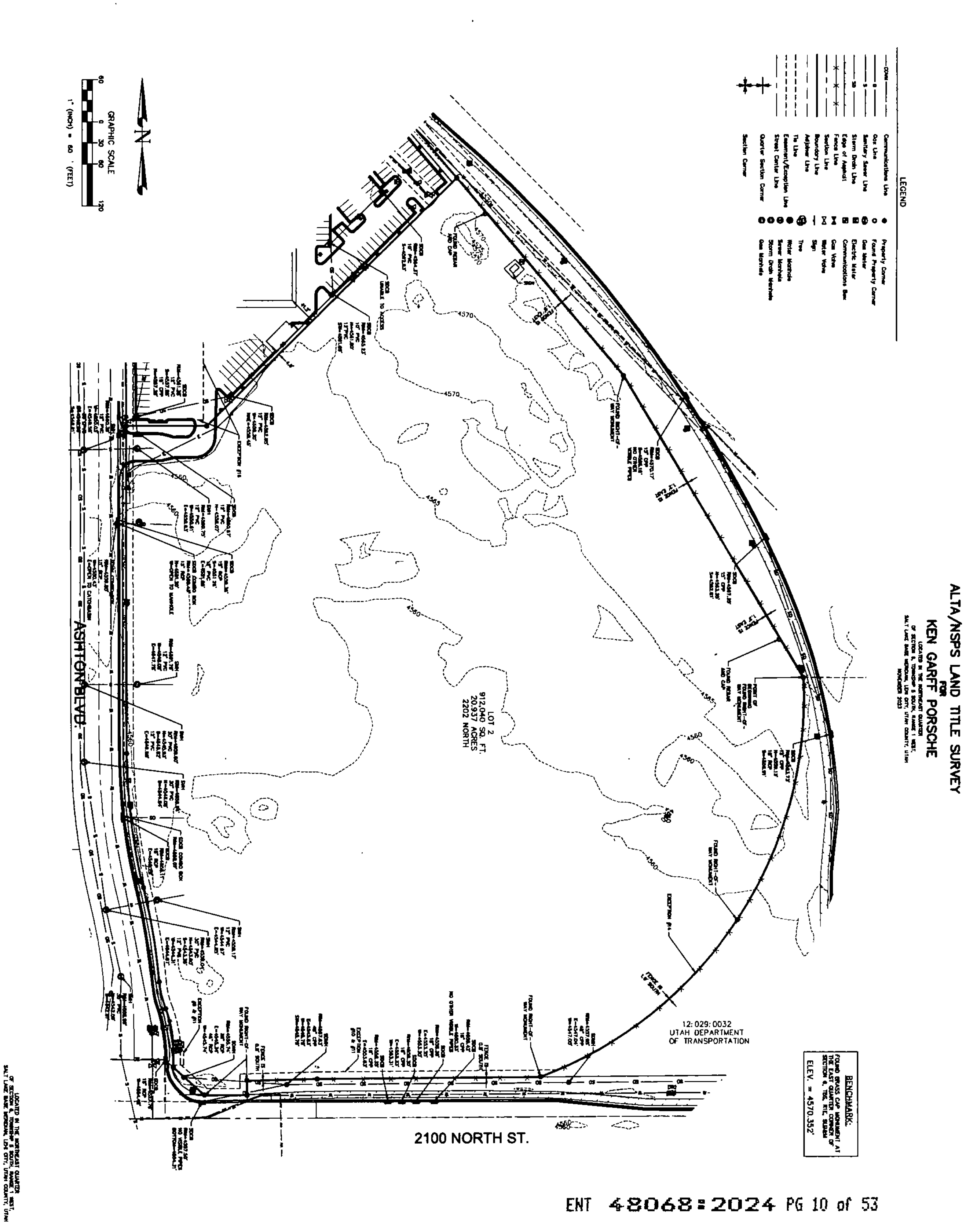
THENCE ALONG SAID EASTERLY RIGHT-OF-WAY LINE THE FOLLOWING EIGHT (8) COURSES:

1) NORTH 48°22'56" WEST 60.45 FEET;
2) NORTH 0°10'57" WEST 26.18 FEET TO A POINT OF CURVATURE;
3) NORTHWESTERLY 59.18 FEET ALONG THE ARC OF A 160.00 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 21°11'28" AND A LONG CHORD BEARING NORTH 10°46'42" WEST 58.84 FEET TO A POINT OF REVERSE CURVATURE;
4) NORTHWESTERLY 39.65 FEET ALONG THE ARC OF A 141.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 16°06'41" AND A LONG CHORD BEARING NORTH 13°19'06" WEST 39.52 FEET TO A POINT OF REVERSE CURVATURE;
5) NORTHWESTERLY 136.74 FEET ALONG THE ARC OF A 865.00 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 9°03'27" AND A LONG CHORD BEARING NORTH 9°43'07" WEST 136.60 FEET TO A POINT OF REVERSE CURVATURE;
6) NORTHWESTERLY 192.70 FEET ALONG THE ARC OF A 785.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 14°03'53" AND A LONG CHORD BEARING NORTH 7°12'54" WEST 192.22 FEET TO A POINT OF TANGENCY;
7) NORTH 0°10'57" WEST 583.78 FEET TO A POINT OF CURVATURE; AND
8) NORTHWESTERLY 377.62 FEET ALONG THE ARC OF A 1040.00 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 20°48'14" AND A LONG CHORD BEARING NORTH 10°35'05" WEST 375.55 FEET TO THE NORTHWESTERLY CORNER OF SAID LOT 1, MEADOW POINTE SUBDIVISION PLAT "B", A COMMERCIAL SUBDIVISION;

THENCE NORTH 18°00'26" EAST 346.27 FEET ALONG THE NORTHERLY LINE OF SAID LOT 1 TO THE WESTERLY RIGHT-OF-WAY LINE OF SAID INTERSTATE 15;
THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE THE FOLLOWING FOUR (4) COURSES:

1) SOUTH 44°57'22" EAST 264.46 FEET;
2) SOUTH 44°36'09" EAST 184.76 FEET;
3) SOUTH 40°19'09" EAST 556.79 FEET; AND
4) SOUTH 30°51'28" EAST 501.73 FEET TO A POINT ON A NON-TANGENT CURVE AND THE POINT OF BEGINNING.

CONTAINS 1,152,059 SQ. FT. OR 26.447 ACRES



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SHEET 2 of 2	JOB No. 23-201	DATE PLOTTED 11/20/23	COPYRIGHT

ALTA/NSPS LAND TITLE SURVEY
2202 AND 2302 NORTH ASHTON BOULEVARD
LEHI CITY, UTAH
KIMLEY-HORN

KEN GARFF PORSCHE OF UTAH

DIAMOND
LAND SURVEYING

11/20/23
No. 5152782
NATHAN B. WEBER
STATE OF UTAH

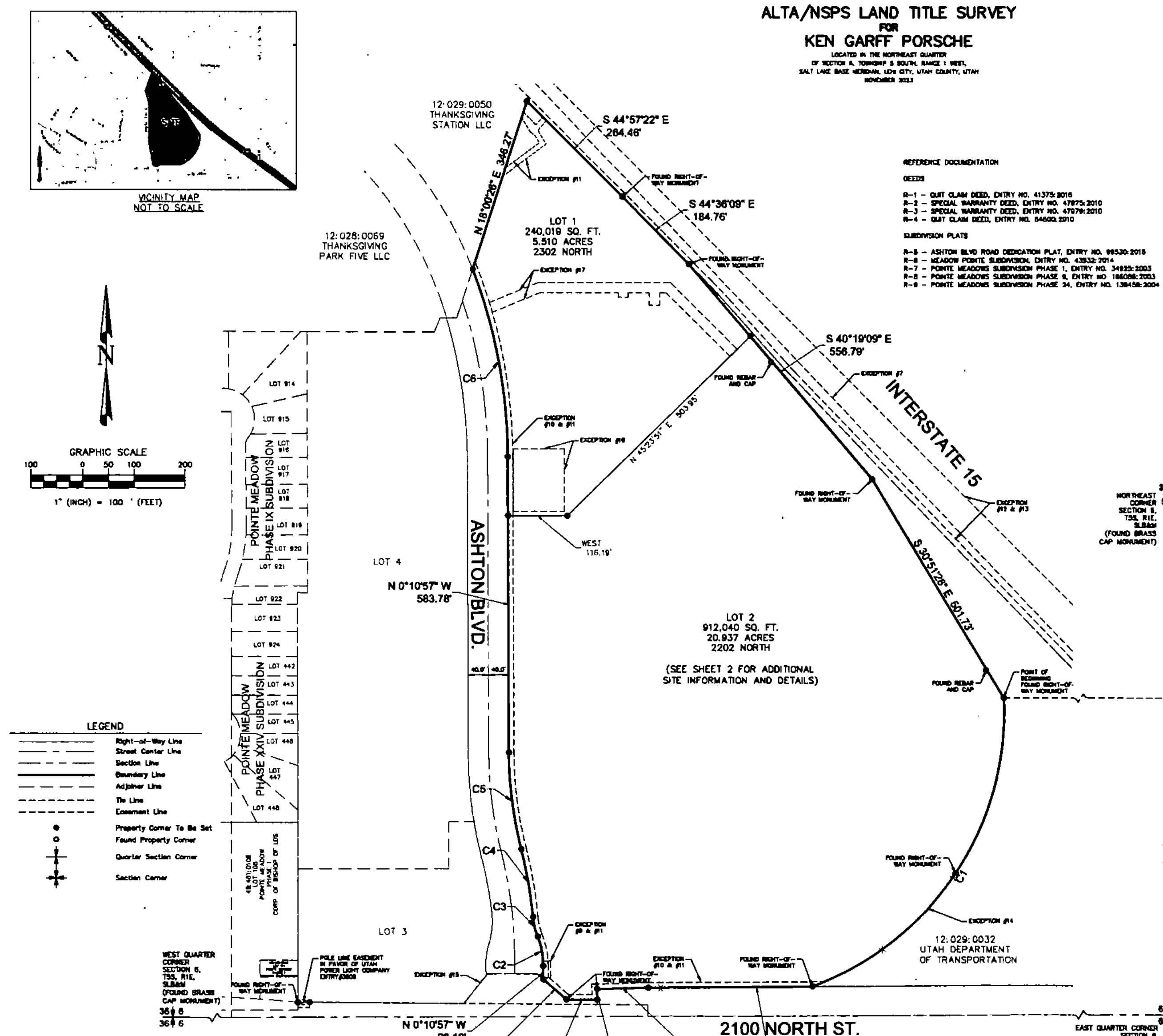
No.	DATE	REVISIONS	BY

DRAWN BY: JRF SURVEY DATE: 10/24/23

RECORD OF SURVEY No. ________

ALTA/NSPS LAND TITLE SURVEY
FOR
KEN GARFF PORSCHE

LOCATED IN THE NORTHEAST QUARTER
OF SECTION 6, TOWNSHIP 5 SOUTH, RANGE 1 WEST,
SALT LAKE BASE MERIDIAN, LEHI CITY, UTAH COUNTY, UTAH
NOVEMBER 2023



REFERENCE DOCUMENTATION

DEEDS

R-1 – QUIT CLAIM DEED, ENTRY NO. 41375:2016
R-2 – SPECIAL WARRANTY DEED, ENTRY NO. 47975:2010
R-3 – SPECIAL WARRANTY DEED, ENTRY NO. 47979:2010
R-4 – QUIT CLAIM DEED, ENTRY NO. 64600:2010

SUBDIVISION PLATS

R-5 – ASHTON BLVD ROAD DEDICATION PLAT, ENTRY NO. 99530:2018
R-6 – MEADOW POINTE SUBDIVISION, ENTRY NO. 43932:2014
R-7 – POINTE MEADOWS SUBDIVISION PHASE 1, ENTRY NO. 34925:2003
R-8 – POINTE MEADOWS SUBDIVISION PHASE 9, ENTRY NO. 186086:2003
R-9 – POINTE MEADOWS SUBDIVISION PHASE 24, ENTRY NO. 138458:2004

Curve Table					
Curve #	Length	Radius	Delta	Chord	Chord Length
C1	730.85'	578.01'	072°26'46"	S 33°23'56" W	683.13'
C2	58.18'	160.00'	021°11'28"	N 10°46'42" W	58.84'
C3	39.65'	141.00'	016°06'41"	N 13°19'06" W	39.52'
C4	136.74'	865.00'	009°03'27"	N 09°43'07" W	136.60'
C5	192.70'	785.00'	014°03'53"	N 07°12'54" W	192.22'
C6	377.62'	1040.00'	020°48'14"	N 10°35'05" W	375.55'

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FILE NUMBER: 173601-TCF
COMMITMENT DATE: OCTOBER 23, 2023 AT 7:30 AM
TO: GARFF PROPERTIES—MEADOW POINTE, LLC, A UTAH LIMITED LIABILITY COMPANY
COTTONWOOD TITLE

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 4, 5, 6(A), 6(B), 7(A), 8, 9, 11, AND 20(A) OF THE TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON OCTOBER 24, 2023.

DATE OF PLAT: NOVEMBER 14, 2023

PROFESSIONAL LAND SURVEYOR
NATHAN B. WEBER, PLS
LICENSE NO. 5152762

LEGAL DESCRIPTION

LOTS 1 AND 2, MEADOW POINTE SUBDIVISION PLAT "B", A COMMERCIAL SUBDIVISION, AS RECORDED IN THE OFFICE OF THE UTAH COUNTY RECORDER, STATE OF UTAH ON JUNE 13, 2019 AS ENTRY NO. 53715:2019 (MAP FILING NO. 18586).

SCHEDULE B, PART II EXCEPTIONS

ITEMS 1-6; 20 ARE NOT SHOWN INTENTIONALLY AS THEY ARE NOT SURVEY ITEMS.

7. POLE LINE EASEMENT IN FAVOR OF UTAH POWER AND LIGHT COMPANY, TO CONSTRUCT, RECONSTRUCT, OPERATE, MAINTAIN AND REPAIR ELECTRIC TRANSMISSION AND OTHER EQUIPMENT OVER, UNDER AND ACROSS A PORTION OF THE SUBJECT LAND. SAID EASEMENT RECORDED JUNE 14, 1961, AS ENTRY NO. 7796 IN BOOK 875 AT PAGE 40.

SURVEY FINDINGS: PLOTTED, AFFECTS THE EASTERLY PORTION OF THIS SITE. NO WIDTH WAS PROVIDED

8. RIGHT OF WAY EASEMENT IN FAVOR OF PACIFICORP, AN OREGON CORPORATION, ITS SUCCESSORS AND ASSIGNS, TO CONSTRUCT, RECONSTRUCT, OPERATE, MAINTAIN AND REPAIR ELECTRIC TRANSMISSION AND OTHER EQUIPMENT OVER, UNDER AND ACROSS A PORTION OF THE SUBJECT LAND. SAID EASEMENT RECORDED AUGUST 27, 2003, AS ENTRY NO. 140522:2003. (EXACT LOCATION NOT DISCLOSED)

SURVEY FINDINGS: NOT PLOTTED, BLANKETS SITE.

9. EASEMENT AGREEMENT BY AND BETWEEN IR LEHI, L.L.C., A UTAH LIMITED LIABILITY COMPANY AND QUESTAR GAS COMPANY, A CORPORATION OF THE STATE OF UTAH, DATED DECEMBER 21, 2011 AND RECORDED JANUARY 13, 2012 AS ENTRY NO. 3189:2012.

SURVEY FINDINGS: PLOTTED, AFFECTS THE SOUTHWESTERLY PORTION OF THIS SITE.

10. PUBLIC UTILITY EASEMENT IN FAVOR OF LEHI CITY, DATED JUNE 14, 2017 AND RECORDED JUNE 29, 2017 AS ENTRY NO. 62963:2017.

SURVEY FINDINGS: PLOTTED, AFFECTS THE SOUTHERLY AND WESTERLY PORTIONS OF THIS SITE.

11. EASEMENTS, NOTES AND RESTRICTIONS AS SHOWN ON THE RECORDED PLAT FOR MEADOW POINTE SUBDIVISION, PLAT "B", RECORDED JUNE 13, 2019 AS ENTRY NO. 53715:2019.

SURVEY FINDINGS: PLOTTED, AFFECTS THE NORTHERLY, SOUTHERLY AND WESTERLY PORTIONS OF THIS SITE.

12. RESTRICTIONS, RESERVATIONS AND EASEMENTS AS CONTAINED IN THAT CERTAIN SPECIAL WARRANTY DEED (CONTROLLED ACCESS) RECORDED JUNE 30, 1981 AS ENTRY NO. 8801 IN BOOK 876 AT PAGE 194.

SURVEY FINDINGS. PLOTTED. AFFECTS THE EASTERLY RIGHT-OF-WAY AND DOES NOT AFFECT THIS SITE.

13. RESTRICTIONS, RESERVATIONS AND EASEMENTS AS CONTAINED IN THAT CERTAIN TRUSTEE'S DEED RECORDED JUNE 30, 1981 AS ENTRY NO. 8803 IN BOOK 876 AT PAGE 196.

SURVEY FINDINGS: PLOTTED, AFFECTS THE EASTERLY RIGHT-OF-WAY AND DOES NOT AFFECT THIS SITE.

14. RESTRICTIONS, RESERVATIONS AND EASEMENTS AS CONTAINED IN THAT CERTAIN SPECIAL WARRANTY DEED (CONTROLLED ACCESS) RECORDED JUNE 10, 2010 AS ENTRY NO. 47975:2010.

SURVEY FINDINGS: PLOTTED, AFFECTS THE PROPERTY TO THE SOUTHEAST OF THIS SITE AND DOES NOT AFFECT THIS SITE.

15. RESTRICTIONS, RESERVATIONS AND EASEMENTS AS CONTAINED IN THAT CERTAIN SPECIAL WARRANTY DEED (CONTROLLED ACCESS) RECORDED JUNE 10, 2010 AS ENTRY NO. 47978:2010.

SURVEY FINDINGS: PLOTTED, AFFECTS PROPERTIES TO THE WEST OF THIS SITE AND DOES NOT AFFECT THIS SITE.

16. EASEMENT IN FAVOR OF LEHI CITY, UTAH COUNTY, STATE OF UTAH FOR A PERPETUAL EASEMENT AND RIGHT-OF-WAY FOR CERTAIN DETENTION POND AND RELATED FACILITIES AND INCIDENTAL PURPOSES, BY INSTRUMENT DATED OCTOBER 22, 2019 AND RECORDED OCTOBER 22, 2019, AS ENTRY NO. 109081:2019.

SURVEY FINDINGS: PLOTTED, AFFECTS THE WESTERLY PORTION OF THIS SITE.

17. EASEMENT IN FAVOR OF LEHI CITY, UTAH COUNTY, STATE OF UTAH FOR A PERPETUAL EASEMENT AND RIGHT-OF-WAY FOR CERTAIN WATERLINE AND RELATED FACILITIES AND INCIDENTAL PURPOSES, BY INSTRUMENT DATED OCTOBER 22, 2019 AND RECORDED OCTOBER 22, 2019, AS ENTRY NO. 109082:2019.

SURVEY FINDINGS: PLOTTED, AFFECTS THE NORTHERLY PORTION OF THIS SITE.

18. LONG TERM STORMWATER MANAGEMENT AGREEMENT BY AND BETWEEN LEHI CITY, A UTAH MUNICIPAL CORPORATION AND GARFF PROPERTIES-MEADOW POINTE, LLC, A UTAH LIMITED LIABILITY COMPANY, DATED SEPTEMBER 18, 2019 AND RECORDED OCTOBER 23, 2019 AS ENTRY NO. 109488:2019.

SURVEY FINDINGS: NOT PLOTTED, BLANKETS SITE.

19. ORDINANCE NO. 39-2018 APPROVING A ZONE DISTRICT DESIGNATION AMENDMENT AND ZONING DISTRICT MAP AMENDMENT FOR PROPERTY LOCATED AT 2300 NORTH ASHTON BOULEVARD, RECORDED JUNE 27, 2018 AS ENTRY NO. 60178:2018.

SURVEY FINDINGS: NOT PLOTTED, BLANKETS SITE.

NOTES:

1. THIS DOES NOT REPRESENT A TITLE SEARCH BY THE SURVEYOR. TITLE INFORMATION WAS PROVIDED BY OTHERS FOR THE SUBJECT PROPERTY.
2. THE LOCATION OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASE ON ABOVE GROUND STRUCTURES. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, PLEASE CONTACT APPROPRIATE AGENCIES.
3. THE PURPORTED ADDRESS FOR THIS SITE IS 2202 AND 2302 NORTH ASHTON BOULEVARD, LEHI, UTAH 84043 BASED ON DOCUMENTATION PROVIDED AT THE TIME OF THE SURVEY
4. THERE WAS NO ZONING INFORMATION PROVIDED TO THE SURVEYOR AT THE TIME THIS SURVEY WAS COMPLETED.
5. THERE ARE NO CONSTRUCTED BUILDINGS ON LOT 2.
6. THERE ARE NO PAVED PARKING STALLS ON LOT 2.

NARRATIVE:

THE BASIS OF BEARING IS NORTH 0°03'00" EAST BETWEEN THE FOUND EAST QUARTER CORNER AND THE NORTHEAST CORNER OF SECTION 6, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, UTAH COUNTY, UTAH AS SHOWN. THE SURVEY CONTROL WAS ESTABLISHED WITH GPS. THE GPS DATA WAS MEASURED ON THE UTAH STATE PLANE CENTRAL ZONE USF NAD83 SYSTEM AND WAS THEN PROJECTED TO A LOW DISTORTION GROUND SYSTEM FOR THIS SURVEY. A UAS SYSTEM WAS USED TO ASSIST IN MEASURING AND MAPPING THE PROPERTY AND AN ORTHO-RECTIFIED PHOTO OF THE SITE WAS USED FOR MAPPING FEATURES SUCH AS ROADWAYS AND WATERWAYS.

THE PURPOSE OF THIS SURVEY IS TO RETRACE AND MONUMENT THE BOUNDARY OF THE DESCRIBED PROPERTY ACCORDING TO THE OFFICIAL RECORDS AND THE LOCATION OF PERTINENT EXISTING IMPROVEMENTS LOCATED ON THE GROUND.

PER THE CLIENTS REQUEST, SITE AND TOPOGRAPHIC DETAILS WERE ONLY SURVEYED FOR LOT 2. LOTS 1 AND 3 ARE SHOWN WITH EXCEPTIONS AND DIMENSIONS OF THE BOUNDARIES.

LOCATED IN THE NORTHEAST QUARTER
OF SECTION 6, TOWNSHIP 5 SOUTH, RANGE 1 WEST,
SALT LAKE BASE MERIDIAN, LEHI CITY, UTAH COUNTY, UTAH

No.	DATE	REVISIONS	BY

DRAWN BY: JRF SURVEY DATE: 10/24/23

PROFESSIONAL LAND SURVEYOR 11/28/23 No. 5152762 NATHAN B. WEBER STATE OF UTAH

DIAMOND LAND SURVEYING

Boundary Surveys
Topography Surveys
Subdivisions
Construction Staking
A.L.T.A. & NSPS. Surveys

ALTA/NSPS LAND TITLE SURVEY
2202 AND 2302 NORTH ASHTON BOULEVARD
LEHI CITY, UTAH
KIMLEY-HORN

KEN GARFF PORSCHE OF UTAH

DATE PLOTTED 11/28/23
JOB No. 23-201
SHEET 1 of 2

EXHIBIT B

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Long-Term Stormwater Management Plan

for:

Porsche Lehi
2202 N Ashton Blvd
Lehi, UT 84043

Ken Garff Automotive, LLC
111 East Broadway Suite 900
Salt Lake City, UT 84111

Site Manager, Company Representative, Property Agent, HOA Representative, etc.
John Garff
Phone Number: (801) 257 - 3402
Email: johng@kengarff.com

PURPOSE AND RESPONSIBILTY

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 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.

The Jordan River is impaired but does not have a TMDL. The LTSWMP is also aimed at addressing the Jordan River impairments in addition to all other pollutants responsible by property owners.

CONTENTS

SECTION 1: SITE DESCRIPTION, USE AND IMPACT

By living in urban communities, every property creates runoff and affecting the quality of water that drains to our waterways and the ground. To manage flooding, control water pollution and manage cost, it is vital property owners are involved in managing the increased runoff impacts.
Our site infrastructure is limited at controlling and containing pollutants. If our property and operations are managed improperly, we contaminate our local water resources. This LTSWMP includes standard operations procedures (SOP)s intended to compensate for the limitations of our site infrastructure and direct our maintenance operations to responsibly manage our grounds. SOPs are filed in appendix B.

Parking, Sidewalk, and flatwork

Any sediment, leaves, debris, spilt fluids, or other waste that collects on our parking lots and sidewalks is carried by runoff to our storm drain inlets. This waste material settles in our storm drain system increasing maintenance costs and any waste dissolving in the runoff passes through our system ultimately polluting the Jordan River.
Maintenance involves regular sweeping, but it can also involve pavement washing to remove stains, slick spots, and improve appearance when necessary. The Pavement Maintenance and the Pavement Washing SOPs are used to manage the pollutants associated with our pavements.

Landscaping

Our landscape operations, including mowing, pruning, hand digging etc., can result in grass clippings, sticks, branches, dirt, mulch, including fertilizers, pesticides and other pollutants to fall or be left on our paved areas. The primary pollutant impairing the Jordan River is organic material, so it is vital that the paved areas with direct connection to the city storm drain systems remain clean of landscape debris. The Landscape Maintenance SOP is written to control and manage this potential pollution source affecting the Jordan River.

Flood and Water Quality Control System

The drainage design of the site consists of an on-site storm drain collection system consisting of storm pipes discharging into an underground detention system where the 100-year, 24-hr storm event is detained and discharged to the city system while the first ½" of runoff from the site is retained onsite. This standard originates from the Clean-Water Act which regulates discharges and pollutants into local water. Infiltrating some of our runoff helps keep streams and rivers clean but if we are not careful can contaminate groundwater. Consequently, any pollution dissolving and mixing with runoff can increase risk to surface and subsurface runoff for which we are responsible. A 12" PVC pipe discharges the 13,117 cubic feet of storm water into a proposed 12" mainline that will be dedicated to the city of Lehi.

The stormwater treatment system holds water that can breed mosquitoes. It is important to regularly maintain this system to protect the Jordan River and prevent mosquito

breeding. The Storm Drain Maintenance SOP is written to control and manage this system. It is important our flood control volume and water quality system are adequately maintained to function properly.

Our system includes directing runoff to various catch basins around the site which divert the water to an underground detention storage and an underground infiltration system. The infiltration system is design to drain the first ½" of runoff into the ground required by Clean Water Act regulation. Infiltrating some of our runoff helps keep streams and rivers clean but if we are not careful can contaminate groundwater. Consequently, any pollution dissolving and mixing with runoff can increase risk to surface and subsurface runoff for which we are responsible. Prior to being discharged from the underground detention system, water passes through snouts at each of the catch basins on site which removes oil and larger debris from entering the system. Remember, anything we put or allow to be left on our pavements is eventually carried with runoff to our snouts and underground infiltration system filling it with sediment and debris increasing maintenance cost. When not maintained, very intense storm events can scour debris and silt from our system and spill it to the Jordan River. It is important our flood control volume and water quality system are adequately maintained to function properly.

Waste Management

Good waste management systems, if managed improperly, can become the source of the very pollution it was intended to manage. The lids of our dumpster and trash receptacles are intended to prevent light weight trash carried off by wind and precipitation exposure minimizing liquids that can leak to our pavement and from haul trucks. In addition, our dumpster pad slopes toward our pavement and any leaks can leach into runoff staining our pavement, increasing odors and risk to water resources.

Utility System

Our roof top utility system is exposed to our roof drains which drain to detention/retention system. These utilities can contain oils and other chemicals that can harm groundwater and the Jordan River if allowed to drain off our property.

Snow and Ice Removal Management

Salt is a necessary pollutant and is vital to ensuring a safe parking and pedestrian walkways. However, salt and other ice management chemicals if improperly managed, unnecessarily increase our salt impact to our local water resources.

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 Appendix C.

SECTION 3: RECORDKEEPING

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

Contact Information for Lehi City - Recordkeeping:

Mailing Address:
2538 N 300 W
Lehi, UT 84043

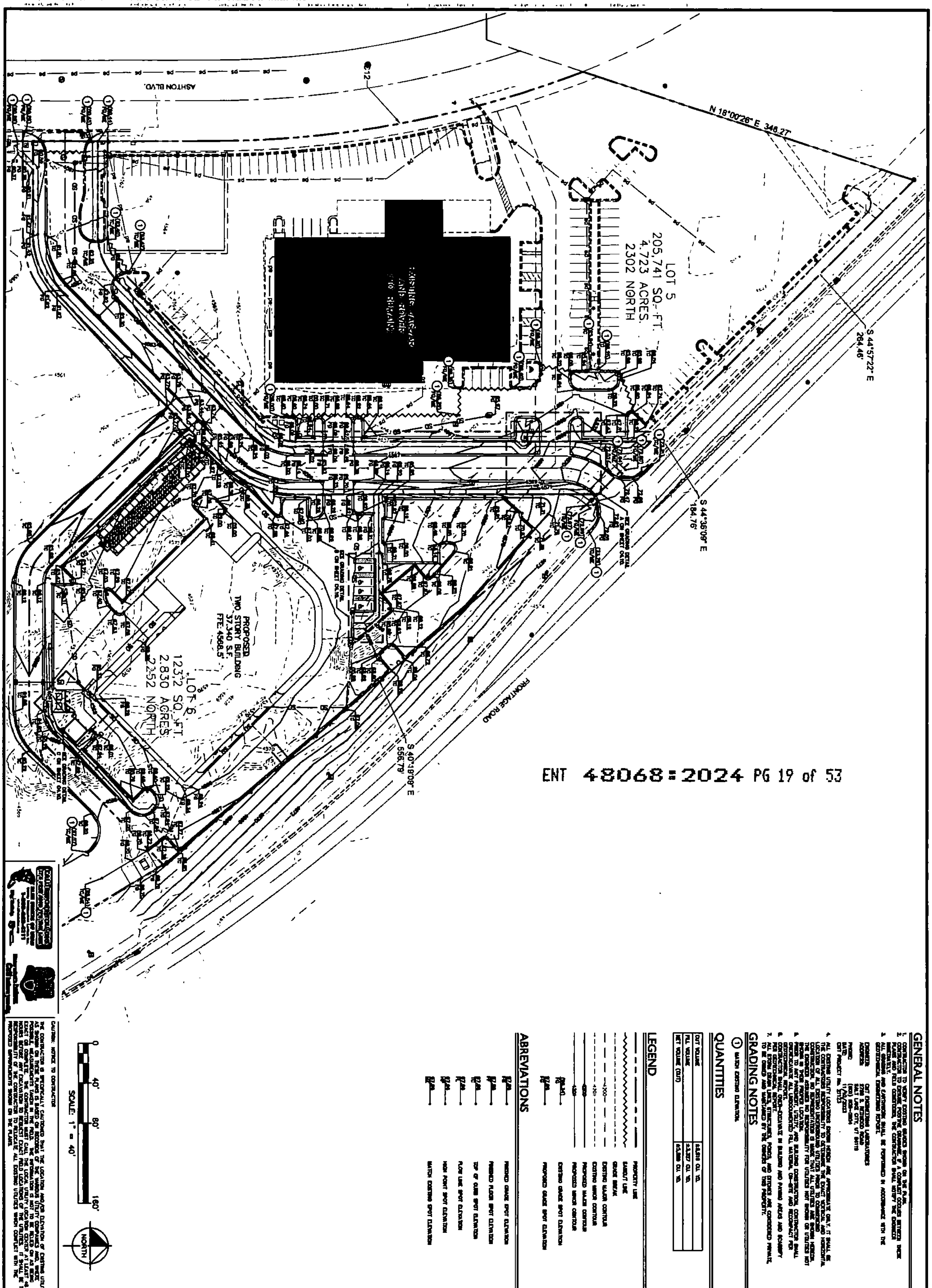
Email Address:

lehicitystormwater@gmail.com.

SECTION 4: APPENDICES

Appendix A- Site Drawings and Details
Appendix B- SOPs
Appendix C- Recordkeeping Documents

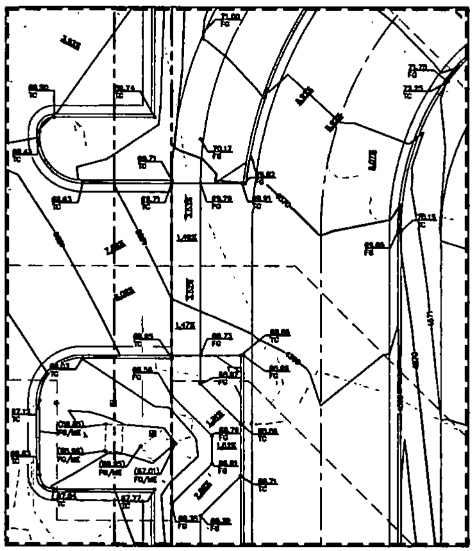
APPENDIX A – SITE DRAWINGS AND DETAILS



ENT 48068:2024 PG 19 of 53

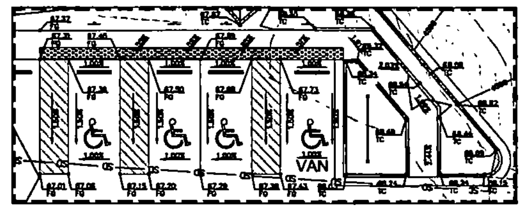
DRAWN BY: BSA 1/8/2024	GRADING PLAN		DATE	DESCRIPTION
DESIGNED BY: BSA 1/8/2024				
CHECKED BY: CPB 1/8/2024	KEN GARFF PORSCHE MEADOW POINTE 2202 N ASHTON BLVD. LEHI, UT 84043	Kimley»Horn		
PROJECT No.: 093528016	SCALE: AS SHOWN			

SHEET C4.00



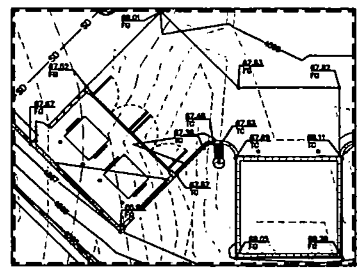
GRADING DETAIL A

SCALE: 1" = 10'



GRADING DETAIL B

SCALE: 1" = 10'



GRADING DETAIL C

SCALE: 1" = 10'

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING GRADES SHOWN ON THE PLAN.
2. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. ALL GRADING AND EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT.

ENGINEER: CMT ENGINEERING LABORATORIES
ADDRESS: 2796 S. REDWOOD ROAD
SALT LAKE CITY, UT 84119
PHONE: (801) 908-5854
DATE: 11/10/2023
CMT PROJECT No. 21123

4. ALL EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
5. PRIOR TO ANY PAVEMENT, UTILITY, AND BUILDING CONSTRUCTION, CONTRACTOR SHALL OVEREXCAVATE ALL UNDOCUMENTED FILL MATERIAL ON-SITE AND RECOMPACT PER GEOTECHNICAL REPORT.
6. CONTRACTOR SHALL OVER-EXCAVATE IN BUILDING AND PAVING AREAS AND SCARIFY PER GEOTECHNICAL REPORT.
7. ALL STORM DRAIN LINES, STRUCTURES, PONDS, AND DITCHES ARE CONSIDERED PRIVATE, TO BE OWNED AND MAINTAINED BY THE OWNERS OF THIS PROPERTY.

GRADING NOTES

(1) MATCH EXISTING ELEVATION.

LEGEND

— — — — —	PROPERTY LINE
- - - - - - -	GRADE BREAK
— — 4200 — —	EXISTING MAJOR CONTOUR
- - 4201 - -	EXISTING MINOR CONTOUR
——4200——	PROPOSED MAJOR CONTOUR
——4201——	PROPOSED MINOR CONTOUR
(88.34) FG	EXISTING GRADE SPOT ELEVATION
87.88 FG	PROPOSED GRADE SPOT ELEVATION

ABREVIATIONS

87.88 FG	FINISHED GRADE SPOT ELEVATION
87.88 FF	FINISHED FLOOR SPOT ELEVATION
87.88 TC	TOP OF CURB SPOT ELEVATION
87.88 FL	FLOW LINE SPOT ELEVATION
87.88 HP	HIGH POINT SPOT ELEVATION
87.88 ME	MATCH EXISTING SPOT ELEVATION

CAUTION: NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

DRAWN BY:	RSA 1/8/2024
DESIGNED BY:	RSA 1/8/2024
CHECKED BY:	CPB 1/8/2024
PROJECT No.: 093528016	SCALE: AS SHOWN

GRADING DETAILS

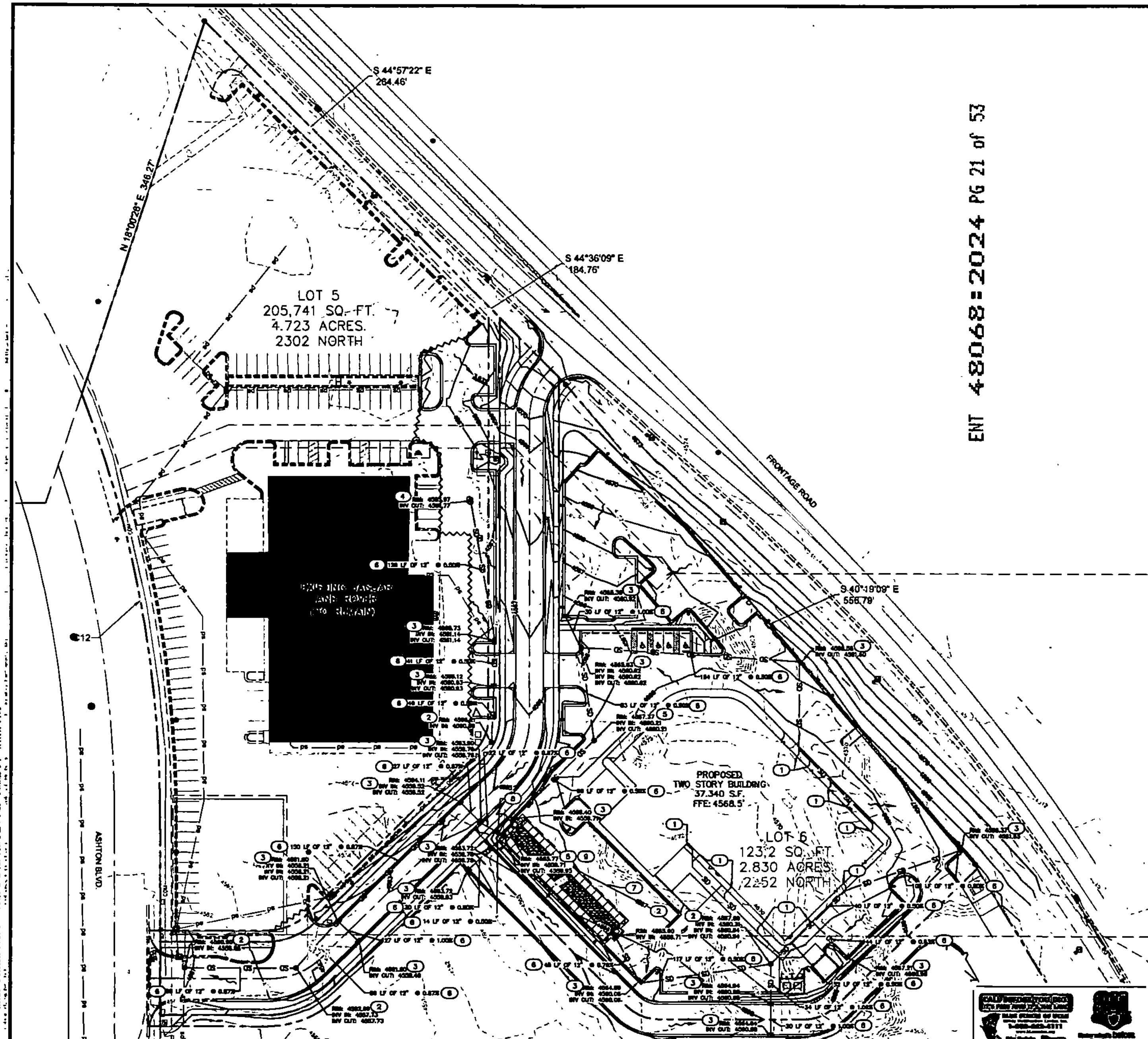
KEN GARFF PORSCHE MEADOW POINTE
2202 N ASHTON BLVD. LEHI, UT 84043

Kimley»Horn
1350 Ashton Blvd, Suite 150 | Lehi, UT 84043 | Tel. No. (385) 213-3176

△	DATE	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER — CHRISTENCE PAUL — 1/8/2024 — STATE OF UTAH

SHEET
C4.10



ENT 48068:2024 PG 21 of 53

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING GRADES SHOWN ON THE PLAN.
2. CONTRACTOR TO ENSURE POSITIVE DRAINAGE. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. ALL GRADING AND EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT.

ENGINEER: CMT ENGINEERING LABORATORIES
ADDRESS: 2796 S. REDWOOD ROAD, SALT LAKE CITY, UT 84119
PHONE: (801) 870-6604
DATE: 11/16/2023
CMT PROJECT No. 21123

4. ALL EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
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6. CONTRACTOR SHALL OVER-EXCAVATE IN BUILDING AND PAVING AREAS AND SCARIFY PER GEOTECHNICAL REPORT.
7. ALL STORM DRAIN LINES, STRUCTURES, PONDS, AND DITCHES ARE CONSIDERED PRIVATE, TO BE OWNED AND MAINTAINED BY THE OWNERS OF THIS PROPERTY.

STORM DRAIN NOTES

(1) FURNISH AND INSTALL ROOF DRAIN CONNECTION. COORDINATE WITH PLUMBING PLANS AND CONNECT 3' BELOW FFE.
(2) FURNISH AND INSTALL STORM DRAIN 5' MANHOLE AND CONNECT TO EXISTING PIPE. SEE DETAIL ON SHEET C8.00.
(3) FURNISH AND INSTALL STORM DRAIN CURB INLET PER DETAIL ON SHEET C8.10.
(4) FURNISH AND INSTALL STORM DRAIN GRATE INLET PER DETAIL ON SHEET C8.10.
(5) FURNISH AND INSTALL STORM DRAIN 5' MANHOLE PER DETAIL ON SHEET C8.00.
(6) FURNISH AND INSTALL PVC STORM DRAIN PIPE PER LEHI CITY STANDARDS AND SPECIFICATIONS. SIZE AND LENGTH PER PLAN.
(7) FURNISH AND INSTALL 13,434 CUBIC FEET ADS UNIT OR APPROVED EQUIVALENT.
(8) INSTALL CONTECH CDS UNIT PER DETAIL ON SHEET C8.40.
(9) INSTALL ORIFICE PLATE PER DETAIL ON SHEET C8.80.

DETENTION CALCULATIONS

Project: Ken Garff - Porsche
Description: Lot 6 Developed Site - 100 Year 24-Hour Storm Detention Sizing
Date: December 21, 2023

City of Lehi - Detention Pond Sizing

A = 2.83 ac Total project area.

Impervious 75,439 0.95 C (runoff coefficient)
Building 37,340 0.90 C (runoff coefficient)
Landscape 10,507 0.20 C (runoff coefficient)

Coefficient = 0.87 Weighted by development.
Q = 0.57 cfs Allowable discharge based on 0.20 cfs/acre.
Q = 0.54 cfs Actual Discharge

Required Storage

Time Elapsed (min.)	Runoff Total (in)	Runoff (cu.ft.)	Allow Discharge (cu.ft.)	Storage Req'd (cu.ft.)
15	1.00	8940	486	8482.16
30	1.34	11880	671	11018.72
60	1.67	14843	1343	[illegible]
120	1.81	16108	2686	12208.93
180	1.83	16375	3529	10846.02
360	1.98	17629	11657	[illegible]
720	2.30	20222	22314	-2092.18
1440	2.28	20481	46629	-26138.07

Required Storage = 13500 cu.ft

Offsite Allowable Release Rate
0.5661 cfs

Orifice Sizing
Q=CdA(2gh)^1/2
Cd= 0.62

Flow (Q) (Max) = 0.57 Design 77.7146
Head (ft) (Max) = 2 Head (ft) 2
Area (in²) (Max) = 11.89429 Area (in²) 11.04468
Dia (in) (Max) = 3.848914 Q 0.530894
Dia (in) design = 3.75

LEGEND

PROPERTY LINE
SAWCUT LINE
GRADE BREAK
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
DIRECTION OF STORMWATER FLOW

CAUTION: NOTICE TO CONTRACTOR

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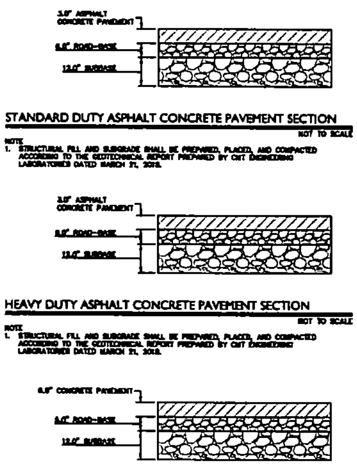
DRAWN BY: BSA 1/8/2024
DESIGNED BY: BSA 1/8/2024
CHECKED BY: CPB 1/8/2024
PROJECT No.: 093528016
SCALE: AS SHOWN

DRAINAGE PLAN

KEN GARFF PORSCHE MEADOW POINTE
2202 N ASHTON BLVD, LEHI, UT 84043

Kimley»Horn

SHEET C4.20



STANDARD DUTY ASPHALT CONCRETE PAVEMENT SECTION
NOT TO SCALE

NOTE
1. STRUCTURAL FILL AND SUBGRADE SHALL BE PREPARED, PLACED, AND COMPACTED ACCORDING TO THE GEOTECHNICAL REPORT PREPARED BY CMT ENGINEERING LABORATORIES DATED MARCH 21, 2018.

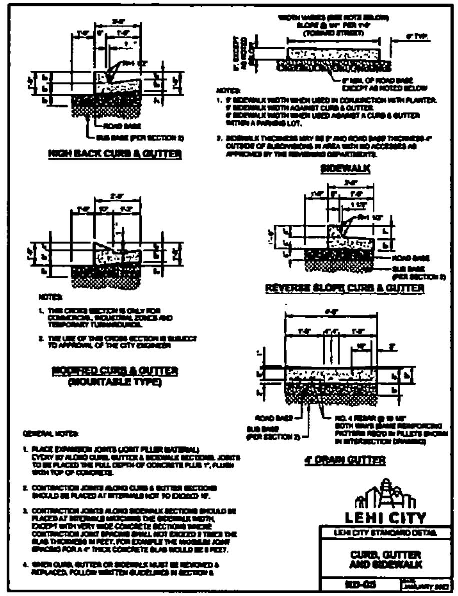
HEAVY DUTY ASPHALT CONCRETE PAVEMENT SECTION
NOT TO SCALE

NOTE
1. STRUCTURAL FILL AND SUBGRADE SHALL BE PREPARED, PLACED, AND COMPACTED ACCORDING TO THE GEOTECHNICAL REPORT PREPARED BY CMT ENGINEERING LABORATORIES DATED MARCH 21, 2018.

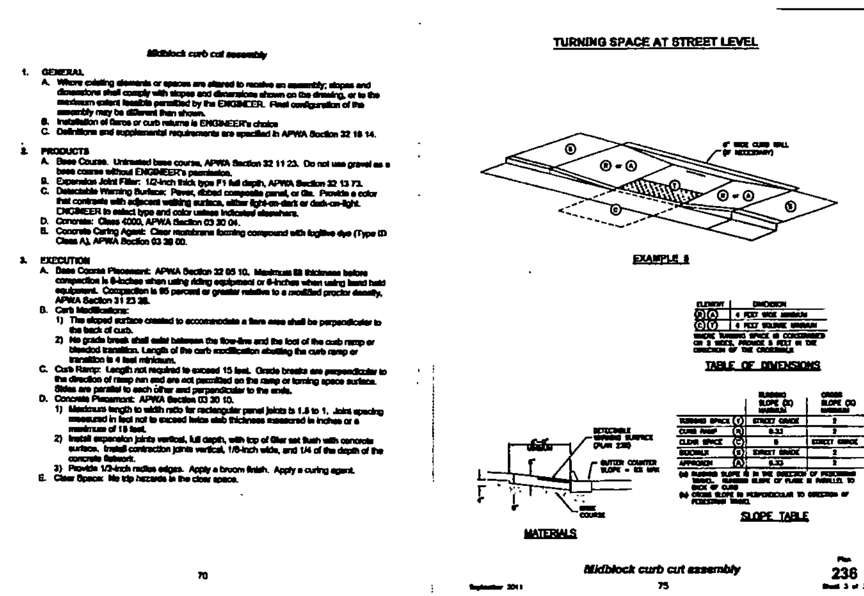
TYPICAL PORTLAND CEMENT CONCRETE PAVEMENT SECTION
NOT TO SCALE

NOTE
1. STRUCTURAL FILL AND SUBGRADE SHALL BE PREPARED, PLACED, AND COMPACTED ACCORDING TO THE GEOTECHNICAL REPORT PREPARED BY CMT ENGINEERING LABORATORIES DATED NOVEMBER 10, 2023.

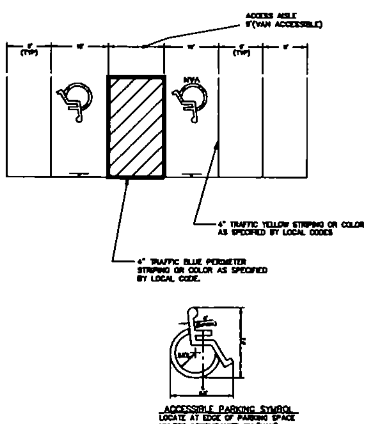
TYPICAL PAVEMENT SECTIONS



CURB, GUTTER, AND SIDEWALK DETAIL
NOT TO SCALE



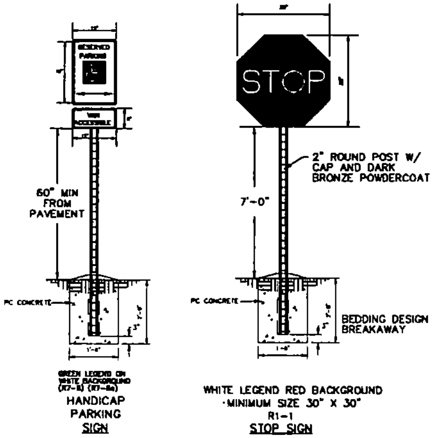
ADA ACCESSIBLE RAMP DETAIL
NOT TO SCALE



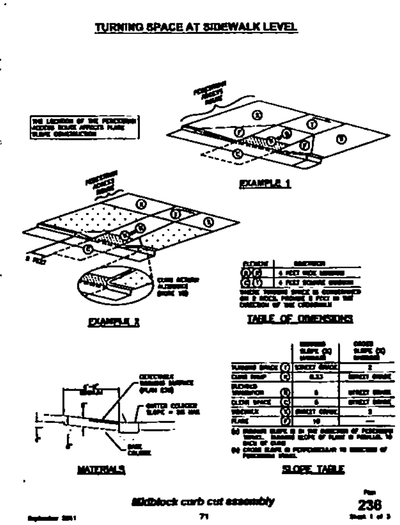
NOTES:
1. SEE SITE PLAN FOR TOTAL LAYOUT
2. THESE DETAILS ARE FOR REFERENCE AND DIMENSION CONTROL ONLY
3. 8' ACCESS AISLE SHALL BE PLACED ON THE PASSENGER SIDE OF A VAN ACCESSIBLE SPACE
4. ALL DIMENSIONS ARE TO E of STRIPE UNLESS OTHERWISE INDICATED

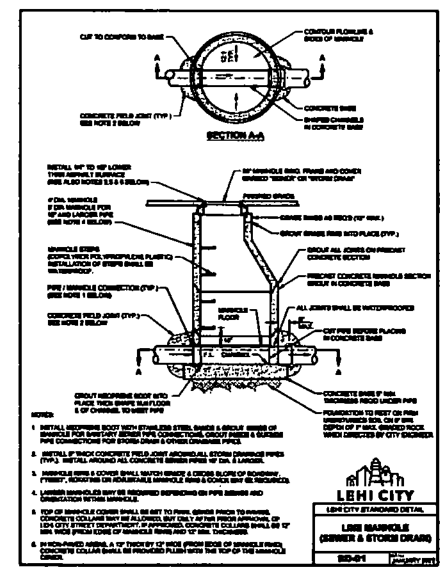
ADA PARKING PAVEMENT LEGEND
NOT TO SCALE

PROVIDE TRAFFIC CONTROL SIGNS COMPLYING WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S MANUAL "UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES, AND AS SPECIFIED.



ADA PARKING SIGNAGE AND STOP SIGN DETAILS
NOT TO SCALE





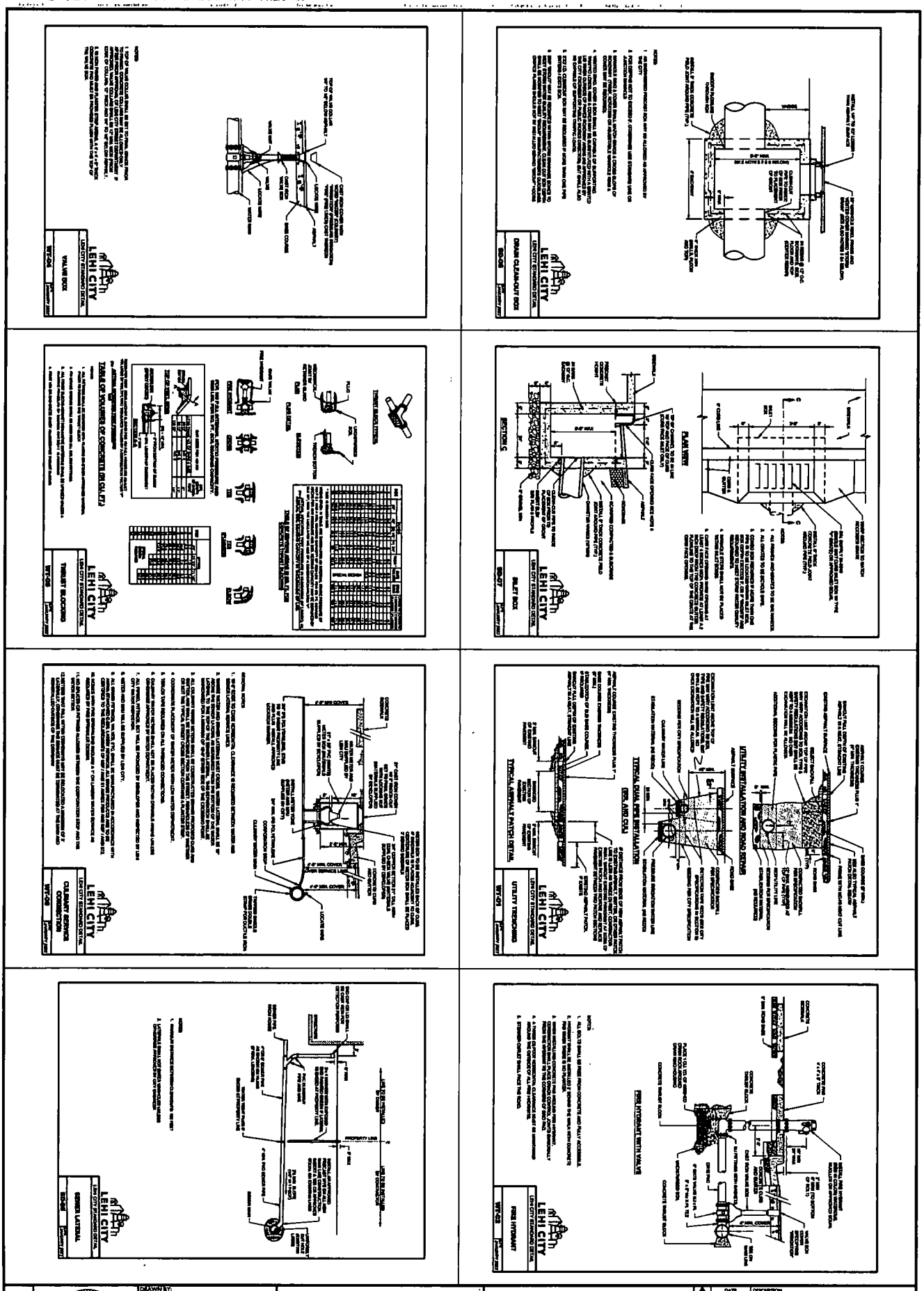
DRAWN BY: BSA	1/8/2024
DESIGNED BY: BSA	1/8/2024
CHECKED BY: CPL	1/8/2024
PROJECT No.: 093528016	SCALE: AS SHOWN

CONSTRUCITON DETAILS

KEN GARFF PORSCHE MEADOW POINTE
2202 N ASHTON BLVD. LEHI, UT 84043

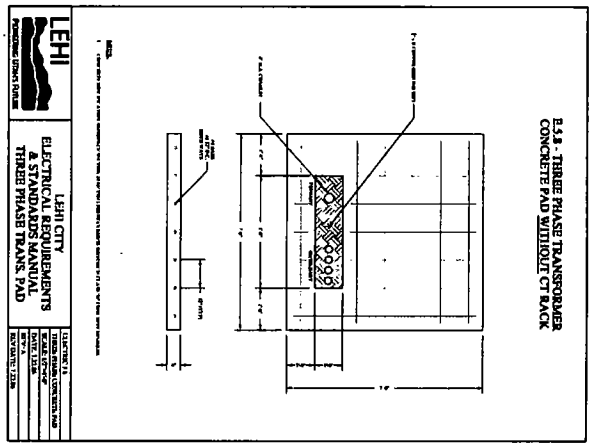
Kimley»Horn

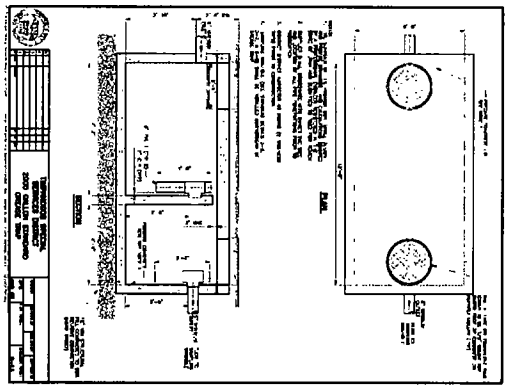
SHEET
C6.00

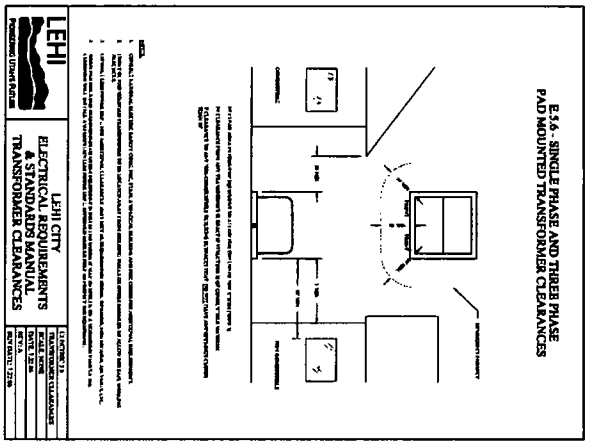


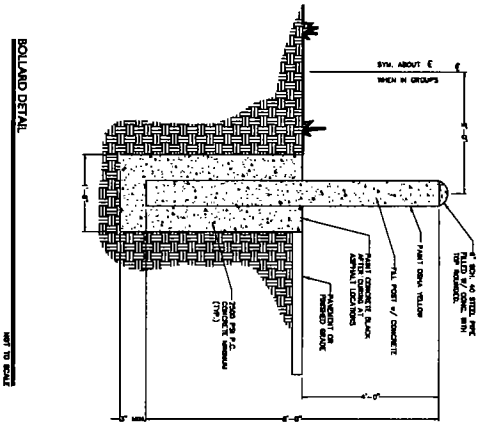
DRAWN BY: BSA 1/8/2024	CONSTRUCTION DETAILS		DATE / DESCRIPTION
DESIGNED BY: BSA 1/8/2024	KEN GARFF PORSCHE MEADOW POINTE 2202 N ASHTON BLVD. LEHI, UT 84043	Kimley»Horn	
CHECKED BY: CPS 1/8/2024			
PROJECT No.: 093518016	SCALE: AS SHOWN		

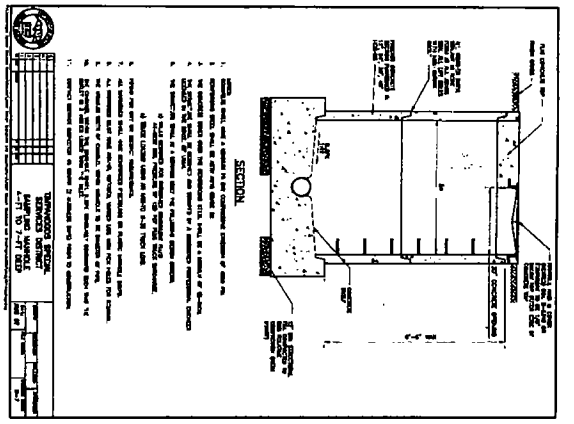
SHEET C6.10

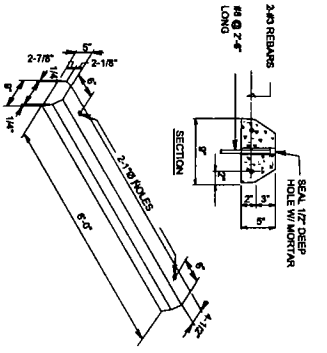


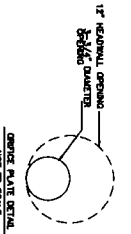


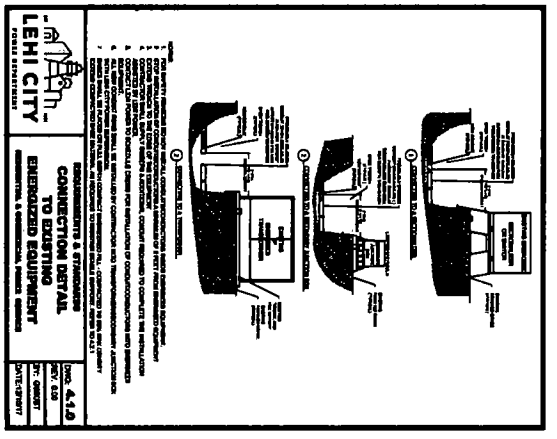








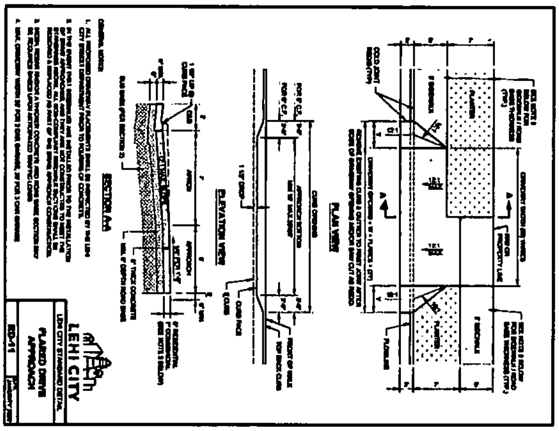


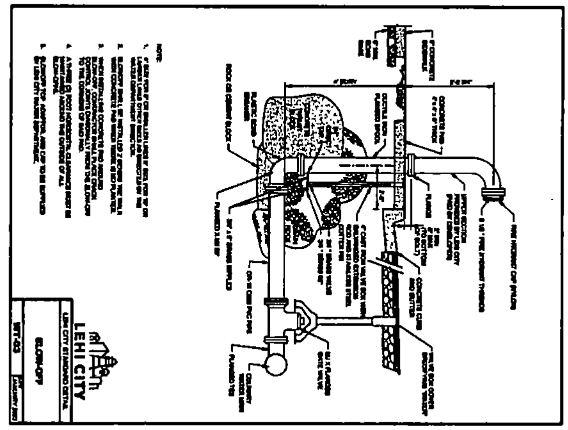


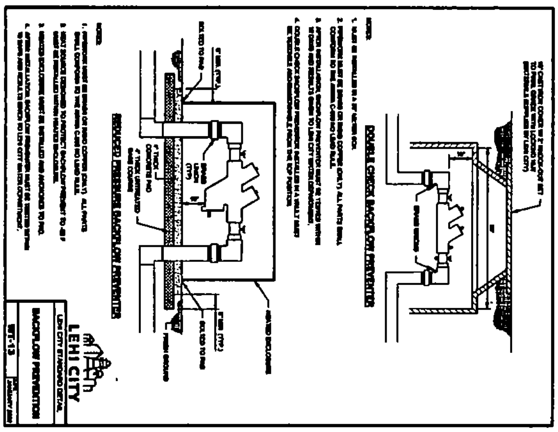
DRAWN BY: BSA 1/8/2024	CONSTRUCTION DETAILS		
DESIGNED BY: BSA 1/8/2024			
CHECKED BY: CPB 1/8/2024	KEN GARFF PORSCHE MEADOW POINTE 2202 N ASHTON BLVD. LEHI, UT 84043	Kimley»Horn 1959 Ashton Blvd, Suite 150 | Lehi, UT 84043 | Tel. No. (385) 213-3176	
PROJECT No.: 093528016 SCALE: AS SHOWN			

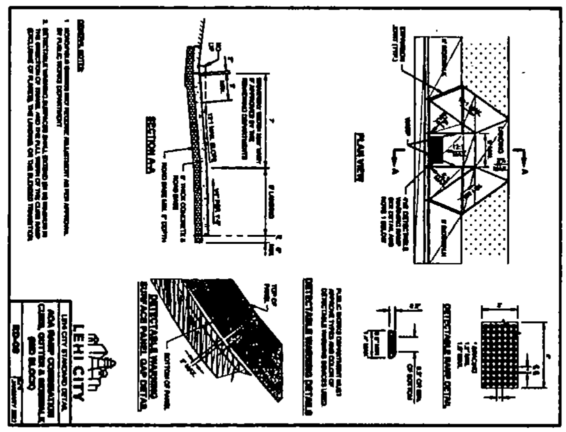
SHEET C6.20

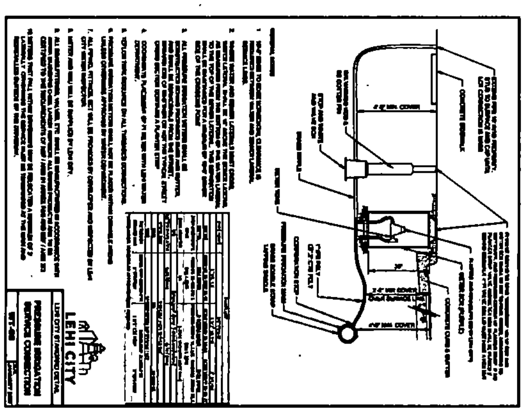
DATE	DESCRIPTION

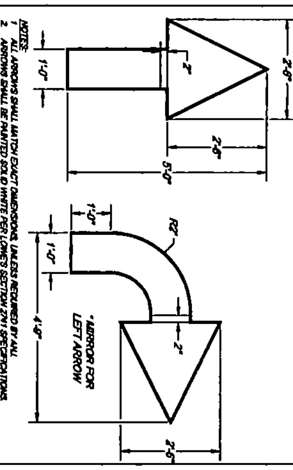


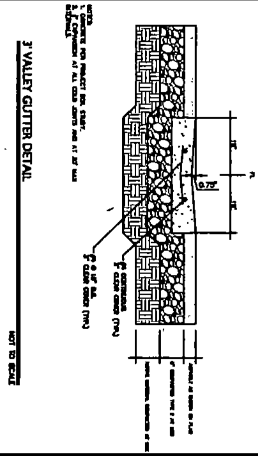


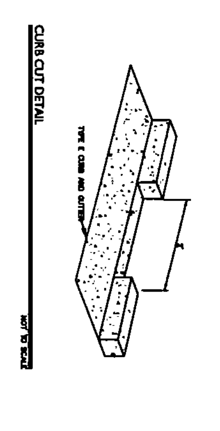












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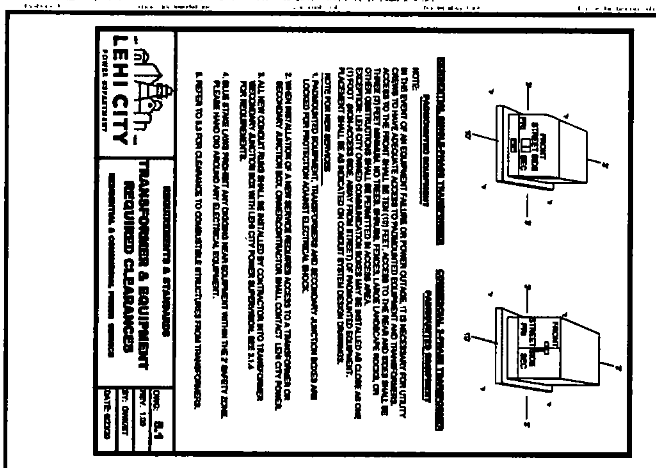
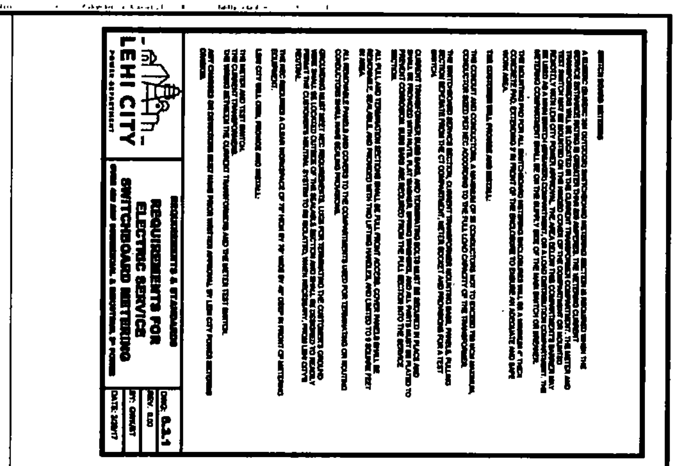
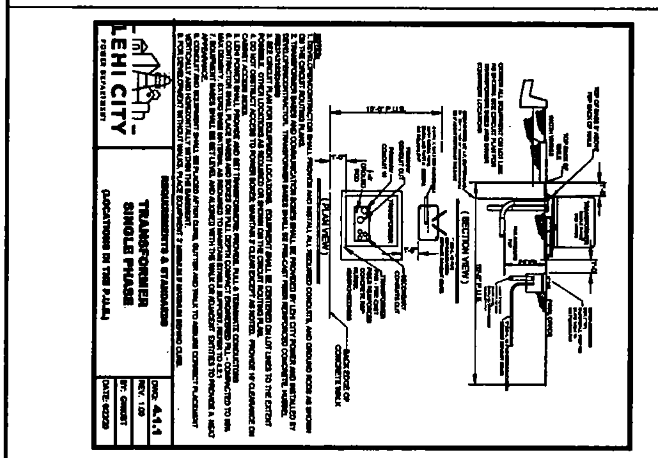
DESIGNED BY: RSA	1/8/2024	
CHECKED BY: CPS	1/8/2024	KEN GARFF PORSCHE MEADOW POINTE, 2202 N ASHTON BLVD. LEHI, UT 84043
PROJECT No.: 093528016	SCALE: AS SHOWN	

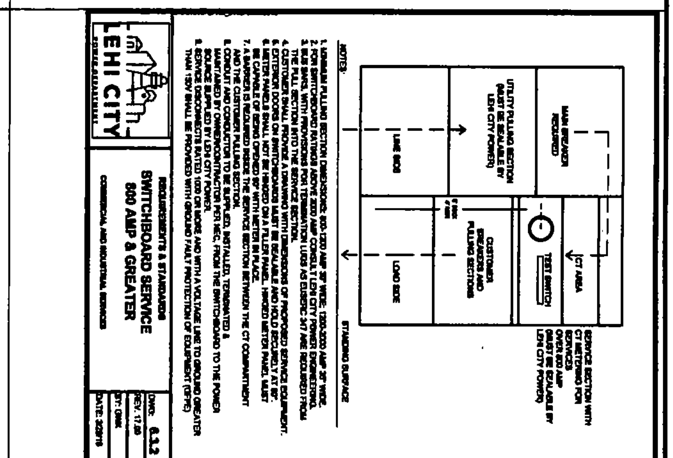
Kimley»Horn

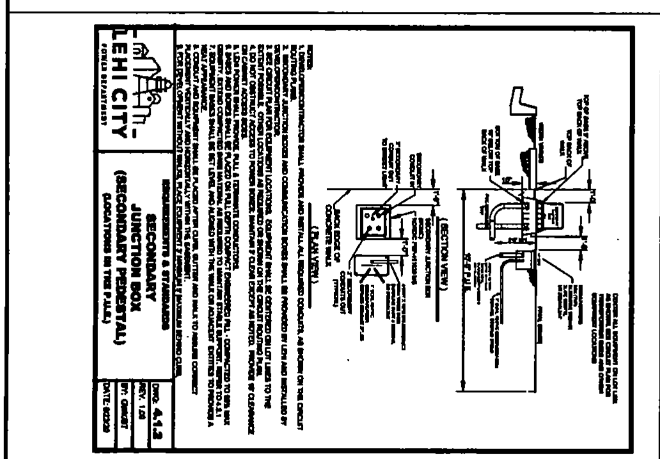
SHEET C6.30

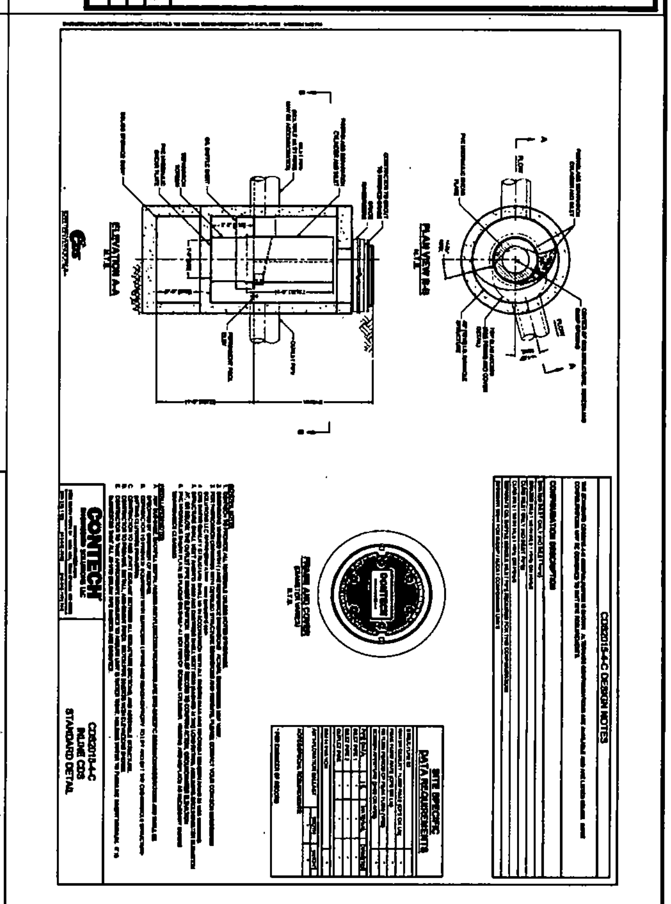


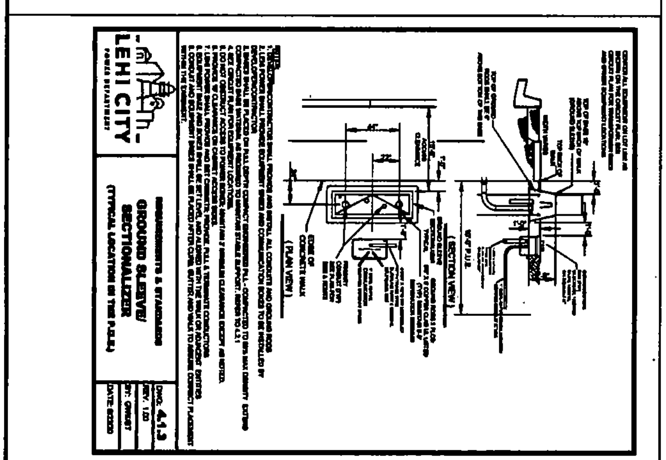












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CHECKED BY:	CPB	1/8/2024
PROJECT No.: 093528016	SCALE: AS SHOWN	

CONSTRUCTION DETAILS

KEN GARFF PORSCHE MEADOW POINTE
2202 N ASHTON BLVD, LEHI, UT 84043

Kimley»Horn

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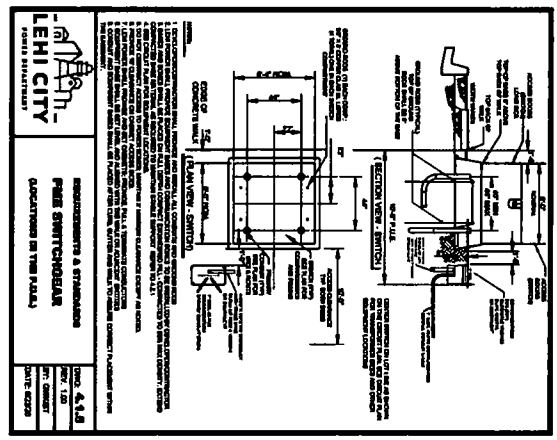

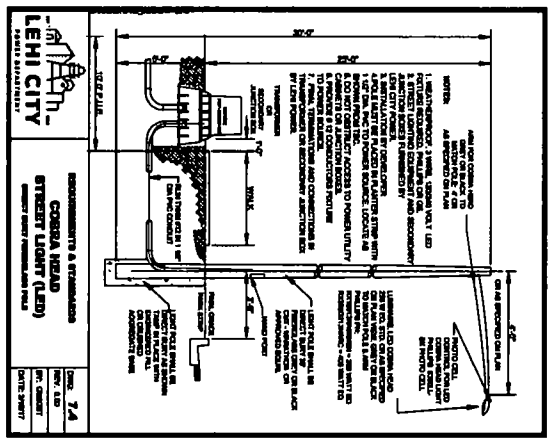

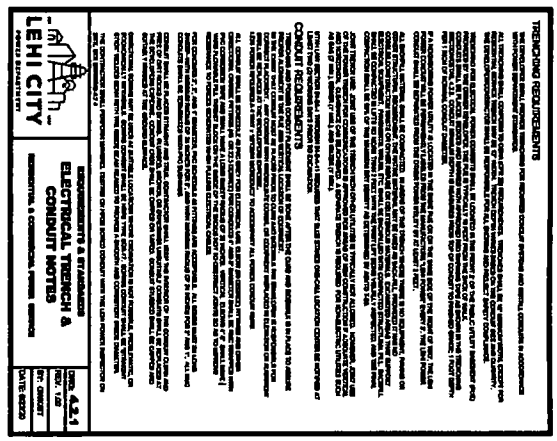

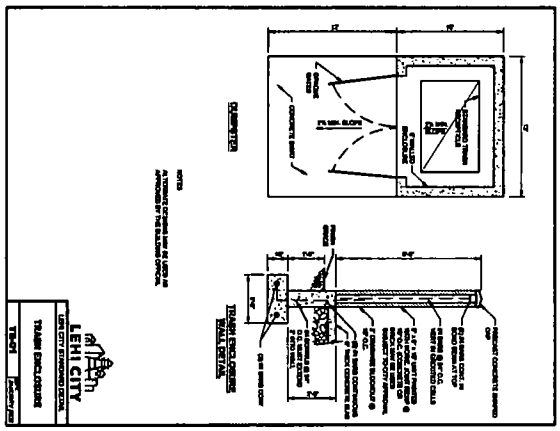

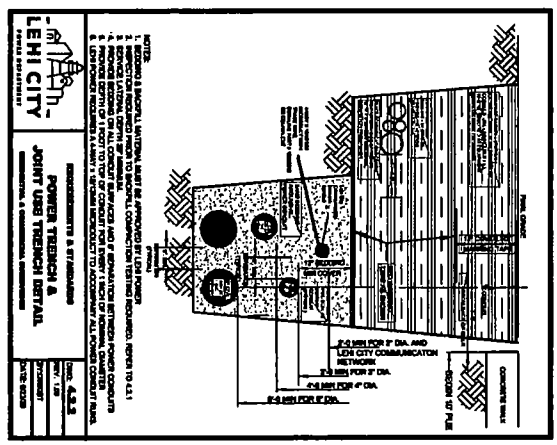

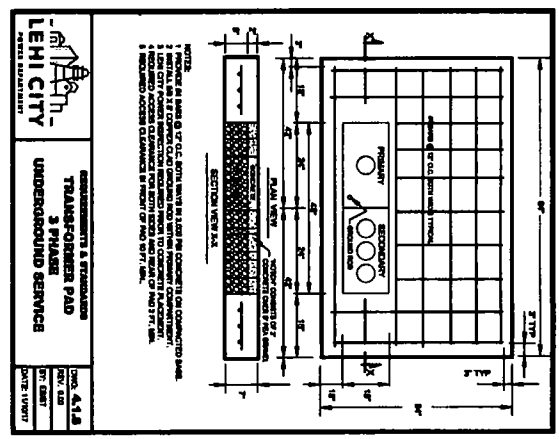

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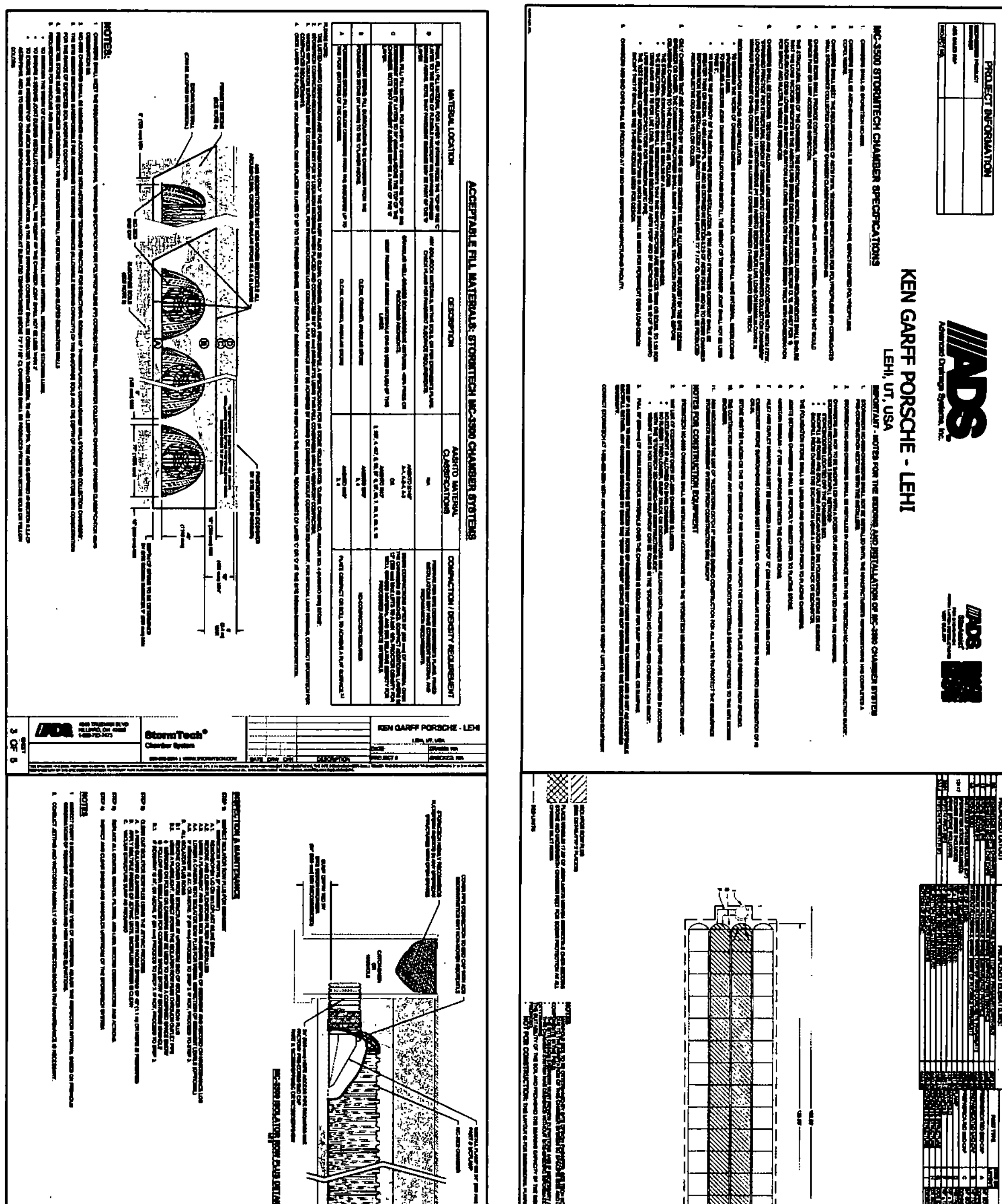
	PROJECT No.: 093528016 SCALE: AS SHOWN		1050 Ashton Blvd, Suite 150 | Lehi, UT 84043 | Tel No. (385) 253-3175	



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CHECKED BY:	CPB 1/8/2024
PROJECT No.: 093528016	SCALE: AS SHOWN

CONSTRUCTION DETAILS

KEN GARFF PORSCHE MEADOW POINTE
2202 N ASHTON BLVD. LEHI, UT 84043

Kimley»Horn

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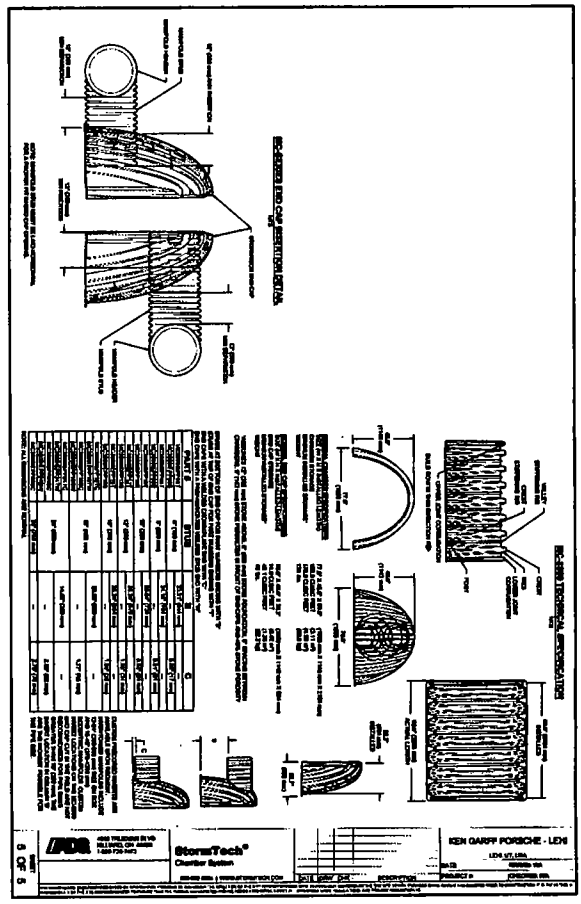

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APPENDIX B – SOPs

Pavement Maintenance Operations

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 and Selection:

a) Reduce stormwater pollution by sweeping and removing pollutants that are carried to City stormwater systems during stormwater runoff or by non-stormwater runoff.
b) The sweeper is intended for removing materials that collect on pavements and the natural degradation of pavements, ie. materials that collect, drop from vehicles, and the natural erosion and breaking up of pavements.

2. Regular Procedure:

a) Remain aware of debris and sweep minor debris if needed by hand.
b) Generally, sweeping should occur during autumn when leaf fall is heavy and again in early spring after winter thaw. Sometimes sweeping machinery are necessary with accumulations are spread over pavements.
c) Manage outside activities that leave waste or drain pollutants to our pavements. This involves outside functions including but not limited to yard sales, yard storage, fund raisers like car washes, etc.

4. Disposal Procedure:

a) Service contractor to dispose at licensed facilities.
b) Dispose of hand collected material in dumpster.

5. Training:

a) Annually and at hire.

Landscape Maintenance Operations

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.

Rule: Prevent any solids, liquids or any light weight material from being carried away from the construction or maintenance envelop by wind or water.

1. Application:

a) This SOP should provide sufficient direction for many of the general operations, e.g., fertilizer and pesticide applications, mowing, weeding, tree trimming, digging, sprinkler repairs, mulch management, etc.

b) Organic material is the primary impairment of the Jordan River. Anything reaching the underground chamber system requires expensive hydrovac services to remove. This SOP should provide direction on how to minimize and avoid the discharge and runnof of organic material.

2. Maintenance Procedure:

a) 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 Operations – Prevent overspray. Use spot treatment immediately following operation sweep or blow dry pesticide onto vegetated ground.

b) Remove or contain all erodible or loose material prior to forecast wind and precipitation events or before non-stormwater passes through the project site. For light weight debris, maintenance can require immediately attention for wind events and many times daily maintenance or as needed for precipitation or non-stormwater events.

c) 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; and
  - Haul off spoil as generated or daily.

d) Cleanup:
   - Use dry cleanup methods, e.g. square nose shovel and broom. It is usually sufficient when no more material can be swept onto the square nosed 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 cleanup.
b) Push broom and square blade shovel should be a minimum.

5. Training:

a) Annually and at hire.
b) Landscape Service Contractors must have 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 our dumpster and trash receptacles.
b) Liquids can leak from our dumpster polluting waterways, subsurface soils, stain our pavement and cause smell.

2. Procedure:

a) Remain aware of the lids and keep them closed.
b) Secure dumpsters and trash receptacles prone to the effects of wind, and protect them from tipping.
c) Remain aware of leaking and fix. Minimize allowing disposal of liquids in our receptacles and dumpster. Also liquids can leak from the waste haul trucks.
d) Beware of dumpster capacity. Solve capacity issues. Leaving bags outside of dumpster is not acceptable.
e) Refer to Dumpster and Receptacle Management SOP for additional collection and inspection guidelines.

3. Waste Disposal Restrictions for all waste Scheduled for the Trans-Jordan Landfill:

d) Generally, most waste generated at this property, and waste from spill and cleanup operations can be disposed in our dumpsters under the conditions listed in this SOP. Unless specific disposal requirements are identified by the product SDS or otherwise specified in other SOPs.
e) Know the facility disposal requirements and restrictions. It should not be assumed that all waste disposed in collection devices are disposed at the Trans-Jordan Landfill.
f) Review Trans-Jordan Landfill regulations for additional restrictions and understand what waste is prohibited in the Trans-Jordan Landfill. Ensure the SDS and Trans-Jordan Landfill regulations are not contradictory.

Generally, the waste prohibited by the Trans-Jordan Landfill is:

- Liquid:
  - paint
  - pesticides/fertilizers

- oil (all types)
- antifreeze
- batteries
- liquid chemicals
- etc.

  (Generally, *all the above hazardous waste when involved in minor spill cleanup operations can be disposed in covered dumpsters and our waste bays, if the liquid is contained in absorbent material, e.g. sand, dirt, loose absorbent, pads, booms etc., and transformed or dried such that it will not drip. This is not intended for whole sale disposal of out dated or spent liquid hazardous waste. When disposal of out dated or spent liquid is needed or for questions of how to dispose of other waste, contact the Utah County Health Department for instructions and locations, (801-851-3000).*

➢ Solids:

- Ink jet cartridges (contact purchasing department for collection, reuse, and disposal).
- Tires

4. Waste Disposal Required for Lehi City Corporation Solid Waste Facility or other:

a) Generally, for waste not accepted by the Trans-Jordan Landfill.
b) Follow SDS for disposal requirements. Review Lehi City Corporation Solid Waste Facility regulations for additional restrictions and understand what waste is prohibited in the Lehi City Corporation Solid Waste Facility. Ensure the SDS and Lehi City Corporation Solid Waste Facility regulations are not contradictory General rules are:
   - Get approval prior to delivery.
   - Transport waste in secure leak proof containers that are clearly labeled.
c) Lookup and follow disposal procedures for disposal of waste at other EPA approved sites, the Utah County Health Department # is a good resource, 801-851-3000

5. 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, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

1. Purpose:

a) Our storm drain system collects anything we leave in the way of runoff which fill our catch basins and underground infiltration 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 our system increasing risk of contaminating groundwater and the Jordan River.

2. Inspections:

a) Inspect snouts. Remove any floating trash at each inspection interval with rake or other means. Remove sediments accumulations when 2" and more. Oil can also be removed with absorbent materials but sediments require vacuum operated machinery. Sediments and oil can be removed together when hydro-vacuum machinery is used.
b) Inspect underground infiltration system for water. Water should not remain for more than 48 hours. Following storm events with 0.5" and less depth, pond surface should not fill above design level. Water above design level indicates gravel storage volume is clogging or design infiltration rates are failing. Contact an engineer or equal industry with adequate knowledge when water is not draining, or surface water is present after 0.5" depth events.
c) Inspect underground infiltration system for sediment accumulations. Remove sediment and debris accumulation when volume capacities drop below 90%. Removal requires hydro-vacuum machinery. Prevent non water liquids from reaching our subsurface drainage system, including but not limited to: Automotive chemicals, detergents and anything that is carried by precipitation and culinary or secondary water runoff. There is no vegetation, UV rays and little if any biology to break down the chemicals.
d) Inspect for presence of non-water liquids. Search and prevent sources.

2. Disposal Procedure:

a) Remove and dispose sediment and debris at licensed facilities. Also, dry waste can be disposed in your dumpster as permitted by the Trans-Jordan Landfill facility.

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.

General Construction and Property Maintenance SOP

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.

Rule: Prevent any solids, *liquids or any light weight material from being carried away from construction or maintenance envelop by wind or water. *liquids – including culinary water and irrigation water that are polluted with material that will damage the environment or result in increased maintenance cost to the city or private water conveyance systems.

1. Purpose:

a) An SOP is necessary to provide environmentally sound procedures to manage simple everyday construction and maintenance tasks not directly covered in other SOP's.
b) Maintain open pipes to prevent flooding
c) Prevent public nuisance
d) Prevent damage to waters of the state and reduce maintenance cost to private and public stormwater systems.

2. Application

a) This SOP is intended for field and maintenance staff.
b) Provides instruction for simple short term and everyday construction and maintenance tasks, e.g., building maintenance, curb/sidewalk/flatwork, chip seal, crack seal, slurry seal, striping, overlay/patching, light maintenance, tree trimming, etc.

3. Construction Procedure

a) Remove or contain all erodible or loose material prior to forecast wind and precipitation events, or before non-stormwater will pass through the site. For lightweight debris, maintenance can require immediate attention for wind events or as needed for precipitation or non-stormwater events.
b) Projects materials and waste can be contained or controlled by operational or structural best management practices (BMP's).
c) Operational; including but not limited to:
    a. Strategic staging of materials eliminating exposure, such as not staging on pavement.
    b. Avoiding multiple day staging of backfill and spoil.
    c. Haul of spoil as generated daily.

d) Structural; including but not limited to:
    a. Inlet protection, e.g. wattles, filter fabric, etc.
    b. Boundary containment, e.g. wattles, silt fence
    c. Dust control
    d. Waste control
e) Inspection often to ensure the structural BMP's are in good operating condition and at least prior to the workday end. Promptly repair damaged BMPs.
f) Cleanup:
    a. Use dry cleanup methods
    b. Wet methods are allowed if wastewater is prevented from entering the stormwater system.
g) Cleanup standard:
    a. When a broom and a square nosed shovel cannot pick any appreciable amount of material.

4. Emergency

a) Emergency operations have latitude during the containment period, however, all standard operation procedures apply after the site is stabilized. The affects of any pollutants that escape the site will need to be cleanup and rectified. Emergencies are defined as situations with the immediate potential to cause a safety hazard, physical property or environmental damage. Utility maintenance does not necessarily qualify as an emergency

5. Maintenance Procedure

a) Maintenance procedures are expected to follow the construction procedure.

6. Waste Disposal

a) Disposal of waste according to the General Waste Management SOP, unless superseded by specific SOPs for operation.
b) Tools sufficient for proper containment of pollutants and cleanup
    a. Push broom and square blade shovel should be a minimum.

7. Training

c) Materials: this SOP.

Snow Removal and De-Icing SOP

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. Application:

a) Parking and sidewalk winter management operations.

2. De-Icing Procedure:

a) Do not store or allow salt or equivalent to be stored on outside paved surfaces.
b) Minimize salt use varying salt amounts relative to hazard potential.
c) Sweep excessive piles left by the spreader.
d) Watch forecast and adjust 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 stronger of this SOP and their company SOPs.

Spill Control SOP

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. Rational:

c) All properties are susceptible to spills whether it is a result of operations or by customers. Insufficient response, inadequate containment materials, and improper spill cleanup methods will result in pollutants in our waterways. Once the pollutants reach our storm drain system, or even the detention pond, they are difficult and expensive to remove.

2. Containment Procedure:

a) Priority is to dam and contain flowing spills.
b) Use spill kits booms if available or use any material available; including but not limited to, nearby sand, dirt, landscaping materials, etc.
c) Hazardous or unknown waste emergencies:
   1. Emergency HAZMAT, DWQ, UCHD, City: Emergency constitutes large quantities of flowing uncontained liquid. Generally burst or tipped tanks.
   2. Emergency UCHD, City: Emergency constitutes potential for waste to be carried by water.
   3. Contacts:
      HAZMAT - 911
      DWQ – 801-231-1769, 801-536-4123
      UCHD – 801-851-7000
      City – 385-201-1700

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. See Pavement Washing SOP.
- Repeat 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 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 in break room.

7. Materials:

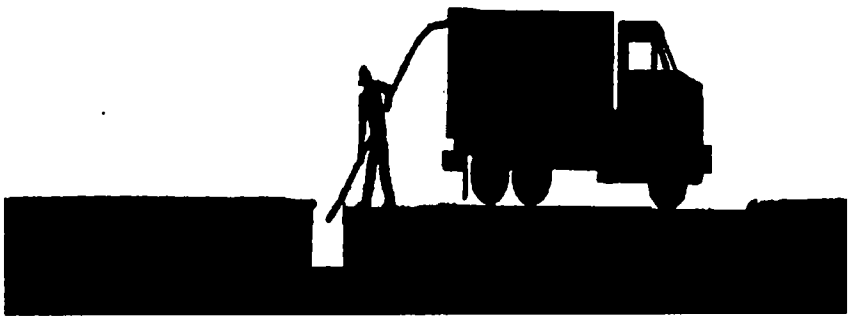
a) Generally, sand or dirt will work for most clean-up operations. However, it is the responsibility of the owner to select the absorbent materials and cleanup methods that are required by the SDS Manuals for chemicals used by the company.

8. Training:

a) Annually and at hire.

BMP: Catch Basin Cleaning

CBC



PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☐ Commercial Activities
- ☐ Industrial Activities
- ☒ Municipal Facilities
- ☒ Illegal Discharges

DESCRIPTION:
Maintain catch basin and stormwater inlets on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, and restore the catch basins' sediment trapping capacity. A catch basin is distinguished from a stormwater inlet by having at its base a sediment sump designed to catch and retain sediments below the overflow point. This information sheet focuses on the cleaning of accumulated sediments from catch basins.

APPROACH:
Regular maintenance of catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the key to effective catch basins are:

- At least annual inspections.
- Prioritize maintenance to clean catch basins and inlets in areas with the highest pollutant loading.
- Clean catch basins in high pollutant load areas just before the wet season to remove sediments and debris accumulated during the summer.
- Keep accurate logs of the number of catch basins cleaned.
- Record the amount of waste collected.

LIMITATIONS:
There are no major limitations to this best management practice.

MAINTENANCE:
Regular maintenance of public and private catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the keys to effective catch basins are:

- Annual/monthly inspection of public and private facilities to ensure structural integrity, a clean sump, and a stenciling of catch basins and inlets.
- Keep logs of the number of catch basins cleaned.
- Record the amount of waste collected.

LEHI

PIONEERING UTAH'S FUTURE

ADAPTED FROM SALT LAKE COUNTY BMP FACT SHEET

TARGETED POLLUTANTS

- ■ Sediment
- ☒ Nutrients
- ■ Heavy Metals
- ☐ Toxic Materials
- ☒ Oxygen Demanding Substances
- ☒ Oil & Grease
- ■ Floatable Materials
- ☐ Bacteria & Viruses

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ☒ Capitol Costs
- ■ O&M Costs
- ☐ Regulatory
- ☒ Training
- ■ Staffing
- ☒ Administrative

■ High ☒ Medium ☐ Low

BMP: Spill Clean-Up

SCU

DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

LEHI

PIONEERING UTAH'S FUTURE

ADAPTED FROM SALT LAKE COUNTY BMP FACT SHEET

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☒ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

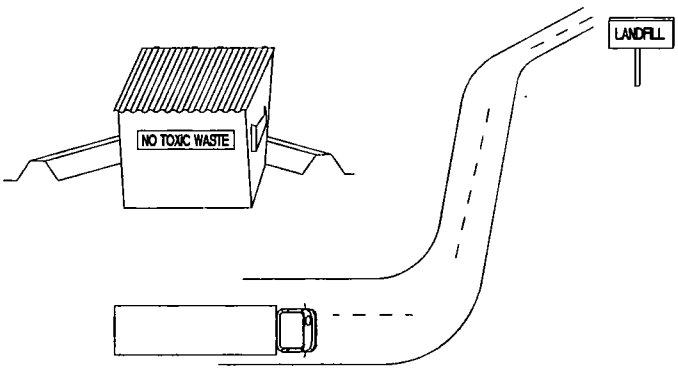
IMPLEMENTATION REQUIREMENTS

- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

BMP: Waste Disposal

WD



OBJECTIVES

- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

DESCRIPTION:
Controlled storage and disposal of solid waste generated by construction activities.

APPLICATION:
All construction sites.

INSTALLATION:
- Designate one or several waste collection areas with easy access for construction vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around collection area for impoundment in the case of spills and to trap any windblown trash.
- Use water tight containers with covers to remain closed when not in use. Provide separate containers for different waste types where appropriate and label clearly.
- Ensure all on site personnel are aware of and utilize designated waste collection area properly and for intended use only (e.g. all toxic, hazardous, or recyclable materials shall be properly disposed of separately from general construction waste).
- Arrange for periodic pickup, transfer and disposal of collected waste at an authorized disposal location. Include regular Porto-potty service in waste management activities.

LIMITATIONS:
- On-site personnel are responsible for correct disposal of waste.

MAINTENANCE:
- Discuss waste management procedures at progress meetings.
- Collect site trash daily and deposit in covered containers at designated collection areas.
- Check containers for leakage or inadequate covers and replace as needed.
- Randomly check disposed materials for any unauthorized waste (e.g. toxic materials).
- During daily site inspections check that waste is not being incorrectly disposed of on-site (e.g. burial, burning, surface discharge, discharge to storm drain).

LEHI

PIONEERING UTAH'S FUTURE

ADAPTED FROM SALT LAKE COUNTY BMP FACT SHEET

TARGETED POLLUTANTS

- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

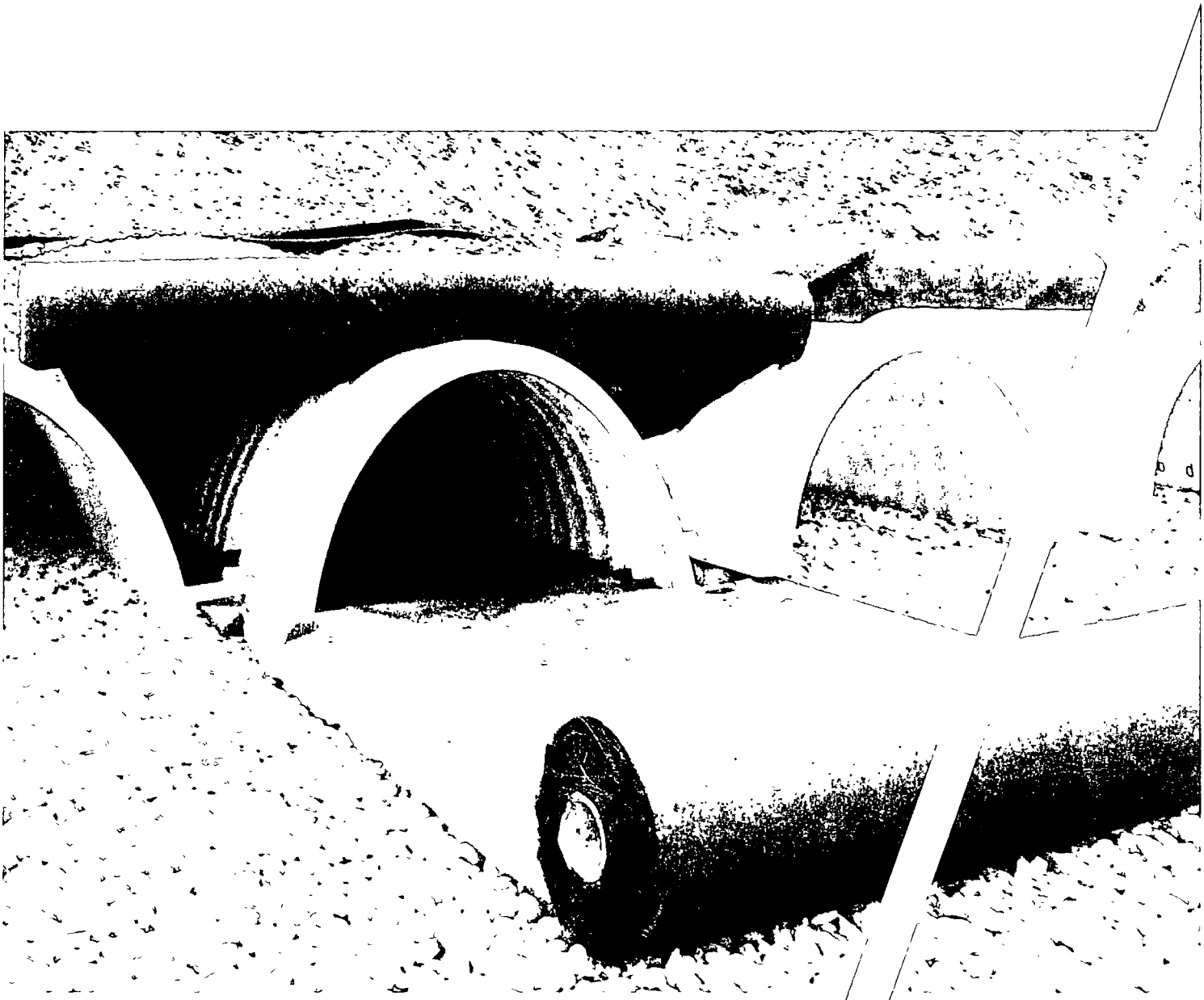
- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- ■ Capital Costs
- ■ O&M Costs
- ☒ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

Isolator® Row Plus
O&M Manual



ADS StormTech™

The Isolator® Row Plus

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row Plus is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

The Isolator Row Plus

The Isolator Row Plus is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-7200 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row Plus and passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row Plus protecting the adjacent stone and chambers storage areas from sediment accumulation.

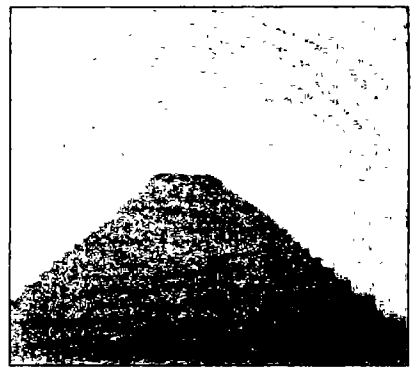
ADS geotextile fabric is placed between the stone and the Isolator Row Plus chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the chamber's sidewall. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-7200 models as these chambers do not have perforated side walls.

The Isolator Row Plus is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row Plus and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row Plus bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row Plus row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row Plus. After Stormwater flows through the Isolator Row Plus and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

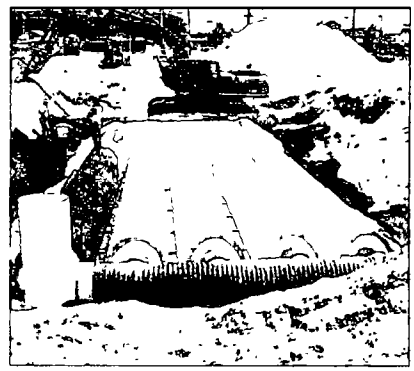
The Isolator Row FLAMP™ (patent pending) is a flared end ramp apparatus attached to the inlet pipe on the inside of the chamber end cap. The FLAMP provides a smooth transition from pipe invert to fabric bottom. It is configured to improve chamber function performance by enhancing outflow of solid debris that would otherwise collect at the chamber's end. It also serves to improve the fluid and solid flow into the access pipe during maintenance and cleaning and to guide cleaning and inspection equipment back into the inlet pipe when complete.

The Isolator Row Plus may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row Plus to minimize maintenance requirements and maintenance costs.

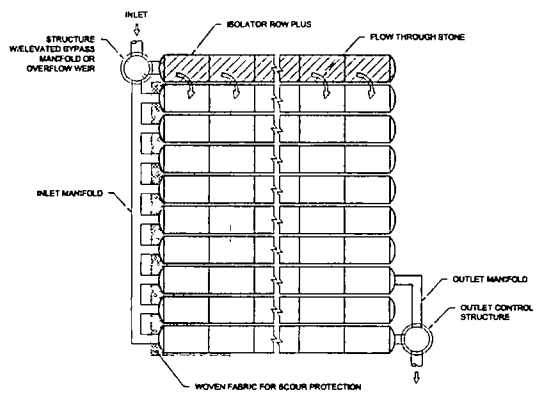
Note: *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row Plus.*



Looking down the Isolator Row PLUS from the manhole opening, ADS PLUS Fabric is shown between the chamber and stone base.



StormTech Isolator Row PLUS with Overflow Spillway (not to scale)



Isolator Row Plus Inspection/Maintenance

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row Plus should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

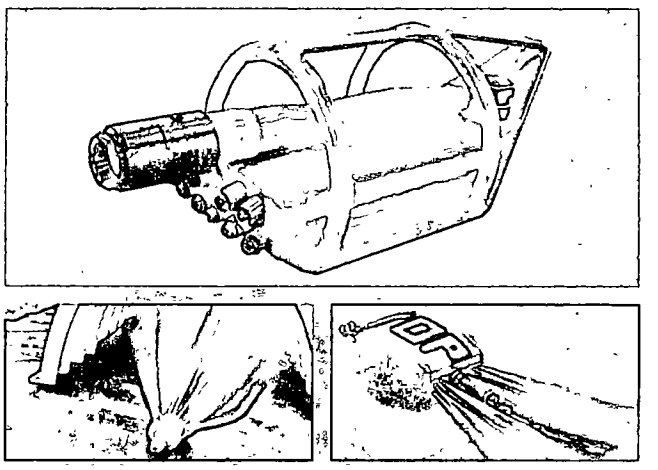
The Isolator Row Plus incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row Plus, clean-out should be performed.

Maintenance

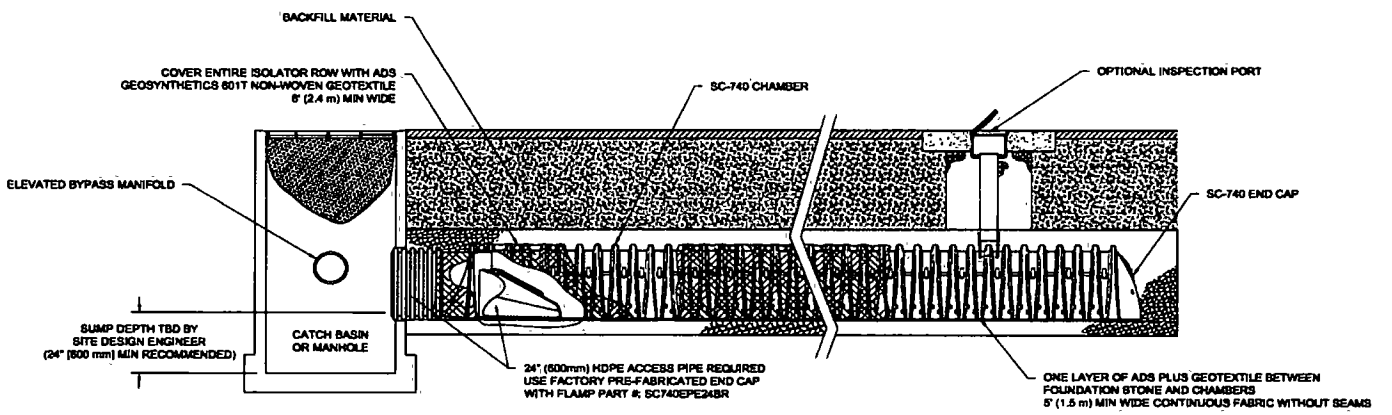
The Isolator Row Plus was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row Plus while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. StormTech recommends a maximum nozzle pressure of 2000 psi be utilized during cleaning. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row Plus lengths up to 200' (61 m). **The JetVac process shall only be performed on StormTech Isolator Row Plus that have ADS Plus Fabric (as specified by StormTech) over their angular base stone.**



StormTech Isolator Row PLUS *(not to scale)*

Note: *Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-7200 chamber models and is not required over the entire Isolator Row PLUS.*



Isolator Row Plus Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row Plus for sediment.

A) Inspection ports (if present)
   i. Remove lid from floor box frame
   ii. Remove cap from inspection riser
   iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
   iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row Plus
   i. Remove cover from manhole at upstream end of Isolator Row Plus
   ii. Using a flashlight, inspect down Isolator Row Plus through outlet pipe
      1. Mirrors on poles or cameras may be used to avoid a confined space entry
      2. Follow OSHA regulations for confined space entry if entering manhole
   iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2.
   If not, proceed to Step 3.

Step 2

Clean out Isolator Row Plus using the JetVac process.

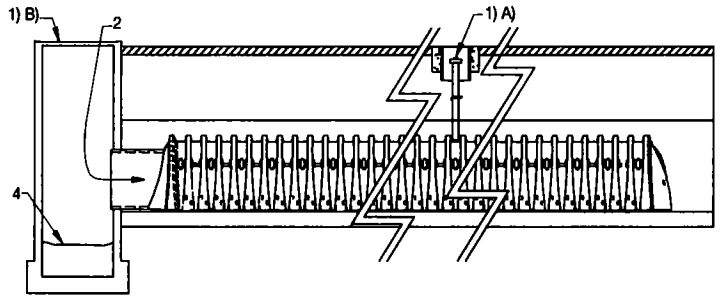
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sediment Depth (1)-(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/16/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row PLUS, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

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APPENDIX C – PLAN RECORDKEEPING DOCUMENTS

MAINTENANCE/INSPECTION SCHEDULE

Frequency	Site Infrastructure
A, S	Catch Basins
A, S	Storm Drain Pipes
A, S	Underground Detention Facility
X	Snow and Ice Removal
B	Pavement Maintenance
X	Pavement Washing
X	Landscape Maintenance
W, X	Waste Management

Inspection Frequency Key: A=annual, B=Bi-Annually, Q=Quarterly, M=monthly, W=weekly, S=following 25-year storm event (1.91 inches), U=following 100-year storm event (2.31), X=as required by site conditions

RECORD INSPECTIONS IN THE MAINTENANCE LOG

Inspection Means: Either; Traditional walk through, Awareness/Observation, and during regular maintenance operations while noting efficiencies/inefficiencies/concerns found, etc.

MAINTENANCE LOG

Date	Maintenance Performed/Spill Events. Perform Maintenance per SOPs	Observation Notes, including but not limited to; Inspection results, Observations, System Performance (effectiveness/inefficiencies), SOP Usefulness, Concerns, Necessary Changes…	Initials

Annual Summary of LTSWMP 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

SOP	Trainer	Employee Name / Maintenance Contractor Co	Date

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