PRELIMINARY ENGINEERING REPORT

Prepared for

ALLSPACE STORAGE LLC

Located at

480 Route 299 Town of Lloyd, Ulster County, NY Tax ID 87.1-2-28

Submitted

April 9, 2021

Prepared for

Allspace Storage LLC

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I.0 INTRODUCTION

I.I Location

The property is a 15.879 acre parcel located at 480 Route 299 in the Town of Lloyd. The property is identified as Tax ID #87.1-2-28 on the Dutchess County Parcel Access. The site is located on the north side of NY State Route 299. The project has UTM coordinates of 580991 Easting and 4621273 Nothing.

I.2 Existing Conditions Summary

The existing lot is vacant in the rear of the lot. The front portion of the lot is developed with storage units. The proposed plans were prepared in February 2003 and a SWPPP was also completed during that time.

I.3 <u>Proposed Project Description</u>

The application consists of a site plan submission which will include the construction of five (5) new storage unit buildings consisting of a total of 51,200 square of building. There is no water or sewer connection proposed or necessary for this project.

2.0 **S**TORMWATER

The proposed project will increase the impervious area on the site. A complete SWPPP will be prepared after the initial review by the Town. One proposed infiltration basin area and 2 sediment basin areas are proposed to treat the stormwater from the site.

The project has been designed to take advantage of the good soils in the vicinity of the proposed development. By allowing stormwater runoff to infiltrate back into the ground we are able to minimize the impacts on the surround surface waters and treat the runoff through exfiltration into the sub surface soils. The evaluation of the site to determine the water quality volumetric requirements follow strictly the procedures presented in chapters 4 & 5 of the New York State Stormwater Design Manual. The proposed changes to the site affect 5.29 acres of land and have 2.94 acres of impervious surface. The required WQv calculations are shown below;

WQv BY DRAINAGE AREA											
DA	Tributary Area	Impervious Cover	Percent Impervious	Р	Rv	WQv (AC- FT)	WQv (CF)	S	Min RRv (AC- FT)	Min RRv (CF)	
I	0.57	0.12	21.03	1.05	0.24	0.01	522.4	0.2	0.002	87.2	
2	0.17	0.14	84.51	1.05	0.81	0.01	516.8	0.2	0.002	102.4	
3	0.18	0.15	80.36	1.05	0.77	0.01	536.6	0.2	0.002	106.0	
4	0.22	0.16	71.71	1.05	0.70	0.01	575.4	0.2	0.003	112.7	
5	0.18	0.16	87.08	1.05	0.83	0.01	581.5	0.2	0.003	115.4	
6	0.06	0.06	98.35	1.05	0.94	0.01	223.5	0.2	0.001	44.7	
7	0.29	0.21	72.50	1.05	0.70	0.02	786.8	0.2	0.004	154.3	
8	0.21	0.21	100.00	1.05	0.95	0.02	771.4	0.2	0.004	154.3	
9	0.21	0.21	100.00	1.05	0.95	0.02	771.4	0.2	0.004	154.3	



10	0.23	0.23	100.00	1.05	0.95	0.02	837.9	0.2	0.004	167.6
11	0.23	0.23	100.00	1.05	0.95	0.02	837.9	0.2	0.004	167.6
12	0.06	0.06	100.00	1.05	0.95	0.01	218.2	0.2	0.001	43.6
13	1.07	0.13	12.38	1.05	0.16	0.02	657.4	0.2	0.002	95.8
14	0.15	0.13	87.38	1.05	0.84	0.01	471.5	0.2	0.002	93.6
15	0.18	0.15	79.65	1.05	0.77	0.01	534.3	0.2	0.002	105.4
16	0.19	0.16	81.87	1.05	0.79	0.01	574.2	0.2	0.003	113.5
17	0.18	0.16	87.14	1.05	0.83	0.01	580.4	0.2	0.003	115.2
18	0.11	0.07	64.17	1.05	0.63	0.01	254.8	0.2	0.001	49.5
19	0.16	0.07	46.67	1.05	0.47	0.01	287.5	0.2	0.001	54.2
20	0.62	0.12	19.96	1.05	0.23	0.01	542.0	0.2	0.002	89.5
TOTAL	5.29	2.94					11,081.8		0.049	2,126.8

The new improvements require 11,082 cu ft of treatment area. As stated above this will be achieved in one infiltration basin and two sediment basins.

The SWPPP will demonstrate the design is a NYSDEC-compliant Stormwater Management Plan for the Allspace Storage project. Overall, the proposed stormwater management system reduces and/or eliminates the impacts of the proposed development by controlling and treating stormwater through the use of catch basins, storm-sewer piping, and infiltration basin. Offsite storm discharges and velocities for the proposed project are less than what currently exists. The stormwater management system will function adequately and will not adversely affect adjacent or downstream properties provided it is constructed and maintained as outlined in this plan and as shown on the site plans.