CAS ENGINEERING DRAINAGE NOTES

- 1. All storm drain pipe to be Schedule 40 PVC or of higher quality.
- Downspout leaders originating directly from downspouts to be 4" diameter PVC, unless noted otherwise.
 Maintain minimum 12" cover over all pipe. Pipe slopes to be 2% minimum.
- All areaway and window well drains to sump pump by plumber unless noted otherwise.
- 5. Sump pump discharge to be located so as to avoid impact to the neighboring properties and to avoid recirculation of water.6. The permittee shall install a splash block at the bottom of each downspout.
- 7. Maintenance of gutters, downspouts, leaf filters, inlets, drain pipes, drainage swales, drywells and other drainage related items should be performed as needed, but at least twice per year.
 8. Drainage swales and drainage patterns shall not be impeded with trees, landscaping, fences, etc.
- 9. Window wells shall have a minimum freeboard of 6 inches and should be kept free of leaves and debris.
 10. Ground cover (sod, seed, etc.) shall be selected based on soil conditions, drainage, sun exposure, final grade slopes, etc. per M.D.E. specifications.
- 12. Gutters and downspouts to be installed early as possible, subject to availability of materials and labor.13. Sediment control devices must be inspected daily and with extra care before storm events. On disturbed sites they should be monitored during storm events.

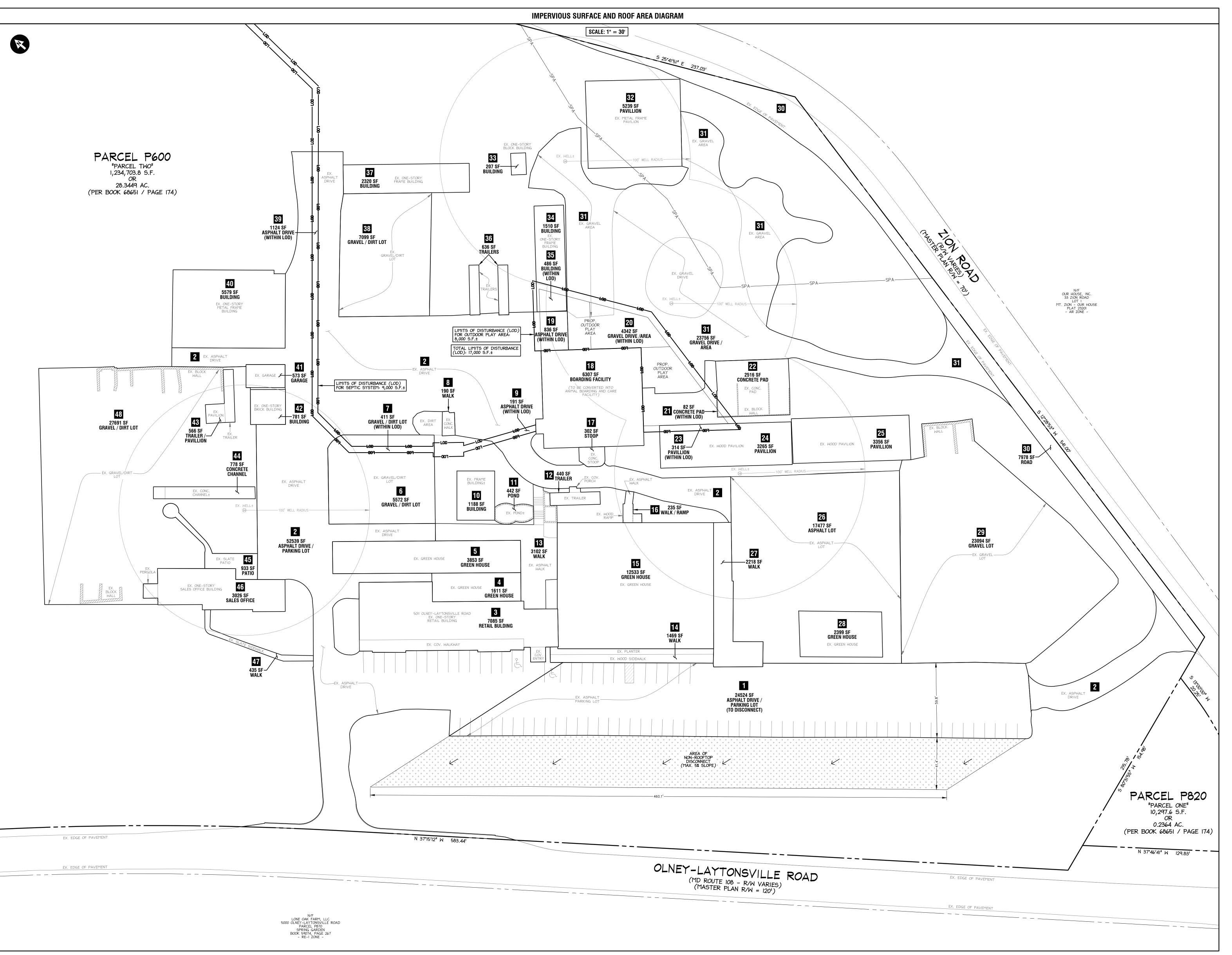
11. Multi-Flow™ or equivalent drainage systems are recommended in lawn areas with a 3% slope or less.

14. Areas where construction is complete, such as side and rear yards, should be permanently stabilized as early as possible and in conformance with M.D.E. specifications.
15. Sump pumps serving driveways, patios, areaways, and other large open impervious surfaces must be sized for a 100-year storm event.

	ESD COMPUTATION	NS - 5011 Olney-La	aytonsville Road (HYDROLOGIC SOIL (ROUP B)		
TOTAL LOT AREA FOR P _e determination	TOTAL LOT IMPERVIOUS AREA FOR P_{ϵ} determination	LOT IMPERVIOUS AREA PERCENTAGE (I) FOR P _E DETERMINATION	P _E = RAINFALL TARGET (INCHES) APPLY IMPERVIOUS COVER PERCENTAGE TO TABLE 5.3			
1,234,703.8 SF	272,610 SF	22.08 %	1.6 IN	PER SECTION 5.2.3, THE SIZE OF ANY PRACTICE IS LIMITED TO THE RUNOFF		
TOTAL L.O.D. AREA FOR R _V & ESD _V DETERMINATION	TOTAL IMPERVIOUS AREA WITHIN L.O.D. FOR R_{V} determination	L.O.D. IMPERVIOUS AREA PERCENTAGE (I) FOR R _V DETERMINATION	R _V = RUNOFF VOLUME 0.05 + 0.009(I) (I = Impervious Percentage)	FROM THE 1-YEAR 24-HOUR STORM $ (Q_{E}) \text{ VOLUME} = (\text{Area}) \times 2.6 \text{ in (Pe Max)} \times (\text{R}_{V}) / $		
17,000 SF	7,786 SF	45.80%	0.46	VOLUME PROVIDED VIA ESD DEVICE(S) MUST N		
DETERMINE ESD _V REQUIRED BASED ON THE L.O.D.	TARGET ESD	EXCEED THE Q _E MAXIMUM (1-YEAR STORM)				
(LIMIT OF DISTURBANCE)	TOTAL S					

(LIMIT OF DISTU	JRBANCE)		TOTAL SIT	E ESD VOLUME REQUIREI)· 1042 7 CF					
			I	1		I			_	
NON-ROOFTOP DISCONNECTS	IMPERVIOUS AREA NUMBERS	DRAINAGE AREA (SQ. FT.)	CONTRIBUTING IMPERVIOUS LENGTH (FEET)	DISCONNECT LENGTH PROVIDED (MUST BE ≥ 10 FT)	PE PROVIDED BY DISCONNECT P_E (INCHES)		A NON-ROOFTOP DISCONNECTS (Cubic Feet)	TOTAL NON-ROOFTOP DISCONNECT VOLUME (CUBIC FEET)		
			MUM NON-ROOFTOP DISCONNECT LENGTH I			·			Ш	
Α	1	24,524 SF	59.8 FT	41.4 FT	0.69 IN	ESDv = 24524 (A) x 0.	69 (Pe) x 0.95 (Rv) / 12 = 1339.6 CF	1,409.4 CF		
	2	52,539 SF	ASPHALT DRIVE / PARKING LOT - NOT TR	EATED BY THIS PLAN.						
	3	7,085 SF	RETAIL BUILDING - NOT TREATED BY THIS	PLAN.						
	4	1,611 SF	GREEN HOUSE - NOT TREATED BY THIS P	AN.						
	5	3,853 SF	GREEN HOUSE - NOT TREATED BY THIS P	AN.						
	6	5,572 SF	GRAVEL / DIRT LOT - NOT TREATED BY TH	IIS PLAN.						
	7	411 SF	GRAVEL / DIRT LOT (WITHIN LOD) - NOT	REATED BY THIS PLAN.						
	8	190 SF	WALK - NOT TREATED BY THIS PLAN.							
	9	191 SF	ASPHALT DRIVE (WITHIN LOD) - NOT TRE	ASPHALT DRIVE (WITHIN LOD) - NOT TREATED BY THIS PLAN.						
	10	1,188 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	11	442 SF	POND - NOT TREATED BY THIS PLAN.							
	12	440 SF	TRAILER - NOT TREATED BY THIS PLAN.							
	13	3,102 SF	WALK - NOT TREATED BY THIS PLAN.							
	14	1,469 SF	WALK - NOT TREATED BY THIS PLAN.							
	15	12,533 SF	GREEN HOUSE - NOT TREATED BY THIS P	AN.						
	16	235 SF	WALK / RAMP - NOT TREATED BY THIS PL	AN.						
	17	302 SF	STOOP - NOT TREATED BY THIS PLAN.							
	18	6,307 SF	BOARDING FACILITY - NOT TREATED BY T	HIS PLAN.						
	19	836 SF	ASPHALT DRIVE (WITHIN LOD) - NOT TRE	ATED BY THIS PLAN.						
	20	4,342 SF	GRAVEL DRIVE / AREA (WITHIN LOD) - NOT TREATED BY THIS PLAN.							
	21	82 SF	CONCRETE PAD (WITHIN LOD) - NOT TRE	ATED BY THIS PLAN.						
	22	2,516 SF	CONCRETE PAD - NOT TREATED BY THIS I	LAN.						
	23	314 SF	PAVILLION (WITHIN LOD) - NOT TREATED	BY THIS PLAN.						
	24	3,265 SF	PAVILLION - NOT TREATED BY THIS PLAN							
AREAS NOT	25	3,356 SF	PAVILLION - NOT TREATED BY THIS PLAN							
TREATED	26	17,477 SF	ASPHALT LOT - NOT TREATED BY THIS PLAN.							
	27	2,218 SF	WALK - NOT TREATED BY THIS PLAN.							
	28	2,399 SF	GREEN HOUSE - NOT TREATED BY THIS P							
	29	23,094 SF	GRAVEL LOT - NOT TREATED BY THIS PLA	N.						
	30	7,978 SF	ROAD - NOT TREATED BY THIS PLAN.							
	31	23,756 SF	GRAVEL DRIVE / AREA - NOT TREATED BY	THIS PLAN.						
	32	5,239 SF	PAVILLION - NOT TREATED BY THIS PLAN							
	33	207 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	34	1,510 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	35	486 SF	BUILDING (WITHIN LOD) - NOT TREATED	SY THIS PLAN.						
	36	636 SF	TRAILER - NOT TREATED BY THIS PLAN.							
	37	2,320 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	38	7,099 SF	GRAVEL / DIRT LOT - NOT TREATED BY TH							
	39	1,124 SF	ASPHALT DRIVE (WIITHIN LOD) - NOT TREATED BY THIS PLAN.							
	40	5,579 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	41	573 SF	GARAGE - NOT TREATED BY THIS PLAN.							
	42	781 SF	BUILDING - NOT TREATED BY THIS PLAN.							
	43	566 SF	TRAILER / PAVILLION - NOT TREATED BY							
	44	778 SF	CONCRETE CHANNEL - NOT TREATED BY	HIS PLAN.						
	45	933 SF	PATIO - NOT TREATED BY THIS PLAN.	ANI						
	46	3,026 SF	SALES OFFICE - NOT TREATED BY THIS PI	AN.						
	47	435 SF	WALK - NOT TREATED BY THIS PLAN.	HC DI AN						
	48 TOTAL	27,691 SF 248,086 SF	GRAVEL / DIRT LOT - NOT TREATED BY TH	IIO PLAN.						

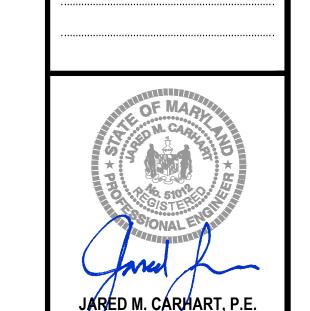
	40	27,001 01	direct, bill tot - Not the ME Bi this	71 LINE.					
	TOTAL	248,086 SF							
TOTAL SITE IMPERV		272,610 SF 0.0 SF		ESDV PROVIDED Via dry Wells	ESDV PROVIDED VIA DISCONNECTS	ESDV PROVIDED VIA Micro-infiltration trench	ESDV PROVIDED VIA LANDSCAPE INFILTRATION	ESDV PROVIDED VIA PERMEABLE PAVEMENTS	
TOTAL ESD _V PROVIDED		0.0 CF	1,409.4 CF	0.0 CF	0.0 CF	0.0 CF			
IS ESD _V ADEQUATE		1,409.4 CF > 1,042.7 CF		ESD TO THE MEP, FULL ESD PROVIDED					
IS P _F ADEQUATE		2.16 IN >	1.60 IN	ESD TO THE MICH, FULL ESD PROVIDED					



OWNER/APPLICANT

DK Property Holdings, LLC
Attn: David M. Duber
1001 Pennsylvania Ave NW, Suite 220
Washington, DC 20004
(202) 930-7070
duber@dlc-dc.com

5011 Olney-Laytonsville Road Parcels P600 & P820, Spring Gardens Erosion / Sediment Control Plan, and Water Quality Inventory MCDPS WQI No.: 302848



DATE REVISION

01/25/25 DMJ - Existing Conditions Plan Draft to Client.

09/26/25 DMJ - Conditional Use plan set submitted for initial plan review by M-NCP&PC.

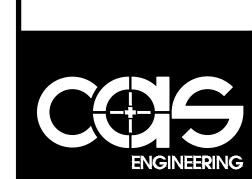
09/2025

JARED M. CARHART, P.E. 09/26/2025

PROFESSIONAL ENGINEER CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51012, expiration date 06/07/2027, and that this plan meets MCDPS criteria for building and sediment control permit applications.

Olney (8th) Election District, Montgomery County, MD

5011 Olney-Laytonsville Road
Olney, Maryland 20832



CAS ENGINEERING-MD

10 South Bentz Street
Frederick, Maryland 21701
301-607-8031 Phone
info@casengineering.com
www.casengineering.com

CAS ENGINEERING-DC, LLC
4836 MacArthur Boulevard, NW, 2nd Floor

Washington, DC 20007
202-393-7200 Phone
info@cas-dc.com
www.cas-dc.com

NOT TO SCALE OR AS NOTED

SHEET TITLE:
Erosion / Sediment
Control Plan and
Water Quality Inventory

2 OF 2

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P:\2024\24830_5011 Olney Laytonsville Road\6 drawings\24830_FCE+ CONDITIONAL USE+FDAP+SWMC.dwg, 9/24/2025 4:47:30 PM, dmj, © 2025 CAS Engineering and CAS Engineering-DC, LLC