

# STORMWATER MANAGEMENT NARRATIVE

STORMWATER MANAGEMENT FOR THIS PROJECT WILL BE CONCEPTUALLY PROVIDED THROUGH THE FOLLOWING FACILITIES/BMPS:

DRAINAGE AREA	AREA (AC.)	C (ASSUMED)	Q2 (CFS)	Q15 (CFS)	BMP %	BMP AREA	BMP DESC.	RETENTION VOLUME (CF)
"A"	0.47	0.9	2.23	3.20	35%	7,184±	GREEN ROOF 3" GROWING MEDIA DRAINAGE LAYER	2,029±
"B"	1.20	0.9	5.70	8.16	31%	15,967±	GREEN ROOF 3" GROWING MEDIA DRAINAGE LAYER	3,928±
"C"	0.18	0.9	0.86	1.22	32%	2,530±	GREEN ROOF 3" GROWING MEDIA DRAINAGE LAYER	681±
"D"	0.31	0.75	1.23	1.76	5%	733±	STANDARD BIO-RETENTION 7" MEDIA, 12" GRAVEL, 6" PONDING	908±
"E"	0.23	0.75	0.91	1.30	20%	2,002±	STANDARD BIO-RETENTION 7" MEDIA, 12" GRAVEL, 6" PONDING	2,882±
"F"	0.55	0.75	2.18	3.12	4%	1,007±	STANDARD BIO-RETENTION 7" MEDIA, 12" GRAVEL, 6" PONDING	1,450±
"G" (PS)	3.32	0.65	11.39	16.31	3%	4,000±	STANDARD BIO-RETENTION 7" MEDIA, 12" GRAVEL, 6" PONDING	3,960±

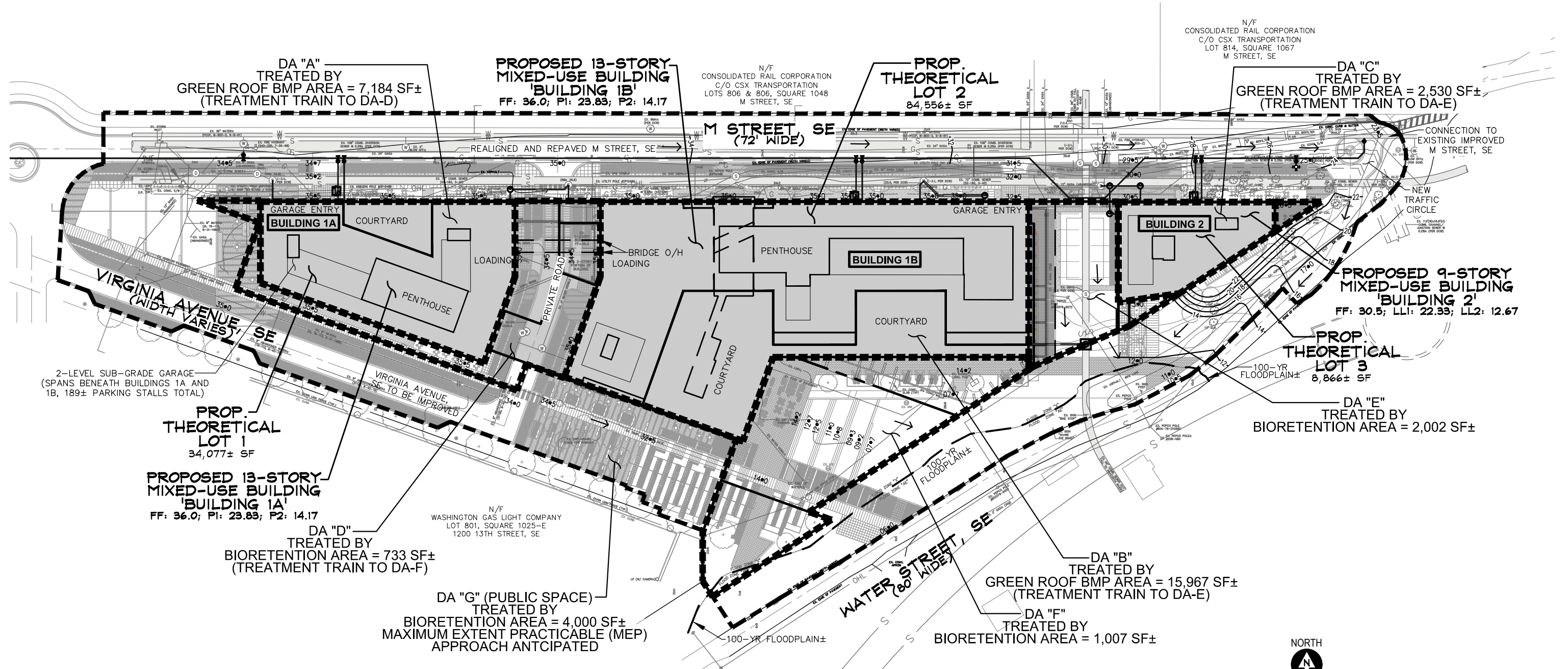
STORAGE FOR CHANNEL PROTECTION VOLUME MAY BE REQUIRED. IF NECESSARY, STORAGE IS INTENDED TO BE PROVIDED IN GARAGE FOR CHANNEL PROTECTION VOLUME FROM THE PROJECT SITE. DETENTION SIZING/REQUIREMENT TO BE DETERMINED DURING DETAILED DESIGN. CALCULATIONS PENDING.

IT IS ANTICIPATED THAT FULL COMPLIANCE WITH PUBLIC SPACE RETENTION VOLUMES WILL NOT BE FEASIBLE AND THAT THE MAXIMUM EXTENT PRACTICABLE (MEP) APPROACH WILL BE PURSUED AND ACCEPTED BY DDOE. THE REASONS FOR THE MEP MEMO INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: VARIOUS UTILITY MAIN AND LATERAL CONFLICTS IN PUBLIC SPACE; LIMITED SEWER MAIN OUTFALL LOCATIONS, DUE TO GRADING; AND STEEP SLOPE GRADING RESTRAINTS. A FORMAL MEP MEMO WILL BE PROVIDED IN CONJUNCTION WITH FUTURE BUILDING SUBMITTALS.

CONCEPTUAL STORMWATER MANAGEMENT SIZING PERFORMED UNDER CURRENT DDOE REGULATIONS. COMPLETE DETAILS IN CONJUNCTION WITH 2020 DDOE STORMWATER MANAGEMENT GUIDEBOOK AND DESIGN WILL BE PROVIDED WITH FINAL DESIGN.

APPLICANT RESERVES THE RIGHT TO VARY THE FEATURES, MEANS, AND METHODS OF ACHIEVING THE REQUIRED STORMWATER RETENTION VOLUME AND OTHER REQUIREMENTS UNDER 21 DCMR CHAPTER 5 AND THE 2013 RULE ON STORMWATER MANAGEMENT AND SOIL EROSION AND SEDIMENT CONTROL.

SEE LANDSCAPE DRAWINGS FOR GREEN AREA RATIO (GAR) COMPLIANCE/CALCULATIONS.





# WATER AND SANITARY SEWER USAGE ESTIMATION

Supply Fixture Demand									
sfu's per type	7.8	7.8	7.8	11.4	11.4	84.2	122		
Type	Eff.+1BTH	1BR+1BTH	1BR+Den+1BTH	Junior 2BR+2BTH	2BR+2BTH	GroceryStore	Publ.BTHS		
total of type	81	135	0	0	54	1	1	270 Bldg. 1A Res.	gpm
total sfu's	631.8	1053	0	0	615.6	84.2	122	2506.6	w mechani size (in)
total of type	163	272	0	0	109	3	1	544 Bldg. 1B Res.	380
total sfu's	1271.4	2121.6	0	0	1242.6	252.6	122	5010.2	450
total of type	32	53	0	0	21	0	1	106 Bldg. 2 Res.	600
total sfu's	249.6	413.4	0	0	239.4	0	122	1024.4	670
total of type	0	0	0	0	0	0	0	0	210
total sfu's	0	0	0	0	0	0	0	0	280
total sfu's	0	0	0	0	0	0	0	0	

Drainage Fixture Demand									
dfu's per type	9	9	9	14	14	37	72		
Type	Eff.+1BTH	1BR+1BTH	1BR+Den+1BTH	Junior 2BR+2BTH	2BR+2BTH	Restaurant	Publ.BTHS		
total of type	81	135	0	0	54	1	1	270	
total dfu's	729	1215	0	0	756	37	72	2809 Bldg. 1A Res.	
total of type	163	272	0	0	109	3	1	544	
total dfu's	1487	2448	0	0	1526	111	72	5624 Bldg. 1B Res.	
total of type	32	53	0	0	21	0	1	106	
total dfu's	288	477	0	0	294	0	72	1131 Bldg. 2 Res.	
total of type	0	0	0	0	0	0	0	0	
total dfu's	0	0	0	0	0	0	0	0	

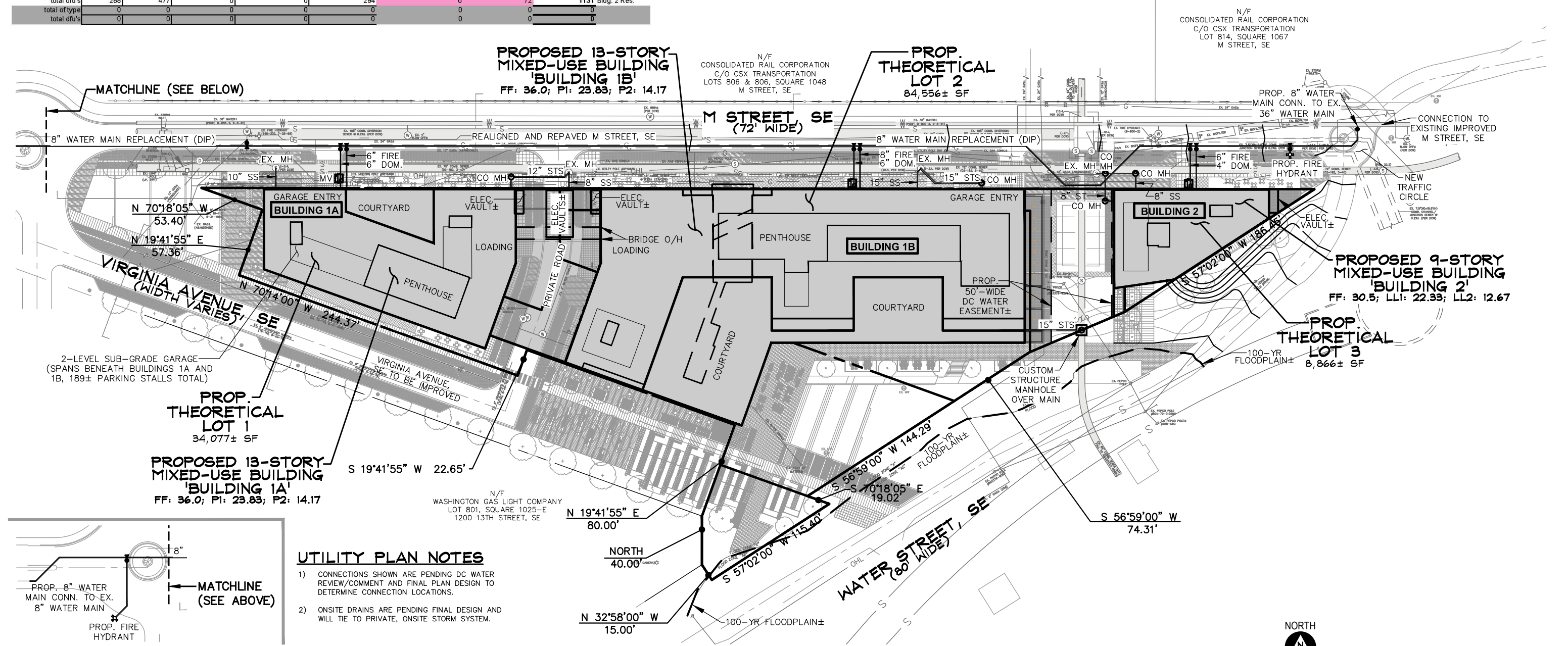
Building	Domestic Water Size (in)	Fire Size (in)	Sanitary (in)	Gas Load (cfh)
1A	6	6	10	16350
1B	6	8	15	34365
2	4	6	8	5830
1A+1B	8	-	-	-
1A+1B+2	8	-	-	-

**DC WATER WET UTILITY MATERIAL SCHEDULE:**  
 WATER CONNECTIONS: CLASS 56 DUCTILE IRON W/ MECH. JOINTS  
 SANITARY/STORM SEWER CONNECTIONS: SCHEDULE 40 PVC

**EJECTOR PUMPS TO BE INSTALLED AS NECESSARY WITHIN BUILDINGS FOR SANITARY AND STORM SEWER CONNECTIONS.**

**DC WATER ABBREVIATIONS SHOWN HEREON:**  
 CO MH = PROPOSED CLEANOUT MANHOLE  
 DIP = DUCTILE IRON PIPE  
 DOM. = DOMESTIC WATER CONNECTION  
 EX. MH = CONNECTION AT EXISTING MANHOLE  
 FIRE = FIRE WATER CONNECTION  
 MV = DOMESTIC METER VAULT  
 SS = SANITARY SEWER CONNECTION  
 STS = STORM SEWER CONNECTION

**BACKWATER VALVES TO BE INSTALLED INSIDE BUILDINGS ON SEWER CONNECTIONS PER IPC 715. BACKFLOW PREVENTION DEVICES TO BE INSTALLED INSIDE BUILDINGS PER APPLICABLE ASSE CODES.**



## UTILITY PLAN NOTES

- 1) CONNECTIONS SHOWN ARE PENDING DC WATER REVIEW/COMMENT AND FINAL PLAN DESIGN TO DETERMINE CONNECTION LOCATIONS.
- 2) ONSITE DRAINS ARE PENDING FINAL DESIGN AND WILL TIE TO PRIVATE, ONSITE STORM SYSTEM.

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PUD SUBMISSION  
 UTILITY PLAN