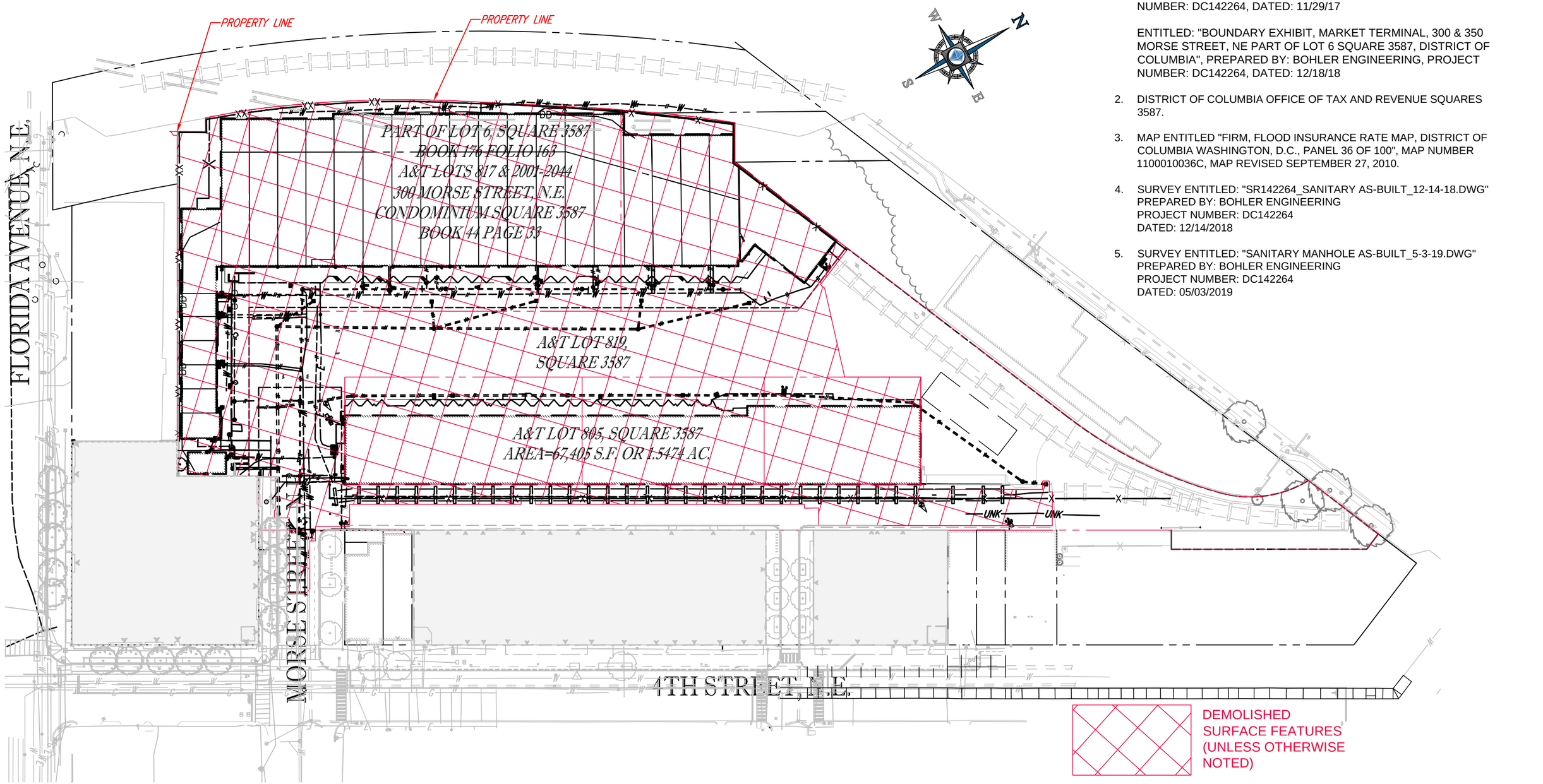


REFERENCES

1. ENTITLED: "ALTA/NSPS LAND TITLE SURVEY: KETTLER INC. 300 MORSE STREET, NE PART OF LOT 6 SQUARE 3587, DISTRICT OF COLUMBIA", PREPARED BY: BOHLER ENGINEERING, PROJECT NUMBER: DC142264, DATED: 11/29/17

   ENTITLED: "BOUNDARY EXHIBIT, MARKET TERMINAL, 300 & 350 MORSE STREET, NE PART OF LOT 6 SQUARE 3587, DISTRICT OF COLUMBIA", PREPARED BY: BOHLER ENGINEERING, PROJECT NUMBER: DC142264, DATED: 12/18/18

2. DISTRICT OF COLUMBIA OFFICE OF TAX AND REVENUE SQUARES 3587.

3. MAP ENTITLED "FIRM, FLOOD INSURANCE RATE MAP, DISTRICT OF COLUMBIA WASHINGTON, D.C., PANEL 36 OF 100", MAP NUMBER 1100010036C, MAP REVISED SEPTEMBER 27, 2010.

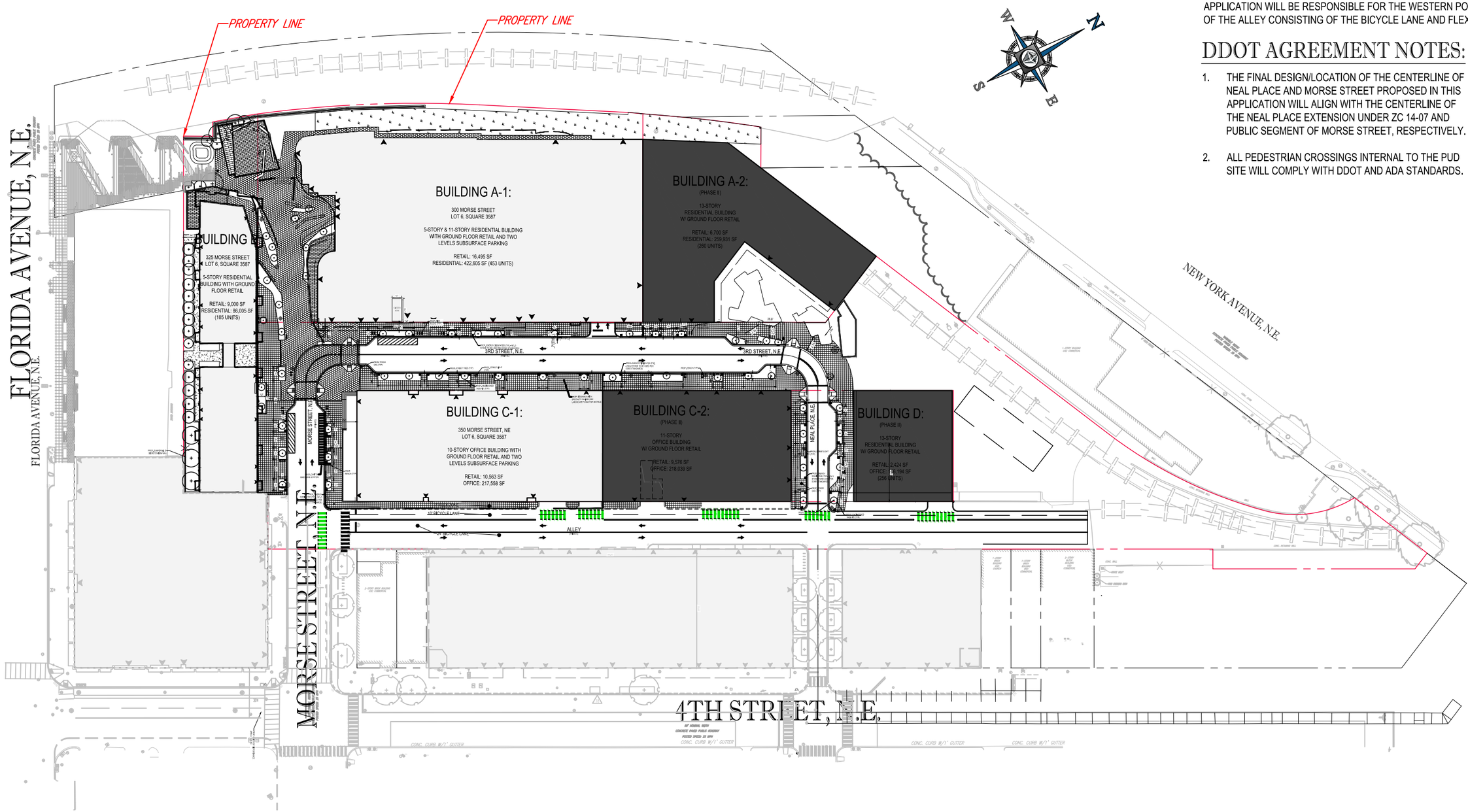
4. SURVEY ENTITLED: "SR142264_SANITARY AS-BUILT_12-14-18.DWG"
   PREPARED BY: BOHLER ENGINEERING
   PROJECT NUMBER: DC142264
   DATED: 12/14/2018

5. SURVEY ENTITLED: "SANITARY MANHOLE AS-BUILT_5-3-19.DWG"
   PREPARED BY: BOHLER ENGINEERING
   PROJECT NUMBER: DC142264
   DATED: 05/03/2019

EXISTING CONDITIONS / DEMOLITION PLAN

SCALE: 1" = 100'

21 MAY, 2019



ALLEY NOTE:

ALLEY IMPROVEMENTS BY OTHERS PER PUD NO. 14-07. THIS PUD APPLICATION WILL BE RESPONSIBLE FOR THE WESTERN PORTION OF THE ALLEY CONSISTING OF THE BICYCLE LANE AND FLEX ZONE.

DDOT AGREEMENT NOTES:

1. THE FINAL DESIGN/LOCATION OF THE CENTERLINE OF NEAL PLACE AND MORSE STREET PROPOSED IN THIS APPLICATION WILL ALIGN WITH THE CENTERLINE OF THE NEAL PLACE EXTENSION UNDER ZC 14-07 AND PUBLIC SEGMENT OF MORSE STREET, RESPECTIVELY.

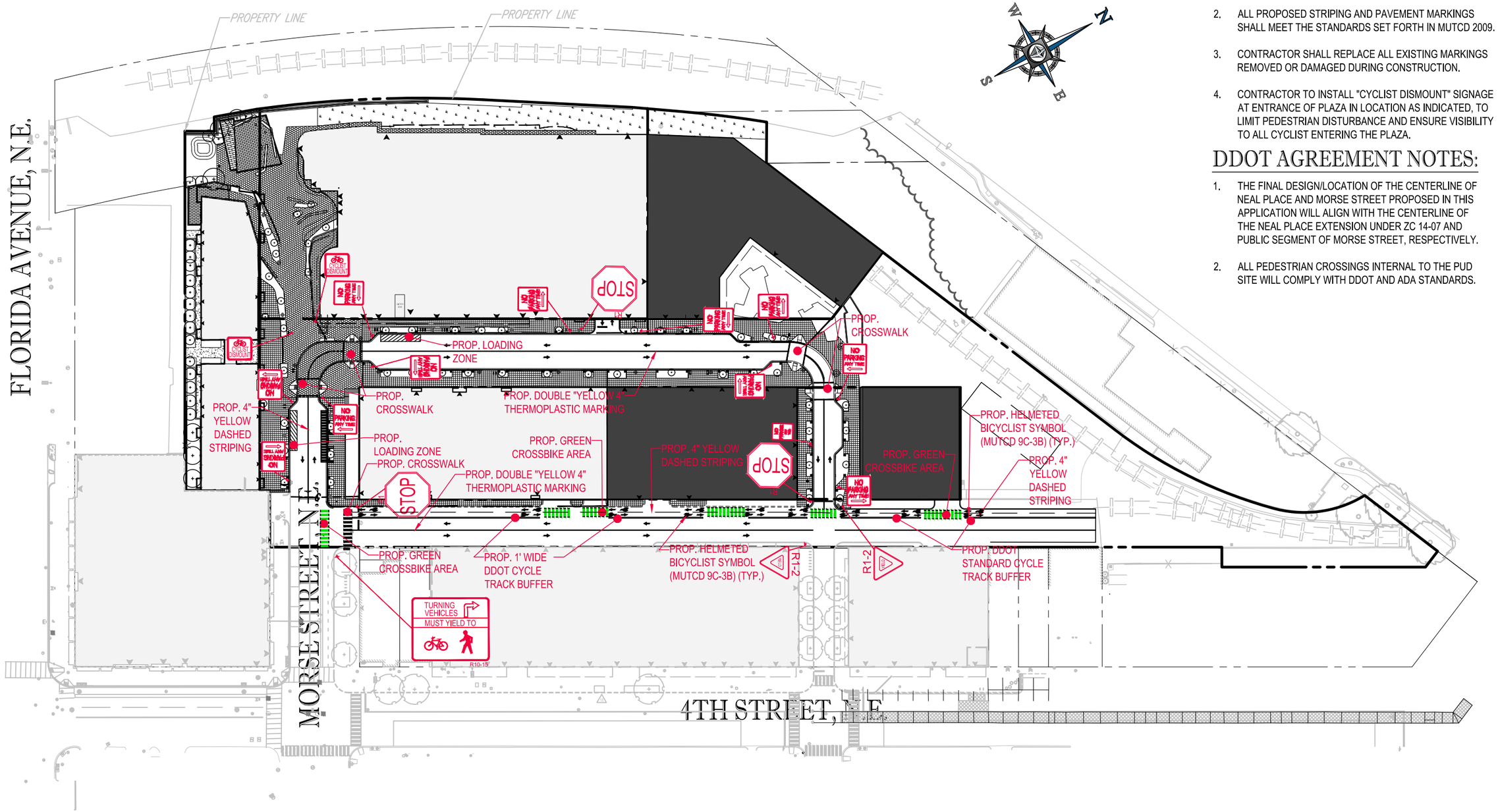
2. ALL PEDESTRIAN CROSSINGS INTERNAL TO THE PUD SITE WILL COMPLY WITH DDOT AND ADA STANDARDS.

SITE PLAN - STAGE II PUD

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019



SIGNAGE AND STRIPING NOTES:

1. ALL PROPOSED SIGNS SHALL COMPLY WITH MUTCD 2009.
2. ALL PROPOSED STRIPING AND PAVEMENT MARKINGS SHALL MEET THE STANDARDS SET FORTH IN MUTCD 2009.
3. CONTRACTOR SHALL REPLACE ALL EXISTING MARKINGS REMOVED OR DAMAGED DURING CONSTRUCTION.
4. CONTRACTOR TO INSTALL "CYCLIST DISMOUNT" SIGNAGE AT ENTRANCE OF PLAZA IN LOCATION AS INDICATED, TO LIMIT PEDESTRIAN DISTURBANCE AND ENSURE VISIBILITY TO ALL CYCLIST ENTERING THE PLAZA.

DDOT AGREEMENT NOTES:

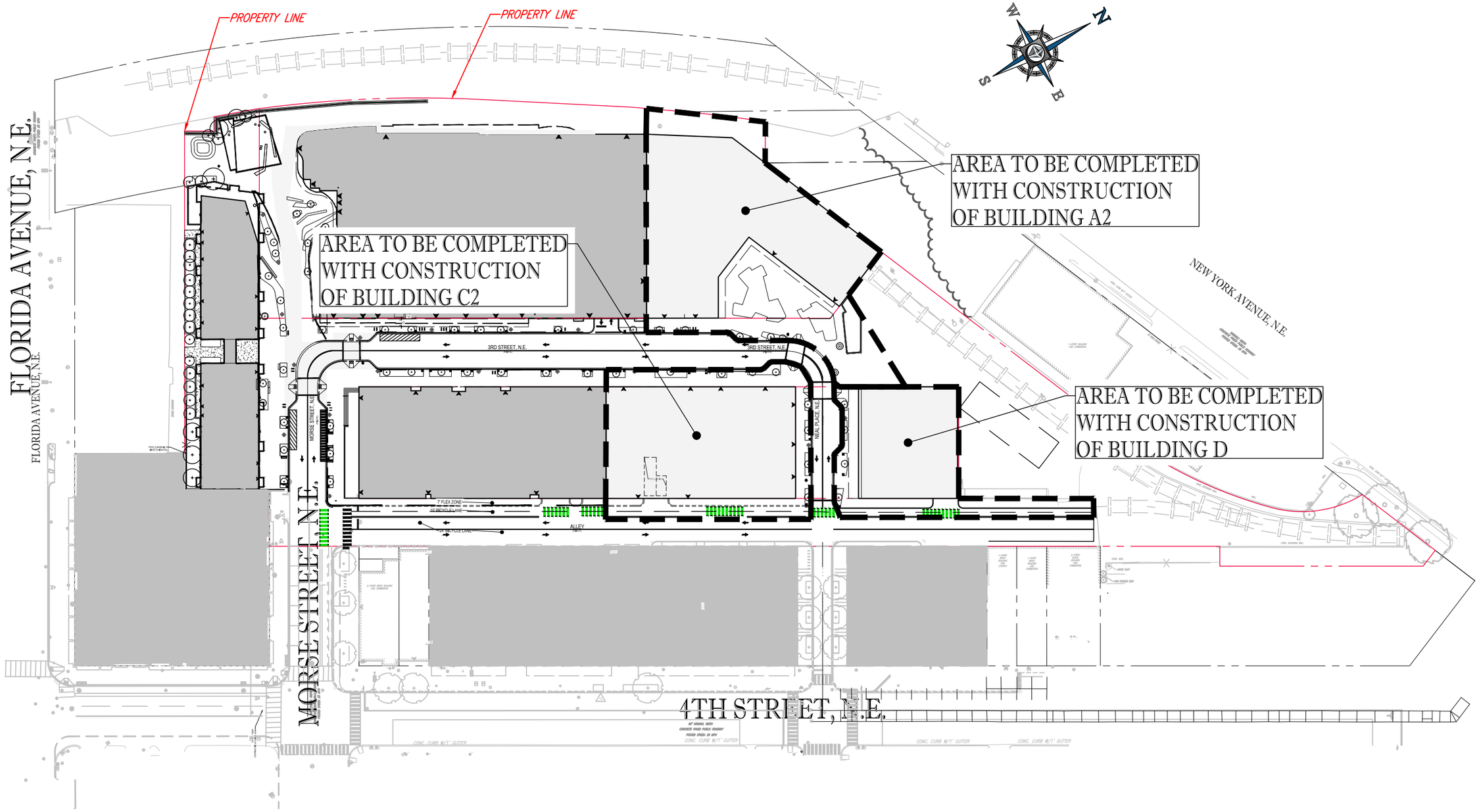
1. THE FINAL DESIGN/LOCATION OF THE CENTERLINE OF NEAL PLACE AND MORSE STREET PROPOSED IN THIS APPLICATION WILL ALIGN WITH THE CENTERLINE OF THE NEAL PLACE EXTENSION UNDER ZC 14-07 AND PUBLIC SEGMENT OF MORSE STREET, RESPECTIVELY.
2. ALL PEDESTRIAN CROSSINGS INTERNAL TO THE PUD SITE WILL COMPLY WITH DDOT AND ADA STANDARDS.

SIGNAGE AND STRIPING PLAN

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019

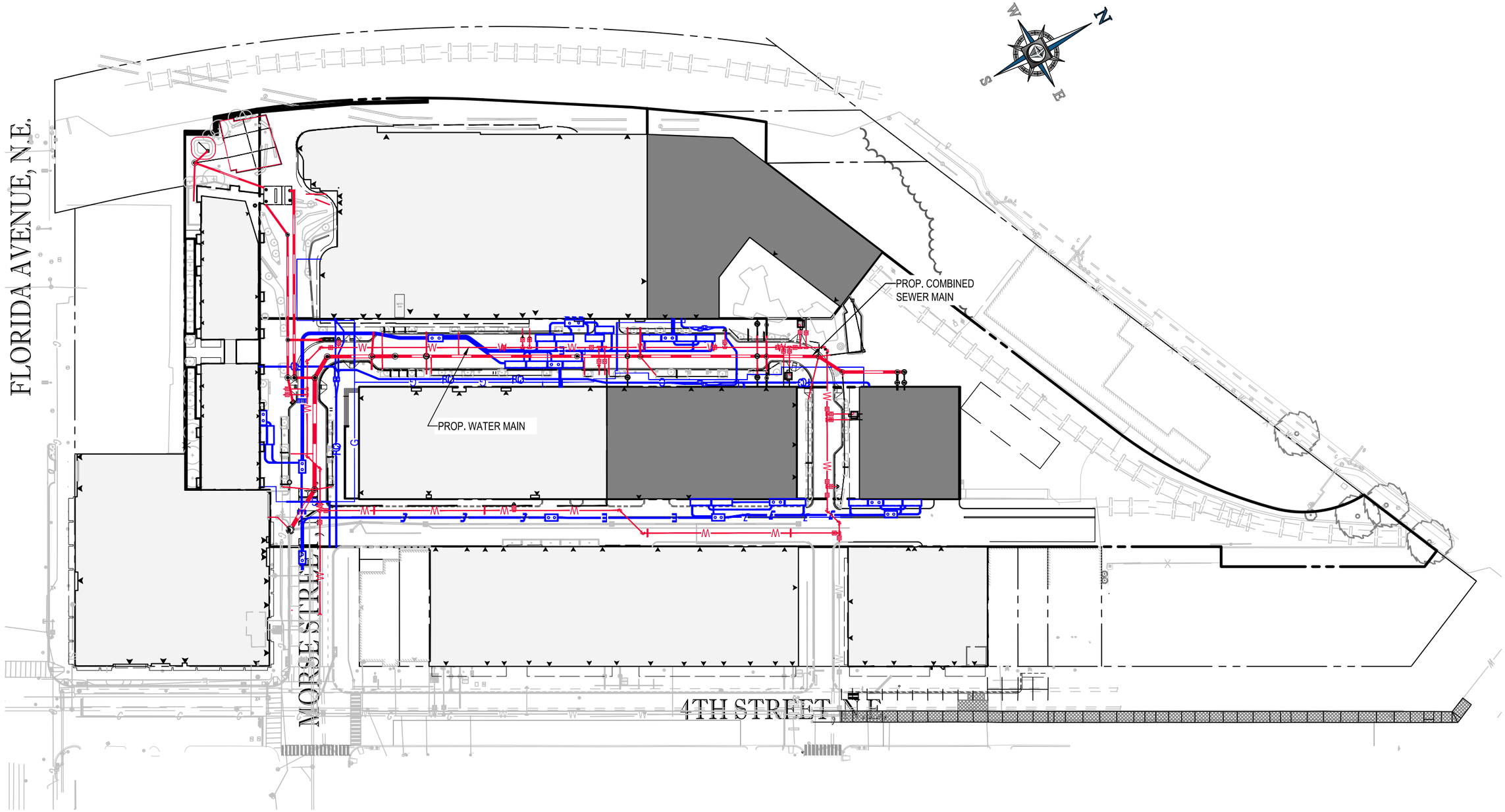


DEVELOPER RESPONSIBILITY PLAN - STAGE II PUD

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019

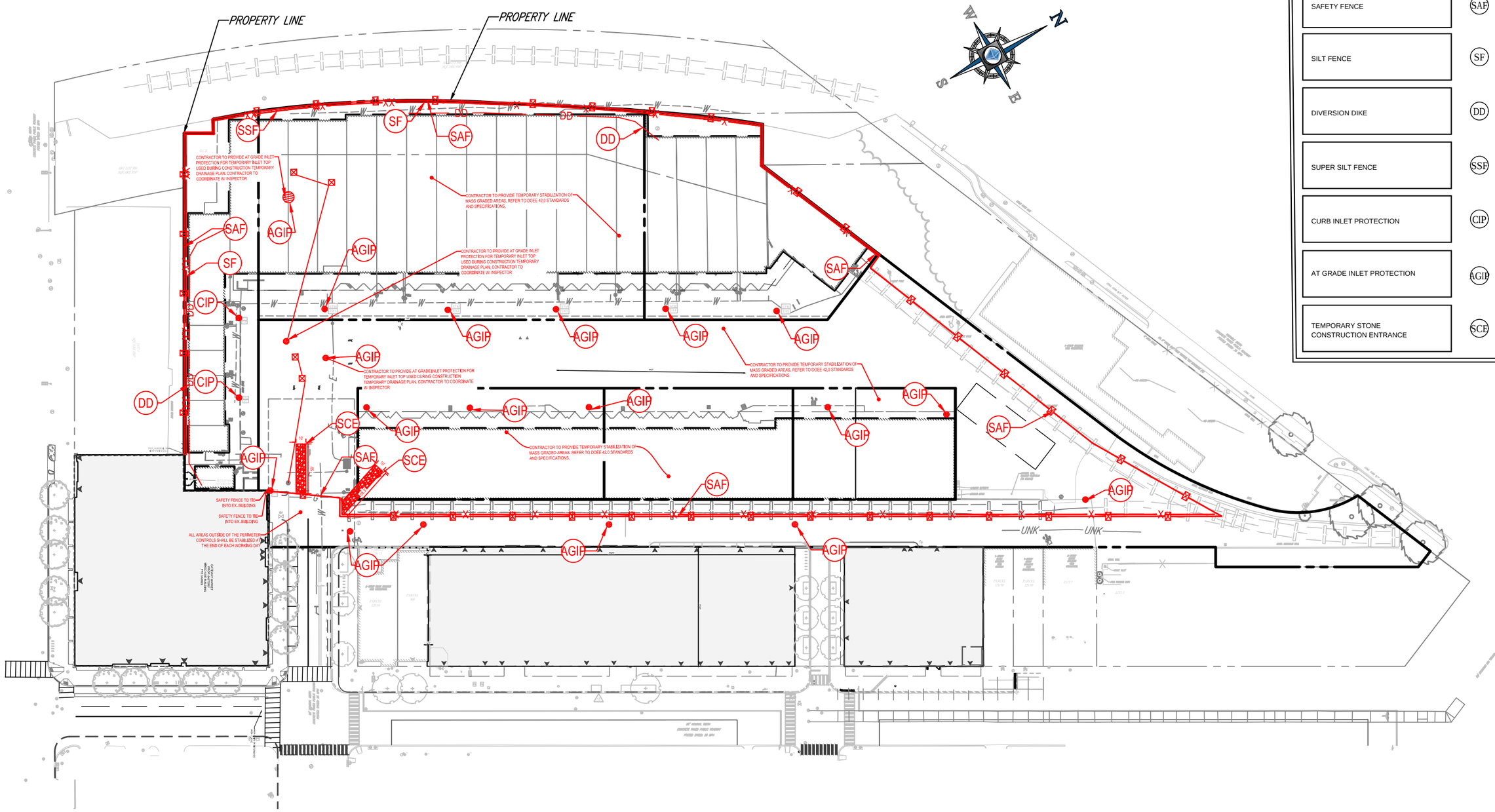


UTILITY PLAN

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019



EROSION AND SEDIMENT CONTROL LEGEND

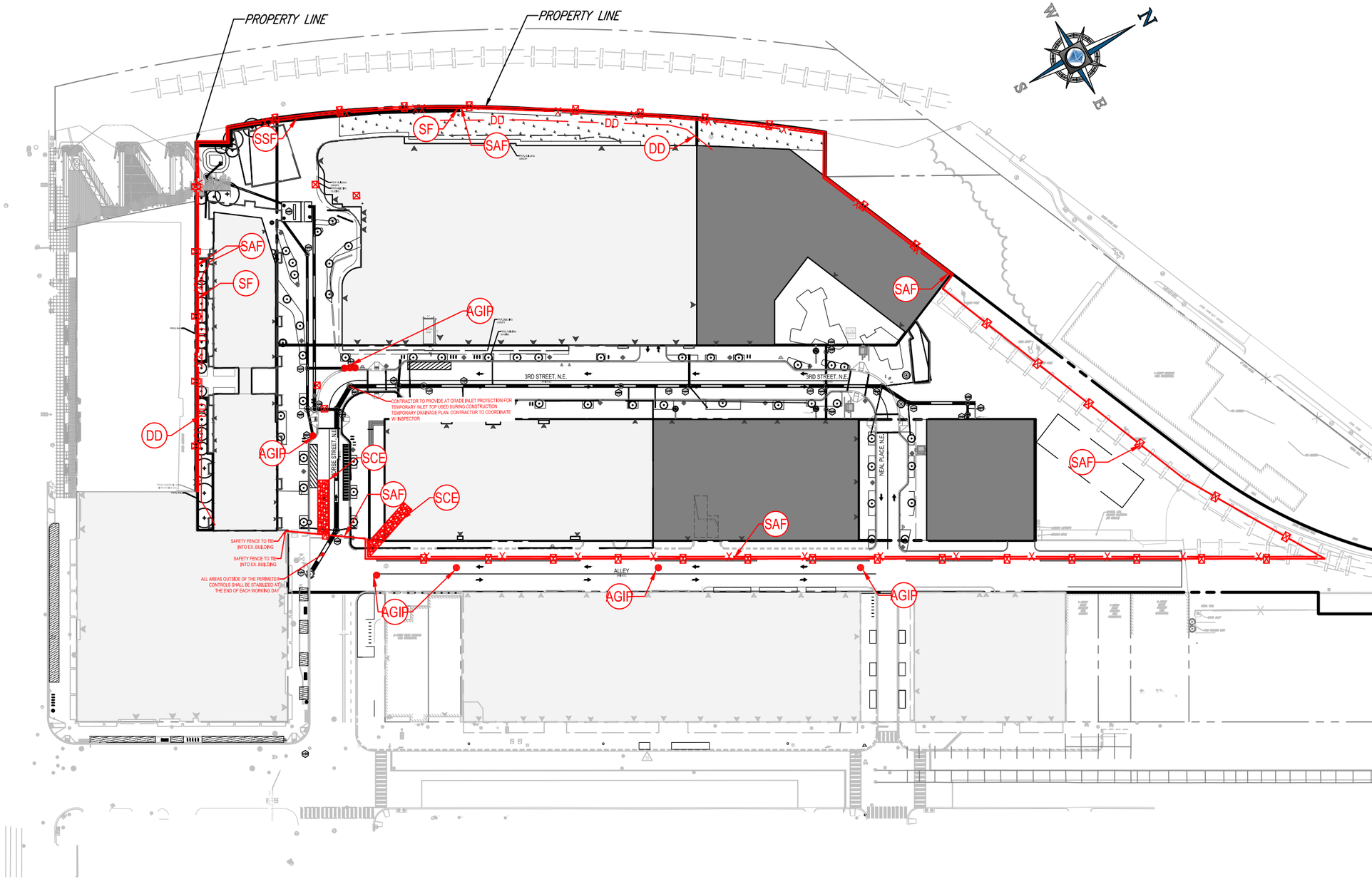
TITLE	KEY	SYMBOL
SAFETY FENCE	SAF	
SILT FENCE	SF	
DIVERSION DIKE	DD	
SUPER SILT FENCE	SSF	
CURB INLET PROTECTION	CIP	
AT GRADE INLET PROTECTION	AGIP	
TEMPORARY STONE CONSTRUCTION ENTRANCE	SCE	

EROSION AND SEDIMENT CONTROL PLAN (PHASE I)

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019



EROSION AND SEDIMENT CONTROL LEGEND

TITLE	KEY	SYMBOL
SAFETY FENCE	SAF	
SILT FENCE	SF	
DIVERSION DIKE	DD	
SUPER SILT FENCE	SSF	
CURB INLET PROTECTION	CIP	
AT GRADE INLET PROTECTION	AGIP	
TEMPORARY STONE CONSTRUCTION ENTRANCE	SCE	

EROSION AND SEDIMENT CONTROL PLAN (PHASE II)

SCALE: 1" = 100'

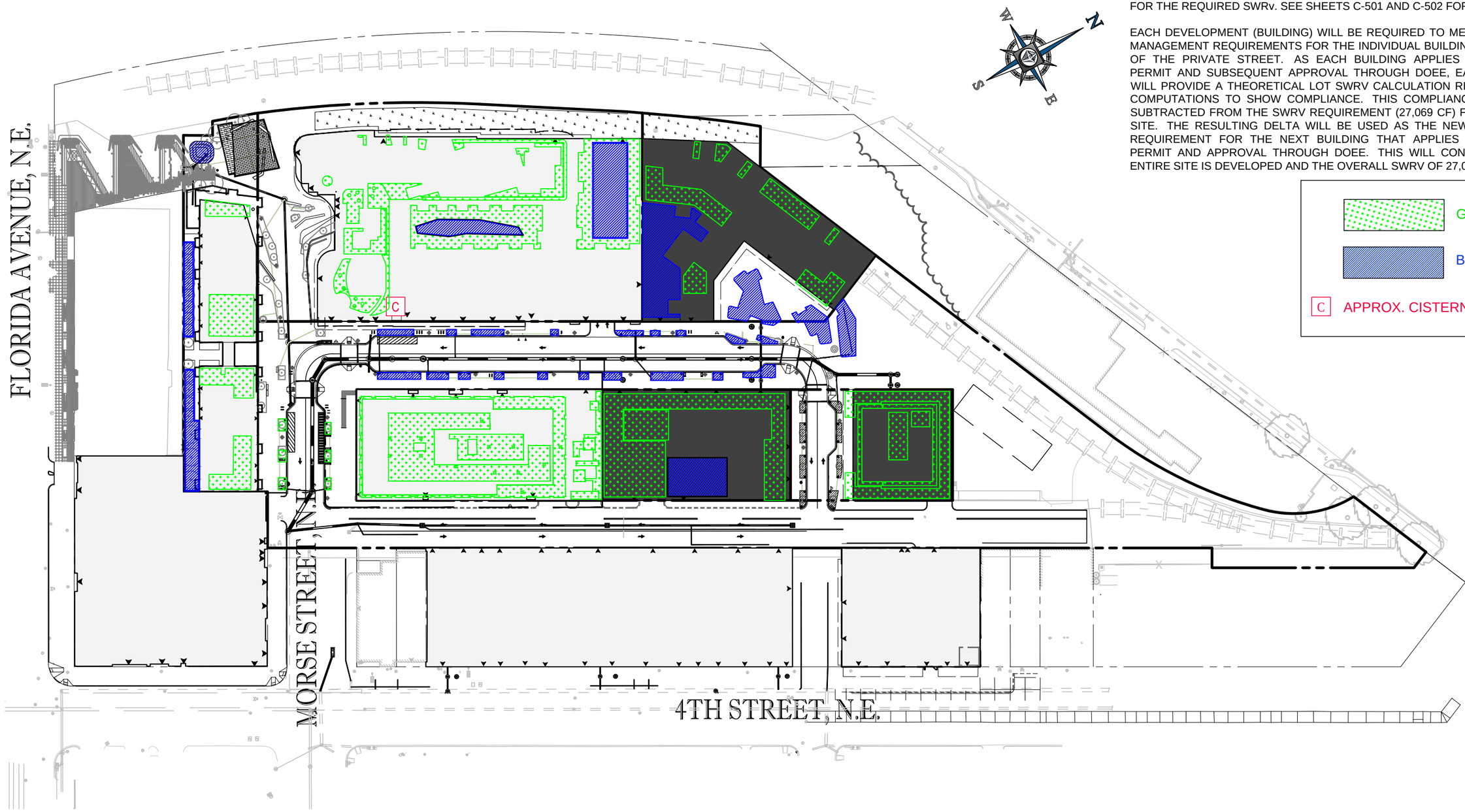
0 50 100
1"=100'

21 MAY, 2019

STORMWATER MANAGEMENT PLAN NARRATIVE

THE TOTAL DISTURBED AREA IS 292,676 SF AND HAS A SWRv REQUIREMENT OF 27,069 CF. GREEN ROOFS, BIORETENTION FACILITIES, A CISTERN, AND STREETSCAPE BIORETENTION PLANTERS WILL BE IMPLEMENTED TO PROVIDE FOR THE REQUIRED SWRv. SEE SHEETS C-501 AND C-502 FOR CALCULATIONS.

EACH DEVELOPMENT (BUILDING) WILL BE REQUIRED TO MEET STORMWATER MANAGEMENT REQUIREMENTS FOR THE INDIVIDUAL BUILDING AND PORTIONS OF THE PRIVATE STREET. AS EACH BUILDING APPLIES FOR A BUILDING PERMIT AND SUBSEQUENT APPROVAL THROUGH DOEE, EACH APPLICATION WILL PROVIDE A THEORETICAL LOT SWRV CALCULATION REQUIREMENT AND COMPUTATIONS TO SHOW COMPLIANCE. THIS COMPLIANCE DATA WILL BE SUBTRACTED FROM THE SWRV REQUIREMENT (27,069 CF) FOR THE OVERALL SITE. THE RESULTING DELTA WILL BE USED AS THE NEW OVERALL SWRV REQUIREMENT FOR THE NEXT BUILDING THAT APPLIES FOR A BUILDING PERMIT AND APPROVAL THROUGH DOEE. THIS WILL CONTINUE UNTIL THE ENTIRE SITE IS DEVELOPED AND THE OVERALL SWRV OF 27,069 CF IS MET.



STORMWATER MANAGEMENT PLAN - OVERALL

SCALE: 1" = 100'

0 50 100
1"=100'

21 MAY, 2019

BUILDING A1

GREEN ROOF

GREEN ROOF#	SURFACE AREA (SF)	TOTAL CDA (SF)	EX. IMP (SF)	PROP. IMP (SF)	MEDIA DEPTH (in.)	DRAINAGE LAYER DEPTH (IN)	LOCATION	STORAGE PROVIDED	Max SWRv	IRRIGATED? IF YES, 50% STORAGE APPLIED	50% STORAGE	**SWRv PROVIDED**	NOTES
1 - 1	42	42	42	42	42	1	Amenity Penthouse Roof	78	6	yes	39	6	50% STORAGE CREDIT APPLIED
1 - 2	45	45	45	45	42	1	Amenity Penthouse Roof	84	6	yes	42	6	50% STORAGE CREDIT APPLIED
1 - 3	25	25	25	25	42	1	Amenity Penthouse Roof	47	3	yes	23	3	50% STORAGE CREDIT APPLIED
1 - 4	73	73	73	73	42	1	Amenity Penthouse Roof	136	10	yes	68	10	50% STORAGE CREDIT APPLIED
1 - 5	58	58	58	58	42	1	Amenity Penthouse Roof	108	8	yes	54	8	50% STORAGE CREDIT APPLIED
1 - 6	881	881	881	881	6	1	Amenity Penthouse Roof	293	119	no	N/A	119	
1 - 7	66	66	66	66	12	1	Amenity Penthouse Roof	39	9	yes	19	9	50% STORAGE CREDIT APPLIED
1 - 8	523	523	523	523	6	1	Amenity Penthouse Roof	174	70	no	N/A	70	
1 - 9	248	248	248	248	12	1	Amenity Penthouse Roof	146	33	yes	73	33	50% STORAGE CREDIT APPLIED
1 - 10	52	52	52	52	42	1	Amenity Penthouse Roof	97	7	yes	48	7	50% STORAGE CREDIT APPLIED
1 - 11	414	414	414	414	6	1	Amenity Penthouse Roof	138	56	no	N/A	56	
1 - 12	593	593	593	593	6	1	Amenity Penthouse Roof	197	80	no	N/A	80	
1 - 13	523	523	523	523	6	1	Amenity Penthouse Roof	174	70	no	N/A	70	
1 - 14	718	718	718	718	12	1	Amenity Penthouse Roof	422	97	yes	211	97	50% STORAGE CREDIT APPLIED
1 - 15	338	338	338	338	6	1	Amenity Penthouse Roof	112	45	no	N/A	45	
1 - 16	408	408	408	408	6	1	Amenity Penthouse Roof	136	55	no	N/A	55	
1 - 17	322	322	322	322	6	1	Amenity Penthouse Roof	107	43	no	N/A	43	
1 - 18	3,823	3,823	3,823	3,823	10	1	Level 2 - South Courtyard	1921	515	yes	961	515	50% STORAGE CREDIT APPLIED (NOTE: only 1,646 SF irrigated per LA)
1 - 19	3,145	3,145	3,145	3,145	10	1	Level 2 - North Courtyard	1580	423	no	N/A	423	
TOTAL SA	12,297												
							TOTAL	4,449	1,655			1,655	

BIORETENTION

FACILITY	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	EX. IMP (SF)	PROP. IMP (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	**SWRv PROVIDED**
1 - 20	3,196	3,196	21,506	21506	21,506	0.5	1.5	2	1	7,670	4,602	2,894	2,894
1 - 21	1,211	1,211	12,831	12831	12,831	0.5	1.5	2	1	2,906	1,744	1,727	1,727
									TOTAL	10,577	6,346	4,621	4,621

CISTERN

Size (Gal.)	Size (CF)	CDA (SF)	Max SWRv	Storage (CF)	SWRv Provided (CF)
16106	2153.066186	6150	828	1001	827.69

Building A1	
SWRv provided:	7112 CF
(SRCs used:	0 CF)
Storage provided:	16047 CF

BUILDING A2

GREEN ROOF

GREEN ROOF#	SURFACE AREA (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	MEDIA DEPTH (in.)	DRAINAGE LAYER DEPTH (IN)	LOCATION	STORAGE PROVIDED	Max SWRv	SWRv	**SWRv PROVIDED**	NOTES
1	4,500	4,500	0	8	1		1406	606	606	606	lower roof
						TOTAL	1,406	606		606	

MEDIA RETENTION VALUE	0.45	per manufactuer (TBD)
DRAINAGE LAYER RETENTION VALUE	0.15	DOEE

BIORETENTION

FACILITY	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	PROP. PERVIOUS (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	**SWRv PROVIDED**
A	1,498	1,498	3,298	1,800	0	0.5	0.5	2.5	0.833	2,185	1,311	444	444
B	367	367	1,817	1,150	300	0.5	0.5	2.5	0.833	535	321	215	215
podium	4,200	4200	20,000	15,800.0	0	0.5	0.5	2.5	0.833	6,125	3,675	2,692	2,692
									TOTAL	8,845	1,632	659	3,350

Tree Planting

Location	#	SWRv (CF)
In Bioretention	5	50

Building A2	
SWRv provided:	4150 CF
(SRCs used:	144 CF)
Storage provided:	10251 CF

BUILDING B

BIORETENTION

FACILITY #	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	EX. IMP (SF)	PROP. IMP (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	**SWRv PROVIDED**
1	802	802	4,656	4,656	4,656	0.5	0.5	3	1	1,323	794	627	627
2	1,333	1,333	7,738	7,738	7,738	0.5	0.5	3	1	2,199	1,320	1,041	1,041
		2,135	10,259						**TOTAL**	3,523	2,114	1,668	**1,668**

GREEN ROOF

GREEN ROOF #	SURFACE AREA (SF)	TOTAL CDA (SF)	MEDIA DEPTH (in.)	MEDIA RETENTION VALUE	DRAINAGE LAYER DEPTH (in.)	DRAINAGE RETENTION VALUE	STORAGE PROVIDED	Max SWRv	**SWRv PROVIDED**	NOTES
1	634	634	4	0.51	1	0.93	157	85	85	extensive
2	1890	1890	4	0.51	1	0.93	468	254	254	extensive
3	1159	1159	4	0.51	1	0.93	287	156	156	extensive
4	1336	1336	4	0.51	1	0.93	331	180	180	extensive
TOTAL	5019	5019					1242		**675**	

	VALUE	**BRAND**
MEDIA	0.51	HYDROTECH
DRAINAGE LAYER	0.93	ROCKWOOL (HYDROTECH)

Building B	
SWRv provided:	2343 CF
(SRCs used:	0 CF)
Storage provided:	4765 CF

BUILDING C1

GREEN ROOF

GREEN ROOF #	SURFACE AREA (SF)	TOTAL CDA (SF)	MEDIA DEPTH (in.)	MEDIA RETENTION VALUE	ROCKWOOL DRAINAGE LAYER DEPTH (in.)	ROCKWOOL DRAINAGE RETENTION VALUE	MESH LAYER DRAINAGE LAYER DEPTH (in.)	MESH LAYER DRAINAGE RETENTION VALUE	Irr? (Y/N)	STORAGE PROVIDED	Max SWRv	**SWRv PROVIDED**
6115-1-1 Green Roof #1 - L12	6,325	6,325	6	0.51	1	0.93	0.75	0.15	N	2,162	851	851
6115-1-2 Green Roof #2 - L13	1,612	1,612	6	0.51	1	0.93	0.75	0.15	N	551	217	217
6115-1-3 Green Roof #3 - L11	3,634	3,634	8	0.51	1	0.93	0.75	0.15	N	1,551	489	489
6115-1-4 Green Roof #4 - L2	627	627	18	0.51	1.25	0.15	0		Y	245	84	84
6115-1-5 Green Roof #5 - L2	75	75	30	0.51	1.25	0.15	0		Y	48	10	10
6115-1-6 Green Roof #6 - L2	136	136	42	0.51	1.25	0.15	0		Y	122	18	18
6115-1-7 Green Roof #7 - L2	123	123	12	0.51	1.25	0.15	0		Y	32	17	17
6115-1-8 Green Roof #8 - L2	106	106	42	0.51	1.25	0.15	0		Y	95	14	14
6115-1-9 Green Roof #9 - L2	136	136	42	0.51	1.25	0.15	0		Y	122	18	18
6115-1-10 Green Roof #10 - L2	215	215	42	0.51	1.25	0.15	0		Y	194	29	29
TOTAL	12,989	12,989								5,122		1,748

Building C1	
image snips to include:	GR
SWRv provided:	3074 CF
(SRCs used:	1326 CF)
Storage provided:	5122 CF

STORMWATER MANAGEMENT PLAN CALCULATIONS - OVERALL

INFRASTRUCTURE

STANDARD BIORETENTION

FACILITY (Drainage Area #)	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	SWRv PROVIDED
1	224	224	2,285	2,285	0.83	0.25	2.50	0.83	271	162	338	162
2	61	61	878	878	0.83	0.25	2.50	0.83	74	44	126	44
3	201	201	2,559	2,559	0.83	0.25	2.50	0.83	243	146	371	146
Bio Removed	0	0	0	0	0.00	0.00	0.00	0.00	-	-	0	-
5	49	49	2,199	2,199	0.83	0.25	2.50	0.83	59	36	303	36
7	47	47	846	846	0.83	0.25	2.50	0.83	57	34	120	34
8	47	47	1,286	1,286	0.83	0.25	2.50	0.83	57	34	179	34
11	306	306	2,036	2,036	0.83	0.25	2.50	0.83	370	222	315	222
12	154	154	1,116	1,116	0.83	0.25	2.50	0.83	186	112	171	112
13	84	84	1,312	1,312	0.83	0.25	2.50	0.83	102	61	188	61
14	70	70	1,154	1,154	0.83	0.25	2.50	0.83	85	51	165	51
15	70	70	1,508	1,508	0.83	0.25	2.50	0.83	85	51	212	51
16	69	69	887	887	0.83	0.25	2.50	0.83	83	50	129	50
17	144	144	1,719	1,719	0.83	0.25	2.50	0.83	174	104	251	104
18	265	265	2,278	2,278	0.83	0.25	2.50	0.83	320	192	342	192
19	76	76	1,180	1,180	0.83	0.25	2.50	0.83	92	55	169	55
20	282	282	2,409	2,409	0.83	0.25	2.50	0.83	341	204	362	204
21	96	96	2,144	2,144	0.83	0.25	2.50	0.83	116	70	301	70
22	72	72	1,048	1,048	0.83	0.25	2.50	0.83	87	52	151	52
24	72	72	926	926	0.83	0.25	3.50	0.83	105	63	134	63
25	96	96	1,120	1,120	0.83	0.25	5.50	0.83	188	113	164	113
26	72	72	2,574	2,574	0.83	0.25	5.00	0.83	132	79	356	79
35	123	561	30,087	20,387	0.50	1.50	6.00	0.83	739	443	3,163	443
36	874	874	8,736	6,223	0.25	1.50	2.00	0.83	2,039	1,224	1,044	1,044
								TOTAL	6,003	3,602	9,055	3,422

STANDARD BIORETENTION

FACILITY (Drainage Area #)	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	SWRv PROVIDED
6	130	130	1,153	1,153	0.83	0.25	2.50	0.83	157	94	155	94
9	270	270	2,693	2,693	0.83	0.25	2.50	0.83	326	196	362	196
10	85	85	3,795	3,795	0.83	0.25	2.50	0.83	103	62	511	62
23	96	96	96	96	0.83	0.00	0.00	0	-	-	13	-
27	72	72	673	673	0.83	0.25	3.83	0.83	111	67	91	67
28	97	97	1,045	1,045	0.83	0.25	3.33	0.83	137	82	141	82
29	120	120	705	705	0.83	0.25	4.00	0.83	190	114	95	95
30	100	100	794	794	0.83	0.25	3.67	0.83	150	90	107	90
31	139	139	619	619	0.83	0.25	3.50	0.83	203	122	83	83
32	108	108	834	834	0.83	0.25	3.00	0.83	144	86	112	86
33	95	95	825	825	0.83	0.25	2.50	0.83	115	69	111	69
34	140	140	1,143	1,143	0.83	0.25	2.50	0.83	169	102	154	102
								TOTAL	1,805	1,083	1,935	1,026

PERMEABLE PAVING

Location	SA (SF)	SWRv (CF)	Storage (CF)	Gravel D(ft)
37	2,233	100	1563	2

Infrastructure	
SWRv provided:	6237 CF
(SRCs used:	1689 CF)
Storage provided:	9371 CF

BUILDING C2

BIORETENTION

FACILITY	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	SWRv PROVIDED
6	2,350	2,350	10,610	10,610	0.50	1.00	2.00	1	4,465	2,679	1,428	1,428
								TOTAL	4,465	2,679	1,428	1,428

GREEN ROOF

GREEN ROOF#	SURFACE AREA (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	MEDIA DEPTH (in.)	DRAINAGE LAYER DEPTH (IN)	LOCATION	STORAGE PROVIDED	Max SWRv	SWRv PROVIDED	NOTES
13	8,680	8,680	8,680	5	1		1953	1168	1168	
14	1,370	1,370	1,370	3	1		192	184	184	
						TOTAL	2,145	1,353	1,353	

MEDIA RETENTION VALUE	0.51	HYDROTECH (Litetop Growing Media)
DRAINAGE LAYER RETENTION VALUE	0.15	DOEE

Building C2	
SWRv provided:	2780 CF
(SRCs used:	0 CF)
Storage provided:	6610 CF

BUILDING D

GREEN ROOF

GREEN ROOF#	SURFACE AREA (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	MEDIA DEPTH (in.)	DRAINAGE LAYER DEPTH (IN)	LOCATION	STORAGE PROVIDED	Max SWRv	SWRv PROVIDED
Penthouse	3,420	3,420	0	10	1	Building D	1496	460	460
Upper Roof	492	492	0	8	1	Building D	173	66	66
Upper Roof	727	727	0	8	1	Building D	256	98	98
Upper Roof	913	913	0	8	1	Building D	322	123	123
Upper Roof	287	287	0	10	1	Building D	126	39	39
						TOTAL	2,373	786	786

MEDIA RETENTION VALUE	0.51	HYDROTECH
DRAINAGE LAYER RETENTION VALUE	0.15	DOEE

Building D	
SWRv provided:	1563 CF
(SRCs used:	777 CF)
Storage provided:	2373 CF

OVERALL SUMMARY

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TOTAL SWRv Required:	27069 CF
TOTAL SWRv Provided:	27251 CF
TOTAL Storage Required:	50500 CF
TOTAL Storage Provided:	54523 CF
TOTAL SRCs used:	3936 CF

(NOTE: as required, more than 50% of the SWRv credit is achieved using BMPs)