

LIGHTING LEGEND			
LABEL	SYMBOL	PROJECT TOTAL	DESCRIPTION & SPECIFICATION
⊕	⊕	27	Small Uplight (Remote Transformer) Kim EL700F3-7L4KUV/DB With AGS71 / JBR4 7W LED
⊕	⊕	10	Building Mounted Flood Light Re: Arch for Exact Locations
⊕	⊕	13	Step/Niche Lights Nora NSW800 / NSW851/32-BZ LED
⊕	⊕	4	Pole Light Global Lighting Perspectives (GLP) - GC7030-120LED with GP210-10 - BK Textured Black Finish
⊕	⊕	7	Building Mounted Sconce Re: Arch for Exact Locations
⊕	⊕	202 LF	String Lights (Field Measure for Exact Run Lengths), American Lighting Festoon - LFS-12V-1.5W-LED-WW
NOTES: 1. See enlarged lighting plans for detailed lighting layouts / notes. 2. Above fixture PROJECT totals are for ENTIRE site. 3. See building electrical plans for exterior architectural lighting.			

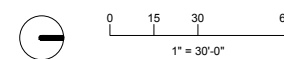


Architecture + Planning
888.456.5849
ktgy.com

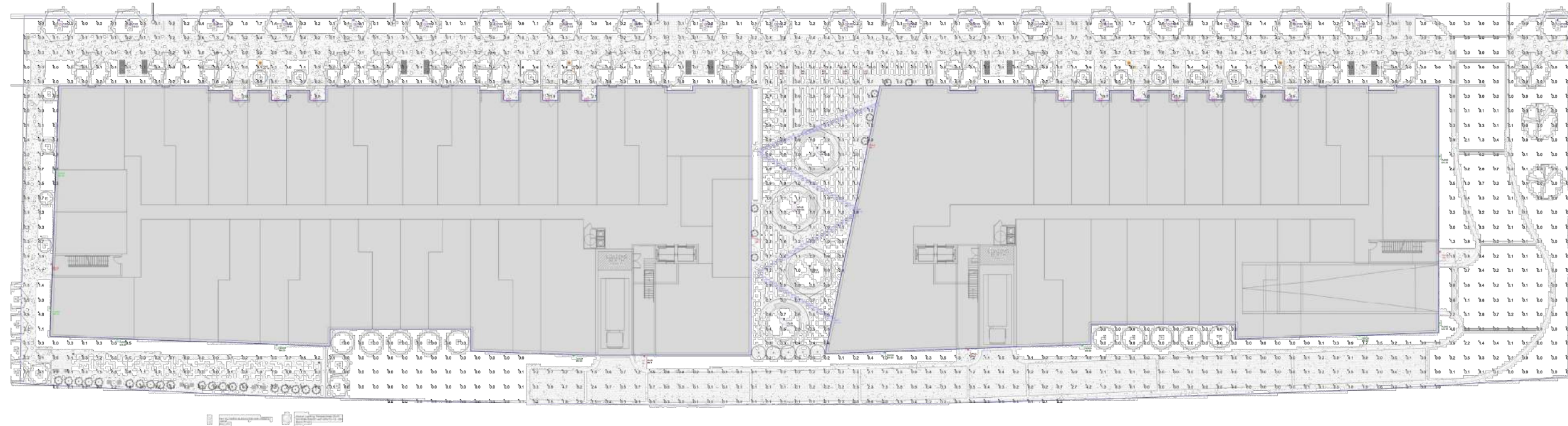


HANOVER 8TH STREET
WASHINGTON, DC # 2018-0430

CONSOLIDATED PUD SUBMISSION
APRIL 4, 2019



LIGHTING PLAN
ZONING COMMISSION L17
District of Columbia
CASE NO.18-21
EXHIBIT NO.25A6



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description
○	5	BOL	SINGLE	1224	1.000	XBVR-ID-LED-24-400-NW-UE
○	6	EA-LG	SINGLE	1624	1.000	7176-34-H16LED-40K
○	10	FLOOD	SINGLE	1432	1.000	EL700NF-12L4K
○	110	LAMP	SINGLE	47	1.000	LFS-12V-1.5-LED-WW
○	4	POST	SINGLE	4818	1.000	GC7030-60WLED-T3
○	13	STEP	SINGLE	189	1.000	FCSL105-120V-4K-190LM
○	4	UP-LG	SINGLE	939	1.000	EL700F3-9L4K
○	21	UP-SM	SINGLE	807	1.000	EL700F3-7L4K

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
GROUND Planar	Illuminance	Fc	1.00	43.8	0.0	N.A.	N.A.

Civil Exhibits

THIS PAGE INTENTIONALLY LEFT BLANK

STANDARD DRAWING LEGEND

FOR ENTIRE PLAN SET
(NOT TO SCALE)

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE	EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE			OVERHEAD WIRE	
	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE			UNDERGROUND TELEPHONE LINE	
	EASEMENT LINE			UNDERGROUND CABLE LINE	
	SETBACK LINE			STORM SEWER	
				SANITARY SEWER MAIN	
	CONCRETE CURB & GUTTER			HYDRANT	
				SANITARY MANHOLE	
				STORM MANHOLE	
	UTILITY POLE WITH LIGHT			WATER METER	
	POLE LIGHT			WATER VALVE	
	TRAFFIC LIGHT			GAS VALVE	
	UTILITY POLE			GAS METER	
	TYPICAL LIGHT			TYPICAL END SECTION	
	ACORN LIGHT			HEADWALL OR ENDWALL	
	TYPICAL SIGN			YARD INLET	
	PARKING COUNTS			CURB INLET	
				CLEAN OUT	
	CONTOUR LINE			ELECTRIC MANHOLE	
	SPOT ELEVATIONS			TELEPHONE MANHOLE	
				ELECTRIC BOX	
	SANITARY LABEL			ELECTRIC PEDESTAL	
	STORM LABEL			MONITORING WELL	
	SANITARY SEWER LATERAL			TEST PIT	
	UNDERGROUND WATER LINE			BENCHMARK	
	UNDERGROUND ELECTRIC LINE			BORING	
	UNDERGROUND GAS LINE				

GENERAL NOTES:

- THE PLAN IS BASED ON THE FOLLOWING DOCUMENTS AND INFORMATION
 - ENTITLED: "ALTA/ACSM LAND TITLE SURVEY, THE HANOVER COMPANY, LOT 15, SQUARE 3382 AND A&T LOT 804, SQUARE 3835, 3201 & 3135 8TH STREET NE, DISTRICT OF COLUMBIA", PREPARED BY: BOHLER ENGINEERING, PROJECT NUMBER: SRW182079, DATED: 08/19/18
 - DIGITAL ARCHITECTURAL PLANS: ENTITLED: "180430 SPV28.5.DWG," PREPARED BY: KTG ARCHITECTS, DATE RECEIVED: 03/05/19
 - DIGITAL LANDSCAPE PLANS: ENTITLED: "WSP-BROOKLAND-GROUND.DWG," PREPARED BY: GWH LANDSCAPE ARCHITECTS, DATE RECEIVED: 03/20/19
- LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE, AND TYPE BY THE PROPER UTILITY COMPANIES.

SHEET INDEX

SHEET TITLE	SHEET NUMBER
GENERAL NOTES AND LEGEND	C-101
EXISTING CONDITIONS PLAN	C-201
SITE PLAN	C-301
GRADING PLAN	C-401
UTILITY PLAN	C-501
EROSION AND SEDIMENT CONTROL PLAN	C-601
EROSION AND SEDIMENT CONTROL PLAN NOTES AND DETAILS	C-602
PUBLIC SPACE PLAN	C-701-702
VEHICULAR TURNING MOVEMENTS (BY OTHERS)	C-801
STORMWATER MANAGEMENT PLAN	C-901-902
STORMWATER MANAGEMENT CALCULATIONS AND DETAILS	C-904

DEVELOPER

THE HANOVER COMPANY
CORPORATE OFFICE
5847 SAN FELIPE, SUITE 3600
HOUSTON, TX 77057

GENERAL NOTES AND LEGEND



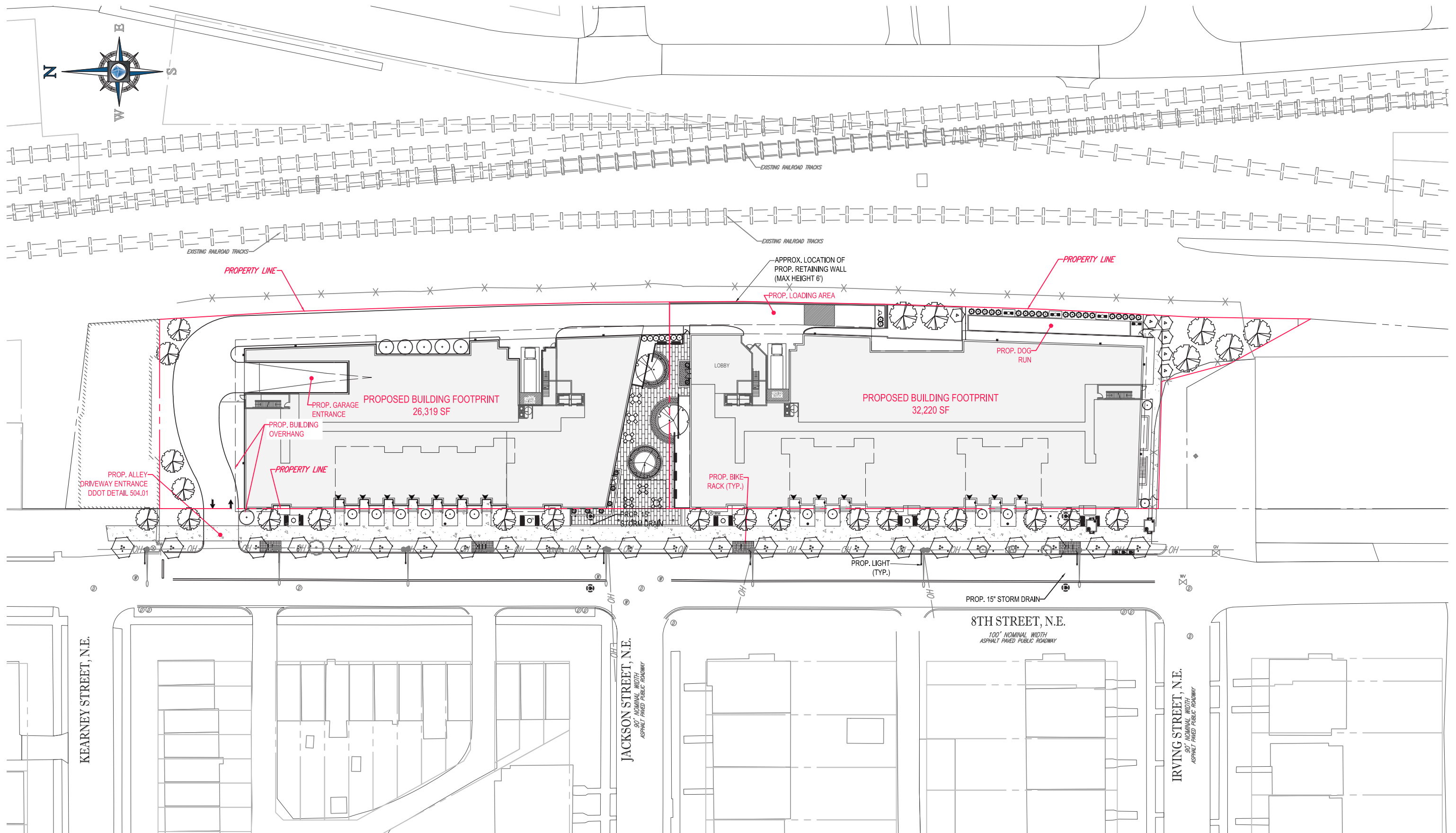
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-101



SITE PLAN

SCALE: 1" = 60'



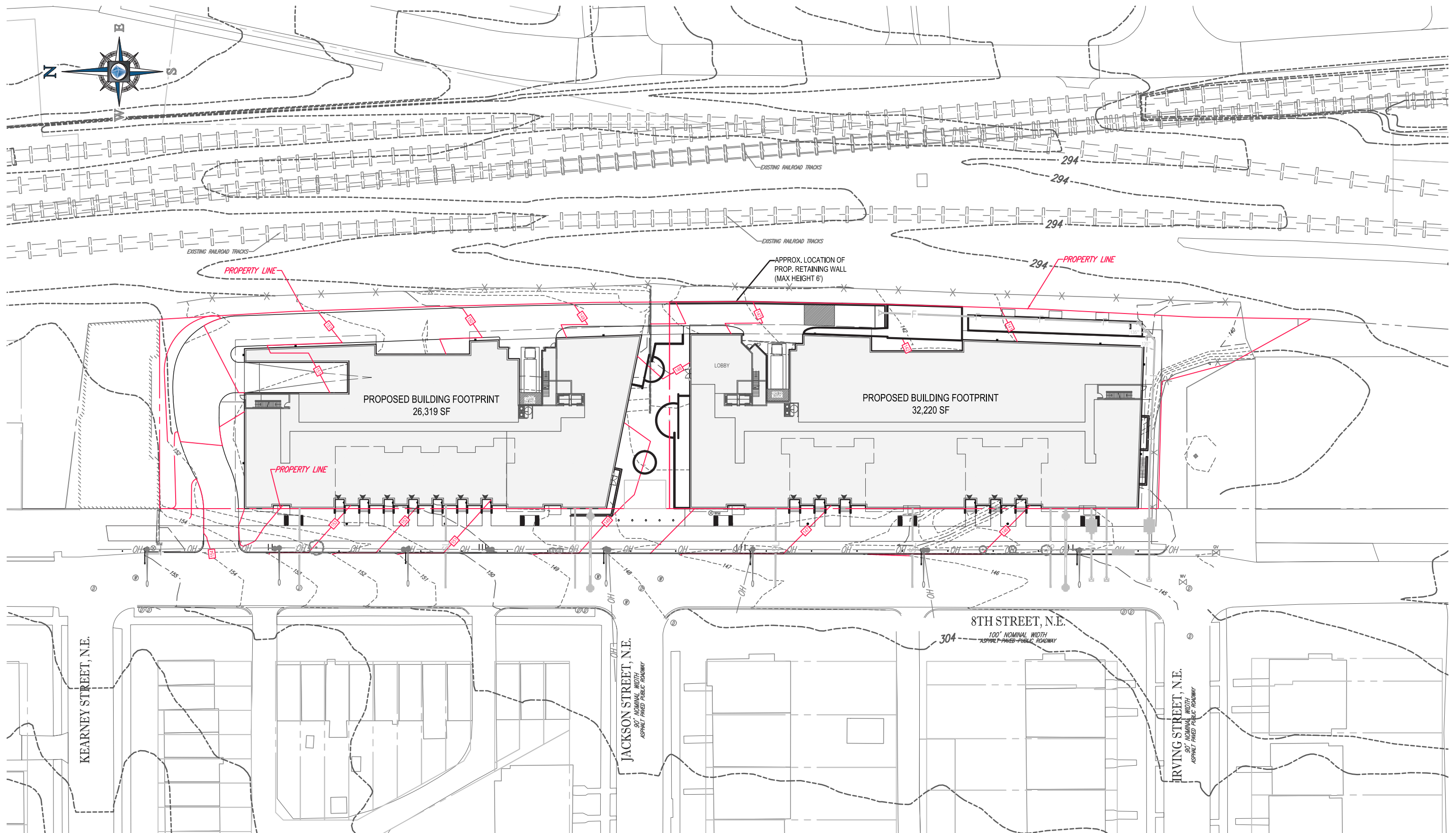
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-301



GRADING PLAN

SCALE: 1" = 60'



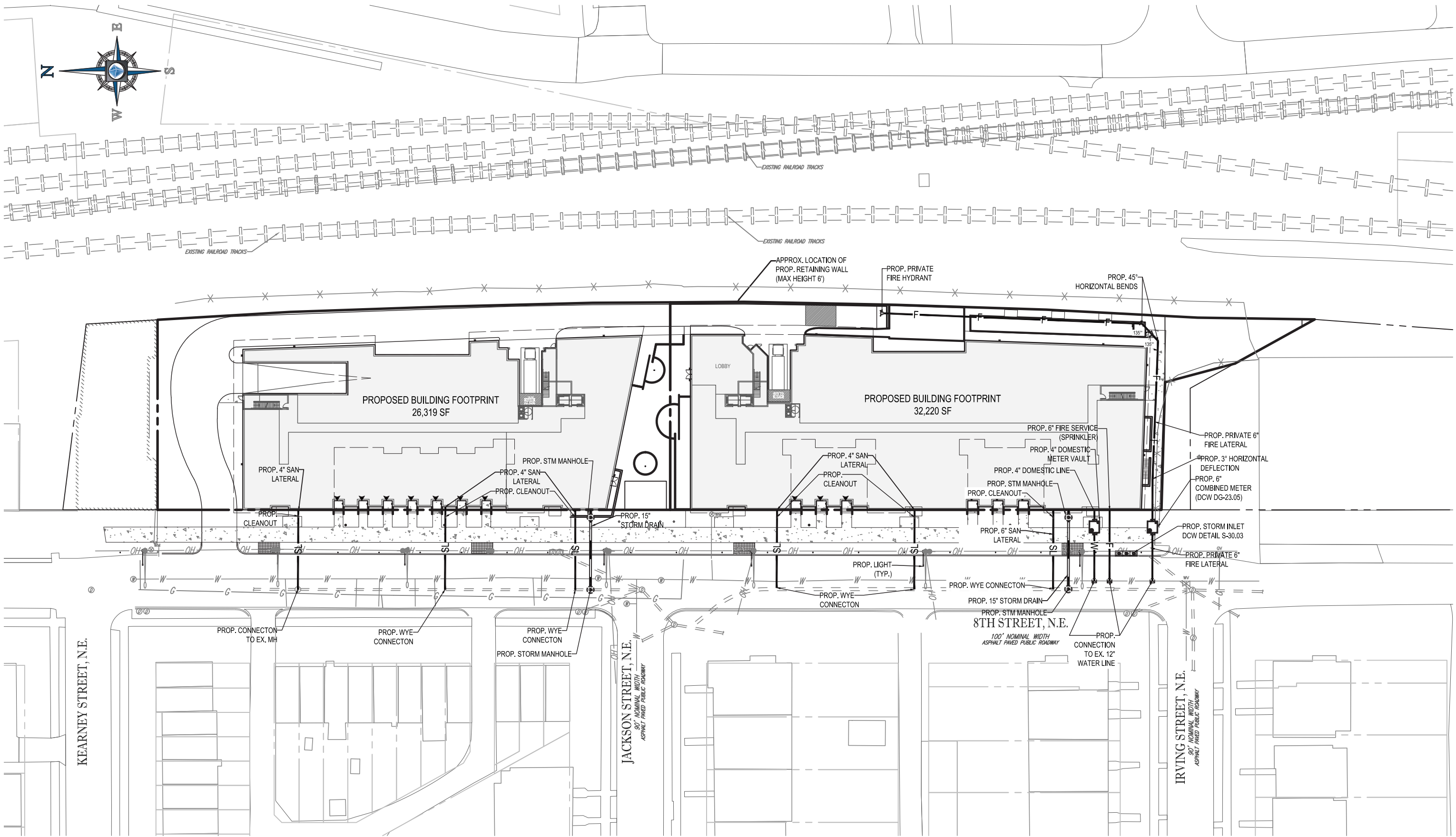
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-401



UTILITY PLAN

SCALE: 1" = 60'



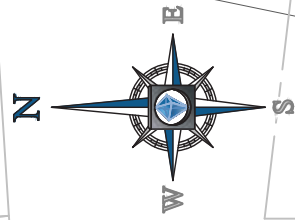
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019

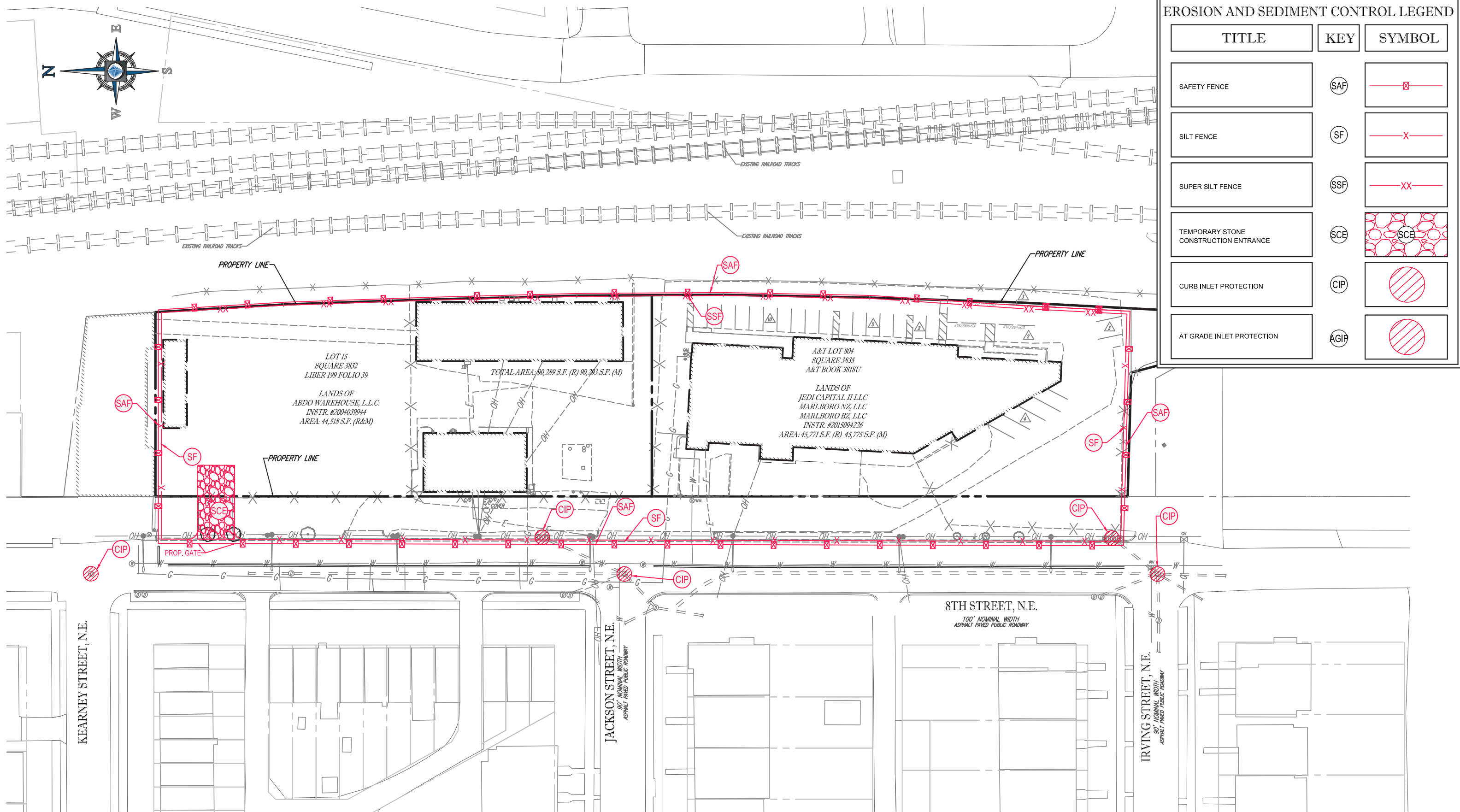


C-501



EROSION AND SEDIMENT CONTROL LEGEND

TITLE	KEY	SYMBOL
SAFETY FENCE	(SAF)	— X —
SILT FENCE	(SF)	— X —
SUPER SILT FENCE	(SSF)	— XX —
TEMPORARY STONE CONSTRUCTION ENTRANCE	(SCE)	(SCE) [Stone Pattern]
CURB INLET PROTECTION	(CIP)	[Diagonal Lines]
AT GRADE INLET PROTECTION	(AGIP)	[Diagonal Lines]



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 60'



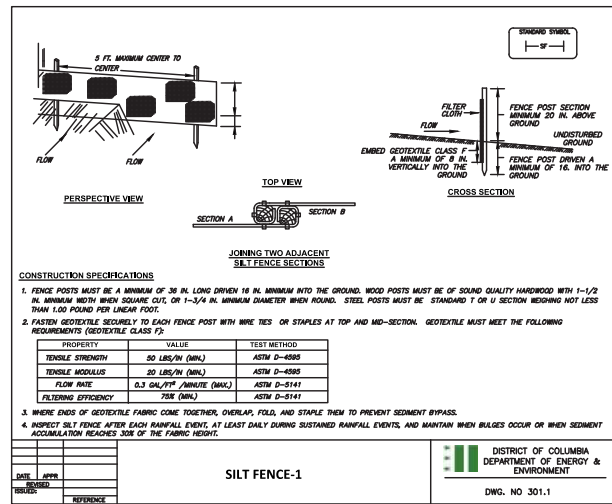
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-601

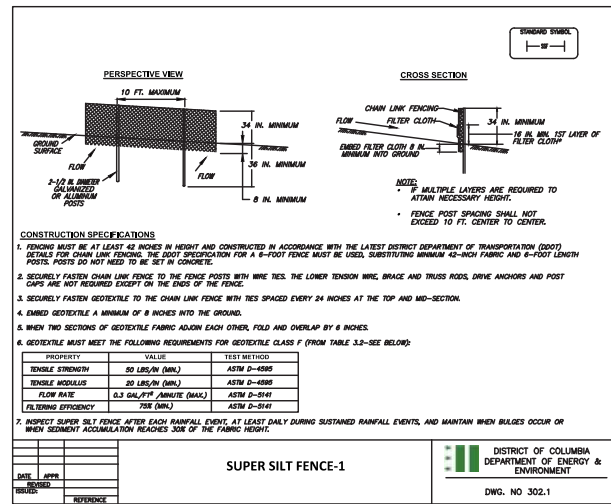


SILT FENCE DESIGN CRITERIA

TABLE 3.1: SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SILT FENCE LENGTH (MAXIMUM) (FEET)
FLATTER THAN 50:1 (20%)	UNLIMITED	UNLIMITED
> 50:1 TO 10:1 (20% TO 10%)	125	1,000
> 10:1 TO 5:1 (10% TO 20%)	100	750
> 5:1 TO 3:1 (20% TO 33%)	60	500
> 3:1 TO 2:1 (33% TO 50%)	40	250
> 2:1 (> 50%)	20	125

SILT FENCE-2
DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT
DWG. NO 301.2

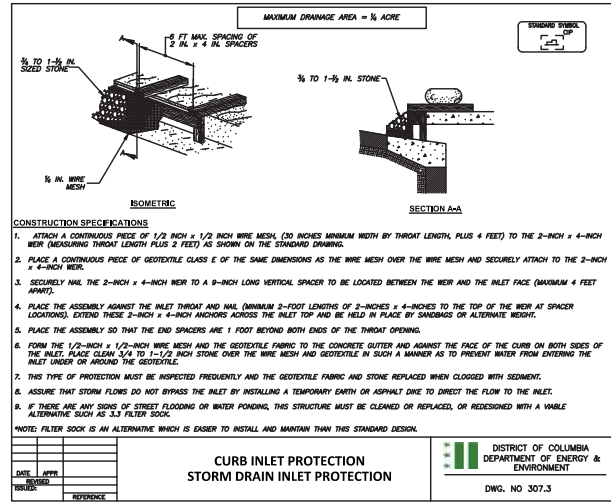
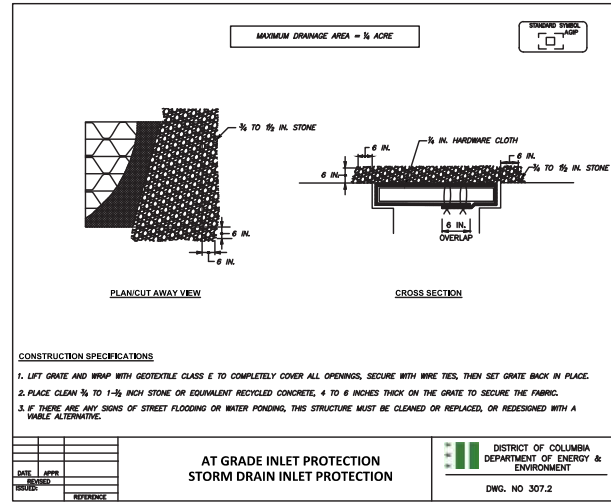
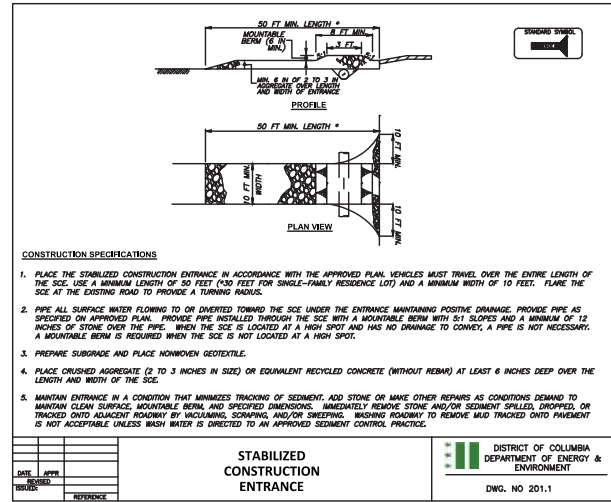
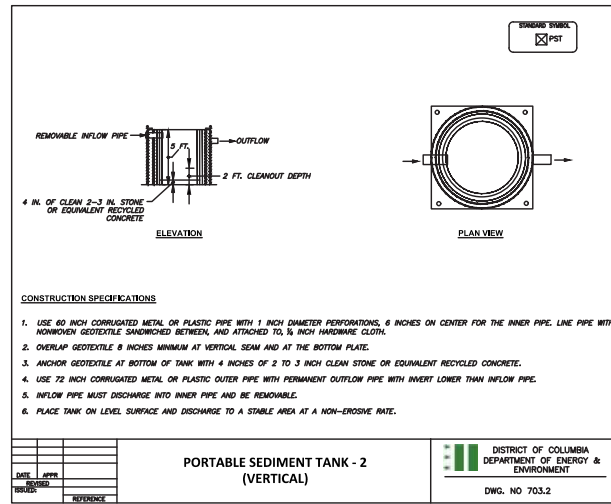
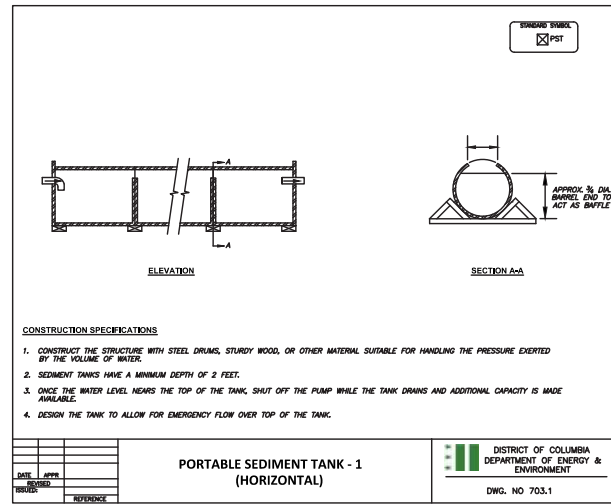
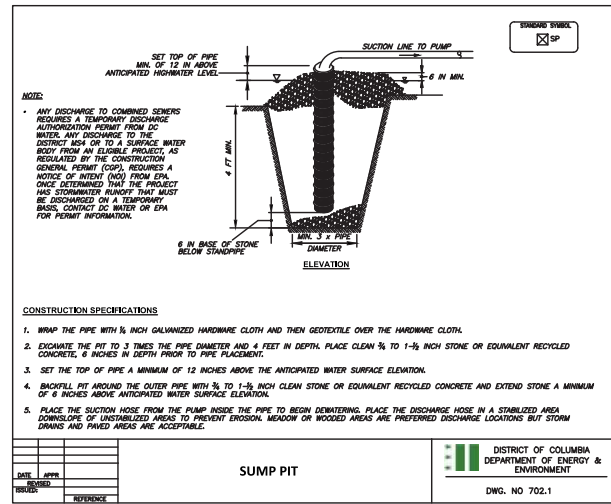


SUPER SILT FENCE DESIGN CRITERIA

TABLE 3.2: SUPER SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SUPER SILT FENCE LENGTH (MAXIMUM) (FEET)
0 - 10%	0 - 10:1	Unlimited	Unlimited
10 - 20%	10:1 - 5:1	200	1,500
20 - 33%	5:1 - 3:1	150	1,000
33 - 50%	3:1 - 2:1	100	500
> 50%	> 2:1	50	250

SUPER SILT FENCE-2
DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT
DWG. NO 302.2



EROSION AND SEDIMENT CONTROL NOTES AND DETAILS



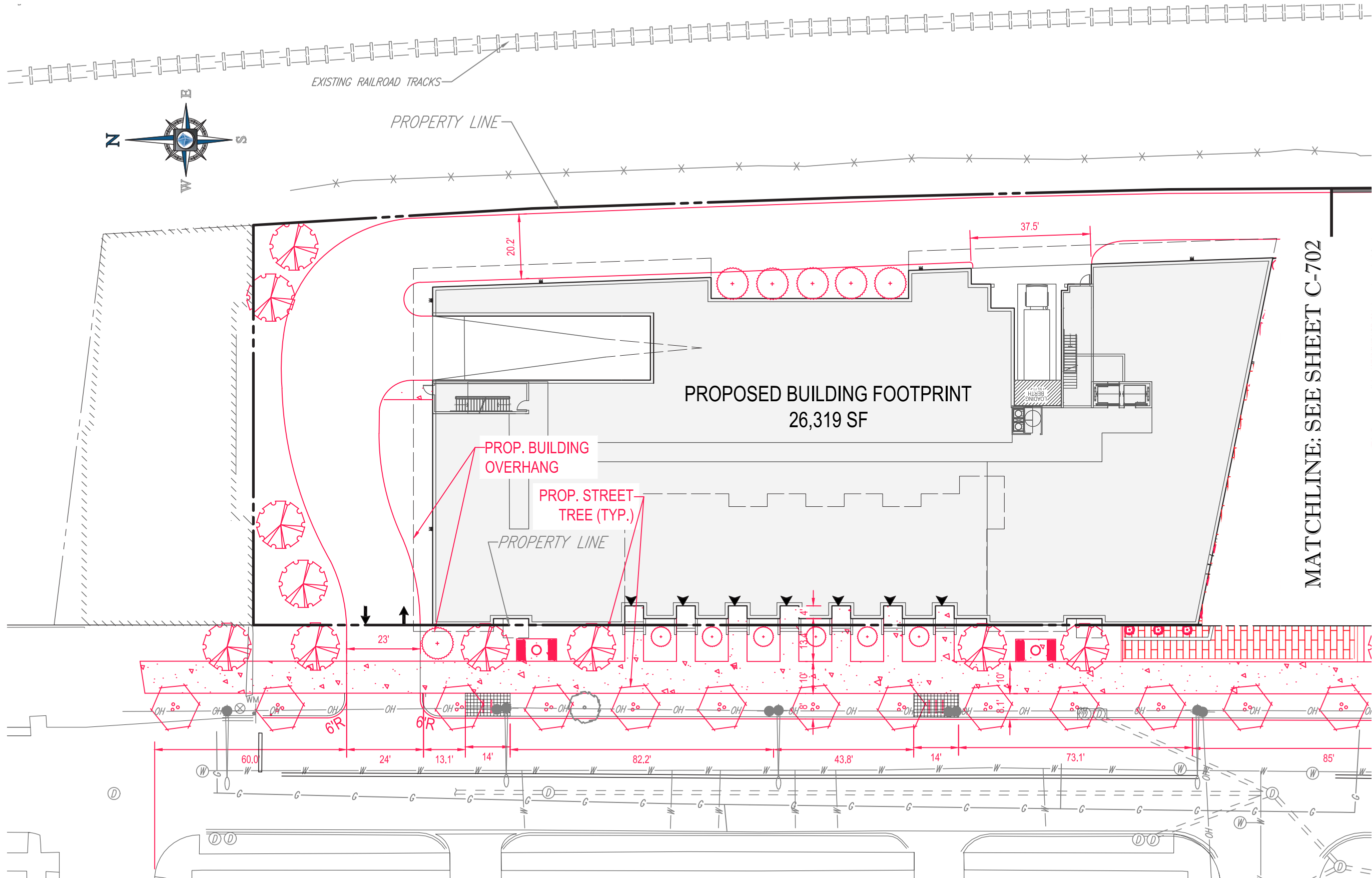
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-602



PUBLIC SPACE PLAN

SCALE: 1" = 30"



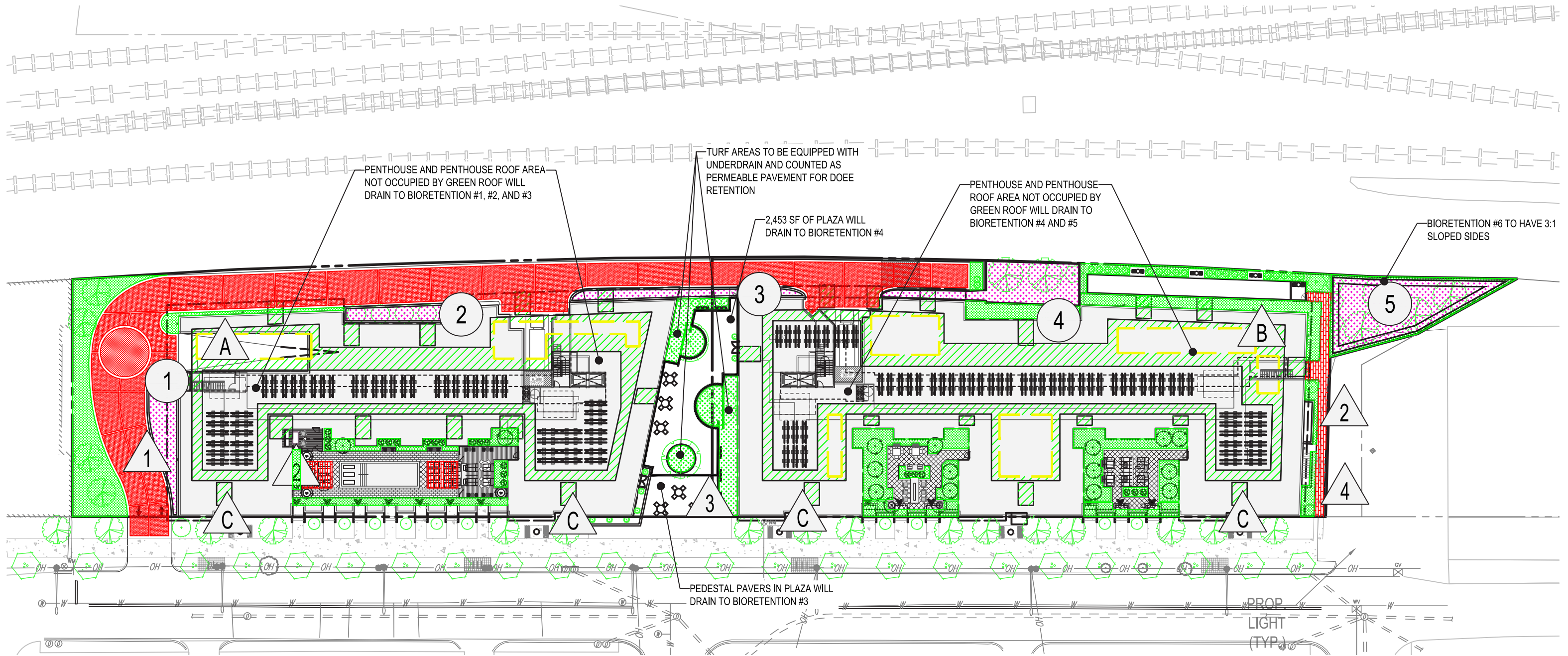
BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-701



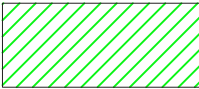
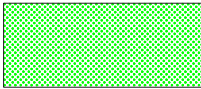

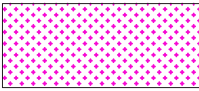


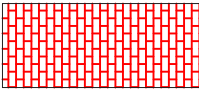


STORMWATER MANAGEMENT SUMMARY

THE VOLUME REQUIRED TO BE RETAINED ON-SITE (SWR_v) IS 7,922 CUBIC FEET. THE VOLUME REQUIREMENT FOR THE PUBLIC RIGHT OF WAY WILL BE DETERMINED ONCE STREETSCAPE IMPROVEMENTS HAVE BEEN FINALIZED.

GREEN ROOF AREAS LOCATED ON VARIOUS LEVELS OF THE PROPOSED BUILDINGS AS WELL AS BIORETENTION, PERMEABLE PAVEMENT, AND TREE PLANTING ON THE GROUND FLOOR. SEE STORMWATER MANAGEMENT NARRATIVE ON SHEET CIV902 FOR ADDITIONAL INFORMATION AND CALCULATIONS.

THE SIZE AND DEPTH OF THE GREEN ROOF, PERMEABLE PAVEMENT, AND BIORETENTION AREAS WILL BE DETERMINED WITH FINAL CONSTRUCTION DOCUMENTS.

LEGEND

	8" GREEN ROOF (13,994 SF)		COMPACTED COVER AREA (9,373 SF ASSUMED INCLUDES PLAZA TURF, COURTYARD TURF AND GROUND COVER)		DENOTES PERMEABLE PAVEMENT
	BIORETENTION (SEE SHEET C-902 FOR BIORETENTION-SPECIFIC MEDIA SECTIONS, 4,923 SF TOTAL)		SOLAR PANEL AREA (3,400 SF TOTAL)		DENOTES GREEN ROOF AREA
	PERMEABLE PAVEMENT (8" RESERVOIR LAYER ASSUMED - 13,731 SF TOTAL)				DENOTES BIORETENTION AREA
					PROPOSED TREE (MATURE SPREAD GREATER THAN 35')

STORMWATER MANAGEMENT PLAN

SCALE: 1" = 60'



BOHLER
DC

HANOVER - PUD APPLICATION

APRIL 4, 2019



C-901

GREEN ROOF TABLE:

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
A	5,175	5,175	5,175	8	1		1617	696	696	NORTH ROOF
B	6,212	6,212	6,212	8	1		1941	836	836	SOUTH ROOF
C	2,607	2,607	2,607	8	1		815	351	351	COMBO PENTHOUSE GR
TOTAL							4,373	1,883	1,883	

MEDIA RETENTION VALUE	0.45
DRAINAGE LAYER RETENTION VALUE	0.15

PERMEABLE PAVEMENT TABLE:

FACILITY	SA (SF)	SWRv (CF)	Storage (CF)	Gravel D(ft)
1	10,999	495	2579	0.67
2	448	20	105	0.67
3	1,581	71	371	0.67
4	703	32	165	0.67
Total	13,731	618	3220	

BIORETENTION TABLE:

FACILITY	SURFACE AREA, BOT. (SF)	SURFACE AREA, TOP (SF)	TOTAL CDA (SF)	PROP. IMP (SF)	PROP. PERV (SF)	FREEBOARD (FT)	PONDING DEPTH (FT)	MEDIA DEPTH (FT)	GRAVEL DEPTH (FT)	STORAGE PROVIDED	SWRv (CF)	Max SWRv	SWRv PROVIDED
1	638	638	6,656	6,018	0	0.25	1	3.5	1	1,451	871	896	871
2	446	446	3,455	3,009	0	0.25	1	1.5	1	792	475	465	465
3	464	464	9,881	9,417	0	0.25	1	3.0	1	998	599	1,330	599
4	1,278	1,278	11,330	10,052	0	0.25	1	3.0	1	2,748	1,649	1,525	1,525
5	1,461	2,097	13,847	11,398	352	0.5	1	2.0	1	3,094	1,856	1,829	1,829
TOTAL										9,082	5,449	6,044	5,288

TREE PLANTING TABLE:

Activity	Trees	SWRv (CF)	Storage
tree planting (evergreen screening)	14	140	0

SUMMARY

SWRv REQUIRED = 7,922 CF
 SWRv PROVIDED = 7,929 CF

STORAGE REQUIRED = 13,880 CF
 STORAGE PROVIDED = 16,675 CF

STORMWATER MANAGEMENT PLAN

SCALE: 1" = 60'



BOHLER
DC

HANOVER - PUD APPLICATION
 APRIL 4, 2019



GAR SCORESHEET

Green Area Ratio Scoresheet					
***	Address: 3135 8th Street, NE	Square	Lot	Zone District	
	Other:	3832, 3835	15, 804	MU-4	
	Lotsize (enter this value first) **	Lot area (sf)	Minimum Score	Multiplier	GAR Score
		90,293	0.3	score:	0.308
Landscape Elements					
		Square Feet	Factor		Total
A Landscaped areas (select one of the following for each area)					
1	Landscaped areas with a soil depth < 24"	square feet	0.30		-
2	Landscaped areas with a soil depth ≥ 24"	9,373	0.60		5,623.8
3	Bioretention facilities	4,923	0.40		1,969.2
B Plantings (credit for plants in landscaped areas from Section A)					
1	Groundcovers, or other plants < 2' height	500	0.20	Native Bonus square feet	100.0
2	Plants ≥ 2' height at maturity - calculated at 9-sf per plant	500	4500	0.30	1,350.0
3	New trees with less than 40-foot canopy spread - calculated at 50 sq ft per tree	14	700	0.50	350.0
4	New trees with 40-foot or greater canopy spread - calculated at 250 sq ft per tree		0	0.60	-
5	Preservation of existing tree 6" to 12" DBH - calculated at 250 sq ft per tree		0	0.70	-
6	Preservation of existing tree 12" to 18" DBH - calculated at 600 sq ft per tree		0	0.70	-
7	Preservation of existing trees 18" to 24" DBH - calculated at 1300 sq ft per tree		0	0.70	-
8	Preservation of existing trees 24" DBH or greater - calculated at 2000 sq ft per tree		0	0.80	-
9	Vegetated wall, plantings on a vertical surface			0.60	-
C Vegetated or "green" roofs					
1	Over at least 2" and less than 8" of growth medium			0.60	-
2	Over at least 8" of growth medium	13,994		0.80	11,195.2
D Permeable Paving***					
1	Permeable paving over 6" to 24" of soil or gravel	13,731		0.40	5,492.4
2	Permeable paving over at least 24" of soil or gravel			0.50	-
E Other					
1	Enhanced tree growth systems***			0.40	-
2	Renewable energy generation	3,400		0.50	1,700.0
3	Approved water features			0.20	-
		sub-total of sq ft =	51,121		
F Bonuses					
1	Native plant species	0		0.10	-
2	Landscaping in food cultivation			0.10	-
3	Harvested stormwater irrigation			0.10	-
					Green Area Ratio numerator = 27,781
*** Permeable paving and structural soil together may not qualify for more than one third of the Green Area Ratio score.					
Total square footage of all permeable paving and enhanced tree growth.					5,492

GAR SCORESHEET



BOHLER
DC

HANOVER - PUD APPLICATION
APRIL 4, 2019



C-903