

D

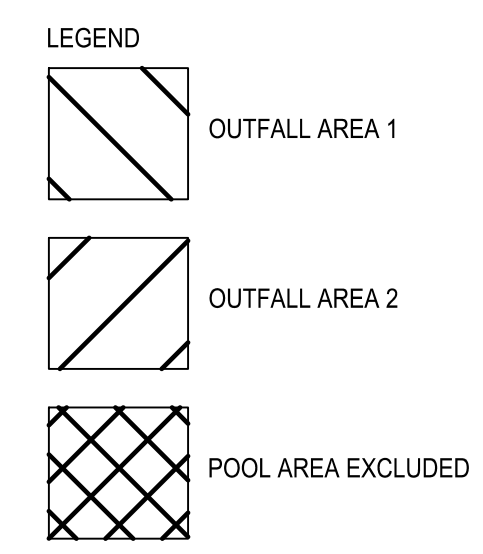
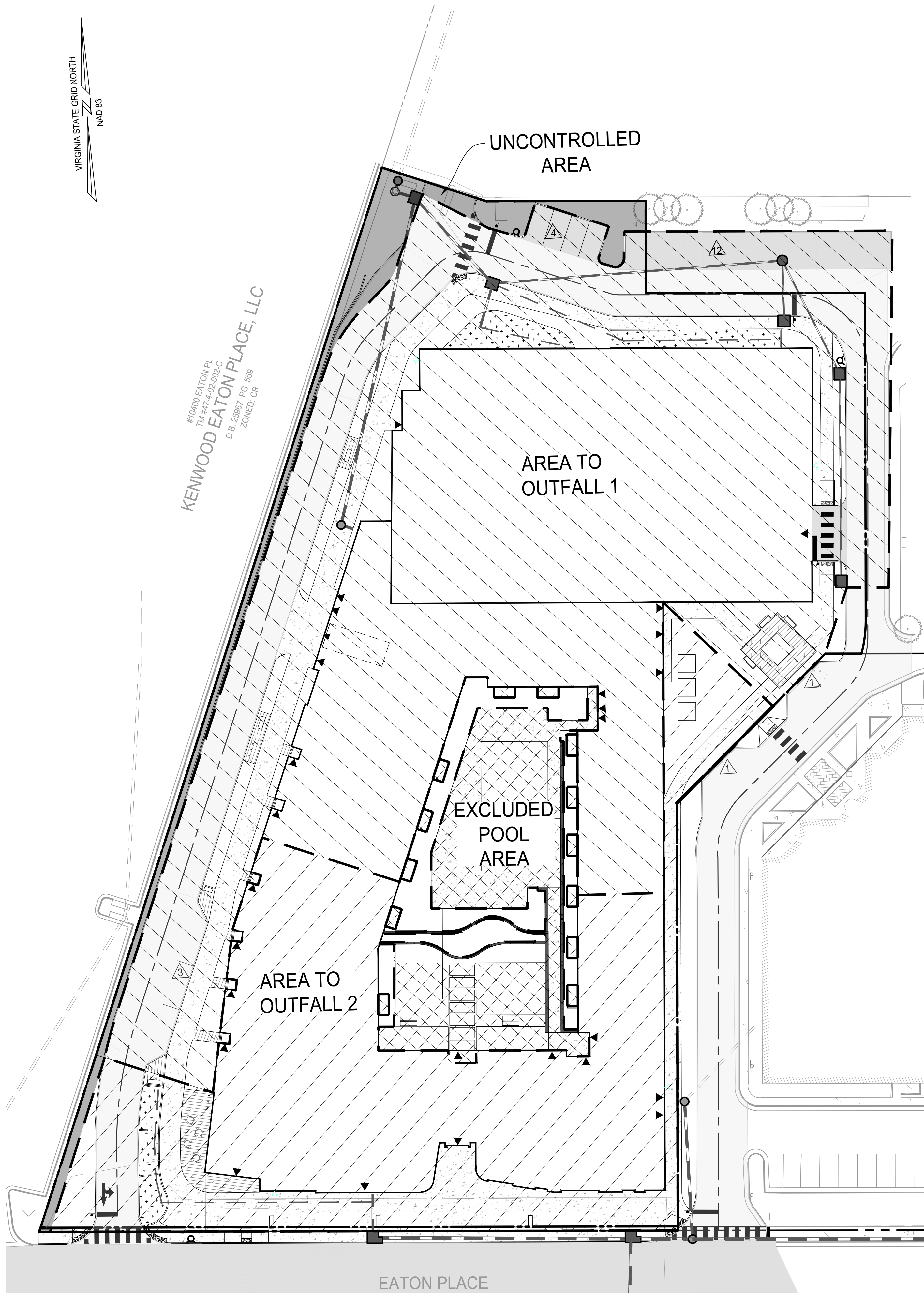
C

B

A



#10400 EATON PL
 TR #47, 402-002-C
 D.B. 28987 PG. 559
 ZONED CR



POST-DEVELOPED

OUTFALL (1-YR)

	DA	IMP (D)	TURF (D)
Bioretention & HDS	1.80	1.62	0.18
DA-A/ Outfall 1	98	VRRM - See this sheet	
Untreated	0.95	0.66	0.29
Outfall 2	93	98	80
CN ave.	93	98	80
Untreated	0.10	0.00	0.09
Uncontrolled	72	98	80
CN	72	98	80
Total Area	2.85		
CN ave.	95		

OUTFALL (2&10-YR)

	DA	IMP (D)	TURF (D)
Bioretention & HDS	1.80	1.62	0.18
DA-A/ Outfall 1	98	VRRM - See this sheet	
Untreated	0.95	0.66	0.29
Outfall 2	93	98	80
CN ave.	93	98	80
Untreated	0.10	0.00	0.09
Uncontrolled	72	98	80
CN	72	98	80
Total Area	2.85		
CN ave.	95		

*POOL AREA AND AREA DRAINING WITH THE POOL TO THE SANITARY SYSTEM OF 0.22 AC HAVE BEEN REMOVED FROM THE POST-DEV AREA

Phase I

	Q1	RV1	Q10	RV10
Pre	8.06	24,224	15.60	48,957
Post	7.19	20,800	14.53	44,298

	Q2	RV2
Pre	9.92	30,236
Post	8.99	26,576

Channel Protection (1-Year Storm)

Qdev < IF (Qpre * Rvpre) / Rvdev

< 0.80 (8.061 * 24224) / 20800

7.19 < 7.51

Detention required: -0.32 CFS

Channel Protection (2-Year Storm)

Qdev < IF (Qpre * Rvpre) / Rvdev

< 0.80 (9.918 * 30236) / 26576

8.99 < 9.03

Detention required: -0.04 CFS

Flood Protection (10-Year Storm)

Q10 post < (Qpre * Rvpre) / Rvdev

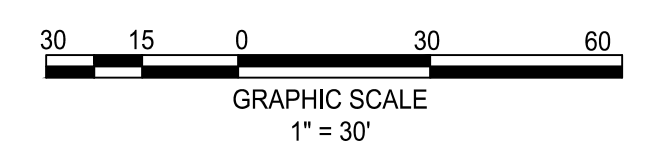
14.53 < 17.24072

Detention required: -2.71 CFS

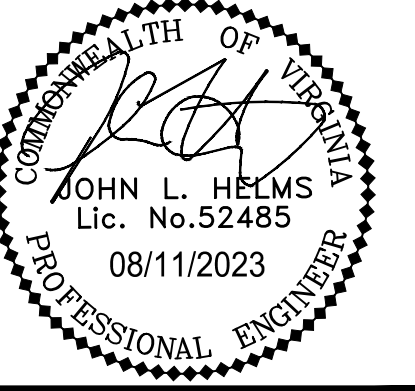
*SEE HYDROGRAPHS ON SHEET PI_503 AND PI_504.

Drainage Area Curve Numbers and Runoff Depths*
 Curve numbers (CN, CNadj) and runoff depths (RV_{Developed}) are computed with and without reduction practices.

Drainage Area A		A Soils	B Soils	C Soils	D Soils	Total Area (acres):	1.68
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction	Volume (ft ³):
	CN	30	55	70	77		
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.17	Impervious Cover	Area (acres)
	CN	39	61	74	80		
		0.00	0.00	0.00	1.51	CN (D.A. A)	
		98	98	98	98	96	
		RV _{Developed} (watershed-inch) with no Runoff Reduction*		1-year storm	2.26	2.75	4.73
		RV _{Developed} (watershed-inch) with Runoff Reduction*		1-year storm	2.15	2.64	4.62
		Adjusted CN*		1-year storm	95	95	95
		Adjusted CN*		2-year storm	95	95	95
		Adjusted CN*		10-year storm	95	95	95
Drainage Area B		A Soils	B Soils	C Soils	D Soils	Total Area (acres):	0.12
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction	Volume (ft ³):
	CN	30	55	70	77		
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	0.01	Impervious Cover	Area (acres)
	CN	39	61	74	80		
		0.00	0.00	0.00	0.11	CN (D.A. B)	
		98	98	98	98	97	
		RV _{Developed} (watershed-inch) with no Runoff Reduction*		1-year storm	2.36	2.86	4.85
		RV _{Developed} (watershed-inch) with Runoff Reduction*		1-year storm	2.00	2.50	4.49
		Adjusted CN*		1-year storm	93	93	94
		Adjusted CN*		2-year storm	93	93	94
		Adjusted CN*		10-year storm	93	93	94



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N29 APARTMENTS
 GENERAL DEVELOPMENT PLAN
 CITY OF FAIRFAX, VA

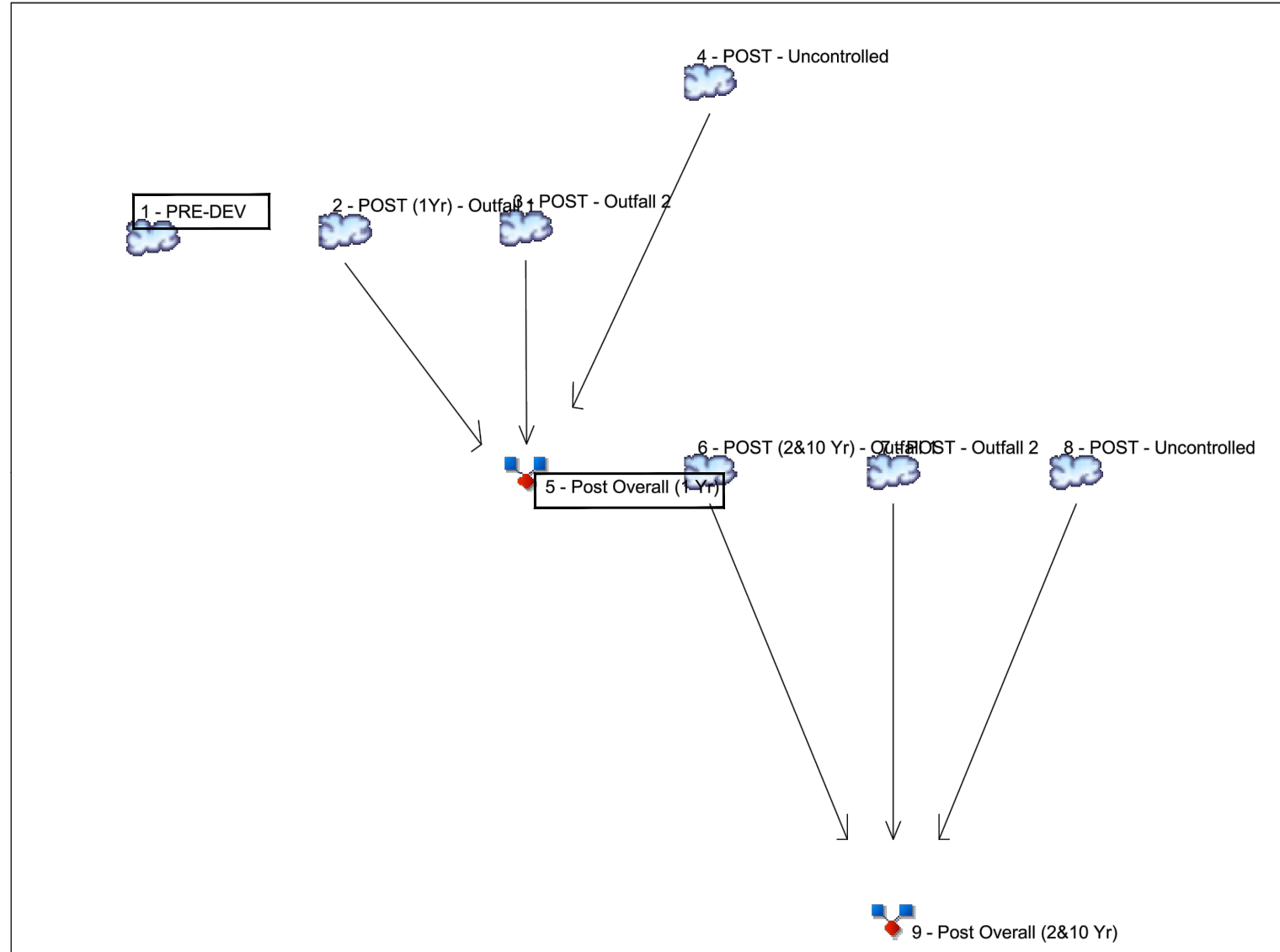
MARK	DATE	DESCRIPTION
1	11-30-2022	ADDRESSED PER CITY COMMENTS
2	04-28-2023	ADDRESSED PER CITY COMMENTS
3	08-11-2023	ADDRESSED PER CITY COMMENTS

PROJECT No.: 21082.002.00
 DRAWING No.: 111772
 DATE: 2022-07-15
 SCALE: 1" = 30'
 DESIGN: JH
 DRAWN: YH
 CHECKED: JH

STORMWATER MANAGEMENT PLAN

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022



Project: SWM - Phase 1.gpw

Monday, 11 / 28 / 2022

Hydrograph Report

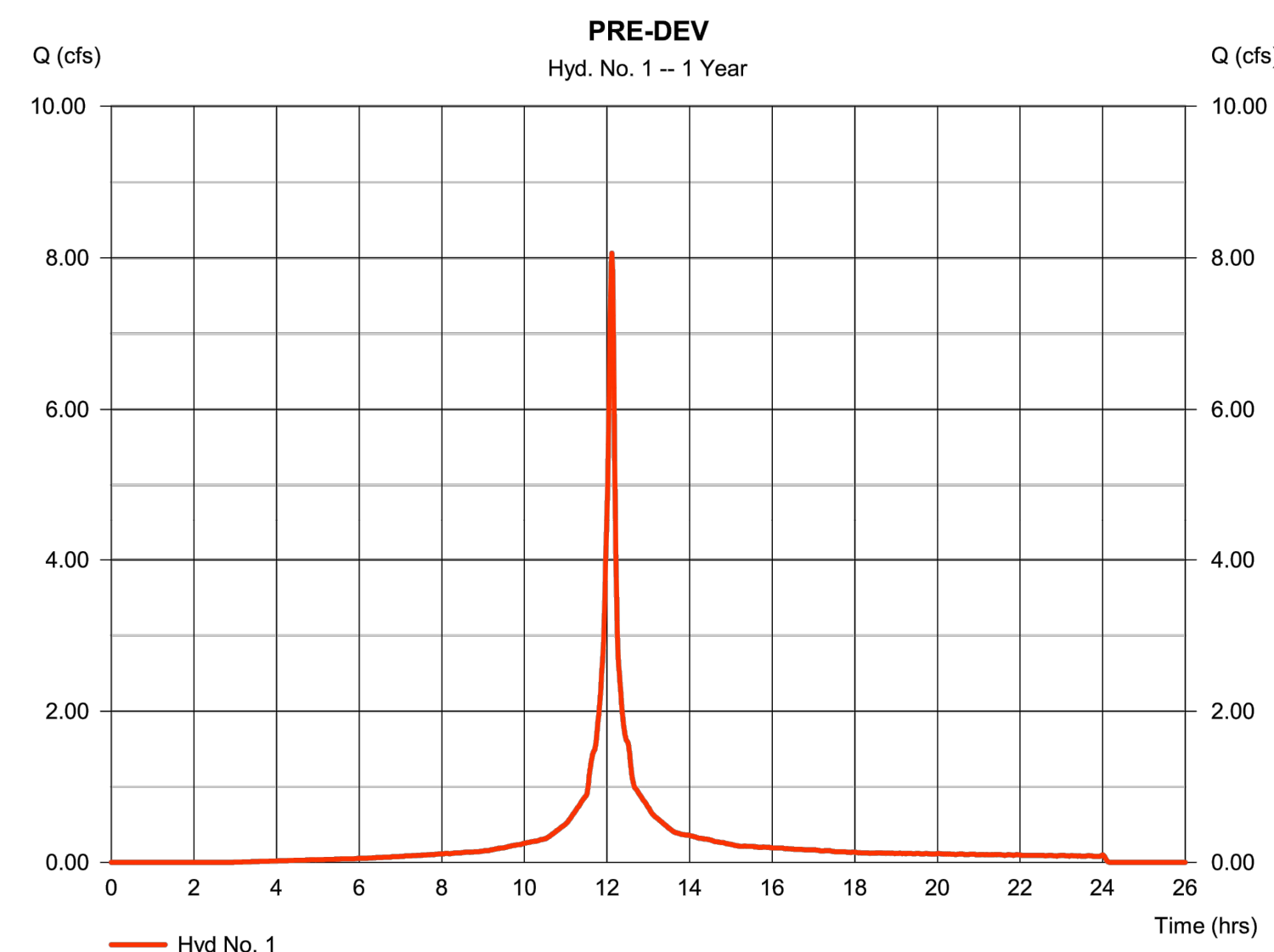
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Thursday, 11 / 24 / 2022

Hyd. No. 1

PRE-DEV

Hydrograph type	= SCS Runoff	Peak discharge	= 8.061 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 24,224 cuft
Drainage area	= 2.970 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.62 in	Distribution	= Custom
Storm duration	= P:\FX\Projects\18043\00200\18043-01-ANDESIGN\BGR\pond\24Hr_Dist-		



Hydrograph Report

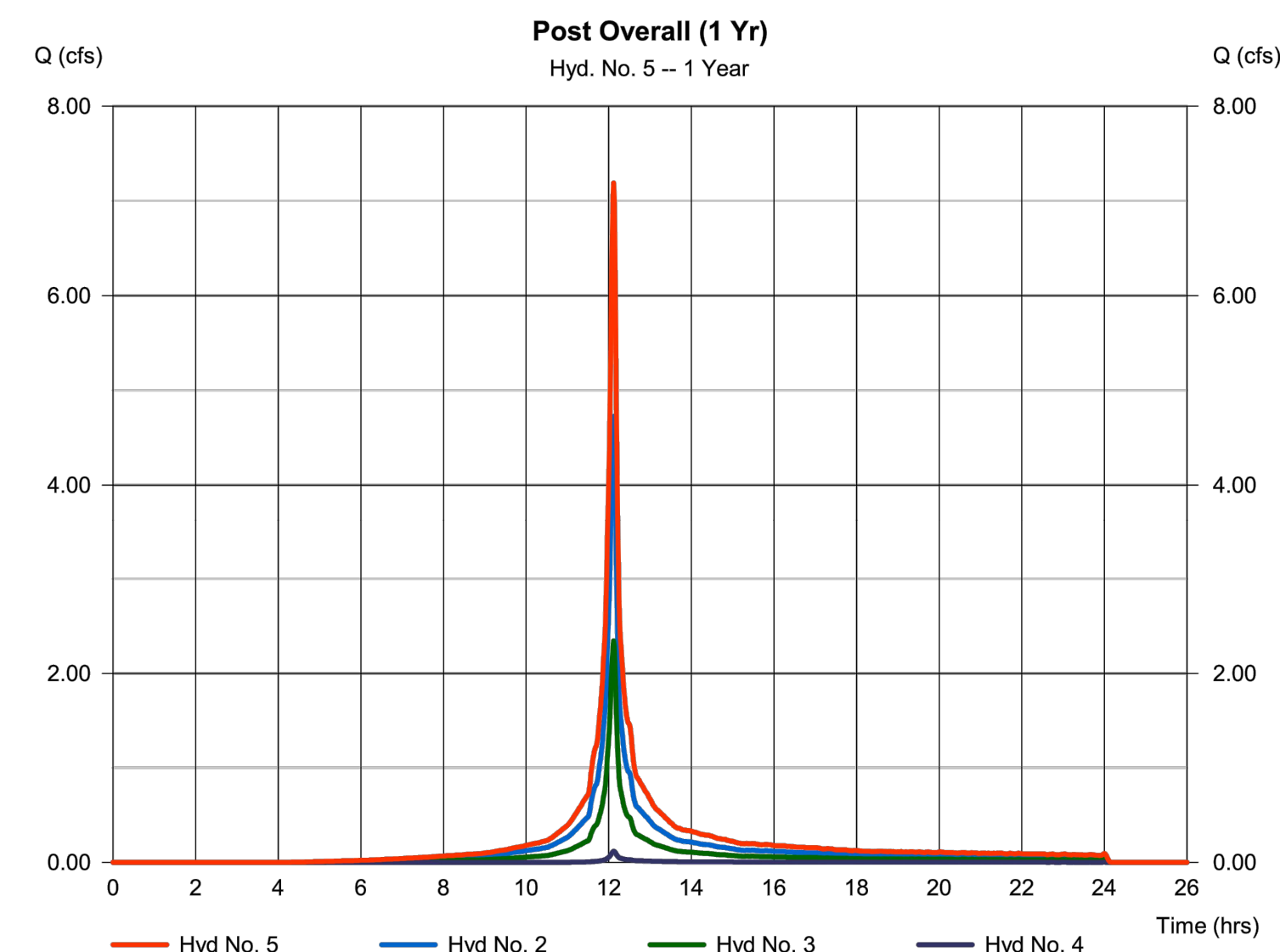
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Monday, 11 / 28 / 2022

Hyd. No. 5

Post Overall (1 Yr)

Hydrograph type	= Combine	Peak discharge	= 7.190 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 20,800 cuft
Inflow hyds.	= 2, 3, 4	Contrib. drain. area	= 2.890 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

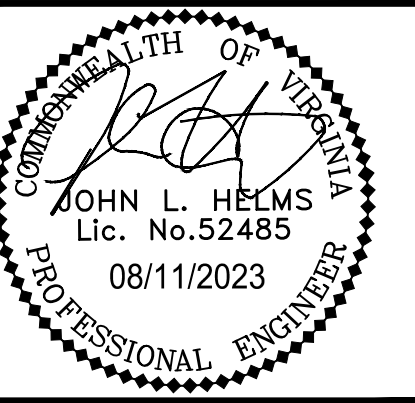
2

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	8.061	1	727	24,224				PRE-DEV
2	SCS Runoff	4.728	1	727	13,741				POST (1Yr) - Outfall 1
3	SCS Runoff	2.345	1	727	6,731				POST - Outfall 2
4	SCS Runoff	0.118	1	727	328				POST - Uncontrolled
5	Combine	7.190	1	727	20,800	2, 3, 4			Post Overall (1 Yr)
6	SCS Runoff	4.881	1	727	14,404				POST (2&10 Yr) - Outfall 1
7	SCS Runoff	2.488	1	727	6,215				POST - Outfall 2
8	SCS Runoff	0.118	1	727	328				POST - Uncontrolled
9	Combine	7.185	1	727	20,044	6, 7, 8			Post Overall (2&10 Yr)

SWM - Phase 1.gpw

Return Period: 1 Year

Monday, 11 / 28 / 2022



N29 APARTMENTS
GENERAL DEVELOPMENT PLAN
CITY OF FAIRFAX, VA

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PROJECT No.: 21082.002.00
DRAWING No.: 111772
DATE: 2022-07-15
SCALE: NOT TO SCALE
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:
OUTFALL 1 HYDROGRAPHS

SHEET No.
PI_503

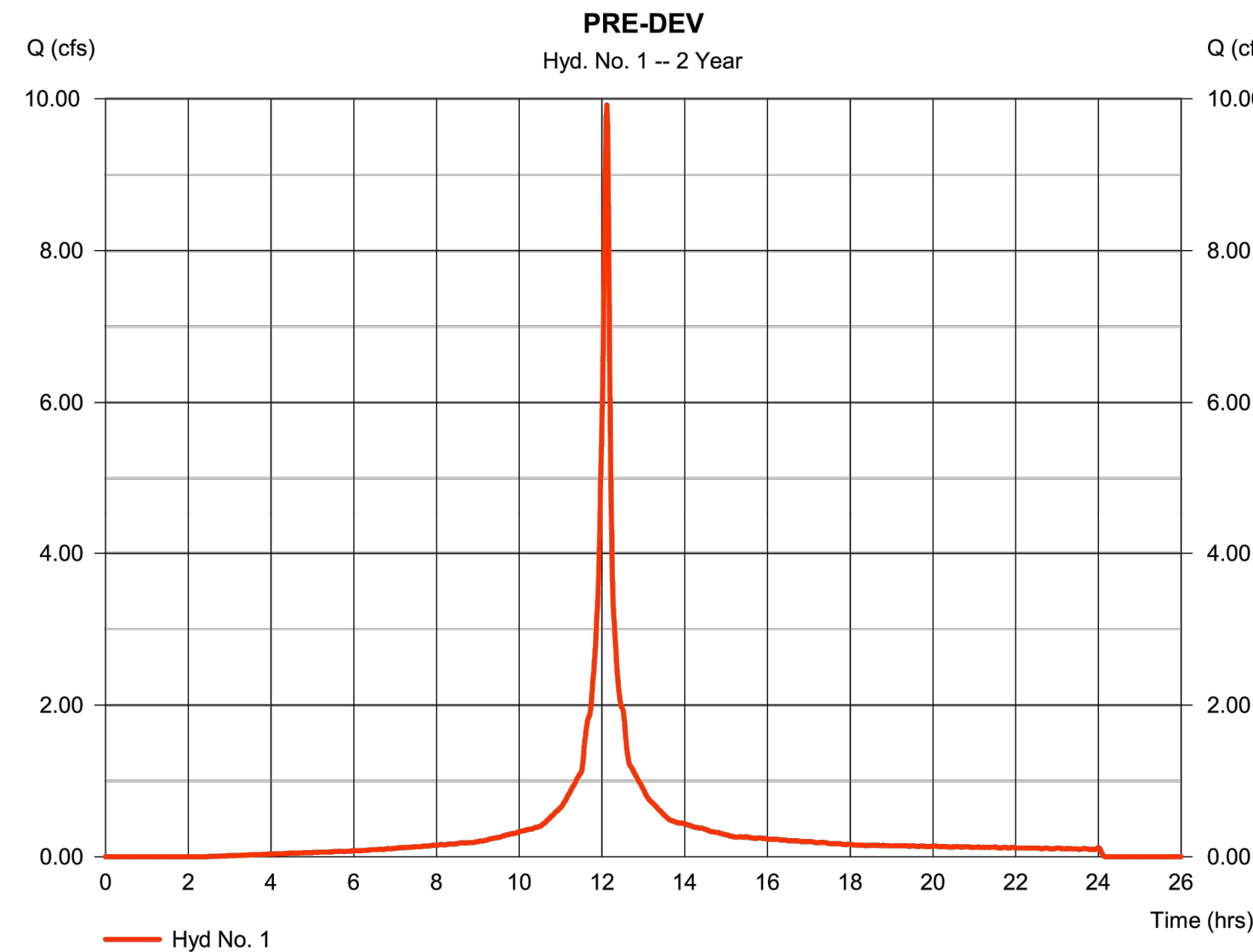
Hydrograph Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Monday, 11 / 28 / 2022

Hyd. No. 1

PRE-DEV

Hydrograph type	= SCS Runoff	Peak discharge	= 9.918 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 30,236 cuft
Drainage area	= 2.970 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.17 in	Distribution	= Custom
Storm duration	= P:\FX\Projects\18043\00200\18043-36-PLAN\DESIGN\BGR\pond\24Hr_Dist-		



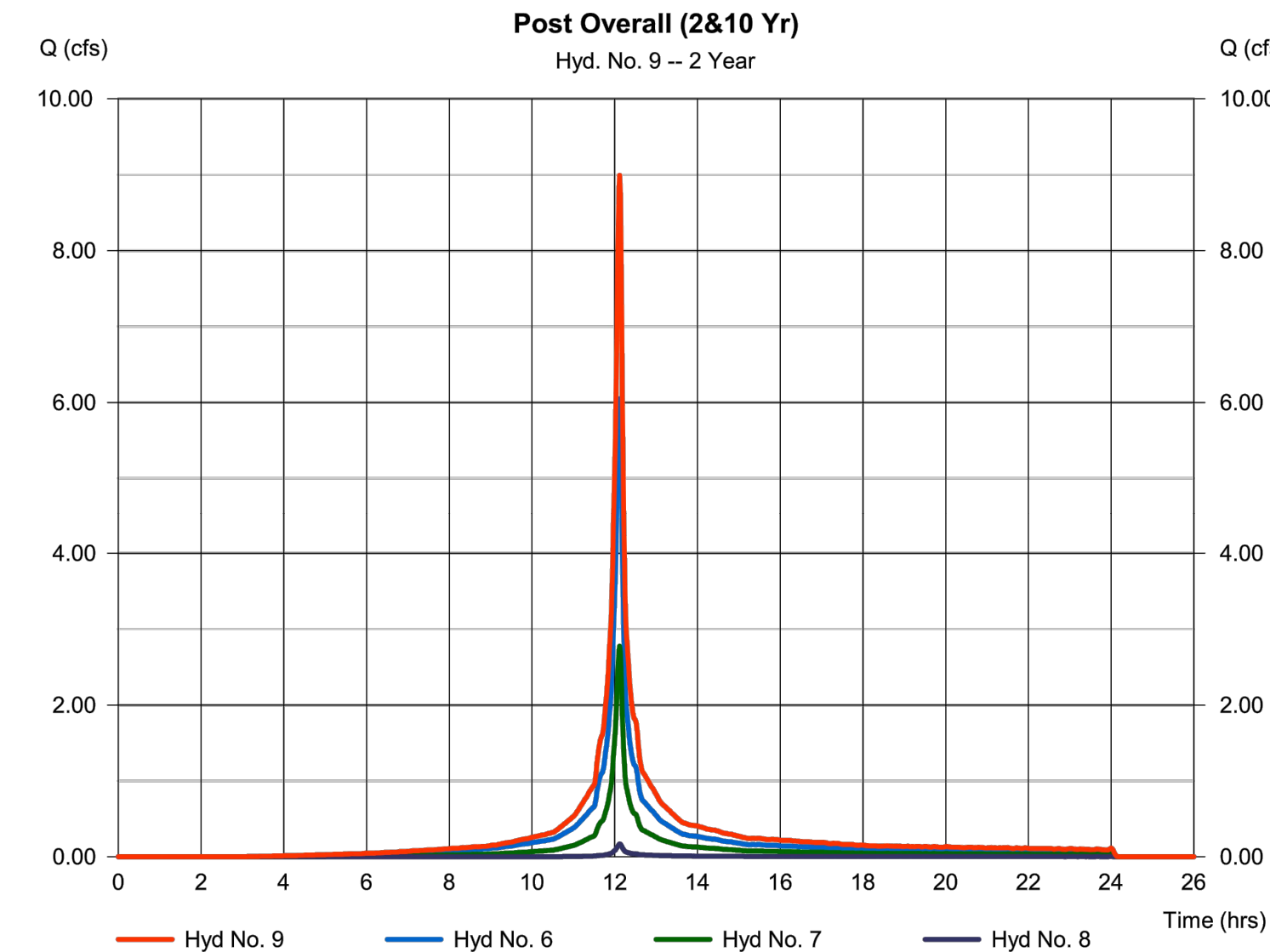
Hydrograph Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Monday, 11 / 28 / 2022

Hyd. No. 9

Post Overall (2&10 Yr)

Hydrograph type	= Combine	Peak discharge	= 8.993 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 26,576 cuft
Inflow hyds.	= 6, 7, 8	Contrib. drain. area	= 2.860 ac



Hydrograph Summary Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	9.918	1	727	30,236	-----	-----	-----	PRE-DEV
2	SGS Runoff	5.903	1	727	17,415	-----	-----	-----	POST (1Yr) - Outfall 1
3	SGS Runoff	2.951	1	727	8,595	-----	-----	-----	POST - Outfall 2
4	SGS Runoff	0.168	1	727	465	-----	-----	-----	POST - Uncontrolled
5	Combine	9.923	1	727	26,475	2, 3, 4	-----	-----	Post Overall (1 Yr)
6	SCS Runoff	6.048	1	727	18,114	-----	-----	-----	POST (2&10 Yr) - Outfall 1
7	SCS Runoff	2.777	1	727	7,997	-----	-----	-----	POST - Outfall 2
8	SCS Runoff	0.168	1	727	465	-----	-----	-----	POST - Uncontrolled
9	Combine	8.993	1	727	26,576	6, 7, 8	-----	-----	Post Overall (2&10 Yr)

SWM - Phase 1.gpw Return Period: 2 Year Monday, 11 / 28 / 2022

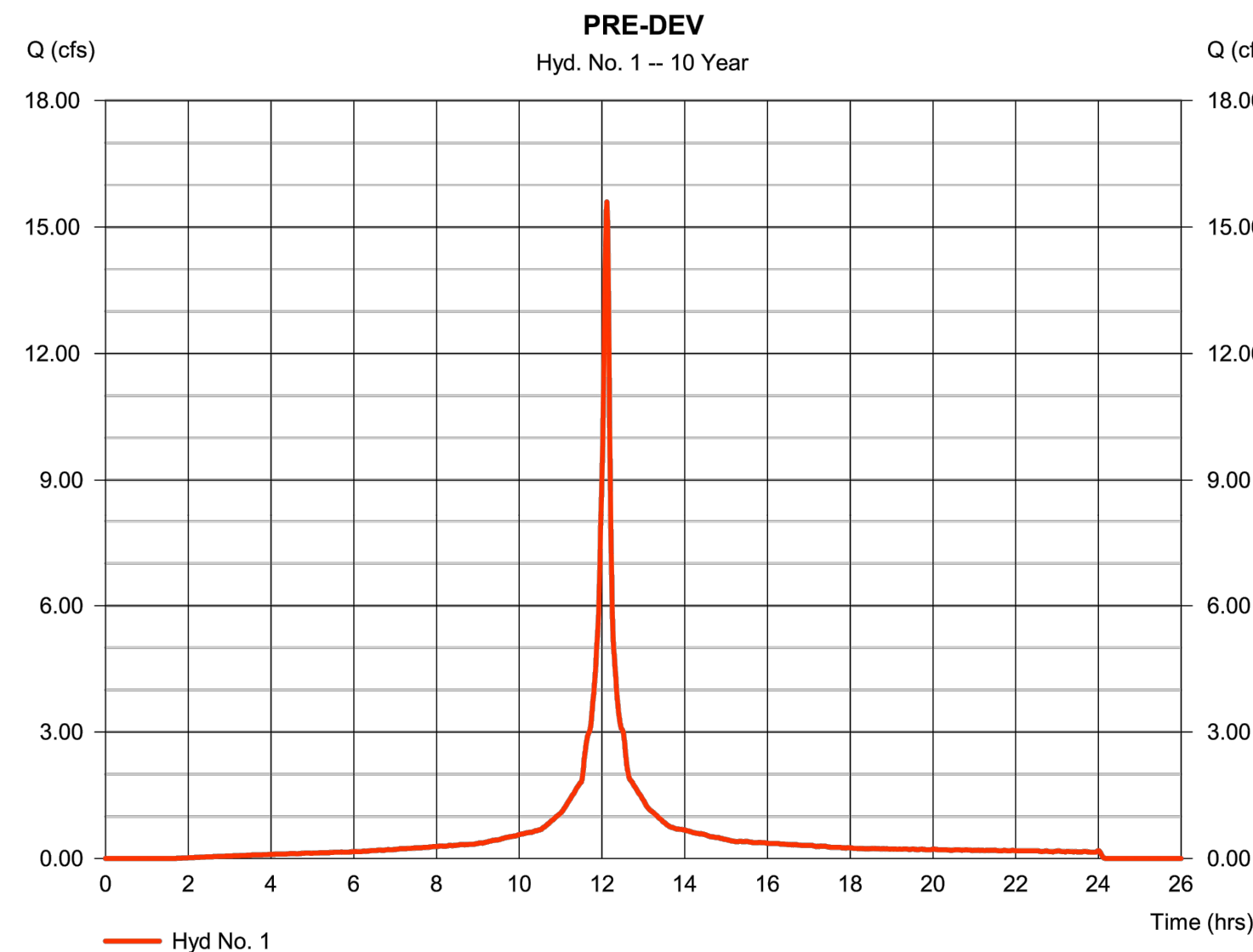
Hydrograph Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Thursday, 11 / 24 / 2022

Hyd. No. 1

PRE-DEV

Hydrograph type	= SCS Runoff	Peak discharge	= 15.60 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 48,957 cuft
Drainage area	= 2.970 ac	Curve number	= 96
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.87 in	Distribution	= Custom
Storm duration	= P:\FX\Projects\18043\00200\18043-36-PLAN\DESIGN\BGR\pond\24Hr_Dist-		



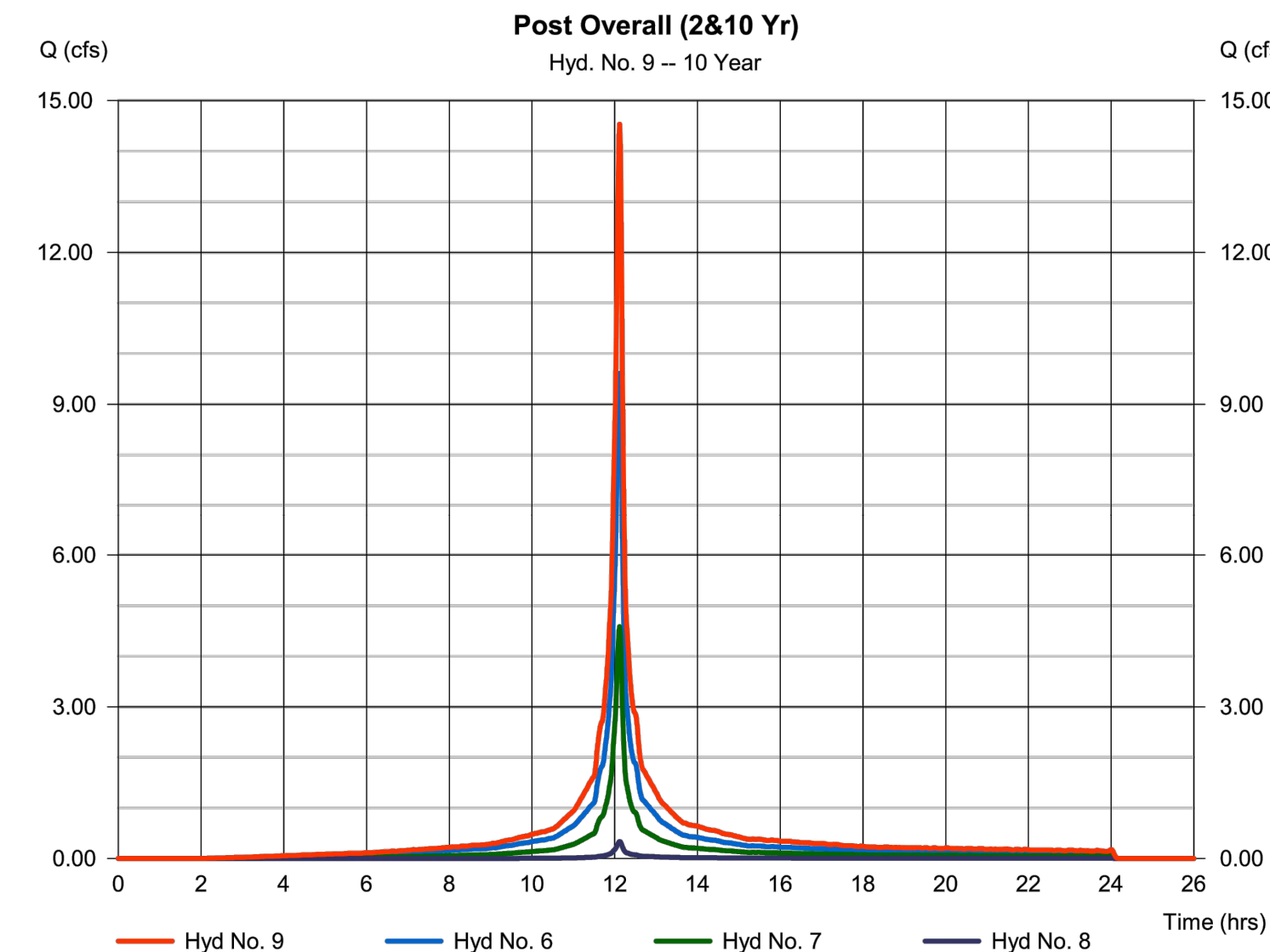
Hydrograph Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Monday, 11 / 28 / 2022

Hyd. No. 9

Post Overall (2&10 Yr)

Hydrograph type	= Combine	Peak discharge	= 14.53 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 44,298 cuft
Inflow hyds.	= 6, 7, 8	Contrib. drain. area	= 2.860 ac



Hydrograph Summary Report

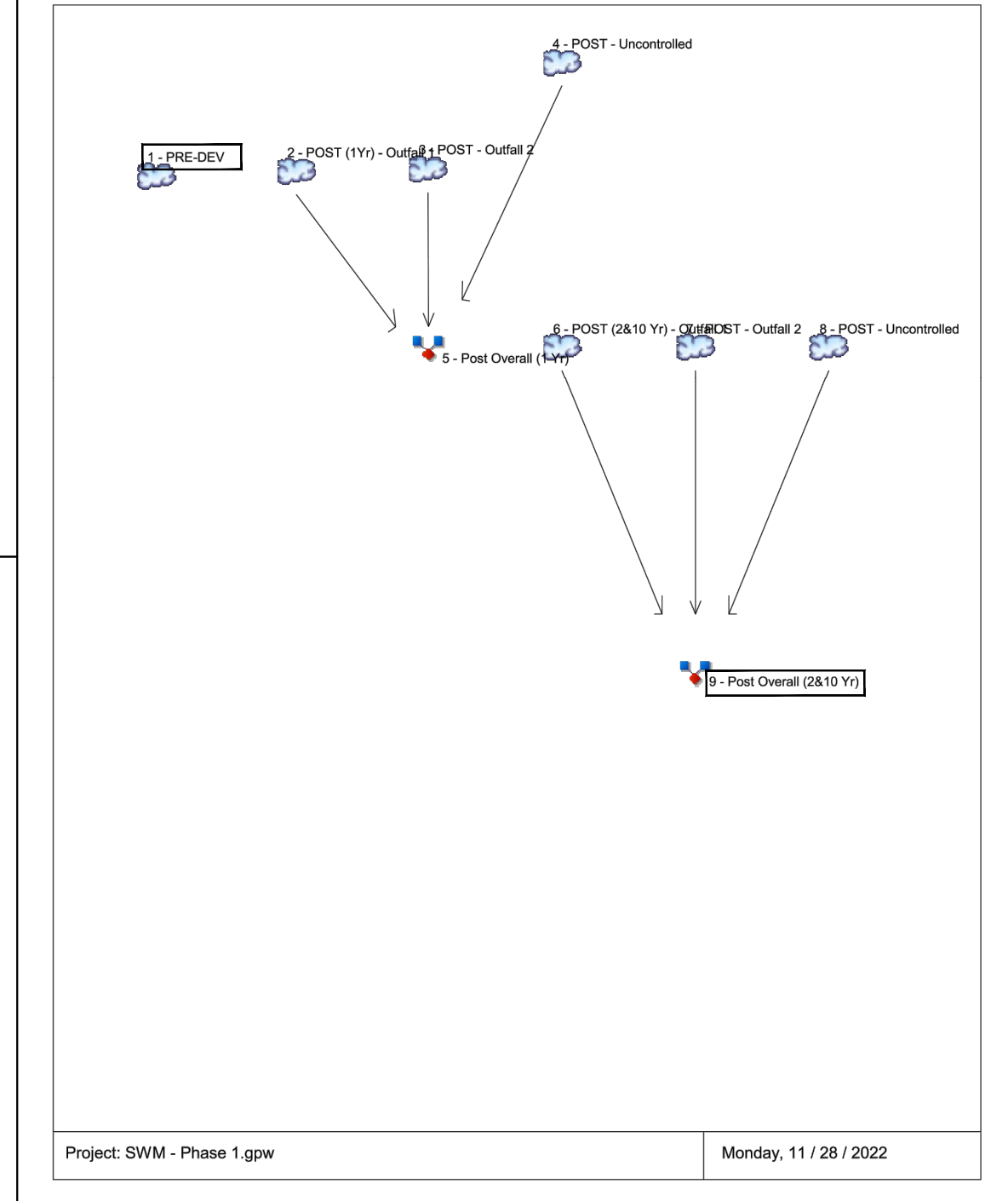
Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	15.60	1	727	48,957	-----	-----	-----	PRE-DEV
2	SGS Runoff	9.493	1	727	28,946	-----	-----	-----	POST (1Yr) - Outfall 1
3	SGS Runoff	4.806	1	727	14,475	-----	-----	-----	POST - Outfall 2
4	SGS Runoff	0.338	1	727	937	-----	-----	-----	POST - Uncontrolled
5	Combine	14.64	1	727	44,368	2, 3, 4	-----	-----	Post Overall (1 Yr)
6	SCS Runoff	9.613	1	727	29,715	-----	-----	-----	POST (2&10 Yr) - Outfall 1
7	SCS Runoff	4.582	1	727	13,646	-----	-----	-----	POST - Outfall 2
8	SCS Runoff	0.338	1	727	937	-----	-----	-----	POST - Uncontrolled
9	Combine	14.53	1	727	44,298	6, 7, 8	-----	-----	Post Overall (2&10 Yr)

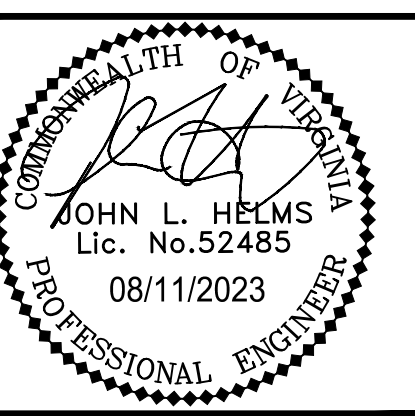
SWM - Phase 1.gpw Return Period: 10 Year Monday, 11 / 28 / 2022

Watershed Model Schematic

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022



Project: SWM - Phase 1.gpw Monday, 11 / 28 / 2022



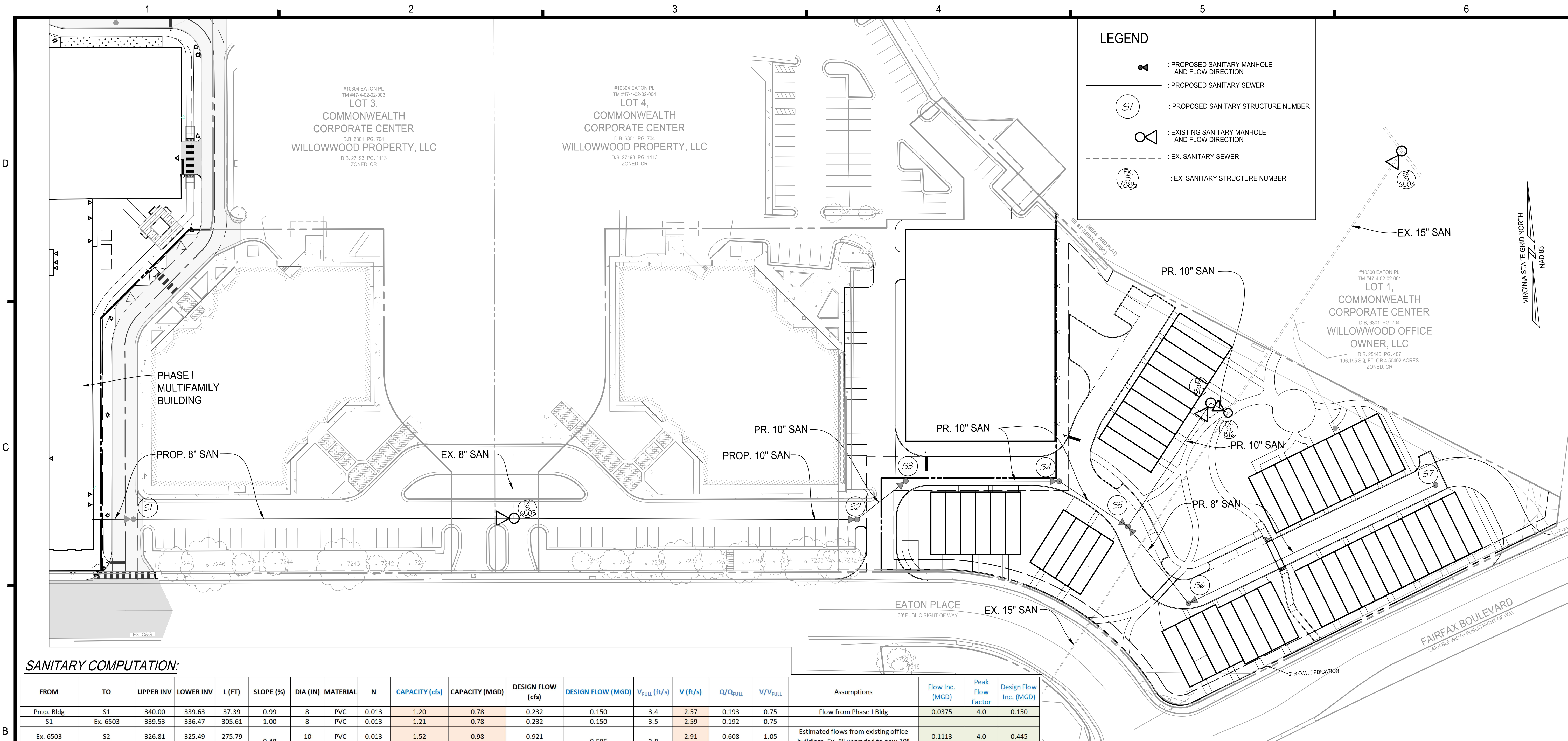
N29 APARTMENTS
GENERAL DEVELOPMENT PLAN
CITY OF FAIRFAX, VA

MARK	DATE	DESCRIPTION
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DRAWING No.: 111772
DATE: 2022-07-15
SCALE: NOT TO SCALE
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:
OUTFALL 2 HYDROGRAPHS

SHEET No.
PI_504



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COMMONWEALTH OF VIRGINIA
 JOHN L. HELMS
 Lic. No. 52485
 08/11/2023
 PROFESSIONAL ENGINEER

N29 APARTMENTS
 GENERAL DEVELOPMENT PLAN
 CITY OF FAIRFAX, VA

SANITARY COMPUTATION:

FROM	TO	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V _{FULL} (ft/s)	V (ft/s)	Q/Q _{FULL}	V/V _{FULL}	Assumptions	Flow Inc. (MGD)	Peak Flow Factor	Design Flow Inc. (MGD)
Prop. Bldg S1	Ex. 6503	340.00	339.63	37.39	0.99	8	PVC	0.013	1.20	0.78	0.232	0.150	3.4	2.57	0.193	0.75	Flow from Phase I Bldg	0.0375	4.0	0.150
Ex. 6503	S2	326.81	325.49	275.79	0.48	10	PVC	0.013	1.52	0.98	0.921	0.595	2.8	2.91	0.608	1.05	Estimated flows from existing office buildings. Ex. 8" upgraded to new 10"	0.1113	4.0	0.445
S2	S3	325.48	325.24	49.97	0.48	10	PVC	0.013	1.52	0.98	0.921	0.595	2.8	2.91	0.607	1.05	Flows from Phase II Res. Units	0.0018	4.0	0.007
S3	S4	325.23	324.64	123.12	0.48	10	PVC	0.013	1.52	0.98	0.932	0.602	2.8	2.91	0.615	1.05	Flows from Phase II Res. Units	0.0012	4.0	0.005
S4	S5	324.63	324.32	65.74	0.47	10	PVC	0.013	1.50	0.97	0.939	0.607	2.8	2.89	0.624	1.05	Flows from Phase II Res. Units	0.0084	4.0	0.034
S5	S6	330.00	327.80	220.08	1.00	8	PVC	0.013	1.21	0.78	0.052	0.034	3.5	1.71	0.043	0.50	Flows from Phase II Res. Units	0.0006	4.000	0.002
S6	S5	327.70	326.91	78.69	1.00	8	PVC	0.013	1.21	0.78	0.056	0.036	3.5	1.72	0.046	0.50	Flows from Phase II Res. Units	0.0150	4.0	0.060
S5	Ex. 817	324.22	323.64	119.56	0.49	10	PVC	0.013	1.53	0.99	1.088	0.703	2.8	3.03	0.713	1.08	Estimated offsite sanitary flows	0.3698	4.0	1.479
Ex. 817	Ex. 816	323.60	323.38	16.04	1.37	10	PVC	0.013	2.57	1.66	1.088	0.703	4.7	4.44	0.424	0.94	Estimated offsite sanitary flows			
Ex. 816	Ex. 6504	316.55	314.97	252.63	0.63	15	RCP	0.013	5.11	3.30	3.376	2.182	4.2	4.41	0.661	1.06	Estimated offsite sanitary flows			

- Notes:
 1. See contributing sewage flow estimates below.
 2. Peaking factor of 4.0 used.
 3. Existing office building areas obtained from City of Fairfax Real Estate Assessment Database.
 4. See Sanitary Sewer Off-Site Map sheet for offsite flow estimates.

Contributing Sewage Flow Estimate (Existing)

Discharge Facility (Ex. Office Buildings)	SF	Estimated Flow (gpd/1000 SF)	Total Incremental Flow (gpd)	Sanitary From	Sanitary To
10300 Eaton Pl	138,860	200	27,772	Ex. 6503	Ex. 3168
10302 Eaton Pl	142,648	200	28,530	Ex. 6503	Ex. 3168
10304 Eaton Pl	135,942	200	27,188	Ex. 6503	Ex. 3168
10306 Eaton Pl	138,860	200	27,772	Ex. 6503	Ex. 3168
Total SF	556,310	Estimated Cumulative Existing Flow	111,262	Ex. 6503	Ex. 3168

PHASE I
 Contributing Sewage Flow Estimate (Proposed)

Discharge Facility	No. of Units	No. of People	Design Flow (gpd/person)	Total Incremental Flow (gpd)	Total Cumulative Flow (gpd)	Sanitary From	Sanitary To
Multifamily	268	375	100	37,500	37,500	S1	Ex. 6503

PHASE II
 Contributing Sewage Flow Estimate (Proposed)

Discharge Facility	# of Units	No. of People	Design Flow (gpd/person)	Total Incremental Flow (gpd)	Total Cumulative Flow (gpd)	Sanitary From	Sanitary To
Phase II Res.	6	18	100	1,800	1,800	S3	S4
Phase II Res.	4	12	100	1,200	3,000	S4	S5
Phase II Res.	28	84	100	8,400	8,400	S7	S6
Phase II Res.	2	6	100	600	9,000	S6	S5
Phase II Res.	10	30	100	3,000	15,000	S5	S817

SANITARY SEWER ANALYSIS

THE PURPOSE OF THIS ANALYSIS IS TO DEMONSTRATE THE CAPACITY AND HYDRAULIC ADEQUACY OF THE DOWNSTREAM SANITARY SEWER MAIN.
 EXISTING CONDITIONS:
 CURRENTLY, THE EXISTING SITE CONSISTS OF AN EXISTING ASPHALT PARKING LOT WITH NO EXISTING SANITARY SEWER MAIN ON SITE.

THE UPSTREAM FOR THIS SEWER-SHED IS SHOWN ON SHEET PL_601, WEST OF THE SITE, AND ON THIS SHEET FROM EXISTING OFFICE BUILDINGS, DESIGNATED AS ESTIMATED FLOW.

PHASE I

PROPOSED CONDITIONS:
 NEW LATERALS AND SANITARY MAIN WILL BE CONSTRUCTED ON-SITE AND CONNECT TO THE EXISTING MANHOLE S8503.

CAPACITY AND HYDRAULIC ANALYSIS:
 THE SANITARY SEWER WAS ANALYZED FROM THE ON-SITE 8-INCH SEWER TO EXISTING MANHOLE S816.

THE VOLUME OF FLOW USED IN THIS ANALYSIS HAS BEEN COMPUTED IN ACCORDANCE WITH STATE CODE 9VAC25-790-460 AND 9VAC25-790-310. SEE COMPUTATIONS ON THIS SHEET.

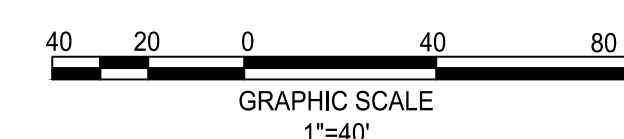
PHASE II

PROPOSED CONDITIONS:
 EXISTING 10" SANITARY SEWER WILL BE REMOVED AND RELOCATED FOR THE CONSTRUCTION OF PROPOSED TOWNHOMES. PROPOSED 10" SANITARY SEWER NETWORK WILL CONNECT TO THE EXISTING 10" SANITARY WHICH CONNECTS TO EXISTING MANHOLE S817.

CAPACITY AND HYDRAULIC ANALYSIS:
 THE SANITARY SEWER WAS ANALYZED FROM THE EX. 8-INCH SEWER TO FROM THE PHASE I DEVELOPMENT TO EXISTING MANHOLE S816.

THE VOLUME OF FLOW USED IN THIS ANALYSIS HAS BEEN COMPUTED IN ACCORDANCE WITH STATE CODE 9VAC25-790-460 AND 9VAC25-790-310. SEE COMPUTATIONS ON THIS SHEET.

CONCLUSION:
 IT IS OUR CONCLUSION THAT THE EXISTING DOWNSTREAM 8-INCH SEWERS NOTED IN THE SANITARY COMPUTATION CHART NEED TO BE UPGRADED TO 10-INCH PIPES TO MEET CAPACITY AND HYDRAULIC ADEQUACY OF THE ADDED REDEVELOPMENT FLOWS.



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1	11-30-2022	ADDRESSED PER CITY COMMENTS
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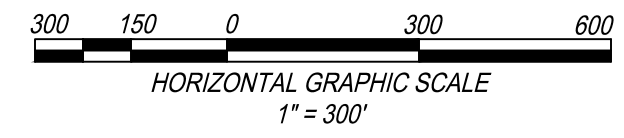
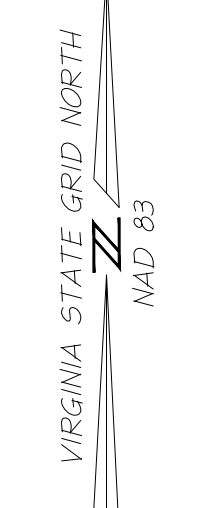
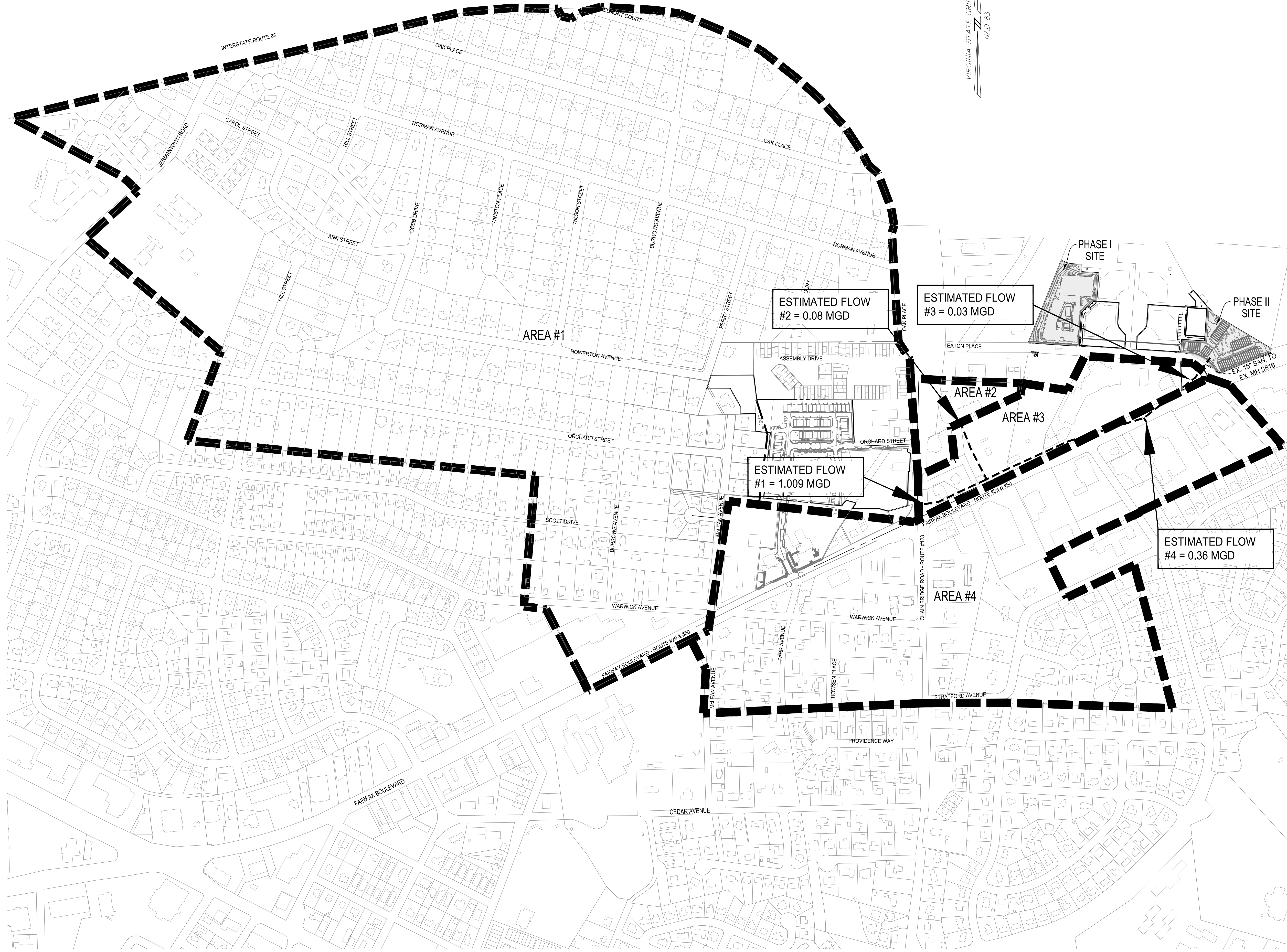
PROJECT No.: 21082.002.00
 DRAWING No.: -
 DATE: 2022-07-15
 SCALE: 1" = 30'
 DESIGN: JH
 DRAWN: YH
 CHECKED: JH

SHEET TITLE:
SANITARY SEWER ANALYSIS

SHEET No.
PI_600

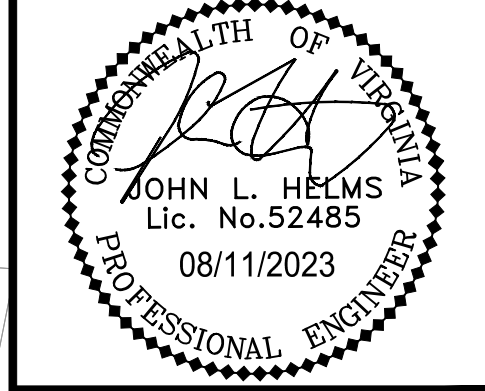
OFFSITE SANITARY FLOW ESTIMATES:

<p>AREA #1</p> <p>FLOW ESTIMATES: FROM NORTHFAX WEST PUBLIC IMPROVEMENT PLAN (SP-20-00300)</p> <p>TOTAL PEAK FLOW = 1.009 MGD</p>
<p>AREA #2</p> <p>EXISTING DEVELOPMENT ESTIMATES: HOTEL= 152 ROOMS</p> <p>FLOW ESTIMATES: 152 UNITS x 130 GPD/UNIT = 19,760 GPD</p> <p>TOTAL FLOW = 19,760 GPD</p> <p>TOTAL PEAK FLOW = 79,040 GPD = 0.08 MGD</p>
<p>AREA #3</p> <p>EXISTING DEVELOPMENT ESTIMATES: OFFICE/RETAIL = 41,161 SF</p> <p>FLOW ESTIMATES: 41,161 SF OFFICE/RETAIL x 200 GPD/1000 SF = 8,232 GPD</p> <p>TOTAL FLOW = 8,232 GPD</p> <p>TOTAL PEAK FLOW = 32,929 GPD = 0.03 MGD</p>
<p>AREA #4</p> <p>EXISTING DEVELOPMENT ESTIMATES: RESIDENTIAL= 63 DWELLING UNITS OFFICE/RETAIL = 344,446 SF</p> <p>FLOW ESTIMATES: 63 UNITS x 350 GPD/UNIT = 22,050 GPD 344,446 SF OFFICE/RETAIL x 200 GPD/1000 SF = 68,889 GPD</p> <p>TOTAL FLOW = 90,939 GPD</p> <p>TOTAL PEAK FLOW = 363,757 GPD = 0.36 MGD</p>



- NOTES:
- SEE SHEET PI_600 FOR SANITARY SEWER ANALYSIS.
 - SEE THIS SHEET FOR EXISTING FLOW ESTIMATES.
 - A PEAK FACTOR OF 4.0 WAS USED FOR ALL OFFSITE SANITARY FLOWS.

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**N29 APARTMENTS
GENERAL DEVELOPMENT PLAN**
CITY OF FAIRFAX, VA

MARK	DATE	DESCRIPTION
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DRAWING No.: ---
DATE: 2022-07-15
SCALE: 1"=300'
DESIGN: LBD,ZY
DRAWN: ZY
CHECKED: LBD

**SANITARY SEWER
OFF-SITE MAP**

SHEET No.
PI_601

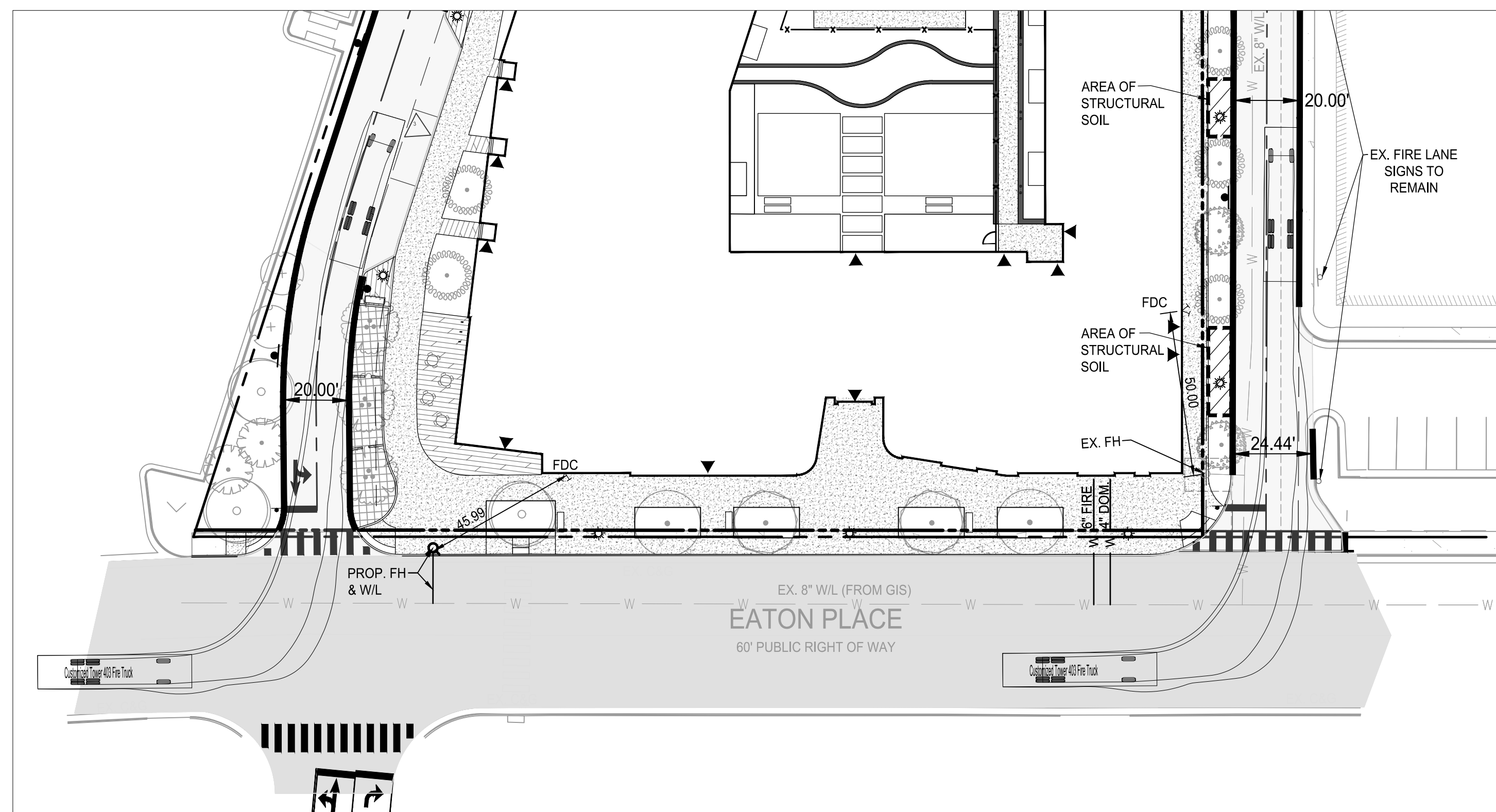
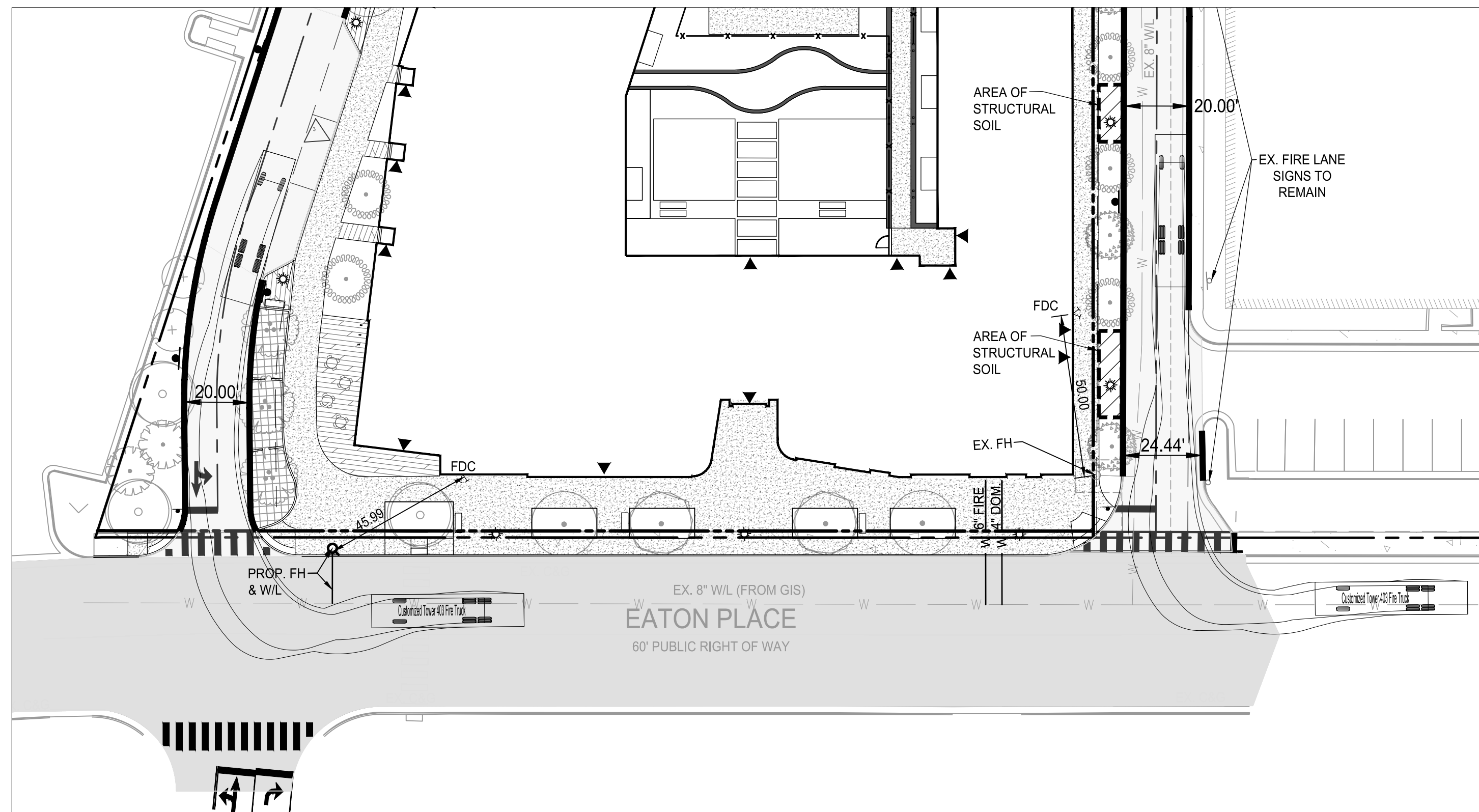
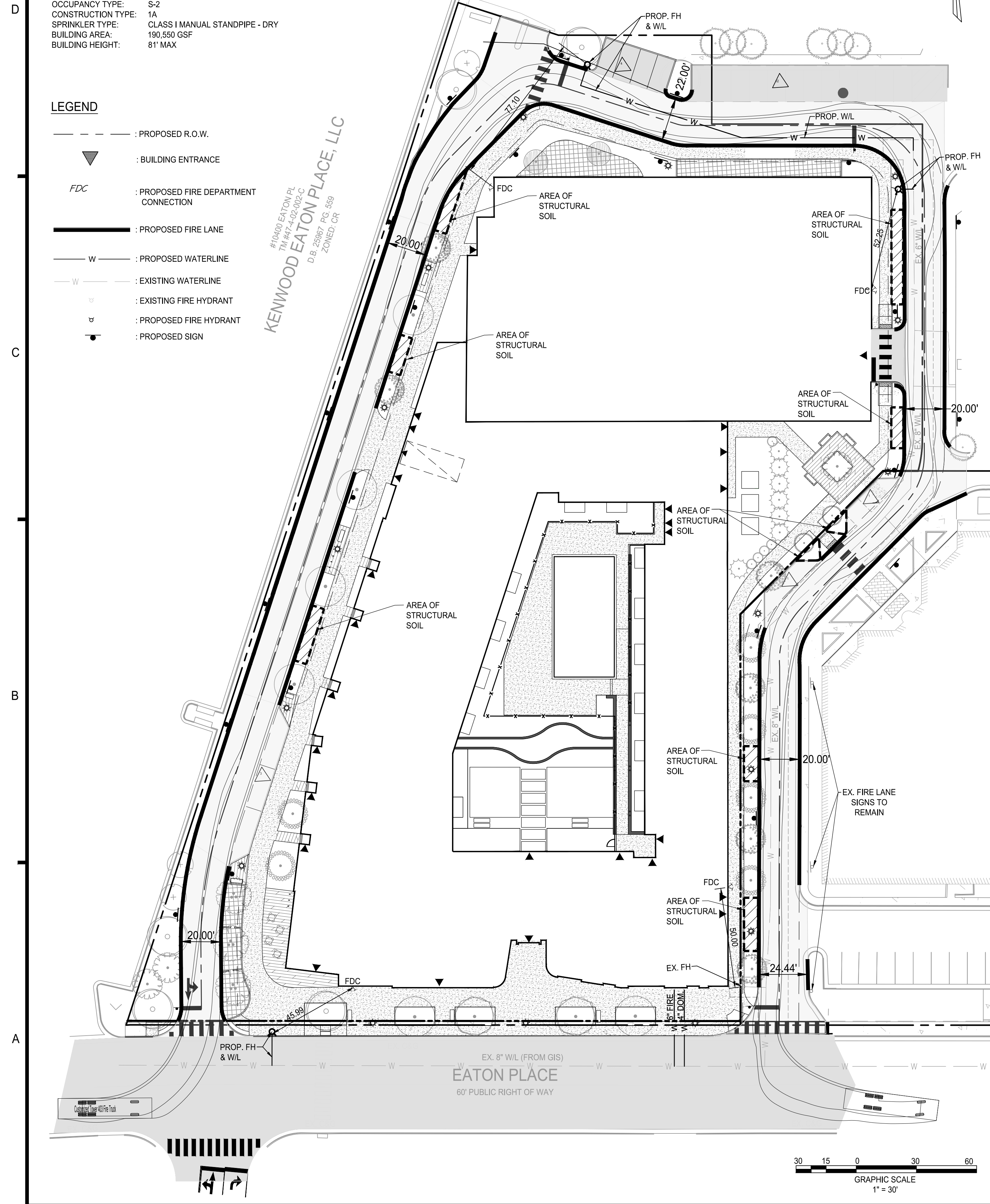
MULTIFAMILY BUILDING:
 BUILDING TYPE: R-2
 OCCUPANCY TYPE: R-2 (NOTE - THERE WILL ALSO BE ASSEMBLY USE IN AMENITY AREA)
 CONSTRUCTION TYPE: 3A
 SPRINKLER TYPE: NFPA 13
 BUILDING AREA: 294,292 GSF
 BUILDING HEIGHT: 81' MAX

GARAGE BUILDING:
 BUILDING TYPE: S-2
 OCCUPANCY TYPE: S-2
 CONSTRUCTION TYPE: 1A
 SPRINKLER TYPE: CLASS I MANUAL STANDPIPE - DRY
 BUILDING AREA: 190,550 GSF
 BUILDING HEIGHT: 81' MAX

LEGEND

- - - - - : PROPOSED R.O.W.
- ▲ : BUILDING ENTRANCE
- FDC : PROPOSED FIRE DEPARTMENT CONNECTION
- : PROPOSED FIRE LANE
- W — : PROPOSED WATERLINE
- W — : EXISTING WATERLINE
- ⊕ : EXISTING FIRE HYDRANT
- ⊕ : PROPOSED FIRE HYDRANT
- ▲ : PROPOSED SIGN

#10400 EATON PL
 TM #47-4-102-002-C
 D.B. 20087 PG 359
 ZONED CR
KENWOOD EATON PLACE, LLC



NOTE:
 NO LOADING, DELIVERY, OR REFUSE TRUCKS WILL BE LARGER THAN THE FIRE TRUCK.

SIGN AND STRIPING NOTES:

MINIMUM SPECIFICATIONS

Fire lanes shall have a minimum unobstructed width of 20 feet.
 Fire lanes shall have a minimum unobstructed vertical clearance of 13 feet 6 inches.

Aerial Fire Apparatus Fire Lane

- Shall have a minimum unobstructed width of 26 feet.
- Shall be located a minimum of 15 feet from the building and positioned along one entire side of the building – as approved by the Fire Marshal.
- Overhead utility lines shall not be located over an Aerial Fire Apparatus Fire Lane or between the lane and the building.

Fire lanes shall be compacted/treated to support emergency vehicles. Compacted/treated to support emergency vehicles shall mean capable of supporting H-20 loading in all weather conditions.

SIGNS

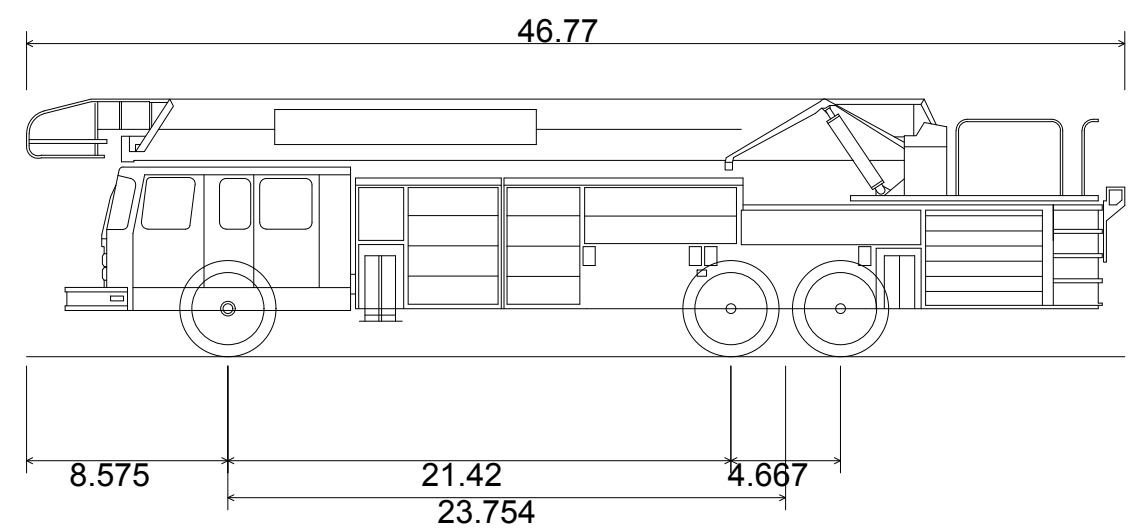
Metal construction, dimensions 12 inches by 18 inches. Red lettering on a reflective white background with three-eighths inch red trim strip around the entire outer edge of the sign. Signs shall be mounted with the top of the sign 7 feet above grade.

Lettering size:
 NO PARKING – 2 inches
 OR – 1 inch
 STANDING – 2 inches
 FIRE LANE – 2 1/4 inches
 Arrows 1-inch solid red. Spacing between words to be uniform.

STRIPING

Fire Lanes shall be designed with striping on both sides, either curb or road surface.

- 6-inch red traffic paint stripe
- 4-inch white lettering/wording with 3/4-inch stroke stating "NO PARKING FIRE LANE"
- Lettering/wording spaced every 50 feet



Customized Tower 403 Fire Truck
 Overall Length 46.770ft
 Overall Width 10.160ft
 Wall to Wall Turning Radius 45.000ft

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 Lic. No. 52485
 08/11/2023
 PROFESSIONAL ENGINEER

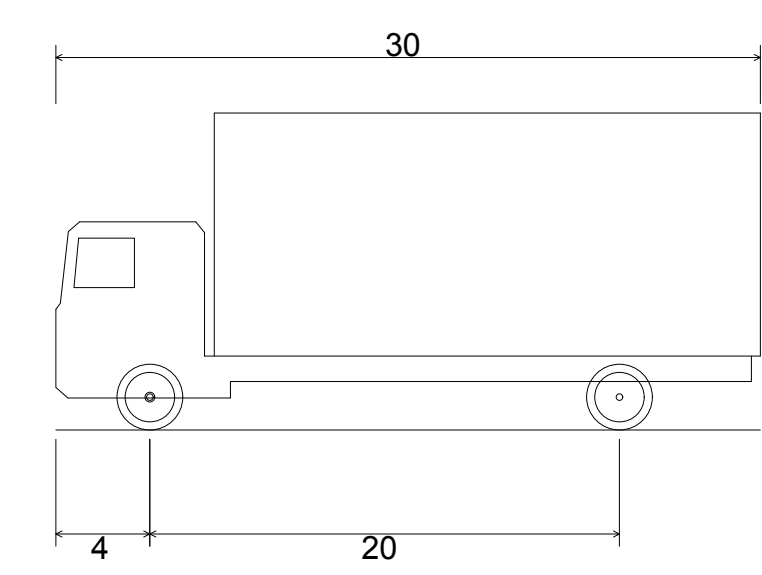
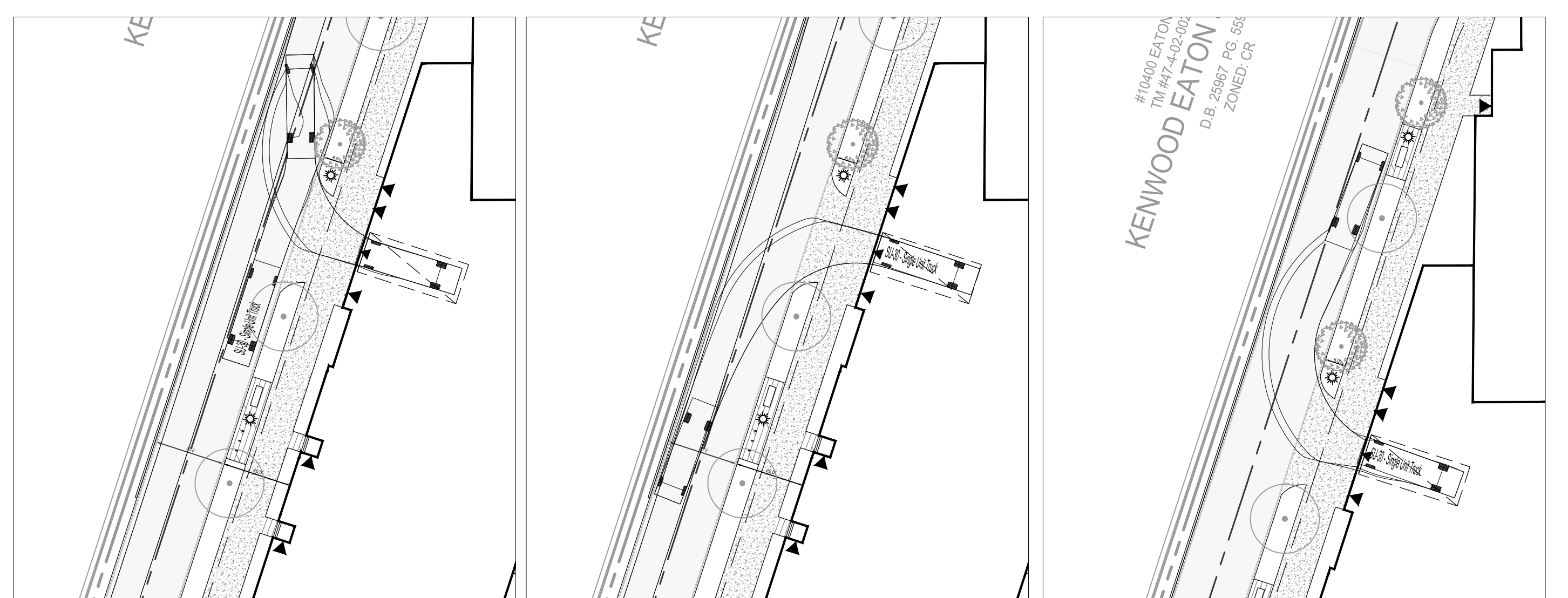
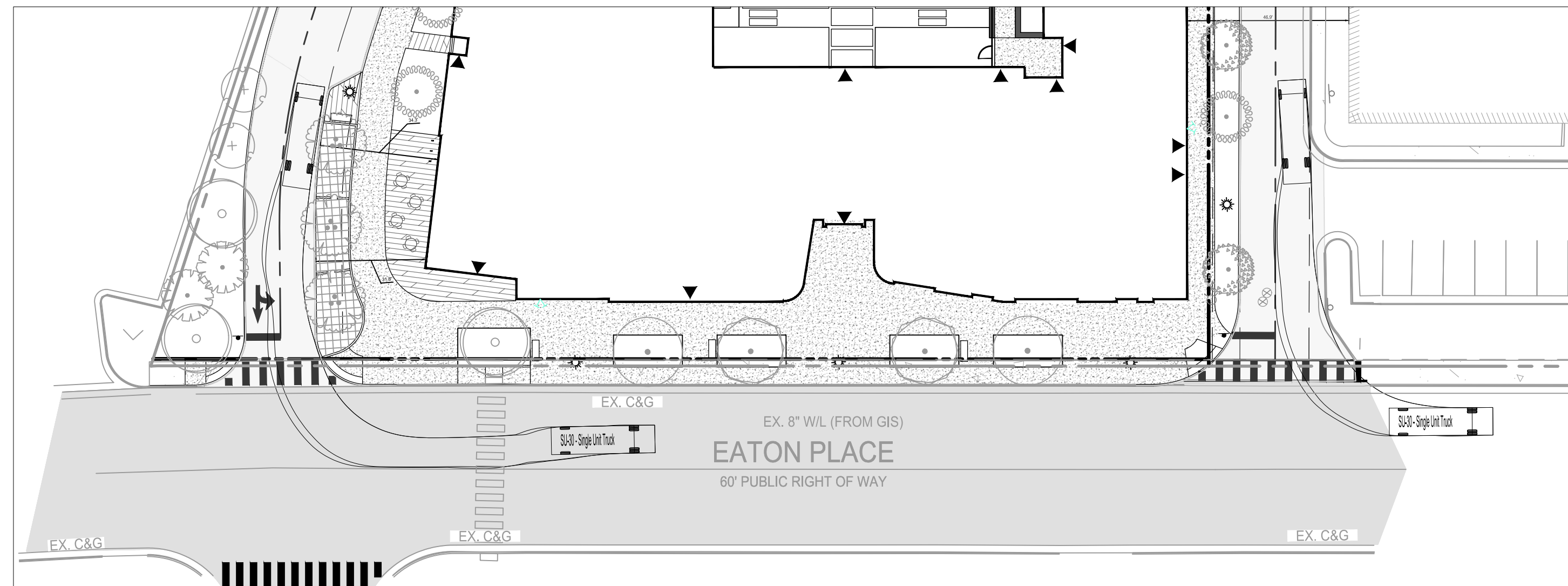
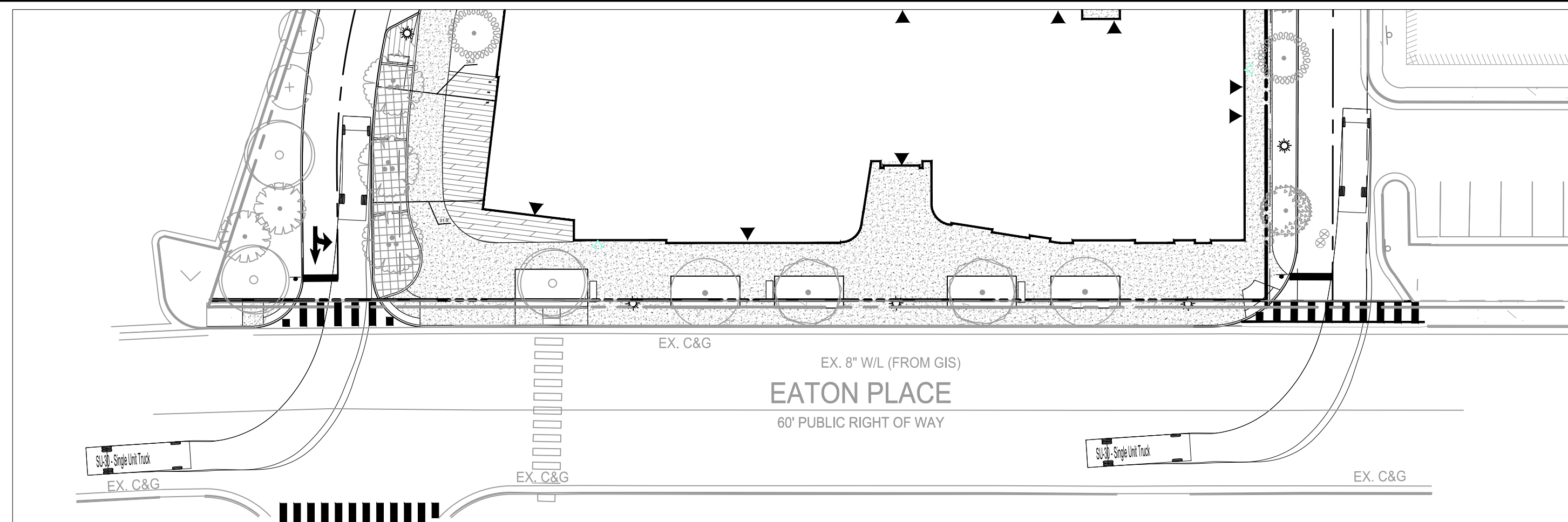
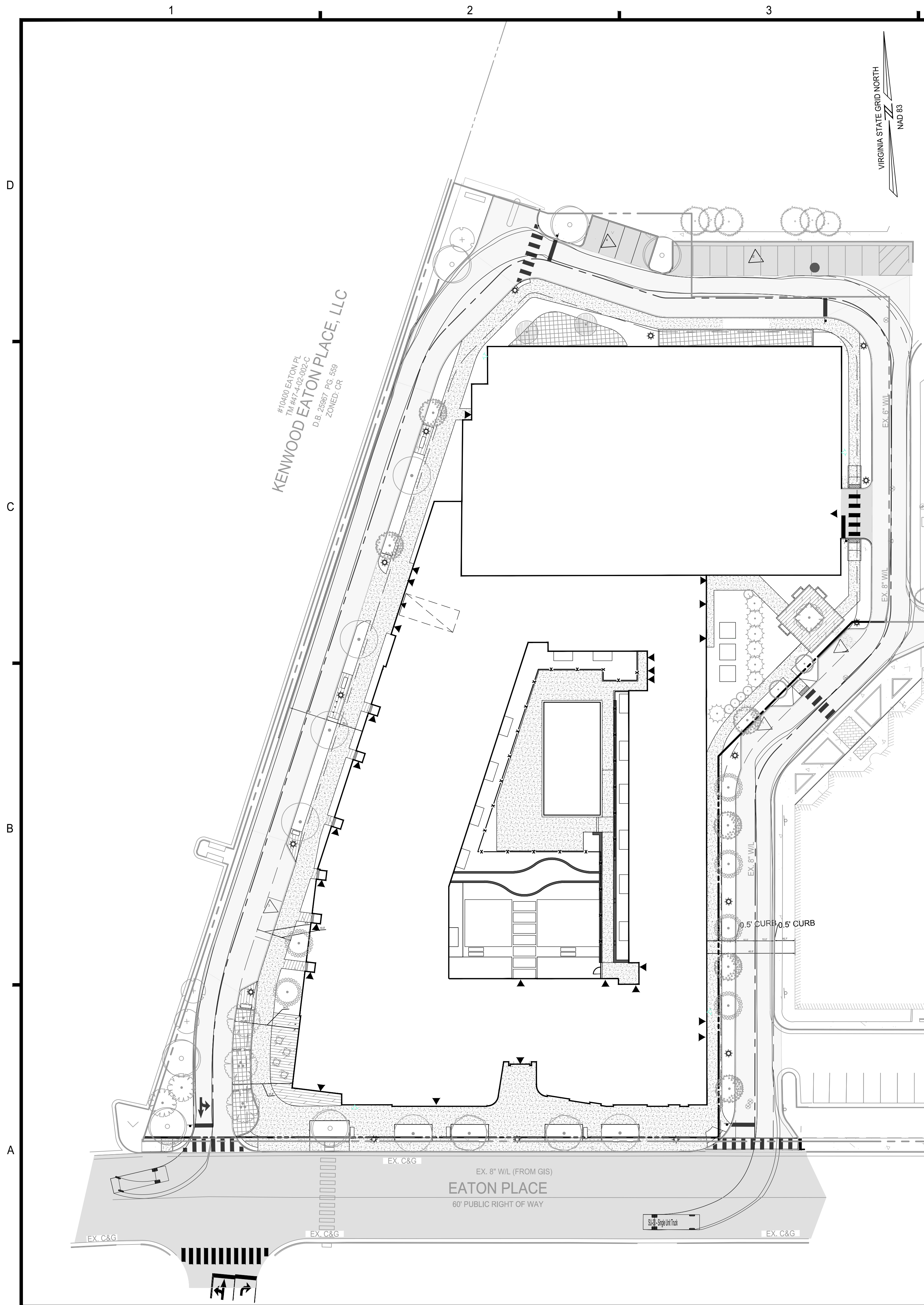
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 CITY OF FAIRFAX, VA

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 DRAWING No.: 111772
 DATE: 2022-07-15
 SCALE: 1" = 30'
 DESIGN: JH
 DRAWN: YH
 CHECKED: JH

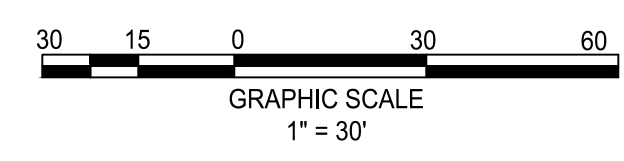
FIRE SERVICE PLAN

SHEET No.
PI_800



SU-30 - Single Unit Truck
 Overall Length 30.000ft
 Overall Width 8.000ft
 Overall Body Height 13.500ft
 Min Body Ground Clearance 1.367ft
 Track Width 8.000ft
 Lock-to-lock time 5.00s
 Max Steering Angle (Virtual) 31.80°

NOTE:
 NO LOADING, DELIVERY, OR REFUSE TRUCKS WILL BE LARGER THAN THE FIRE TRUCK.



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 JOHN L. HELMS
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 08/11/2023
 PROFESSIONAL ENGINEER

**N29 APARTMENTS
 GENERAL DEVELOPMENT PLAN**
 CITY OF FAIRFAX, VA

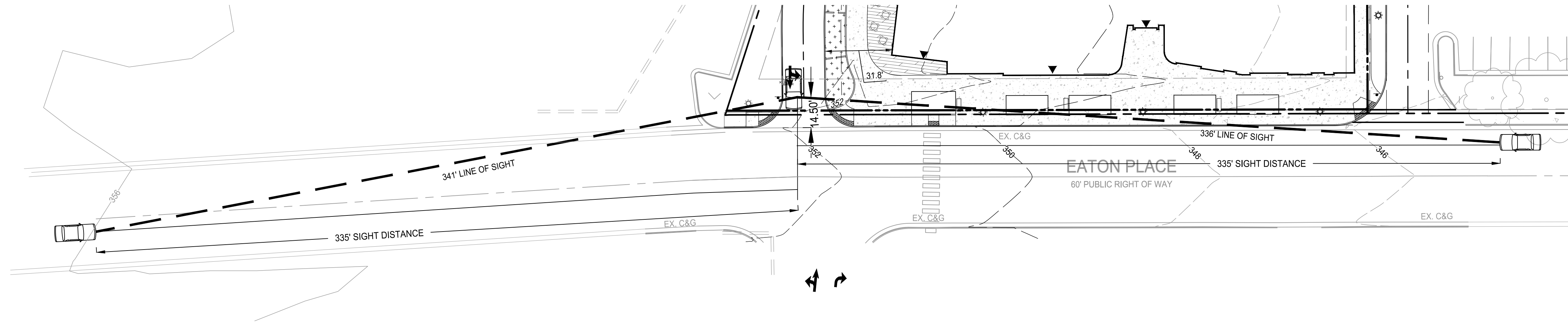
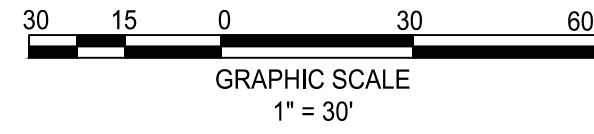
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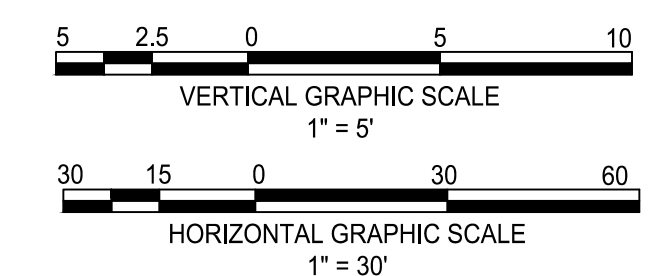
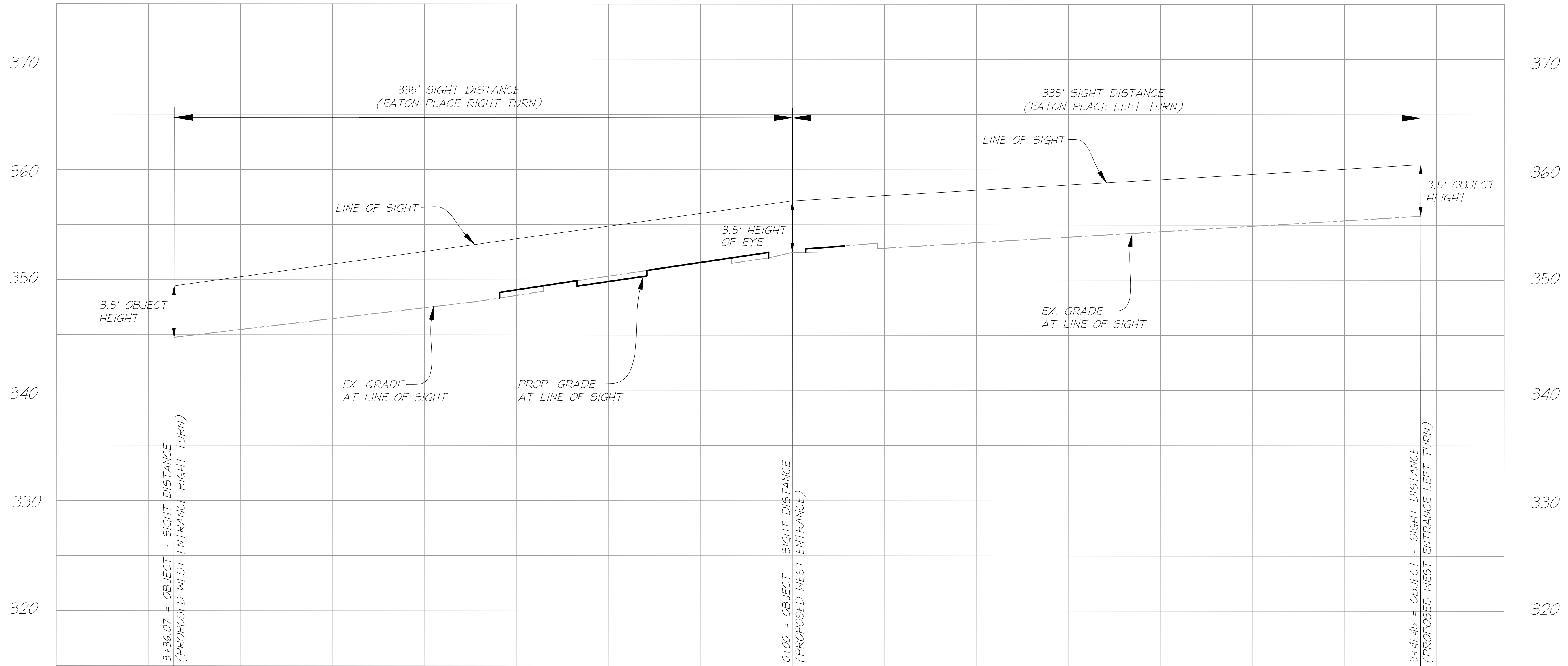
SHEET TITLE:
**TURNING
 MOVEMENTS -
 DELIVERY TRUCK**

SHEET No.
PI_801

VIRGINIA STATE GRID NORTH
NAD 83



EATON PLACE SIGHT DISTANCE
WEST ENTRANCE
(VARIABLE WIDTH)
POSTED SPEED: 25 MPH, DESIGN SPEED: 30 MPH



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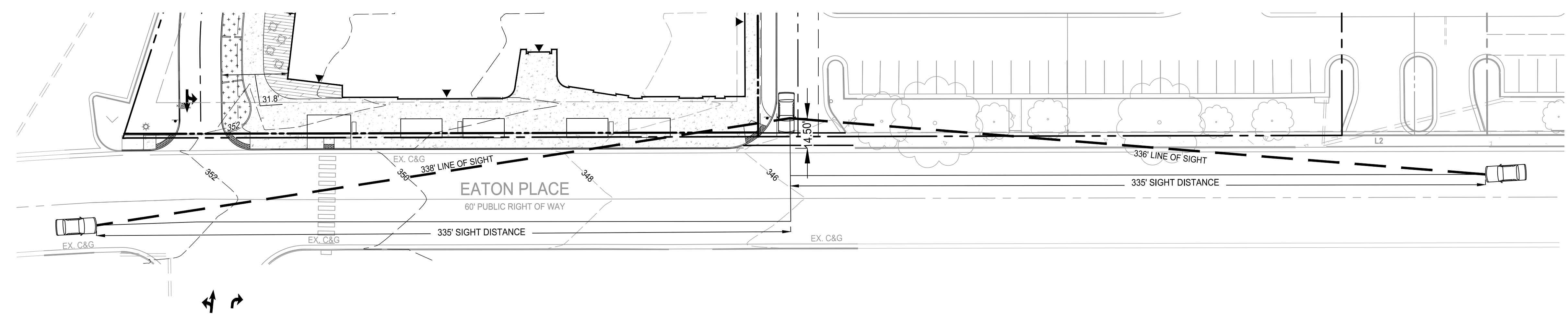
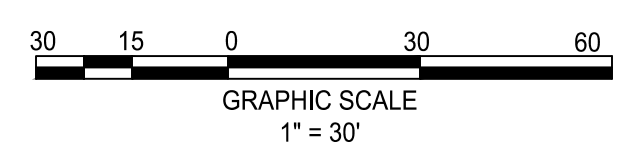
PROJECT No.: 21082.002.00
DRAWING No.: 111772
DATE: 2022-07-15
SCALE: 1" = 30'
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:
SIGHT DISTANCE

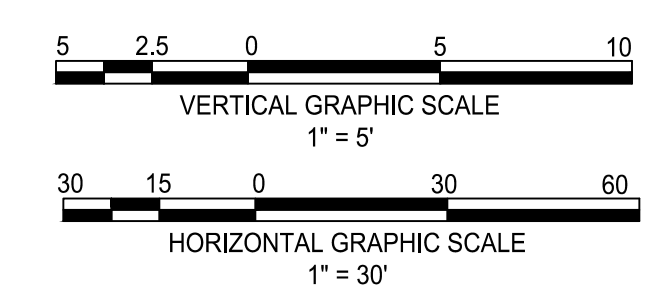
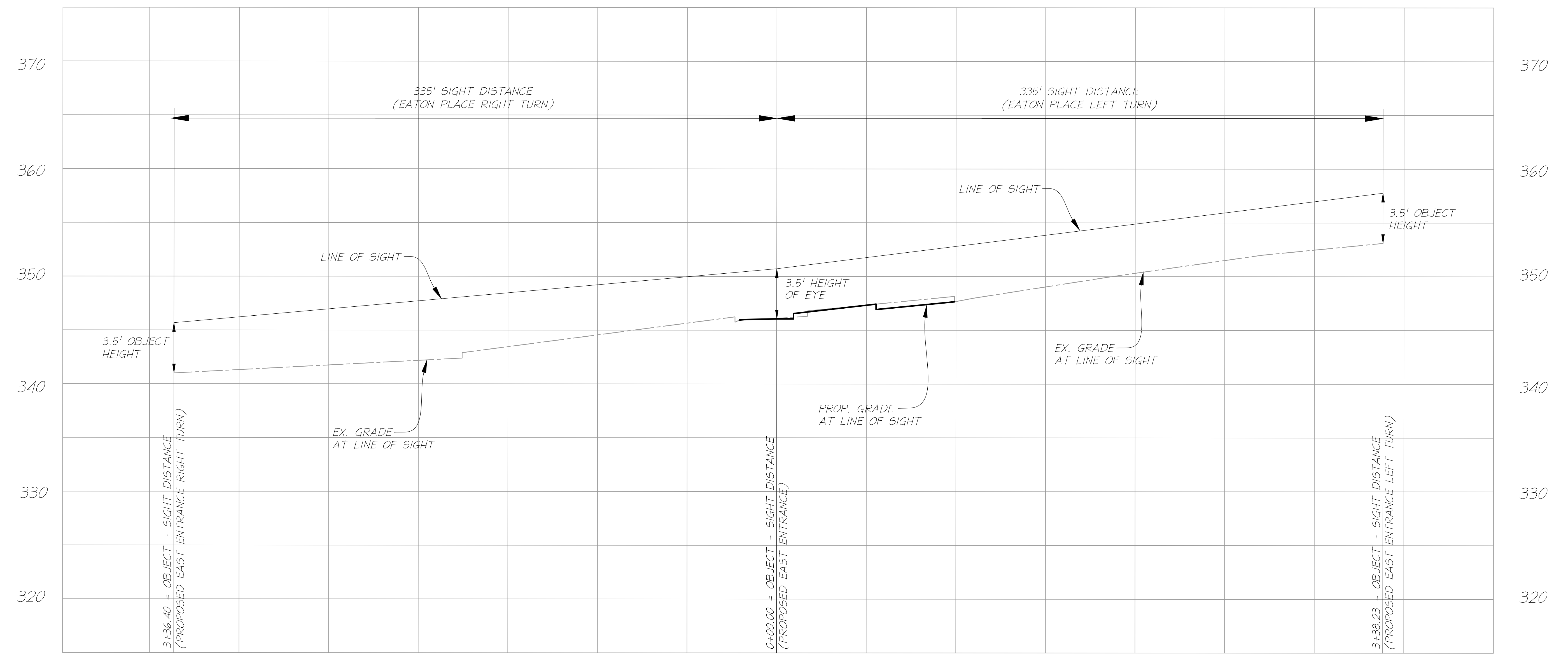
SHEET No.
PI_830

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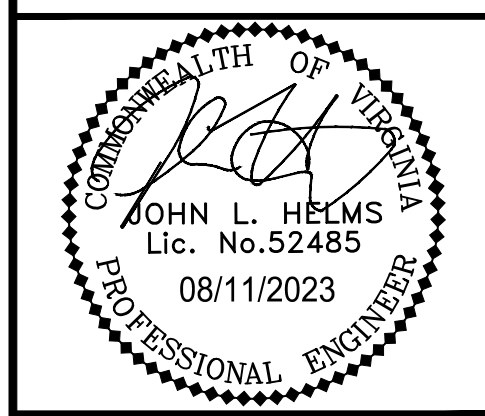
D
C
B
A



*EATON PLACE SIGHT DISTANCE
EAST ENTRANCE
(VARIABLE WIDTH)
POSTED SPEED: 25 MPH, DESIGN SPEED: 30 MPH*



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DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:
SIGHT DISTANCE

SHEET No.
PI_831

