

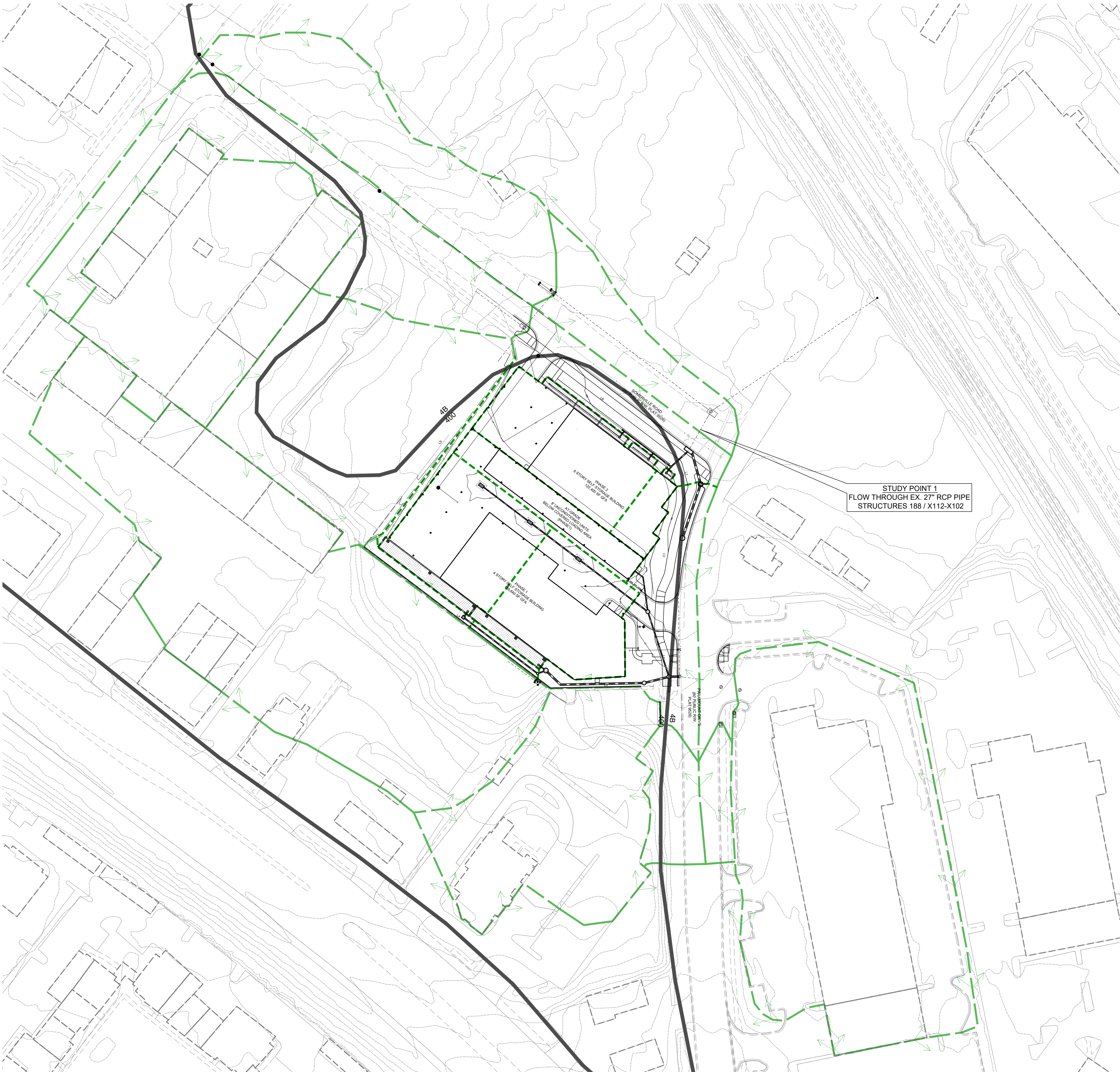
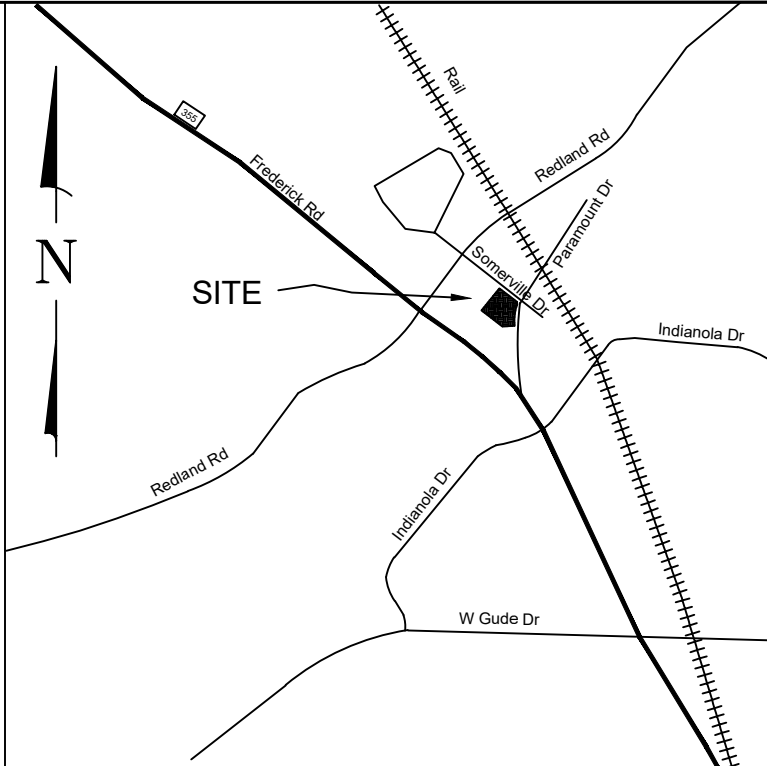


Exhibit 22  
LMA H-157



VICINITY MAP  
SCALE 1" = 2,000'

**LEGEND**  
N.T.S.

2B SOIL DIVIDE  
400

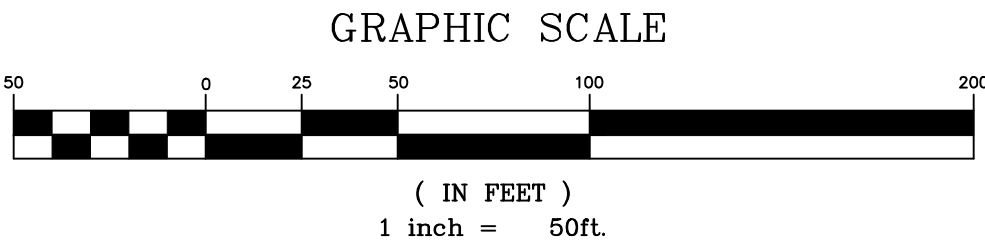
PROPOSED DRAINAGE DIVIDE

EX. DRAINAGE DIVIDE

EX. 15" RCP  
EX. STORM DRAIN

15" RCP  
NEW STORM DRAIN

STUDY POINT 1  
FLOW THROUGH EX. 27" RCP PIPE  
STRUCTURES 188 / X112-X102



**NARRATIVE**

AT THE STUDY POINT THERE IS A 0.04 ACRE DECREASE IN DESIGN DRAINAGE AREA AND A 3.9 CFS DECREASE IN FLOW UNDER ULTIMATE CONDITIONS. THESE CHANGES ARE ATTRIBUTED TO THE PROPOSED ENCLOSED STORM DRAIN SYSTEM AND THE OVERALL DECREASE IN IMPERVIOUS SURFACES. THE DOWNSTREAM STORM DRAIN IS ADEQUATELY SIZED TO SAFELY CONVEY THE DISCHARGES PRODUCED BY THE REDEVELOPMENT OF THIS SITE.

|                                                                                                                                              |                                        |            |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------|
| (SEE <a href="http://websoilsurvey.nrcs.usda.gov/app/">http://websoilsurvey.nrcs.usda.gov/app/</a> )                                         |                                        |            |
| SOIL BOUNDARIES HAVE BEEN GRAPHICALLY REPRODUCED FROM MONTGOMERY COUNTY SOILS MAP, FROM THE WEB SOIL SURVEY INTERNET SITE, DATED 2024-01-18. |                                        |            |
| MAP UNIT SYMBOL                                                                                                                              | MAP UNIT NAME                          | HSG RATING |
| 4B                                                                                                                                           | Eloak silt loam, 3 to 8 percent slopes | C          |
| 400                                                                                                                                          | Urban Land                             | D          |

**MHG**

CIVIL ENGINEERING  
LAND SURVEYING  
LANDSCAPE ARCHITECTURE  
LAND PLANNING

9220 Wightman Road, Suite 120  
Montgomery Village, MD 20886  
Phone: 301.870.0840  
www.mhga.com

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**Professional 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, Lic. No. 35186 Exp. Date: 01/05/2026

**OWNER / APPLICANT:**  
PARAMOUNT SELF STORAGE, LLC  
C/O ARCLAND PROPERTY COMPANY LLC  
1055 THOMAS JEFFERSON ST. NW  
SUITE 250 WASHINGTON DC 20007  
CONTACT: STEVE CRATIN  
PHONE: 202-480-5392  
EMAIL: steve@arc.land

| REVISIONS |             |      |
|-----------|-------------|------|
| NO.       | DESCRIPTION | DATE |
|           |             |      |
|           |             |      |
|           |             |      |
|           |             |      |

TAX MAP GS122 WSSC 22-1NW08

PLAT 10829

4TH ELECTION DISTRICT  
MONTGOMERY COUNTY  
MARYLAND

**PARCEL H-2 DERWOOD  
SOMERVILLE ADDITION**

**PARAMOUNT SELF  
STORAGE**

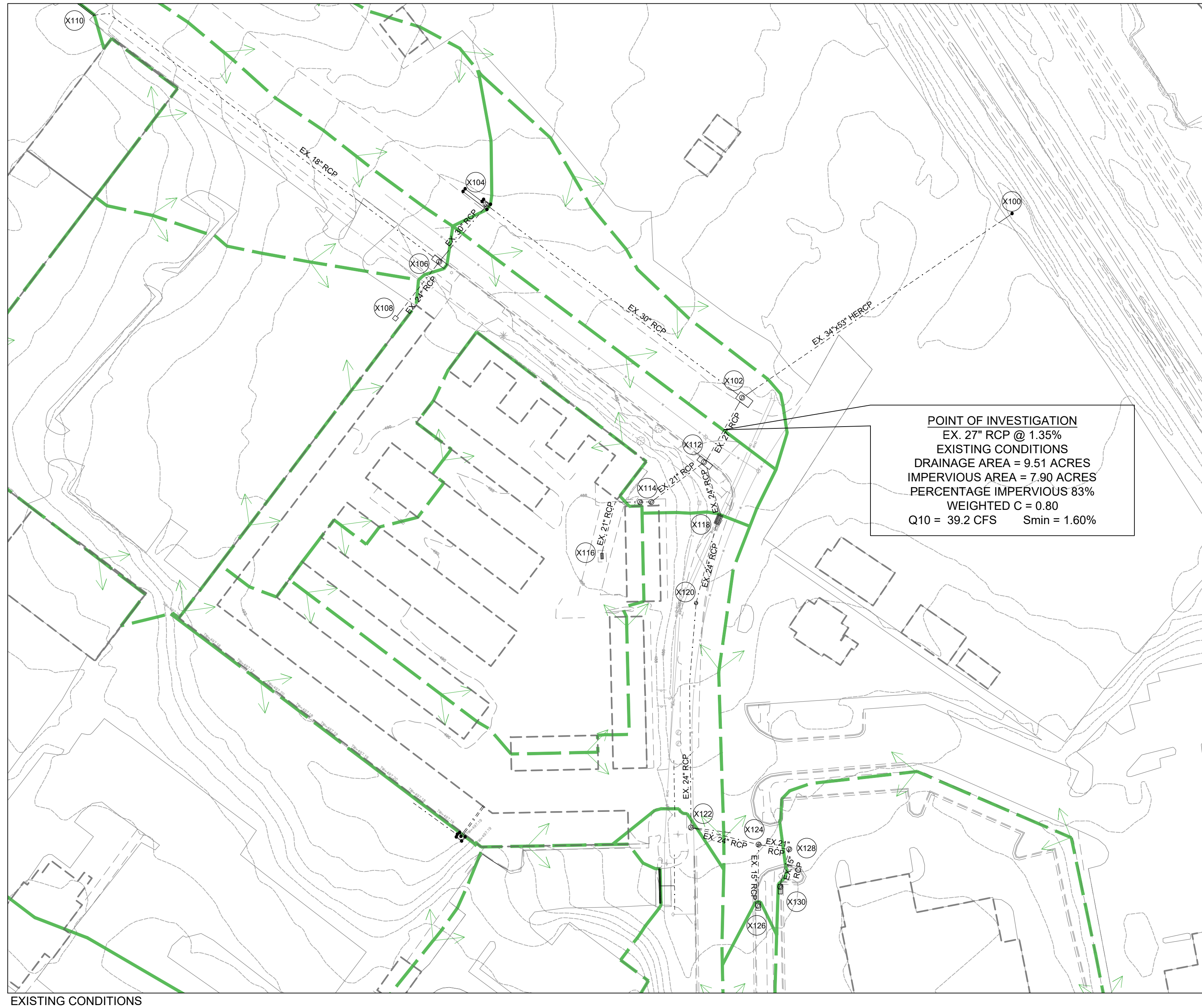
|           |            |
|-----------|------------|
| PROJ. MGR | DCM        |
| DRAWN BY  | MSH        |
| SCALE     | 1"=50'     |
| DATE      | 01.09.2025 |

**DRAINAGE STUDY PLAN**

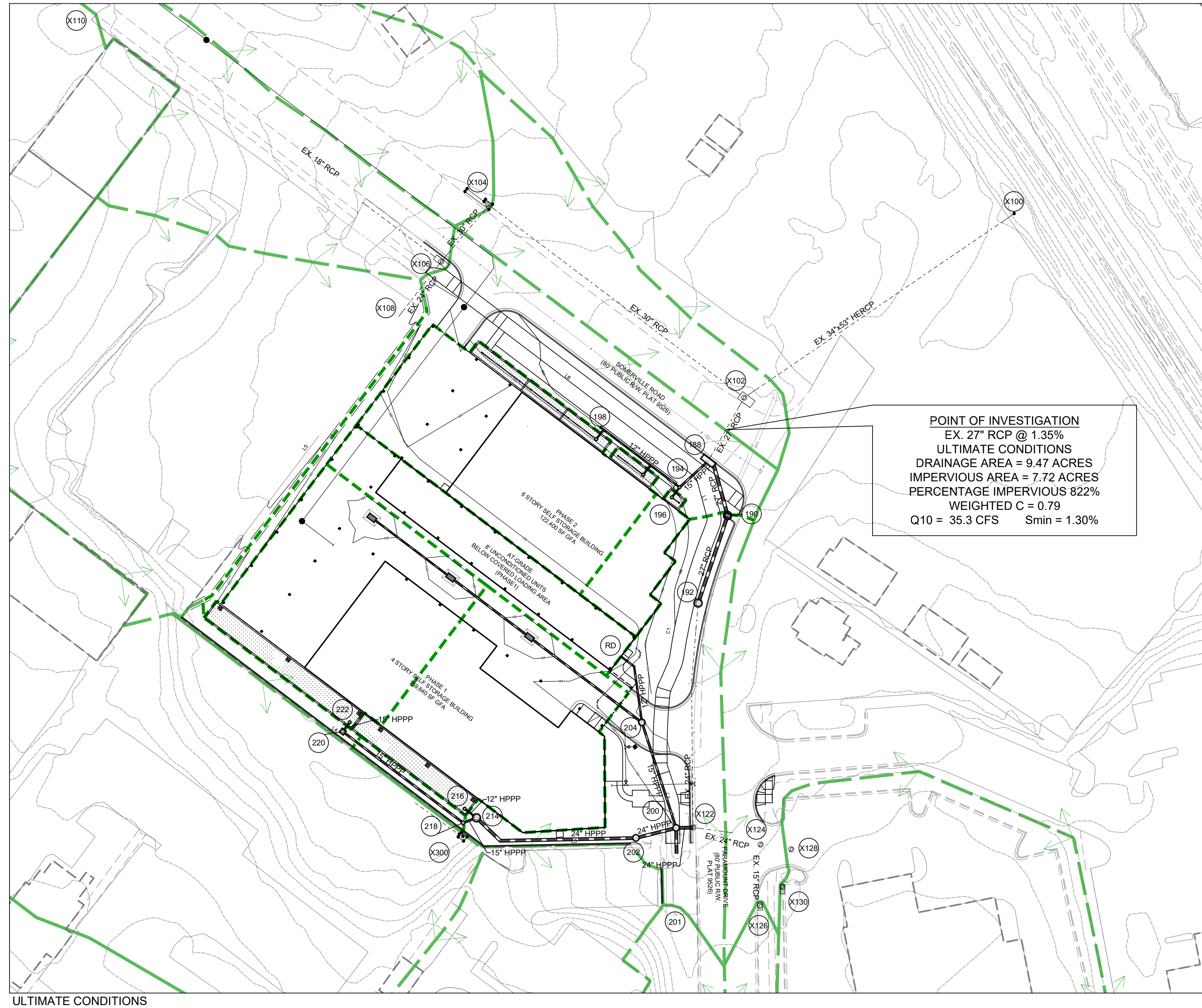
**ULTIMATE DOWNSTREAM  
CONDITIONS**

PROJECT NO. 2023.120.12  
SHEET NO. 1 OF 2



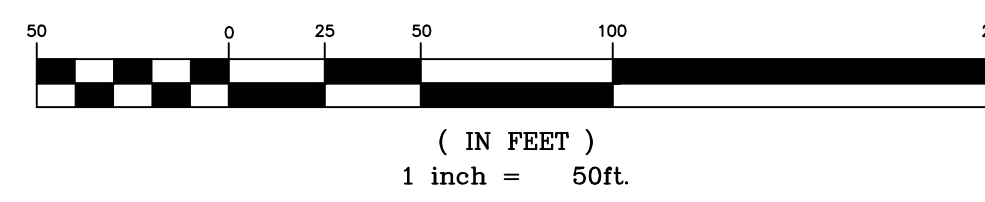


EXISTING CONDITIONS



ULTIMATE CONDITIONS

GRAPHIC SCALE



| PARAMOUNT SS - EXISTING CONDITIONS DRAINAGE STUDY |        |          |              |      |      |        |           |        |       |         |        |         |       |         |         |
|---------------------------------------------------|--------|----------|--------------|------|------|--------|-----------|--------|-------|---------|--------|---------|-------|---------|---------|
| STORM DRAIN COMPUTATIONS                          |        |          |              |      |      |        |           |        |       |         |        |         |       |         |         |
| 10.00 YEAR RETURN PERIOD                          |        |          |              |      |      |        |           |        |       |         |        |         |       |         |         |
| FROM NO.                                          | TO NO. | AREA AC. | AREA SUM AC. | R    | AR   | AR SUM | TIME MIN. | I INHR | Q CFS | % SLOPE | DA IN. | VEL FPS | L FT. | TIP MIN | N VALUE |
| X130                                              | X128   | 2.40     | 2.40         | 0.85 | 2.04 | 2.04   | 6.11      | 6.75   | 13.8  | 4.55    | 15     | 11.2    | 24.0  | 0.04    | 0.013   |
| X128                                              | X124   | 2.40     | 2.40         | 0.00 | 2.04 | 6.15   | 6.74      | 13.8   | 0.76  | 21      | 5.7    | 18.0    | 0.05  | 0.013   | 0.14    |
| X126                                              | X124   | 0.12     | 0.12         | 0.72 | 0.09 | 0.09   | 5.00      | 7.07   | 0.6   | 0.01    | 15     | 0.5     | 39.0  | 1.31    | 0.013   |
| X124                                              | X122   | 2.52     | 0.00         | 2.13 | 6.31 | 6.70   | 14.3      | 0.40   | 24    | 4.5     | 46.0   | 0.17    | 0.013 | 0.18    | 0.18    |
| X122                                              | X120   | 2.52     | 0.00         | 2.13 | 6.48 | 6.66   | 14.3      | 0.40   | 24    | 4.5     | 157.0  | 0.58    | 0.013 | 0.82    | 0.82    |
| X120                                              | X118   | 2.52     | 0.00         | 2.13 | 7.05 | 6.51   | 14.3      | 0.40   | 24    | 4.5     | 57.0   | 0.21    | 0.013 | 0.23    | 0.23    |
| X118                                              | X112   | 5.30     | 7.82         | 0.47 | 2.50 | 4.63   | 7.26      | 6.46   | 29.9  | 1.75    | 24     | 5.6     | 35.0  | 0.05    | 0.013   |
| X116                                              | X114   | 0.99     | 0.99         | 0.90 | 0.89 | 0.89   | 5.00      | 7.07   | 6.3   | 0.16    | 21     | 2.6     | 63.0  | 0.40    | 0.013   |
| X114                                              | X112   | 0.99     | 0.00         | 0.89 | 5.40 | 6.95   | 6.3       | 0.16   | 21    | 2.6     | 43.0   | 0.27    | 0.013 | 0.07    | 0.07    |
| X112                                              | X102   | 0.70     | 9.51         | 0.80 | 0.56 | 6.08   | 7.32      | 6.44   | 39.2  | 1.60    | 27     | 9.9     | 48.0  | 0.08    | 0.013   |
| X110                                              | X106   | 1.45     | 1.45         | 0.90 | 1.31 | 1.31   | 5.00      | 7.07   | 8.2   | 0.77    | 15     | 5.2     | 300.0 | 0.96    | 0.013   |
| X108                                              | X106   | 1.30     | 1.30         | 0.90 | 1.17 | 1.17   | 5.00      | 7.07   | 8.3   | 0.13    | 24     | 2.6     | 47.0  | 0.30    | 0.013   |
| X106                                              | X104   | 1.09     | 3.84         | 0.81 | 0.88 | 3.36   | 5.96      | 6.80   | 22.8  | 0.31    | 30     | 4.6     | 48.0  | 0.17    | 0.013   |
| X104                                              | X102   | 0.97     | 4.81         | 0.50 | 0.49 | 3.84   | 6.13      | 6.75   | 25.9  | 0.40    | 30     | 5.3     | 223.0 | 0.70    | 0.013   |
| X102                                              | X100   | 0.41     | 14.73        | 0.51 | 0.21 | 10.13  | 7.40      | 6.42   | 65.1  | 0.42    | 42     | 6.8     | 230.0 | 0.57    | 0.013   |

| EXISTING CONDITIONS                      |                               |                                   |                                |              |
|------------------------------------------|-------------------------------|-----------------------------------|--------------------------------|--------------|
| Str. #                                   | Total Drainage Area, DA (Ac.) | ImperVIOUS Drainage Area, I (Ac.) | Grassed Drainage Area, G (Ac.) | Rational "C" |
| X130                                     | 2.40                          | 2.20                              | 0.20                           | 0.85         |
| X126                                     | 0.12                          | 0.09                              | 0.04                           | 0.72         |
| X118                                     | 5.30                          | 4.05                              | 1.25                           | 0.76         |
| X116                                     | 0.99                          | 0.99                              | 0.00                           | 0.90         |
| X112                                     | 0.70                          | 0.58                              | 0.12                           | 0.80         |
| X110                                     | 1.45                          | 1.45                              | 0.00                           | 0.90         |
| X108                                     | 1.30                          | 1.30                              | 0.00                           | 0.90         |
| X106                                     | 1.09                          | 0.92                              | 0.17                           | 0.81         |
| X104                                     | 0.97                          | 0.32                              | 0.64                           | 0.50         |
| X102                                     | 0.41                          | 0.14                              | 0.26                           | 0.51         |
| Rational "C" = (I/DA)(0.9) + (G/DA)(0.3) |                               |                                   |                                |              |

| WEIGHTED RATIONAL "C" COEFFICIENT                                                                                                  |             |                      |                      |                |
|------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|----------------------|----------------|
| CONDITION                                                                                                                          | STUDY POINT | TOTAL C <sub>A</sub> | TOTAL A <sub>i</sub> | C <sub>w</sub> |
| EXISTING                                                                                                                           | EX. 27" RCP | 7.59                 | 9.51                 | 0.80           |
| ULTIMATE                                                                                                                           | EX. 27" RCP | 7.47                 | 9.47                 | 0.79           |
| C <sub>w</sub> = (C <sub>1</sub> A <sub>1</sub> + C <sub>2</sub> A <sub>2</sub> + ... ) / (A <sub>1</sub> + A <sub>2</sub> + ... ) |             |                      |                      |                |



MHG

PARAMOUNT SS - ULTIMATE CONDITIONS DRAINAGE STUDY

STORM DRAIN COMPUTATIONS

10.00 YEAR RETURN PERIOD

USER: MSH

DATE: 01.09.2025

CHECKED BY:

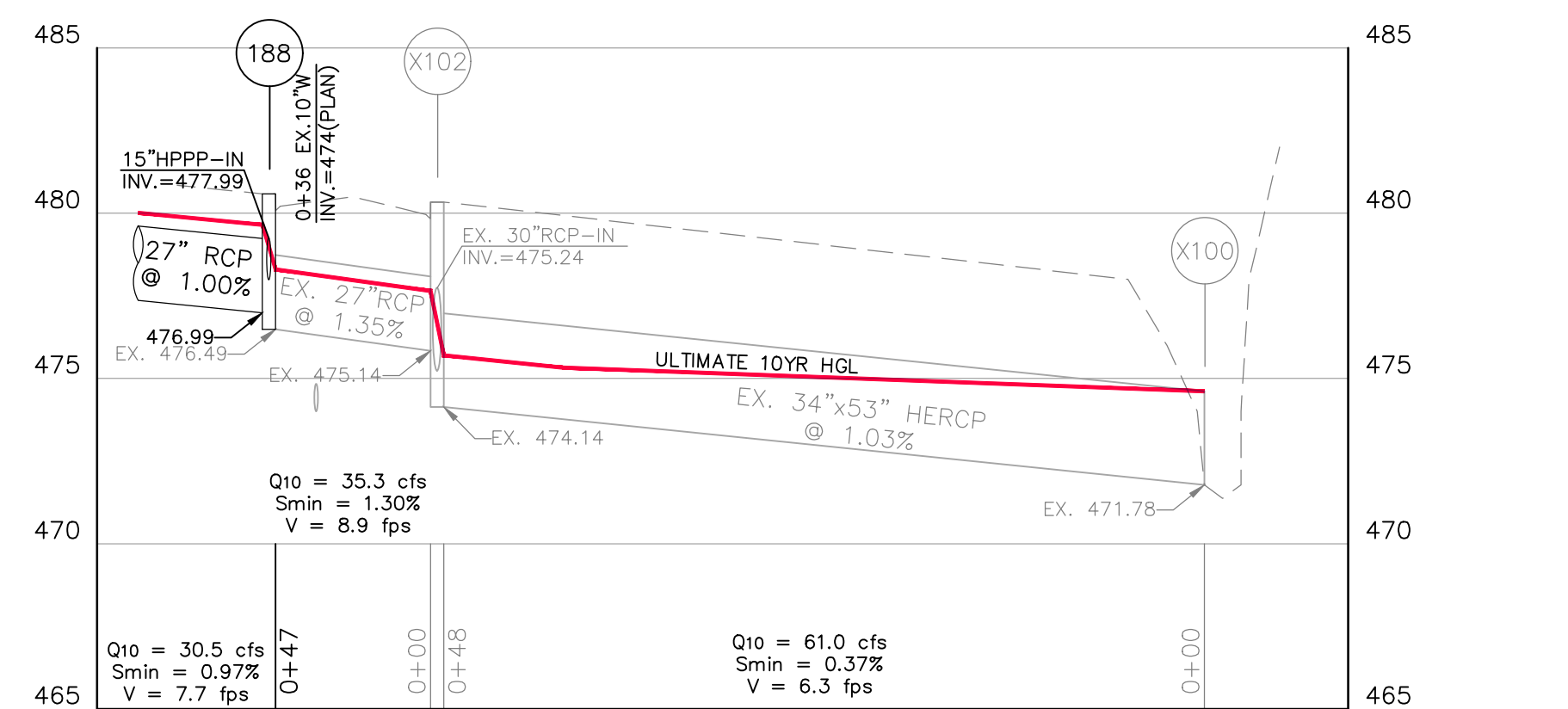
JOB #: 2023-120-12

FILE: C-PIPE

| FROM NO. | TO NO. | AREA AC. | AREA SUM AC. | R    | AR   | AR SUM | TIME MIN. | I INHR | Q CFS | %    | SLOPE | DA IN. | VEL FPS | L FT. | TIP MIN | N VALUE | HF FT. |
|----------|--------|----------|--------------|------|------|--------|-----------|--------|-------|------|-------|--------|---------|-------|---------|---------|--------|
| X130     | X128   | 2.40     | 2.40         | 0.85 | 2.04 | 2.04   | 6.11      | 6.75   | 13.8  | 4.55 | 15    | 11.2   | 24.0    | 0.04  | 0.013   | 0.14    |        |
| X128     | X124   | 2.40     | 2.40         | 0.00 | 2.04 | 6.15   | 6.74      | 13.8   | 0.76  | 21   | 5.7   | 18.0   | 0.05    | 0.013 | 0.01    | 0.09    |        |
| X126     | X124   | 0.12     | 0.12         | 0.72 | 0.09 | 0.09   | 5.00      | 7.07   | 0.6   | 0.01 | 15    | 0.5    | 39.0    | 1.31  | 0.013   | 0.00    |        |
| X124     | X122   | 2.52     | 0.00         | 2.13 | 6.31 | 6.70   | 14.3      | 0.40   | 24    | 4.5  | 46.0  | 0.17   | 0.013   | 0.18  | 0.18    |         |        |
| X122     | X120   | 0.46     | 0.46         | 0.90 | 0.41 | 0.41   | 5.00      | 7.07   | 2.9   | 0.17 | 15    | 2.4    | 6.0     | 0.04  | 0.012   | 0.01    |        |
| X120     | X118   | 0.40     | 0.50         | 0.30 | 0.01 | 0.43   | 5.04      | 7.05   | 3.0   | 0.18 | 15    | 2.4    | 105.0   | 0.71  | 0.012   | 0.19    |        |
| X118     | X114   | 0.03     | 0.53         | 0.30 | 0.01 | 0.44   | 5.76      | 6.85   | 3.0   | 0.18 | 15    | 2.4    | 6.0     | 0.04  | 0.012   | 0.01    |        |
| X116     | X114   | 0.45     | 0.45         | 0.90 | 0.41 | 0.41   | 5.00      | 7.07   | 2.9   | 0.55 | 12    | 3.6    | 8.0     | 0.04  | 0.012   | 0.04    |        |
| X114     | X112   | 2.94     | 2.94         | 0.08 | 0.23 | 0.23   | 6.00      | 6.78   | 1.6   | 0.16 | 12    | 2.0    | 14.0    | 0.12  | 0.012   | 0.02    |        |
| X112     | X110   | 0.20     | 3.92         | 0.00 | 1.07 | 6.12   | 6.75      | 7.2    | 0.09  | 24   | 2.3   | 116.0  | 0.84    | 0.012 | 0.10    |         |        |
| X110     | X106   | 1.38     | 1.38         | 0.79 | 1.09 | 1.09   | 5.00      | 7.07   | 7.7   | 0.46 | 18    | 4.4    | 16.0    | 0.06  | 0.012   | 0.07    |        |
| X106     | X102   | 0.97     | 5.90         | 0.00 | 2.34 | 7.15   | 6.49      | 15.2   | 0.38  | 24   | 4.8   | 8.0    | 0.03    | 0.012 | 0.03    |         |        |
| X102     | X100   | 0.41     | 8.02         | 0.00 | 4.47 | 7.18   | 6.48      | 28.9   | 1.64  | 24   | 9.2   | 156.0  | 0.28    | 0.013 | 2.55    |         |        |
| X122     | X120   | 0.46     | 0.46         | 0.90 | 0.18 | 0.18   | 5.00      | 7.07   | 1.3   | 0.11 | 12    | 1.6    | 50.0    | 0.51  | 0.012   | 0.05    |        |
| X120     | X118   | 0.20     | 0.20         | 0.90 | 0.00 | 0.18   | 5.51      | 6.92   | 1.3   | 0.03 | 15    | 1.0    | 75.0    | 1.21  | 0.012   | 0.02    |        |
| X118     | X114   | 0.03     | 0.03         | 0.90 | 1.09 | 1.09   | 5.00      | 7.07   | 7.7   | 0.46 | 18    | 4.4    | 16.0    | 0.06  | 0.012   | 0.07    |        |
| X114     | X112   | 0.45     | 0.45         | 0.90 | 0.08 | 0.08   | 5.00      | 7.07   | 0.6   | 0.02 | 12    | 0.7    | 7.0     | 0.16  | 0.012   | 0.00    |        |
| X112     | X110   | 0.43     | 0.54         | 0.00 | 0.49 | 5.32   | 6.97      | 3.4    | 0.23  | 15   | 2.8   | 25.0   | 0.15    | 0.012 | 0.06    |         |        |
| X110     | X106   | 1.45     | 1.45         | 0.90 | 1.31 | 1.31   | 5.00      | 7.07   | 9.2   | 0.77 | 18    | 5.2    | 300.0   | 0.96  | 0.013   | 2.31    |        |
| X108     | X106   | 1.35     | 1.35         | 0.88 | 1.19 | 1.19   | 5.00      | 7.07   | 8.4   | 0.14 | 24    | 2.7    | 47.0    | 0.29  | 0.013   | 0.06    |        |
| X106     | X104   | 1.09     | 3.89         | 0.81 | 0.88 | 3.38   | 5.96      | 6.80   | 22.9  | 0.31 | 30    | 4.7    | 48.0    | 0.17  | 0.013   | 0.15    |        |
| X104     | X102   | 0.97     | 4.86         | 0.50 | 0.49 | 3.86   | 6.13      | 6.75   | 26.1  | 0.40 | 30    | 5.3    | 223.0   | 0.70  | 0.013   | 0.90    |        |
| X102     | X100   | 0.41     | 14.74        | 0.51 | 0.21 | 9.63   | 7.77      | 6.34   | 61.0  | 0.37 | 42    | 6.3    | 230.0   | 0.60  | 0.013   | 0.85    |        |

| ULTIMATE CONDITIONS                      |                               |                                   |                                |              |
|------------------------------------------|-------------------------------|-----------------------------------|--------------------------------|--------------|
| Str. #                                   | Total Drainage Area, DA (Ac.) | ImperVIOUS Drainage Area, I (Ac.) | Grassed Drainage Area, G (Ac.) | Rational "C" |
| X130                                     | 2.40                          | 2.20                              | 0.20                           | 0.85         |
| X126                                     | 0.12                          | 0.09                              | 0.04                           | 0.72         |
| X118                                     | 5.30                          | 4.05                              | 1.25                           | 0.76         |
| X116                                     | 0.99                          | 0.99                              | 0.00                           | 0.90         |
| X112                                     | 0.70                          | 0.58                              | 0.12                           | 0.80         |
| X110                                     | 1.45                          | 1.45                              | 0.00                           | 0.90         |
| X108                                     | 1.35                          | 1.30                              | 0.05                           | 0.88         |
| X106                                     | 1.09                          | 0.92                              | 0.17                           | 0.81         |
| X104                                     | 0.97                          | 0.32                              | 0.64                           | 0.50         |
| X102                                     | 0.41                          | 0.14                              | 0.26                           | 0.51         |
| Rational "C" = (I/DA)(0.9) + (G/DA)(0.3) |                               |                                   |                                |              |

PROFILE SCALE:  
VERT: 1" = 5'  
HORIZ: 1" = 50'



| REVISIONS |             |      |
|-----------|-------------|------|
| NO.       | DESCRIPTION | DATE |
|           |             |      |
|           |             |      |
|           |             |      |
|           |             |      |

TAX MAP GS122 W58C 221NW08

PLAT 10829

4TH ELECTION DISTRICT  
MONTGOMERY COUNTY  
MARYLAND

PARCEL H-2 DERWOOD  
SOMERVILLE ADDITION

PARAMOUNT SELF  
STORAGE

PROJ. MGR DCM

DRAWN BY MSH

SCALE AS NOTED

DATE 01.09.2025

DRAINAGE STUDY PLAN

EXISTING AND ULTIMATE  
CONDITIONS,  
COMPUTATIONS, AND  
HGL PROFILE

PROJECT NO. 2023.120.12

SHEET NO. 2 OF 2