

# Townhomes at Muir Woods

## 770 John James Audubon Parkway

### Amherst, New York

AGENCIES

ENGINEERING DEPARTMENT  
NAME/TITLE: JEFFERY BURROUGHS, P.E. – TOWN ENGINEER  
COMPANY/DEPT: TOWN OF AMHERST ENGINEERING DEPARTMENT  
ADDRESS: 1100 NORTH FOREST ROAD  
WILLIAMSVILLE, NEW YORK 14221  
  
TELEPHONE 716-631-7154

PLANNING & ZONING DEPARTMENT  
NAME/TITLE: DANIEL HOWARD – PLANNING DIRECTOR  
COMPANY/DEPT: TOWN OF AMHERST PLANNING DEPARTMENT  
ADDRESS: 5583 MAIN STREET  
WILLIAMSVILLE, NEW YORK 14221  
  
TELEPHONE 716-631-7051

BUILDING DEPT.  
NAME/TITLE: BERKE, MARK S. – COMMISSIONER OF BUILDING  
COMPANY/DEPT.: TOWN OF AMHERST BUILDING DEPT.  
ADDRESS: 5583 MAIN ST.  
AMHERST, NEW YORK 14221  
  
TELEPHONE 716-631-7080

ECDOH  
NAME/TITLE: ERIE COUNTY DEPARTMENT OF HEALTH  
COMPANY/DEPT.: 503 KENSINGTON AVE  
ADDRESS: BUFFALO, NEW YORK 14214  
  
TELEPHONE 716-961-6854

NYSDEC  
NAME/TITLE: NEW YORK STATE DEPT. OF ENVIRONMENTAL  
COMPANY/DEPT: CONSERVATION  
ADDRESS: 700 DELAWARE AVE.  
BUFFALO, NEW YORK 14209  
  
TELEPHONE 716-851-7070

UTILITIES

NATURAL GAS  
COMPANY/DEPT.: NATIONAL FUEL GAS CORP.  
ADDRESS: 6363 MAIN STREET  
WILLIAMSVILLE, NEW YORK 14221  
  
TELEPHONE 716-857-7000

TELEPHONE COMPANY  
COMPANY/DEPT: VERIZON  
ADDRESS: 65 FRANKLIN STREET  
BUFFALO, NEW YORK 14203  
  
TELEPHONE 716-840-8748

CABLE COMPANY  
COMPANY/DEPT: TIME WARNER  
ADDRESS: 789 CHURCH ROAD  
WEST SENECA, NEW YORK  
  
TELEPHONE 716-558-8615

ELECTRIC COMPANY  
COMPANY/DEPT: NATIONAL GRID  
ADDRESS: 144 KENSINGTON AVENUE  
BUFFALO, NEW YORK 14214  
  
TELEPHONE 716-236-2738

WATER  
COMPANY/DEPT.: ERIE COUNTY WATER AUTHORITY  
ADDRESS: 3030 UNION ROAD  
CHEEKTOWAGA, NEW YORK 14227  
  
TELEPHONE 716-684-1510

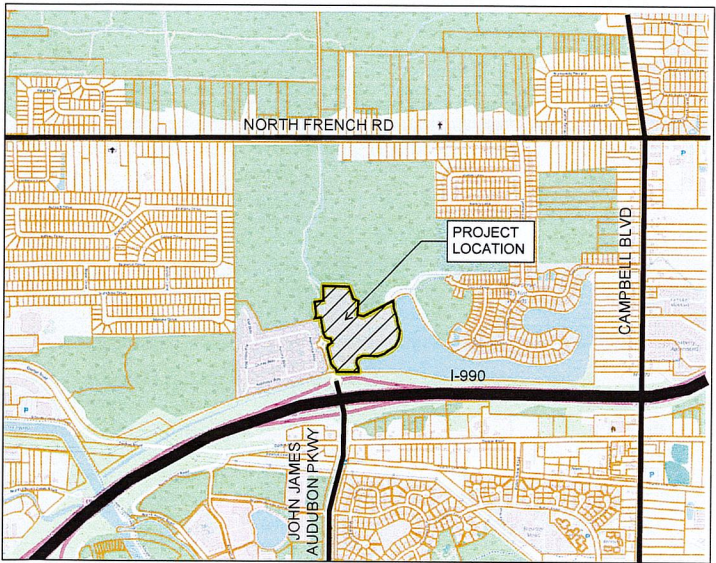
DIG SAFELY NEW YORK  
  
TELEPHONE 1-800-962-7962

DESIGN CONSULTANTS

PROJECT SURVEYOR  
NAME/TITLE: GPI ENGINEERING, LANDSCAPE,  
COMPANY/DEPT: ARCHITECTURE & SURVEYING, LLP  
ADDRESS: 4950 GENESEE STREET, SUITE 100  
BUFFALO, NEW YORK 14225  
  
TELEPHONE 716-633-4844

OWNER/DEVELOPER

NAME: 770 JJAP LLC  
ADDRESS: 50 FOUNTAIN PLAZE, SUITE 500  
BUFFALO NY, 14202  
CONTACT: ERIK WAGNER  
TELEPHONE (716) 631-8000



LOCATION MAP  
NOT TO SCALE

CARMINA WOOD  
DESIGN

March 2026  
Rev. July 2026

| DRAWING NO. | DRAWING TITLE                             |
|-------------|-------------------------------------------|
| -           | COVER SHEET                               |
| -           | LAND SURVEY (PREPARED BY GPI ENGINEERING) |
| C-001       | EROSION CONTROL PLAN                      |
| C-002       | EROSION CONTROL DETAILS                   |
| C-100       | SITE PLAN                                 |
| C-101       | ENLARGED SITE PLAN                        |
| C-102       | ENLARGED SITE PLAN                        |
| C-103       | ENLARGED SITE PLAN                        |
| C-104       | PARCEL PLAN                               |
| C-105       | SITE DETAILS                              |
| C-200       | GRADING PLAN                              |
| C-201       | ENLARGED GRADING PLAN                     |
| C-202       | ENLARGED GRADING PLAN                     |
| C-203       | ENLARGED GRADING PLAN                     |
| C-300       | DRAINAGE PLAN                             |
| C-301       | ENLARGED DRAINAGE PLAN                    |
| C-302       | ENLARGED DRAINAGE PLAN                    |
| C-303       | ENLARGED DRAINAGE PLAN                    |
| C-304       | BIO-RETENTION 1 PLAN & DETAIL             |
| C-305       | BIO-RETENTION 2 PLAN & DETAIL             |
| C-306       | BIO-RETENTION 3 PLAN & DETAIL             |
| C-307       | BIO-RETENTION 4 PLAN & DETAIL             |
| C-308       | BIO-RETENTION 5 PLAN & DETAIL             |
| C-309       | STORM DRAINAGE DETAILS                    |
| C-400       | UTILITY PLAN                              |
| C-401       | ENLARGED UTILITY PLAN                     |
| C-402       | ENLARGED UTILITY PLAN                     |
| C-403       | ENLARGED UTILITY PLAN                     |
| C-404       | SANITARY SEWER DETAILS                    |
| C-405       | SANITARY SEWER DETAILS                    |
| C-406       | WATER DETAILS                             |
| C-407       | WATER DETAILS                             |
| C-408       | UTILITY NOTES                             |
| L-100       | OVERALL LANDSCAPE PLAN                    |
| L-101       | ENLARGED LANDSCAPE PLAN                   |
| L-102       | ENLARGED LANDSCAPE PLAN                   |
| L-103       | ENLARGED LANDSCAPE PLAN                   |
| L-104       | LANDSCAPE DETAILS PLANT SCHEDULE          |
| LP-100      | OVERALL LIGHTING PLAN                     |
| LP-101      | ENLARGED LIGHTING PLAN                    |
| LP-102      | ENLARGED LIGHTING PLAN                    |
| LP-103      | ENLARGED LIGHTING PLAN                    |
| LP-104      | LIGHTING DETAILS                          |
| FT-100      | FIRE TRUCK TURNING PLAN                   |

| REVISIONS: |                        |            |
|------------|------------------------|------------|
| No.        | Description            | Date       |
| 1          | Rev. Per Town Comments | 07/28/2026 |

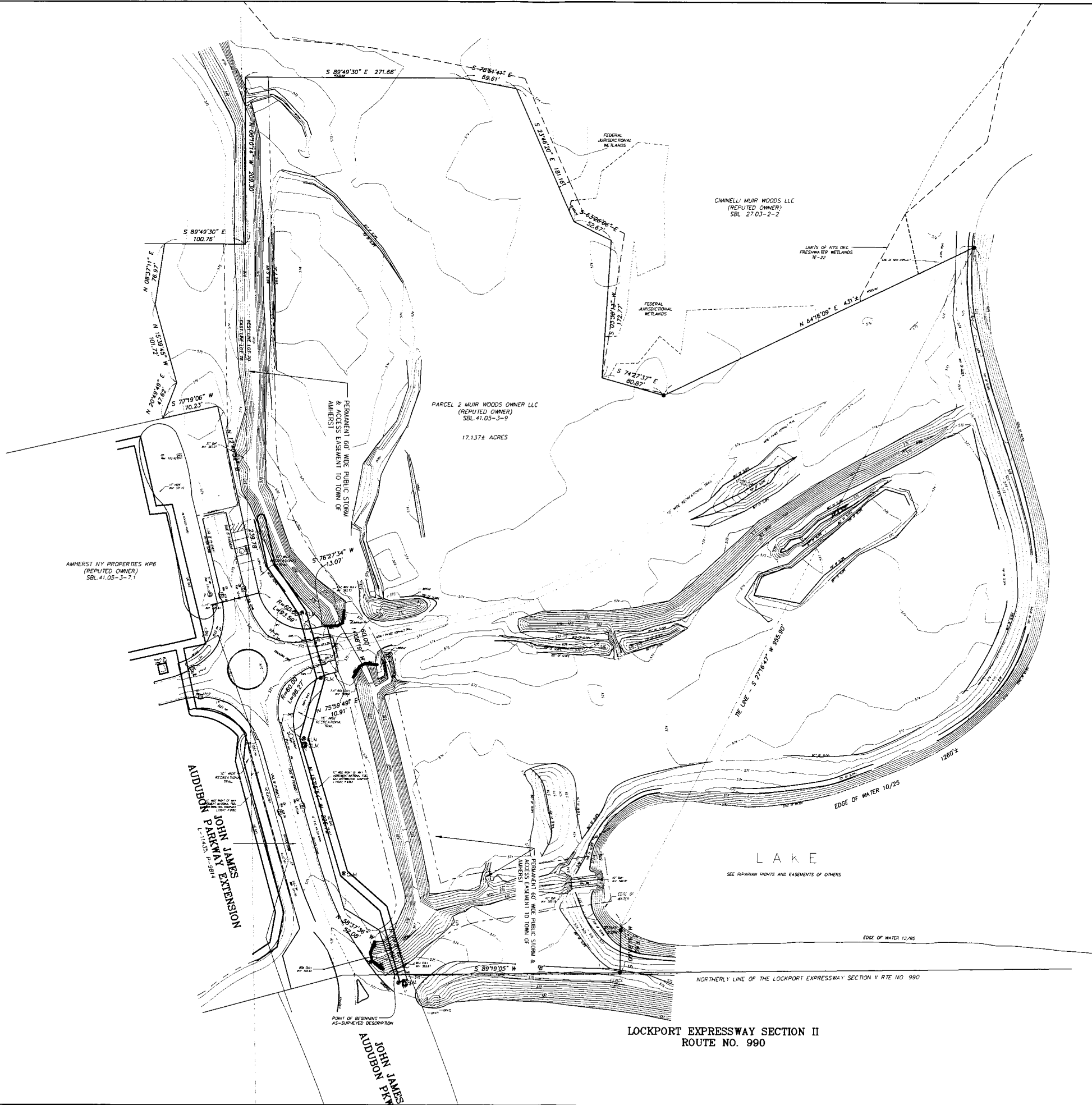
Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York



NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.  
• SET OR EX. 5/8" REBAR

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7208 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ALL DISTANCES ARE IN FEET AND INCHES.  
ALL BEARS ARE IN THE NEW YORK STATE AND  
ADJACENT STATES AND ARE NOT TO BE  
CONSIDERED AS A PART OF THE SURVEY.  
CENTRAL MERIDIAN OF 181° 15' WEST



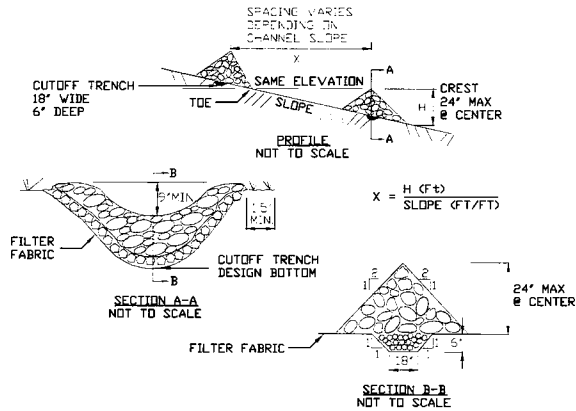
| DATE | REVISION/TYPE |
|------|---------------|
|      |               |
|      |               |
|      |               |
|      |               |
|      |               |



SCALE: 1"=60'

Project No: 25-4080

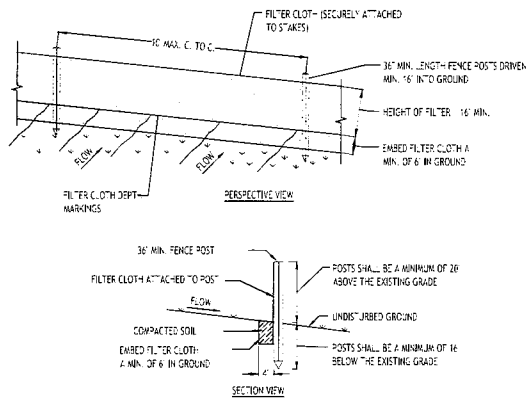
770 John James Audubon Parkway  
Amherst, New York



### CONSTRUCTION SPECIFICATIONS

- STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
- SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS ON THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOP OF THE UPSTREAM DAM.
- EXTEND THE STONE A MINIMUM OF 15 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE. MAXIMUM DRAINAGE AREA 2 ACRES.

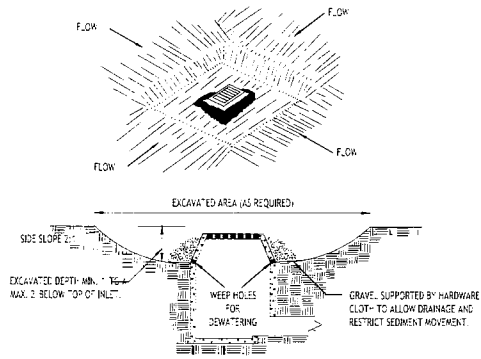
### STONE CHECK DAM DETAIL NOT TO SCALE



### CONSTRUCTION SPECIFICATIONS

- WOVEN FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "I" OR "U" TYPE OR HARDWOOD.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MARIKINOL, STABILUM, 740N, OR APPROVED EQUIVALENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

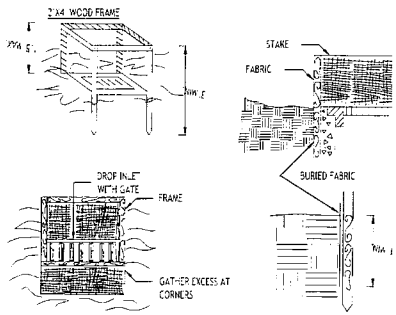
### SILT FENCE DETAIL NOT TO SCALE



### CONSTRUCTION SPECIFICATIONS

- CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
- GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
- WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
- UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES TO FINAL GRADE. COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

### INLET PROTECTION DETAIL 1 NOT TO SCALE

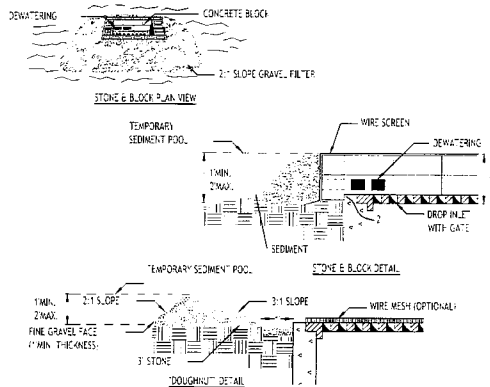


### CONSTRUCTION SPECIFICATIONS

- FILTER FABRIC SHALL HAVE AN LOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 16 INCHES DEEP. SPACES GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- 4 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY. MAXIMUM DRAINAGE AREA 1 ACRE.

### INLET PROTECTION DETAIL 2 NOT TO SCALE

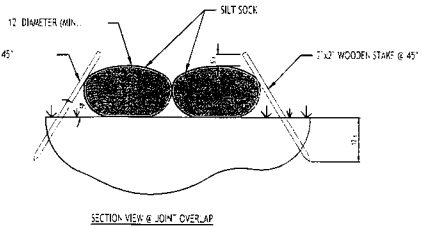
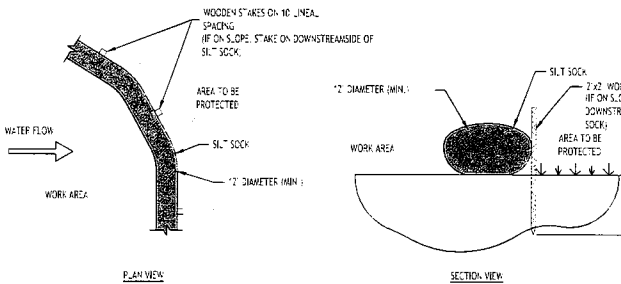
NOTE: INSTALL ONE OF THE INLET PROTECTION OPTIONS SHOWN PRIOR TO CONSTRUCTION



### CONSTRUCTION SPECIFICATIONS

- LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
- HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- USE CLEAN STONE OR GRAVEL 1/2 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
- FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE.

### INLET PROTECTION DETAIL 3 NOT TO SCALE



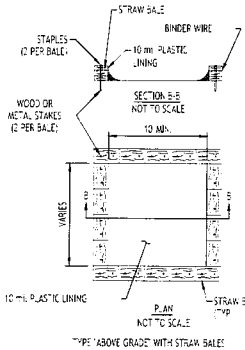
### NOTES

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK SHALL BE OVERLAPPED 12" AT JOINTS AND STAKED ON EACH SIDE OF THE SOCK AT A 45° ANGLE.

### SILT SOCK DETAIL NOT TO SCALE



### NOTES

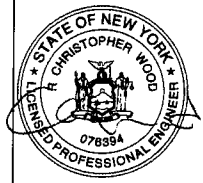
- ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
- A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
- HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

### CONCRETE WASHOUT DETAIL NOT TO SCALE

TOWN OF AMHERST APPROVAL BOX:

APPROVAL BOX FOR TOWN OF AMHERST. Includes fields for Date, Drawn By, Scale, and Drawing No. The box is currently empty.

| REVISIONS:             | Date       |
|------------------------|------------|
| No. Description        | 07/28/2026 |
| Rev. For Town Comments |            |



DRAWING NAME:  
Demolition & Erosion Control Details

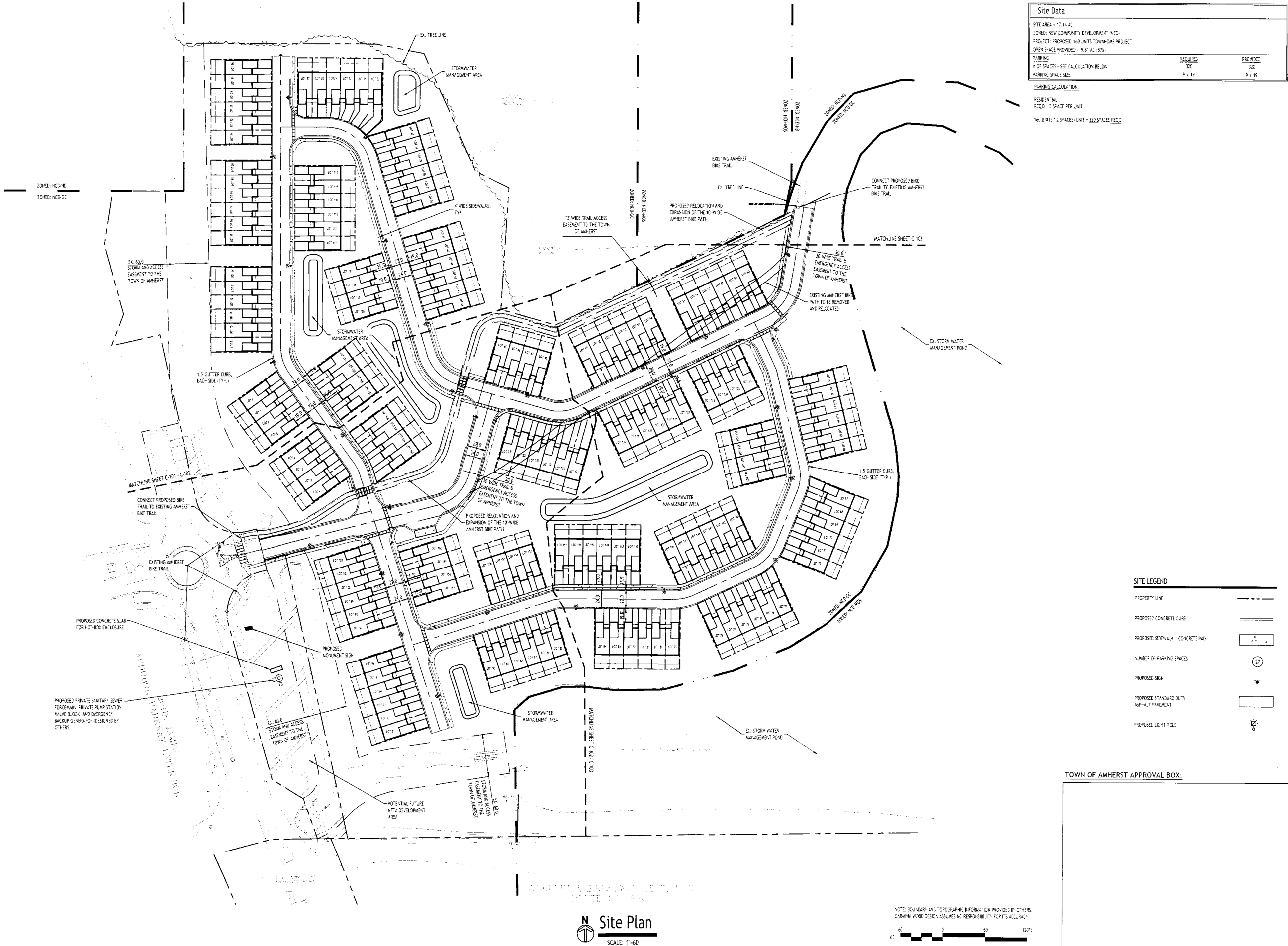
Date: 02.13.26  
Drawn By: D. Feves  
Scale: As Noted

DRAWING NO.

C-002

Project No: 25-4080





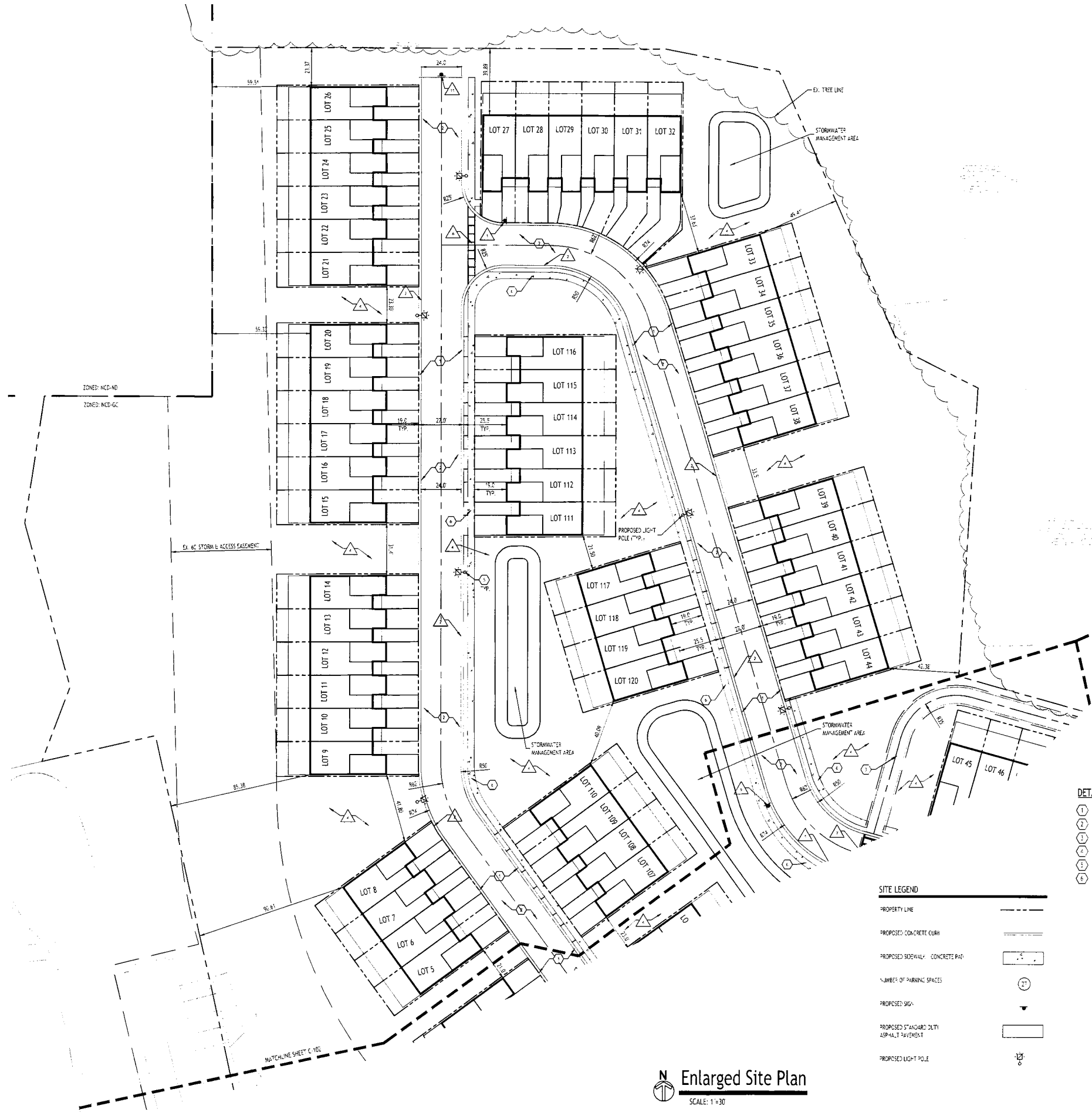
| Site Data                                    |          |          |
|----------------------------------------------|----------|----------|
| SITE AREA = 17.14 AC                         |          |          |
| ZONED: NEW COMMUNITY DEVELOPMENT (NCD)       |          |          |
| PROJECT: PROPOSED 160 UNITS TOWNHOME PROJECT |          |          |
| OPEN SPACE PROVIDED = 9.81 AC (57%)          |          |          |
| PARKING                                      | REQUIRED | PROVIDED |
| # OF SPACES - SEE CALCULATION BELOW          | 320      | 320      |
| PARKING SPACE SIZE                           | 9 x 19   | 9 x 19   |

PARKING CALCULATION:  
RESIDENTIAL  
REQD = 2 SPACE PER UNIT  
160 UNITS \* 2 SPACES/UNIT = 320 SPACES REQD

#### SITE LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE CURB
- PROPOSED SIDEWALK - CONCRETE PAV
- NUMBER OF PARKING SPACES
- PROPOSED SIGN
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED LIGHT POLE

#### TOWN OF AMHERST APPROVAL BOX:



**Enlarged Site Plan**  
SCALE: 1" = 30'

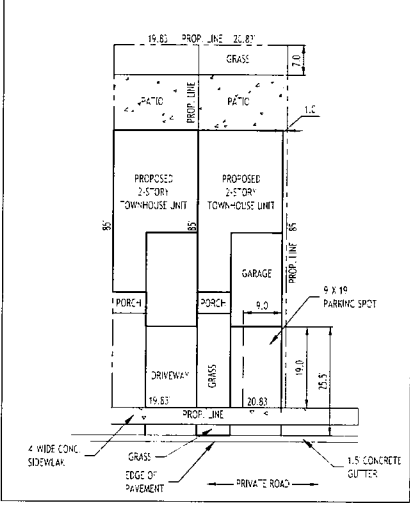
NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

- DETAIL LEGEND** SEE SITE DETAIL SHEET
- 1 CONCRETE GUTTER
  - 2 STANDARD DUTY ASPHALT
  - 3 ASPHALT TRAIL
  - 4 EXTERIOR CONCRETE SLAB ON GRADE
  - 5 LIGHT POLE FOUNDATION
  - 6 CONCRETE SIDEWALK

- SITE LEGEND**
- PROPERTY LINE
  - PROPOSED CONCRETE CURB
  - PROPOSED SIDEWALK - CONCRETE PAV.
  - NUMBER OF PARKING SPACES
  - PROPOSED SIGN
  - PROPOSED STANDARD DUTY ASPHALT PAVEMENT
  - PROPOSED LIGHT POLE

| Site Data                                      |         |          |
|------------------------------------------------|---------|----------|
| SITE AREA = 17.14 AC                           |         |          |
| ZONED: NEW COMMUNITY DEVELOPMENT INC.          |         |          |
| PROJECT: PROPOSED 160 UNITS "TOWNHOME PROJECT" |         |          |
| OPEN SPACE PROVIDED = 9.8' AC (57%)            |         |          |
| PARKING                                        | REQUIRE | PROVIDED |
| # OF SPACES - SEE CALCULATION BELOW            | 320     | 320      |
| PARKING SPACE SIZE                             | 6 x 15  | 6 x 15   |

PARKING CALCULATION:  
RESIDENTIAL  
REQD = 2 SPACE PER UNIT  
160 UNITS \* 2 SPACES/UNIT = 320 SPACES REQD



**TYP. TOWNHOUSE LOT**  
SCALE: 1" = 20'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

- NOTE LEGEND**
- 1 INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1E
  - 2 UNIT OF PAVEMENT
  - 3 RUNOUT CURB IN 2' OF WATCHLINE CURB
  - 4 LANDSCAPED AREA - SEE LANDSCAPE PLAN. IF NO PLANTINGS, INSTALL TOPSOIL & SEED
  - 5 SAWCUT LINE MATCH EXISTING EDGE OF PAVEMENT
  - 6 6" WIDE WHITE PAVEMENT STRIPES @ 5' SPACING CROSSWALK LINES
  - 7 12" WIDE PROPOSED CROSSWALK (TYPE 1E, W/ 20' MIN. EXPOSURE PAINT)
  - 8 INSTALL YIELD SIGN - M.U.T.C.D. SIGN NO. R7-2C
  - 9 INSTALL M.U.T.C.D. W/ 4' PEDESTRIAN CROSSING SIGN WITH M.U.T.C.D. W/ 4' ASP. AHEAD SUPPLEMENTAL PLAQUE
  - 10 INSTALL CIRCULAR INTERSECTION SIGN - M.U.T.C.D. SIGN NO. W2-4
  - 11 INSTALL DEAD-END SIGN - M.U.T.C.D. SIGN NO. W14-1

TOWN OF AMHERST APPROVAL BOX:

Approval box for Town of Amherst, including fields for signature and date.

| REVISIONS: | No. | Description            | Date       |
|------------|-----|------------------------|------------|
|            | 1   | Rev. Per Town Comments | 07/28/2024 |



DRAWING NAME:  
**Enlarged Site Plan**

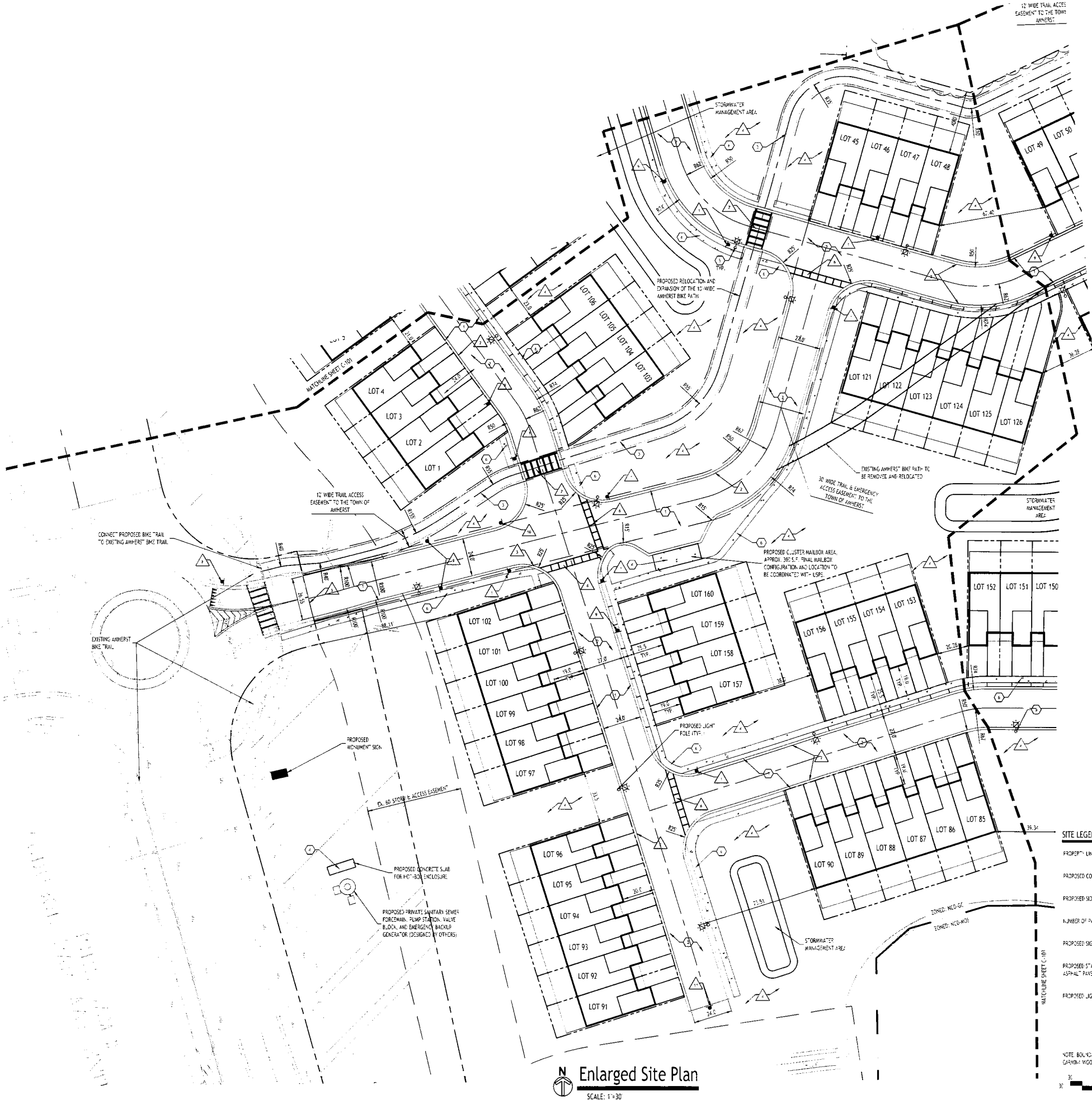
Date: 07.12.24  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

**C-101**

Project No: 25-4080

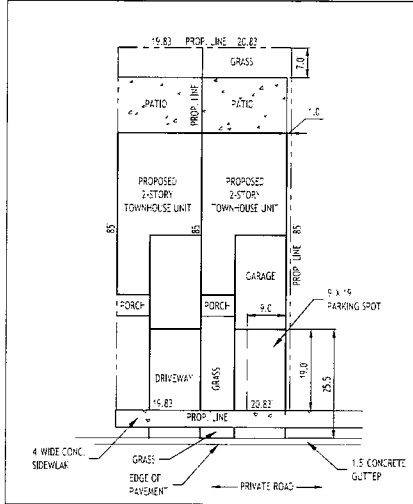




Enlarged Site Plan  
SCALE: 1"=30'

| Site Data                                      |         |          |
|------------------------------------------------|---------|----------|
| SITE AREA - 17.14 AC                           |         |          |
| ZONED - NEW COMMUNITY DEVELOPMENT (NCD)        |         |          |
| PROJECT - PROPOSED 160 UNITS TOWNHOUSE PROJECT |         |          |
| OPEN SPACE PROVIDED - 9.81 AC (57%)            |         |          |
| PARKING                                        | REQUIRE | PROVIDED |
| # OF SPACES - SEE CALCULATION BELOW            | 320     | 370      |
| PARKING SPACE SIZE                             | 9 x 19  | 9 x 19   |

PARKING CALCULATION:  
RESIDENTIAL  
REQD - 3 SPACE PER UNIT  
160 UNITS \* 2 SPACES/UNIT = 320 SPACES REQD



TYP. TOWNHOUSE LOT  
SCALE: 1"=20'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

- DETAIL LEGEND SEE SITE DETAIL SHEET
- 1 CONCRETE GUTTER
  - 2 STANDARD DUTY ASPHALT
  - 3 ASPHALT TRAIL
  - 4 EXTERIOR CONCRETE SLAB ON GRADE
  - 5 LIGHT POLE TO JUNCTION
  - 6 CONCRETE SIDEWALK

- SITE LEGEND
- PROPERTY LINE
  - PROPOSED CONCRETE CURB
  - PROPOSED SIDEWALK - CONCRETE PAD
  - NUMBER OF PARKING SPACES
  - PROPOSED SIGN
  - PROPOSED STANDARD DUTY ASPHALT PAVEMENT
  - PROPOSED LIGHT POLE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

- NOTE LEGEND
- 1 INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R4-1B
  - 2 LIMIT OF PAVEMENT
  - 3 RADIUS CURB IN 2 OR MATCH EXISTING CURB
  - 4 LANDSCAPED AREA - SEE LANDSCAPE PLAN. IF NO PLANTINGS, INSTALL TOPSOIL & SEED
  - 5 SAWCUT LINE - MATCH EXISTING EDGE OF PAVEMENT
  - 6 6" WIDE WHITE PAVEMENT STRIPES & 3" SPACING CROSSWALK LINES
  - 7 10' WIDE PROPOSED CROSSWALK (TYPE 15) W/ 20' MIN. EXPOSURE PAINT
  - 8 INSTALL YIELD SIGN - M.U.T.C.D. SIGN NO. R2-3E
  - 9 INSTALL M.U.T.C.D. W/ 14" PEDESTRIAN CROSSING SIGN - WITH M.U.T.C.D. 10' AHEAD SUPPLEMENTAL PLAQUE
  - 10 INSTALL CIRCULAR INTERSECTION SIGN - M.U.T.C.D. SIGN NO. W2-6
  - 11 INSTALL DEAD END SIGN - M.U.T.C.D. SIGN NO. W4-1

TOWN OF AMHERST APPROVAL BOX:

APPROVAL BOX FOR TOWN OF AMHERST



DRAWING NAME:  
Enlarged Site Plan

Date: 03.13.24  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.  
C-102

Project No: 25-4080

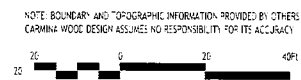
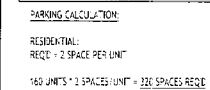
CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

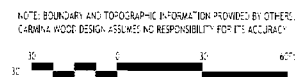
| REVISIONS:             | Date       |
|------------------------|------------|
| No. Description        | 07/29/2024 |
| Rev. Per Town Comments |            |

**All Rights Reserved.** Reuse of these documents without the expressed written permission of CARUBAWOOD DESIGN is prohibited. WARNING it is a violation of article 145 sections 720H and 720I of the New York State Education Law for any person, acting under the direction of a registered architect, licensed engineer or land surveyor to alter this drawing. If altered such P.A., P.E. or L.S. shall affix his or her seal, signature, the date the notation "Altered By" and a specific description of the alteration.



- DETAIL LEGEND** SEE SITE GENERAL SHEET
- |   |                                 |
|---|---------------------------------|
| 1 | CONCRETE GUTTER                 |
| 2 | STANDARD DUTY ASPHALT           |
| 3 | ASPHALT TRAIL                   |
| 4 | EXTERIOR CONCRETE SLAB ON GRADE |
| 5 | LIGHT POLE FOUNDATION           |
| 6 | CONCRETE SIDEWALK               |

- | SITE LEGEND                                   |                                                                                       |
|-----------------------------------------------|---------------------------------------------------------------------------------------|
| PROPERTY LINE                                 |  |
| PROPOSED CONCRETE CURB                        |  |
| PROPOSED SIDEWALK / CONCRETE PAD              |  |
| NUMBER OF PARKING SPACES                      |  |
| PROPOSED SIGN                                 |  |
| PROPOSED STANDARD DUTY<br>FURNITURE PLANTMENT |  |
| PROPOSED LIGHT POLE                           |  |



- ## NOTE LEGEND
- |    |                                                                                                    |
|----|----------------------------------------------------------------------------------------------------|
| 1  | INSTALL STOP SIGN - M.U.T.C.D. SIGN NO. R1-1B                                                      |
| 2  | LIMIT OF PAVEMENT                                                                                  |
| 3  | ROUND CURB IN 2 OR MATCH EXISTING CURB                                                             |
| 4  | LANDSCAPE AREA - SEE LANDSCAPE PLAN. IF NO PLANTING, INSTALL TOPSOIL & SEED                        |
| 5  | SAFETY LINE MATCH EXISTING EDGE OF PAVEMENT                                                        |
| 6  | 6" WIDE WHITE PAVEMENT STRIPES @ 5' SPACING CROSSWAY LINES,                                        |
| 7  | 10' WIDE PROPOSED CROSSWAY TYPE E, W, ZC, MC, EXPDY PAVT.                                          |
| 8  | INSTALL "YIELD" SIGN - M.U.T.C.D. SIGN NO. R-2C                                                    |
| 9  | INSTALL M.U.T.C.D. W-1-2 PEDESTRIAN CROSSING SIGN WITH M.U.T.C.D. W16-9F 4'x6" SUPPLEMENTAL PLAQUE |
| 10 | INSTALL CIRCULAR INTERSECTION SIGN - M.U.T.C.D. SIGN NO. W-6                                       |
| 11 | INSTALL DEAD END SIGN - M.U.T.C.D. SIGN NO. W-6-1                                                  |

TOWN OF AMHERST APPROVAL BOX:

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

| No. | Description            | Date       |
|-----|------------------------|------------|
| 1   | Rev. Per Town Comments | 07/28/2026 |



DRAWING NAME:  
Enlarged  
Site Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-103

Project No: 25-4080



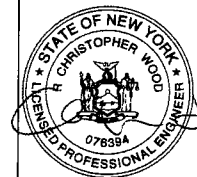
PARKING CALCULATION:

RESIDENTIAL:  
REQD = 2 SPACE PER UNIT

166 UNITS \* 2 SPACES / UNIT = 332 SPACES REQD



TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Parcel Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

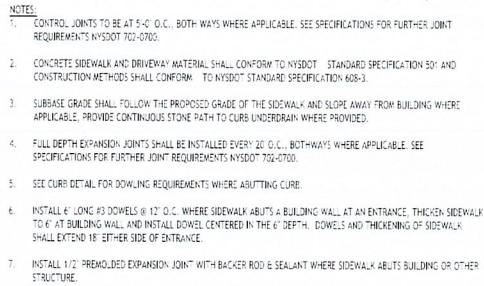
**DRAWING NO.**

C-104

Project No: 25-4080

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York





### CONCRETE SIDEWALK - 6



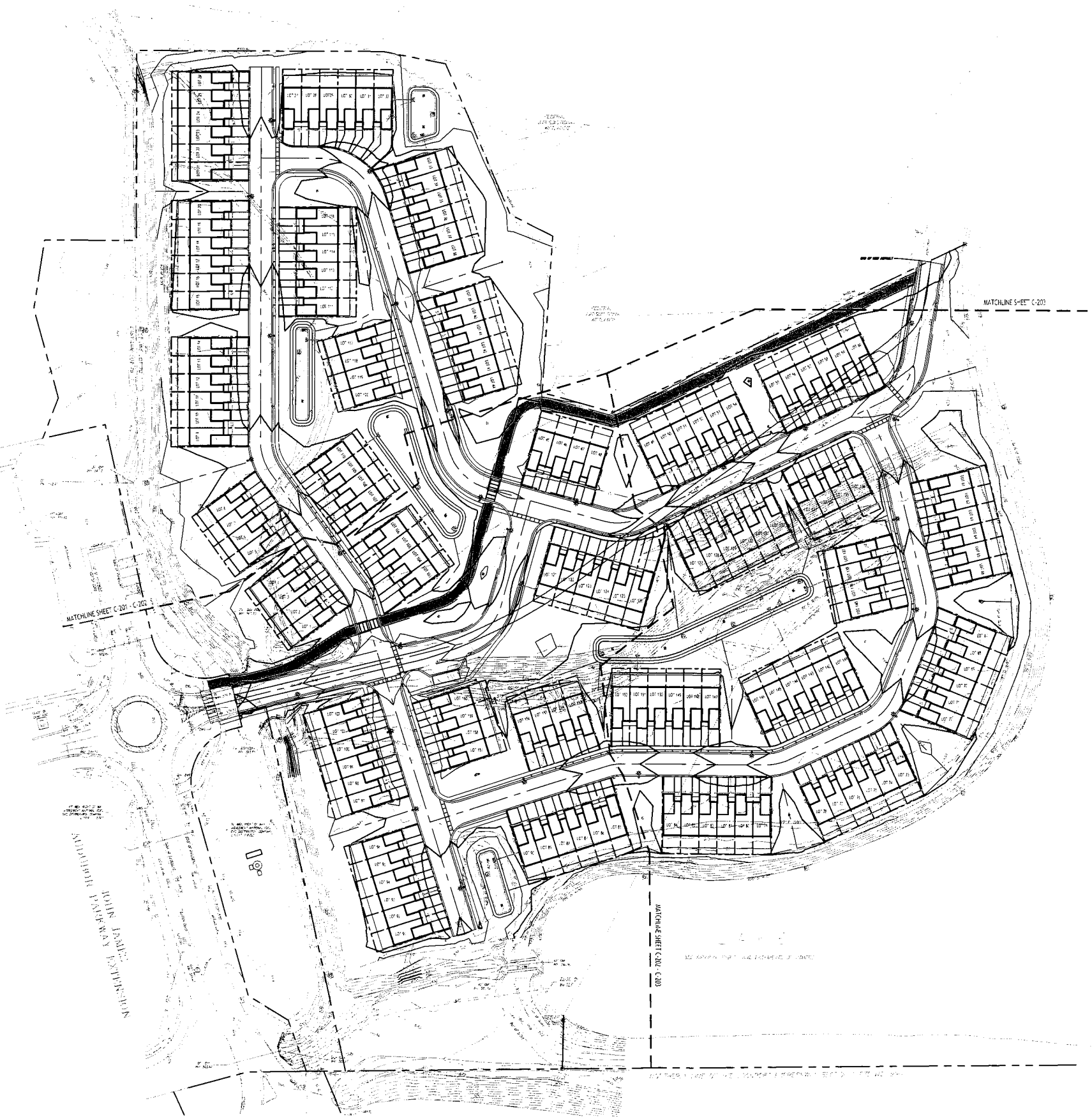
| REVISIONS: |                        |
|------------|------------------------|
| No.        | Description            |
| 1          | Rev. Per Town Comments |
|            | Date 07/28/2026        |



DRAWING NAME:  
Site Details

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.  
**C-105**  
Project No: 25-4080



**Overall Grading Plan**  
SCALE: 1"=60'

NOT: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY

60' 0' 60' 0' 60' 0'

PROPOSED GRADING LEGEND

|                                |                 |
|--------------------------------|-----------------|
| PROPOSED CENTERLINE            | 101'            |
| PROPOSED ELEVATION             | 102.85'         |
| PROPOSED TOP OF CURB ELEVATION | 100.50' 100.00' |
| PROPOSED CATCH BASIN           | 102'            |
| PAVEMENT (GRADE) 1.00'         | 102'            |
| PROPOSED HARD DRIVE            | 102'            |
| PROPOSED MANHOLE               | 102'            |

TOWN OF AMHERST APPROVAL BOX:

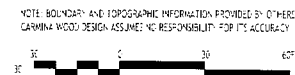


DRAWING NAME:  
Overall  
Grading Plan

Date: 02.13.24  
Drawn By: D. Foyes  
Scale: As Noted

DRAWING NO.  
**C-200**  
Project No: 25-4080

© CARMINA WOOD DESIGN

[illegible]

A circular professional seal for Christopher Wood, a Licensed Professional Engineer in the State of New York. The seal features the text "STATE OF NEW YORK" at the top, "A CHRISTOPHER WOOD" in the center, and "LICENSED PROFESSIONAL ENGINEER" at the bottom. The license number "078394" is printed below the central text. The seal is stamped over the bottom portion of the letterhead.

Project No: 25-4080

Buffalo | Utica | Greensboro



All Rights Reserved. None of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: It is a violation of Article 145, sections 2300H and 2301 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor, to alter this drawing, or allow this drawing to be altered, in any way, or to use this drawing, or allow this drawing to be used, for any purpose other than that for which it was prepared.

© CARMINA WOOD DESIGN



| PROPOSED GRADING LEGEND              |        |
|--------------------------------------|--------|
| PROPOSED CONTOUR                     | 10' 1' |
| PROPOSED 1% ELEVATION                | 576.85 |
| PROPOSED 1% BOTTOM OF CURB ELEVATION | 576.85 |
| PROPOSED CATCH BASIN                 | CB     |
| PROPOSED PAVEMENT                    | P      |
| PROPOSED WALKWAY                     | W      |
| PROPOSED DRIVEWAY                    | D      |

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Enlarged  
Grading Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.  
**C-202**

Project No: 25-4080

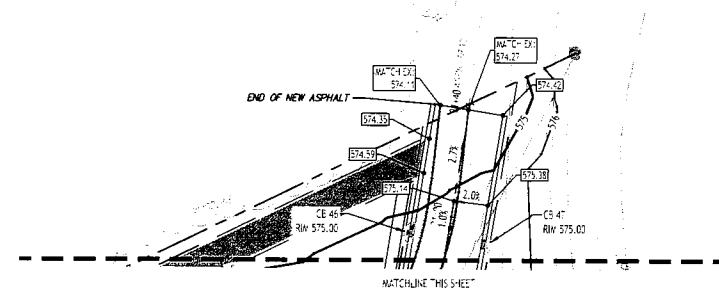
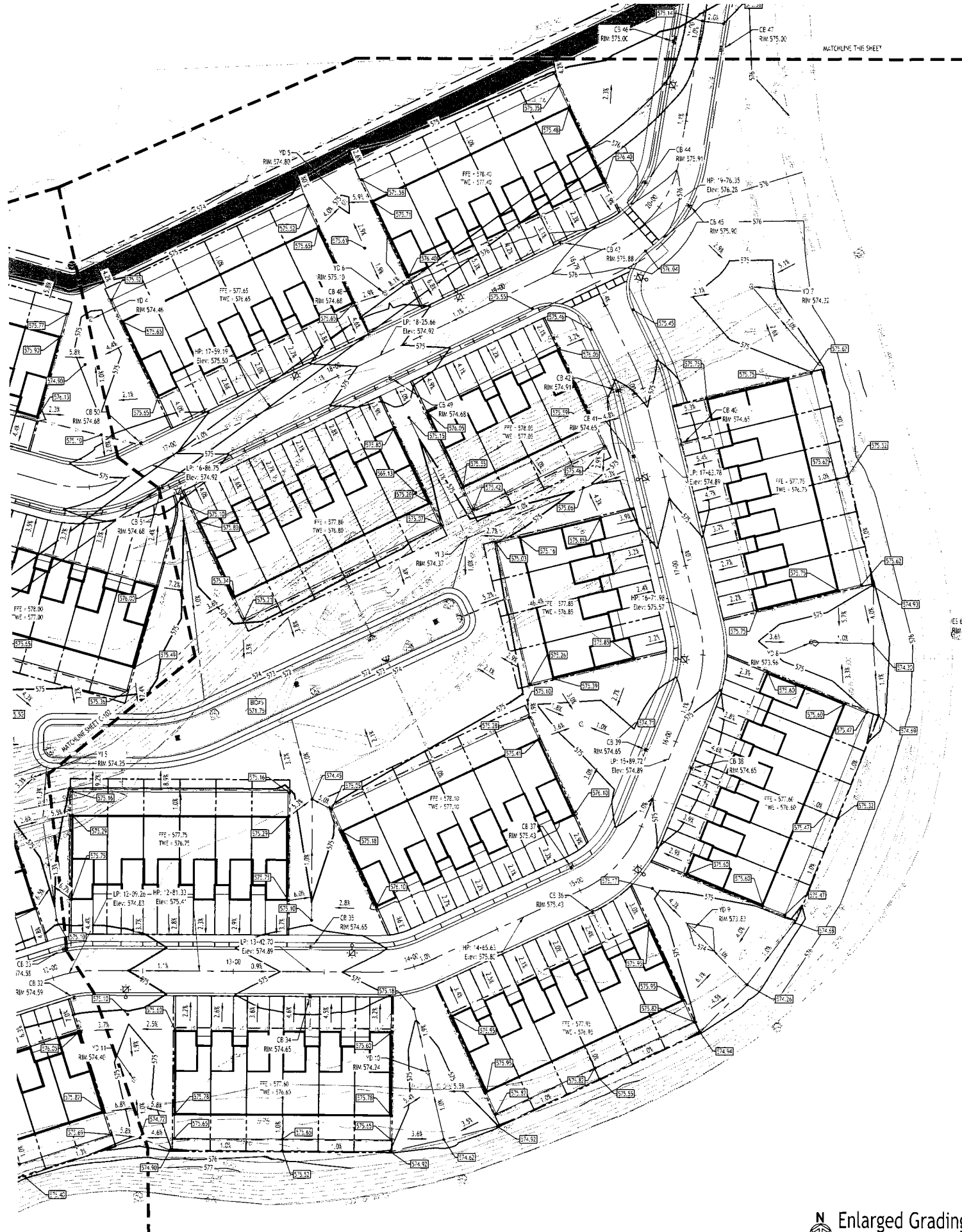
Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

CARMINA WOOD  
DESIGN  
Buffalo | Utica | Greensboro



All Rights Reserved. Review of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: It is a violation of Section 1405, Sections 12000 and 12010 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor, to alter this drawing. If altered such R.A., P.E. or L.L.S. shall affix his or her seal, signature, the date, the initials, signature, the date, the initials, signature and a specific description of the alteration.

© CARMINA WOOD DESIGN



| PROPOSED GRADING LEGEND |     |
|-------------------------|-----|
| PROPOSED LOT ELEVATION  | 101 |
| PROPOSED LOT ELEVATION  | 102 |
| PROPOSED LOT ELEVATION  | 103 |
| PROPOSED LOT ELEVATION  | 104 |
| PROPOSED LOT ELEVATION  | 105 |
| PROPOSED LOT ELEVATION  | 106 |
| PROPOSED LOT ELEVATION  | 107 |
| PROPOSED LOT ELEVATION  | 108 |
| PROPOSED LOT ELEVATION  | 109 |
| PROPOSED LOT ELEVATION  | 110 |
| PROPOSED LOT ELEVATION  | 111 |
| PROPOSED LOT ELEVATION  | 112 |
| PROPOSED LOT ELEVATION  | 113 |
| PROPOSED LOT ELEVATION  | 114 |
| PROPOSED LOT ELEVATION  | 115 |
| PROPOSED LOT ELEVATION  | 116 |
| PROPOSED LOT ELEVATION  | 117 |
| PROPOSED LOT ELEVATION  | 118 |
| PROPOSED LOT ELEVATION  | 119 |
| PROPOSED LOT ELEVATION  | 120 |
| PROPOSED LOT ELEVATION  | 121 |
| PROPOSED LOT ELEVATION  | 122 |
| PROPOSED LOT ELEVATION  | 123 |
| PROPOSED LOT ELEVATION  | 124 |
| PROPOSED LOT ELEVATION  | 125 |
| PROPOSED LOT ELEVATION  | 126 |
| PROPOSED LOT ELEVATION  | 127 |
| PROPOSED LOT ELEVATION  | 128 |
| PROPOSED LOT ELEVATION  | 129 |
| PROPOSED LOT ELEVATION  | 130 |
| PROPOSED LOT ELEVATION  | 131 |
| PROPOSED LOT ELEVATION  | 132 |
| PROPOSED LOT ELEVATION  | 133 |
| PROPOSED LOT ELEVATION  | 134 |
| PROPOSED LOT ELEVATION  | 135 |
| PROPOSED LOT ELEVATION  | 136 |
| PROPOSED LOT ELEVATION  | 137 |
| PROPOSED LOT ELEVATION  | 138 |
| PROPOSED LOT ELEVATION  | 139 |
| PROPOSED LOT ELEVATION  | 140 |
| PROPOSED LOT ELEVATION  | 141 |
| PROPOSED LOT ELEVATION  | 142 |
| PROPOSED LOT ELEVATION  | 143 |
| PROPOSED LOT ELEVATION  | 144 |
| PROPOSED LOT ELEVATION  | 145 |
| PROPOSED LOT ELEVATION  | 146 |
| PROPOSED LOT ELEVATION  | 147 |
| PROPOSED LOT ELEVATION  | 148 |
| PROPOSED LOT ELEVATION  | 149 |
| PROPOSED LOT ELEVATION  | 150 |
| PROPOSED LOT ELEVATION  | 151 |
| PROPOSED LOT ELEVATION  | 152 |
| PROPOSED LOT ELEVATION  | 153 |
| PROPOSED LOT ELEVATION  | 154 |
| PROPOSED LOT ELEVATION  | 155 |
| PROPOSED LOT ELEVATION  | 156 |
| PROPOSED LOT ELEVATION  | 157 |
| PROPOSED LOT ELEVATION  | 158 |
| PROPOSED LOT ELEVATION  | 159 |
| PROPOSED LOT ELEVATION  | 160 |
| PROPOSED LOT ELEVATION  | 161 |
| PROPOSED LOT ELEVATION  | 162 |
| PROPOSED LOT ELEVATION  | 163 |
| PROPOSED LOT ELEVATION  | 164 |
| PROPOSED LOT ELEVATION  | 165 |
| PROPOSED LOT ELEVATION  | 166 |
| PROPOSED LOT ELEVATION  | 167 |
| PROPOSED LOT ELEVATION  | 168 |
| PROPOSED LOT ELEVATION  | 169 |
| PROPOSED LOT ELEVATION  | 170 |
| PROPOSED LOT ELEVATION  | 171 |
| PROPOSED LOT ELEVATION  | 172 |
| PROPOSED LOT ELEVATION  | 173 |
| PROPOSED LOT ELEVATION  | 174 |
| PROPOSED LOT ELEVATION  | 175 |
| PROPOSED LOT ELEVATION  | 176 |
| PROPOSED LOT ELEVATION  | 177 |
| PROPOSED LOT ELEVATION  | 178 |
| PROPOSED LOT ELEVATION  | 179 |
| PROPOSED LOT ELEVATION  | 180 |
| PROPOSED LOT ELEVATION  | 181 |
| PROPOSED LOT ELEVATION  | 182 |
| PROPOSED LOT ELEVATION  | 183 |
| PROPOSED LOT ELEVATION  | 184 |
| PROPOSED LOT ELEVATION  | 185 |
| PROPOSED LOT ELEVATION  | 186 |
| PROPOSED LOT ELEVATION  | 187 |
| PROPOSED LOT ELEVATION  | 188 |
| PROPOSED LOT ELEVATION  | 189 |
| PROPOSED LOT ELEVATION  | 190 |
| PROPOSED LOT ELEVATION  | 191 |
| PROPOSED LOT ELEVATION  | 192 |
| PROPOSED LOT ELEVATION  | 193 |
| PROPOSED LOT ELEVATION  | 194 |
| PROPOSED LOT ELEVATION  | 195 |
| PROPOSED LOT ELEVATION  | 196 |
| PROPOSED LOT ELEVATION  | 197 |
| PROPOSED LOT ELEVATION  | 198 |
| PROPOSED LOT ELEVATION  | 199 |
| PROPOSED LOT ELEVATION  | 200 |

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

1" = 30'

N Enlarged Grading Plan  
SCALE: 1" = 30'

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Enlarged  
Grading Plan

Date: 02.13.26  
Drawn By: D. Foyes  
Scale: As Noted

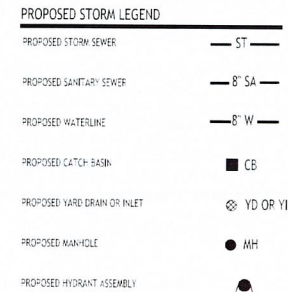
DRAWING NO.  
C-203

Project No: 25-4080

CARMINA WOOD  
DESIGN  
Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York



[illegible]

DRAWING NO.  
**C-300**  
Project No: 25-4080

Buffalo | Utica | Greensboro

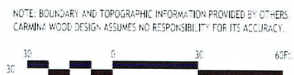
**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

| REVISIONS: |                        |
|------------|------------------------|
| No.        | Description            |
| 1          | Rev. Per Town Comments |





© CARMINA WOOD DESIGN



Project No: 25-4080

Buffalo | Utica | Greensboro





| PROPOSED STORM LEGEND        |          |
|------------------------------|----------|
| PROPOSED STORM SEWER         | ST       |
| PROPOSED SANITARY SEWER      | 6" SA    |
| PROPOSED WATERLINE           | 6" W     |
| PROPOSED CATCH-BASIN         | CB       |
| PROPOSED YARD DRAIN OR INLET | YD OR YI |
| PROPOSED MANHOLE             | MH       |
| PROPOSED HYDRANT ASSEMBLY    |          |

TOWN OF AMHERST APPROVAL BOX:

Enlarged Drainage Plan  
SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



| REVISING:              | Date       |
|------------------------|------------|
| No. Description        | 07/28/2024 |
| Rev. Per Town Comments |            |



DRAWING NAME:  
Enlarged  
Drainage Plan

Date: 03.13.24  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

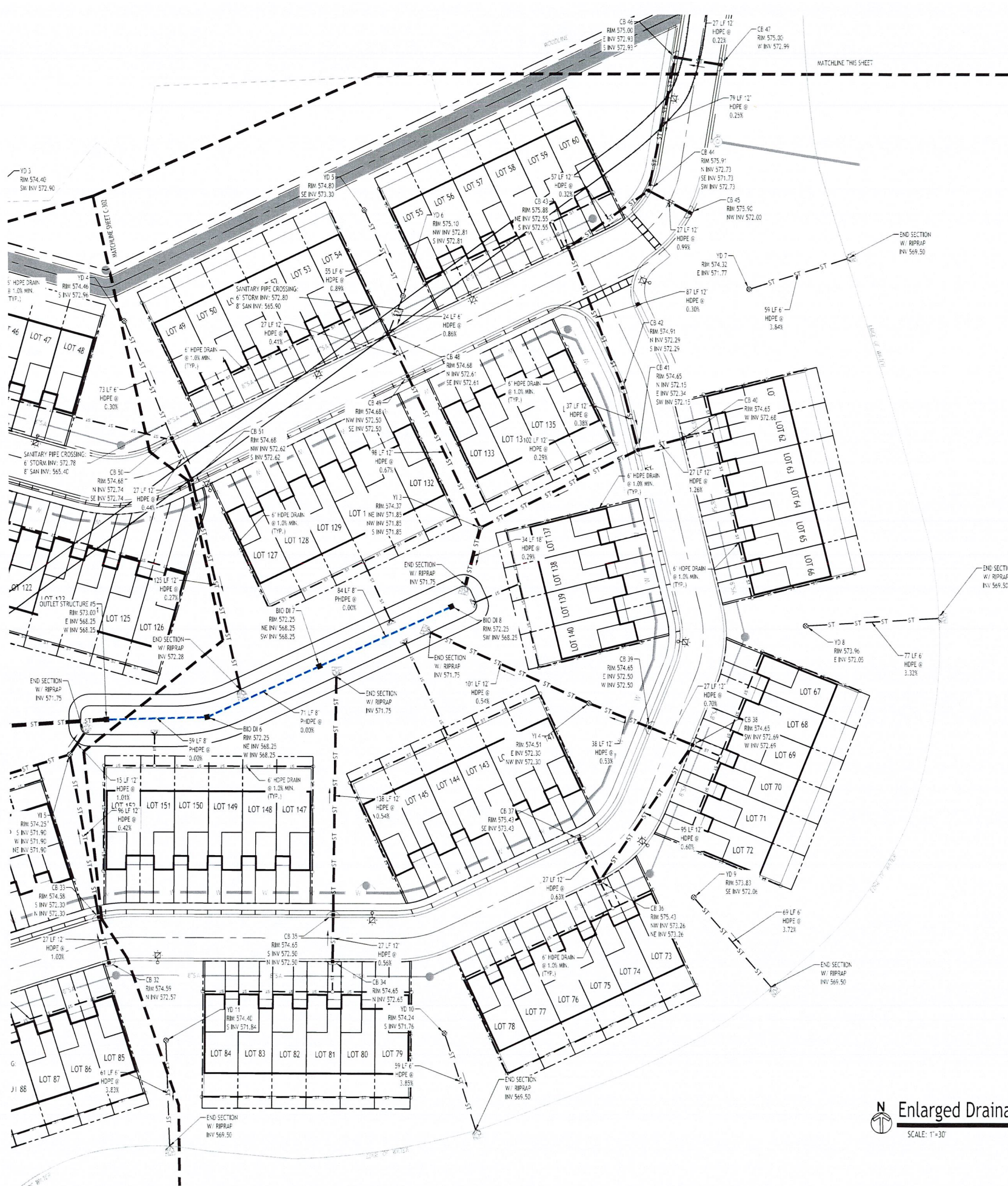
C-302

Project No: 25-4080



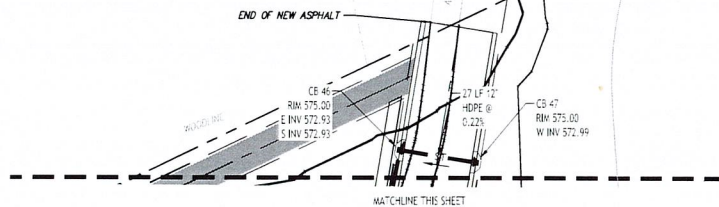
All Rights Reserved. Review of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: It is a violation of article 145 sections 2309B and 2301 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter any drawing. If altered such S.A., P.E. or L.S. shall affix his or her seal, signature, the date the alteration was made, and a specific description of the alteration.

© CARMINA WOOD DESIGN



N Enlarged Drainage Plan  
SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



PROPOSED STORM LEGEND

- PROPOSED STORM SEWER — ST —
- PROPOSED SANITARY SEWER — SA —
- PROPOSED WATERLINE — W —
- PROPOSED CATCH BASIN ■ CB
- PROPOSED YARD DRAIN OR INLET ⊗ YD OR YI
- PROPOSED MANHOLE ● MH
- PROPOSED HYDRANT ASSEMBLY ● HA

TOWN OF AMHERST APPROVAL BOX:

Approval box for the Town of Amherst, New York, containing a large empty space for signatures and dates.

CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

| REVISIONS:               | Date       |
|--------------------------|------------|
| No. Description          | 07/28/2026 |
| 1 Rev. Per Town Comments |            |



DRAWING NAME:  
Enlarged  
Drainage Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

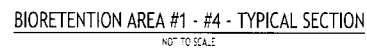
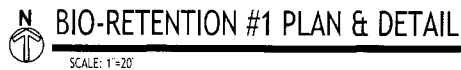
DRAWING NO.

C-303

Project No: 25-4080

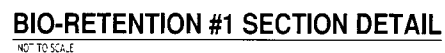


© CARMINA WOOD DESIGN

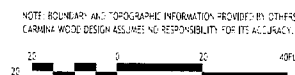


- NOTE: PLANTING SOIL SHALL BE GRADY SAND NOT CONTAINING A MINIMUM OF 15 TO 20% SAND BY VOLUME. ARE LESS THAN 15% CLAY. SOIL SHOULD NOT, WITHIN USING POTS OR IN, WITH "PERMEABILITY OF AT LEAST 1 CENT PER FEET DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WEEDY PLANTS AND MANURE. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN PITS OF 12 TO 18 IN. DEPTH, COMPACTED.
- CHARACTERISTICS SHALL BE
- pH RANGE: 5.5 - 7.0
  - ORGANIC MATTER: 5 - 10%
  - MACROBENTH: 15.0 LB PER ACRE MIN.
  - PHOSPHORUS: 7.5 LB PER ACRE MIN.
  - POTASSIUM: 15.0 LB PER ACRE MIN.
  - SOLUBLE SALT: 500 PPM
  - CLAY: 10 TO 20%
  - SILT: 35 TO 55%
  - SAND: 35 TO 55%

| Seed Mixture       | Variety                         | Percent by No. of Seeds |
|--------------------|---------------------------------|-------------------------|
| Creeping Bentgrass | <i>Agrostis stolonifera</i>     | 63.6                    |
| Rough Bluegrass    | <i>Poa trivialis</i>            | 17.9                    |
| Meadow Fescue      | <i>Allopecurus arundinaceus</i> | 17.6                    |
| Annual Ryegrass    | <i>Lolium multiflorum</i>       | 4.5                     |
| Deer-tongue        | <i>Panicum clandestinum</i>     | 4.5                     |



TOWN OF AMHERST APPROVAL BOX:



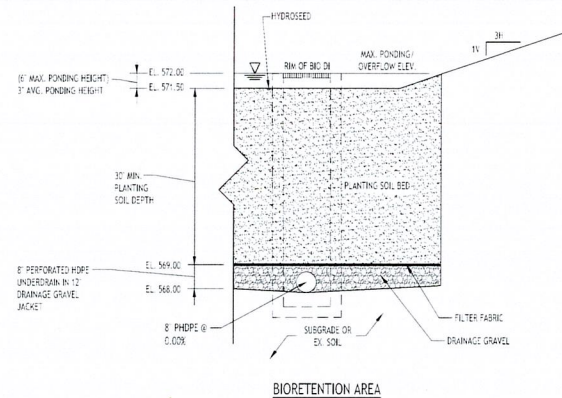
DRAWING NAME:  
Bio-Retention #1  
Plan & Detail

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-304

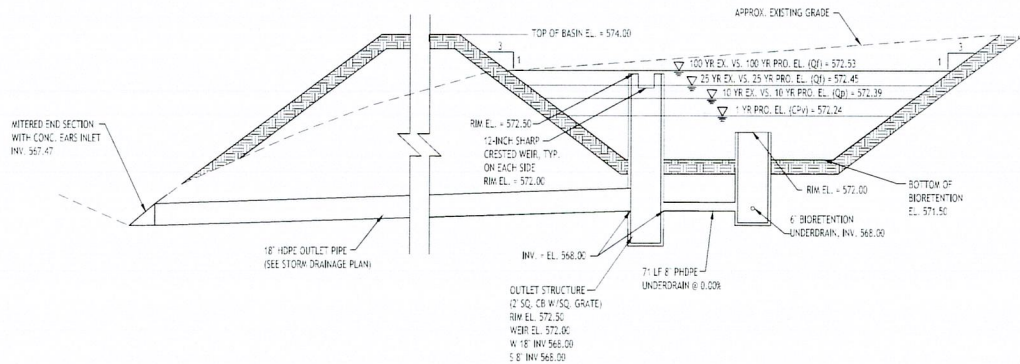
Project No: 25-4080



BIORETENTION AREA #1 - #4 - TYPICAL SECTION  
NOT TO SCALE

- NOTES:
1. FILTER FABRIC TO BE NON-WOVEN CLASS C, MIRAFLEX 180-4 OR APPROVED EQUIVALENT
  2. DRAINAGE GRAVEL TO MEET AASHTO M-43, NO. 67, SIZE 0.25 TO 0.75
  3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION
- NOTE: PLANTING SOIL SHALL BE LOAM/SAND MIX CONTAINING A MINIMUM OF 35 TO 60% SAND BY VOLUME AND LESS THAN 3% CLAY. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 0.5 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED.
- CHARACTERISTICS SHALL BE:
- PH RANGE: 5.2 - 7.00
  - ORGANIC MATTER: 1.5 - 4.0%
  - MAGNESIUM: 35 LBS PER ACRE MIN.
  - PHOSPHORUS: 75 LBS PER ACRE MIN.
  - POTASSIUM: 85 LBS PER ACRE MIN.
  - SOIL USCS: Silt: 500 PPM
  - CLAY: 30 TO 25%
  - SILT: 30 TO 55%
  - SAND: 35 TO 60%

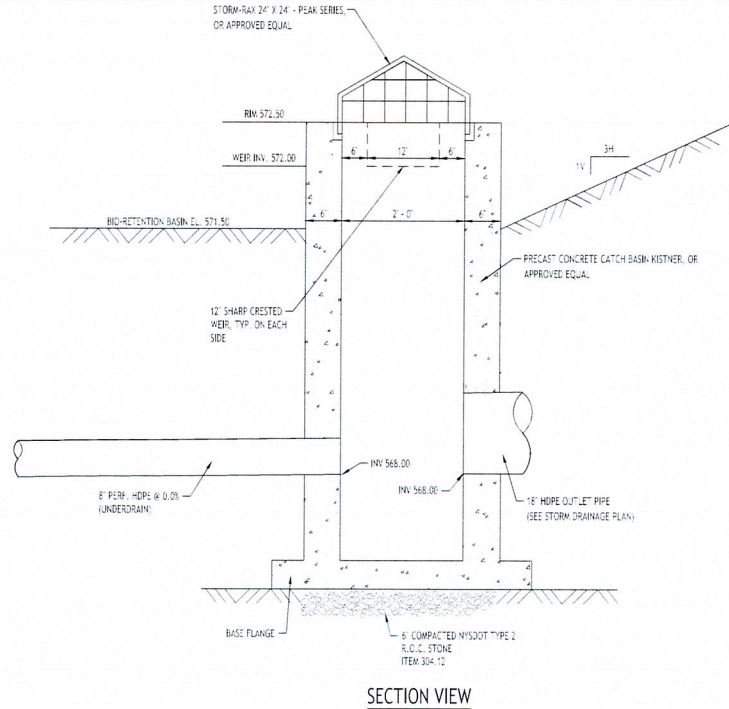
| Bio-retention area seeding spec (Northeast Wetland Grass Seed Mix): |            |                         |
|---------------------------------------------------------------------|------------|-------------------------|
| Species                                                             | Percentage | Percent by No. of Seeds |
| Common Bluegrass                                                    | 40.0       | 63.6                    |
| Smooth Bluegrass                                                    | 20.0       | 31.8                    |
| Meadow Fescue                                                       | 10.0       | 15.9                    |
| Annual Ryegrass                                                     | 10.0       | 15.9                    |
| Bermudagrass                                                        | 10.0       | 15.9                    |



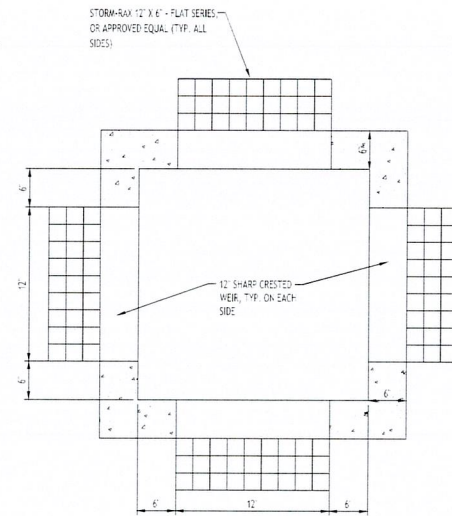
BIO-RETENTION #2 SECTION DETAIL  
NOT TO SCALE

## BIO-RETENTION #2 PLAN & DETAIL

SCALE: 1"=20'



SECTION VIEW



PLAN VIEW

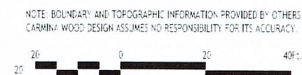
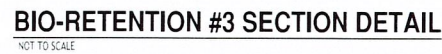
## BIO-RETENTION BASIN #2 OUTLET STRUCTURE

NOT TO SCALE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



© CARMINA WOOD DESIGN



- | Bio-retention area seeding spec (Northeast Wetland Grass Seed Mix) |                                |                         |
|--------------------------------------------------------------------|--------------------------------|-------------------------|
| Seed Mixture                                                       | Variety                        | Percent by No. of Seeds |
| Creeeping Bentgrass                                                | <i>Agrostis stolonifera</i>    | 63.0                    |
| Rough Bluestgrass                                                  | <i>Poa trivialis</i>           | 17.0                    |
| Meadow Foxtail                                                     | <i>Alopecurus arundinaceus</i> | 11.0                    |
| Annual Ryegrass                                                    | <i>Lolium multiflorum</i>      | 4.5                     |
| Geertongrass                                                       | <i>Panicum clandestinum</i>    | 4.5                     |

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Bio-Retention #3  
Plan & Detail

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.  
**C-306**

Project No: 25-4080

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

Project No: 25-4080

**Townhomes at Muir Woods**  
7770 John James Audubon Parkway  
Amherst, New York

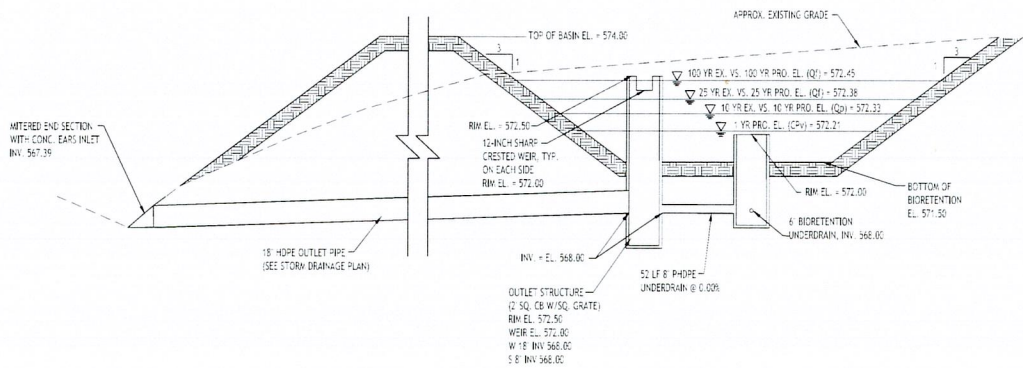
**CARMIN/WOOD  
DESIGN**

Buffalo | Utica | Greensboro

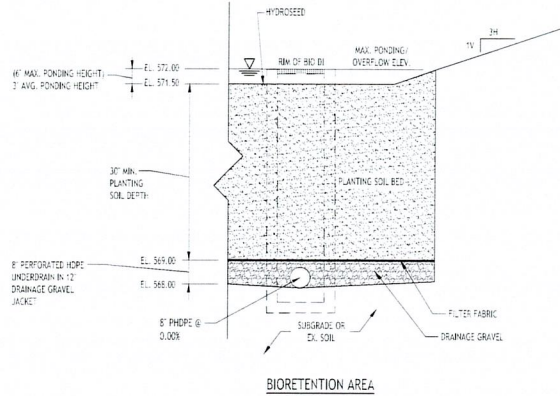




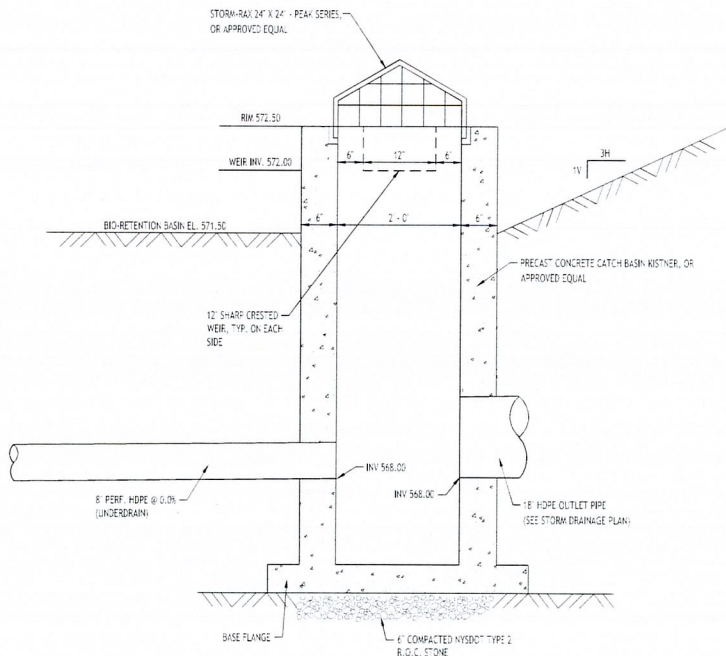
**BIO-RETENTION #4 PLAN & DETAIL**  
SCALE: 1"=20'



**BIO-RETENTION #4 SECTION DETAIL**  
NOT TO SCALE

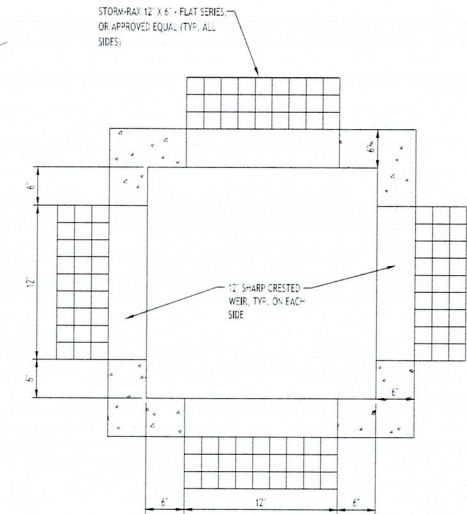


**BIORETENTION AREA #1 - #4 - TYPICAL SECTION**  
NOT TO SCALE



**SECTION VIEW**

**BIO-RETENTION BASIN #4 OUTLET STRUCTURE**  
NOT TO SCALE



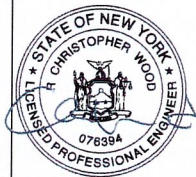
**PLAN VIEW**

**TOWN OF AMHERST APPROVAL BOX:**

Approval box for the Town of Amherst, containing fields for signature and date.

- NOTES:
1. FILTER FABRIC TO BE NON-WOVEN CLASS "C" MIRAFI 180-A OR APPROVED EQUIVALENT.
  2. DRAINAGE GRAVEL TO MEET ASTM M-43, NO. 57, SIZE 0.25" TO 0.75".
  3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- NOTE: PLANTING SOIL SHALL BE LOAM SAND MIX CONTAINING A MINIMUM OF 35 TO 50% SAND BY VOLUME AND LESS THAN 15% CLAY. SOIL SHOULD FALL WITHIN USDA TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 0.5 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18" LOOSELY COMPACTED.
- CHARACTERISTICS SHALL BE:
- FI: RANGE 3.2 - 7.00
  - ORGANIC MATTER: 1.5 - 4.0%
  - MACROBIOLOGICAL: 35.00 PER ACRE MIN.
  - PHOSPHORUS: 75.00 LBS PER ACRE MIN.
  - POTASSIUM: 65.00 LBS PER ACRE MIN.
  - SOLUBLE SALTS: 300 PPM
  - CLAY: 10 TO 25%
  - SILT: 30 TO 55%
  - SAND: 35 TO 60%

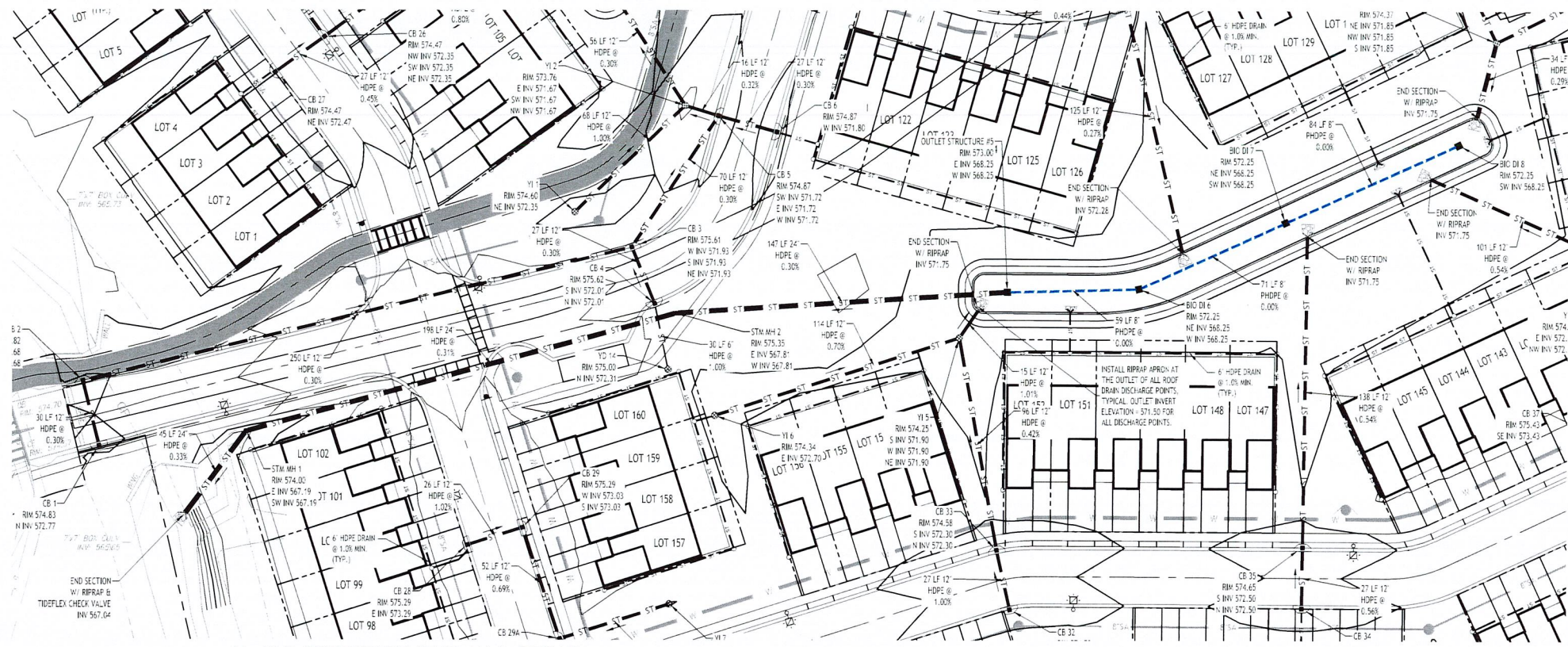
| Bio-retention area seeding spec (Northeast Wetland Grass Seed Mix): |                     |                         |
|---------------------------------------------------------------------|---------------------|-------------------------|
| Seed Mixture:                                                       | Variety:            | Percent by No. of Seeds |
| Cheeping Broomrape                                                  | Agrostis scaberrima | 6.0                     |
| Hoop Nettle                                                         | Poa trivialis       | 17.0                    |
| Wetland Foxtail                                                     | Aloneis arundinacea | 11.0                    |
| Annual Ryegrass                                                     | Lolium multiflorum  | 4.5                     |
| Perennial Ryegrass                                                  | Poa annua           | 4.5                     |



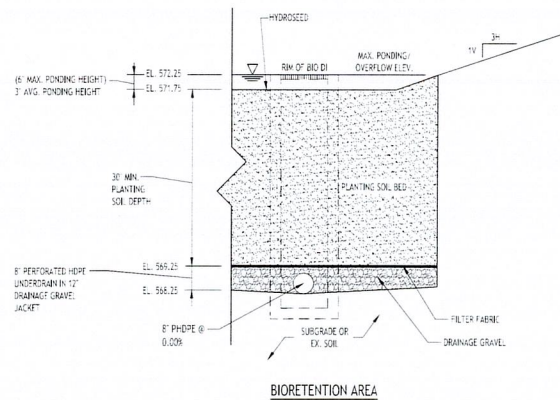


All Rights Reserved. None of these documents without the expressed written permission of CARMINA WOOD DESIGN is to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of CARMINA WOOD DESIGN. This drawing is the property of CARMINA WOOD DESIGN and is to be used only for the project and location specified. It is to be kept confidential and not to be used for any other project or location without the prior written permission of CARMINA WOOD DESIGN. The user of this drawing is to be held responsible for any and all errors and omissions. The user of this drawing is to be held responsible for any and all errors and omissions. The user of this drawing is to be held responsible for any and all errors and omissions.

CARMINA WOOD DESIGN



**BIO-RETENTION #5 PLAN & DETAIL**  
SCALE: 1"=30'



**BIORETENTION AREA #5 - TYPICAL SECTION**  
NOT TO SCALE

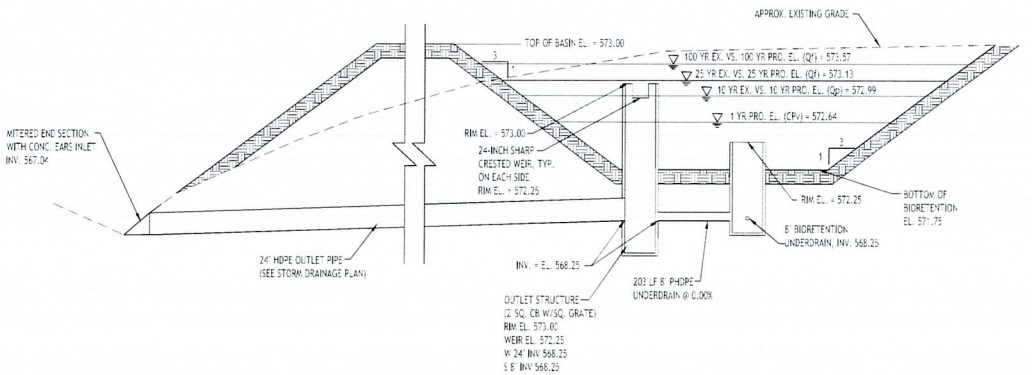
- NOTES:**
1. FILTER FABRIC TO BE NON-WOVEN CLASS C, W/RAIP 1804H OR APPROVED EQUIVALENT.
  2. DRAINAGE GRAVEL TO MEET ASTM M-43, NO. 47, SIZE 0.25" TO 0.75".
  3. CONTRACTOR TO PROVIDE PLANTING SOIL SUBMITTAL SPECIFICATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

**NOTE:** PLANTING SOIL SHALL BE LOAM SAND MIX CONTAINING A MINIMUM OF 35 TO 40% SAND BY VOLUME AND LESS THAN 25% CLAY. SOIL SHOULD FALL WITHIN USCS TYPES SM OR ML WITH PERMEABILITY OF AT LEAST 0.5 FEET PER DAY. SOIL SHOULD BE FREE FROM STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED.

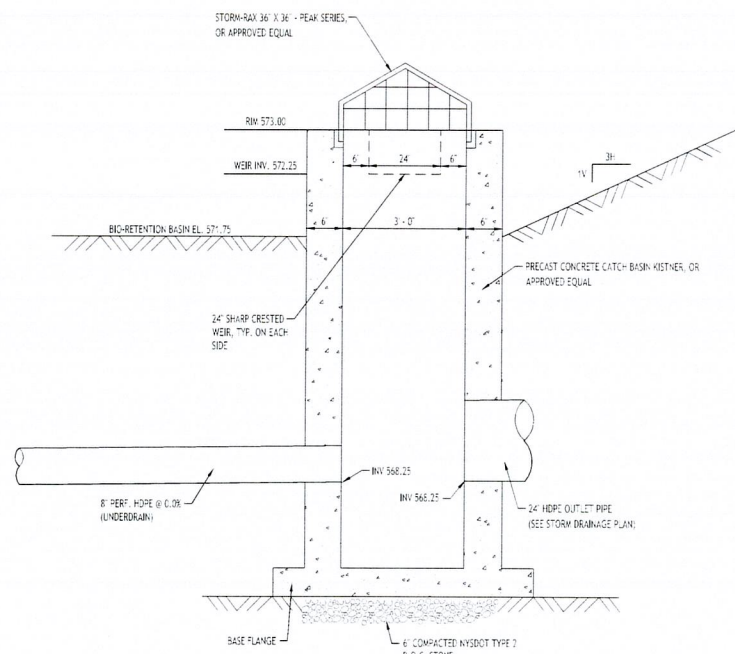
**CHARACTERISTICS SHALL BE:**  
PH RANGES: 5.2 - 7.0  
ORGANIC MATTER: 1.5 - 4.0%  
MAGNESIUM: 35 LBS PER ACRE MIN.  
PHOSPHORUS: 75 LBS PER ACRE MIN.  
POTASSIUM: 8 LBS PER ACRE MIN.  
SOLUBLE SALTS: 500 PPM  
CLAY: 10 TO 25%  
SILT: 30 TO 55%  
SAND: 35 TO 60%

**Bio-retention area seeding spec (Northeast Wetland Grass Seed Mix):**

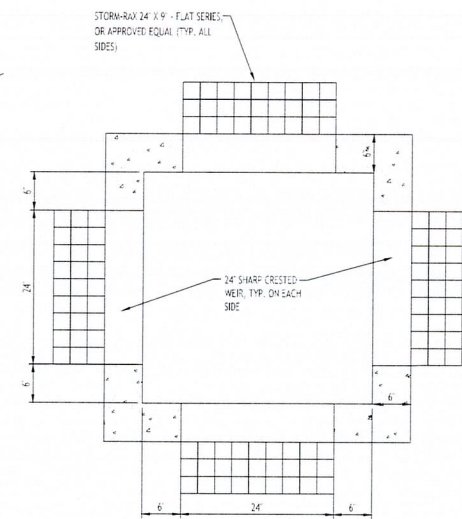
| Seed Mixture       | Percent by No. of Seeds |
|--------------------|-------------------------|
| Creeping Bentgrass | 17.0                    |
| Rough Bluegrass    | 17.0                    |
| Meadow Fescue      | 17.0                    |
| Annual Ryegrass    | 17.0                    |
| Perennial Ryegrass | 17.0                    |



**BIO-RETENTION #5 SECTION DETAIL**  
NOT TO SCALE



**SECTION VIEW**



**PLAN VIEW**

**BIO-RETENTION BASIN #5 OUTLET STRUCTURE**  
NOT TO SCALE

TOWN OF AMHERST APPROVAL BOX:

APPROVAL BOX FOR TOWN OF AMHERST

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



**CARMINA WOOD**  
**DESIGN**

Buffalo | Utica | Greensboro

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

| REVISIONS: | No. | Description            | Date       |
|------------|-----|------------------------|------------|
| 1          | 1   | Rev. Per Town Comments | 07/28/2026 |



DRAWING NAME:  
**Bio-Retention #5  
Plan & Detail**

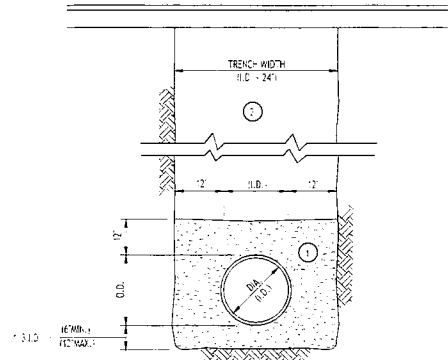
Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

**C-308**

Project No: 25-4080





- NOTES:
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
  - TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM 24" LIMIT.
  - AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

**MATERIALS**

PIPE BEDDING MATERIAL: NYSDOT 1985 EDITION

- NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL

1

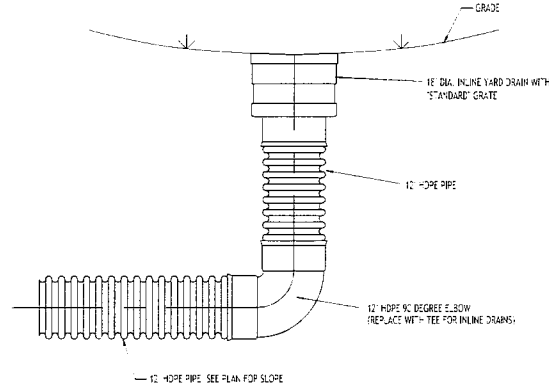
- TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL

2

**STORM SEWER TRENCH SECTION  
IN PAVED AREAS**

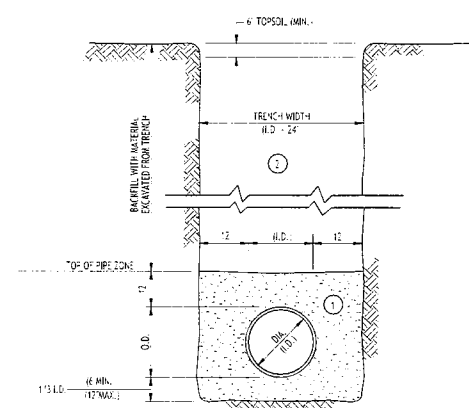
NOT TO SCALE



NOTE:  
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

**TYPICAL YARD INLET DETAIL**

NOT TO SCALE



- NOTES:
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
  - TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM 24" LIMIT.
  - AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

**MATERIALS**

PIPE BEDDING MATERIAL: NYSDOT 1985 EDITION

- NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

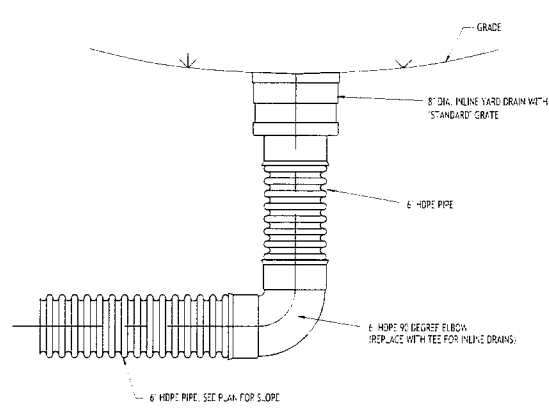
NO SLAG SHALL BE ALLOWED FOR MATERIAL

1

- SACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL. COMPACTED IN 6" LIFTS.

**STORM SEWER TRENCH SECTION  
IN UNPAVED AREAS**

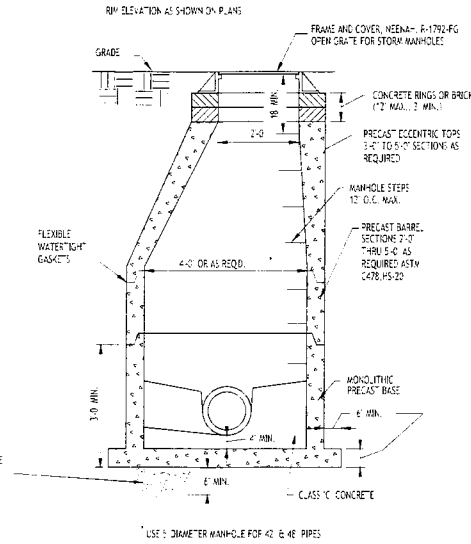
NOT TO SCALE



NOTE:  
SEE TYPICAL TRENCH SECTION FOR BEDDING REQUIREMENTS

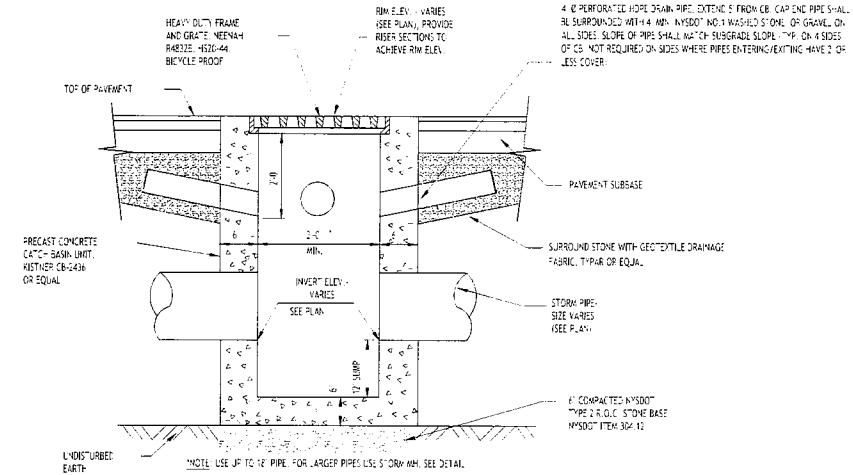
**TYPICAL YARD DRAIN DETAIL**

NOT TO SCALE



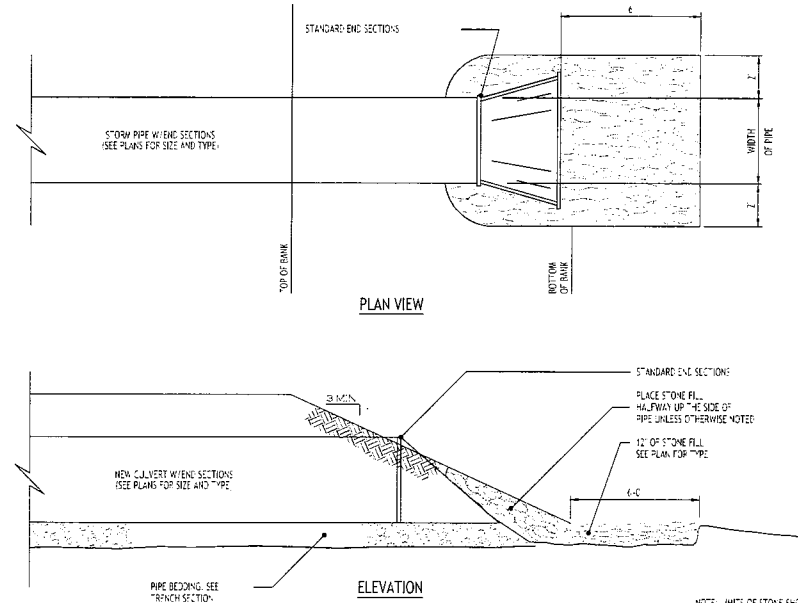
**TYPICAL STORM MANHOLE DETAIL**

NOT TO SCALE



**TYPICAL PRECAST CATCH BASIN**

NOT TO SCALE



**TYPICAL PIPE OUTLET W/ END SECTION & RIP RAP**

NOT TO SCALE

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME:  
Storm  
Drainage Details

Date: C3-13-24  
Drawn By: D. Feyen  
Scale: As Noted

DRAWING NO.  
**C-309**

Project No: 25-4080

**CARMINA WOOD**

**DESIGN**

Buffalo | Utica | Greensboro

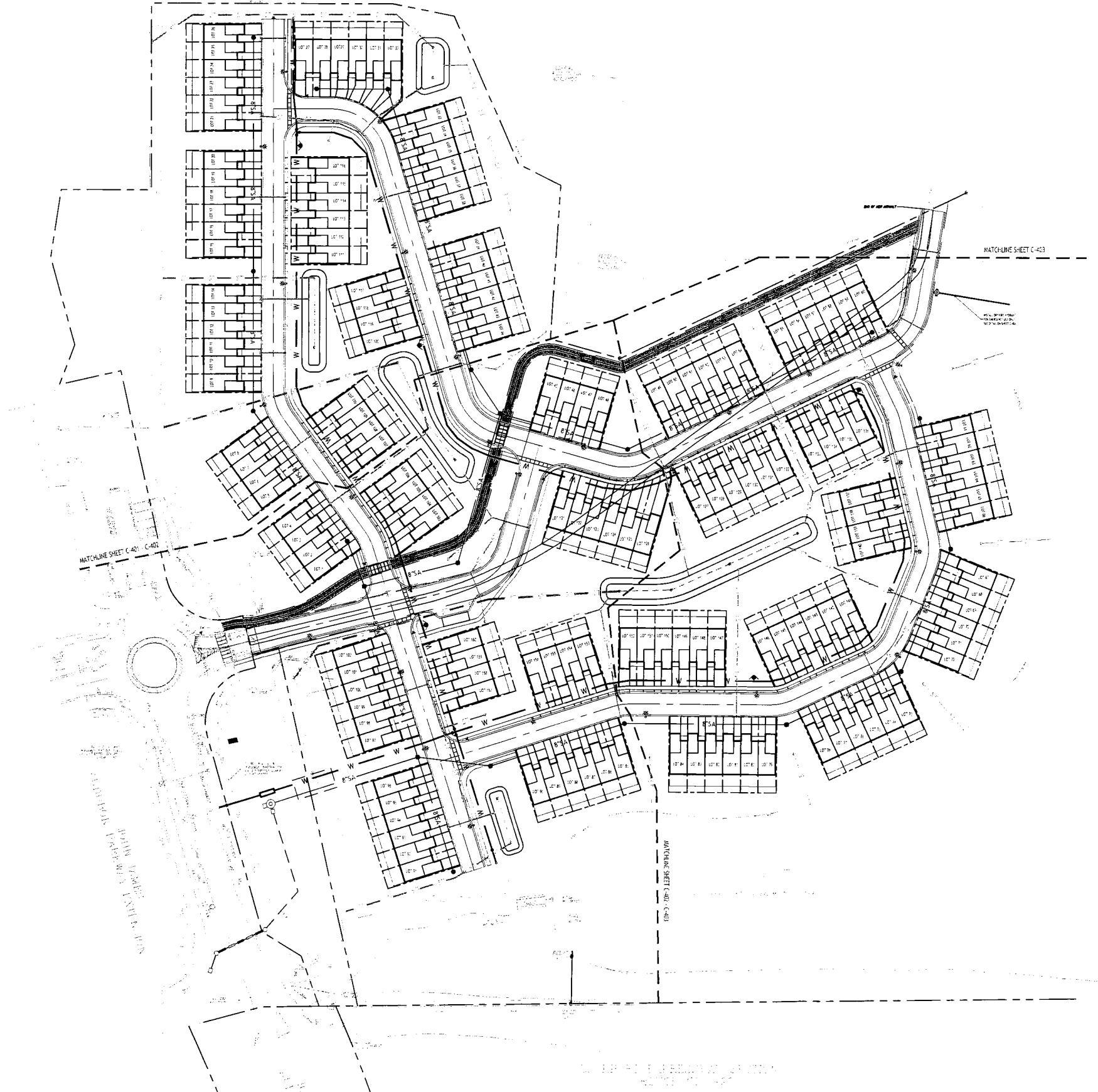
**Townhomes at Muir Woods**

770 John James Audubon Parkway  
Amherst, New York

| REVISIONS: | No. | Description       | Date       |
|------------|-----|-------------------|------------|
|            | 1   | Per Town Comments | 07/28/2024 |







**Overall Utility Plan**  
SCALE: 1"=60'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



- UTILITY NOTES:**
- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE TOWN OF AMHERST SPECIFICATIONS AND DETAILS AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
  - PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF AMHERST TO DISCUSS AND AGREE TO THE WORK.
  - FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
  - ALL SANITARY SEWER IS TO CONSTRUCTION IS TO CONFORM TO TOWN OF AMHERST SEWER DISTRICT RULES AND REGULATIONS.
  - OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.
  - COORDINATE GAS & ELECTRIC METER BANK LOCATIONS ON BUILDINGS WITH RULES, PLANS & UTILITY CODES.
  - COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH RULES, PLANS AND UTILITY CODES.
  - A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
  - ALL TOWNHOMES WILL HAVE A SPRINKLER SYSTEM.

| PROPOSED UTILITY LEGEND      |            |
|------------------------------|------------|
| PROPOSED STORM SEWER         | — ST —     |
| PROPOSED SANITARY SEWER      | — 8" SA —  |
| PROPOSED WATERLINE           | — 8" W —   |
| PROPOSED CATCH BASIN         | ■ CB       |
| PROPOSED VAPE DRAIN OR INLET | ⊗ YD OR VI |
| PROPOSED MANHOLE             | ● MH       |
| PROPOSED HYDRANT ASSEMBLY    | ⬮          |
| PROPOSED GATE VALVE          | ⊕ GV       |

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 2,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GROUND. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER ON ALL SIDES THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Overall Utility Plan

Date: 03.12.24  
Drawn By: D. Foyes  
Scale: As Noted

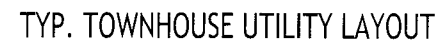
DRAWING NO.  
**C-400**  
Project No: 25-4080

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

**CARMINA WOOD**  
**DESIGN**

Buffalo | Utica | Greensboro

## ATLANTA, NEW YORK



SCALE: 1"=20'

NOTE. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.



1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE TOWN OF AMHERST SPECIFICATIONS AND DETAILS. AND ERE COUNTY DEPARTMENT OF HEALTH - RULES AND REGULATIONS.
2. PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MAINS, THE CONTRACTOR SHALL MEET WITH THE TOWN OF AMHERST TO DISCUSS ARE AGREES TO THE WORK.
3. FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
4. ALL SANITARY SEWER IS TO CONSTRUCTION IS TO CONFORM TO TOWN OF AMHERST SEWER DISTRICT RULES AND REGULATIONS.
5. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.
6. COORDINATE WITH E & E, WATER MAIN LOCATIONS ON BUILDINGS WITH W.F. PLANS & UTILITY CDS.
7. COORDINATE LOCATION OF CITY TELEPHONE SERVICE TO BUILDINGS WITH W.F. PLANS & UTILITY CDS.
8. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
9. ALL TOWNHOMES WILL HAVE A SPRINKLER SYSTEM.

| REVISIONS: |                        |
|------------|------------------------|
| No.        | Description            |
| 1          | Rev. Per Town Comments |



DRAWING NAME:  
Enlarged Utility  
Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-401

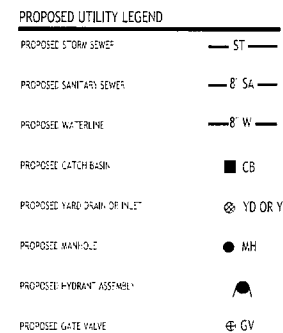
Project No: 25-4080

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-401

Project No: 25-4080

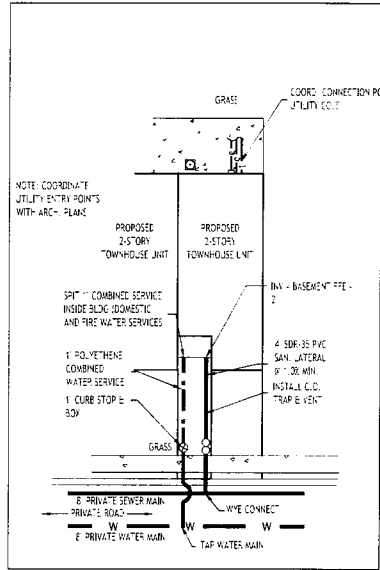
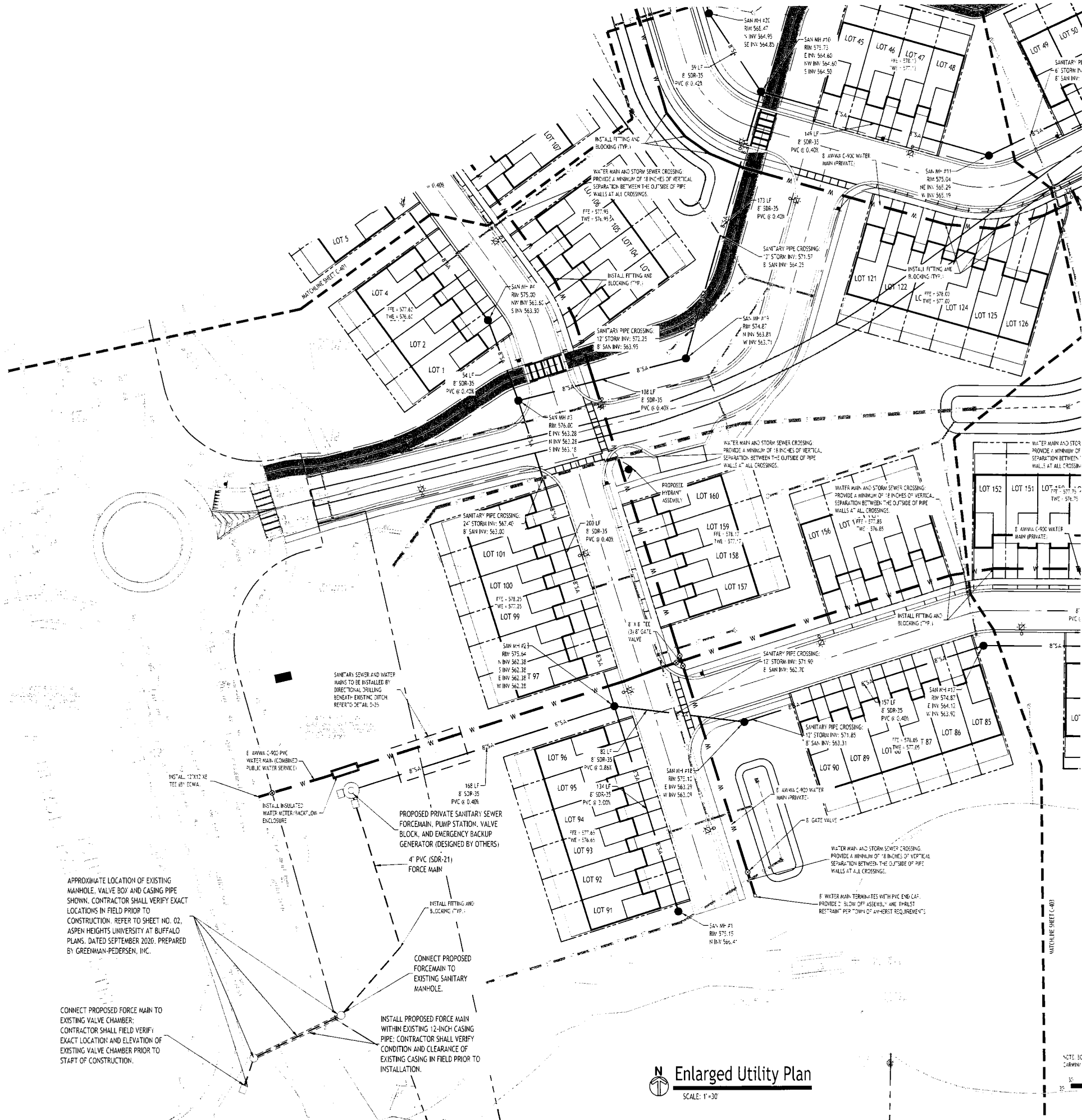


NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3,000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDE, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHER







TYP. TOWNHOUSE UTILITY LAYOUT

SCALE: 1"=20'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



PROPOSED UTILITY LEGEND

- PROPOSED STORM SEWER: ST
- PROPOSED SANITARY SEWER: 8" SA
- PROPOSED WATER LINE: 8" W
- PROPOSED CATCH BASIN: CB
- PROPOSED YARD DRAIN OR INLET: YD OR YI
- PROPOSED MANHOLE: MH
- PROPOSED HYDRANT ASSEMBLY: HA
- PROPOSED GATE VALVE: GV

NOTE: FOR PROPOSED VALVE BOXES, CLEANOUTS, ETC., INSTALL A 3.000 PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 6" WIDER, ON ALL SIDES, THAN THE BOX, CLEANOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

UTILITY NOTES

- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE TOWN OF AMHERST SPECIFICATIONS AND DETAILS AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
- PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MANHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF AMHERST TO DISCUSS AND AGREE TO THE WORK.
- FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
- ALL SANITARY SEWER IS TO CONSTRUCTION IS TO CONFORM TO TOWN OF AMHERST SEWER DISTRICT RULES AND REGULATIONS.
- ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.
- COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH W.P.P. PLANS & UTILITY CO.'S.
- COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH W.P.P. PLANS AND UTILITY CO.'S.
- A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
- ALL TOWNHOMES WILL HAVE A SPRINKLER SYSTEM.

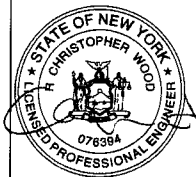
TOWN OF AMHERST APPROVAL BOX:

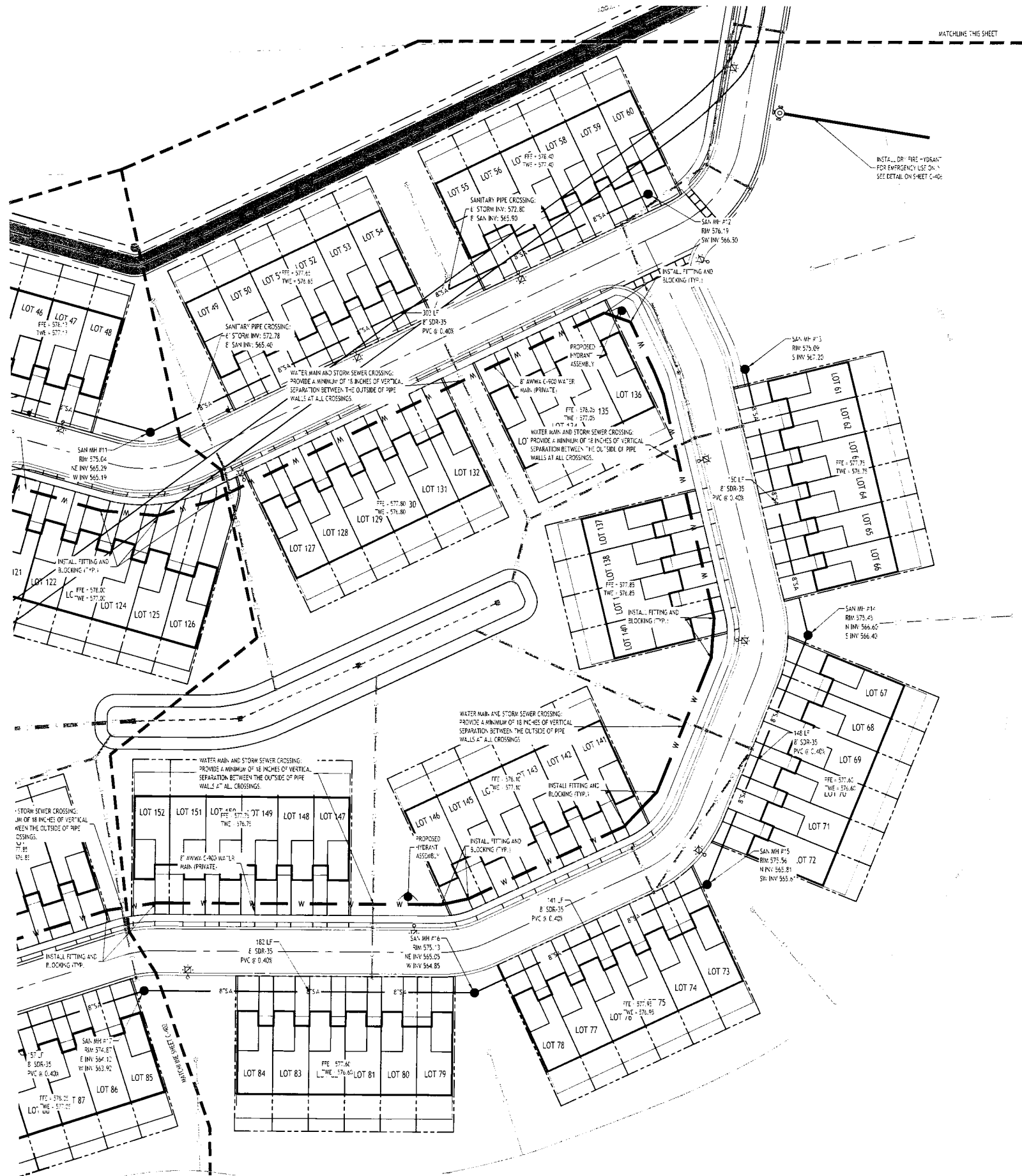
DRAWING NAME:  
Enlarged Utility Plan

Date: 03/13/24  
Drawn By: D. Feys  
Scale: As Noted

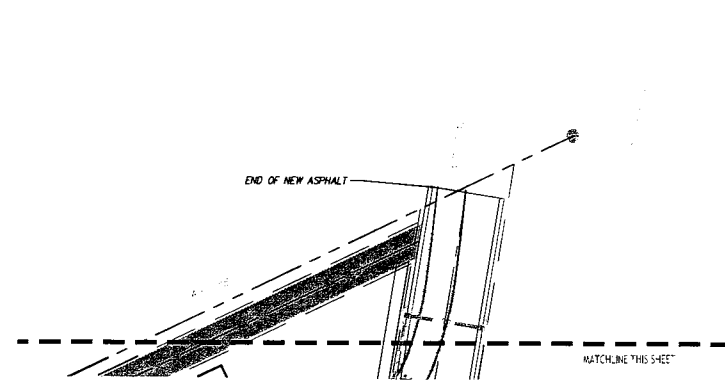
DRAWING NO.:  
C-402

Project No: 25-4080



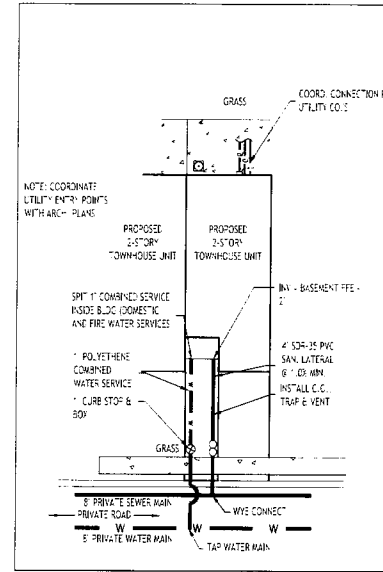


**Enlarged Utility Plan**  
SCALE: 1"=30'

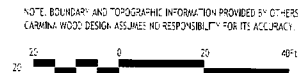


**UTILITY NOTES:**

- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE TOWN OF AMHERST SPECIFICATIONS AND DETAILS, AND FINE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
- PRIOR STARTING ANY WORK ASSOCIATED WITH OR NEAR EXISTING SANITARY MAINHOLES, THE CONTRACTOR SHALL MEET WITH THE TOWN OF AMHERST TO DISCUSS AND AGREE TO THE WORK.
- FILL SHALL BE PLACED AND SATISFACTORILY COMPACTED PRIOR TO INSTALLATION OF UTILITIES, AND MUST BE APPROVED BY THE SUPERVISING PROJECT ENGINEER.
- ALL SANITARY SEWER TO CONSTRUCTION IS TO CONFORM TO TOWN OF AMHERST SEWER DISTRICT RULES AND REGULATIONS.
- ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, COUNTY OF ERIE AND TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER.
- COORDINATE GAS & ELEC. METER BANK LOCATIONS ON BUILDINGS WITH M.E.P. PLANS & UTILITY CO.'S.
- COORDINATE LOCATION OF CTV & TELEPHONE SERVICE TO BUILDINGS WITH M.E.P. PLANS AND UTILITY CO.'S.
- A MINIMUM OF 18" VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
- ALL TOWNHOMES WILL HAVE A SPRINKLER SYSTEM.



**TYP. TOWNHOUSE UTILITY LAYOUT**  
SCALE: 1"=20'

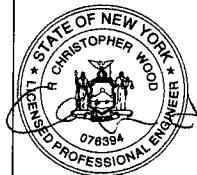


**PROPOSED UTILITY LEGEND**

- PROPOSED STORM SEWER — ST —
- PROPOSED SANITARY SEWER — 8" SA —
- PROPOSED WATERLINE — 8" W —
- PROPOSED CATCH BASIN — CB —
- PROPOSED VALVE BOX OR INLET — VB OR VI —
- PROPOSED MANHOLE — MH —
- PROPOSED HYDRANT ASSEMBLY — HA —
- PROPOSED GATE VALVE — GV —

NOTE: FOR PROPOSED VALVE BOXES, CLEANDOUTS, ETC., INSTALL A 3.00' PSI CONCRETE COLLAR AROUND THE ITEM AT GRADE. THE COLLAR SHALL BE A MINIMUM OF 4" WIDER ON ALL SIDES THAN THE BOX, CLEANDOUT, ETC. THE COLLAR SHALL BE A MINIMUM OF 6" THICK.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

**CARMINA WOOD**  
DESIGN  
Buffalo | Utica | Greensboro

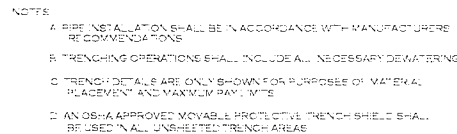
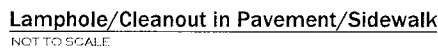
| REVISIONS: | No. | Description            | Date       |
|------------|-----|------------------------|------------|
|            | 1   | Rev. Per Town Comments | 07/28/2019 |

**DRAWING NAME:**  
Enlarged Utility Plan

Date: 03.10.26  
Drawn By: D. Feys  
Scale: As Noted

**DRAWING NO.**  
**C-403**  
Project No: 25-4080

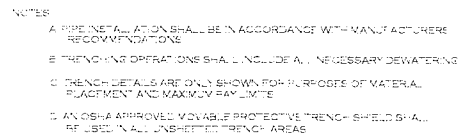
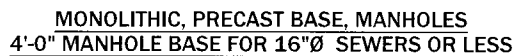




## FINE BEDDING MATERIAL (NYS DOB '98 EDITION)

- NO SLAGS SHALL BE ALLOWED FOR MATERIAL (2)

NO SACS SHALL BE ALLOWED FOR MATERIAL (2)



PIPE BEDDING MATERIAL INVS00" 1985 EDITION

- NO 5-40 S-A. BE A... OWED FOR VATERA.

TERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIALS  
AND LIFE

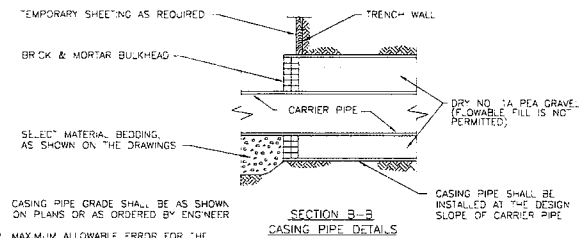
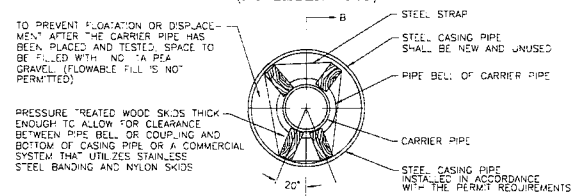


| REVISIONS: |                        |            |
|------------|------------------------|------------|
| No.        | Description            | Date       |
| 1          | Rev. Per Town Comments | 07/28/2026 |



Project No: 25-4080

ROAD CROSSING BY JACKING  
AND BORING METHOD  
6" DIA. TO 24" DIA. CARRIER PIPE  
(NOVEMBER 2023)

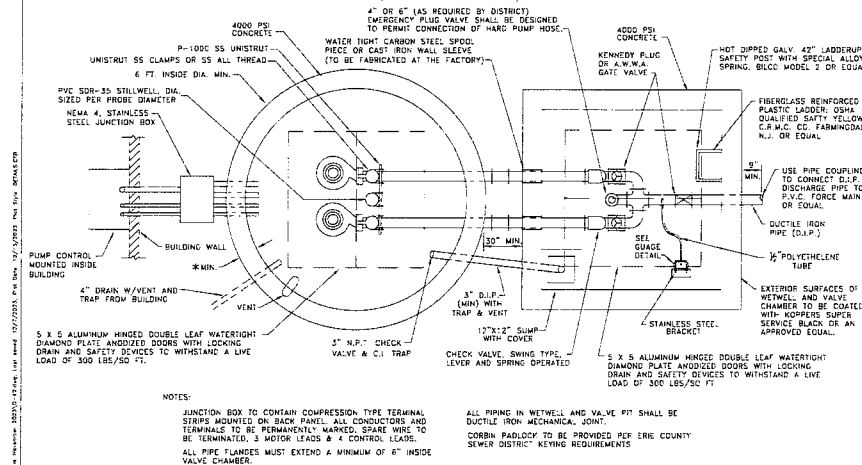


| CARRIER PIPE<br>DIAMETER | CASING PIPE<br>DIAMETER | CASING PIPE<br>THICKNESS |
|--------------------------|-------------------------|--------------------------|
| 6"                       | 8"                      | 0.375                    |
| 8"                       | 20"                     | 0.375                    |
| 10"                      | 24"                     | 0.375                    |
| 12"                      | 26"                     | 0.375                    |
| 14"                      | 30"                     | 0.375                    |
| 18"                      | 36"                     | 0.500                    |
| 21"                      | 42"                     | 0.500                    |
| 24"                      | 48"                     | 0.500                    |

ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|                   |                                                                 |                      |
|-------------------|-----------------------------------------------------------------|----------------------|
| Rev. 1<br>2/7/84  | ADDED #1A PEA GRAVEL                                            | STD.DETAIL<br><br>25 |
| Rev. 2<br>7/14/89 | CHANGED THE SLOPE AND SIZE<br>REQUIREMENTS FOR THE CASING PIPE  |                      |
| Rev. 3<br>12/01   | ADDED 4 TH SKID AND ADDED ALT<br>CHOICE OF COMMERCIAL TYPE SKID |                      |
|                   |                                                                 |                      |

WETWELL-VALVE CHAMBER/TOP VIEW  
(NOVEMBER 2023)



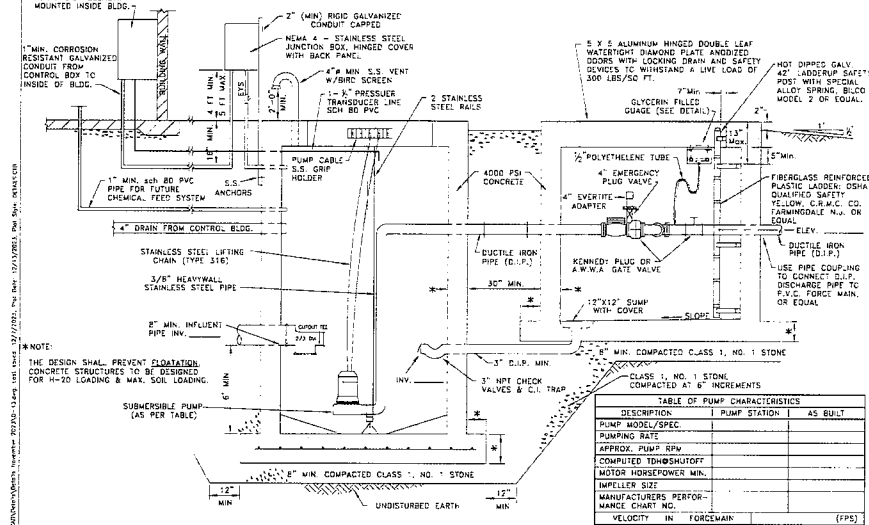
ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|           |                                                          |
|-----------|----------------------------------------------------------|
| REV 02/94 | REMOVED CONTROL PANEL NOTE AND<br>CHANGED GUAGE LOCATION |
| REV 12/98 | REVISED NOTES                                            |
| REV 01/12 | ADDED WALL SLEEVE NOTE TO CHAMBER                        |
| REV 08/18 | ADDED STILLWELL                                          |
| File:     | D-42                                                     |
| Date:     | 4/15/93                                                  |

STD. DETAIL

42

WETWELL-VALVE CHAMBER/SECTION  
(NOVEMBER 2023)

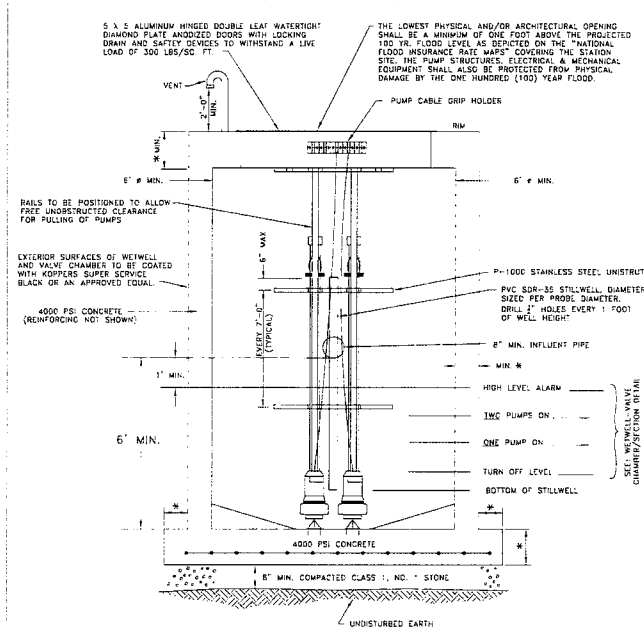


ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|          |                                     |                       |
|----------|-------------------------------------|-----------------------|
| REV 2/94 | REMOVED REINFORCING NOTE            | STD. DETAIL<br><br>43 |
| REV 5/05 | ADDED C: TYPE TRAP & EYS            |                       |
| REV C/12 | REMOVED AIR BELL                    |                       |
| REV C/13 | ADDED LADDER MIN. & MAX. DIMENSIONS |                       |
| File:    | D-43                                |                       |

43

WETWELL/SIDE VIEW  
(NOVEMBER 2023)



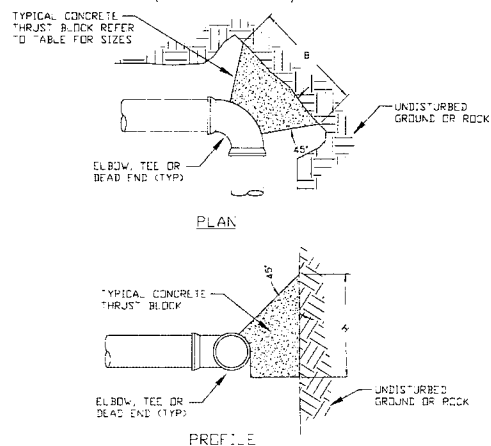
NOTE:

- \* 1. THE DESIGN SHALL PREVENT FLOATATION
2. ALL HARDWARE USED IN WETWELLS

ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|                                         |               |
|-----------------------------------------|---------------|
| REV 2/94 REMOVED REINFORCEMENT SPEC'S   | STD.DETAIL    |
| REV 1/12 REMOVED BUBBLERS AND AIR BELLS |               |
| REV 8/18 ADDED STILLWELL                |               |
|                                         |               |
| File: D-44                              | Date: 4/15/93 |

FORCEMAIN THRUST BLOCK DETAIL  
(NOVEMBER 2023)



| MINIMUM REQUIRED HORIZONTAL CONCRETE THRU-<br>BLOCK SIZE PER DIP & PVC TEST |                                     |      |      |      |      |      |      |      |  |
|-----------------------------------------------------------------------------|-------------------------------------|------|------|------|------|------|------|------|--|
| DEFLECTION<br>ANGLE                                                         | PIPE DIAMETER (IN.) AT 100 PSI TEST |      |      |      |      |      |      |      |  |
|                                                                             | 2"                                  |      | 3"   |      | 4"   |      | 6"   |      |  |
|                                                                             | B                                   | H    | B    | H    | B    | H    | B    | H    |  |
| 90°/FEET                                                                    | 150'                                | 150' | 200' | 150' | 200' | 200' | 250' | 250' |  |
| DEAD END                                                                    | 150'                                | 150' | 200' | 150' | 200' | 175' | 250' | 200' |  |
| 45°                                                                         | 150'                                | 100' | 175' | 100' | 200' | 150' | 250' | 200' |  |
| 22-1/2°                                                                     | 125'                                | 100' | 150' | 100' | 150' | 150' | 200' | 200' |  |
| 11-1/4°                                                                     | 100'                                | 100' | 125' | 100' | 150' | 150' | 200' | 200' |  |

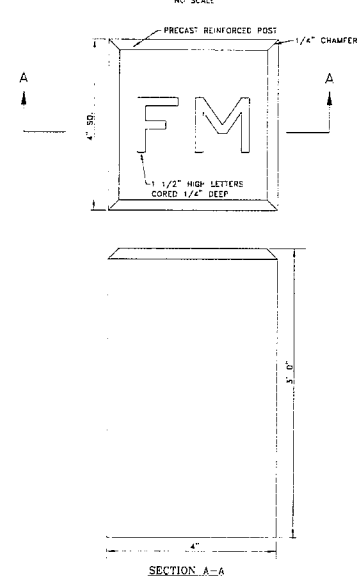
NOTE: THRUST BLOCKS PERMITTED ONLY WHERE SHOWN  
\* 2000 PSI MINIMUM

ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|            |               |
|------------|---------------|
| Rev. 1     | STD. DETAIL   |
| Rev. 2     | 57            |
| File: D-57 | Date: 9/22/83 |

57

FORCE MAIN MARKER  
(NOVEMBER 2023)  
NO. SCALE



NOTES:

1. THE CONTRACTOR SHALL PROVIDE A 4 INCH SQUARE REINFORCED CONCRETE POST, 3 FEET LONG, BURIED IN A VERTICAL POSITION WITH THE LETTERS "E" ENGRAVED ON THE TOP, FLUSH WITH THE GROUND SURFACE & MEET THE ENGINEER'S APPROVAL. (TO BE INCLUDED IN THE BIDDING ITEM).
2. AFTER CONSTRUCTION OF FORCE MAIN, EACH MARKER IS TO BE LOCATED IN THE FIELD BY A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. LOCATIONS AND TIES TO BE INCLUDED ON RECORD PLANS.
3. WARNERS IS TO BE EXPOSED EVERY 100 FEET AND AT ALL FORCE MAIN CHANGES OF DIRECTION.

ERIE COUNTY  
DEPT. OF ENVIRONMENT & PLANNING  
DIVISION OF SEWERAGE MANAGEMENT

|            |                               |              |
|------------|-------------------------------|--------------|
| Rev. 1     | ADDED SECTION A-A<br>& NOTE 3 | STD.DETAILED |
| Rev. 2     |                               | 51           |
| File: E-51 | Date: 12/2/96                 |              |

51

| REVISIONS: |                        |
|------------|------------------------|
| No.        | Description            |
| 1          | Rev. Per Town Comments |



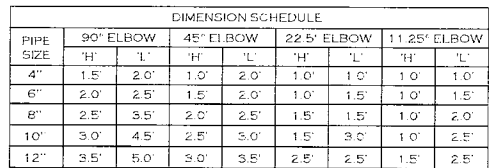
DRAWING NAME:  
Sanitary Sewer  
Details

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

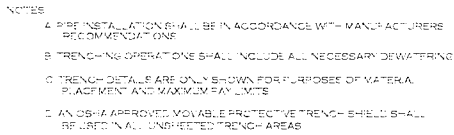
C-405

Project No: 25-4080





## THRUST BLOCK SCHEDULE

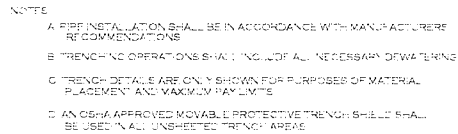


① NO. 1 CRUSHED STONE WITH A MAXIMUM GRADATION CONFORMING WITH "A" AND "B" SPECIFICATIONS. THE CRUSHED STONE SHALL BE WASHED WITH NO PARTICLES FINE THAN #40 AND A MAXIMUM GRADATION VARYING FROM THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN PLACES WITH EQUIPMENT ACCEPTABLE TO THE PROJECT MANUFACTURER.

② SELECT MATERIAL BACKFILL UNDER LATER SECTION.

③ NO. 2 RUN OF CRUSHED STONE OR NO. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH "A" AND "B" SPECIFICATIONS. NO. 40 AND "B" SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN PLACES WITH EQUIPMENT ACCEPTABLE TO THE PROJECT MANUFACTURER.

### UTILITY TRENCH SECTION IN UNPAVED AREAS

[illegible]

### UTILITY TRENCH SECTION IN PAVED AREAS



NOTES:

1. INSTALL DRY HYDRANT IN ACCORDANCE WITH NFPA 1311, AMFIBST 2005 STANDARDS AND ALL APPLICABLE CODES.
2. PROVIDE A MINIMUM 6" INCH SCHEDULE 40 PIPE AND FITTINGS, OR EQUIVALENT, REQUIRED TO MEET THE REQUIRED FLOW.
3. DRY HYDRANT SHALL BE PROVIDED A MINIMUM DRAFT TOWN OF 10' TO 20' GPM.
4. SUCTION CONNECTION SHALL BE COMPATIBLE WITH THE LOCAL FIRE DEPARTMENT AND SUCTION HOSE AND PROVIDED WITH A PROTECTIVE CAP.
5. INSTALL THE STRAIGHT ABOVE THE DRY HYDRANT OF 2 FEET BELOW THE JOINT WATER SURFACE AND 1 FOOT ABOVE THE WATER BODY BELOW THE 50 YEAR DROUGHT LINE.
6. PROVIDE A MINIMUM 12" DRAIN LOCAL PORT 20' AND PROVIDE THRUST BOLTS OR APPROVED RESTRAINTS AT ALL ELONGS.
7. ALL PIPE JOINTS SHALL BE CLEAN, AIRTIGHT, AND SEALED PER THE MANUFACTURER'S RECOMMENDATIONS.
8. PROVIDE A MINIMUM 12" FEET OF CLEAR ABOVE THE DRY HYDRANT. MAINTAIN ALL WEATHER ACCESS FOR THE APPARATUS WITH NO PARKING OR OBSTRUCTIONS WITHIN 30' OF THE ACCESS SIDE.
9. ALL PORTS SHALL BE PROTECTED BY A 12" CAP WITH A 12" REFLECTIVE MARKERS OR SIGNAGE AS APPROVED BY THE AFD.
10. COORDINATE THE DRY HYDRANT LOCATION, CONNECTION PIPE AND INSTALLATION REQUIREMENTS WITH THE AMFIBST 2005 CONSTRUCTION.



TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME:  
Water Details

Date: 03.13.25  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-406

Project No: 25-4080

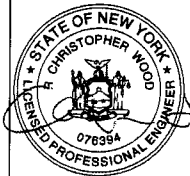
Buffalo | Utica | Greensboro

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

770 John James Audubon Parkway

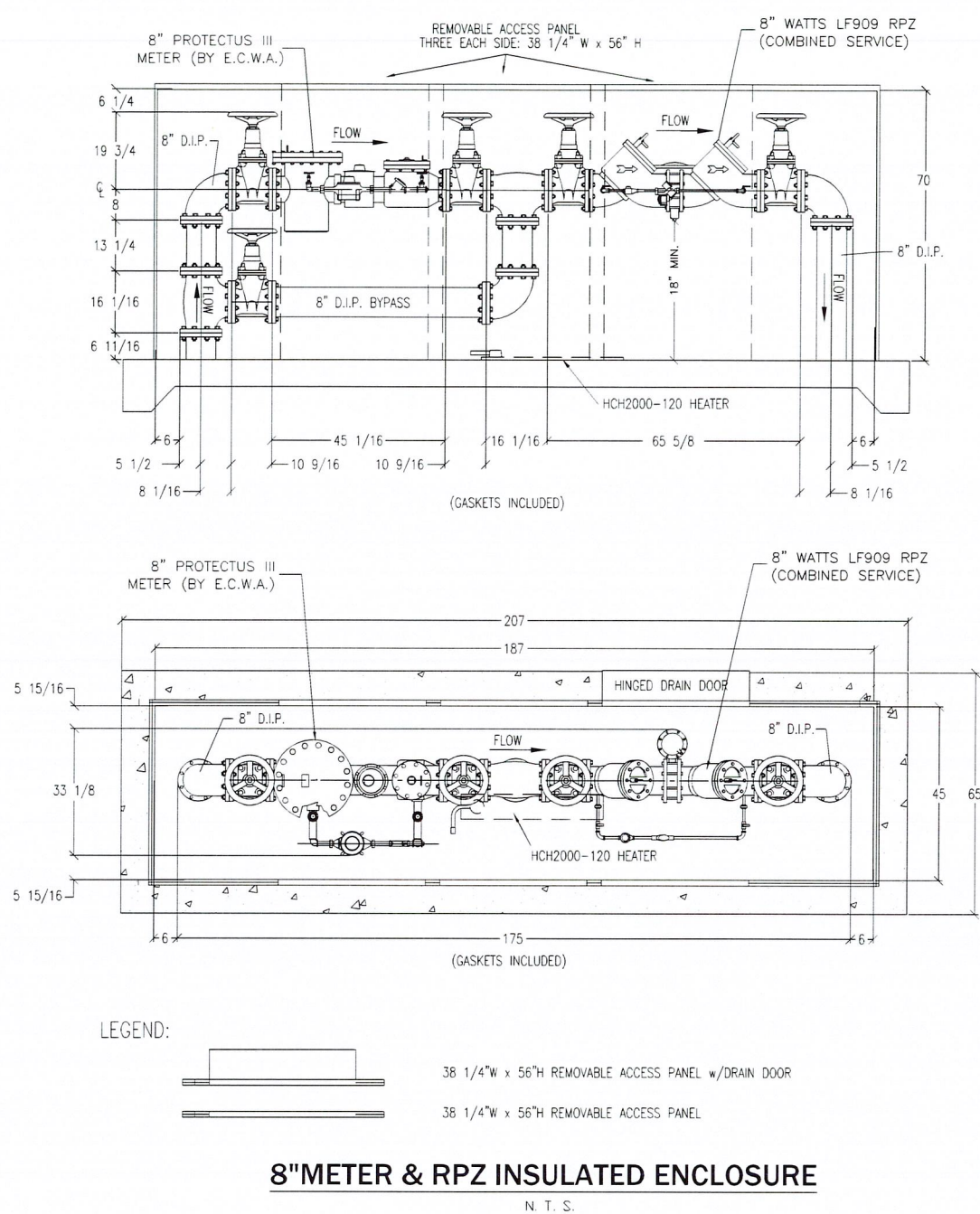
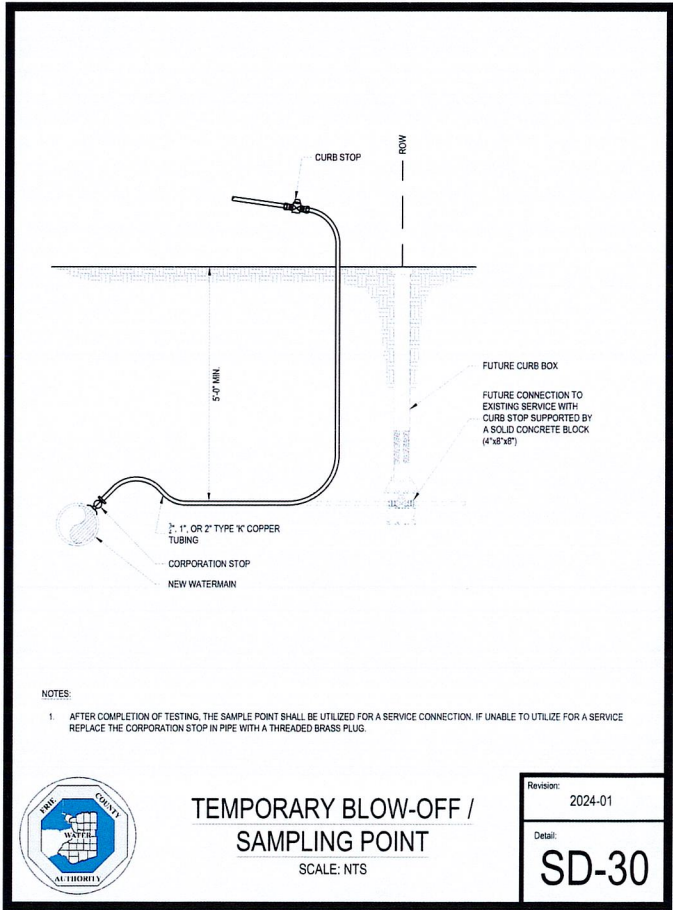
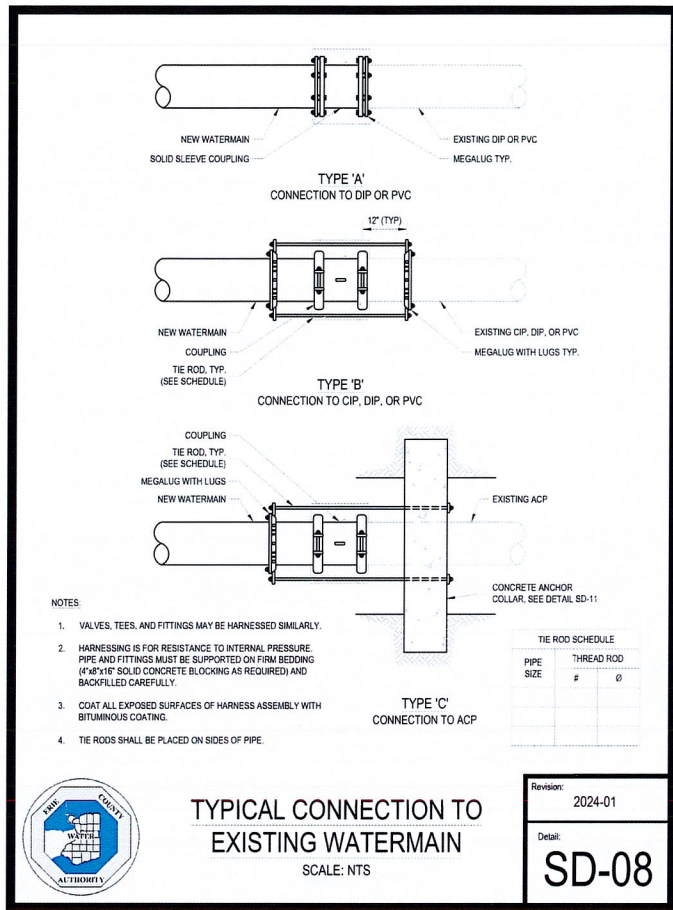
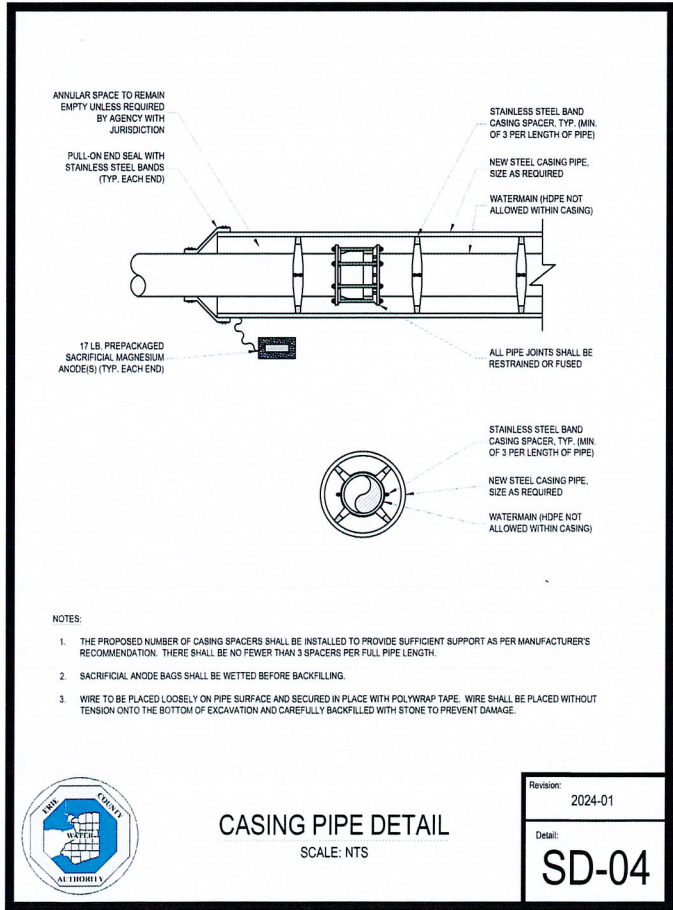
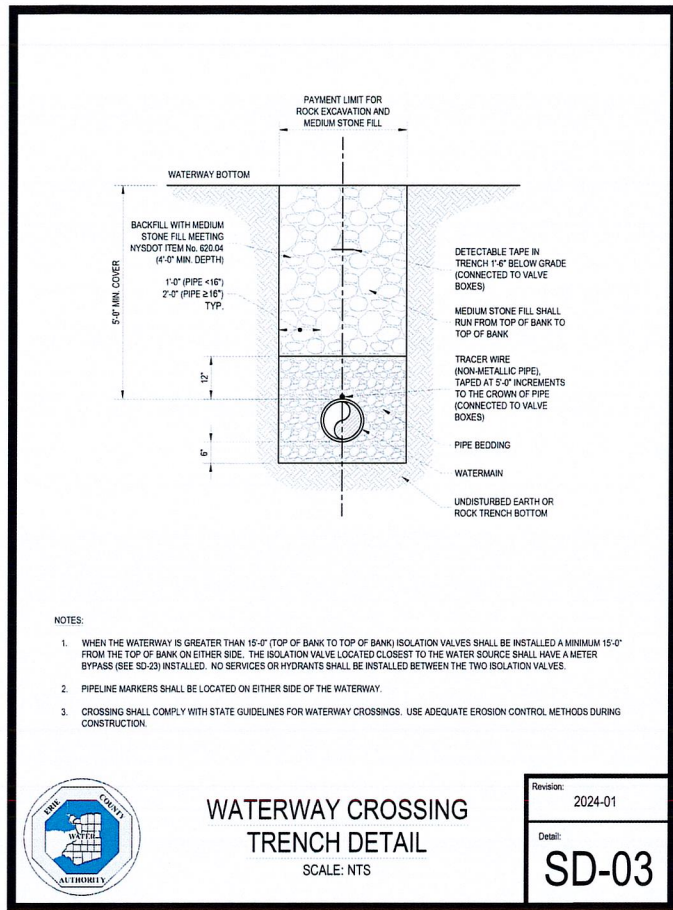
Amherst, New York

| REVISIONS: |            |
|------------|------------|
| No.        | Date       |
| 1          | 07/28/2026 |



G3.13.26  
D. Feyes  
As Noted





8NOTES:

- BACKFLOW PREVENTER DIMENSIONS FURNISHED BY WATTS.
- ALL DIMENSIONS ARE IN INCHES.
- WALL & INSULATION THICKNESS IS 1-1/2".
- ROOF & INSULATION THICKNESS IS 3".
- ENCLOSURE SHOWN IS SAFE-T-COVER MODEL 1000TS-ALC98-5.
- EXTERIOR ENCLOSURE DIMENSIONS: 45"W x 187"L x 70" H.
- CONCRETE PAD IS 65"W x 207"L x 6" THK W/W.F. 6X6/10X10.
- METER SHOWN: 8" PROTECTUS III, SPOOL PIECE & METER SUPPLIED BY ERIE COUNTY WATER AUTHORITY, VERIFY DIMENSIONS PRIOR TO ORDERING.
- RPZ SHOWN: 8" WATTS LF909 (COMBINED SERVICE).
- CONTRACTOR TO INSTALL ELECTRIC SERVICE TO ENCLOSURE, COORDINATE SOURCE WITH OWNER.
- INSTALL A 120V GFI OUTLET IN THE ENCLOSURE.
- HEATERS TO HAVE THERMOSTAT CONTROL.

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME:  
Water Details

Drawing No: 03.13.26  
Scale: D. Feyes  
As Noted

DRAWING NO.  
C-407

Project No: 25-4080



3.03 AIR TESTS, INSPECTION AND INFILTRATION OF EXFILTRATION REQUIREMENTS

A. REQUIREMENTS

1. AFTER BACKFILLING AND PRIOR TO THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO PERFORM THE FOLLOWING FOUR TESTS ON ALL SEWERS TO BE BUILT UNDER THIS PROJECT:

- A. AIR TESTS  
B. INSPECTION (LAMPING & INTERNAL)  
C. INFILTRATION OR EXFILTRATION  
D. DEFLECTION TEST (18" DIA. AND SMALLER)

2. NO MORE THAN 1,000 LINEAR FEET OF INSTALLED SEWER SHALL BE INSTALLED PRIOR TO TESTING.

3. IN VIEW OF THE FACT THAT HOUSE LATERALS AND RISER PIPES OFTEN CONTRIBUTE CONSIDERABLE INFILTRATION, SUCH LATERALS AND RISERS ARE TO BE INSTALLED AND CAPPED, TIED AND BLOCKED AS THE WORK PROGRESSES, AND PRIOR TO THE AIR TESTING OF THE LINES.

4. THE CONTRACTOR'S TESTING PROCEDURES SHALL BE COMPLETED IN ACCORDANCE WITH OSHA STANDARDS FOR CONFINED SPACE ENTRY. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE AND OPERATE ALL EQUIPMENT NECESSARY FOR FULL COMPLIANCE. EQUIPMENT SUCH AS GAS DETECTOR, SAFETY HARNESS, VENTILATING BLOWERS, RESPIRATOR, ETC., SHALL BE PROVIDED BY THE CONTRACTOR.

B. AIR TESTS (REQUIRED FOR ALL DIAMETER UP TO AND INCLUDING 36")

1. THIS TEST SHALL BE PERFORMED NO EARLIER THAN 14 CALENDAR DAYS AFTER THE TRENCHES ARE BACKFILLED.

2. THE PROCEDURES FOR AIR TESTING SHALL BE AS SPECIFIED HEREIN AND AS ORDERED BY THE ENGINEER. THE MINIMUM ALLOWABLE TIME FOR THE TEST PRESSURE TO DECREASE FROM 3.5 PSI TO 3.0 PSI SHALL BE NOT LESS THAN AS CALLED FOR IN THE FOLLOWING TABLE:

MINIMUM ACCEPTANCE TIME FOR LENGTH SHOWN (MIN. SEC.)

| PIPE DIAMETER | UP TO 100' | 100'-200' | 200'-300' | 300'-500' |       |
|---------------|------------|-----------|-----------|-----------|-------|
| 6"            | 2:30       | 2:50      | 2:50      | 2:50      | 2:51  |
| 8"            | 2:47       | 2:47      | 2:46      | 2:46      | 2:46  |
| 10"           | 4:43       | 4:43      | 4:56      | 4:56      | 4:56  |
| 12"           | 5:40       | 5:42      | 5:55      | 5:55      | 5:55  |
| 14"           | 6:36       | 7:50      | 11:45     | 11:45     | 11:45 |
| 16"           | 7:05       | 6:24      | 13:21     | 13:21     | 13:21 |
| 18"           | 7:35       | 10:20     | 15:18     | 15:18     | 15:18 |
| 20"           | 8:05       | 12:45     | 19:14     | 19:14     | 19:14 |
| 22"           | 9:21       | 16:54     | 23:55     | 23:55     | 23:55 |
| 24"           | 9:55       | 17:27     | 26:11     | 26:11     | 26:11 |
| 26"           | 11:24      | 22:46     | 34:11     | 34:11     | 34:11 |
| 28"           | 14:25      | 26:51     | 43:16     | 43:16     | 43:16 |
| 30"           | 17:48      | 35:37     | 53:25     | 53:25     | 53:25 |
| 32"           | 21:23      | 43:56     | 64:36     | 64:36     | 64:36 |
| 36"           | 25:39      | 51:17     | 76:55     | 76:55     | 76:55 |

3. PIPE LINES IN SIZES UP TO 36" INCHES IN DIAMETER CAN BE AIR TESTED FROM MANHOLE TO MANHOLE FOR DISTANCES NOT TO EXCEED 500 FEET.

4. IN WET TRENCHES WHERE PUMPING TO LOWER THE WATER TABLE IS IMPRACTICAL, APPROVED PERFORATED PIPE (WITH APPROVED CAP) SHALL BE PLACED AT EACH MANHOLE TO EXTEND FROM A POINT 6" INCHES BELOW THE LOWEST INVERT TO THE TOP OF THE GROUND. GROUND WATER ELEVATION WILL BE MEASURED AT EACH MANHOLE IN ORDER TO CALCULATE THE GROUNDWATER PRESSURE ACTING ON THE PIPE EXTERIOR. THE INITIAL AIR TEST PRESSURE SHALL BE INCREASED AS NECESSARY TO OVERCOME THE CALCULATED GROUNDWATER PRESSURE.

5. THE TESTING PROCEDURE OUTLINED SHALL BE STRICTLY ADHERED TO DURING CONSTRUCTION.

6. ALL TESTING EQUIPMENT SHALL BE SUPPLIED BY THE CONTRACTOR AT HIS EXPENSE. FOR THE CONTRACTOR'S INFORMATION, SOME OF THE MAJOR EQUIPMENT REQUIRED FOR AIR TESTS IS THE FOLLOWING:

- A. STOP WATCH - GRADUATED IN TENTHS OF A SECOND  
B. COMPRESSOR OF 50 TO 100 PSI CAPACITY  
C. BULKHEADS FOR PIPE  
D. APPROXIMATELY 100 FEET OF 3" (8") DIAMETER AIR HOSE  
E. PRESSURE GAUGE 0 TO 5 PSI GRADUATED IN 1/16 PSI  
F. POUND INCREMENTS  
G. THREE 3/16 INCH DIAMETER CHECK VALVES

C. VISUAL INSPECTION

1. ALL SEWERS UNDER 36" IN DIAMETER SHALL BE LAMPED MANHOLE TO MANHOLE PRIOR TO FINAL ACCEPTANCE. THE LAMP SHALL HAVE AN OUTPUT OF BETWEEN 250 TO 500 CANDLEPOWER. LAMPING SHALL BE PERFORMED AFTER THE SEWER HAS BEEN PUSHED AND THE INSIDE SURFACE WET TO ALLOW FOR LIGHT REFRACTION. IF FIFTY PERCENT (50%) OF THE LAMP CANNOT BE SEEN FROM THE OTHER MANHOLE, THE CONTRACTOR WILL BE REQUIRED TO TELEVIEW THAT SECTION AT HIS EXPENSE.

2. ALL PIPES 36" IN DIAMETER AND LARGER SHALL BE VISUALLY INSPECTED BY THE ENGINEER PRIOR TO INSTALLATION. ALL EQUIPMENT REQUIRED FOR THE VISUAL INSPECTION SHALL BE FURNISHED BY THE CONTRACTOR. AFTER INSTALLATION IS TOTALLY COMPLETED, THE CONTRACTOR SHALL COMPLY WITH AN INTERVAL TELEVISION INSPECTION OF THE PIPE CONDUIT. THE TELEVISION INSPECTION SHALL BE COMPLETED WITH THE ENGINEER PRESENT AND THE FULL INSPECTION SHALL BE RECORDED ON A VIDEO TAPE. A COPY OF SAID TAPE SHALL BE PROVIDED TO THE ENGINEER. SOME TIME OF INSPECTION ARE AS FOLLOWS:

- A. PIPE FREE FROM OBSTRUCTIONS AND DEBRIS  
B. PIPE FREE FROM CRACKS  
C. PIPE JOINTS PROPERLY SEALED  
D. PIPE INVERT IS SMOOTH AND FREE OF BAGE OR HIGH SPOTS  
E. HOOKUPS, DIVERSIONS AND CONNECTIONS PROPERLY MADE  
F. CONCRETE PIPE WALLS FREE FROM STRUCTURAL DEFECTS  
G. PIPES AND JOINTS FREE FROM WELEBLE SIGNS OF LEAKAGE  
H. REQUIRED COATINGS PROPERLY INSTALLED

3. PIPE SECTIONS AND JOINTS NOT MEETING ALL OF THE ABOVE REQUIREMENTS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

D. INFILTRATION TESTS (APPLICABLE ONLY IF GROUND WATER IS ABOVE PIPE)

1. THIS TEST SHALL BE PERFORMED NO EARLIER THAN 14 CALENDAR DAYS AFTER THE TRENCHES ARE BACKFILLED.

2. INFILTRATION TESTS FOR ALL SEWERS TO BE CONSTRUCTED UNDER THIS PROJECT SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS. EACH INDIVIDUAL RUN OF SEWER FROM ONE MANHOLE TO THE NEXT MANHOLE SHALL COMPLY WITH THE ALLOWABLE RATE OF INFILTRATION. ALL EQUIPMENT FOR THE TEST SHALL BE FURNISHED BY THE CONTRACTOR.

3. THE ALLOWABLE RATE OF INFILTRATION GIVEN IN GALLONS PER MILE IS NOT TO BE CONSTRUCTED AS A COMMITMENT ON THE PART OF THE OWNER TO ACCEPT AN ENTIRE LINE WHERE OVERALL INFILTRATION IS LESS THAN THE ALLOWABLE WHILE ONE OR MORE RUNS CONTRIBUTE EXCESSIVE INFILTRATION.

4. THE INFILTRATION TEST IS INTENDED TO MEASURE THE WATER TIGHTNESS OF A SEWER, AS RELATED TO THE INFILTRATION OF GROUND WATER, AND, THEREFORE, IS ONLY APPLICABLE IF THE WATER TABLE LEVEL IS TWO (2) FEET ABOVE THE TOP OF THE PIPE.

A. APPROVED SOLID PIPE (WITH AN APPROVED CAP) SHALL BE PLACED AT EACH MANHOLE TO EXTEND FROM A POINT 6 INCHES BELOW THE LOWEST INVERT TO THE TOP OF THE GROUND. THE PIPE SHALL BE EMBEDDED A MINIMUM OF 12 INCH CLEAN #1 STONE. GROUND WATER ELEVATION WILL BE MEASURED AT EACH MANHOLE SO THAT THE GROUND WATER LEVEL CAN BE CORRELATED WITH THE INFILTRATION MEASUREMENTS.

B. BEFORE CONDUCTING THE TESTS, THE WATER TABLE SHOULD BE ALLOWED TO STABILIZE AT ITS NORMAL LEVEL, SUCH THAT WATER COMPLETELY SURROUNDS THE PIPE DURING THE TEST PERIOD. THE TEST IS USUALLY CONDUCTED BETWEEN ADJACENT MANHOLES WITH THE UPSTREAM END OF THE SEWER BULK-HEADED IN A SUITABLE MANNER TO ISOLATE THE TEST SECTION. ALL SERVICE LATERALS, STUBS AND FITTINGS SHOULD BE PROPERLY PLUGGED OR CAPPED AT THE CONNECTIONS TO THE TEST PIPE SECTION TO PREVENT THE ENTRANCE OF GROUND WATER AT THESE LOCATIONS.

C. A WATER WEIR OR OTHER SUITABLE MEASURING DEVICE SHOULD BE INSTALLED IN THE INLET PIPE TO THE DOWNSTREAM MANHOLE. INFILTRATING WATER IS THEN ALLOWED TO BUILD UP AND LEVEL OFF BEHIND THE WEIR UNTIL A STEADY FLOW IS OBTAINED. WHEN STEADY FLOW OCCURS, THE WEIR LEAKAGE IS DETERMINED BY DIRECT READING CONSECUTIVELY FOR TWO (2) DAYS FROM GRADUATIONS ON THE WEIR AND CONVERTING THE FLOW QUANTITY TO GALLONS PER UNIT LENGTH OF PIPE PER UNIT OF TIME.

D. AN IMPORTANT FACTOR IN APPLYING THE TEST CRITERIA IS TO PROPERLY CORRELATE THE VARIABLE WATER HEAD OVER THE LENGTH OF SEWER BEING TESTED TO THE HIGH GROUNDWATER LEVEL. THE DOWNSTREAM END OF THE TEST SECTION WILL ALWAYS BE SUBJECTED TO A GREATER EXTERNAL WATER PRESSURE THAN THE UPSTREAM END. TO COMPENSATE FOR THIS VARIABLE EXTERNAL PRESSURE, THE TEST PRESSURE SHOULD BE THAT PRESSURE CORRESPONDING TO THE AVERAGE HEAD OF WATER OVER THE TEST SECTION. A MINIMUM OF 2 FEET OF WATER OVER THE PIPE IS REQUIRED AT THE UPPER MANHOLE BEFORE THE INFILTRATION TEST WILL BE ALLOWED.

5. WHEN A SEWER RUN BETWEEN TWO CONSECUTIVE MANHOLES OR CHAMBERS IS FOUND TO CONTRIBUTE INFILTRATION AT A RATE ABOVE THE ALLOWABLE, INSPECTION BY TELEVISION OR OTHER CAMERAS SHALL BE MADE BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE DURING WEATHER, SO THAT THE DEFECTIVE SECTION OF SEWER CAN BE LOCATED AND REPAIRED. EACH INDIVIDUAL RUN OF SEWER FROM ONE MANHOLE TO THE NEXT MANHOLE SHALL COMPLY WITH THE ALLOWABLE RATE OF INFILTRATION OF 100 GALLONS PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS.

E. EXFILTRATION TESTS

1. THIS TEST SHALL BE PERFORMED NO EARLIER THAN 14 CALENDAR DAYS AFTER THE TRENCHES ARE BACKFILLED.

2. THE EXFILTRATION TEST FOR ALL DIAMETER SEWERS SHALL BE AS DESCRIBED BELOW. ALTHOUGH ACTUAL INFILTRATION WILL NORMALLY BE LESS THAN THAT INDICATED BY THE WATER INFILTRATION TEST, THIS TEST DOES PROVIDE A POSITIVE MEANS OF SUBJECTING THE COMPLETED SEWER SYSTEM TO AN ACTUAL PRESSURE TEST. SINCE SANITARY SEWERS ARE NOT DESIGNED OR EXPECTED TO OPERATE AS A PRESSURE SYSTEM, CARE MUST BE EXERCISED IN CONDUCTING THE TEST AND CORRELATING THE RESULTS WITH THE ALLOWABLE INFILTRATION. ALL EQUIPMENT REQUIRED FOR THE TESTS SHALL BE FURNISHED BY THE CONTRACTOR.

A. THE TEST IS USUALLY CONDUCTED BETWEEN ADJACENT MANHOLES. PRIOR TO THE TEST, ALL SERVICE LATERALS, STUBS AND FITTINGS WITHIN THE TEST SECTION SHOULD BE PLUGGED OR CAPPED AND ADEQUATELY BRACED OR BLOCKED TO WITHSTAND THE WATER PRESSURE RESULTING FROM THE TEST.

B. IF MANHOLES ARE TO BE INCLUDED IN THE TEST, THE INLET PIPE TO EACH MANHOLE SHOULD BE BULK-HEADED AND THE TEST SECTION FILLED WITH WATER THROUGH THE UPSTREAM MANHOLE. TO ALLOW AIR TO ESCAPE FROM THE SEWER, THE FLOW SHOULD BE AT A STEADY RATE UNTIL THE WATER LEVEL IN THE UPSTREAM MANHOLE PROVIDES AN AVERAGE PRESSURE OF 5 PSI (1.6' HEAD) AT THE CENTER POINT OF THE TEST SECTION. IF NECESSARY, PROVISIONS SHOULD BE MADE TO BLEED OFF ENTRAPPED AIR DURING THE FILLING OF THE TEST SECTION.

C. ONCE THE TEST SECTION IS FILLED, THE WATER SHOULD BE ALLOWED TO STAND FOR AN ADEQUATE PERIOD OF TIME (AT LEAST 24 HOURS) TO ALLOW FOR WATER ABSORPTION BY THE PIPE AND MANHOLE. AFTER WATER ABSORPTION HAS STABILIZED, THE WATER LEVEL IN THE UPSTREAM MANHOLE IS BROUGHT UP TO THE PROPER TEST LEVEL AND THIS LEVEL ESTABLISHED BY MEASURING DOWN FROM THE MANHOLE COVER OR OTHER CONVENIENT DATUM POINT. AFTER 24 HOURS, THE WATER ELEVATION SHOULD BE MEASURED FROM THE SAME REFERENCE POINT AND THE LOSS OF WATER DURING THE TEST PERIOD CALCULATED. IF THE WATER CAN BE RESTORED TO THE LEVEL EXISTING AT THE BEGINNING OF THE TEST, AND THE AMOUNT ADDED USED TO DETERMINE THE LEAKAGE.

D. TO EXCLUDE BOTH MANHOLES FROM THE TEST, IT IS NECESSARY TO BULK-HEAD THE OUTLET HAT OF THE UPSTREAM MANHOLE. PROVISION MUST BE MADE IN THE BULKHEAD FOR FILLING THE PIPE AND EXPELLING TRAPPED AIR.

E. THE WATER LEVEL AT THE UPSTREAM MANHOLE SHALL BE COMPUTED AND VARIES ABOVE THE TOP OF THE PIPE. SINCE THE SEWER IS INSTALLED ON A GRADE, THE TEST SECTION DOWNSTREAM WILL BE SUBJECTED TO A GREATER PRESSURE. THEREFORE, THE TEST PRESSURE HEAD AT THE UPSTREAM MANHOLE SHOULD BE ADJUSTED SUCH THAT THE MAXIMUM PRESSURE ON THE PIPE BEING TESTED IS NOT GREATER THAN 10 PSI.

3. WHEN A SEWER RUN BETWEEN TWO CONSECUTIVE MANHOLES OR CHAMBERS IS FOUND TO CONTRIBUTE INFILTRATION AT A RATE ABOVE THE ALLOWABLE, INSPECTION BY TELEVISION OR OTHER CAMERAS SHALL BE MADE BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE DURING WEATHER, SO THAT THE DEFECTIVE SECTION OF SEWER CAN BE LOCATED AND REPAIRED. EACH INDIVIDUAL RUN OF SEWER FROM ONE MANHOLE TO THE NEXT MANHOLE SHALL COMPLY WITH THE ALLOWABLE RATE OF INFILTRATION OF 100 GALLONS PER INCH DIAMETER PER MILE OF SEWER PER 24 HOURS.

F. DEFLECTION TEST

ALL PVC SEWERS CONSTRUCTED UNDER THIS PROJECT SHALL BE INTERNALLY CHECKED NO EARLIER THAN 30 CALENDAR DAYS AFTER THE TRENCHES ARE BACKFILLED, WITH A FIVE PERCENT (5%) DEFLECTION. "GO NO GOING" TO DETERMINE IF THE PIPES ARE DEFLECTING. ANY SECTION OF PIPE UNABLE TO PASS THE "GO TEST" SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

DEFLECTION TESTING MANDREL OR "RIGID" SHALL BE PULLED THROUGH THE PIPE BY HAND OR HAND OPERATED WINCH. POWER WINCHES OR DRIVES ARE NOT PERMITTED.

G. INFILTRATION/EXFILTRATION TESTING OF SANITARY SEWER MANHOLES

PURSUANT TO SECTION 02376, THE CONTRACTOR IS REQUIRED TO COMPLETE AND PASS AN INFILTRATION OR EXFILTRATION TEST ON ALL SANITARY SEWER MANHOLES INSTALLED UNDER THIS CONTRACT. SUBJECT TO THE APPROVAL OF THE ENGINEER, THE TESTING OF THE MANHOLES CAN BE COMPLETED JOINTLY WITH THE TESTING OF THE INSTALLED SANITARY SEWER PIPE. THE CONTRACTOR IS ADVISED TO REFER TO SECTION 02376 ITEM 30.2 FOR THE ACTUAL TESTING REQUIREMENTS ASSOCIATED WITH THE SANITARY MANHOLES.

3.04 SEPARATION OF WATER MAINS AND SEWERS

A. GENERAL

1. REQUIRED TO COMPLY WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION STANDARD 98.2 FOR ALL SEWER AND WATER MAIN CROSSINGS SHOWN OR NOTED ON THE DRAWINGS.

B. HORIZONTAL SEPARATION

1. SEWERS SHALL BE LINED AT LEAST 1'0 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 1'0 FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS IF SUPPORTED BY DATA FROM THE ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER TO DEFLECT TO A WATERMAIN.

- A. THE LAD IN A SEPARATE TRENCH OR IF  
B. THE LAD IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT ONE SIDE OF A BENCH OF UNDISTURBED EARTH AND IF  
C. IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 1'0" BELOW THE BOTTOM INVERT OF THE WATERMAIN.

C. VERTICAL SEPARATION

1. SEWERS CROSSING WATERMANS SHALL BE LAID TO PROVIDE MINIMUM VERTICAL DISTANCE OF 1'8" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATERMAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE SUFFICIENT AND AS FAR AS POSSIBLE FROM THE WATERMAIN JOINTS. WHERE A WATERMAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATERMAIN.

D. UNAVAILABLE SEPARATION

1. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS SPECULATED ABOVE, THE SEWER SHALL BE EITHER ENCASED IN CONCRETE PER THE DETAIL ON THE PLANS OR CONSTRUCTED USING ACCEPTABLE WATER PIPE, DUCTILE IRON OR PVC 6900, AND PRESSURE TESTED TO 150 PSI ASSUMING WATER TIGHTNESS PRIOR TO BACKFILLING. THIS SHALL APPLY TO MAINLINE SEWERS, AS WELL AS 6" HOUSE LATERALS.

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:

Utility Notes

Date: 03.13.25  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-408

Project No: 25-4080

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

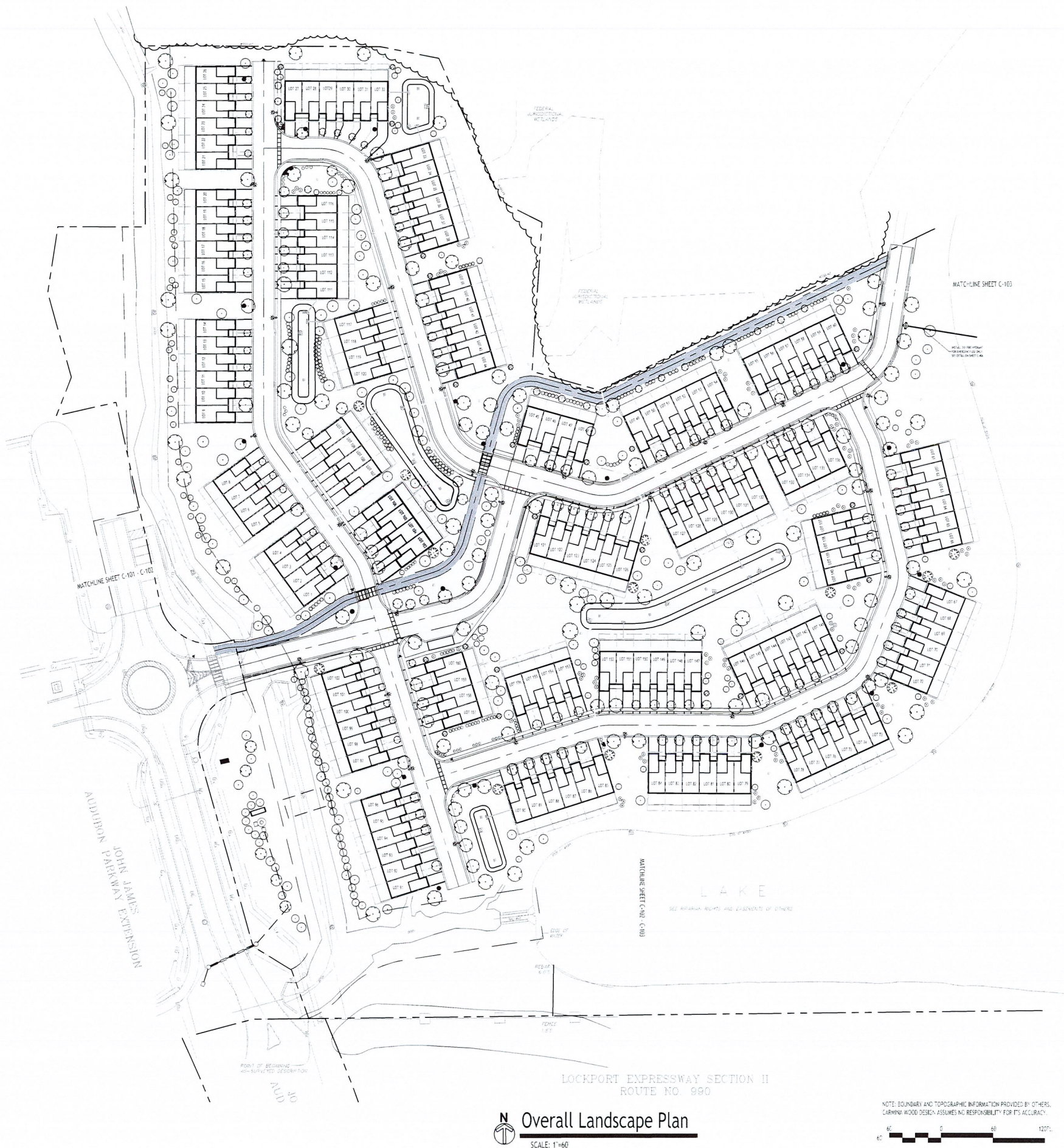
CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

| REVISIONS: | No. | Description | Date       |
|------------|-----|-------------|------------|
|            |     |             | 07/28/2024 |

Rev. Per Town Comments





PER TOWN OF AMHERST CODE:  
ALL REFUSE CONTAINERS & ALL MECHANICAL EQUIPMENT, UTILITY STRUCTURES, MULTIPLE METER BOARDS, GENERATORS, REFRIG., & SIMILAR APPURTENANCES, INCLUDING THOSE WHICH ARE MOUNTED ON ANY PART OF A PRIMARY STRUCTURE SHALL BE SHOWN ON THE SITE PLAN & APPROPRIATELY SCREENED W/ A FENCE, WALL, &/OR LANDSCAPING AS REQUIRED BY 203-7-2-4(c), & 203-7-2-4(d), OF TOWN CODE. SUCH SCREENING SHALL BE SHOWN ON THE PLANS SUBMITTED FOR REVIEW. PROVIDE GATE ON REFUSE ENCLOSURE THAT SHALL BE CLOSED WHENEVER REFUSE CONTAINERS ARE NOT BEING SERVICED & ENCLOSURE SHALL BE HIGH ENOUGH TO SCREEN THE REFUSE CONTAINERS WITHIN.

PER TOWN OF AMHERST CODE:  
ALL DEAD OR MISSING EXISTING PLANTS FROM THE PREVIOUSLY APPROVED SITE PLANS SHALL BE REPLACED/INSTALLED AS PER ZONING ORDINANCE 7-2-3(a)(11). (CONTRACTOR SHALL REFER TO PREVIOUSLY APPROVED SITE AND LANDSCAPE PLANS BY OTHERS FOR ALL LANDSCAPE REFERENCES).

PER TOWN OF AMHERST CODE:  
CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE, INCLUDING BUT NOT LIMITED TO, RETAIN WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS AS PER ZONING ORDINANCE 7-2-3(b)(3).

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSEYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD TAKEOFF OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUAL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, & 1 PART WELL ROTTED MANURE. 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE A MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDED AREAS SHALL BE HYDROSEEDING IN ACCORDANCE WITH THE SPECIFICATION INDICATED, WHERE REQUIRED BY CLIMATIC CONDITIONS, SOLOPE OR SEASON OF PLANTING. SOLOPE MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PRE-PLANTERS, SHRUB BEDS, ORNAMENTA, GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE "TREEN" HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE "TREEN" HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

LEGEND:

DECIDUOUS TREE



SMALL TREE



EVERGREEN TREE/SHRUB



BUSH/ORNAMENTA, GRASS



PERENNIAL

TOWN OF AMHERST APPROVAL BOX:

Approval box for Town of Amherst, containing fields for signature and date.

| REVISEMENTS | No. | Description            | Date       |
|-------------|-----|------------------------|------------|
| 1           | 1   | Rev. Per Town Comments | 07/28/2026 |

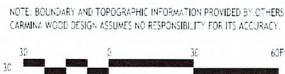


DRAWING NAME:  
Overall  
Landscape Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.  
L-100  
Project No: 25-4080





PER TOWN OF AMHERST CODE:  
ALL REUSE CONTAINERS & ALL MECHANICAL EQUIPMENT, UTILITY STRUCTURES, MULTIPLE METER BOARDS, GENERATORS, RPT'S, & SIMILAR APPLIANCES, INCLUDING THOSE WHICH ARE MOUNTED ON ANY PART OF A PRIMARY STRUCTURE SHALL BE SHOWN ON THE SITE PLAN & APPROPRIATELY SCREENED W/ A FENCE, WALL, OR LANDSCAPING AS REQUIRED BY 203-7-2-1(4)(C) & 203-7-2-4(D) OF TOWN CODE. SUCH SCREENING SHALL BE SHOWN ON THE PLANS SUBMITTED FOR REVIEW. PROVIDE GATE ON REUSE ENCLOSURE THAT SHALL BE CLOSED WHENEVER REUSE CONTAINERS ARE NOT BEING SERVICED & ENCLOSURE SHALL BE HIGH ENOUGH TO SCREEN THE REUSE CONTAINERS WITHIN.

PER TOWN OF AMHERST CODE:  
ALL DEAD OR MISSING EXISTING PLANTS FROM THE PREVIOUSLY APPROVED SITE  
PLANS SHALL BE REPLACED/INSTALLED AS PER ZONING ORDINANCE 7-2-3(A)(1).  
CONTRACTOR SHALL REFER TO PREVIOUSLY APPROVED SITE AND LANDSCAPE  
PLANS BY OTHERS FOR ALL LANDSCAPE REFERENCES.

PER TOWN OF AMHERST CODE:  
CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT  
EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE  
TYPES OF ROOT, TRUNK, AND LIMB DAMAGE, INCLUDING BY NOT LIMITS  
TO, RETAIN WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR  
EXCAVATING TREE ROOTS AS PER ZONING ORDINANCE 7-2.3(B)(3).

LANDSCAPE NOTES:

1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ASMA 260.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD SKEWING OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS' FIELD REPRESENTATIVE PRIOR TO ACTUALLY INSTALLING THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS AS TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS' FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5 FEET FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS' FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MATERIALS SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, 1/2 PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A 2" LAYER OF SHREDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDELOCK" BY EACH GARDENOR OR DENWIT WEED BARRIER.
9. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE A MINIMUM OF TOPSOIL, DISK FLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
10. ALL SEEDS AREAS SHALL BE HYDROSEEDING IN ACCORDANCE WITH THE SPECIFICATION INDICATED, WHERE REQUIRED BY CLIMATIC CONDITIONS, SOIL OR SEASON OF PLANTING, SO MAY BE SUBSTITUTES FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDS AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 10 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE PREEN\* HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF SOIL PEAT MOSS & SOIL SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE PREEN\* HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

**LEGEND**

DECIDUOUS TREE

SMALL TREE

EVERGREEN TREE/SHRUB

### BUSH/ORNAMENTAL GRASS

PERENNIAL.

TOWN OF AMHERST APPROVAL BOX:

DRAWING NAME:

Enlarged  
Landscape  
Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

L-101

Project No: 25-4080

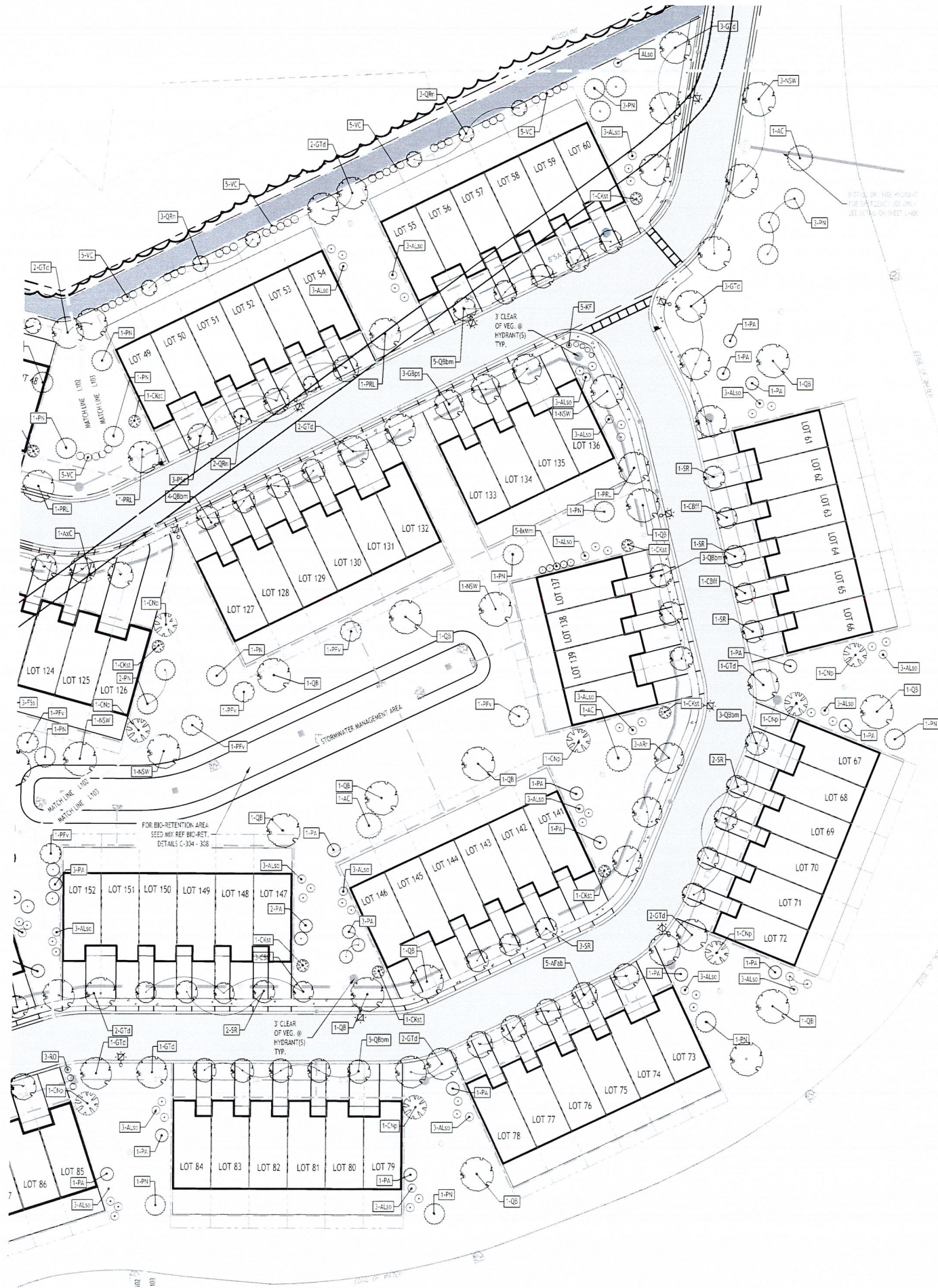
| REVISIONS: |                                   |
|------------|-----------------------------------|
| No.        | Description Date                  |
| 1          | Rev. Per Town Comments 07/28/2026 |











Enlarged Landscape Plan  
SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

PER TOWN OF AMHERST CODE:  
ALL REFUSE CONTAINERS & ALL MECHANICAL EQUIPMENT, UTILITY STRUCTURES, MULTIPLE METER BOARDS, GENERATORS, RPT'S, & SIMILAR APPLIANCES, INCLUDING THOSE WHICH ARE MOUNTED ON ANY PART OF A PRIMARY STRUCTURE SHALL BE SHOWN ON THE SITE PLAN & APPROPRIATELY SCREENED BY A FENCE, WALL, &/OR LANDSCAPING AS REQUIRED BY 203-7-2-4(C) & 203-7-2-4(D) OF TOWN CODE. SUCH SCREENING SHALL BE SHOWN ON THE PLANS SUBMITTED FOR REVIEW. PROVIDE GATE ON REFUSE ENCLOSURE THAT SHALL BE CLOSED WHENEVER REFUSE CONTAINER(S) ARE NOT BEING SERVICED & ENCLOSURE SHALL BE HIGH ENOUGH TO SCREEN THE REFUSE CONTAINERS WITHIN.

PER TOWN OF AMHERST CODE:  
ALL DEAD OR MISSING EXISTING PLANTS FROM THE PREVIOUSLY APPROVED SITE PLANS SHALL BE REPLACED/INSTALLED AS PER ZONING ORDINANCE 7-2-3(A)(1). CONTRACTOR SHALL REFER TO PREVIOUSLY APPROVED SITE AND LANDSCAPE PLANS BY OTHERS FOR ALL LANDSCAPE REFERENCES.

PER TOWN OF AMHERST CODE:  
CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES WHICH ARE TO BE PRESERVED FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE, INCLUDING BUT NOT LIMITED TO: RETAIN WALLS WHICH PREVENT FILLING ON TOP OF ROOTS OR EXCAVATING TREE ROOTS AS PER ZONING ORDINANCE 7-2-3(B)(3).

LANDSCAPE NOTES:

- ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERMEN, ANSI Z60.1
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
- THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUAL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 3' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
- ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
- PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, 1/2 PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
- STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
- ALL PLANTED AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER 10 MIL. WEED MAT EQUAL TO "WEEDLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
- THE AREAS ON THE PLAN TO BE SEEDDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELLED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
- ALL SEEDDED AREAS SHALL BE HYDROSEEDING IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SOPE OR SEASON OF PLANTING, SOE MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.

PLANTING NOTES:

- ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
- ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE "PREEM" HERBICIDE AND THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
- ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. SEASONAL FLOWER BEDS SHALL RECEIVE "PREEM" HERBICIDE. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
- ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.

LEGEND:

- DECIDUOUS TREE
- SMALL TREE
- EVERGREEN TREE/SHRUB
- BUSH/ORNAMENTAL GRASS
- PERENNIAL

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:

Enlarged  
Landscape  
Plan

Date: 03.13.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

C-103

Project No: 25-4080

CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York



All Rights Reserved. Reuse of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: It is a violation of article 145, sections 72094 and 7207 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to create this drawing. If altered North N.E., P.E. or L.S. shall affix his or her seal, signature, the date the document altered by and a specific description of the alteration.

Plant Schedule - 770 John James Audobon Parkway, Amherst, New York

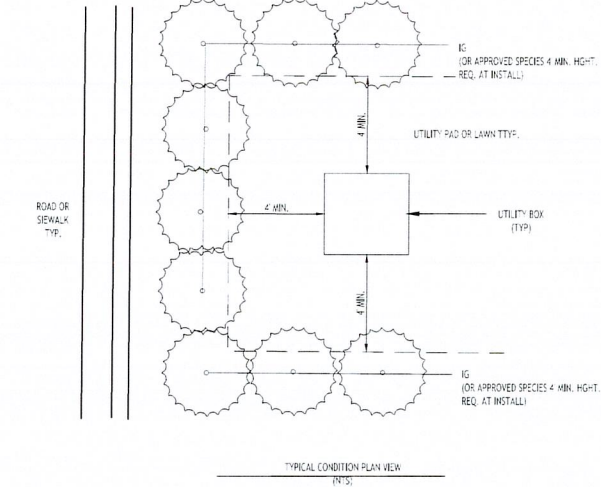
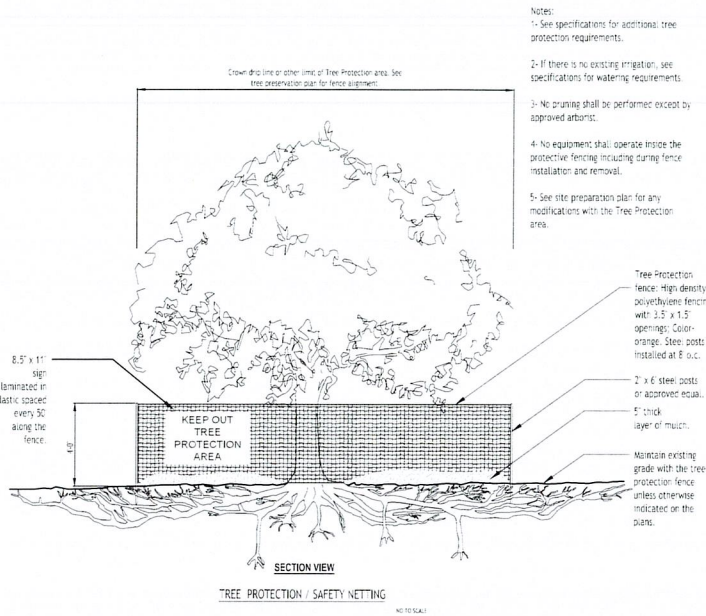
| KEY                           | QTY. | BOTANICAL NAME                          | COMMON NAME                              | MIN. SIZE        | REMARKS             |
|-------------------------------|------|-----------------------------------------|------------------------------------------|------------------|---------------------|
| D E C I D U O U S   T R E E S |      |                                         |                                          |                  |                     |
| QB                            | 34   | Quercus bicolor                         | Swamp White Oak                          | 2 1/2" - 3" CAL. | B&B, HT. 60', W 40' |
| GTd                           | 31   | Gleditsia triacanthos I "Draves"        | Street Keeper Honey Locust               | 2 1/2" - 3" CAL. | B&B, HT. 40', W 35' |
| AxC                           | 14   | Aesculus x carnea "Biotti"              | Red Horse Chestnut                       | 2 1/2" - 3" CAL. | B&B, HT. 60', W 40' |
| AxB                           | 3    | Aesculusx bushii "Aaron 1"-             | Mystic Ruby Buckeye                      | 2 1/2" - 3" CAL. | B&B, HT. 30', W 15' |
| ARr                           | 7    | Acer rubrum 'Redpointe'                 | Sun Valley Red Maple                     | 2 1/2" - 3" CAL. | B&B, HT. 40', W 35' |
| QM                            | 3    | Quercus macrocarpa 'JFS-KW3' PP22815    | Urban Pinnacle Oak                       | 2 1/2" - 3" CAL. | B&B, HT. 55', W 25' |
| AFab                          | 5    | Acer freemanii 'Jeffersred'             | Autumn Blaze Maple                       | 2 1/2" - 3" CAL. | B&B, HT. 40', W 35' |
| QPgp                          | 5    | Quercus palustris 'Green Pillar'        | Green Pillar Pin Oak                     | 2 1/2" - 3" CAL. | B&B, HT. 35', W 18' |
| NSW                           | 7    | Nyssa sylvatica 'Wildfire'              | Wildfire Tupelo                          | 2 1/2" - 3" CAL. | B&B, HT. 35', W 18' |
| CBff                          | 16   | Carpinus betulus 'Frans Fontaine'       | European Hornbeam - Frans Fontaine       | 2 1/2" - 3" CAL. | B&B, HT. 35', W 15' |
| QRn                           | 39   | Quercus robur x bicolor Nadier PP17604' | Kindred Spirit Oak                       | 2 1/2" - 3" CAL. | B&B HT. 30', W 6'   |
| QBbm                          | 32   | Quercus bicolor 'Bonnie & Mike'         | Bonnie & Mike Oak                        | 2 1/2" - 3" CAL. | B&B, HT. 40', W 15' |
| FSbl                          | 10   | Nyssa sylvatica 'JFS-red'               | Fire Starter Back Tupelo                 | 2 1/2" - 3" CAL. | B&B, HT. 35', W 18' |
| FSa                           | 7    | Fagus asplenifolia                      | Fernleaf Beech                           | 2 1/2" - 3" CAL. | B&B, HT. 35', W 25' |
| GBps                          | 12   | Ginkgo biloba 'Princeton Sentry'        | Princeton Sentry Ginkgo(Maidenhair Tree) | 2 1/2" - 3" CAL. | B&B, HT. 40', W 20' |
| FSs                           | 5    | Fagus sylvatica 'Riversii'              | Rivers Purple Beech                      | 2 1/2" - 3" CAL. | B&B, HT. 60', W 40' |
| PSc                           | 7    | Prunus sargentii 'Columnaris'           | Columnar Sargent Cherry                  | 2 1/2" - 3" CAL. | B&B, HT. 35', W 15' |
| PRL                           | 6    | Robinia pseudoacacia 'Purple Robe'      | Purple Robe Black Locust                 | 2 1/2" - 3" CAL. | B&B, HT. 35', W 15' |
| ELE                           | 8    | Ulmus parviflora 'BNSUBF'               | Everclear Lacebark Elm                   | 2 1/2" - 3" CAL. | B&B, HT. 40', W 20' |

|                                                 |    |                                       |                               |                      |                     |
|-------------------------------------------------|----|---------------------------------------|-------------------------------|----------------------|---------------------|
| S M A L L   /   O R N A M E N T A L   T R E E S |    |                                       |                               |                      |                     |
| CKst                                            | 23 | Cornus kousa "Snow Tower "PPAF"       | Snow Tower Kousa Dogwood      | 1 1/2" x 2 1/2" CAL. | B&B, HT. 15', W 8'  |
| SR                                              | 16 | Syringa reticulata                    | Ivory Silk Lilac              | 1 1/2" x 2 1/2" CAL. | B&B, HT. 20', W 15' |
| ALSo                                            | 82 | Amelanchier laevis 'Standing Ovation' | Standing Ovation Serviceberry | 1 1/2" x 2" CAL.     | B&B, HT. 20', W 15' |

|                               |    |                                          |                                  |           |                     |
|-------------------------------|----|------------------------------------------|----------------------------------|-----------|---------------------|
| E V E R G R E E N   T R E E S |    |                                          |                                  |           |                     |
| JS                            | 2  | Juniperus scopulorum 'Skyrocket'         | Skyrocket Juniper                | 6-8' Tall | B&B, HT. 16', W 4'  |
| PA                            | 68 | Picea abies 'Hillside upright'           | Norway Spruce - Upright          | 6-8' Tall | B&B, HT. 20', W 8'  |
| AC                            | 16 | Abies concolor                           | White Fir                        | 6-8' Tall | B&B, HT. 60', W 20' |
| JV                            | 12 | Juniperus virginiana 'Emerald Sentinel'  | Eastern Red Cedar                | 6-8' Tall | B&B, HT. 20', W 8'  |
| CNp                           | 13 | Chamaecyparis nootkatensis 'Pendula'     | Weeping Nootka Cypress           | 6-8' Tall | B&B, HT. 20', W 8'  |
| PFv                           | 11 | Pinus flexilis 'Vanderwolf's Pyramid'    | Vanderwolf's Pyramid Limber Pine | 6-8' Tall | B&B, HT. 20', W 8'  |
| CJbd                          | 3  | Cryptomeria Japonica 'Black Dragon'      | Black Dragon Japanese cedar      | 6-8' Tall | B&B, HT. 30', W 15' |
| PN                            | 74 | Pinus nigra                              | Austrian Pine                    | 6-8' Tall | B&B, HT. 40', W 20' |
| PO                            | 16 | Picea omorika                            | Siberian Spruce                  | 6-8' Tall | B&B, HT. 40', W 12' |
| AK                            | 3  | Abies koreana                            | Korean Fir                       | 6-8' Tall | B&B, HT. 35', W 12' |
| GG                            | 23 | Thuja standishii x plicata 'Green Giant' | Green Giant Arborvitae           | 6-8' Tall | B&B, HT. 40', W 16' |

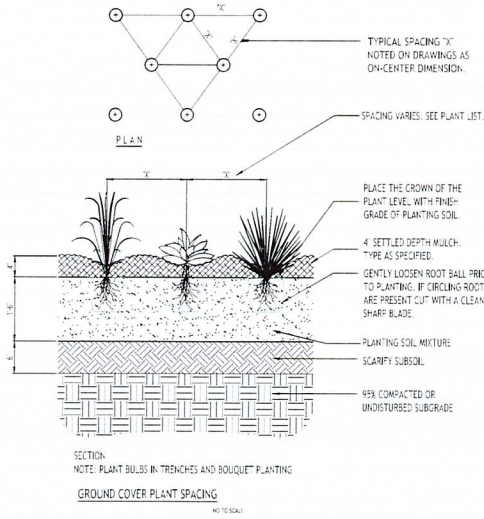
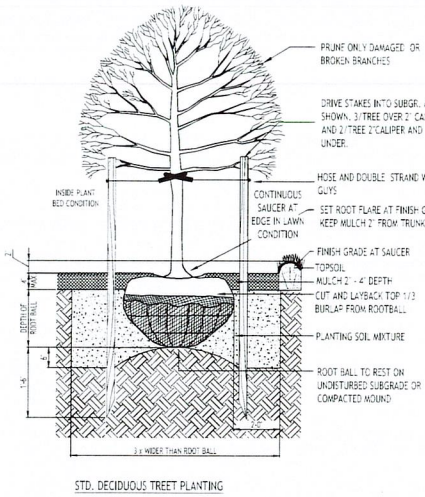
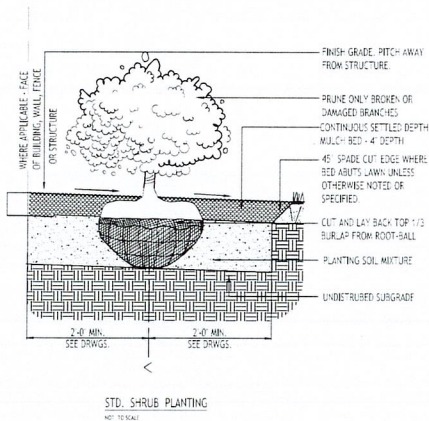
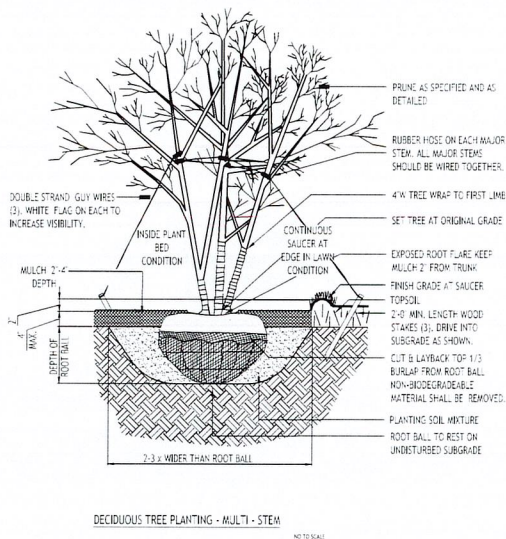
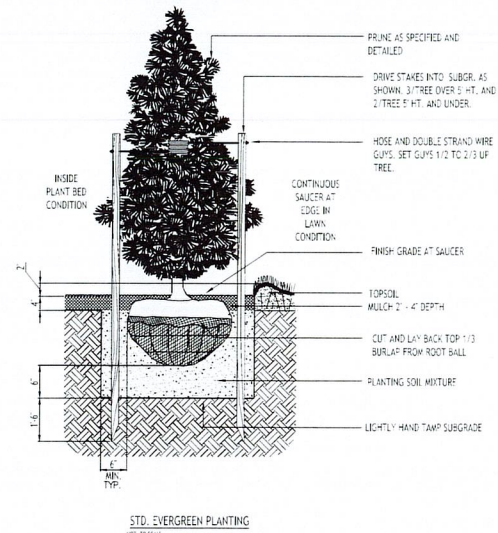
|             |    |                                      |                                      |             |                   |
|-------------|----|--------------------------------------|--------------------------------------|-------------|-------------------|
| S H R U B S |    |                                      |                                      |             |                   |
| IGb         | 22 | Ilex glabra compacta                 | Inkberry Holly - Compact             | 24-36" Tall | B&B, HT. 4', W 4' |
| CSd         | 44 | Cornus sericea                       | Red Twig Dogwood                     | 24-36" Tall | B&B, HT. 4', W 4' |
| IGGb        | 20 | Ilex glabra 'Gem Box'                | Gem-box Inkberry Holly               | 24-36" Tall | B&B, HT. 4', W 4' |
| IxM         | 15 | Ilex x meserveae                     | Blue Princess Holly                  | 24-36" Tall | B&B, HT. 5', W 5' |
| SNbl        | 6  | Sambucus nigra 'Eva' Black Lace      | Black Elder                          | 24-36" Tall | B&B, HT. 4', W 3' |
| IV          | 15 | Ilex verticillata                    | Winterberry Holly                    | 24-36" Tall | B&B, HT. 7', W 5' |
| VC          | 37 | Viburnum carlesii                    | Korean Spice Viburnum                | 24-36" Tall | B&B, HT. 5', W 5' |
| AFR         | 32 | Cornus stolonifera 'Arctic Fire'     | Arctic Fire Red Twig Dogwood         | 24-36" Tall | B&B, HT. 4', W 4' |
| CxS         | 10 | Chaenomeles speciosa 'Scarlet Storm' | Double Take Scarlet Flowering Quince | 24-36" Tall | B&B, HT. 6', W 6' |

|                                                                       |    |                                  |                              |             |                                 |
|-----------------------------------------------------------------------|----|----------------------------------|------------------------------|-------------|---------------------------------|
| G R A S S E S   /   P E R E N N I A L S   /   G R O U N D C O V E R S |    |                                  |                              |             |                                 |
| RO                                                                    | 18 | Andropogon Gerardi 'Red October' | Red October Big Blue Stem    | 18-24" Tall | Cont. #3, HT. 4', W 4'          |
| KF                                                                    | 22 | Calamagrostis x acutiflora       | Karl Foerster Reed Grass     | 18-24" Tall | Cont. no.3 - 3'Tall, 3"Wide     |
| NxF                                                                   | 32 | Nepeta x frassenii               | Nepeta - Walkers Low Catmint | 6-12" Tall  | Cont. no.3 - 18" Tall, 1-4"Wide |



- NOTES:
1. USE EVERGREEN SHRUBS TO SCREEN ALL ABOVEGROUND UTILITY BOXES AND INFRASTRUCTURE FROM ADJACENT ROAD OR SIDEWALK PER TOWN OF AMHERST CODE
  2. PROVIDE A MINIMUM 4' OFFSET FROM THE SHRUBS PLANTED EDGE TO THE EDGE OF THE UTILITY BOX TO ALLOW ENOUGH CLEARANCE FOR UTILITY MAINTENANCE TO BE PERFORMED

TYPICAL SHRUB PLANTING TO SCREEN UTILITY INFRASTRUCTURE



TOWN OF AMHERST APPROVAL BOX:

APPROVAL BOX

CARMINA WOOD  
DESIGN  
Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

|                        |            |
|------------------------|------------|
| REVISED:               | Date       |
| No. Description        | 07/28/2016 |
| Rev. Per Town Comments |            |



DRAWING NAME:  
Landscape  
Details  
Plant Schedule

Date: 03.13.26  
Drawn By: D. Foye  
Scale: As Noted

DRAWING NO.

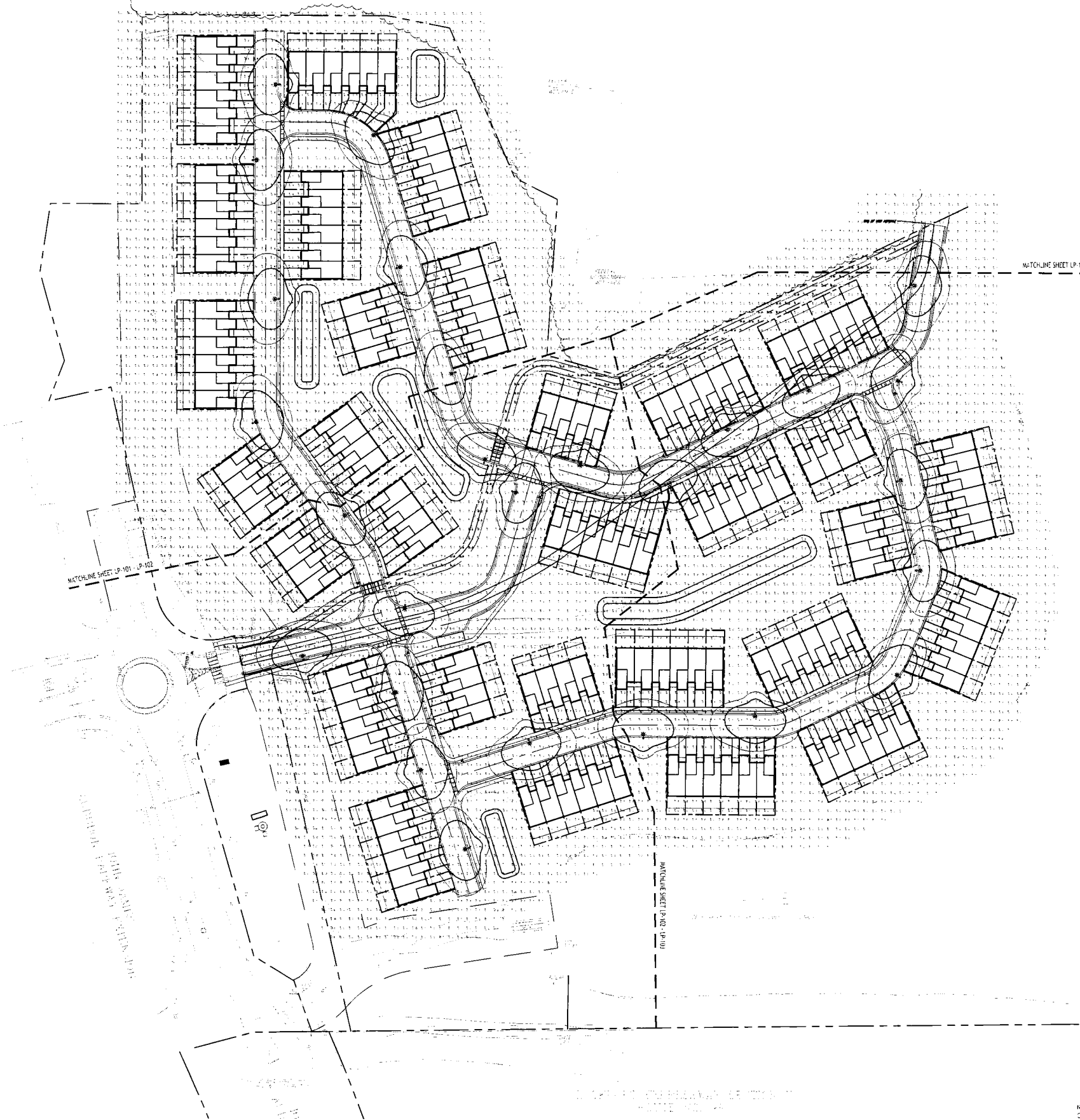
L-104

Project No: 25-4080



All Rights Reserved. Review of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: it is a violation of article 175, section 2, paragraph 1, and 201 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter the drawing. It is altered with R.A., P.E. or L.S. date after day of the month, year, the date the revision is altered by and a specific description of the alteration.

© CARMINA WOOD DESIGN



**Overall Lighting Plan**  
SCALE: 1"=60'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

| Luminaire Schedule |     |       |                                     |
|--------------------|-----|-------|-------------------------------------|
| Symbol             | Qty | Label | Description                         |
|                    | 27  | S2    | Gardco #OPF-S-A03-840-T2M (9,840lm) |

| Calculation Summary |             |       |      |     |     |
|---------------------|-------------|-------|------|-----|-----|
| Label               | CalcType    | Units | Avg  | Max | Min |
| Overall Site        | Illuminance | Fc    | 0.36 | 3.0 | 0.0 |
| Roadway             | Illuminance | Fc    | 1.29 | 3.0 | 0.0 |

#### Calculation/Layout Notes

1. Calculations are the expected maintained illumination
2. Calculations are measured at grade
3. Surface reflectance is 20%
4. Mounting Heights: 23ft (all)
5. All lights are dark sky compliant

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:

Overall  
Lighting Plan

Date: 03.13.24  
Drawn By: D. Feyer  
Scale: As Noted

DRAWING NO.

**LP-100**

Project No: 25-4080

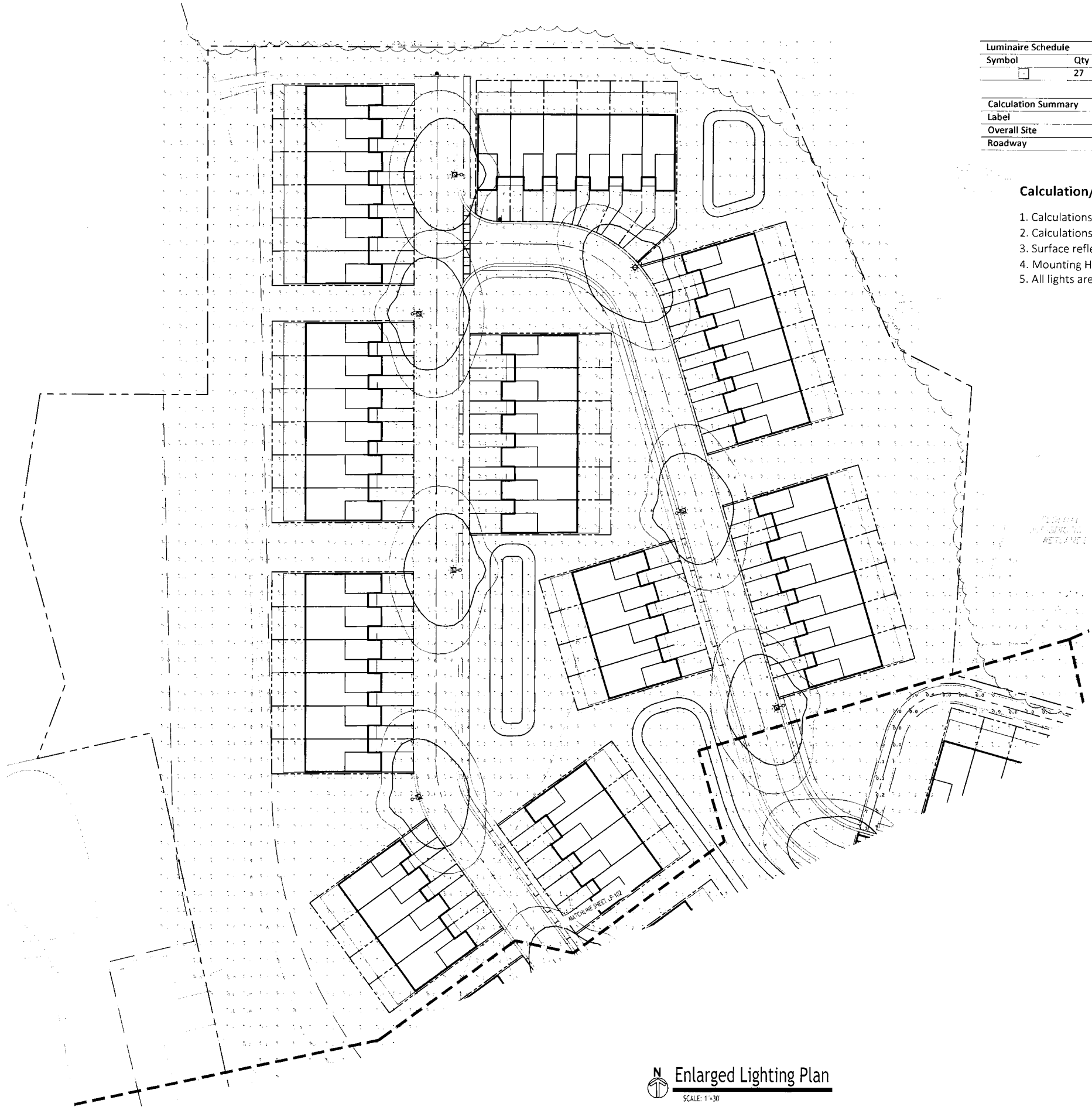
## Townhomes at Muir Woods

770 John James Audubon Parkway  
Amherst, New York

# CARMINA WOOD

## DESIGN

Buffalo | Utica | Greensboro



| Luminaire Schedule |     |       |                                     |
|--------------------|-----|-------|-------------------------------------|
| Symbol             | Qty | Label | Description                         |
|                    | 27  | S2    | Gardco #OPF-S-A03-840-T2M (9,840lm) |

| Calculation Summary |             |       |      |     |     |
|---------------------|-------------|-------|------|-----|-----|
| Label               | CalcType    | Units | Avg  | Max | Min |
| Overall Site        | Illuminance | Fc    | 0.36 | 3.0 | 0.0 |
| Roadway             | Illuminance | Fc    | 1.29 | 3.0 | 0.0 |

Calculation/Layout Notes

1. Calculations are the expected maintained illumination
2. Calculations are measured at grade
3. Surface reflectance is 20%
4. Mounting Heights: 23ft (all)
5. All lights are dark sky compliant

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY CITY-ERS  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:

Enlarged  
Lighting Plan

Date: 02.12.26  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.:

LP-101

Project No: 25-4080

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

| REVISIONS |                        | Date       |
|-----------|------------------------|------------|
| No.       | Description            |            |
| 1         | Rev. Per Town Comments | 07/28/2025 |

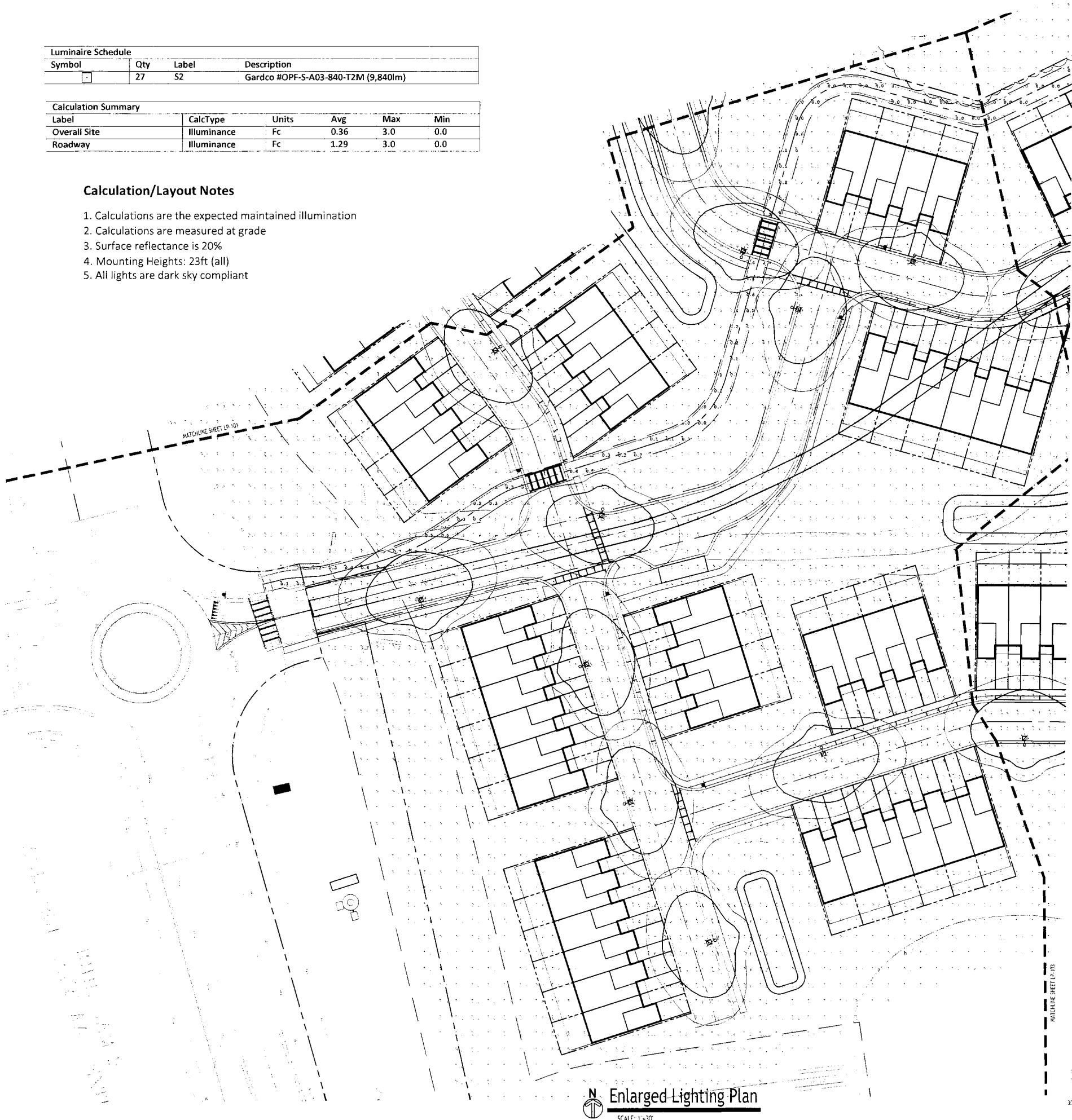


| Luminaire Schedule                                                                |     |       |                                     |
|-----------------------------------------------------------------------------------|-----|-------|-------------------------------------|
| Symbol                                                                            | Qty | Label | Description                         |
|  | 27  | S2    | Gardco #OPF-S-A03-840-T2M (9,840lm) |

| Calculation Summary |             |       |      |     |     |
|---------------------|-------------|-------|------|-----|-----|
| Label               | CalcType    | Units | Avg  | Max | Min |
| Overall Site        | Illuminance | Fc    | 0.36 | 3.0 | 0.0 |
| Roadway             | Illuminance | Fc    | 1.29 | 3.0 | 0.0 |

Calculation/Layout Notes

- Calculations are the expected maintained illumination
- Calculations are measured at grade
- Surface reflectance is 20%
- Mounting Heights: 23ft (all)
- All lights are dark sky compliant



Enlarged Lighting Plan  
SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS.  
CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 0' 30' 60'

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Enlarged  
Lighting Plan

Date: 03.12.24  
Drawn By: D. Feys  
Scale: As Noted  
DRAWING NO.  
LP-102  
Project No: 25-4080

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

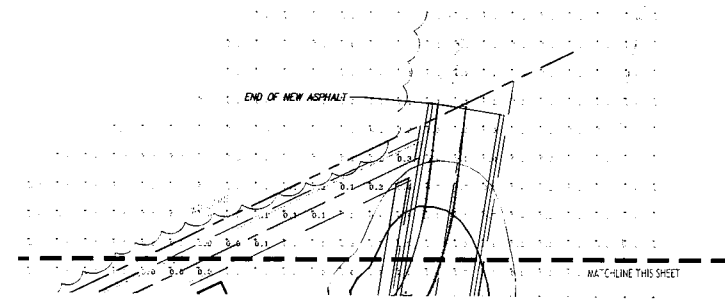
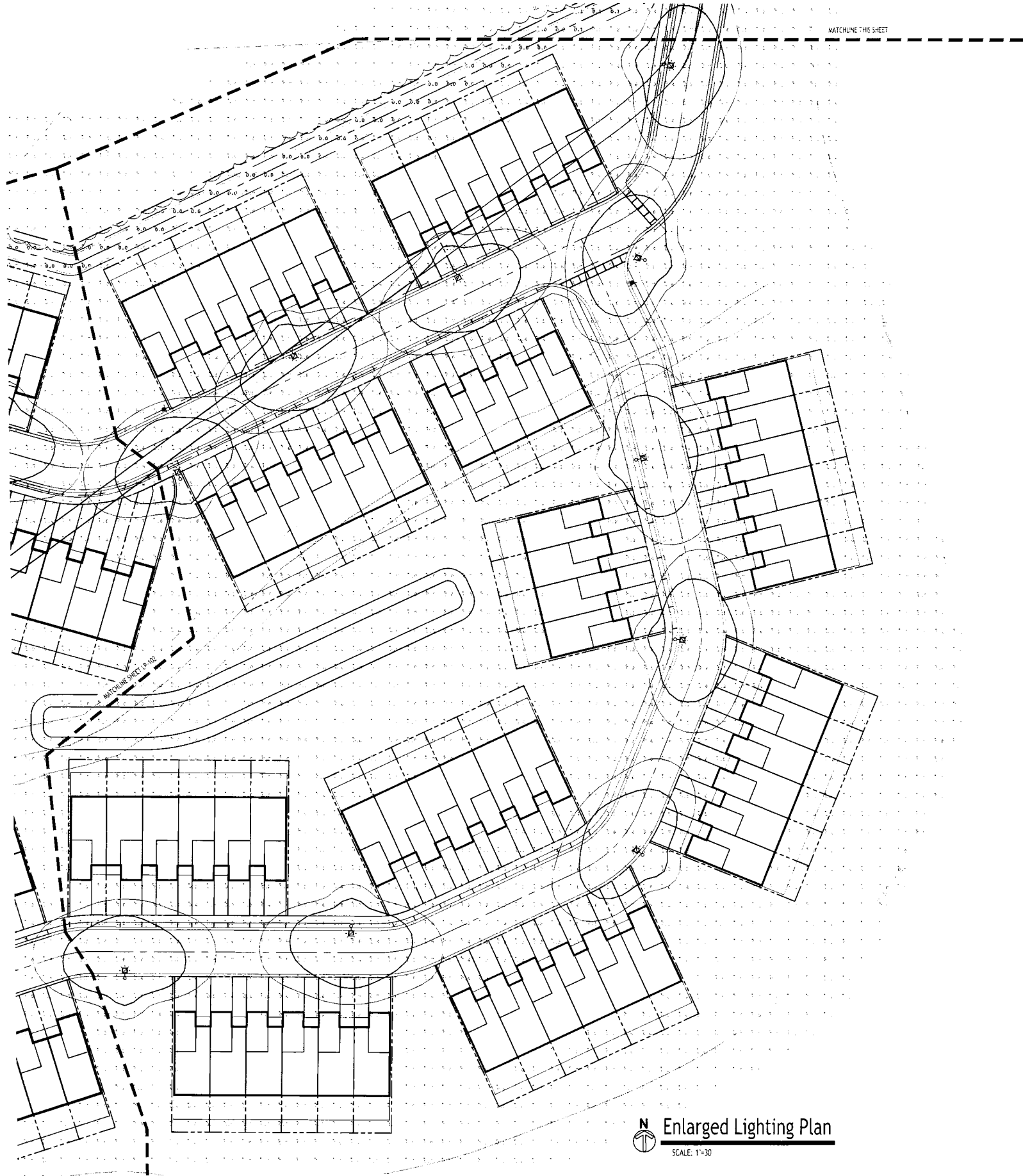
CARMINA WOOD  
DESIGN  
Buffalo | Utica | Greensboro

| REVISIONS: |                        |
|------------|------------------------|
| No.        | Description            |
| 1          | Rev. For Town Comments |

Date: 07/28/2024

All Rights Reserved. None of these documents without the expressed written permission of CARMINA WOOD DESIGN is prohibited. WARNING: It is a violation of article 175, version 7/2008 and 101 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter this drawing or allowed copy P.E. or L.L.S. shall after his or her seal, signature, the date the original is altered by, and a specific description of the alteration.

© CARMINA WOOD DESIGN



| Luminaire Schedule |     |       |                                     |
|--------------------|-----|-------|-------------------------------------|
| Symbol             | Qty | Label | Description                         |
| □                  | 27  | S2    | Gardco #OPF-S-A03-840-T2M (9,840lm) |

| Calculation Summary |             |       |      |     |     |
|---------------------|-------------|-------|------|-----|-----|
| Label               | CalcType    | Units | Avg  | Max | Min |
| Overall Site        | Illuminance | Fc    | 0.36 | 3.0 | 0.0 |
| Roadway             | Illuminance | Fc    | 1.29 | 3.0 | 0.0 |

#### Calculation/Layout Notes

1. Calculations are the expected maintained illumination
2. Calculations are measured at grade
3. Surface reflectance is 20%
4. Mounting Heights: 23ft (all)
5. All lights are dark sky compliant

TOWN OF AMHERST APPROVAL BOX:



| REVISIONS: |                        | Date       |
|------------|------------------------|------------|
| No.        | Description            |            |
| 1          | Rev. Per Town Comments | 07/28/2024 |

CARMINA WOOD  
DESIGN

Buffalo | Utica | Greensboro

Townhomes at Muir Woods  
770 John James Audubon Parkway  
Amherst, New York

DRAWING NAME:  
Enlarged  
Lighting Plan

Date: 07/13/24  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

LP-103

Project No: 25-4080

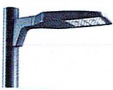




Site and Area

OptiForm

OPF-S Small



Gardco OptiForm site and area luminaires are available in three sizes: small, medium and large. Featuring the latest in LED technology, OptiForm achieves up to 192 lumens per watt. Eleven optical distributions are available, suitable for a range of outdoor lighting applications. OptiForm features a unique mounting system with a two-piece housing for hassle-free installation. Mounting options include a standard arm, mast arm, and wall mount bracket. Service Tag is a standard feature with every OptiForm luminaire, providing maintenance or upgrade assistance throughout the life of the product.

Ordering guide

example: OPF-S-A01-B40-TAM-ARI-120-BLS0-L3-B2

| Luminaire                       | Configuration (nom. lumens)                                                                                                                                                                   | Color Temperature                                                                       | Distribution                                         | Mounting                                                                                                                | Voltage                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| OPF-S                           |                                                                                                                                                                                               |                                                                                         |                                                      |                                                                                                                         |                                                                                                                   |
| OPF-S<br>OptiForm<br>Small Area | Site and Area<br>Precision Plus <sup>®</sup><br>A01 3,000 lumens<br>A02 5,000 lumens<br>A03 11,000 lumens<br>A04 15,000 lumens<br>A05 17,000 lumens<br>A06 19,000 lumens<br>A07 20,000 lumens | 827 3000K<br>830 3000K<br>840 3000K<br>850 3000K<br>860 3000K<br>870 3000K<br>880 3000K | 270K<br>270K<br>270K<br>270K<br>270K<br>270K<br>270K | ARI <sup>®</sup> Arm mount (standard)<br>TAM Mast arm<br>WAL Wall mount<br>MOS <sup>®</sup> Mounting ordered separately | 120 120V<br>208 208V<br>240 240V<br>277 277V<br>347 347V<br>480 480V<br>UNV 120-277V<br>HVM <sup>®</sup> 247-480V |

| Dimming Controls                                                           | Sensing                                                     | Options (electrical, mechanical, etc.)                                 | Emergency                                                              | Finish                                                  |
|----------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------|
| The following options include 0-10V Driver                                 |                                                             |                                                                        |                                                                        |                                                         |
| None                                                                       |                                                             | None                                                                   | Emergency Battery Pack (0-40 °C)                                       | Standard textured finish                                |
| DLEA <sup>™</sup> Dimming leads externally accessible (controls by others) |                                                             | FS1 Single fuse (20A, 27A, or 347A/480V)                               | FS2 Double fuse (20A, 27A, or 347A/480V)                               | WH White<br>BR Bronze<br>DG Dark Gray<br>MG Medium Gray |
| FAND <sup>™</sup> Fluid adjustable wet/dry selector                        |                                                             | PCB <sup>™</sup> Photocell control connected to 0-10V driver           | TR5 5-pin twist lock receptacle connected to 0-10V driver              |                                                         |
| BLS0 <sup>™</sup> Bi-level with motion sensor                              | L3 PIR sensor, #2 lens (Required if BLS0 is selected)       | TRP <sup>™</sup> 7-pin twist lock receptacle connected to 0-10V driver | TLP <sup>™</sup> 7-pin twist lock receptacle connected to 0-10V driver | Customer specified                                      |
| The following options include BR/DALI Driver                               |                                                             |                                                                        |                                                                        |                                                         |
| WIAP <sup>™</sup> Wireless Internet (includes SR driver and SR receptacle) | LW Low (7'-15' mounting height) sensor, black color housing |                                                                        |                                                                        |                                                         |
| SRDR <sup>™</sup> SR driver connected to Zhaga socket (DA)                 | LW Low (7'-15' mounting height) sensor, white color housing |                                                                        |                                                                        |                                                         |
| DynaDimmer <sup>™</sup> Automatic Profile Dimming                          | CS0 <sup>™</sup> Security 50% dimming, 7 hours              |                                                                        |                                                                        |                                                         |
| CS0 <sup>™</sup> Security 50% dimming, 7 hours                             | CS10 <sup>™</sup> Median 50% dimming, 8 hours               |                                                                        |                                                                        |                                                         |
| CS30 <sup>™</sup> Security 30% dimming, 7 hours                            | CS30 <sup>™</sup> Median 30% dimming, 8 hours               |                                                                        |                                                                        |                                                         |
| CS30 <sup>™</sup> Security 30% dimming, 7 hours                            | CS30 <sup>™</sup> Median 30% dimming, 8 hours               |                                                                        |                                                                        |                                                         |

1. Extended leadtime applies. Consult factory for details.
2. Mounts to a square pole with knockout for 4"-5" OD round pole.
3. Mounts to a horizontal 2"-3" OD x 1/2" Luminaire.
4. Must be ordered with mounting accessory. Photocell option (TRT) must be ordered with mounting accessory. See Page 7 for options.
5. Not available with other dimming control options (mutually exclusive).
6. Not available with motion sensor (physical restriction).
7. Must be specified with a motion sensor (LW, LB).
8. Not available with PCB, TRP.
9. Must be specified with a motion sensor (LW, LB).
10. Not available with TRT, TLP.
11. Must specify input voltage.
12. Not available in HVM [247-480V].
13. Not available with luminaire packages POI, PO2 in LVM [120-277] and with luminaire packages A01-A03, PO1-PO3 in HVM [247-480V].
14. Not available for luminaire packages PO1-PO3.
15. Not available with DynaDimmer: SRDR, FAND, FS1, FS2, BLS0, BLS0 (physical restriction).
16. Precision Plus Optics (POI-PO3) available only with TAM, TSM, TAM, and TEM optical distributions and are non-replaceable.
17. OFF-RMB accessory recommended for retrofit applications.
18. Failure to properly select the BAC suffix could result in a product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of, a value under the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

OPF-S-OptiForm-Small-en 04/25 page 1 of 9

interact

DARKSKY APPROVED

DI

DLC LISTED

DLC LISTED PREMIUM

UL LISTED

OPF-S OptiForm small  
Site & area luminaire

LED Wattage and Lumen Values (Emergency Mode)

| Ordering Code      | CCT  | CRI | Avg. Output Wattage (W) | Type 2M Lumen Output | Type 2M Lumen Output | Type 2M Lumen Output | Type 2M Lumen Output | Type 2M Lumen Output | Type 2M Lumen Output |
|--------------------|------|-----|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| OPF-S-PX3-740-S-EM | 4000 | 70  | 6                       | 1000                 | 80-UG-G0             | 1004                 | 80-UG-G1             | 838                  | 80-UG-G0             |
| OPF-S-PX3-760-S-EM | 5000 | 70  | 6                       | 940                  | 80-UG-G0             | 973                  | 80-UG-G1             | 804                  | 80-UG-G0             |
| OPF-S-PX3-830-S-EM | 3000 | 80  | 6                       | 656                  | 80-UG-G0             | 665                  | 80-UG-G1             | 717                  | 80-UG-G0             |
| OPF-S-PX3-840-S-EM | 4000 | 80  | 6                       | 687                  | 80-UG-G0             | 699                  | 80-UG-G1             | 743                  | 80-UG-G0             |

Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L70 is the predicted time when LED performance degrades to 70% of initial lumen output. Calculated per IESNA TM-21-11. Equivalent L70 hours limited to 6 times actual LED test hours.

| Ambient Temp (°C) | Lumen Package | Calculated L70 | L70 per TM-21  | Lumen Maintenance % at 60,000 hrs |
|-------------------|---------------|----------------|----------------|-----------------------------------|
| 25°C              | A06-A07       | >77,000 hours  | >77,000 hours  | 90%                               |
| 25°C              | All others    | >100,000 hours | >100,000 hours | 96%                               |

OPF-S-OptiForm-Small-en 04/25 page 6 of 9

OPF-S OptiForm small  
Site & area luminaire

Shielding Accessory Kits (order separately)

- Get about 60 per luminaire.
- OPF-S-HIS-1<sup>™</sup> External house side shield (field installed)
  - OPF-S-HIS-1<sup>™</sup> Internal house side shield (Field Area optic types TSM, TSM, and TSM)
  - OPF-S-HIS-1<sup>™</sup> Internal house side shield for Area optic types TAM and TSM, etc.
  - OPF-S-HIS-1<sup>™</sup> Internal house side shield for Area optic types TSM and TSM, etc.
- \*Must select HIS option on luminaire options section  
\*\*Not available for Precision Plus (POI-PO3)  
\*\*\*Standard internal house shield (HIS) can be used for rotated optics

Luminaire Accessories (order separately)

- Pole Mount Fusing
- FP1 Pole mount single fuse (120V, 277V, or 347V)
  - FP2 Pole mount double fuse (208V, 240V, or 480V)
  - FP3 Pole mount double fuse (208V, 240V, or 480V)
- PhotoCell Accessories
- PC005 Shorting cap

Mountings (boxed and shipped separately)

- Must specify Top or Bottom depending on (B) location (B) mounting (optional) luminaire. Check for appropriate 1/2" hole size prior to shipping and installation.
- Standard Arm
  - OFF-ARI-PT<sup>™</sup> Standard arm mount
  - OFF-ARI-TRT-PT<sup>™</sup> Mast arm mount with 7-pin (TRT) receptacle
  - Wall Mount
  - OFF-WAL-PT<sup>™</sup> Wall mount bracket
  - OFF-WAL-TRT-PT<sup>™</sup> Wall mount with 7-pin (TRT) receptacle
  - Mast Arm
  - OFF-MAR-PT<sup>™</sup> Mast arm mount
  - OFF-MAR-TRT-PT<sup>™</sup> Mast arm mount with 7-pin (TRT) receptacle

Optical Distributions

Site and Area Optics

Precision Plus Optics

Autofront Row

LCL

LCR

OPF-S-OptiForm-Small-en 04/25 page 2 of 9

OPF-S OptiForm small  
Site & area luminaire

Dimensions

OptiForm Standard Arm

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm External Housing Shield

OptiForm Mast Arm

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

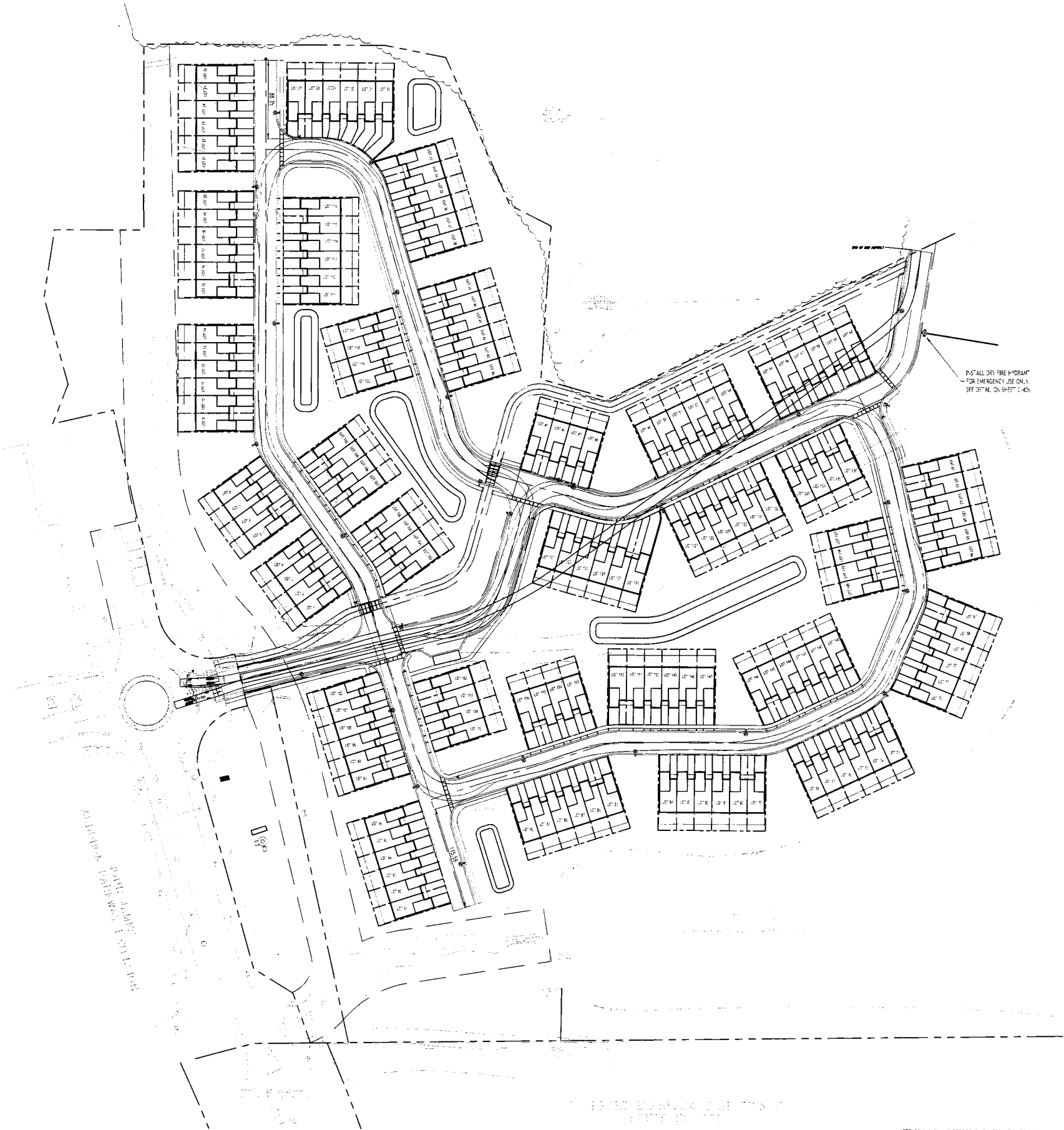
OptiForm Wall Mount

Weight: 11 lb (5.0 kg)

EMR: 1.2 ft (0.37 m)

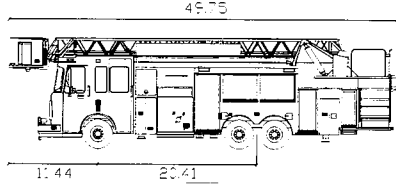
OptiForm Wall Mount

Weight: 1



**FIRE TRUCK TURNING PLAN**  
SCALE: 1"=60'

NOTE: ELEVATION AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.



E-Enc. Cyclone 11  
Width 11'4"  
Track 20'4"  
Lock to Lock 11'4"  
Steering Angle 110°

NOTE: DEAD END ROADS ARE LESS THAN 150 FEET IN LENGTH; THEREFORE, A DEDICATED FIRE APPARATUS TURNAROUND IS NOT REQUIRED IN ACCORDANCE WITH THE 2025 NEW YORK STATE FIRE CODE, APPENDIX D.

TOWN OF AMHERST APPROVAL BOX:



DRAWING NAME:  
Fire Truck  
Turning Plan

Date: 03.13.24  
Drawn By: D. Feyes  
Scale: As Noted

DRAWING NO.

**FT-100**

Project No: 25-4080

**Townhomes at Muir Woods**  
770 John James Audubon Parkway  
Amherst, New York

| REVISIONS: | No. | Description            | Date       |
|------------|-----|------------------------|------------|
| △          | 1   | Rev. Per Town Comments | 07/28/2026 |

**CARMINA WOOD**  
**DESIGN**  
Buffalo | Utica | Greensboro