CIVIL SITE PLAN

WEST CEDAR APARTMENTS

116 W. Cedar St
KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN
11/04/26

Site Plan Review
Revised Plans - Revision #4
Received: 11/4/2026
City of Kalamazoo
E.Szymanski

OWNER

116 WEST CEDAR, LLC
4200 W CENTRE AVE.
PORTAGE, MI 49024

PLANS PREPARED BY:

hurley & stewart, llc
2800 s. 11th street
kalamazoo, michigan 49009
269.552.4960 fax 269.552.49
www.hurleystewart.com

CONSTRUCTION MANAGER:

AVB CONSTRUCTION, LLC
4200 W. CENTRE AVE.
PORTAGE, MI 49024

ARCHITECT

PAPPAGEORGE HAYMES PARTNERS
640 NORTH LASALLE SUITE 400
CHICAGO, ILLINOIS 60654

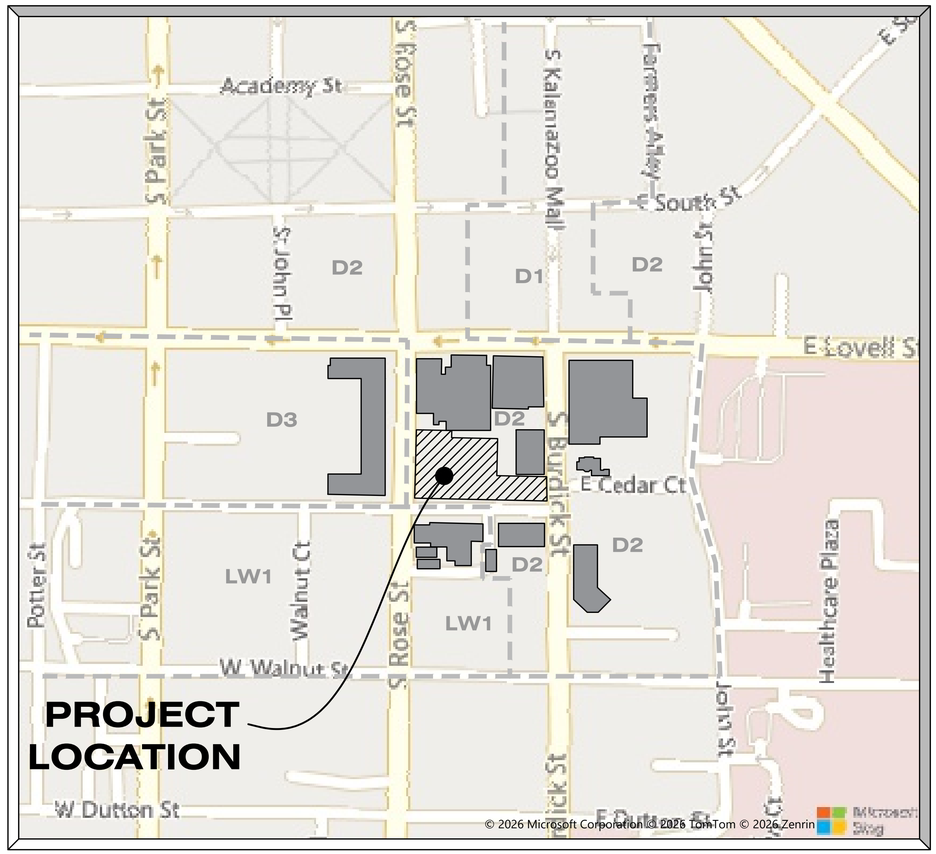
LANDSCAPE ARCHITECT:

DANIEL WEINBACH & PARTNERS, LTD.
1142 W. MADISON ST. SUITE 206
CHICAGO, IL 60607

UTILITY CONTACTS:

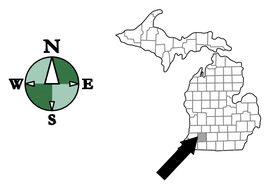
CONSUMERS ENERGY CO. MIKE SOKOLOV 2500 E. CORK STREET KALAMAZOO, MI 49001 269.337.2246	ELECTRIC
CONSUMERS ENERGY CO. KYLE OAK 2500 E. CORK STREET KALAMAZOO, MI 49001 269.337.2366	GAS
CHARTER COMMUNICATIONS MARK BURKE 4176 COMMERCIAL AVE. PORTAGE, MI 49002 269.217.8152	CABLE TELEVISION
AT&T TODD SHIBAYAMA 2919 MILLCORK ST. KALAMAZOO, MI 49001 269.384.4436	TELEPHONE
CITY OF KALAMAZOO	WATER/SANITARY

STATE OF MICHIGAN
TODD D HURLEY
License No. 6201043221
LICENSED PROFESSIONAL ENGINEER
UNDER THE SUPERVISION OF
TODD D HURLEY, P.E.
MI LICENSE #6201043221



SITE LOCATION MAP

SCALE: 1" = 200'



PRELIMINARY
NOT FOR CONSTRUCTION

DRAWING INDEX

SHT #	DESCRIPTION
	C 100 - EXISTING CONDITIONS
	C 101 - EXISTING CONDITIONS
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	A212 - ENLARGED 2ND-4TH FLOOR PLAN, TYP.
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	A608 - EXTERIOR DETAILS
	A810 - TRESHOLD & SIGNAGE DETAILS
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	E150 - ELECTRICAL PHOTOMETRIC PLAN
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	M401 - MECHANICAL DETAILS
	P010 - UNDERGROUND PLUMBING PLAN
	P100 - 1ST FLOOR PLUMBING PLAN
	P200 - PLUMBING ISOMETRICS
	P300 - PLUMBING DETAILS
	P400 - PLUMBING SCHEDULE

811 Know what's below. Call before you dig.

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

FIELD WORK PERFORMED BY:
HURLEY & STEWART, LLC

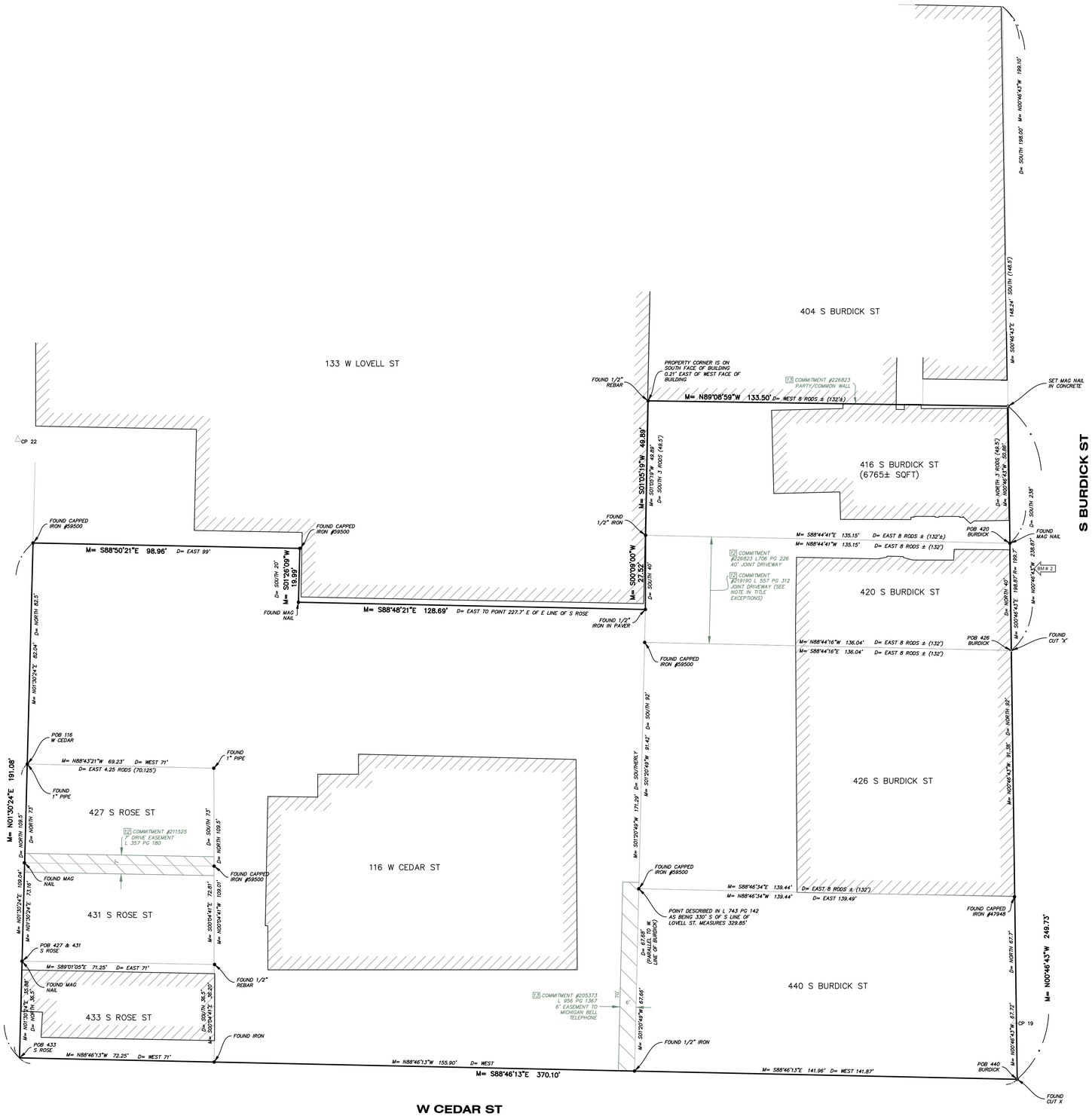
ISSUED FOR:
CITY OF KALAMAZOO SITE PLAN RESUBMITTAL
11/04/26

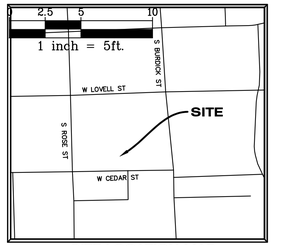
H:\23-141D (Project Stardust)__FINAL DRAWINGS\TS 000 TITLE SHEET.dwg LAST SAVED BY: LDIEHL ON 10/15/2026

WEST CEDAR APARTMENTS, ISSUED FOR CITY OF KALAMAZOO SITE PLAN RESUBMITTAL, 11/04/26

EXISTING CONDITIONS

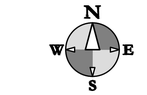
BOUNDARY

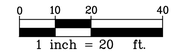




SITE LOCATION MAP
NOT TO SCALE

SECTION 22, TOWN 02 S, RANGE 11 W,
CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN
4169 S BURDICK ST





hurley & stewart llc
main: 269.552.4960
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www.hurleystewart.com
401 hall st. sw, ste. 213
grand rapids, michigan 49503

hurley & stewart
2800 s. 11th street
kalamazoo, michigan 49009

REVISIONS:

3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
5	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/29/26
6	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	10/15/26
7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	11/04/26

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ISSUED FOR:
Job No: 23-141D • PM: TDH • Designer: BE • QA/QC: 8/12/26

EXISTING CONDITIONS
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

Sheet Title:
Project:
Client:

11/04/26
Sheet
C 100

811 Know what's below. Call before you dig.

EXISTING CONDITIONS

TOPOGRAPHIC

0 10 20 40

1 inch = 20ft.

N W E S

BENCHMARKS

ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS

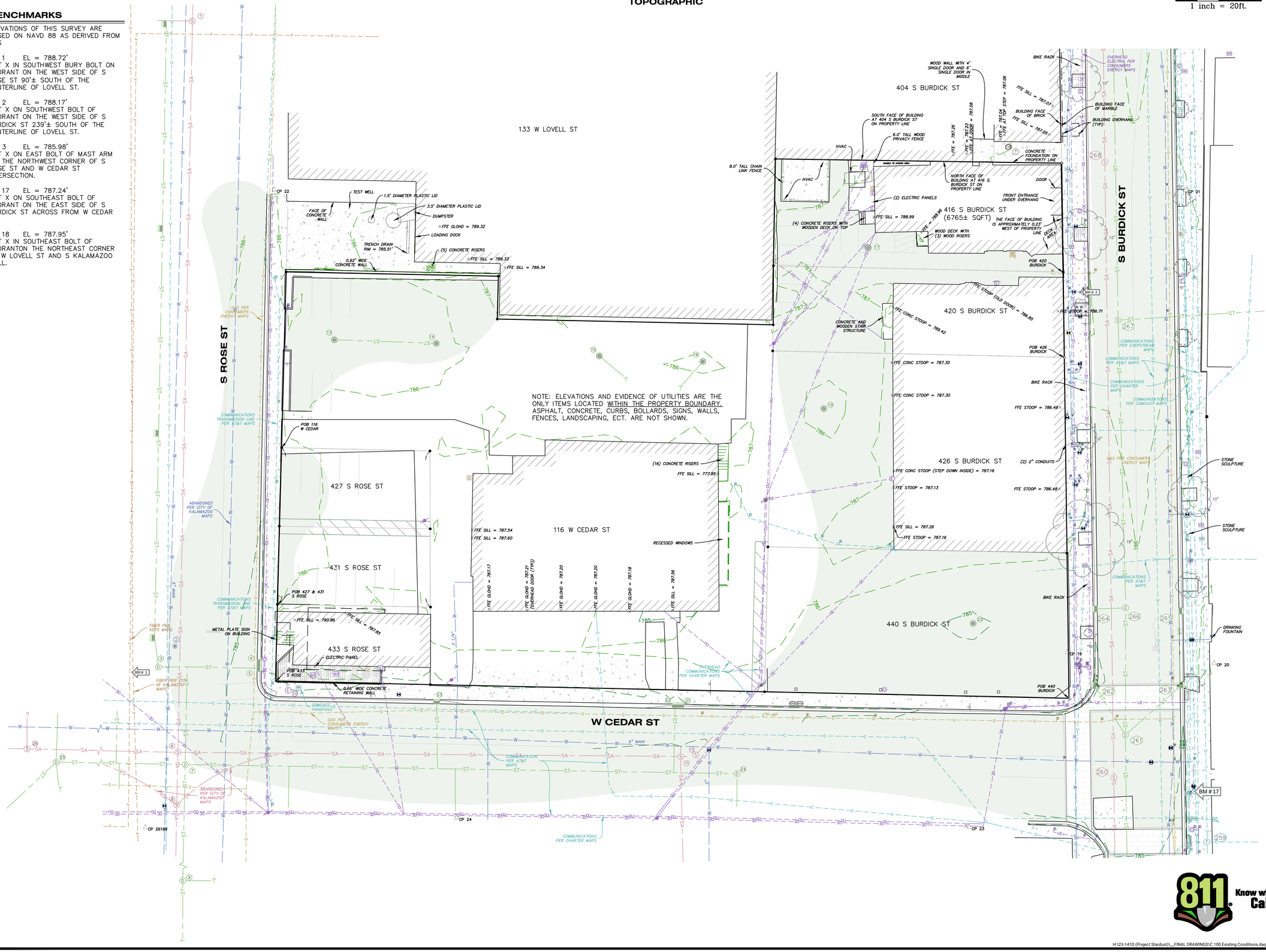
BM 1 EL = 788.72'
CUT X IN SOUTHWEST BURY BOLT ON HYDRANT ON THE WEST SIDE OF S ROSE ST 90'± SOUTH OF THE CENTERLINE OF LOVELL ST.

BM 2 EL = 788.17'
CUT X ON SOUTHWEST BOLT OF HYDRANT ON THE WEST SIDE OF S BURDICK ST 239'± SOUTH OF THE CENTERLINE OF LOVELL ST.

BM 3 EL = 785.98'
CUT X ON EAST BOLT OF MAST ARM ON THE NORTHWEST CORNER OF S ROSE ST AND W CEDAR ST INTERSECTION.

BM 17 EL = 787.24'
CUT X ON SOUTHEAST BOLT OF HYDRANT ON THE EAST SIDE OF S BURDICK ST ACROSS FROM W CEDAR ST.

BM 18 EL = 787.95'
CUT X IN SOUTHEAST BOLT OF HYDRANTON THE NORTHEAST CORNER OF W LOVELL ST AND S KALAMAZOO MALL.



811 Know what's below. Call before you dig.

H:\23-141D (Project Stardust)__FINAL DRAWINGS\C 100 Existing Conditions.dwg LAST SAVED BY: LDIEHL ON 8/20/2026

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main: 269.552.4960
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401 hall st. sw, ste. 213
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REVISIONS:

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3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
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Job No: 23-141D - PM: TDH - Designer: BE - QA/QC: 8/12/26

EXISTING CONDITIONS
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

Sheet Title:
Project:
Client:

11/04/26

Sheet
C 101

EXISTING CONDITIONS

ENLARGEMENTS

SURVEYOR'S NOTES

1. BASIS OF BEARINGS: MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83
2. CONTOUR INTERVAL = 1 FOOT
3. UTILITIES SHOWN ARE BASED ON FIELD LOCATION OF SURFACE EVIDENCE AND RECORDS PROVIDED BY OTHERS. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. ADDITIONAL UTILITIES MAY BE ENCOUNTERED. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL CALL MISS DIG AT 1-800-482-7171.
4. BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THE LAND DEPICTED IN THIS SURVEY LIES IN ZONE X. MAP 26077C0183D, EFFECTIVE DATE 02/17/2010.
5. NO WETLANDS ON SITE PER THE NATIONAL WETLANDS INVENTORY. A DELINEATION OF THE WETLANDS BY A QUALIFIED CONSULTANT WAS NOT PERFORMED AT THE TIME OF SURVEY.
6. OVERALL PARCEL CONTAINS 1.73± ACRES (75,254± SQFT)

EXISTING STRUCTURE DATA

(1) 4.0' CONCRETE SAN MH
RIM = 786.43'
INV. S PLUGGED
INV. 2" E WATER VALVE = 781.93'±
INV. 8" W CLAY = 779.88'
SEDIMENT = 779.88'

(2) 2.0' WATER MH
RIM = 784.95'
TOP BOLT VALVE = 782.50'±
SEDIMENT = 781.65'

(3) 6.0' CONCRETE STM MH
RIM = 785.28'
INV. 12" NW SLCPP = 780.13'
OFFSET, NO OTHER PIPES VISIBLE
WATER = 779.63'
SUMP = 777.78'

(4) 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.75'
INV. 12" S CONCRETE = 782.75'
SEDIMENT = 782.75'

(5) 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.74'
INV. 8" VERTICAL PIPE W
INV. 12" N CONCRETE = 782.74'

(6) 4.0' BRICK SAN MH
RIM = 784.81'
INV. 8" N CLAY = 775.76'
INV. 8" S CLAY = 775.66'
INV. 8" E CLAY = 776.01'
INV. 8" W PVC = 775.86'

(7) 4.0' BRICK STM MH
RIM = 784.86'
INV. 12" N CLAY = 778.26'
INV. 12" S IRON = 778.21'
INV. 12" E CLAY = 778.26'
INV. 10" W CLAY = 778.26'
SEDIMENT = 778.21'

(8) 4.0' BRICK SAN MH
RIM = 784.48'
INV. 12"± N CLAY = 775.53'
INV. 12"± S CLAY = 775.43'

(9) 4.0' BRICK CONCRETE STM MH
RIM = 783.62'
INV. 15" N CLAY = 777.47'
INV. 15" S CLAY = 777.37'
INV. 12" E CLAY = 777.37'±
SEDIMENT = 777.57'

(10) TRAFFIC SIGNAL MH
RIM = 784.98'

(11) 4.0' BRICK SAN MH
RIM = 785.11'
INV. 8" E CLAY = 777.81'
INV. 8" W CLAY = 777.56'
INV. 8" N CLAY = 778.46'
INV. 8" S CLAY = 777.91'

(12) 4.0' CONCRETE SAN CB
RIM = 785.13'
INV. 8" NE CLAY FULL OF SEDIMENT = 787.13'±
SEDIMENT = 778.13'

(13) 2.0' CONCRETE STM CB
RIM = 785.21'
INV. 4" E CLAY = 783.61'
SEDIMENT = 783.21'

(14) 2.0' CONCRETE STM CB
RIM = 785.48'
INV. 4" W CLAY = 783.98'
SEDIMENT = 783.48'

(15) 2.0' CONCRETE STM CB
RIM = 785.98'
INV. 4" SE CLAY = 784.58'
SEDIMENT = 782.78'

(16) 2.0' CONCRETE STM CB
RIM = 785.65'
INV. 4" SE CLAY = 784.20'
WATER = 783.45'
SEDIMENT = 782.90'

(17) 4.0' CONCRETE STM LB
RIM = 785.94'
NO PIPES VISIBLE
SEDIMENT = 781.34'

(18) UNKNOWN MH (UNABLE TO OPEN)
RIM = 786.98'

(19) 4.0' CONCRETE STM LB
RIM = 785.58'
NO PIPES VISIBLE
SUMP = 779.23'

(20) 2.0' STM CB
RIM = 784.62'
NO PIPES VISIBLE
WATER = 783.72'
SEDIMENT = 783.62'

(21) 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.44'
INV. 12" W CONCRETE = 782.14'
SEDIMENT = 782.14'

(22) 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.50'
INV. 12" E CONCRETE = 782.10'
INV. 8" VERTICAL PIPE S = 780.40'±

(23) 2.0' BLOCK STM CB
RIM = 784.34'
INV. 8" VERTICAL PIPE S = 779.54'
NO OTHER PIPES VISIBLE

(24) 4.0' BLOCK STM MH
RIM = 785.11
INV. 15" W CLAY = 779.91'±
INV. 12" S CLAY = 780.01'
PIPES FULL OF SEDIMENT
SEDIMENT = 780.01'

(25) 4.0' BLOCK STM MH
RIM = 784.04'
INV. 12" N IRON = 780.54'
INV. 12" S CLAY = 780.44'
INV. 12" E CONCRETE = 779.09'
INV. 6" SW CLAY = 779.34'
SEDIMENT = 779.09'

(26) 4.0' BLOCK SAN MH
RIM = 784.23
INV. 8" N PVC = 777.43'
INV. 6" S CLAY = 776.88'±
INV. 8" E PVC = 776.58'
INV. 8" W PVC = 776.68'

(259) BELL SYSTEMS COMMUNICATION MH
RIM = 785.47'

(260) 4.0' BRICK SAN MH
RIM = 785.49'
INV 8" N PVC 775.94'
INV 8" S PVC 775.89'

(261) 4.0' BRICK STM MH
RIM = 785.62'
INV 12" NW CLAY = 778.27'
INV 15" N CLAY = 778.02'
INV 12" NE CLAY = 778.02'
INV 12" W CLAY = 778.42' ±
INV 15" S CLAY = 778.02'
INV 12" SW CLAY = 778.12'
SUMP = 778.02'

(262) STM CB
RIM = 784.85
INV 4" NW PVC = 782.65'
VERTICAL CLAY = 780.00'±
SE

(263) 2.0' BLOCK STM CB
RIM = 785.17'
INV 8" N PVC = 781.47'
INV 12" SW CLAY = 779.32'
SUMP = 779.32'

(264) 2.0' CONCRETE STM CB
RIM = 785.27'
INV 10" E PVC = 781.32'
WATER = 781.27'
SUMP = 780.97'

(265) 2.0' CONCRETE STM CB
RIM = 785.38'
INV 8" S PVC 782.78'
WATER = 782.73
SUMP = 782.68

(266) 4.0' CONCRETE STM MH
RIM = 785.74'
INV 15" N CLAY = 778.49'
INV 15" S CLAY = 778.59'
INV 12" W CLAY = 780.99 ±

(267) 4.0' CONCRETE STM MH
RIM = 786.40'
INV 15" N CLAY = 779.55'
INV 15" S CLAY = 779.50'
INV 12" E CLAY = 779.65'
SUMP = 779.50'

(268) 4.0' BRICK SAN MH
RIM = 786.61'
INV 4" W CLAY = 778.71'
INV 6" W CLAY = 778.81'
INV 10" N CLAY 778.01'
INV 10" S CLAY = 778.11
CHANNEL = 778.06'

(269) 1.0' NYLOPLAST STM YD
RIM = 787.27'
INV 12" N PVC = 783.52'
INV 12" S PVC = 783.52
WATER = 783.52'
SUMP 783.12'

(270) CONSUMERS ENERGY ELECTRIC MH
RIM = 786.93'

(271) 4.0' BRICK STM MH
RIM = 786.94'
INV 10" E CLAY = 782.64'
INV 6" S CLAY = 783.34' ±
SEDIMENT = 780.64'

(272) 6.0' CONCRETE STM LB
RIM = 787.44'
INV 12" E SLCPP = 782.94'
INV 12" S SLCPP = 782.64'
INV 8" W SLCPP = 784.14'
INV 8" W SLCPP = 784.14'
SUMP = 782.14'

(273) 4.0' CONCRETE STM MH
RIM = 787.07'
INV 15" N CLAY = 780.32'
INV 15" S CLAY = 780.32'
SEDIMENT = 780.32'

MISS DIG DESIGN TICKET DATA

123.NET, INC. FIBER OPTICS – 248-431-4584 – NO RESPONSE – 12/05/23
AT&T FIBER OPTICS – PHILLIP BARDOZ 269-384-4476– MAPS PROVIDED – 12/09/23
AT&T TELEPHONE – PHILLIP BARDOZ 269-384-4476– MAPS PROVIDED – 12/09/23
CHARTER COMMUNICATIONS CABLE TV – 800-778-9140 – MAPS PROVIDED – 12/11/23
CHARTER COMMUNICATIONS FIBER OPTICS – 800-778-9140 – MAPS PROVIDED – 12/11/23
CLIMAX TELEPHONE DBA METRO FIBERNET – 800-778-9140 – CLEAR – 12/07/23
COMCAST CABLE TV – BRITTNEY HANSON CCCUTILITYREQUESTS@TEAMSIGMA.COM – NO RESPONSE – 12/14/23
CONSUMERS ENERGY ELECTRIC – ANDRE D. TAYLOR 269-337-2245 – MAPS PROVIDED – 12/11/23
CONSUMERS ENERGY ELECTRIC SUB METRO – 800-477-5050 – NO RESPONSE – 12/14/23
CONSUMERS ENERGY GAS – CONSUMERS ENERGY SIMS WEBSIRTE – MAPS PROVIDED – 12/11/23
EVERSTREAM FIBER OPTICS – HEATHER SHAWL 616-393-0138 EXT. 119 – NO RESPONSE – 12/14/23
KALAMAZOO CITY DPS POTABLE WATER, SANITARY SEWER, STORM SEWER, TRAFFIC – WILL EICHELBERGER 269-337-8727 – MAPS PROVIDED – 12/08/23
KEPS TECHNOLOGIES, INC. DBA ACD.NET FIBEROPTICS – 517-999-9999, OPTION 1 – MAPS PROVIDED – 12/08/23
LEVEL 3 NOW LUMEN FIBER OPTICS – 877-366-8344 – MAPS PROVIDED – 12/07/23
U.S. SIGNAL CORPORATION FIBER OPTICS – 616-455-9840 – NO RESPONSE – 12/14/23
WINDSTREAM COMMUNICATIONS FIBER OPTICS – 800-289-1901 – MAPS PROVIDED – 12/07/23
ZAYO BANDWIDTH MIDWEST, LLC FIBER OPTICS – 800-961-6500 – NO RESPONSE – 12/4/23

427 & 431 S ROSE
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #211525 EFFECTIVE DATE 1/2/2022 AT 8:00AM

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

PART OF THE NORTHWEST 1/4 OF SECTION 22, TOWN 2 SOUTH, RANGE 11 WEST, BEING MORE PARTICULARLY DESCRIBED AS: BEGINNING AT A POINT ON THE EAST SIDE OF ROSE STREET 36.5 FEET NORTH OF THE NORTH LINE OF CEDAR STREET; THENCE NORTH ALONG THE EAST LINE OF ROSE STREET 73 FEET; THENCE EAST 4.25 RODS; THENCE SOUTH 73 FEET; THENCE WEST TO THE PLACE OF BEGINNING.

1. 39-06-22-130-003, 2. 39-06-22-130-002

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #211525 EFFECTIVE DATE 1/2/2022 AT 8:00AM

12 EASEMENT FOR MUTUAL DRIVEWAY, AS RECORDED IN LIBER 357 ON PAGE 180 (SHOWN).

13 TERMS, COVENANTS, AND CONDITIONS OF RESOLUTION, AS RECORDED IN LIBER 820 ON PAGE 721 (NOT SURVEY MATTERS).

433 S ROSE
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205443 EFFECTIVE DATE 6/9/2021 AT 8:00AM

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

COMMENCING ON THE NORTHEAST CORNER OF ROSE AND CEDAR STREETS; THENCE NORTH 36.5 FEET; THENCE EAST 71.00 FEET; THENCE SOUTH 36.5 FEET; THENCE WEST 71.00 FEET TO THE PLACE OF BEGINNING. BEING A PART OF THE NORTHWEST 1/4 OF SECTION 22, TOWNSHIP 2 SOUTH, RANGE 11 WEST.

39-06-22-130-001

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205443 EFFECTIVE DATE 6/9/2021 AT 8:00AM

11 TERMS, COVENANTS, AND CONDITIONS OF PLANNING COMMISSION RESOLUTION, AS RECORDED IN LIBER 820 ON PAGE 721 (NOT SURVEY MATTERS).

116 W CEDAR
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205373 EFFECTIVE DATE 8/26/2021 AT 8:00AM

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

BEGINNING AT A POINT ON THE EAST LINE OF SOUTH ROSE STREET 109.5 FEET NORTH OF THE NORTH LINE OF WEST CEDAR STREET; THENCE NORTH 82.5 FEET ALONG THE EAST LINE OF SOUTH ROSE STREET; THENCE EAST 99 FEET PARALLEL TO THE NORTH LINE OF WEST CEDAR STREET; THENCE SOUTH 20 FEET PARALLEL TO THE EAST LINE OF SOUTH ROSE STREET; THENCE EAST PARALLEL TO THE NORTH LINE OF WEST CEDAR STREET TO A POINT 227.7 FEET EAST OF THE EAST LINE OF SOUTH ROSE STREET; THENCE SOUTHERLY TO A POINT ON THE NORTH LINE OF WEST CEDAR STREET 141.87 FEET WEST OF THE WEST LINE OF SOUTH BURDICK STREET; THENCE WEST ALONG THE NORTH LINE OF WEST CEDAR STREET TO A POINT 71 FEET EAST OF THE EAST LINE OF SOUTH ROSE STREET; THENCE NORTH 109.5 FEET PARALLEL TO THE EAST LINE OF SOUTH ROSE STREET; THENCE WEST 71 FEET PARALLEL TO THE NORTH LINE OF WEST CEDAR STREET TO THE PLACE OF BEGINNING.

39-06-22-130-004

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205373 EFFECTIVE DATE 8/26/2021 AT 8:00AM

12 TERMS, COVENANTS, AND CONDITIONS OF PLANNING COMMISSION RESOLUTION, AS RECORDED IN LIBER 820 ON PAGE 721 (NOT SURVEY MATTERS).

13 RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY, AS RECORDED IN LIBER 956 ON PAGE 1367 (SHOWN).

416 S BURDICK
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT #226823 EFFECTIVE DATE 11/28/2023 AT 8:00AM

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

COMMENCING ON THE WEST LINE OF BURDICK STREET 9 RODS SOUTH FROM THE SOUTHWEST CORNER OF BURDICK AND LOVELL STREETS, IN SAID CITY OF KALAMAZOO, AND RUNNING THENCE WEST 8 RODS, MORE OR LESS, TO LAND FORMERLY OWNED BY CALEB SWEETLAND; THENCE SOUTH 3 RODS; THENCE EAST 8 RODS, MORE OR LESS, TO THE WEST LINE OF BURDICK STREET; THENCE NORTH ON THE WEST LINE OF BURDICK STREET 3 RODS TO THE PLACE OF BEGINNING.

TOGETHER WITH JOINT DRIVEWAY RIGHTS EXISTING IN THE DRIVEWAY BETWEEN THE ABOVE DESCRIBED PREMISES AND THE NORTH 40 FEET OF THE LAND AND PREMISES IMMEDIATELY ADJOINING ON THE SOUTH THEREOF.

39-06-22-126-002

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT #226823 EFFECTIVE DATE 11/28/2023 AT 8:00AM

12 THE RIGHTS OF OTHERS IN AND TO THE USE OF THE JOINT DRIVEWAY RIGHTS DESCRIBED IN SCHEDULE C AND AS EVIDENCED IN LIBER 706 ON PAGE 226 (SHOWN).

13 RIGHTS OF THE ADJOINING OWNER(S) IN AND TO THE PARTY/COMMON WALL LOCATED ALONG THE NORTH SIDE OF THE PROPERTY INSURED HEREIN, AS DISCLOSED BY COUNTY GIS MAP, TOGETHER WITH ANY AND ALL LIABILITY FOR THE MAINTENANCE, SUPPORT, USE AND REPAIR ASSOCIATED THEREWITH (PARTY WALL SHOWN).

420 & 426 S BURDICK
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #219190 EFFECTIVE DATE 12/15/2022 AT 8:00AM (REV. NO. 1)

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

PARCEL 1:

PART OF THE NORTHWEST 1/4 OF SECTION 22, TOWN 2 SOUTH, RANGE 11 WEST, DESCRIBED AS COMMENCING ON THE WEST LINE OF BURDICK STREET 198 FEET SOUTH OF THE SOUTH LINE OF LOVELL STREET; THENCE WEST 8 RODS; THENCE SOUTH 40 FEET; THENCE EAST 8 RODS; THENCE NORTH 40 FEET.

39-06-22-126-003

PARCEL 2:

PART OF THE NORTHWEST 1/4 OF SECTION 22, TOWN 2 SOUTH, RANGE 11 WEST, DESCRIBED AS COMMENCING ON THE WEST LINE OF BURDICK STREET 238 FEET SOUTH OF THE SOUTH LINE OF LOVELL STREET; THENCE WEST 8 RODS; THENCE SOUTH 92 FEET; THENCE EAST 8 RODS; THENCE NORTH 92 FEET.

39-06-22-131-001

39-06-22-126-003, 39-06-22-131-001

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #219190 EFFECTIVE DATE 12/15/2022 AT 8:00AM (REV. NO. 1)

12 EASEMENT FOR DRIVEWAY PURPOSES BY INSTRUMENT RECORDED IN LIBER 557 ON PAGE 372 (JOINT DRIVEWAY REFERENCED IN DEED, NOT PLOTTABLE BASED ON INFORMATION PROVIDED IN L 706 PG 372, PRESUMED TO BE SAME DRIVE REFERENCED IN L 706 PG 226, UNABLE TO CONFIRM).

440 S BURDICK
SCHEDULE C LEGAL DESCRIPTION
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205374 EFFECTIVE DATE 4/28/2022 AT 8:00AM

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:

LAND SITUATED IN THE CITY OF KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN:

PART OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SECTION 22, TOWN 2 SOUTH, RANGE 11 WEST, BEGINNING AT THE NORTHWEST CORNER OF BURDICK AND CEDAR STREETS; THENCE WEST ALONG THE NORTH LINE OF CEDAR STREET 141.87 FEET; THENCE NORTH PARALLEL TO THE WEST LINE OF BURDICK STREET 67.68 FEET; THENCE EAST TO THE WEST LINE OF BURDICK STREET 139.49 FEET; THENCE SOUTH ALONG THE WEST LINE OF BURDICK STREET 67.7 FEET TO THE PLACE OF BEGINNING.

39-06-22-131-002

SCHEDULE B SECTION II EXCEPTIONS
TITLE CO.: SUN TITLE AGENCY OF MICHIGAN, LLC
UNDERWRITTEN BY: OLD REPUBLIC TITLE INSURANCE COMPANY
COMMITMENT #205374 EFFECTIVE DATE 4/28/2022 AT 8:00AM

12 TERMS, COVENANTS, AND CONDITIONS OF AGREEMENT, AS RECORDED IN LIBER 743 ON PAGE 142 (NOT PLOTTABLE).

811 Know what's below. Call before you dig.

H:\23-141D (Project Stardust)_FINAL DRAWINGS\C 100 Existing Conditions.dwg LAST SAVED BY: LDIEHL ON 8/20/2026

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REVISIONS:

3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
5	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/29/26
6	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	10/15/26
7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	11/04/26

ISSUED FOR:
Job No: 23-141D • PM: TDH • Designer: BE • QA/QC: 8/12/26

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Sheet Title: EXISTING CONDITIONS
Project: WEST CEDAR APARTMENTS
Client: 116 WEST CEDAR, LLC

11/04/26
Sheet
C 102

BENCHMARKS

ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS

BM 1 EL = 788.72'
CUT X IN SOUTHWEST BURY BOLT ON HYDRANT ON THE WEST SIDE OF S ROSE ST 90'± SOUTH OF THE CENTERLINE OF LOVELL ST.

BM 2 EL = 788.17'
CUT X ON SOUTHWEST BOLT OF HYDRANT ON THE WEST SIDE OF S BURDICK ST 239'± SOUTH OF THE CENTERLINE OF LOVELL ST.

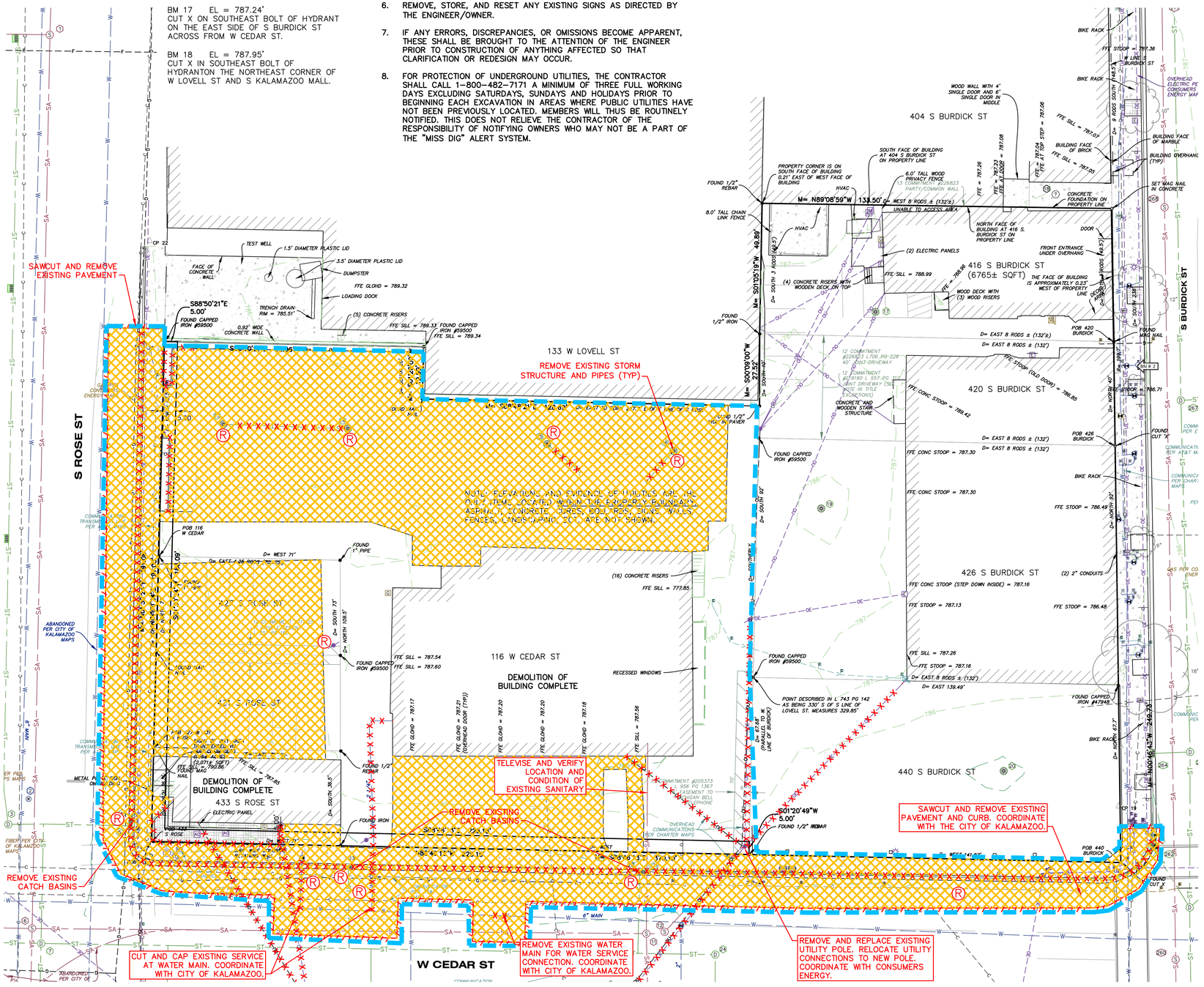
BM 3 EL = 785.98'
CUT X ON EAST BOLT OF MAST ARM ON THE NORTHWEST CORNER OF S ROSE ST AND W CEDAR ST INTERSECTION.

BM 17 EL = 787.24'
CUT X ON SOUTHEAST BOLT OF HYDRANT ON THE EAST SIDE OF S BURDICK ST ACROSS FROM W CEDAR ST.

BM 18 EL = 787.95'
CUT X IN SOUTHEAST BOLT OF HYDRANTON THE NORTHEAST CORNER OF W LOVELL ST AND S KALAMAZOO MALL.

REMOVAL NOTES

1. REVIEW ALL THE REMOVALS AND PROTECTION WITH OWNER PRIOR TO COMMENCING CONSTRUCTION. INSTALL TEMPORARY SNOW FENCE AROUND ALL TREES REQUIRING PROTECTION. SNOW FENCE SHALL BE PLACED AT EDGE OF DRIP LINE.
2. SAWCUT ALL CURB, SIDEWALK, AND PAVEMENTS PRIOR TO REMOVAL. ADDITIONAL SAWCUT MAY BE NECESSARY PRIOR TO REPLACEMENT TO ENSURE CLEAN EDGE. COORDINATE WITH THE CITY OF KALAMAZOO.
3. ALL REMOVALS SHALL BE TAKEN OFF-SITE AND DISPOSED OF. NO STOCKPILE OR BURNING OF DEBRIS IS ALLOWED.
4. COMPLY WITH ALL ASPECTS OF THE SOIL EROSION CONTROL PERMIT AS ISSUED BY THE CITY OF KALAMAZOO. ALL TEMPORARY CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
5. ALL REMOVALS SHALL BE TO THE LIMITS INDICATED ABOVE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. UNAUTHORIZED REMOVALS AND SUBSEQUENT REPLACEMENT SHALL BE AT THE CONTRACTOR'S EXPENSE.
6. REMOVE, STORE, AND RESET ANY EXISTING SIGNS AS DIRECTED BY THE ENGINEER/OWNER.
7. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
8. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.



0 10 20 40
1 inch = 20ft.

N W E S

EXISTING STRUCTURE DATA

1. 4.0' CONCRETE SAN MH
RIM = 786.43'
INV. S PLUGGED
INV. 2" E WATER VALVE = 781.93'±
INV. 8" W CLAY = 779.88'
SEDIMENT = 779.88'

2. 2.0' WATER MH
RIM = 784.95'
TOP BOLT VALVE = 782.50'±
SEDIMENT = 781.65'

3. 6.0' CONCRETE STM MH
RIM = 785.28'
INV. 12" NW SLCPP = 780.13'
OFFSET, NO OTHER PIPES VISIBLE
WATER = 779.63'
SUMP = 777.78'

4. 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.75'
INV. 12" S CONCRETE = 782.75'
SEDIMENT = 782.75'

5. 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.74'
INV. 8" VERTICAL PIPE W
INV. 12" N CONCRETE = 782.74'

6. 4.0' BRICK SAN MH
RIM = 784.81'
INV. 8" N CLAY = 775.76'
INV. 8" S CLAY = 775.66'
INV. 8" E CLAY = 776.01'
INV. 8" W PVC = 775.86'

7. 4.0' BRICK STM MH
RIM = 784.86'
INV. 12" N CLAY = 778.26'
INV. 12" S IRON = 778.21'
INV. 12" E CLAY = 778.26'
INV. 10" W CLAY = 778.26'
SEDIMENT = 778.21'

8. 4.0' BRICK SAN MH
RIM = 784.48'
INV. 12"± N CLAY = 775.53'
INV. 12"± S CLAY = 775.43'

9. 4.0' BRICK CONCRETE STM MH
RIM = 783.62'
INV. 15" N CLAY = 777.47'
INV. 15" S CLAY = 777.37'
INV. 12" E CLAY = 777.37'±
SEDIMENT = 777.57'

10. TRAFFIC SIGNAL MH
RIM = 784.98'

11. 4.0' BRICK SAN MH
RIM = 785.11'
INV. 8" E CLAY = 777.81'
INV. 8" W CLAY = 777.56'
INV. 8" N CLAY = 778.46'
INV. 8" S CLAY = 777.91'

12. 4.0' CONCRETE SAN CB
RIM = 785.13'
INV. 8" NE CLAY FULL OF SEDIMENT = 787.13'±
SEDIMENT = 778.13'

13. 2.0' CONCRETE STM CB
RIM = 785.21'
INV. 4" E CLAY = 783.61'
SEDIMENT = 783.21'

14. 2.0' CONCRETE STM CB
RIM = 785.48'
INV. 4" W CLAY = 783.98'
SEDIMENT = 783.48'

15. 2.0' CONCRETE STM CB
RIM = 785.98'
INV. 4" SE CLAY = 784.58'
SEDIMENT = 782.78'

16. 2.0' CONCRETE STM CB
RIM = 785.65'
INV. 4" SE CLAY = 784.20'
WATER = 783.45'
SEDIMENT = 782.90'

17. 4.0' CONCRETE STM LB
RIM = 785.94'
NO PIPES VISIBLE
SEDIMENT = 781.34'

18. UNKNOWN MH (UNABLE TO OPEN)
RIM = 786.98'

19. 4.0' CONCRETE STM LB
RIM = 785.58'
NO PIPES VISIBLE
SUMP = 779.23'

20. 2.0' STM CB
RIM = 784.62'
NO PIPES VISIBLE
WATER = 783.72'
SEDIMENT = 783.62'

21. 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.44'
INV. 12" W CONCRETE = 782.14'
SEDIMENT = 782.14'

22. 2.0' RECTANGLE CONCRETE STM CB
RIM = 784.50'
INV. 12" E CONCRETE = 782.10'
INV. 8" VERTICAL PIPE S = 780.40'±

23. 2.0' BLOCK STM CB
RIM = 784.34'
INV. 8" VERTICAL PIPE S = 779.54'
NO OTHER PIPES VISIBLE

24. 4.0' BLOCK STM MH
RIM = 785.11
INV. 15" W CLAY = 779.91'±
INV. 12" S CLAY = 780.01'
PIPES FULL OF SEDIMENT
SEDIMENT = 780.01'

25. 4.0' BLOCK STM MH
RIM = 784.04'
INV. 12" N IRON = 780.54'
INV. 12" S CLAY = 780.44'
INV. 12" E CONCRETE = 779.09'
INV. 6" SW CLAY = 779.34'
SEDIMENT = 779.09'

26. 4.0' BLOCK SAN MH
RIM = 784.23
INV. 8" N PVC = 777.43'
INV. 6" S CLAY = 776.88'±
INV. 8" E PVC = 776.58'
INV. 8" W PVC = 776.68'

259 BELL SYSTEMS COMMUNICATION MH
RIM = 785.47'

260 4.0' BRICK SAN MH
RIM = 785.49'
INV. 8" N PVC = 775.94'
INV 8" S PVC 775.89'

261 4.0' BRICK STM MH
RIM = 785.62'
INV 12" NW CLAY = 778.27'
INV 15" N CLAY = 778.02'
INV 12" NE CLAY = 778.02'
INV 12" W CLAY = 778.42' ±
INV 15" S CLAY = 778.02'
INV 12" SW CLAY = 778.12'
SUMP = 778.02'

262 STM CB
RIM = 784.85
INV 4" NW PVC = 782.65'
VERTICAL CLAY = 780.00'±
SE

263 2.0' BLOCK STM CB
RIM = 785.17'
INV 8" N PVC = 781.47'
INV 12" SW CLAY = 779.32'
SUMP = 779.32'

264 2.0' CONCRETE STM CB
RIM = 785.27'
INV 10" E PVC = 781.32'
WATER = 781.27'
SUMP = 780.97'

265 2.0' CONCRETE STM CB
RIM = 785.38'
INV 8" S PVC 782.78'
WATER = 782.73
SUMP = 782.68

266 4.0' CONCRETE STM MH
RIM = 785.74'
INV 15" N CLAY = 778.49'
INV 15" S CLAY = 778.59'
INV 12" W CLAY = 780.99 ±

267 4.0' CONCRETE STM MH
RIM = 786.40'
INV 15" N CLAY = 779.55'
INV 15" S CLAY = 779.50'
INV 12" E CLAY = 779.65'
SUMP = 779.50'

268 4.0' BRICK SAN MH
RIM = 786.61'
INV 4" W CLAY = 778.71'
INV 6" W CLAY = 778.81'
INV 10" N CLAY 778.01'
INV 10" S CLAY = 778.11
CHANNEL = 778.06'

269 1.0' NYLOPLAST STM YD
RIM = 787.27'
INV 12" N PVC = 783.52'
INV 12" S PVC = 783.52
WATER = 783.52'
SUMP 783.12'

270 CONSUMERS ENERGY ELECTRIC MH
RIM = 786.93'

271 4.0' BRICK STM MH
RIM = 786.94'
INV 10" E CLAY = 782.64'
INV 6" S CLAY = 783.34' ±
SEDIMENT = 780.64'

272 6.0' CONCRETE STM LB
RIM = 787.44'
INV 12" E SLCPP = 782.94'
INV 12" S SLCPP = 782.64'
INV 8" W SLCPP = 784.14'
INV 8" W SLCPP = 784.14'
SUMP = 782.14'

273 4.0' CONCRETE STM MH
RIM = 787.07'
INV 15" N CLAY = 780.32'
INV 15" S CLAY = 780.32'
SEDIMENT = 780.32'

REMOVALS LEGEND

- CURB REMOVAL
- SAWCUT
- PAVEMENT/SIDEWALK REMOVAL
- UTILITY LINE REMOVAL
- Ⓡ REMOVE
- LIMITS OF CONSTRUCTION

Know what's below. Call before you dig.

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

FIELD WORK PERFORMED BY:
HURLEY & STEWART, LLC

H:\23-141D (Project Stardust)_FINAL DRAWINGS\CD 100 site demolition.dwg LAST SAVED BY: LDIEHL ON 9/24/2026

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kalamazoo, michigan 49009

REVISIONS:

3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
5	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/29/26
6	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	10/15/26
7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	11/04/26

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ISSUED FOR:
Job No: 23-141D • PM: TDH • Designer: LAD • QA/QC: 8/12/26

Sheet Title: SITE DEMOLITION
Project: WEST CEDAR APARTMENTS
Client: 116 WEST CEDAR, LLC

11/04/26
Sheet
CD 100

LEGEND

- STANDARD–DUTY BITUMINOUS PAVEMENT (SEE SHEET C 500)
- HEAVY–DUTY BITUMINOUS PAVEMENT (SEE SHEET C 500)
- CONCRETE PAVEMENT AND SIDEWALK (SEE SHEET C 500)
- HEAVY–DUTY CONCRETE PAVEMENT (SEE SHEET C 500)
- PROPOSED BUILDING
- PARKING STRIPING (BLUE)
- PARKING STRIPING (WHITE)
- PARKING STRIPING (GREEN)
- CURB AND GUTTER

SITE LEGEND

- (IC) INTEGRAL CURB WALK (SEE SHEET C 500)
- (CW) CONCRETE WALK (SEE SHEET C 500)
- (DE) DUMPSTER ENCLOSURE (SEE ARCH. SHEETS)
- (E2) E2 CURB TYPE (SEE SHEET C 500)
- (C2) C2 CURB TYPE (SEE SHEET C 500)
- (C4) C4 CURB TYPE (SEE SHEET C 500)
- (RR) TYPE R RAMP (SEE SHEET C 500)
- (FR) TYPE F RAMP (SEE SHEET C 500)
- (PR) TYPE P RAMP (SEE SHEET C 500)
- (SM) PLAQUE IN CONCRETE DESIGNATING UNDERGROUND GLYCOL SNOW–MELT SYSTEM (SEE SHEET C 503)

ZONING REQUIREMENTS

ZONING
THE SITE IS ZONED D2 (DOWNTOWN 2) FLEX LOT TYPE
SETBACKS: FRONT – 0–10'
SIDES – 0'
REAR – 0'

PROPOSED USE
FACILITY USE APARTMENTS
CONSTRUCTION TYPE 5A

PARKING
TOTAL PARKING SPACES ALLOWED:
1 SPACES PER DWELLING UNIT 71 ALLOWED (71 DWELLING UNITS)

TOTAL PARKING PROVIDED = 40 SPACES
BARRIER FREE SPACES REQUIRED = 2
BARRIER FREE SPACES = 3 PROVIDED
ALL BARRIER FREE SPACES DESIGNED PER ADA REQUIREMENTS

TYPICAL PARKING SPACE DIMENSION = 9'X18'

BICYCLE PARKING 1 SPACE PER 5 DWELLING UNIT
(71 UNITS REQUIRE 15 SPACES 32 SPACES PROVIDED IN STORAGE BUILDING)

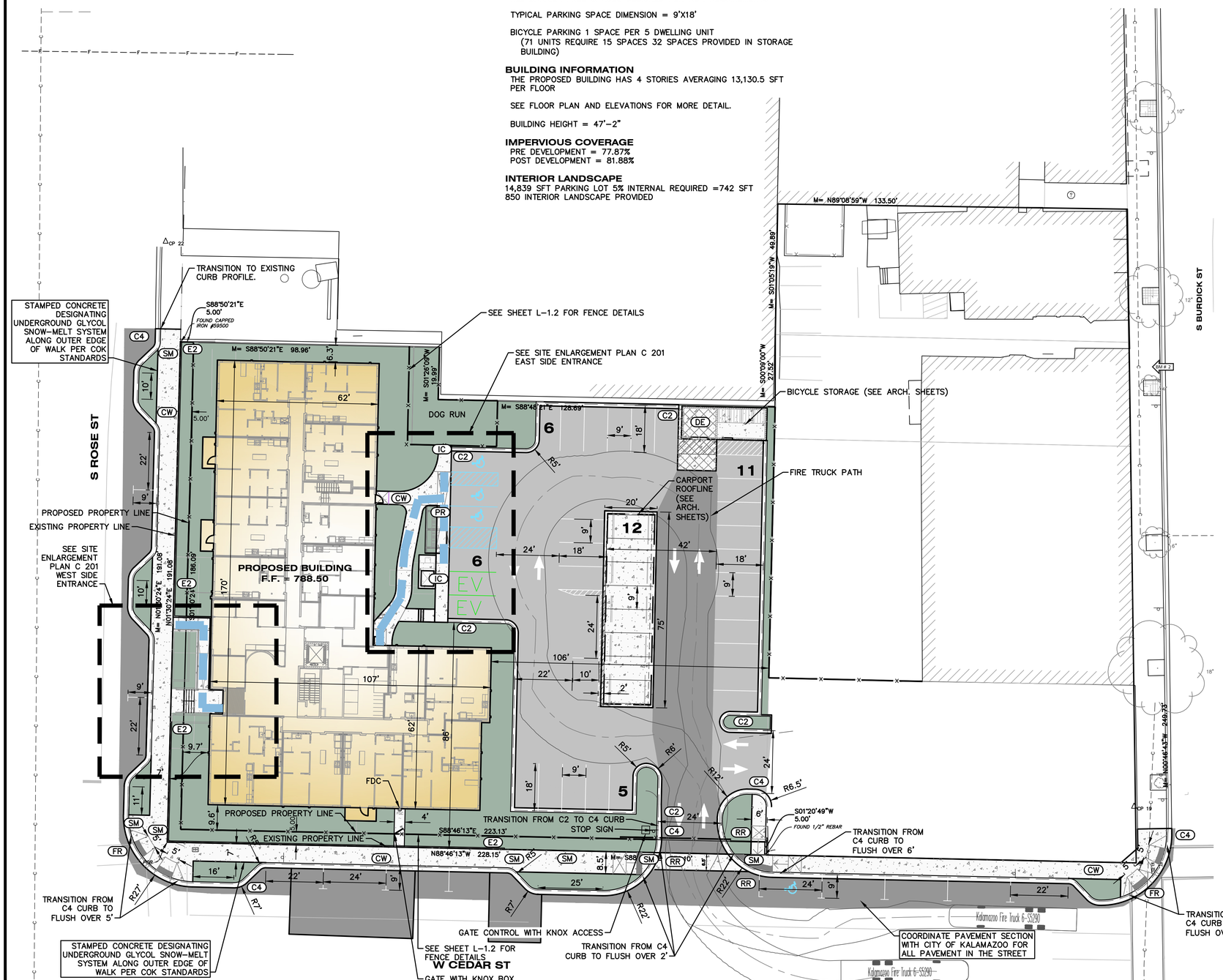
BUILDING INFORMATION
THE PROPOSED BUILDING HAS 4 STORIES AVERAGING 13,130.5 SFT PER FLOOR

SEE FLOOR PLAN AND ELEVATIONS FOR MORE DETAIL.

BUILDING HEIGHT = 47'–2"

IMPERVIOUS COVERAGE
PRE DEVELOPMENT = 77.87%
POST DEVELOPMENT = 81.88%

INTERIOR LANDSCAPE
14,839 SFT PARKING LOT 5% INTERNAL REQUIRED =742 SFT
850 INTERIOR LANDSCAPE PROVIDED



LEGEND

- DESIGNATED ACCESSIBLE ROUTE
- ACCESSIBLE RAMP (ARROW POINTS DOWN SLOPE) 8.33% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- LANDING SPACE 2% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- DETECTABLE WARNING STRIPS FULL WIDTH OF ACCESSIBLE ROUTE WHERE DESIGNATED.

N W E S

0 10 20 40
1 inch = 20ft.

ADA ACCESSIBLE ROUTE NOTES

1. PROVIDE DETECTABLE WARNING STRIPS AT ALL PEDESTRIAN CROSSINGS THAT ARE FLUSH WITH VEHICULAR WAYS WITHIN THE DESIGNATED ACCESSIBLE ROUTE.
2. THE RUNNING SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 5% SLOPE. THE CROSS SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
3. THE CLEAR WIDTH OF THE IMPROVED WALKING SURFACE ALONG THE ACCESSIBLE ROUTE SHALL BE 60" MINIMUM. (CLEAR WIDTH MAY BE REDUCED TO 48" IF 60" X 60" PASSING ZONES ARE PROVIDED EVERY 200 FEET)
4. LANDING AREA MUST BE PROVIDED AT TOPS AND BOTTOMS OF RAMPS AND AT BUILDING ENTRY POINTS. SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
5. RAMPS WITH A VERTICAL CHANGE IN GRADE EXCEEDING 6" REQUIRE HANDRAILS.

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF METAL.
2. PROVIDE CURB CUTS/RAMPS AT ALL BARRIER FREE ACCESS POINTS.
3. PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MICHIGAN BARRIER FREE CODE.
4. SEE ARCHITECTURAL PLANS FOR MORE DETAILS ON WALLS, STAIRS, AND RAMPS.
5. MATCH EXISTING CURB & GUTTER SECTIONS WHEN CONNECTING TO THEM. CONDITIONS VARY THROUGHOUT PROJECT.
6. EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AND CITY OF KALAMAZOO STANDARDS SPECIFICATIONS.
7. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT THE TIME OF CONSTRUCTION.
8. ALL EXTERIOR CONCRETE SHALL BE MDOT GRADE P1 (3500PSI), AIR ENTRAINED, LIMESTONE AGGREGATE, BROOM FINISHED, CURING SEAL.
9. THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.
10. ALL REQUIRED FILL FOR THIS PROJECT SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER OR CLASS II GRANULAR MATERIAL FROM BORROW AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
11. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1–800–482–7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
12. ANY BITUMINOUS OR CONCRETE PAVEMENT, SANITARY SEWER, SANITARY SEWER SERVICE LEADS, OR STORM SEWER, WHICH IS DAMAGED BY THE CONTRACTOR DURING HIS OPERATIONS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AND AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
14. ALL UNSUITABLE SUBBASE MATERIAL MUST BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW THE TOP OF THE SUBGRADE OR AS DETERMINED BY THE COUNTY ENGINEER.
15. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
16. PROVIDE SNOWMELT SYSTEM IDENTIFIERS, PLAQUE AND STAMP, TO CLEARLY IDENTIFY HEATED PAVEMENT AREAS, PARTICULARLY NEAR UTILITY CROSSINGS. THE STAMP MOLD IS AVAILABLE FROM THE CITY'S RIGHT–OF–WAY SUPERVISOR. INCLUDE SIGNAGE ON BUILDINGS NEAR ENTRANCES, MECHANICAL ROOMS, AND SYSTEM CONTROL PANELS. SNOWMELT SYSTEM IN RIGHT–OF–WAY TO BE REGISTERED WITH MISS DIG 811.

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FIELD WORK PERFORMED BY:
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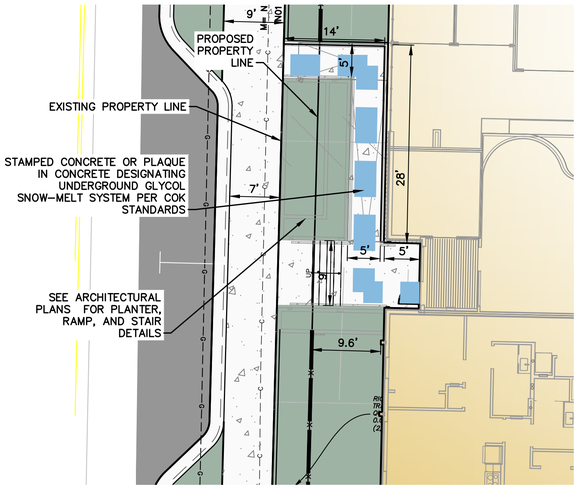
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4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
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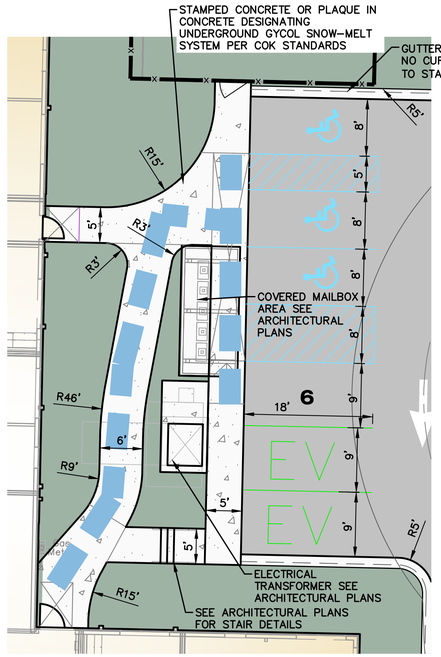
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Project: WEST CEDAR APARTMENTS
Client: 116 WEST CEDAR, LLC

11/04/26
Sheet
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WEST SIDE ENTRANCE



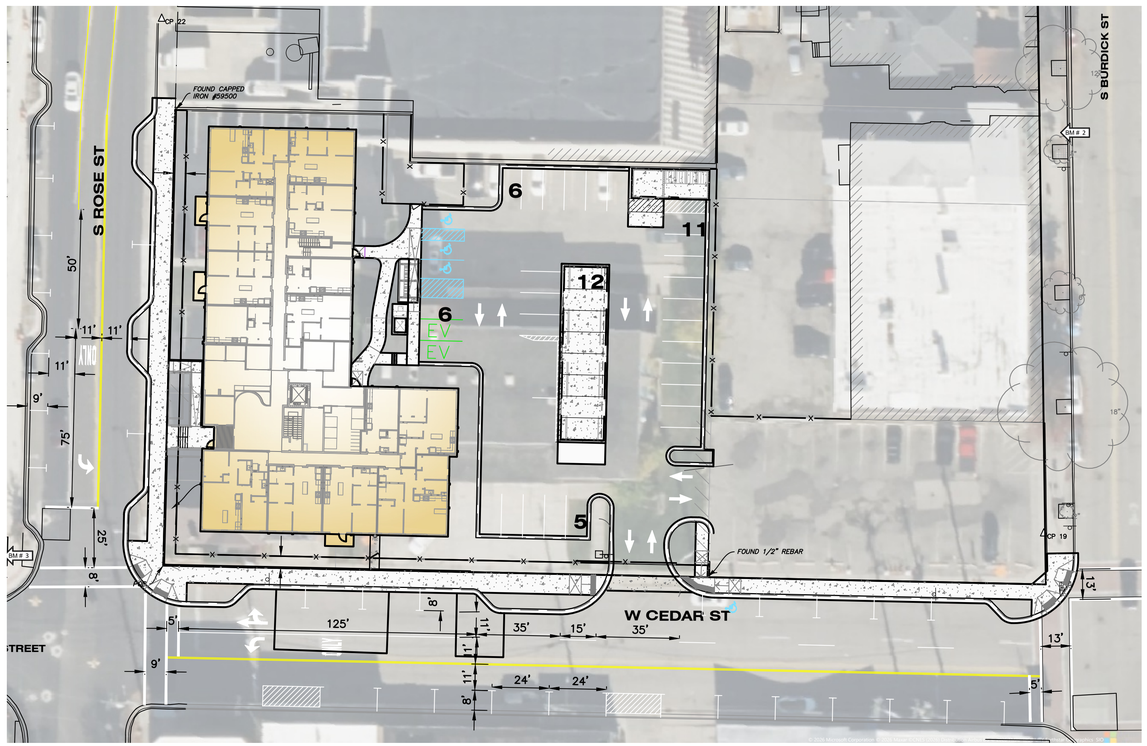
EAST SIDE ENTRANCE

LEGEND

- DESIGNATED ACCESSIBLE ROUTE
- ACCESSIBLE RAMP (ARROW POINTS DOWN SLOPE) 8.33% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- LANDING SPACE 2% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- DETECTABLE WARNING STRIPS FULL WIDTH OF ACCESSIBLE ROUTE WHERE DESIGNATED.

ADA ACCESSIBLE ROUTE NOTES

1. PROVIDE DETECTABLE WARNING STRIPS AT ALL PEDESTRIAN CROSSINGS THAT ARE FLUSH WITH VEHICULAR WAYS WITHIN THE DESIGNATED ACCESSIBLE ROUTE.
2. THE RUNNING SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 5% SLOPE. THE CROSS SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
3. THE CLEAR WIDTH OF THE IMPROVED WALKING SURFACE ALONG THE ACCESSIBLE ROUTE SHALL BE 60" MINIMUM. (CLEAR WIDTH MAY BE REDUCED TO 48" IF 60" X 60" PASSING ZONES ARE PROVIDED EVERY 200 FEET)
4. LANDING AREA MUST BE PROVIDED AT TOPS AND BOTTOMS OF RAMPS AND AT BUILDING ENTRY POINTS. SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
5. RAMPS WITH A VERTICAL CHANGE IN GRADE EXCEEDING 6" REQUIRE HANDRAILS.



TRAFFIC STRIPING DIAGRAM

SCALE: 1"=30'

0 5 10 20

1 inch = 10ft.

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SITE ELARGEMENT PLAN
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

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GRADING PLAN LEGEND

- PROPOSED CONTOUR 5-FT (720)
- PROPOSED CONTOUR NORMAL (719)
- EXISTING CONTOUR 5-FT (720)
- EXISTING CONTOUR NORMAL (719)
- PROPOSED SPOT GRADE (×896.32)
- PROPOSED SPOT GRADES: TOP AND BOTTOM OF WALL (×894.76 TOP, ×894.26 BTM)
- EXISTING SPOT GRADE
- PROPOSED SURFACE SLOPE (1:4, 25%)
- PROPOSED SILT FENCE (XX)
- PROPOSED GRADED SWALE
- SOIL BORING (SB)
- BENCH MARK (BM #XX)
- SOIL EROSION MEASURE (E XX)
- SEDIMENT CONTROL MEASURE (S XX)

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

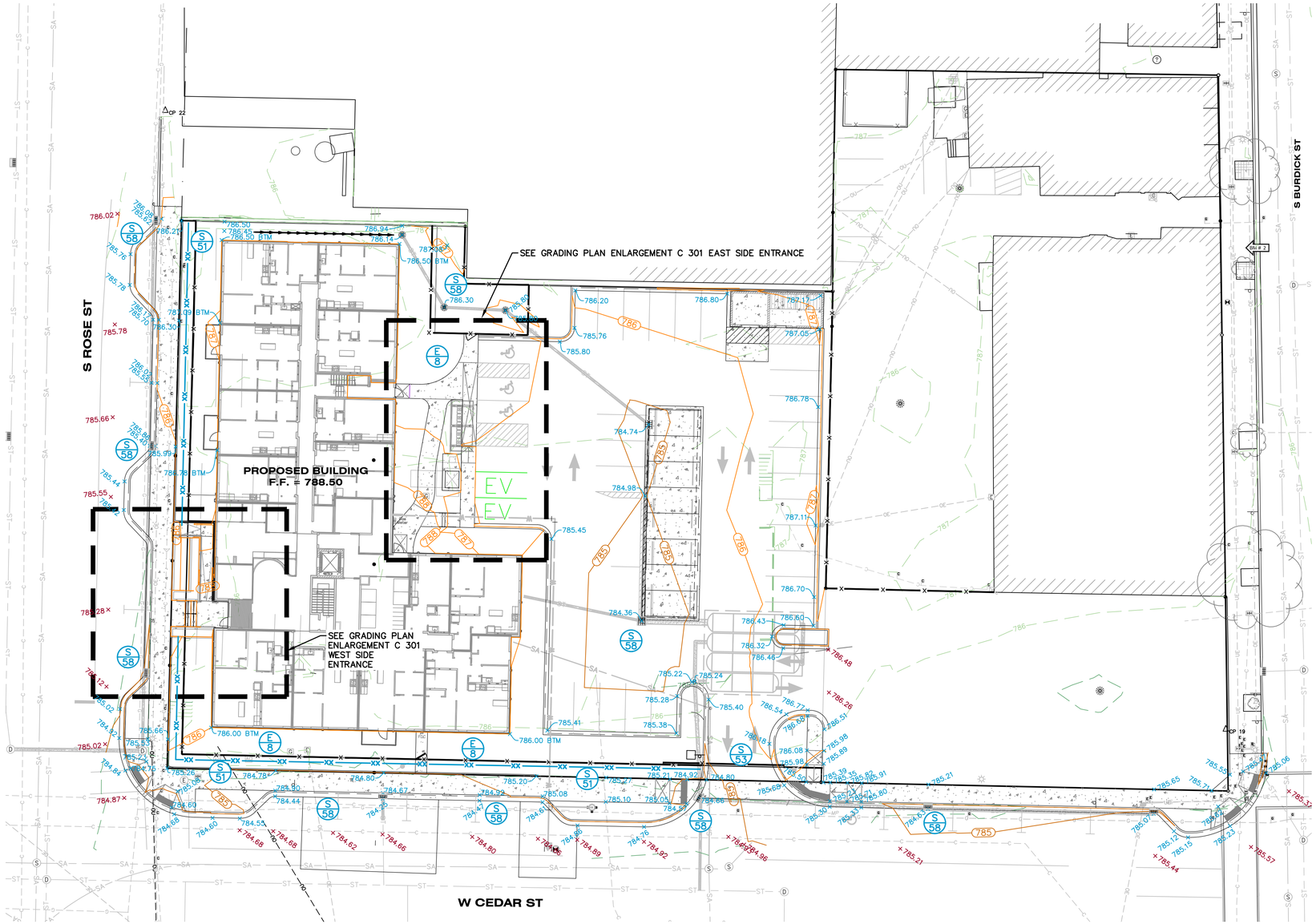
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E8	*PERMANENT SEEDING*		*Stabilization method utilized on sites where earth change has been completed (final grading attained).*
S51	*SILT FENCE*		*Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.*
S53	*STABILIZED CONSTRUCTION ACCESS*		*Used at every point where construction traffic enters or leaves a construction site.*
S58	*INLET PROTECTION FABRIC DROP*		*Use at stormwater inlets, especially at construction sites.*

LEGEND

- ACCESSIBLE RAMP (ARROW POINTS DOWN SLOPE) 8.33% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- LANDING SPACE 2% SLOPE MAXIMUM CONSTRUCTED SLOPE.
- DETECTABLE WARNING STRIPS FULL WIDTH OF ACCESSIBLE ROUTE WHERE DESIGNATED.

ADA ACCESSIBLE ROUTE NOTES

1. PROVIDE DETECTABLE WARNING STRIPS AT ALL PEDESTRIAN CROSSINGS THAT ARE FLUSH WITH VEHICULAR WAYS WITHIN THE DESIGNATED ACCESSIBLE ROUTE.
2. THE RUNNING SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 5% SLOPE. THE CROSS SLOPE OF THE DESIGNATED ACCESSIBLE ROUTE SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
3. THE CLEAR WIDTH OF THE IMPROVED WALKING SURFACE ALONG THE ACCESSIBLE ROUTE SHALL BE 60" MINIMUM. (CLEAR WIDTH MAY BE REDUCED TO 48" IF 60" X 60" PASSING ZONES ARE PROVIDED EVERY 200 FEET)
4. LANDING AREA MUST BE PROVIDED AT TOPS AND BOTTOMS OF RAMPS AND AT BUILDING ENTRY POINTS. SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
5. RAMPS WITH A VERTICAL CHANGE IN GRADE EXCEEDING 6" REQUIRE HANDRAILS.



0 10 20 40
1 inch = 20ft.

N W E S

GRADING & SESC NOTES

1. ALL WORK WILL COMPLY WITH THE PROVISIONS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (PA 451, PART 91 OF 1994 AS AMENDED) ADMINISTERED BY KALAMAZOO COUNTY.
2. FOR INSTALLATION SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL (SESC) MEASURES, REFER TO THE STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT, AND BUDGET (DTMB) SESC MANUAL.
3. AVOID UNNECESSARY DISTURBING OR REMOVING EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE AREAS ACT AS SEDIMENT FILTERS.
4. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEANUP AND APPROVAL.
5. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION.
6. ALL SOIL PILES SHALL BE SURROUNDED BY SILT FENCE IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 7 DAYS. TOPSOIL PILES SHALL BE SEEDED IF ALLOWED TO REMAIN IN PLACE FOR MORE THAN 20 DAYS. SPOIL PILES SHALL NOT BE PLACED WITHIN 50' FROM ANY TEMPORARY OR PERMANENT WATERCOURSE.
7. THE CONTRACTOR SHALL COMPLY WITH THE WEEKLY RECOMMENDATIONS OF THE CERTIFIED STORM WATER OPERATOR.
8. PROVIDE SILT SACKS IN EACH CATCH BASIN UNTIL SITE IS STABILIZED.
9. SEE LANDSCAPING PLAN FOR FINAL SLOPE TREATMENTS.
10. PLACE TOPSOIL AND SEED ACCORDING TO THE LANDSCAPE PLANS AS SOON AS AREAS ARE BROUGHT TO GRADE.
11. WATER SITE WHEN NECESSARY TO PREVENT AIR BORNE SEDIMENT TRANSFER.
12. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
13. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT GRADES AT EDGE OF METAL (EOM) UNLESS OTHERWISE NOTED.
14. ALL EXISTING ELEVATIONS ARE TO BE VERIFIED AND ACCEPTED AS SHOWN PRIOR TO COMMENCEMENT OF WORK.
15. REMOVE AND REPLACE WITH CONTROLLED FILL ANY AREAS THAT HAVE BEEN SOFTENED BY RAINS, FREEZING, CONSTRUCTION EQUIPMENT, ETC.
16. ALL REQUIRED FILL FOR THIS PROJECT SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER OR CLASS II GRANULAR MATERIAL FROM BORROW AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
17. ALL GRANULAR FILL UNDER THE INFLUENCE OF THE ROADWAY AND PROCESSED ROAD GRAVEL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
18. ALL COMPACTION SHALL BE ACCOMPLISHED BY PLACING THE FILL IN 12" LOOSE LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. FIELD DENSITY TESTS SHOULD BE PERFORMED ON EACH LIFT AS NECESSARY TO ENSURE THAT ADEQUATE MOISTURE CONDITIONS AND COMPACTION ARE BEING ACHIEVED.
19. SITE CONTRACTOR SHALL REMOVE AND STOCKPILE ALL TOPSOIL AND BLACK ORGANIC SOILS ON-SITE TO BE USED IN THE REGRADING OF LANDSCAPE AREAS. THIS MATERIAL IS NOT TO BE USED FOR FILL OR PAVEMENT SUBBASE. REMOVAL OF ANY EXCESS SOIL OFF-SITE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. CONTRACTOR RESPONSIBLE FOR VERIFYING EARTHWORK CALCULATIONS PRIOR TO COMMENCING WORK. NO EXTRA EARTHWORK WILL BE PAID FOR ONCE EARTHWORK HAS BEGUN. ANY DISCREPANCIES WITH THE EARTHWORK CALCULATIONS SHALL BE REVIEWED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
21. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. SCRAPE ROAD AT THE END OF EACH WORKDAY AND SWEEP AT LEAST ONCE A WEEK.
22. ANY DISTURBED AREA THAT WILL BE LEFT UNWORKED 5 DAYS OR LONGER MUST BE SEEDED AND MULCHED OR SODDED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEEDED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
23. ROAD RIGHTS-OF-WAY MUST BE STABILIZED WITH SEED AND MULCH WITHIN 5 DAYS OF COMPLETING UTILITY WORK IN THE RIGHT-OF-WAY.
24. AREAS OF EARTH CHANGE THAT ARE DISTURBED BEYOND THE FALL SEEDING DEADLINE (NOV. 1) MUST BE TEMPORARILY STABILIZED WITH A MINIMUM OF STRAW MULCH SECURELY CRIMPED TO THE GROUND.
25. ACCUMULATED SEDIMENT TO BE REMOVED FROM STORM SYSTEM UPON COMPLETION OF CONSTRUCTION. ALL TEMPORARY CONTROLS TO BE REMOVED AFTER SITE IS STABILIZED AND VEGETATION ESTABLISHED.
26. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
27. ONLY EROSION CONTROL BLANKETS SUCH AS NORTH AMERICAN GREEN BIONET S150BN AND WESTERN WOOD FIBERS EXCEL SS-2 ALL NATURAL (BIODEGRADABLE JUTE/SCRIM NETTING WITH LENO WEAVE TYPE MESH) OR EQUIVALENT ARE CONSIDERED ACCEPTABLE PRODUCTS. NET EROSION BLANKETS CONTAINING PLASTIC OR SYNTHETIC NET OR NETTING SHALL NO LONGER BE AUTHORIZED, NOR APPROVED FOR USE.

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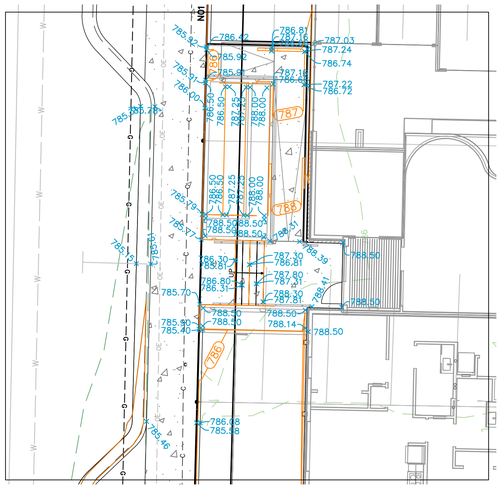
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3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
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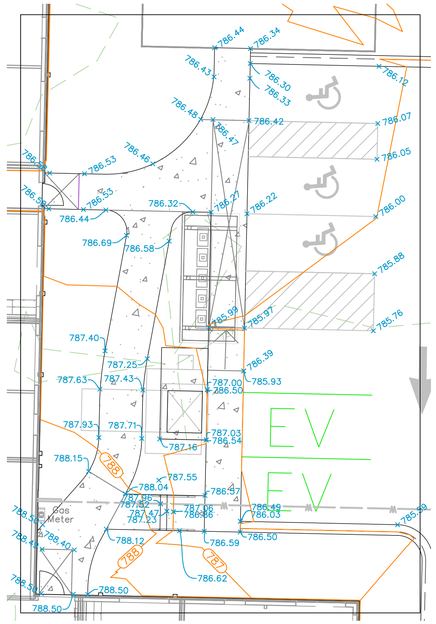
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WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

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Project:
Client:

11/04/26
Sheet
C 300



WEST SIDE ENTRANCE



EAST SIDE ENTRANCE

LEGEND

ACCESSIBLE RAMP (ARROW POINTS DOWN SLOPE) 8.33% SLOPE MAXIMUM CONSTRUCTED SLOPE.

LANDING SPACE 2% SLOPE MAXIMUM CONSTRUCTED SLOPE.

DETECTABLE WARNING STRIPS FULL WIDTH OF ACCESSIBLE ROUTE WHERE DESIGNATED.

ADA ACCESSIBLE ROUTE NOTES

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4. LANDING AREA MUST BE PROVIDED AT TOPS AND BOTTOMS OF RAMPS AND AT BUILDING ENTRY POINTS. SHALL NOT BE CONSTRUCTED TO EXCEED 2% SLOPE.
5. RAMPS WITH A VERTICAL CHANGE IN GRADE EXCEEDING 6" REQUIRE HANDRAILS.

GRADING PLAN LEGEND

- 720 — PROPOSED CONTOUR 5-FT
- 719 — PROPOSED CONTOUR NORMAL
- 720 — EXISTING CONTOUR 5-FT
- 719 — EXISTING CONTOUR NORMAL
- ×896.32 — PROPOSED SPOT GRADE
- ×894.76 TOP / 894.26 BTM — PROPOSED SPOT GRADES: TOP AND BOTTOM OF WALL
- EXISTING SPOT GRADE
- 1:4 / 25% — PROPOSED SURFACE SLOPE
- XX — PROPOSED SILT FENCE
- PROPOSED GRADED SWALE
- SB — SOIL BORING
- BM #XX — BENCH MARK
- E XX — SOIL EROSION MEASURE
- S XX — SEDIMENT CONTROL MEASURE

0 5 10 20
1 inch = 10ft.

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Client: 116 WEST CEDAR, LLC

11/04/26
Sheet
C 301

STORM SEWER STRUCTURE SCHEDULE

STR. #	RIM EL.	DIAM.	CASTING	PIPES IN:	PIPES OUT
$$ & CB-1	784.68	48"	7045 M1	12" N: 780.90 12" E: 780.40	8" S: 780.40
$ & CB-3	784.36	48"	5105 M3	12" N: 780.00 8" W: 781.05	24" E: 778.95
& CB-4	784.74	48"	5105 M1	8" NW: 780.34	12" S: 780.34
$$ & CB-8	784.25	48"	7045 M1		8" S: 779.54
& CB-10	784.99	48"	7045 M1	8" N: 782.88	8" S: 782.88
& CB-11	785.40	48"	7045 M1	8" N: 783.27	8" S: 783.27
& CB-12	785.63	24"	7045 M1		8" S: 783.67
& CB-13	784.63	48"	7045 M1	12" E: 780.80	12" W: 780.80
& CB-14	785.07	24"	7045 M1		12" W: 781.19
$$ MH-8	785.36	48"	1040 B	8" N: 782.74	* 12" W: 782.74
** OS-2	785.24	48"	1040 B	12" E: 780.98 12" N: 780.98	12" S: 781.10
&& YD-5	785.80	8"	8" GRATE	8" W: 781.08	8" SE: 781.08
&& YD-6	786.30	8"	8" GRATE	8" NW: 781.40	8" E: 781.40
&& YD-7	786.14	8"	8" DOME		8" SE: 781.74

* EXISTING PIPE
** OUTLET CONTROL STRUCTURE. INSTALL WEIR WALL TO 783.53
$ ADS BARRACUDA S4 TREATMENT DEVICE
$$ REMOVE EXISTING CATCH BASIN STRUCTURES AND CONNECT TO EXISTING OUTLET PIPE
& INSTALL ADS NYLOPLAST ENVIROHOOD ON OUTLET PIPES TO PROVIDE 200 GALLONS OF SPILL CONTAINMENT VOLUME. BOTTOM OF HOOD = 2.2 FT BELOW OUTLET PIPE INVERT. INCREASE STRUCTURE SUMP TO 4 FT.
&& NYLOPLAST DRAIN BASIN (SEE DETAIL)

BENCHMARKS

ELEVATIONS OF THIS SURVEY ARE BASED ON NAVD 88 AS DERIVED FROM GPS

BM 1 EL = 788.72'
CUT X IN SOUTHWEST BURY BOLT ON HYDRANT ON THE WEST SIDE OF S ROSE ST 90'± SOUTH OF THE CENTERLINE OF LOVELL ST.

BM 2 EL = 788.17'
CUT X ON SOUTHWEST BOLT OF HYDRANT ON THE WEST SIDE OF S BURDICK ST 239'± SOUTH OF THE CENTERLINE OF LOVELL ST.

BM 3 EL = 785.98'
CUT X ON EAST BOLT OF MAST ARM ON THE NORTHWEST CORNER OF S ROSE ST AND W CEDAR ST INTERSECTION.

BM 17 EL = 787.24'
CUT X ON SOUTHEAST BOLT OF HYDRANT ON THE EAST SIDE OF S BURDICK ST ACROSS FROM W CEDAR ST.

BM 18 EL = 787.95'
CUT X IN SOUTHEAST BOLT OF HYDRANTON THE NORTHEAST CORNER OF W LOVELL ST AND S KALAMAZOO MALL.

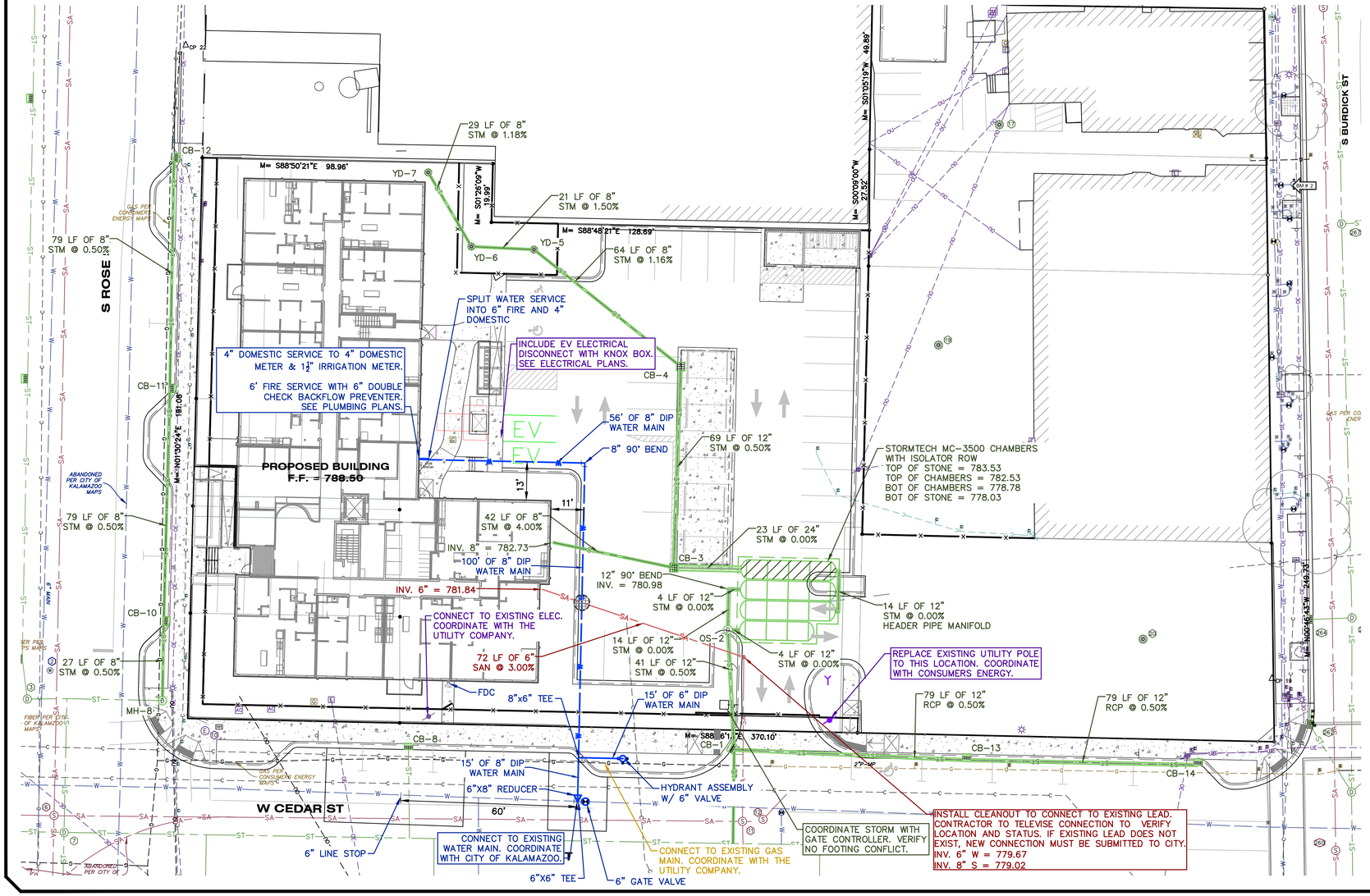
LEGEND

DEFLECT WATER MAIN 18" UNDER PIPE CONFLICT (SEE DETAIL)

NOTE:
CONTRACTOR RESPONSIBLE FOR VERIFYING FITTINGS. AMOUNTS DO NOT TAKE INTO CONSIDERATION VERTICAL DEFLECTIONS.

FIRE SAFETY NOTES

1. THE FDC SHALL BE LOCATED IN A LOCATION APPROVED BY THE FIRE MARSHALL'S OFFICE.
2. IMMEDIATE ACCESS TO FDC SHALL BE MAINTAINED IN CLEAR VIEW WITHOUT OBSTRUCTION BY PARKED VEHICLES, FENCE, BUSHES, TREES, WALLS, DUMPSTERS OR ANY OTHER OBJECT.
3. FDC SHALL BE SO LOCATED SO THAT FIRE APPARATUS AND HYDRANT LINES CONNECTED TO SUPPLY THE SYSTEM WILL NOT OBSTRUCT ACCESS TO THE BUILDINGS FOR OTHER FIRE APPARATUS.
4. THE FDC SHALL BE INDICATED BY AN APPROVED SIGN MOUNTED ON THE STREET, FRONT, SIDE OF THE BUILDING OR ADJACENT TO A REMOTELY LOCATED FDC.
5. FDC SIGNAGE SHALL HAVE THE LETTERS "FDC" AT LEAST 6 INCHES HIGH. THE LETTERS SHALL BE AN ARABIC OR HELVETIC STYLE FONT.
6. FDC SIGNAGE SHALL BE INSTALLED AT A MINIMUM 10' ABOVE GRADE OR ABOVE OBSTRUCTIONS ABOVE THE CONNECTION. THE SIGNAGE SHALL BE MOUNTED DIRECTLY ABOVE THE EXTERIOR HORN AND STROBE.
7. FDC SIGNAGE SHALL BE REFLECTIVE WITH WHITE LETTERS WITH A RED BACKGROUND. ALL SUCH SIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE FIRE CODE OFFICE.
8. FDC SHALL HAVE AN EXTERIOR RATED HORN AND STROBE DEVICE ABOVE THE FDC A MINIMUM 10' ABOVE GRADE IN HEIGHT. DEVICE SHALL BE IN CLEAR VIEW TO APPROACHING FIRE APPARATUS. THE HORN AND STROBE SHALL REMAIN ACTIVE UNTIL MANUALLY RESET.
9. THE AHJ RESERVES THE RIGHT TO IMPLEMENT FIELD ADJUSTMENTS AS NEEDED.
10. EMERGENCY RESPONDER RADIO COVERAGE MUST BE AVAILABLE IN THE NEW BUILDING.
11. NEW BUILDINGS SHALL HAVE APPROVED RADIO COVERAGE FOR EMERGENCY RESPONDERS WITHIN THE BUILDING BASED ON THE EXISTING COVERAGE LEVELS OF THE PUBLIC SAFETY COMMUNICATION SYSTEMS UTILIZED BY THE JURISDICTION, MEASURED AT THE EXTERIOR OF THE BUILDING. THIS SECTION SHALL NOT REQUIRE IMPROVEMENT OF THE EXISTING PUBLIC SAFTY COMMUNICATIONS SYSTEMS.
12. A KNOX BOX IS REQUIRED. THE SIZE SHALL BE A "3200" SERIES OR LARGER. THE VAULT SHALL BE MOUNTED UNOBSTRUCTED AND VISIBLE APPROXIMATLY FIVE FEET FROM GROUND LEVEL NEAR A MAIN ACCESS DOOR.



0 10 20 40
1 inch = 20ft.

N W E S

UTILITY NOTES

1. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
2. ALL MATERIAL AND CONSTRUCTION WILL BE IN ACCORDANCE WITH THE MOST RECENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT). MDOT SPECIFICATIONS ARE SUBJECT TO THE CURRENT ADDENDA. IN ADDITION, ALL WORK WILL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE STANDARDS AND REGULATIONS.
3. PLACE SANITARY CLEANOUTS EVERY 100' AND/OR AT BENDS ON ALL 6" SANITARY SEWER LEADS.
4. ALL BEDDING MATERIAL TYPES ARE TO BE PER MDOT SPEC. 402.03.
5. DEWATERING MAY BE REQUIRED TO INSTALL OR REMOVE SOME UTILITIES. REFER TO SPECIFICATIONS FOR SPECIFIC REQUIREMENTS. REFER TO GEOTECHNICAL REPORT FOR MORE INFORMATION.
6. ALL STRUCTURE CASTINGS TO BE EAST JORDAN IRON WORKS OR APPROVED EQUAL. SEE STRUCTURE TABLE FOR SPECIFIC CASTING AT EACH STRUCTURE.
7. STORM SEWERS SHALL BE CONCRETE C76-IV, SOLID WALL ADS N-12 RIGID PIPE MEETING AASHTO M-294, TYPE S, OR APPROVED EQUAL INSTALLED PER THE REQUIREMENTS OF MDOT AND CITY OF KALAMAZOO. MANDREL TESTING SHALL BE PERFORMED PRIOR TO PAVING. USE CONCRETE PIPE WHERE INDICATED.
8. VERIFY LOCATION AND ELEVATION OF EXISTING SANITARY LEAD PRIOR TO ORDERING STRUCTURES AND CONSTRUCTION.
9. ALL WATER MAIN INSTALLED IN GROUNDWATER SHALL BE WRAPPED WITH POLYETHYLENE.
10. PROVIDE 18" WATER MAIN SEPARATION WHEN CROSSING OTHER UTILITIES. DEFLECT UNDER OTHER UTILITIES W/O USING FITTINGS WHENEVER POSSIBLE. SEE WATER MAIN PROFILE SHEET.
11. VERIFY NUMBER OF FITTINGS PRIOR TO ORDERING. TOTALS DO NOT INCLUDE VERTICAL DEFLECTIONS THAT MAY BE NEEDED.
12. THE CONTRACTOR SHALL INSTALL PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVERNIGHT AS REQUIRED.
13. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR GROUNDWATER AND SOILS INFORMATION. ANY UTILITIES REQUIRING DEWATERING SHALL BE INSTALLED TO THE CITY OF KALAMAZOO STANDARDS AND INCLUDED IN THE INSTALLATION COSTS. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING NECESSARY TO CONSTRUCT UTILITIES IN THE DRY.
14. CONTRACTOR TO COORDINATE PRIVATE UTILITY CONNECTIONS WITH UTILITY COMPANIES.
15. SITE CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL UTILITIES TO 5' FROM BUILDING WALL.
16. COORDINATE ALL UTILITY LOCATIONS AND ELEVATIONS WITH MECHANICAL DRAWINGS AND BUILDING CONTRACTOR PRIOR TO INSTALLATION.
17. SANITARY SEWERS SHALL BE SDR-35. SANITARY SEWER MATERIALS AND INSTALLATION SHALL COMPLY WITH CITY OF KALAMAZOO REQUIREMENTS. COORDINATE WORK AND INSPECTIONS WITH CITY OF KALAMAZOO.
18. WATER SUPPLY MATERIALS AND INSTALLATION SHALL COMPLY WITH CITY OF KALAMAZOO UTILITIES REQUIREMENTS AND SPECIFICATIONS. COORDINATE CONNECTIONS WITH CITY OF KALAMAZOO.
19. SEE SITE ELECTRICAL PLAN FOR LOCATION OF ALL ELECTRICAL SLEEVES AND CONDUIT.
20. UNDERGROUND ELECTRICAL SHALL BE PROVIDED TO THE SITE LIGHT POLES.
21. REMOVE SEDIMENT FROM ALL STRUCTURES ONCE PAVING IS COMPLETE AND REMOVE SILT SACKS.
22. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
23. SNOWMELT SYSTEM IN THE ROW TO BE REGISTERED TO MISS DIG 811.

PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

FIELD WORK PERFORMED BY:
HURLEY & STEWART, LLC

H:\23-141D (Project Stardust)_FINAL DRAWINGS\C 400 SITE UTILITY PLAN.dwg LAST SAVED BY: LDIEHL ON 10/15/2026

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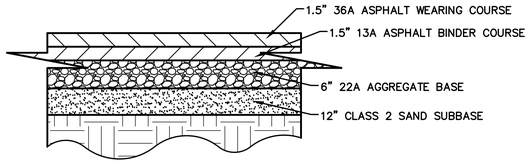
ISSUED FOR:
3 CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 8/12/26
4 CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 8/31/26
5 CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 9/29/26
6 CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 10/15/26
7 CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 11/04/26
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SITE UTILITY PLAN
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

Sheet Title:
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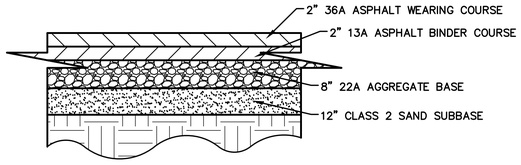
11/04/26
Sheet
C 400



ALL MATERIALS COMPACTED IN PLACE ON PREPARED SUBGRADE

STANDARD DUTY ASPHALT DETAIL

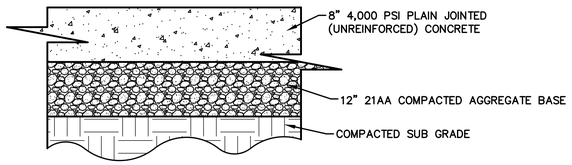
NOT TO SCALE



ALL MATERIALS COMPACTED IN PLACE ON PREPARED SUBGRADE

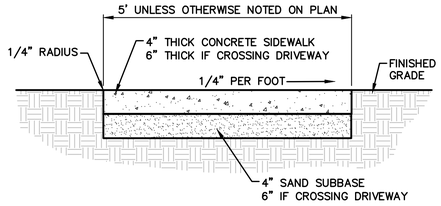
HEAVY DUTY ASPHALT DETAIL

NOT TO SCALE



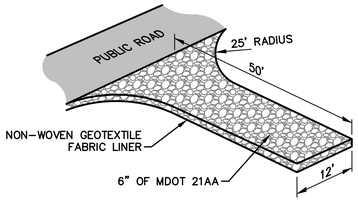
HEAVY DUTY CONCRETE DETAIL

NOT TO SCALE



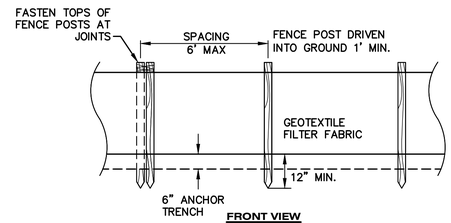
SIDEWALK DETAIL

NOT TO SCALE



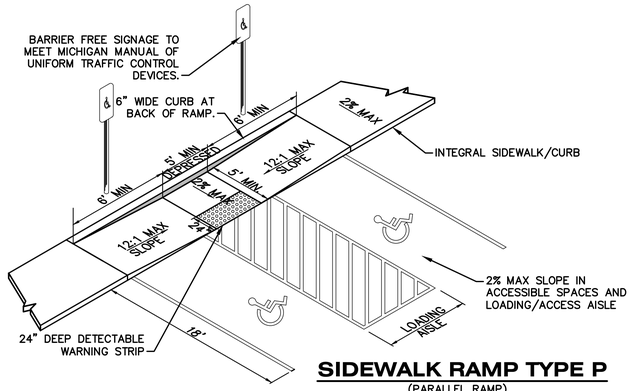
S53 STABILIZED CONSTRUCTION ACCESS

NOT TO SCALE



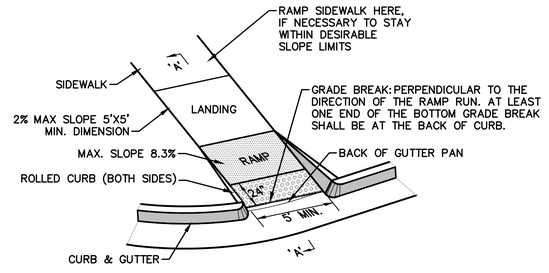
S51 SILT FENCE DETAIL

NOT TO SCALE



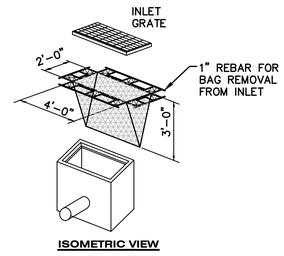
SIDEWALK RAMP TYPE P

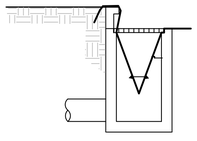
(PARALLEL RAMP)
NOT TO SCALE



SIDEWALK RAMP TYPE R

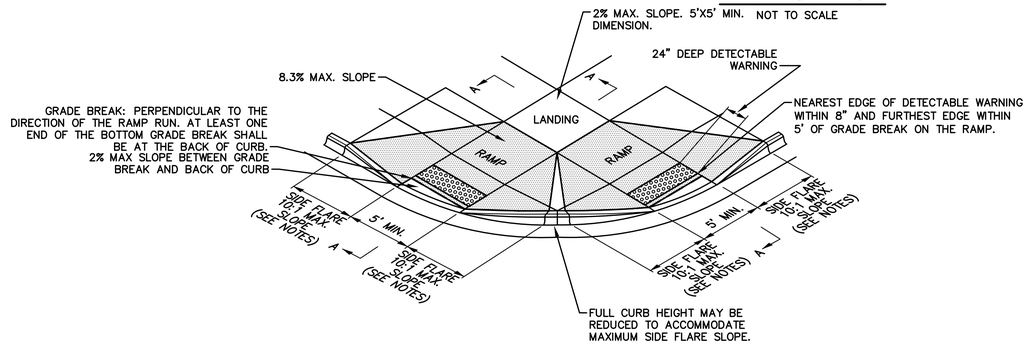
(ROLLED SIDES)
NOT TO SCALE





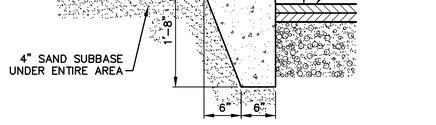
S58 INLET PROTECTION FABRIC DROP

NOT TO SCALE



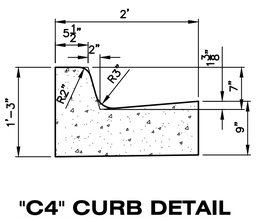
SIDEWALK RAMP TYPE F

(FLARED SIDES, TWO RAMPS ARE SHOWN)
NOT TO SCALE



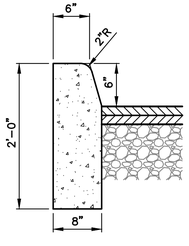
INTEGRAL SIDEWALK/CURB

NOT TO SCALE



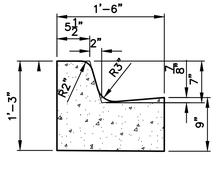
"C4" CURB DETAIL

NOT TO SCALE



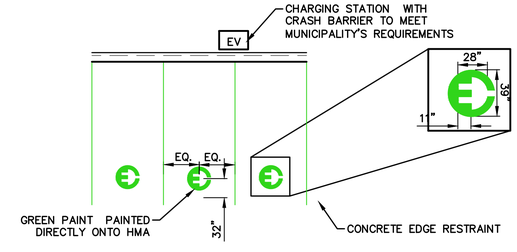
"E2" CURB DETAIL

NOT TO SCALE



"C2" CURB DETAIL

NOT TO SCALE



ELECTRIC VEHICLE PARKING BAYS

NOT TO SCALE

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REVISIONS:

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3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
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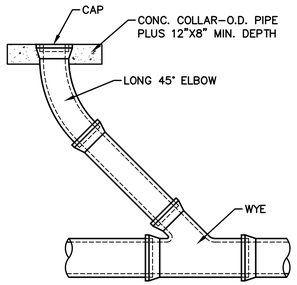
SITE DETAILS
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

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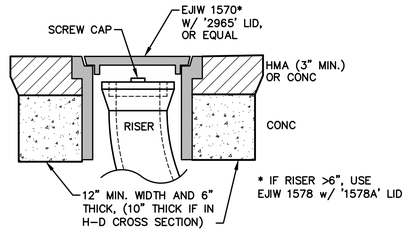
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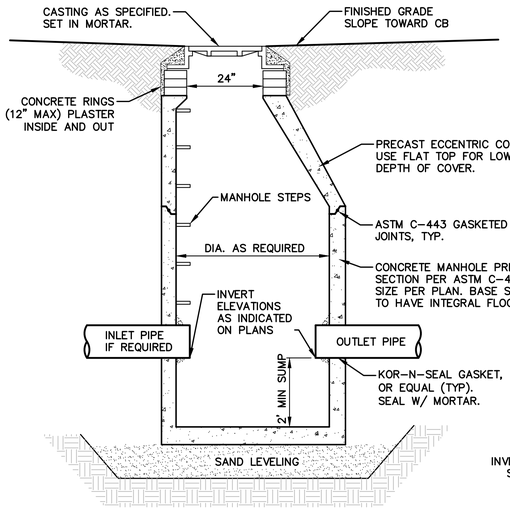
CLEANOUT DETAIL

NOT TO SCALE



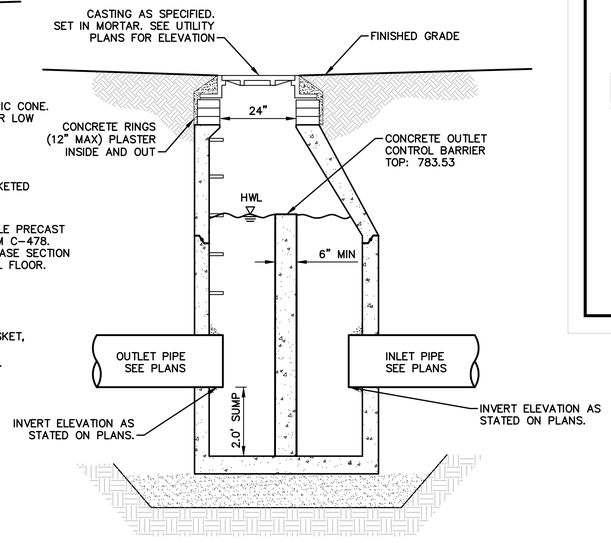
CLEANOUT IN PAVEMENT/CONC AREA

NOT TO SCALE



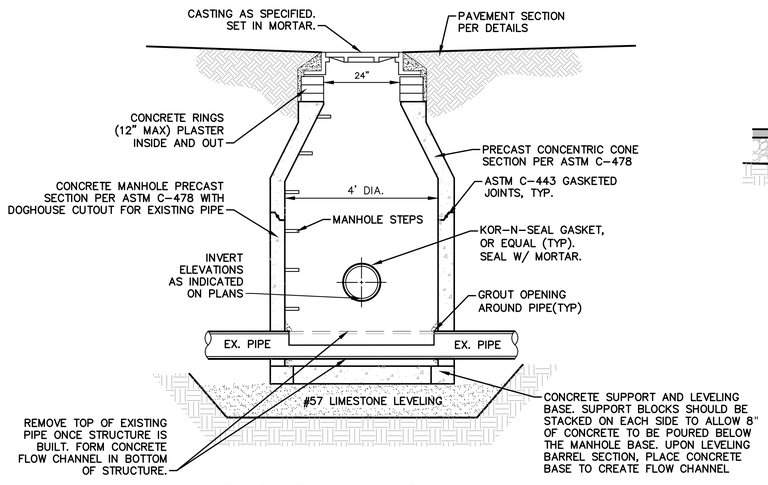
CATCH BASIN DETAIL

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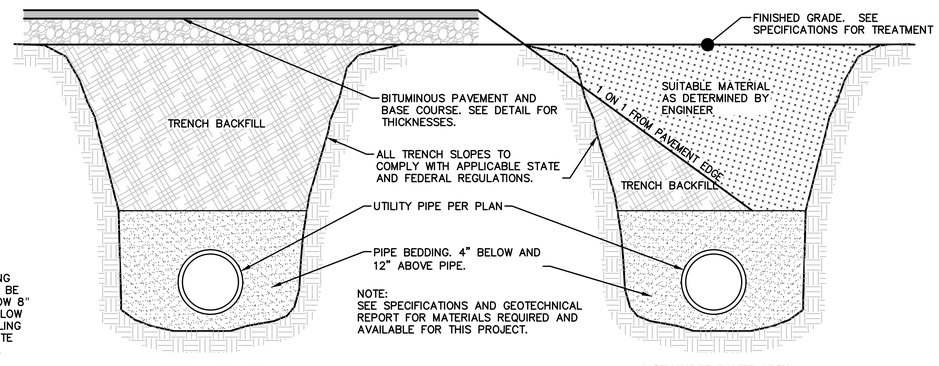
OUTLET CONTROL STRUCTURE OS-2

NOT TO SCALE



DOGHOUSE MANHOLE DETAIL

NOT TO SCALE



UNDER PAVED AREA

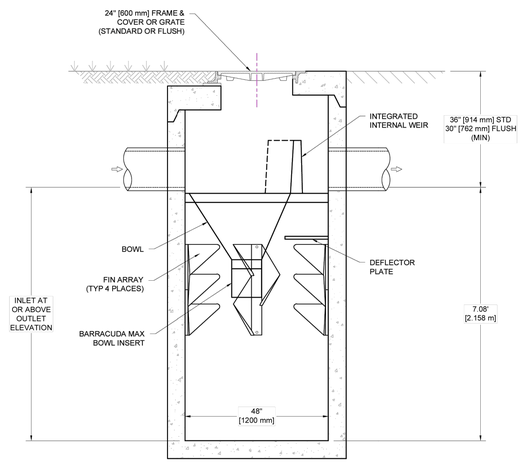
NOT UNDER PAVED AREA

TRENCH DETAILS

NOT TO SCALE

PRODUCT SPECIFICATIONS

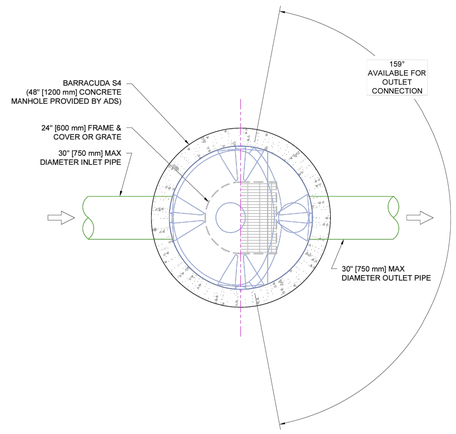
- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.
  -OR-
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH d_{50}=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION.
  -OR-
  THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS PER PREVIOUS 2013 NJDEP/NJCAT HDS PROTOCOL.



SECTION VIEW A-A

NOT TO SCALE

BARRACUDA MAX S4	CFS	L/s
NJDEP (50% Removal)	1.52	43.0
OK-110 (80% Removal)	1.52	43.0



PLAN VIEW

NOT TO SCALE

NOTES:

- ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS AND APPLICABLE ADAPTERS
- CONTRACTOR IS RESPONSIBLE FOR MATERIAL AND LABOR TO BRING CASTINGS TO FINISHED GRADE
- CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
- UNIT SHALL CONFORM TO HS20-44 LOAD RATINGS.

BARRACUDA MAX S4
CONCRETE MANHOLE
STANDARD DETAIL

DATE: 09/06/24 | DRAWN: JLM
DRAWING #: 531-410 | CHECKED: SMW

DATE/BY	DESCRIPTION
04/25/25 AJV	1ST LID LEADER
DATE DRWN	CHKD

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ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026

Barracuda Max
Stormwater Separator

SHEET 1 OF 1

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7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL 11/04/26

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UTILITY DETAILS
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116 WEST CEDAR, LLC

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811 Know what's below. Call before you dig.

11/04/26
Sheet
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Advanced Drainage Systems, Inc.

SiteAssist®
FOR STORMTECH
INSTALLATION INSTRUCTIONS
VISIT OUR WEBSITE

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

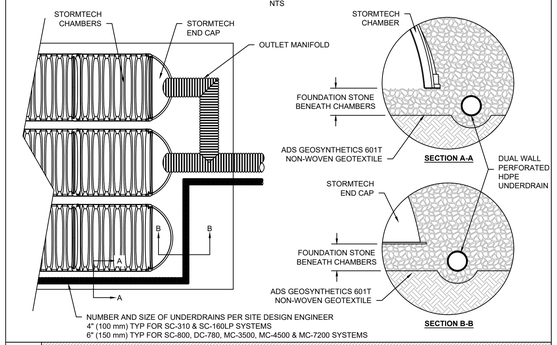
NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

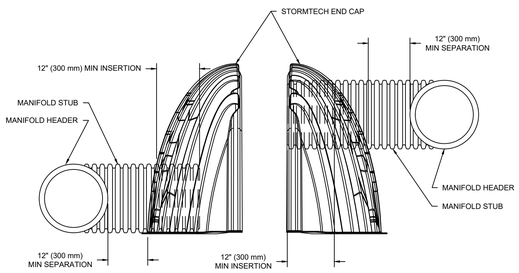
CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

UNDERDRAIN DETAIL
NTS



5 UNDERDRAIN DETAIL

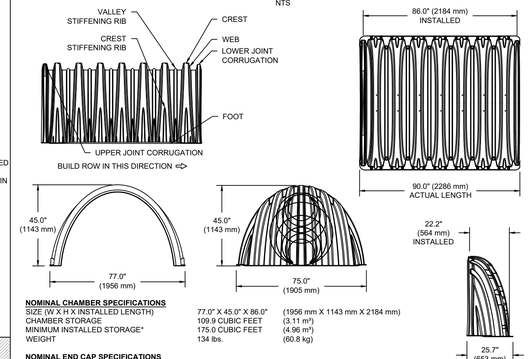
MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

6 MC-SERIES END CAP INSERTION DETAIL

MC-3500 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" (152 mm) STONE BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

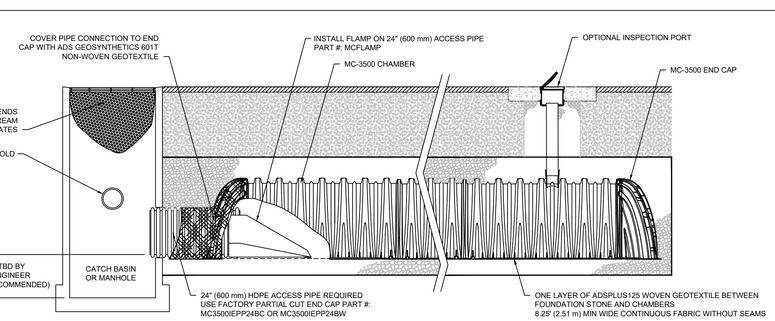
PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

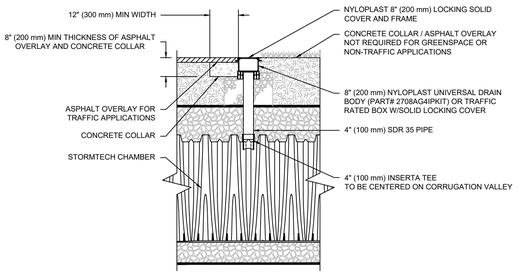
CUSTOM PARTIAL CUT INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

2 MC-3500 TECHNICAL SPECIFICATIONS



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

3 MC-3500 ISOLATOR ROW PLUS DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

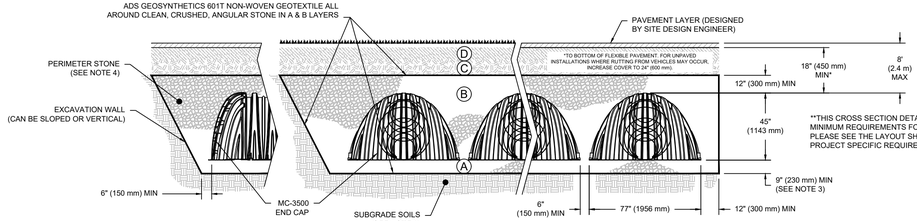
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

4 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3" (75 mm).
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 MC-3500 CROSS SECTION DETAIL

NOT TO SCALE
hurley & stewart, llc
main: 269.552.4960
fax: 269.552.4961
hurley & stewart www.hurleystewart.com
401 hall st. sw, ste. 213
grand rapids, michigan 49503
2800 s. 11th street
kalamazoo, michigan 49009

REVISIONS:

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ISSUED FOR:

3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/31/26
5	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/29/26
6	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	10/15/26
7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	11/04/26

Job No: 23-141D • PM: TDH • Designer: JJU • QA/QC: 8/12/26

STORMTECH DETAILS
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

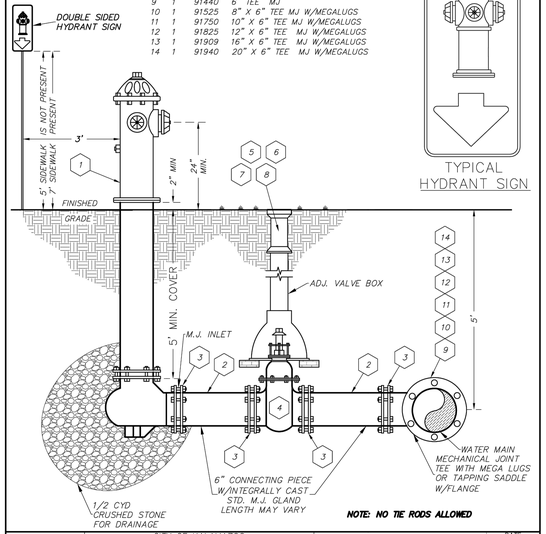
Sheet Title:
Project:
Client:

11/04/26
Sheet
C 502

H:\23-141D (Project Stardust)__FINAL DRAWINGS\C 503 Water Main & BMP Details.dwg. LAST SAVED BY: JUITVLUGT ON 10/12/2026

WA-1-D

ITEM	QTY.	#	DESCRIPTION
1	1	39887	6" HYDRANT W/CARROLL DRAIN
2	2	70000	CONNECTING PIECE (13")
3	4	33801	6" GASKET (MJ)
4	1	96696	6" GATE VALVE (MJ)
5	1	08550	VALVE BOX BOTTOM
6	1	08520	VALVE BOX TOP SECTION
7	1	08500	VALVE BOX RING CASTING
8	1	08490	VALVE BOX COVER
9	1	91440	6" TEE MJ
10	1	91525	8" X 6" TEE MJ W/MEGALUGS
11	1	91750	10" X 6" TEE MJ W/MEGALUGS
12	1	91825	12" X 6" TEE MJ W/MEGALUGS
13	1	91909	16" X 6" TEE MJ W/MEGALUGS
14	1	91940	20" X 6" TEE MJ W/MEGALUGS



TYPICAL HYDRANT SIGN

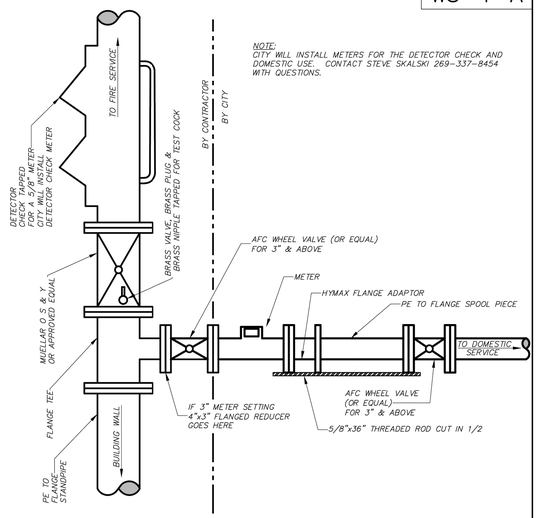
NOTE: NO TIE RODS ALLOWED

CITY OF KALAMAZOO
Department Of Public Services

TYPICAL FIRE HYDRANT & GATE VALVE DETAIL

	DATE
RECOMMENDED BY	
APPROVED BY	
APPROVED BY	
ACCEPTED BY	

WS-4-A

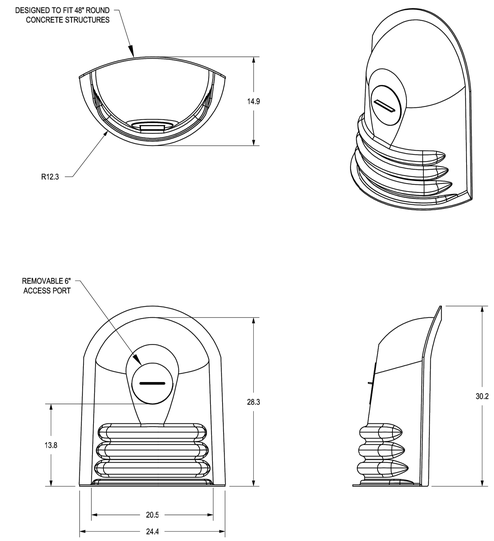


NOTE:
CITY WILL INSTALL METERS FOR THE DETECTOR CHECK AND DOMESTIC USE. CONTACT STEVE SKALSKI 269-337-8454 WITH QUESTIONS.

CITY OF KALAMAZOO
Department Of Public Services

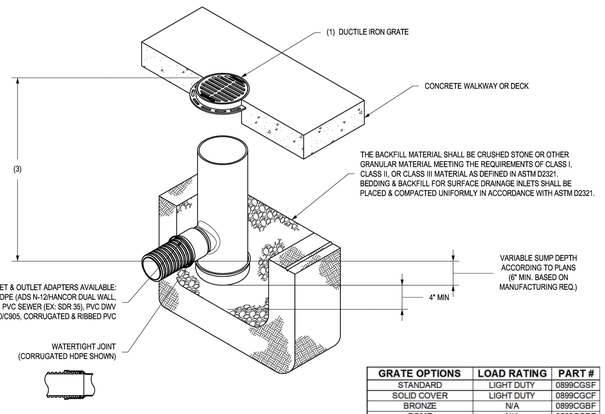
TYPICAL FIRE SERVICE DETAIL
3" 4" 6"

	DATE
RECOMMENDED BY	
APPROVED BY	
APPROVED BY	
ACCEPTED BY	



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NYLOPLAST 8" DRAIN BASIN: 2808AG _ _ X

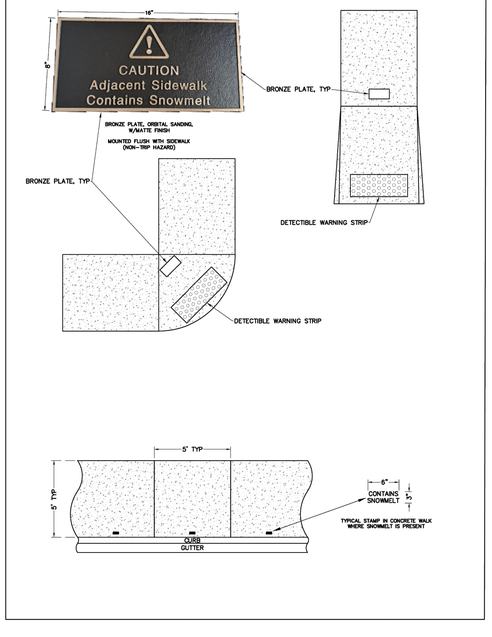


GRATE OPTIONS	LOAD RATING	PART #
STANDARD	LIGHT DUTY	0899CGSF
SOLID COVER	LIGHT DUTY	0899CGCF
BRONZE	N/A	0899CGBF
DOME	N/A	0899CGDF
DROP IN GRATE	LIGHT DUTY	0801DI

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
3 - STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER (4" - 24").

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SIDEWALK SNOWMELT IDENTIFICATION



TYPICAL STAMP IN CONCRETE WALK WHERE SNOWMELT IS PRESENT

DEPARTMENT OF PUBLIC SERVICES - Engineering
STANDARD DETAILS - SHEET 1A
CITY OF KALAMAZOO

DESIGNED	GHW / JJB	SCALE
DRAWN	GHW / MEE	VERTICAL: NOT TO SCALE
QA/QC	JJB	HORIZONTAL: NOT TO SCALE
		DATE: 01/01/2025

GENERAL NOTES:
- MDOT STANDARD PLANS R-28-K, R-29-J, R-30-Q, AND R-44-F SHALL BE FOLLOWED IN CONJUNTION WITH THESE STANDARD PLANS.
- ALL SAW CUTTING SHALL BE DONE PERPENDICULAR AND PARALLEL TO THE DIRECTION OF TRAVEL
- SAW CUTTING SHALL PROVIDE A STRAIGHT, CLEAN, EDGE TO ENHANCE BONDING
- ALL CUTS SHALL BE RECTANGULAR AND NEATLY CUT TO AVOID SPALLING OF PAVEMENT
- IN GENERAL ALL ROAD/UTILITY CUTS OF AN AREA GREATER THAN 9SFT (3FTX3FT TYPICAL) SHALL EXTEND THE FULL WIDTH OF THE TRAVEL LANE
- FOR PAVEMENT WITH LOAD TRANSFER DOWEL RODS OR REINFORCEMENT: NEW LOAD TRANSFER DOWELS/REINFORCEMENT SHALL BE PLACED TO MAINTAIN BEARING CAPACITY OF ROADWAY
- CUTS LESS THAN 12" SHALL BE PATCHED WITH PCC. IF GREATER THAN 12", ENSURE CUT IS IN ACCORDANCE WITH STANDARD DETAILS AND MATCHING EXISTING ROADWAY
- BUMPS/CUTS/MILLED AREAS WITH EDGE GREATER THAN 2" DEEP/HIGH MUST BE WEDGED WITH HMA BEFORE OPEN TO TRAFFIC. SEE STANDARD DETAIL.
- MEANDERING SIDEWALK SHALL ONLY BE PLACED IN THE CITY'S ROW OR WHERE AN EASEMENT IS ESTABLISHED
- NEW AND REPLACED SIDEWALK CONSTRUCTION SHALL MEET OR EXCEED CURRENT ADA AND ACCESSIBILITY STANDARDS
- REPLACED SIDEWALK SHALL, TO THE EXTENT PRACTICABLE, MEET OR EXCEED ADA AND ACCESSIBILITY STANDARDS
- SIDEWALK, DRIVEWAY OPENINGS, & APPROACHES SHALL CONFORM TO MDOT STANDARD PLAN DETAILS R-28-K AND R-29-J
- MARSHALL MIX 36/13A (TOP/LEVELING) MAY BE SUBSTITUTED FOR HMA MIX DESIGNS WITH CITY OF KALAMAZOO APPROVAL IF DEEMED APPROPRIATE BY THE ENGINEER
- ASPHALT BINDER SHALL BE INCLUDED IN THE PAY ITEM FOR HMA
- MDOT PCC 3500 MIX DESIGN SHALL BE USED FOR ALL CONCRETE UNLESS OTHERWISE STATED OR DIRECTED BY THE ENGINEER
- ROAD CUTS GREATER THAN 100 SQ FT REQUIRE DENSITY TESTING AS ADVISED BY CITY ENGINEER
- OPENING TO TRAFFIC STRENGTHS (2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION, TABLE 603-1):-

NOT TO SCALE

hurley & stewart, llc
main: 269.552.4960
fax: 269.552.4961
hurley & stewart www.hurleystewart.com
2800 s. 11th street 401 hall st. sw, ste. 213
kalamazoo, michigan 49009 grand rapids, michigan 49503

REVISIONS:

ISSUED FOR:

1	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/12/26
2	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	8/31/26
3	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	9/29/26
4	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	10/15/26
5	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	11/04/26
6	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	
7	CITY OF KALAMAZOO SITE PLAN RESUBMITTAL	

Job No: 23-141D • PM: TDH • Designer: JJU • QA/QC: 8/12/26

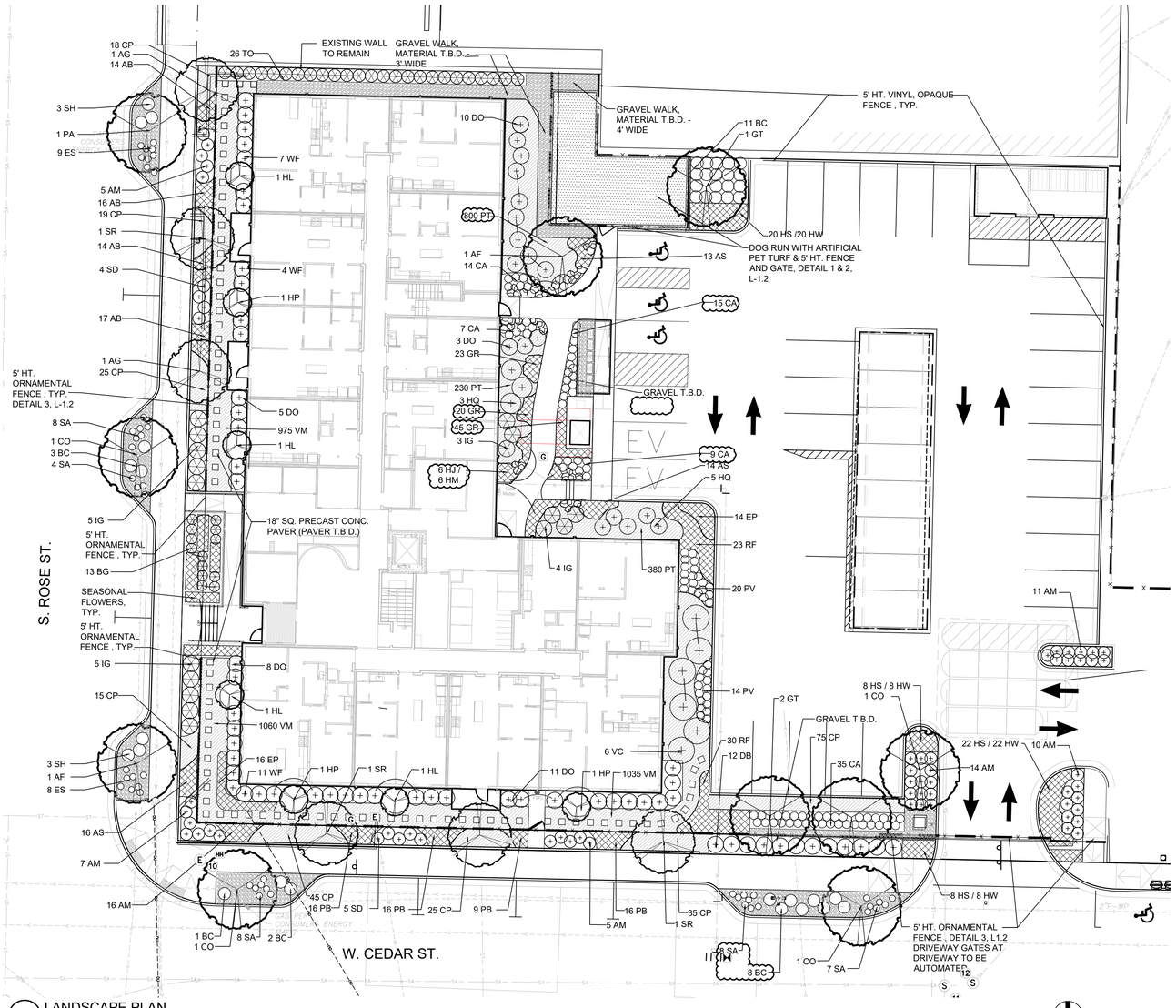
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WATER MAIN & BMP DETAILS
WEST CEDAR APARTMENTS
116 WEST CEDAR, LLC

Sheet Title:
Project:
Client:

11/04/26
Sheet
C 503

H:\23-141D (Project Stardust)__FINAL DRAWINGS\C 503 Water Main & BMP Details.dwg LAST SAVED BY: JUITVLUGT ON 10/12/2026



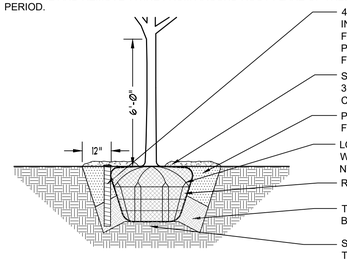
1 LANDSCAPE PLAN
SCALE: 1/16" = 1'-0"

*PLANT LIST -

CODE	BOTANICAL NAME	COMMON NAME	SIZE		ADDITIONAL NOTES
	DECIDUOUS TREES - LARGE				
AF	ACER X FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE	3" CALIPER	2	BRANCHED UP 6'
CO	CELTIS OCCIDENTAILS	COMMON HACKBERRY	3" CALIPER	4	BRANCHED UP 6'
GT	GLEDITSIA TRIACANTHOS INERM. 'SKYLINE'	SKYLINE HONEYLOCUST	3" CALIPER	3	BRANCHED UP 6'
PA	PLATANUS ACERIFOLIA 'EXCLAMATION'	EXCLAMATION PLANETREE	3" CALIPER	1	BRANCHED UP 6'
	DECIDUOUS TREES - SMALL				
AG	AMELANCHIER x G. 'AUTUMN BRILLIANCE'	APPLE SERVICEBERRY	6' - 7' HT.	2	CLUMP ,BRANCHED UP 3'
SR	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	6' - 7' HT.	3	CLUMP ,BRANCHED UP 3'
	DECIDUOUS SHRUBS				
AM	ARONIA MELANOCARPA 'LOWSCAPE HEDGER'	LOWSCAPE HEDGE CHOKEBERRY	3 GAL.-18"W	68	SPACED AS SHOWN
DB	DIERVILLA 'KODIAK BLACK.'	KOD. BLACK B. HONEYSUCKLE	3 GAL.-18"W	12	SPACED AS SHOWN
DO	DIERVILLA 'KODIAK ORANGE.'	KOD. ORANGE B. HONEYSUCKLE	3 GAL.-18"W	37	SPACED AS SHOWN
HL	HYDRANGEA PANICULATA 'LITTLE LIME'	LITTLE LIME HYDRANGEA	5 GAL.- 30"W	4	SPACED AS SHOWN
HP	HYDRANGEA PANICULATA 'PINKY WINKY'	PINKY WINKY HYDRANGEA	5 GAL.- 30"W	3	SPACED AS SHOWN
HQ	HYDRANGEA PANICULATA 'LITTLE QUICKFIRE'	LITTLE QUICKFIRE HYDRANGEA	3 GAL.- 24"W	8	SPACED AS SHOWN
SD	SPIRAEA 'DOUBLE PLAY BIG BANG'	BIG BANG DOUBLE PLAY SPIREA	3 GAL.-18"W	9	SPACED AS SHOWN
VC	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	5 GAL.- 30"W	6	SPACED AS SHOWN
WF	WEIGELA FLORIDA 'WINE & ROSES'	WINE & ROSES WEIGELA	5 GAL.- 24"W	22	SPACED AS SHOWN
	EVERGREEN SHRUBS				
BG	BUXUS MICROPHYLLA 'GREEN MOUND'	GREEN MOUND BOXWOOD	3 GAL.-18"W	13	SPACED AS SHOWN
IG	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	5 GAL.- 24"W	17	SPACED AS SHOWN
TO	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	7' HT.	26	SPACED AS SHOWN
	PERENNIALS, ORNAMENTAL GRASSES AND GROUNDCOVERS				
AB	AMSONIA 'BLUE ICE'	BLUE ICE BLUE STAR	1 GALLON	61	SPACED 18" O.C.
AS	ALLIUM 'SUMMER BEAUTY'	SUMMER BEAUTY ALLIUM	1 GALLON	43	SPACED 18" O.C.
BC	BOUTELOUS CURTIPENDULA	SIDE OATS GRAMMA	1 GALLON	25	SPACED AS SHOWN
CA	CALAMAGROSTIS ACUT. 'KARL FOERSTER'	FEATHER REED GRASS	3 GALLON	80	SPACED AS SHOWN
CP	CAREX PENNSYLVANICA	COMMON OAK SEDGE	1 GALLON	247	SPACED 18" O.C.
EP	ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GALLON	30	SPACED 24" O.C.
ES	ERAGROSTIS SPECTABILIS	PURPLE LOVE GRASS	1 GALLON	17	SPACED 18" O.C.
GR	GERANIUM 'ROZANNE'	ROZANNE GERANIUM	1 GALLON	88	SPACED 12"O.C.
HJ	HOSTA 'JUNE'	JUNE HOSTA	1 GALLON	6	SPACED 24" O.C.
HM	HOSTA 'MINUTEMAN'	MINUTEMAN HOSTA	1 GALLON	6	SPACED 24" O.C.
HS	HEMEROCALLIS 'STELLA D' ORO'	STELL D' ORO DAYLILY	1 GALLON	58	SPACED 18"O.C.
HW	HEMEROCALLIS 'SUMMER WINE'	SUMMER WINE CUP DAYLILY	1 GALLON	58	SPACED 18" O.C.
PB	PHLOX 'BUBBLE GUM PINK'	BUBBLE GUM PINK PHLOX	1 GALLON	57	SPACED 18" O.C.
PT	PACHYSANDRA TERMINALIS 'GREEN CARPET'	JAPANESE SPURGE	3" POT	1410	SPACED 8" O.C.
PV	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCHGRASS	3 GALLON	34	SPACED AS SHOWN
RF	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK-EYED SUSAN	1 GALLON	53	SPACED 24" O.C.
SA	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	1 GALLON	35	SPACED AS SHOWN
SH	SPOROBOLUS HETEROLEPSIS	PRAIRIE DROPSEED	1 GALLON	6	SPACED 18" O.C.
VM	VINCA MINOR 'BOWLES'	BOWLES PERIWINKLE	3" POT	3070	SPACED 9" O.C.

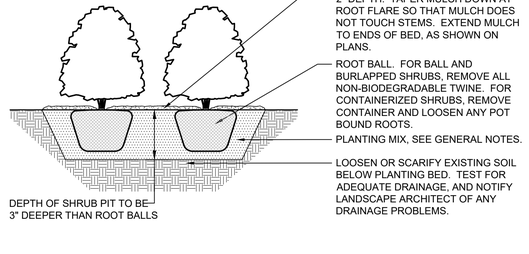
NOTE:
1. ALL LANDSCAPING TO BE IRRIGATED WITH AN AUTOMATIC DRIP IRRGATION SYSTEM.

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. TREE PIT WIDTH TO BE EXTENDED 12" AROUND THE ENTIRE ROOT BALL AS SHOWN IN THE DETAIL BELOW. TEST TREE PIT FOR DRAINAGE PRIOR TO INSTALLING TREE. PRUNE OFF ALL DEAD, BROKEN OR SCARRED BRANCHES, AND SHAPE PRUNE AS DIRECTED BY THE LANDSCAPE ARCHITECT. FOR TREES UP TO 4" CALIPER OR 12' HEIGHT, REMOVE APPROXIMATELY 5% -10% OF THE OVERALL BRANCHING. FOR TREES OVER 4" CALIPER OR 12' HEIGHT, REMOVE APPROXIMATELY 15%-20% OF THE OVERALL BRANCHING. LOCATE ROOT FLARE IN ROOT BALL AND SET TREE HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE TREE PLUMB. STRAIGHTEN TREE IF SETTLING OCCURS. CONTRACTOR TO UN-TIE AND REMOVE TWINE FROM AROUND ROOT FLARE OF TREE AT THE END OF THE WARRANTY PERIOD.



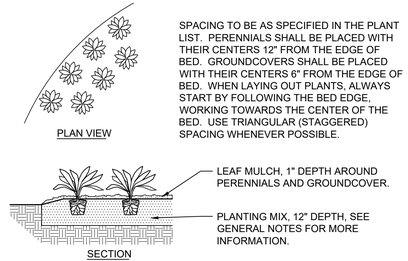
2 DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO PLANTING. SHRUBS BEDS ARE TO BE EXCAVATED AS A SINGLE SHRUB PIT. EXTEND SHRUB PIT WIDTH TO EDGES OF PLANT BED AS SHOWN ON THE LANDSCAPE PLAN. LOCATE ROOT FLARE IN ROOT BALL AND SET SHRUB HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. REMOVE TWINE FROM ROOT FLARE. BACKFILL AND WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE SHRUB PLUMB. STRAIGHTEN SHRUB IF SETTLING OCCURS. PRUNE OFF ALL DEAD, BROKEN OR SCARRED BRANCHES, AND SHAPE PRUNE AS DIRECTED BY THE LANDSCAPE ARCHITECT. MULCH LIMITS FOR SHRUBS SHALL EXTEND TO ALL OUTER EDGES OF PLANTING BEDS, SEE LANDSCAPE PLAN FOR BED LAYOUTS.



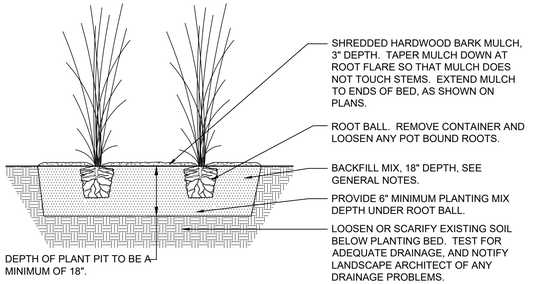
3 SHRUB PLANTING DETAIL
NOT TO SCALE

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. EXCAVATE ENTIRE PERENNIAL / GROUNDCOVER BED, AND BACKFILL WITH PLANTING MIX AS SPECIFIED. BED HEIGHT IS TO BE 2" ABOVE FINISH GRADE AND WELL DRAINED. MULCH LIMITS FOR PERENNIAL BEDS TO EXTEND TO ALL EDGES OF THE BEDS, SEE PLANS FOR BED LAYOUTS. SEE PLANT LIST FOR PLANT SPACING. GAPS BETWEEN PLANTS SHALL BE NO GREATER THAN THE SPECIFIED SPACING FOR THAT PARTICULAR PLANT.



4 PERENNIAL AND GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO PLANTING. PERENNIAL BEDS ARE TO BE EXCAVATED AS A SINGLE PIT. EXTEND PIT WIDTH TO EDGES OF PLANT BED AS SHOWN ON THE LANDSCAPE PLAN. LOCATE ROOT FLARE IN ROOT BALL AND SET PERENNIAL HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. BACKFILL AND WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE PLANT PLUMB. STRAIGHTEN PLANT IF SETTLING OCCURS. MULCH LIMITS FOR PERENNIAL PLANTINGS SHALL EXTEND TO ALL OUTER EDGES OF PLANT BEDS, SEE LANDSCAPE PLAN FOR BED LAYOUTS.



5 ORNAMENTAL GRASS PLANTING DETAIL
NOT TO SCALE

DANIEL WEINBACH & PARTNERS, LTD.
Landscape Architects
1142 W. Madison Street
Suite 206
Chicago, IL 60607
312 427-2888

Revisions

8.		
7.	ISSUE FOR SITE PLAN REVIEW	09/29/26
6.	ISSUE FOR SITE PLAN REVIEW	08/28/26
5.	ISSUE FOR SITE PLAN REVIEW	08/04/26
4.	ISSUE FOR SITE PLAN REVIEW	06/02/26
3.	ISSUED FOR DD	12/17/25
2.	ISSUED FOR SD	10/06/25
1.	ISSUED FOR OWNER REVIEW	09/24/25

Project

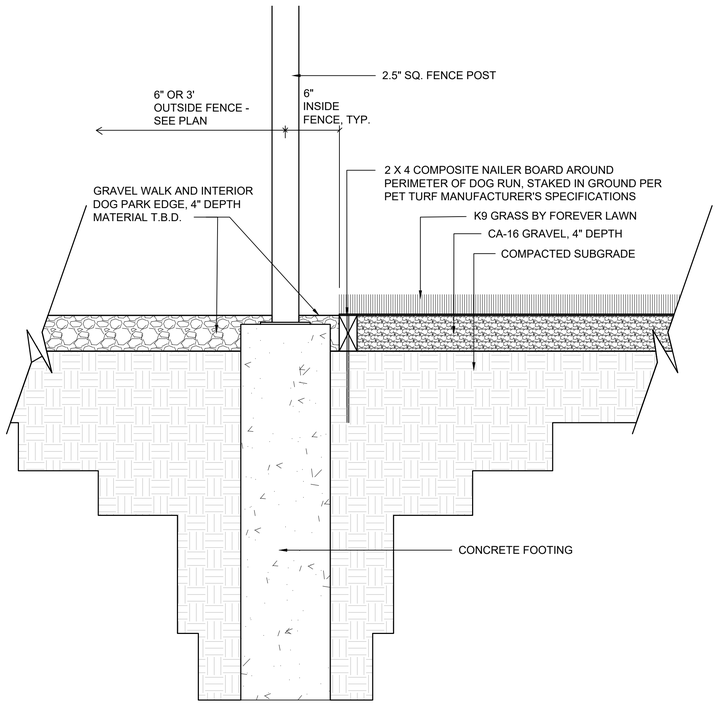
431 S ROSE

431 SOUTH ROSE STREET
KALAMAZOO, MICHIGAN

Sheet Title

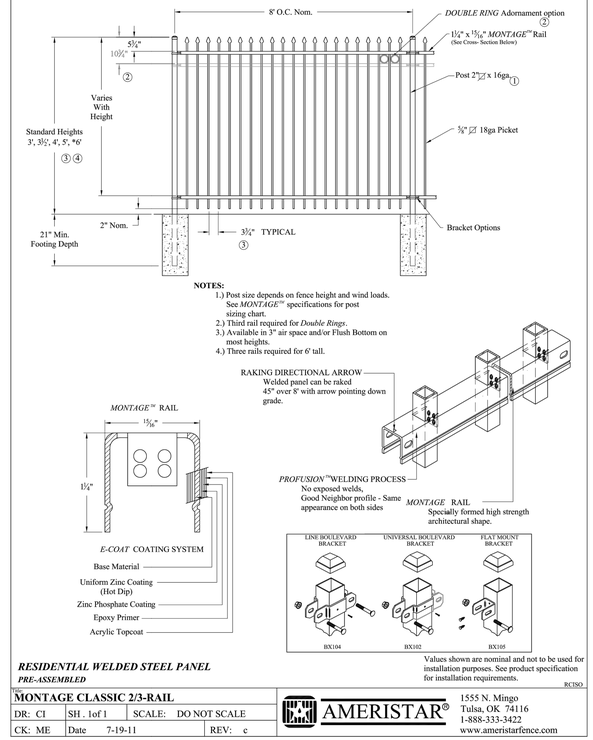
LANDSCAPE PLAN

Date 10/06/25	Project No. DWP 25-124
Scale 1" = 16'-0"	Sheet No. L-1.1
Drawn By JC	
Approved WS	



1 DOG RUN SURFACE - K9 PET TURF

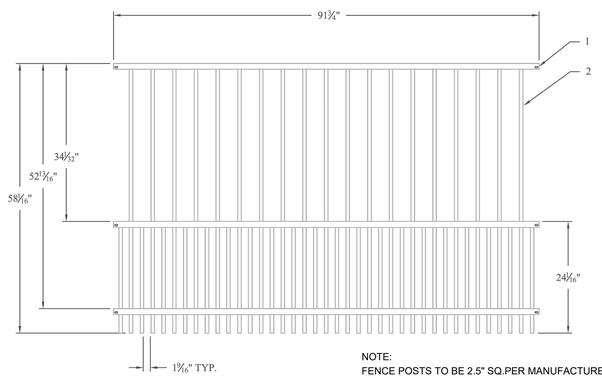
SCALE: 1-1/2"=1'-0"



3 TYP. SITE PERIMETER FENCE - 5'HT.

SCALE: N.T.S.

SCALE: 1" = 16'-0"



NOTE:
FENCE POSTS TO BE 2.5" SQ.PER MANUFACTURER.

#	QTY.	DESCRIPTION
1	3	1¼" x 1½" FORERUNNER RAIL
2	39	½"Sq. PICKET

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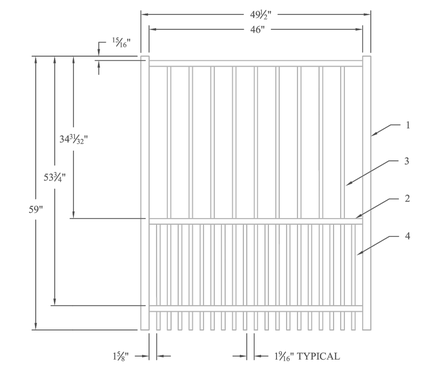
REV	BY	CK'D	DATE	DESCRIPTION

TITLE: ECHELON PLUS PUPPY PANEL MAJESTIC 3R EXT 5'T 8'W

DATE: 12/17/2020 | SCALE: Do Not Scale | SHEET: 1/3

DRN BY: LJM | CHK BY: | REV: A

DRAWING NO: 1AMX360HDR1



NOTE:
GATE FENCE POSTS TO BE 3" SQ.PER MANUFACTURER.

QTY FOR
ORDER #
COLOR
QTY FOR
WORK ORDER #
HINGE LEFT: RIGHT:
SWINGS IN: OUT:
SPECIAL NOTES:
SALES SIGN OFF
SALES SIGN OFF
PLANNING S/O
PRODUCTION S/O
METAL PROCESSING
COATING LINE
PACKAGING

#	QTY.	DESCRIPTION
1	2	1½" Sq. x .125" GATE END
2	3	1¼" x 1½" FORERUNNER RAIL
3	9	½"Sq. x .080" PICKETS—CUT AT 58"
4	10	½"Sq. x .080" PICKETS—CUT AT 24"

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REV	BY	ECR	DATE	DESCRIPTION
b	JF	0113-HD2-05-13		Changed to picket spacing

TITLE: ECHELON PLUS MAJ 3R EXT 5'H 49-1/2" PUPPY GATE LEAF

DATE: 12/5/13 | SCALE: DNS | SHEET: 1/1

DRN BY: JF | CHK BY: CI | REV: b

DRAWING NO: AMX360-48D

2 TYPICAL DOG RUN FENCE PANEL AND GATE

SCALE: N.T.S.

DANIEL WEINBACH
&
PARTNERS, LTD.
Landscape Architects
1142 W. Madison Street
Suite 206
Chicago, IL 60607
312 427-2888

Revisions

8.

7. ISSUE FOR SITE PLAN REVIEW 09/29/26

6. ISSUE FOR SITE PLAN REVIEW 08/28/26

5. ISSUE FOR SITE PLAN REVIEW 08/04/26

4. ISSUE FOR SITE PLAN REVIEW 06/02/26

3. ISSUED FOR DD 12/17/25

2. ISSUED FOR SD 10/06/25

1. ISSUED FOR OWNER REVIEW 09/24/25

Project

431 S ROSE

431 SOUTH ROSE STREET
KALAMAZOO, MICHIGAN

Sheet Title

LANDSCAPE DETAILS

Date 10/06/25

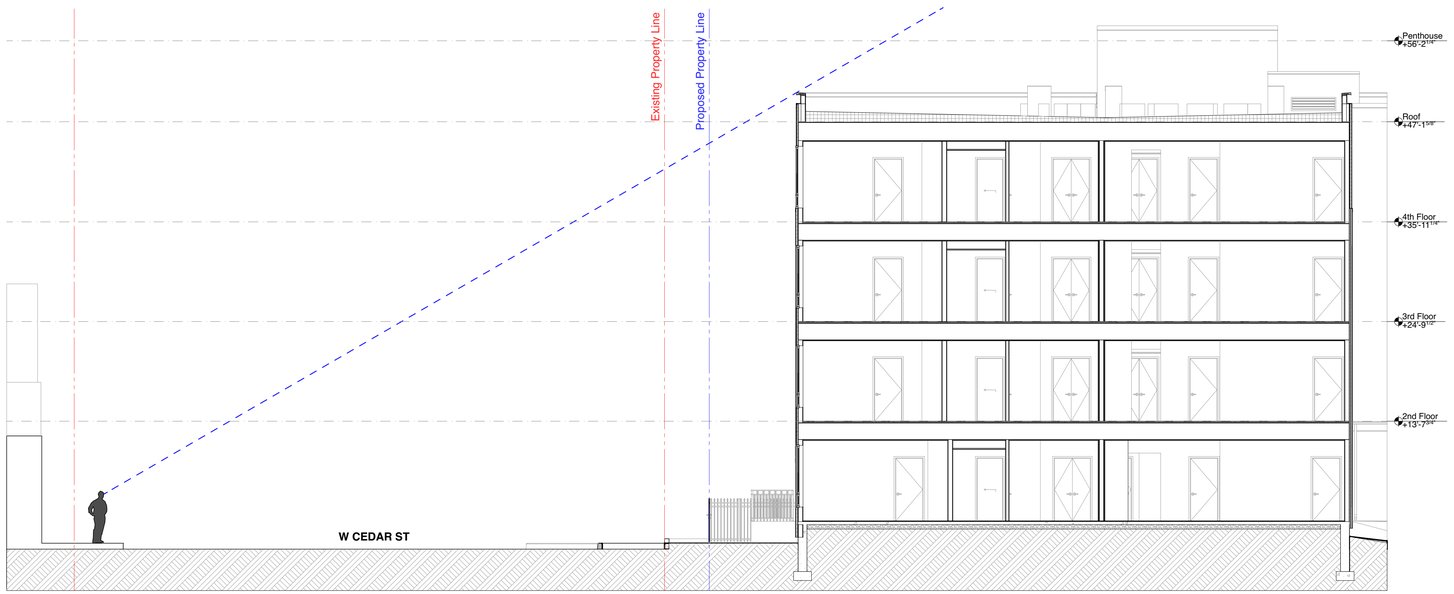
Project No. DWP 25-124

Scale 1" = 16'-0"

Sheet No. L-1.2

Drawn By JC

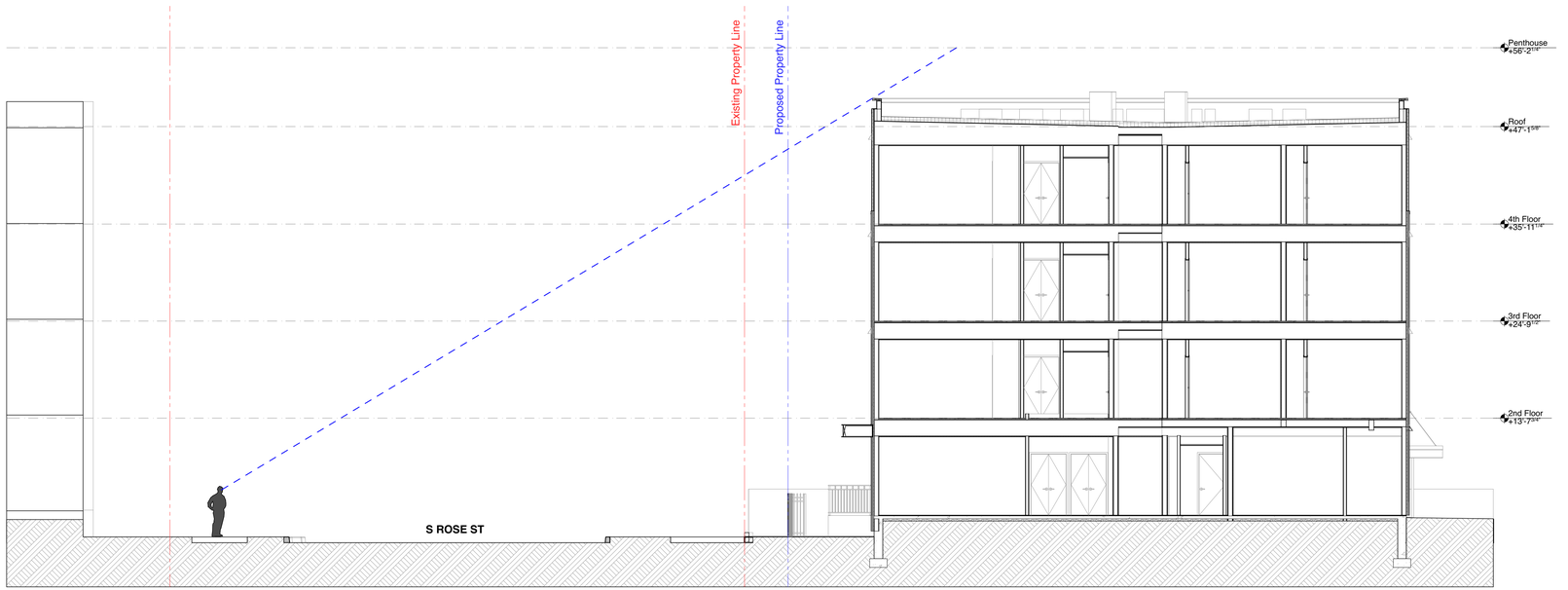
Approved WS



2 Rooftop Visibility Study - W Cedar St

SCALE: 1/8" = 1'-0"

0 4' 8' 16'



1 Rooftop Visibility Study - S Rose St

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

640 N Lasalle
Suite 400
Chicago Illinois 60654

312 337 3344

Architecture
Urban Planning

Pappageorge Haymes Partners
www.pappageorgehaymes.com

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HINMAN

avb

431 S Rose
431 S Rose
Kalamazoo, MI 49007
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	date	description
	10/01/25	Schematic Design
	01/12/26	Design Development
	03/24/26	Issue for GMP
	06/03/26	Issue for Site Plan Review
	08/12/26	Issue for Site Plan Review Resubmittal
	08/28/26	Issue for Site Plan Review Resubmittal
	09/29/26	Issue for Site Plan Review Resubmittal

orientation

project number 252958

scale As Noted

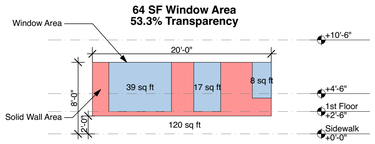
date 10/15/26

sheet title Rooftop Visibility Diagrams

sheet number

A010





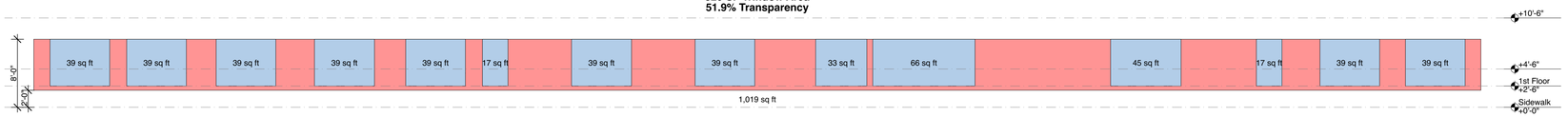
Zoning Ordinance 50-5.5B (b): Entrance (Stoop)
(1) Transparency. Minimum transparency is 50% measured between two and eight feet above the grade of the sidewalk.

2 Building Elevation - W Cedar St.

SCALE: 1/8" = 1'-0"

0 4' 8' 16'





1 Building Elevation - S Rose St.

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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orientation

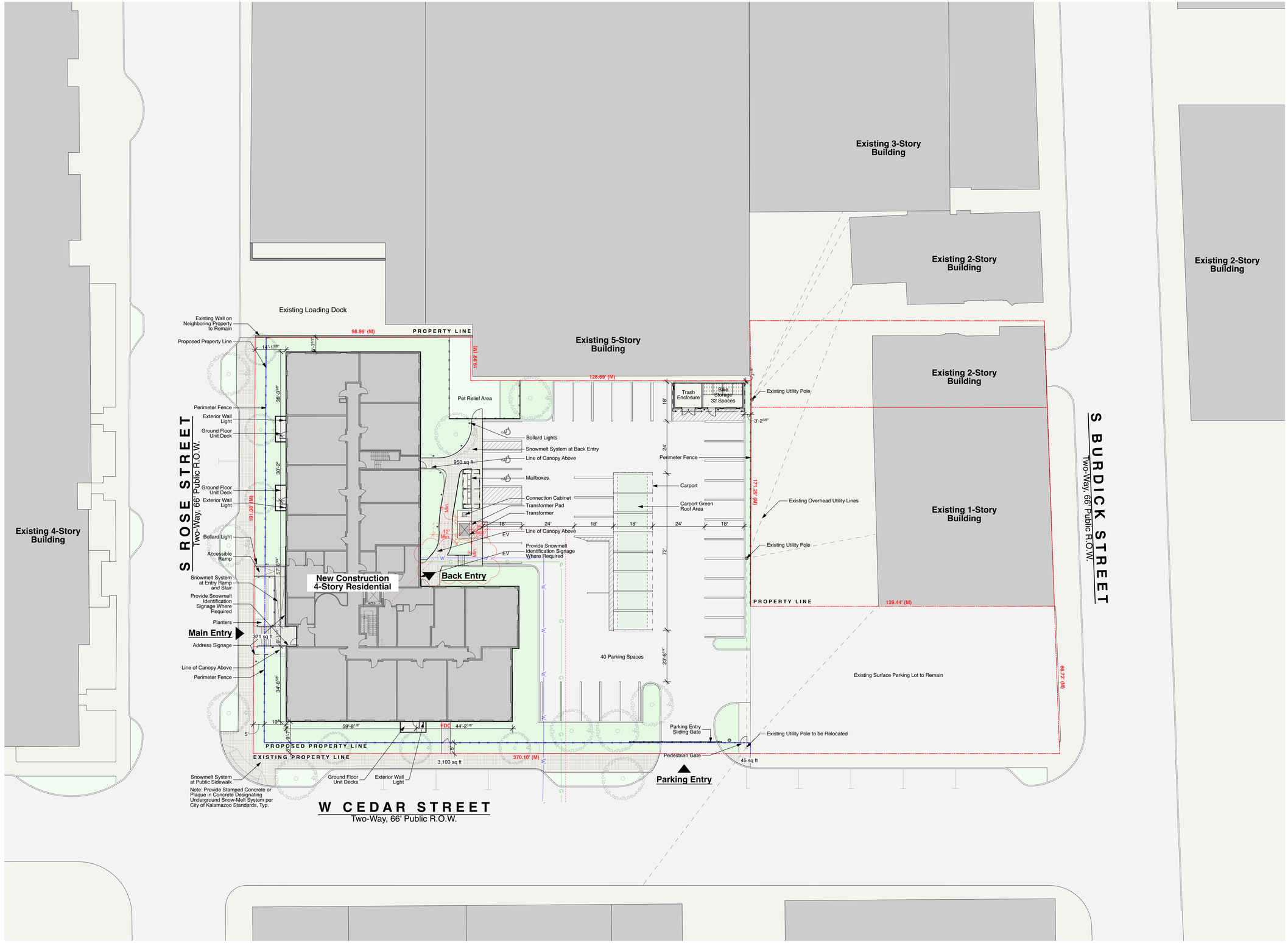
project number 252958

scale As Noted

date 10/15/26

sheet title Ground Floor Transparency Diagrams

sheet number A011



1 Site Plan

SCALE: 1" = 20' 0 10' 20' 40'

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orientation

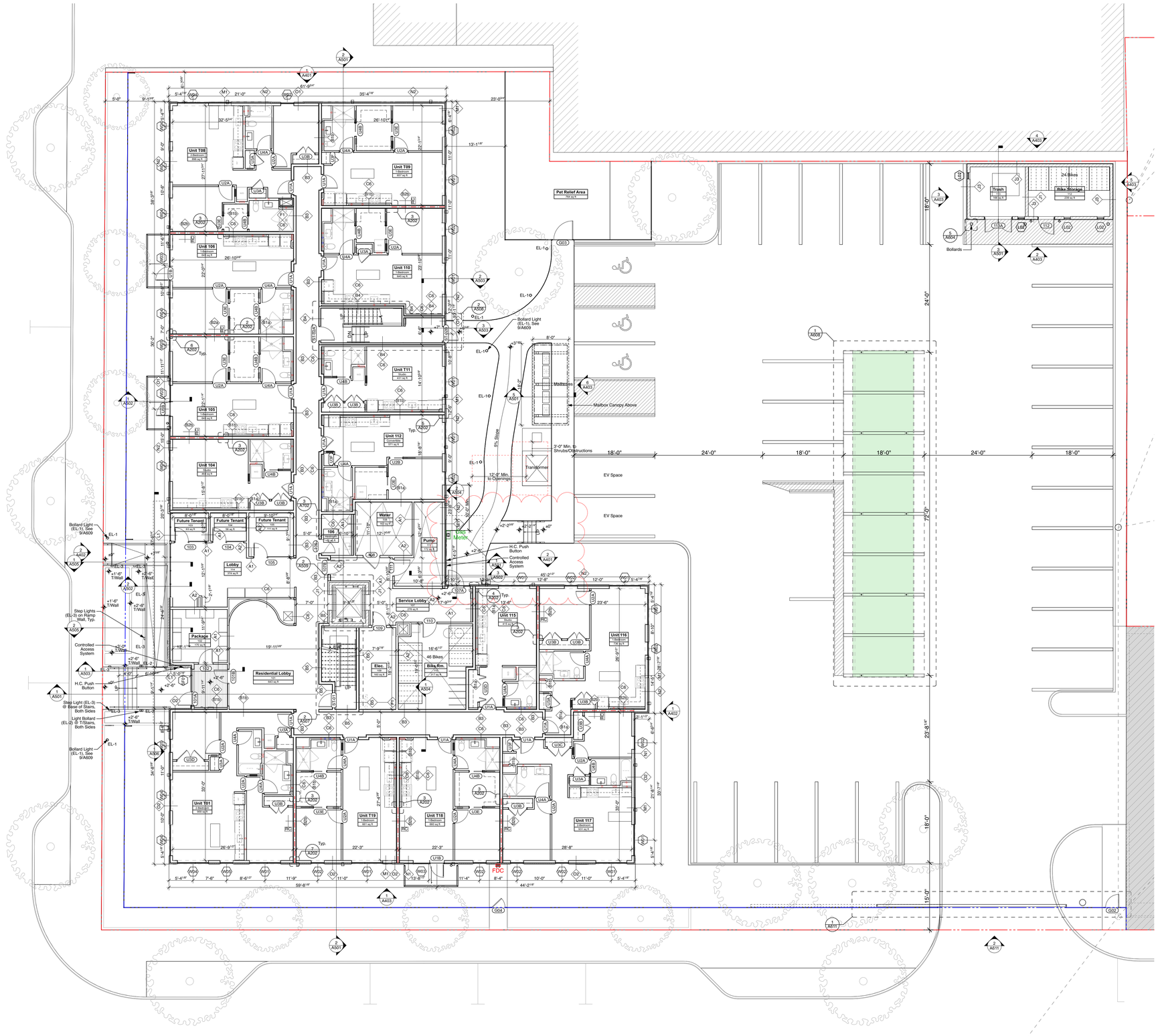
project number 252958

scale As Noted

date 11/3/26

sheet title Site Plan

sheet number A101



1 1st Floor Plan

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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6. Refer to Sheet A219 for Type A Unit Clearance Requirements
7. Plumber to Set Shower & Tub Valve Locations Based on Plumbing/Wall Type and Tub & Shower Flange Dimensions - See Wall Types Sheet A301

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orientation

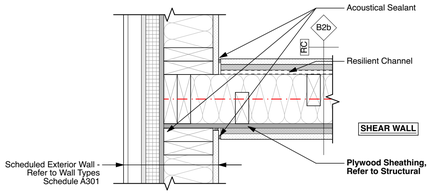
project number 252958

scale As Noted

date 11/3/26

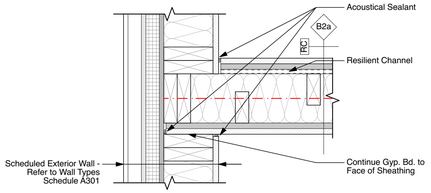
sheet title 1st Floor Plan

sheet number A201



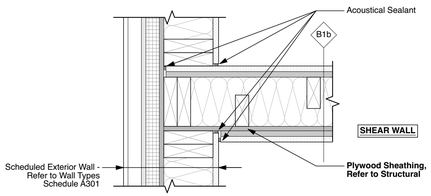
7 Demising to Exterior Shear Wall Detail - B2b

SCALE: 1 1/2"= 1'-0"



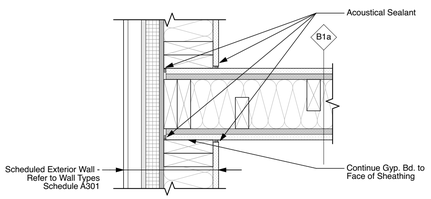
6 Demising to Exterior Wall Detail - B2a

SCALE: 1 1/2"= 1'-0"



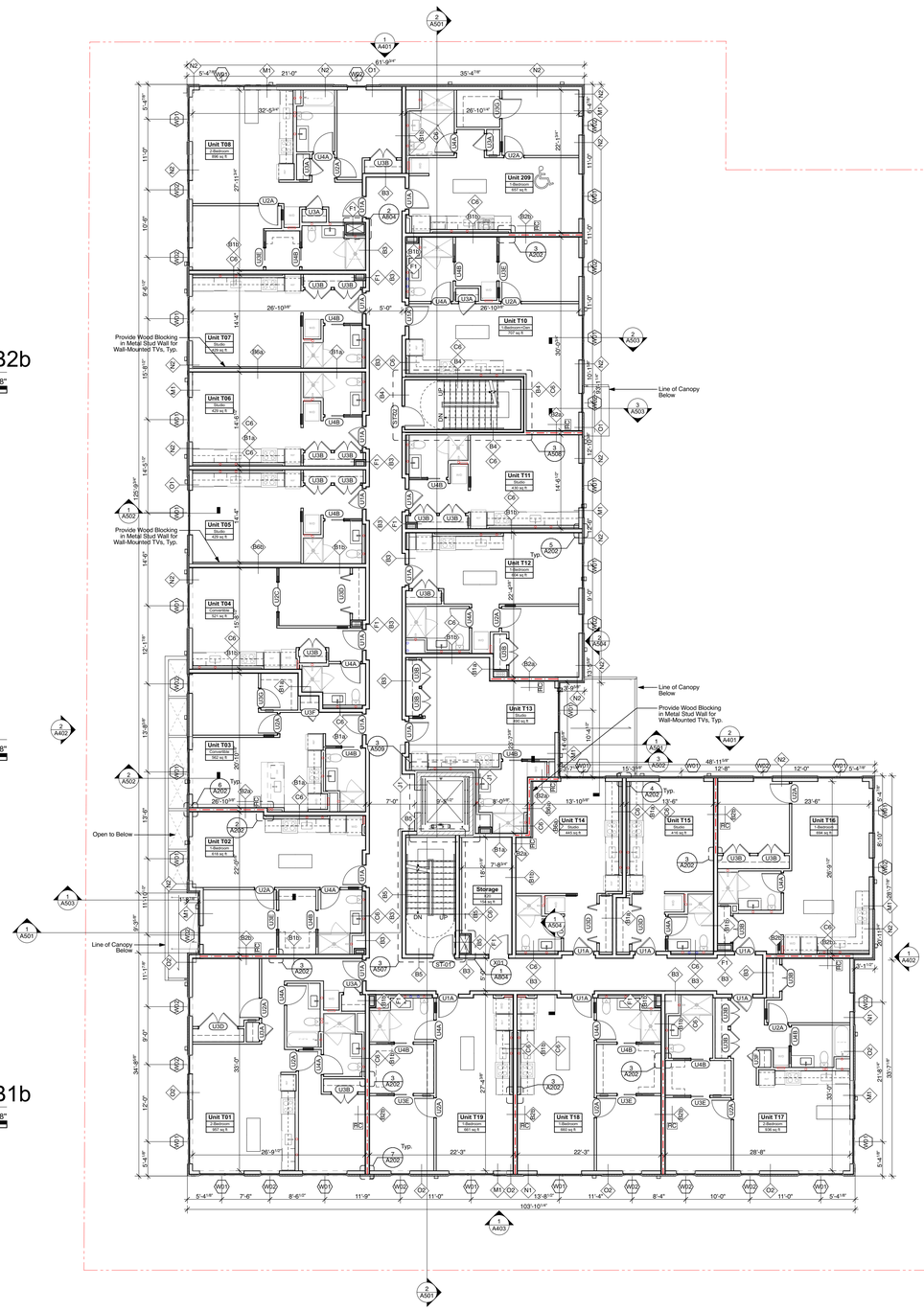
5 Demising to Exterior Shear Wall Detail - B1b

SCALE: 1 1/2"= 1'-0"



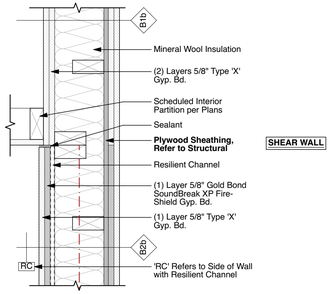
4 Demising to Exterior Wall Detail - B1a

SCALE: 1 1/2"= 1'-0"



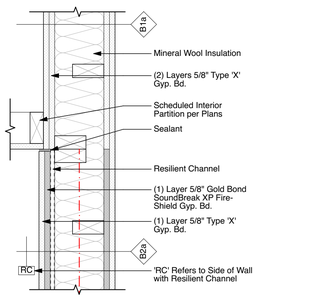
1 2nd Floor Plan

SCALE: 3/32" = 1'-0"



3 Typ. Demising Shear Wall Transition Detail

SCALE: 1 1/2"= 1'-0"



2 Typ. Demising Wall Transition Detail

SCALE: 1 1/2"= 1'-0"

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orientation

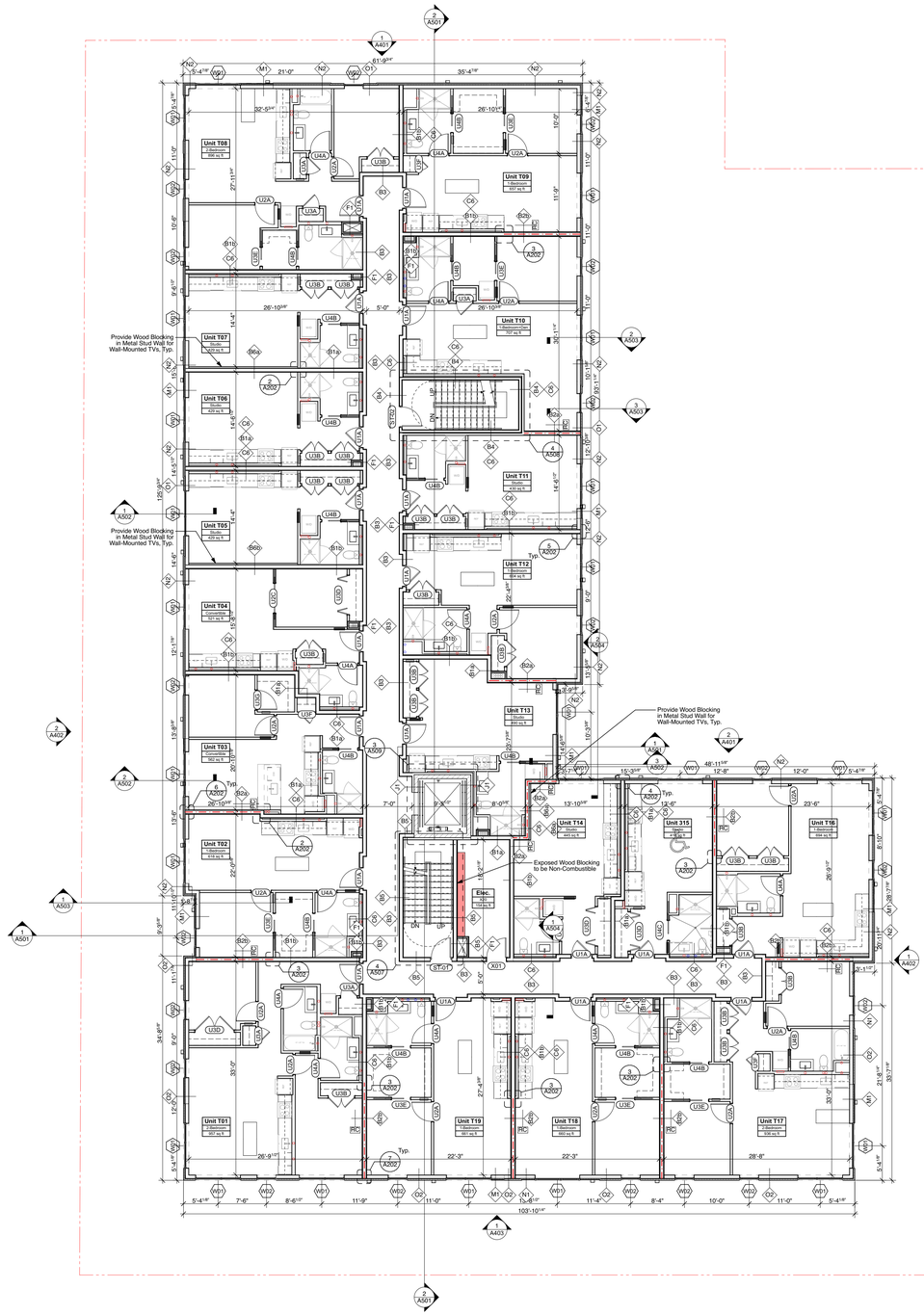
project number 252958

scale As Noted

date 10/15/26

sheet title 2nd Floor Plan

sheet number A202



1 3rd Floor Plan

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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orientation

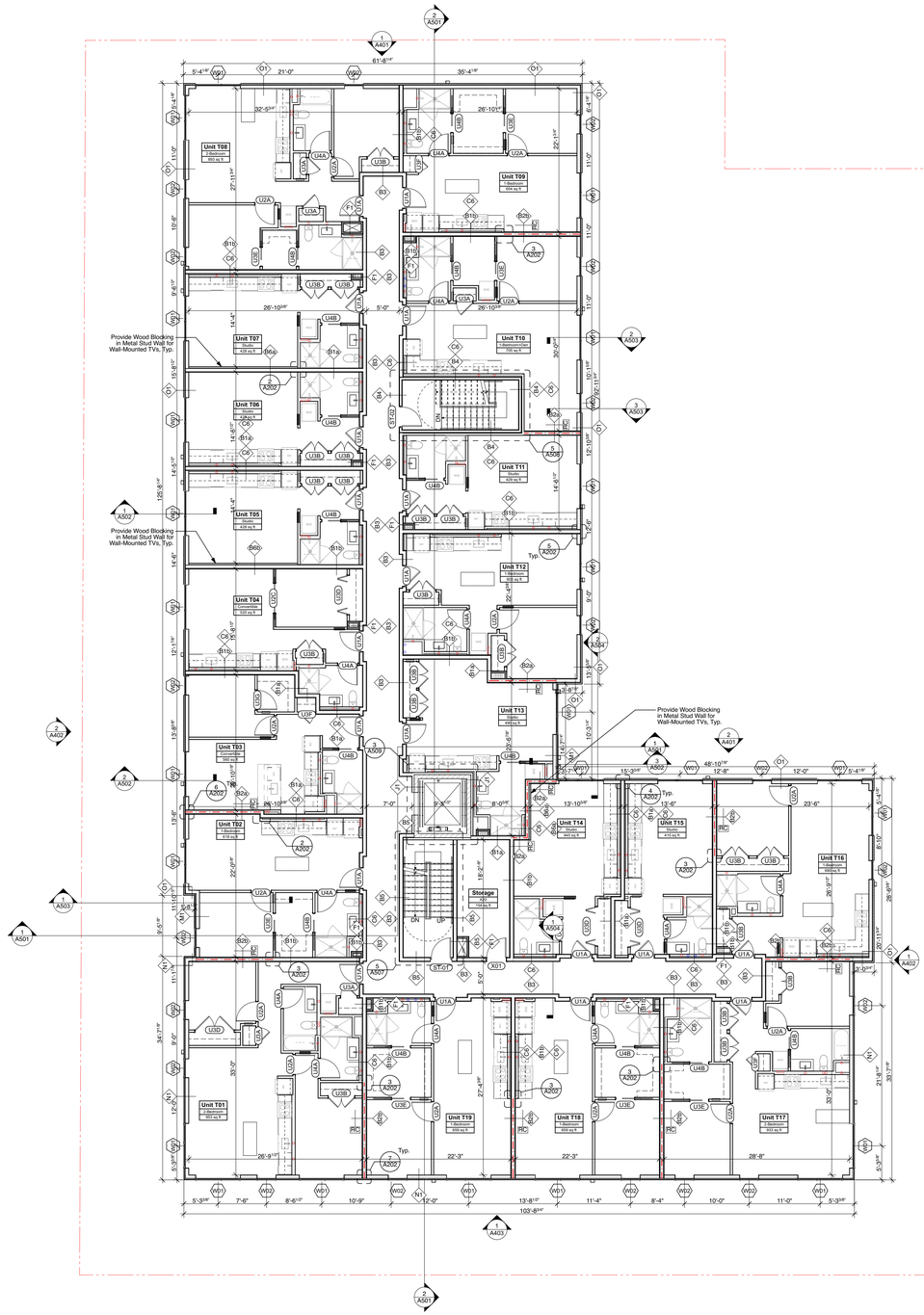
project number 252958

scale As Noted

date 10/15/26

sheet title 3rd Floor Plan

sheet number A203



1 4th Floor Plan

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

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orientation

project number 252958

scale As Noted

date 10/15/26

sheet title 4th Floor Plan

sheet number A204

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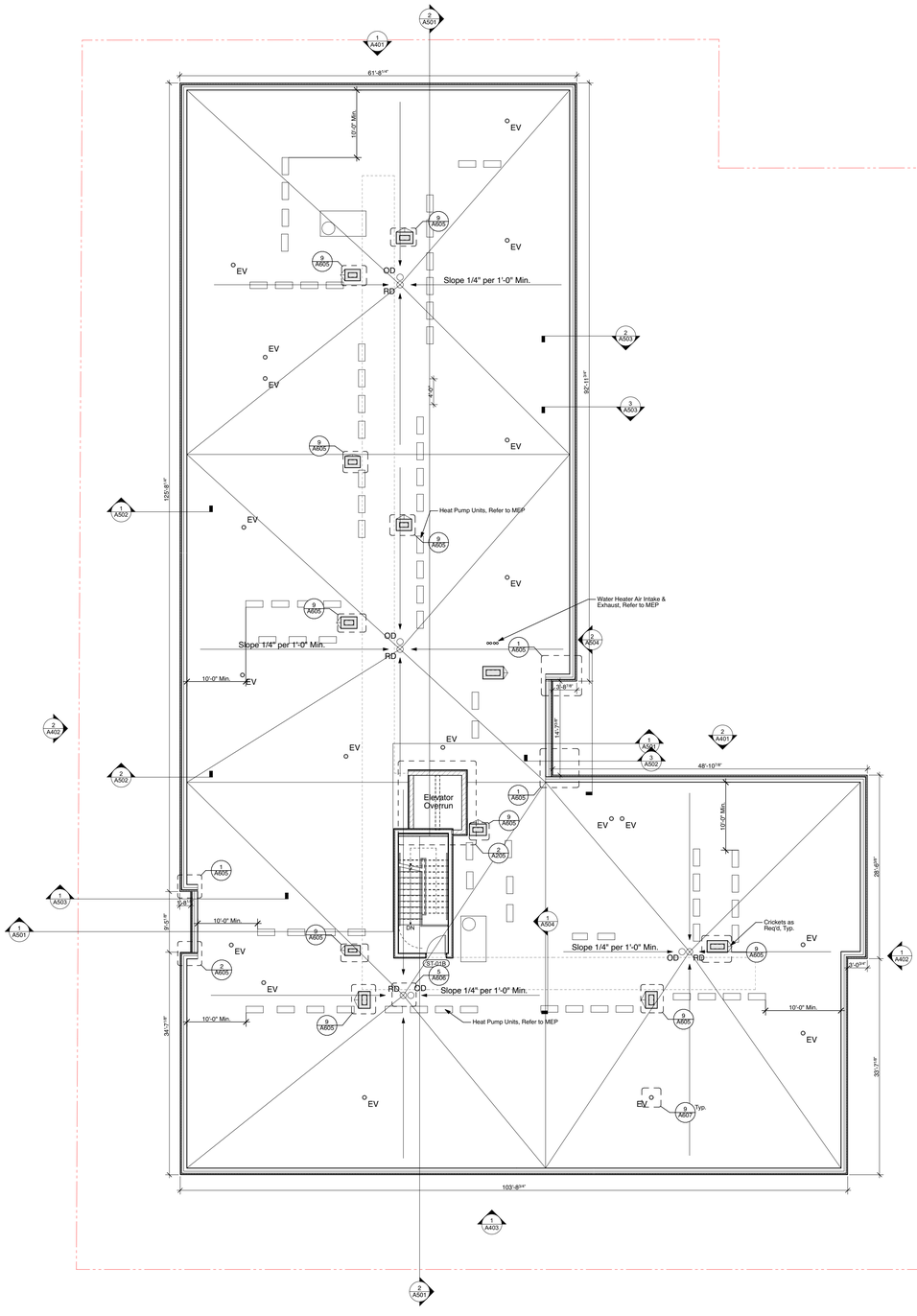
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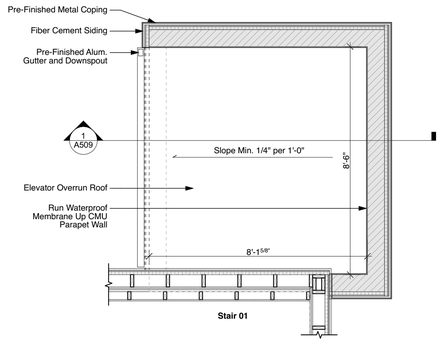
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Legend:

- Heat Pump Unit - Refer to MEP
- Ventilation Shaft Roof Pop-Up
- EV — Exhaust Vents - See MEP
- RD — Roof Drain
- OD — Overflow Drain





2 Elevator Overrun Roof Plan

SCALE: 3/8" = 1'-0"

0 2' 4' 6'

1 Roof Plan

SCALE: 3/32" = 1'-0"

0 8' 16' 24'

Note:
1. Fall Protection Provided by Others.

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orientation

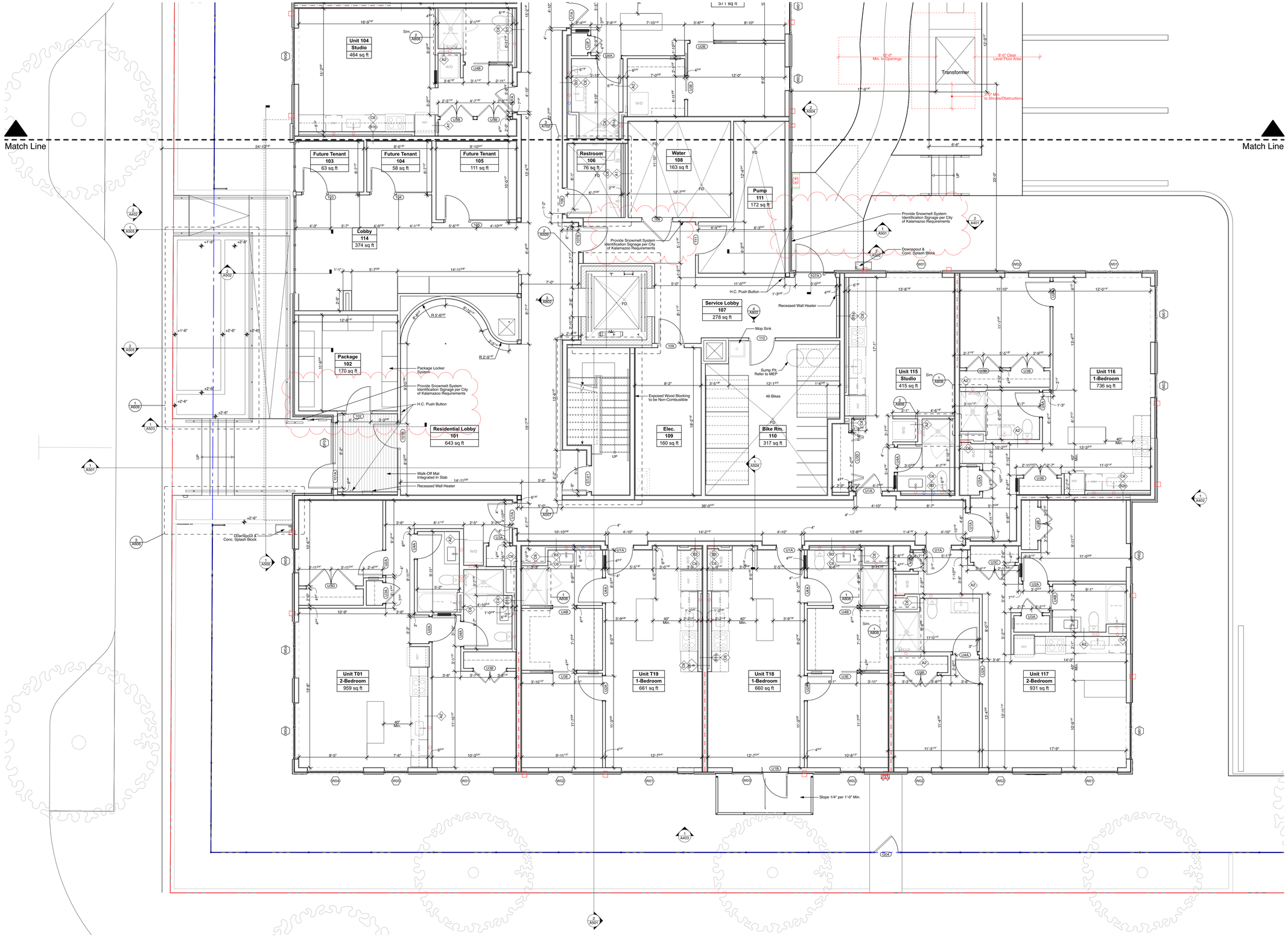
project number 252958

scale As Noted

date 10/15/26

sheet title Roof Plan

sheet number A205



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orientation

project number 252958

scale As Noted

date 10/15/26

sheet title Enlarged 1st Floor Plan

sheet number A209

Legend:

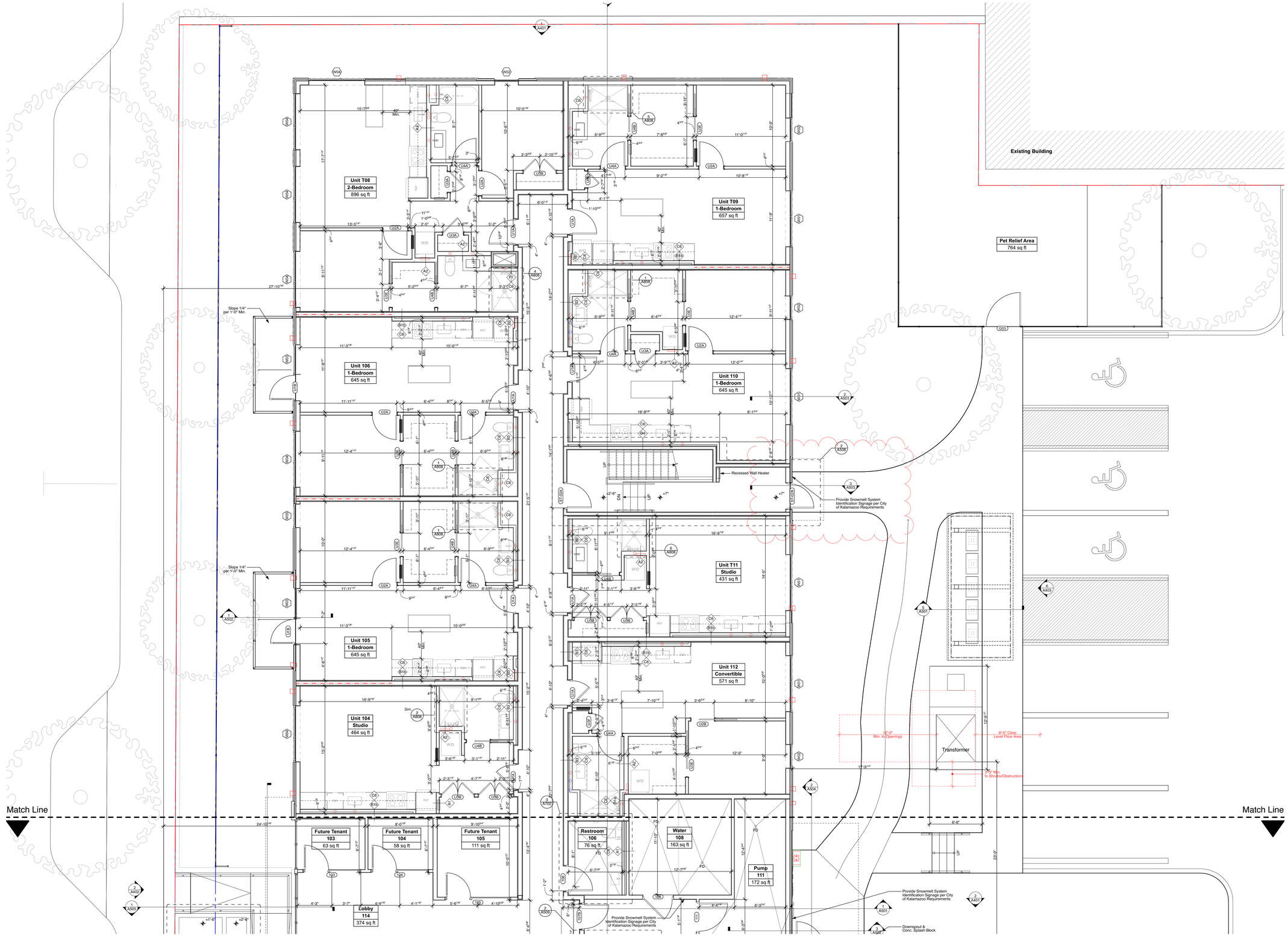
Unit Electrical Panelboard - Refer to MEP

Unit Media Panel - Refer to MEP

1 Enlarged 1st Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'



Legend:

- Unit Electrical Panelboard - Refer to MEP
- Unit Media Panel - Refer to MEP

1 Enlarged 1st Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

GENERAL NOTES:

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orientation

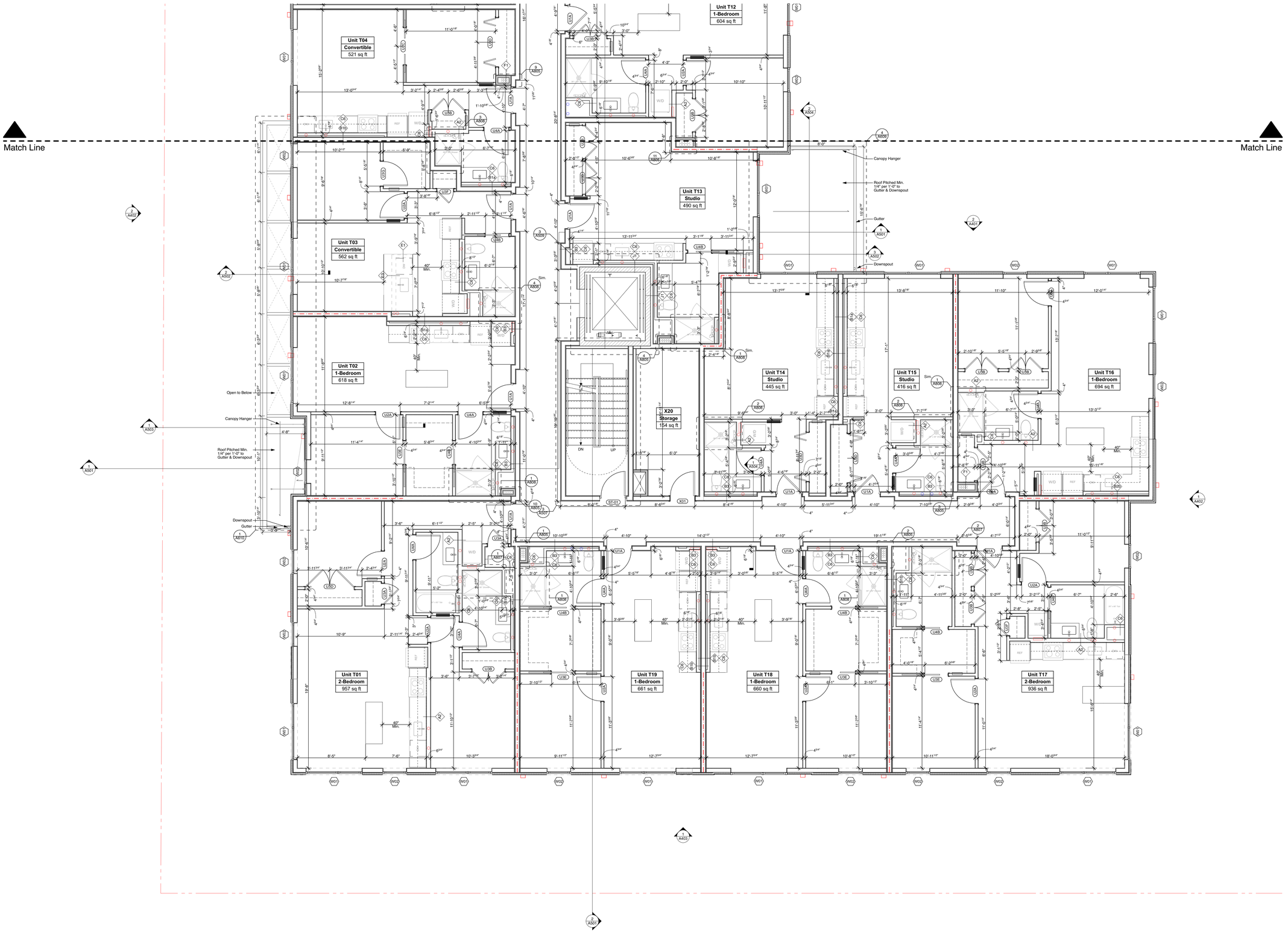
project number 252958

scale As Noted

date 10/15/26

sheet title Enlarged 1st Floor Plan

sheet number A210



Legend:

- Unit Electrical Panelboard - Refer to MEP
- Unit Media Panel - Refer to MEP

1 Enlarged 2nd-4th Floor Plan, Typ.

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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431 S Rose
Kalamazoo, MI 49007
Hinman Company / AVB Inc.

	date	description
	10/01/25	Schematic Design
	01/12/26	Design Development
	03/24/26	Issue for GMP
	06/03/26	Issue for Site Plan Review
	08/12/26	Issue for Site Plan Review Resubmittal
	08/28/26	Issue for Site Plan Review Resubmittal
	09/29/26	Issue for Site Plan Review Resubmittal

orientation

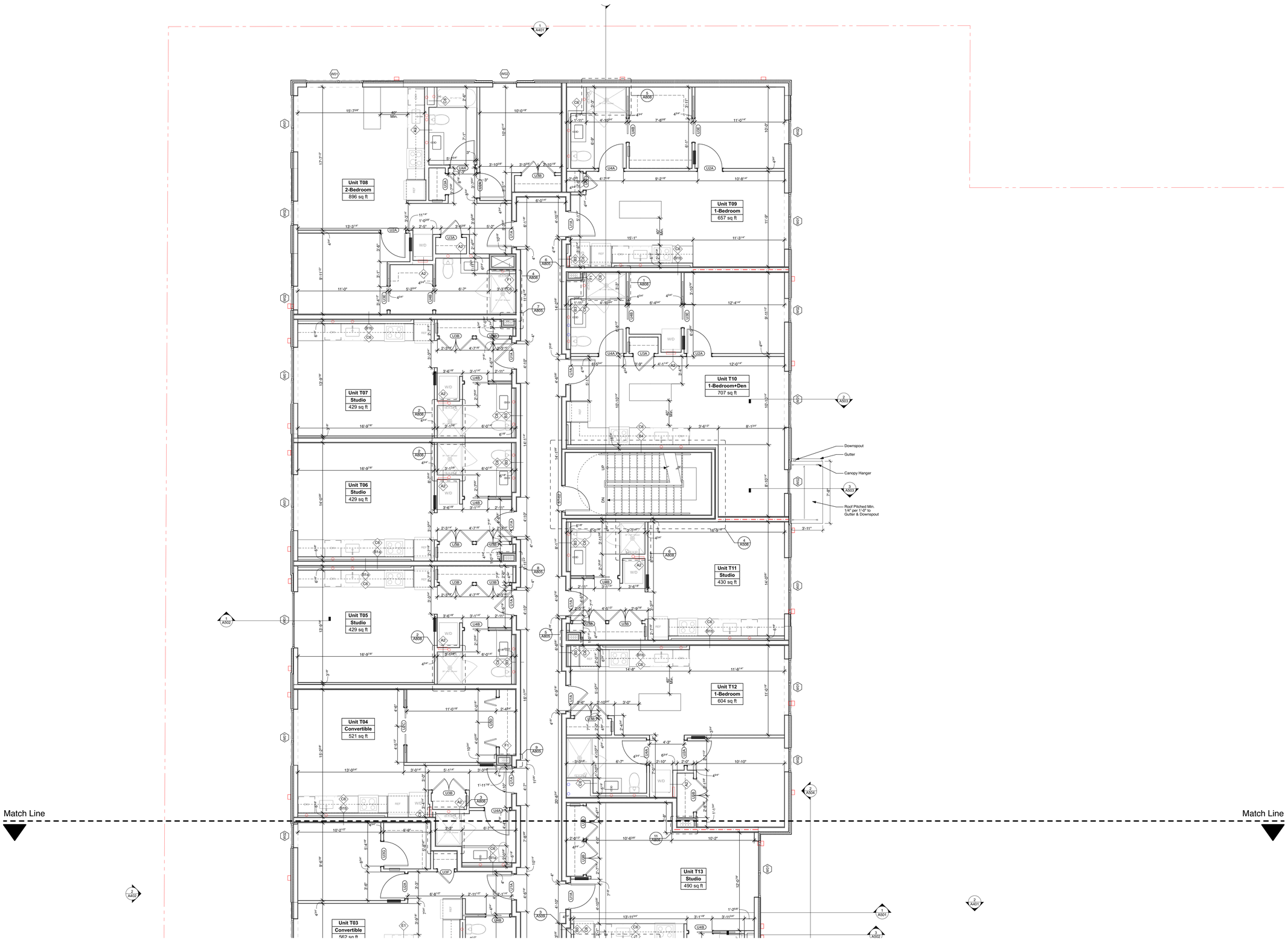
project number 252958

scale As Noted

date 10/15/26

sheet title Enlarged 2nd-4th Floor Plan, Typ.

sheet number A211



Legend:

- Unit Electrical Panelboard - Refer to MEP
- Unit Media Panel - Refer to MEP

1 Enlarged 2nd-4th Floor Plan, Typ.

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

GENERAL NOTES:

1. Typical Unit Interior Walls to be 'A1' Wall Type U.N.O. Refer to Wall Types Schedule on A301
2. Refer to Sheet A202 for Demising Wall Transition Details
3. Refer to Sheets A207 & A208 for Locations of Demising Wall Types
4. Refer to Sheets A209 to A212 for Interior Layout and Dimensions
5. Refer to Sheets A213 to A216 for Type B Unit Clearance Requirements
6. Refer to Sheet A219 for Type A Unit Clearance Requirements
7. Plumber to Set Shower & Tub Valve Locations Based on Plumbing/Wall Type and Tub & Shower Flange Dimensions - See Wall Types Sheet A301

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date 10/15/26

sheet title Enlarged 2nd-4th Floor Plan, Typ.

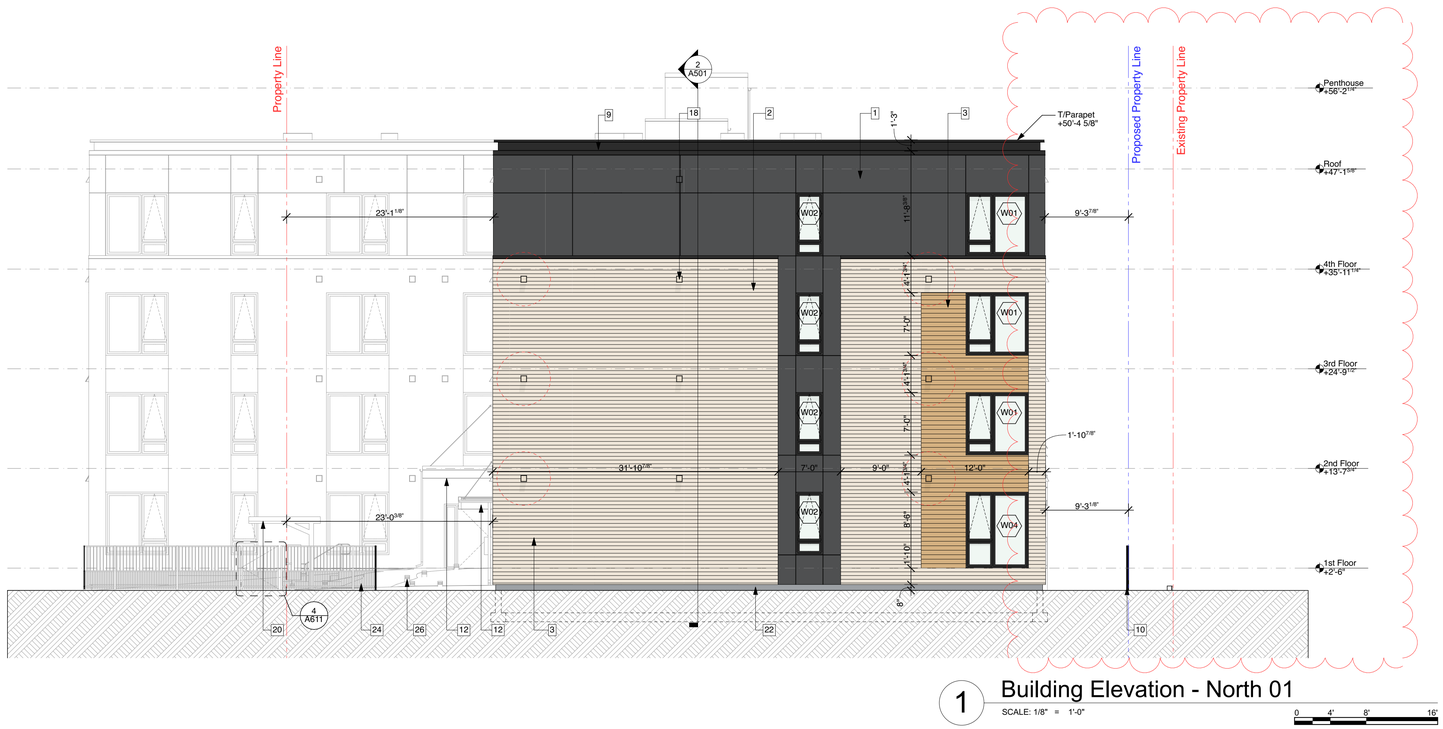
sheet number A212



2 Building Elevation - North 02

SCALE: 1/8" = 1'-0"

0 4' 8' 16'



1 Building Elevation - North 01

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

Material Legend

1	EIFS - Color by Architect
2	Metal Siding - Color by Architect
3	Composite Siding - Color by Architect
4	Face Brick - Color by Architect
5	Hardie Board Siding - Color by Architect
6	Prefinished Scheduled Window System
7	Prefinished Scheduled Balcony Door
8	Prefinished Scheduled Storefront System
9	Prefinished Alum. Coping
10	Perimeter Fence
11	Building Address/Signage
12	Canopy
13	Planters
14	Deck Railing
15	Screen Wall
16	Pedestal Mailboxes - Finish TBD
17	Transformer
18	Exhaust & Intake Vents, Color to Match Adjacent Cladding
19	Gas Meter
20	Mailbox Canopy
21	Prefinished Alum. Downspout & Conc. Splash Block
22	Concrete Foundation, Refer to Structural
23	Existing Conc. Retaining Wall - Protect During Construction as Req'd.
24	Dog Run Fence
25	Exterior Wall Light
26	Bollard Light
27	Prefinished Alum. Handrail

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orientation

project number 252958

scale As Noted

date 10/15/26

sheet title Building Elevations

sheet number A401



2 Building Elevation - West

SCALE: 1/8" = 1'-0"

0 4' 8' 16'



1 Building Elevation - East

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

Material Legend

1	EIFS - Color by Architect
2	Metal Siding - Color by Architect
3	Composite Siding - Color by Architect
4	Face Brick - Color by Architect
5	Hardie Board Siding - Color by Architect
6	Prefinished Scheduled Window System
7	Prefinished Scheduled Balcony Door
8	Prefinished Scheduled Storefront System
9	Prefinished Alum. Coping
10	Perimeter Fence
11	Building Address/Signage
12	Canopy
13	Planters
14	Deck Railing
15	Screen Wall
16	Pedestal Mailboxes - Finish TBD
17	Transformer
18	Exhaust & Intake Vents, Color to Match Adjacent Cladding
19	Gas Meter
20	Mailbox Canopy
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orientation

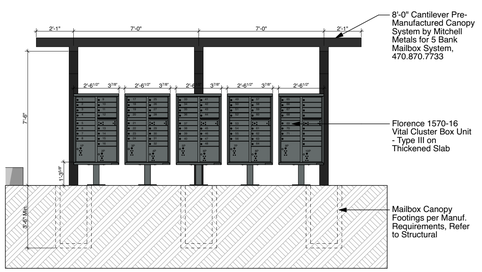
project number 252958

scale As Noted

date 10/15/26

sheet title Building Elevations

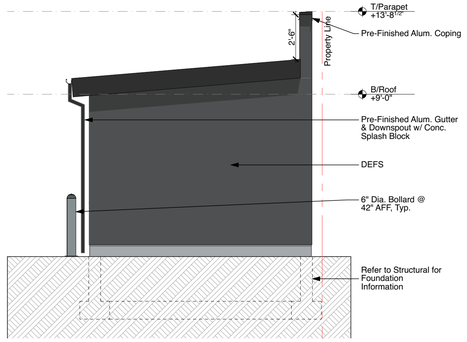
sheet number A402



6 Mailbox Elevation

SCALE: 1/4" = 1'-0"

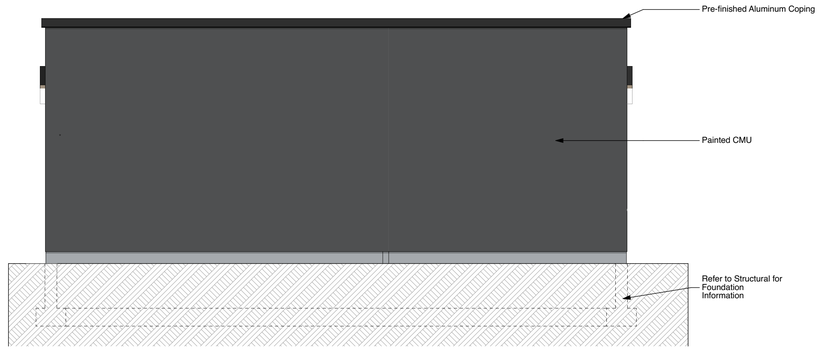
0 2' 4' 8'



5 Trash/Bike Storage - East Elevation

SCALE: 1/4" = 1'-0"

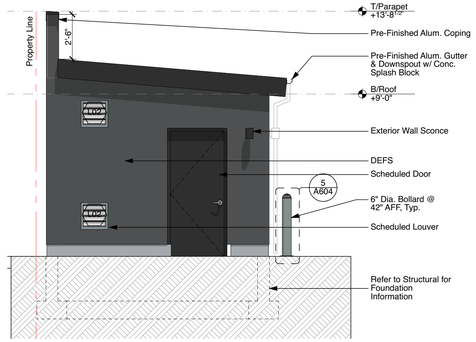
0 2' 4' 8'



4 Trash/Bike Storage - North Elevation

SCALE: 1/4" = 1'-0"

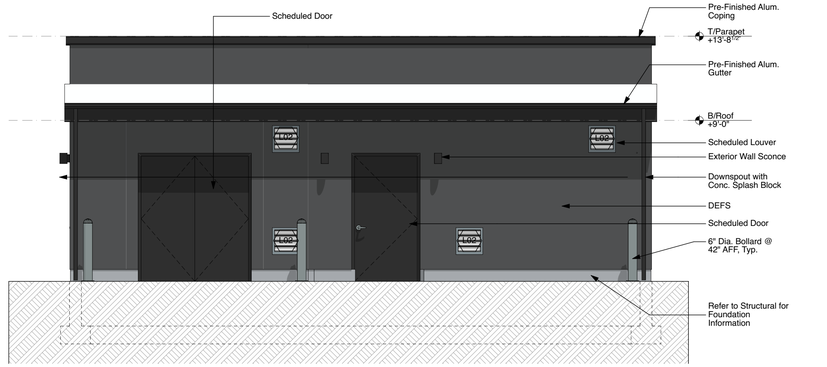
0 2' 4' 8'



3 Trash/Bike Storage - West Elevation

SCALE: 1/4" = 1'-0"

0 2' 4' 8'



2 Trash/Bike Storage - South Elevation

SCALE: 1/4" = 1'-0"

0 2' 4' 8'



1 Building Elevation - South

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

Material Legend

1	EIFS - Color by Architect
2	Metal Siding - Color by Architect
3	Composite Siding - Color by Architect
4	Face Brick - Color by Architect
5	Hardie Board Siding - Color by Architect
6	Prefinished Scheduled Window System
7	Prefinished Scheduled Balcony Door
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10	Perimeter Fence
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12	Canopy
13	Planters
14	Deck Railing
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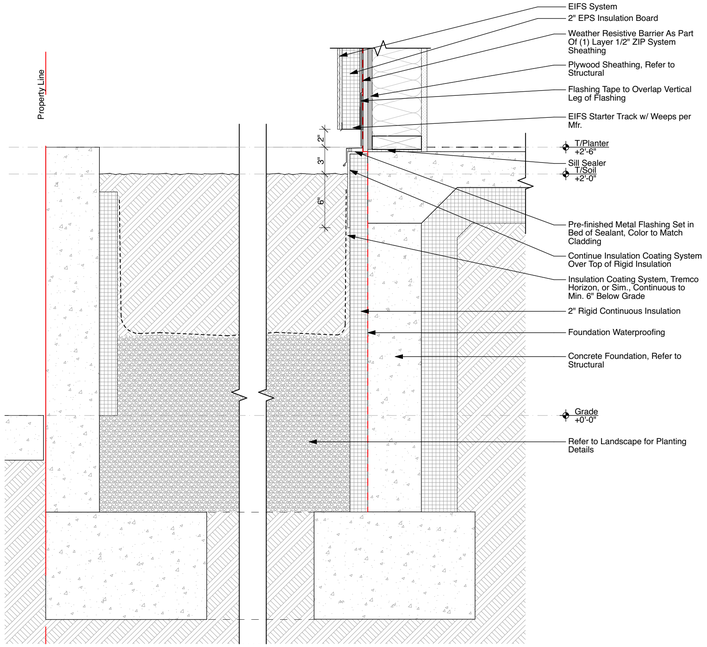
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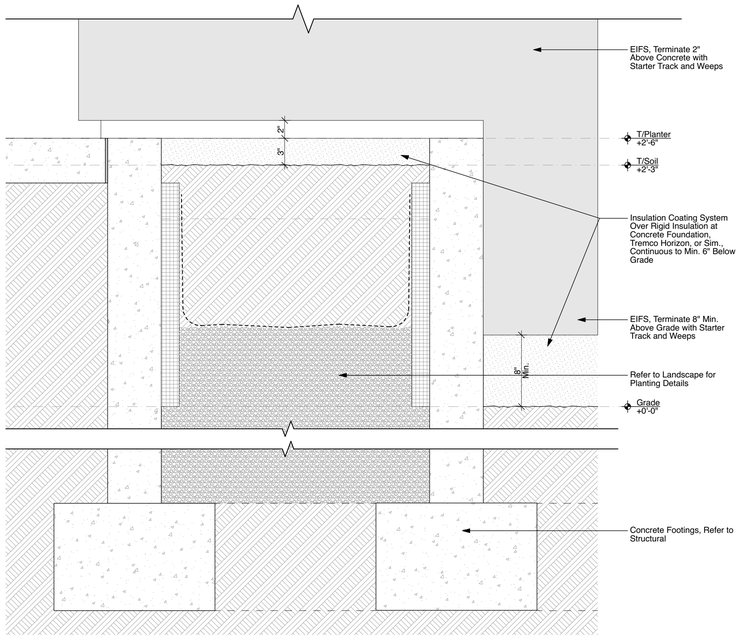
	date	description
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orientation	
project number	252958
scale	As Noted
date	10/15/26
sheet title	Building Elevations
sheet number	A403



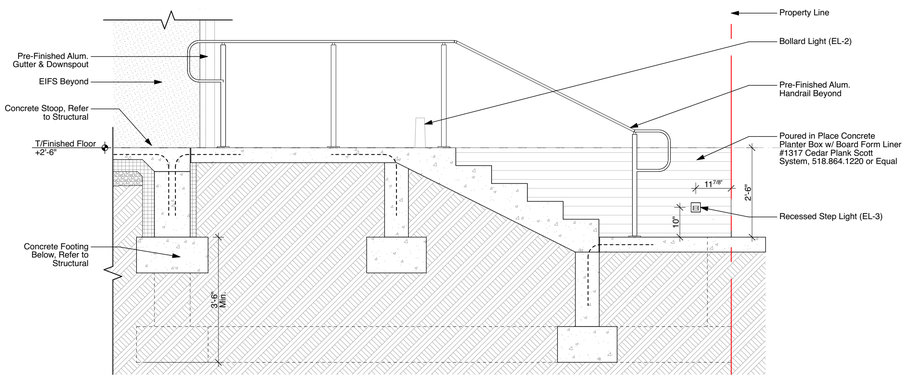
7 Entry Planter 01 - E-W Section

SCALE: 1 1/2"= 1'-0" 0 6" 12" 18"



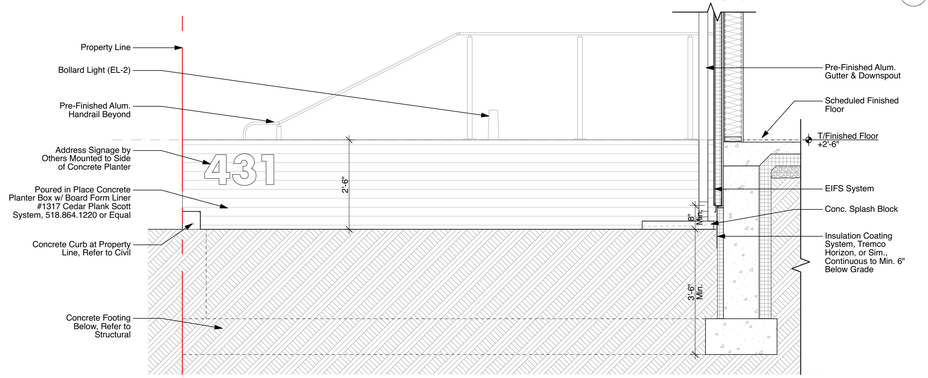
6 Entry Planter 01 - N-S Section

SCALE: 1 1/2"= 1'-0" 0 6" 12" 18"



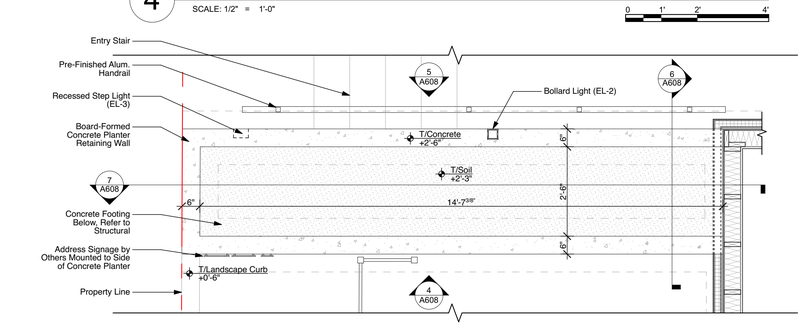
5 Entry Planter 01 - North Elevation

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



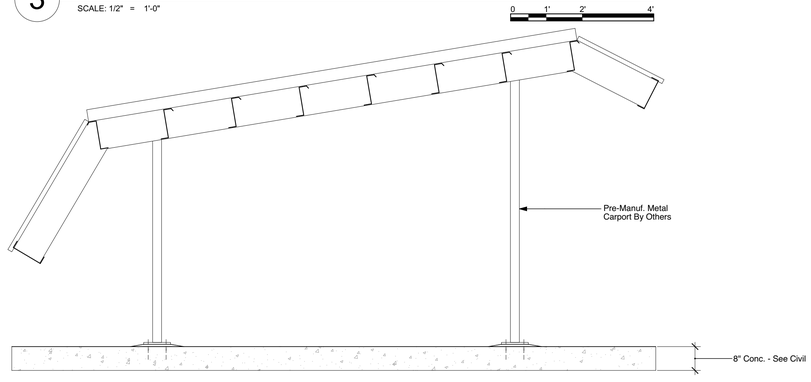
4 Entry Planter 01 - South Elevation

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



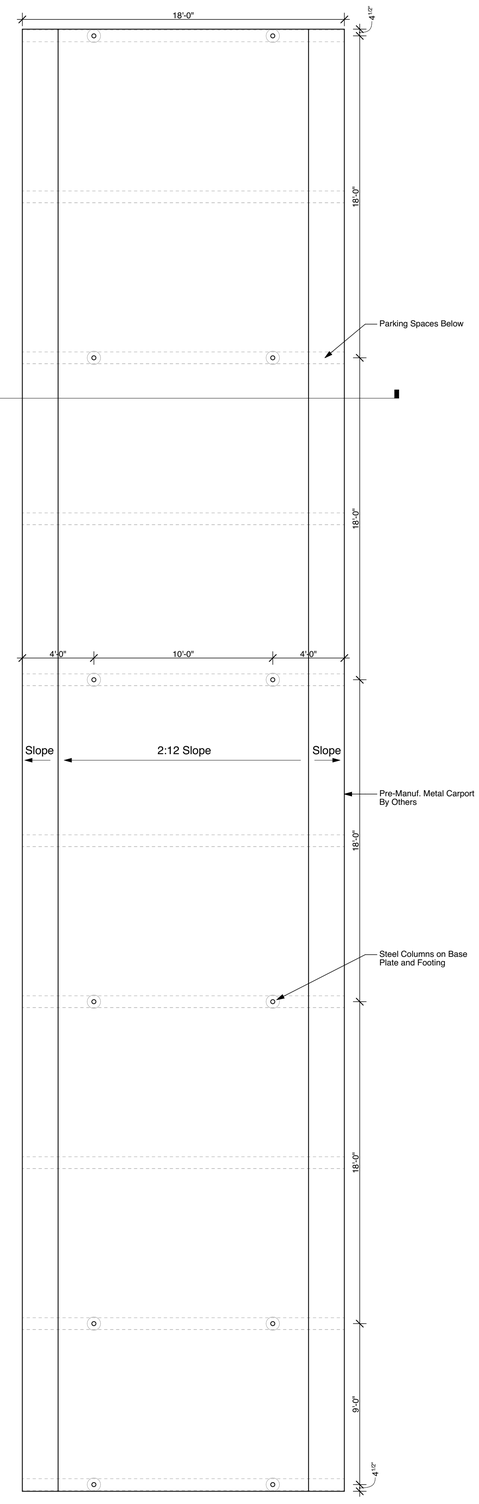
3 Entry Planter 01 - Plan Detail

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



2 Carport Section

SCALE: 1/2" = 1'-0" 0 1' 2' 4'



1 Carport Plan Detail

SCALE: 1/4" = 1'-0" 0 2' 4' 8'

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orientation

project number 252958

scale As Noted

date 10/15/26

sheet title Exterior Details

sheet number A608

Project is required to comply fully with the following regulations:

2021 MBC Chapter 11 and ICC/ANSI A117.1-2017
1966 PA 1, MCL 125.1351 to 125.1356

1. LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS- SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE. (SEC.1117B.5.6.1)

2. RAISED CHARACTERS OR SYMBOLS SHALL BE A MINIMUM OF 5/8" HIGH. (SEC. 1117B5.6.2)

3. PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT. (SEC. 1117B.5.6.3)

4. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10. (SEC. 1117B.5.3)

5. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND. (SEC. 1117B.5.5)

6. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE X. LOWER CASE CHARACTERS ARE PERMITTED. FOR SIGNS SUSPENDED OR PROJECTED ABOVE THE FINISH FLOOR IN COMPLIANCE WITH SECTION 1121B, THE MINIMUM CHARACTER HEIGHT SHALL BE 3". (SEC. 1117B.5.4)

7. CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFICALLY REQUIRED IN OTHER PORTIONS OF THESE REGULATIONS. DOTS SHALL BE 1/10" ON CENTERS IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS. DOTS SHALL BE RAISED A MINIMUM OF 1/40" ABOVE THE BACKGROUND. (SEC. 1117B.5.2)

SIGN LOCATIONS

8. ALL BUILDING ENTRANCES THAT ARE ACCESSIBLE TO AND USABLE BY PERSONS WITH DISABILITIES AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL SHALL BE IDENTIFIED WITH A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS. (SEC. 1117B.5.7 & 1127B.3)

9. WHEN PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE PROVIDED AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH SECTION 1117B.5.6. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT LEAF DOORS, SIGNS SHALL BE PLACE ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING HEIGHT SHALL BE 60" ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION SHALL BE DETERMINED SO THAT THE PERSON MAY APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. (SEC. 1117B.5.9)

10. ADDITIONAL DIRECTIONAL SIGNS ALONG ACCESSIBLE PATH OF TRAVEL ARE REQUIRED.

11. BUILDINGS REMODELED TO PROVIDE ACCESSIBLE SANITARY FACILITIES FOR PUBLIC USE SHALL HAVE INFORMATION POSTED IN THE LOBBY AS PART OF THE BUILDING DIRECTORY.

INTERNATIONAL SYMBOL OF ACCESSIBILITY

12. STANDARD USED TO IDENTIFY ACCESSIBLE FACILITIES.

13. WHITE FIGURE ON BLUE BACKGROUND, COLOR #150990ON FEDERAL STANDARD # 595A.

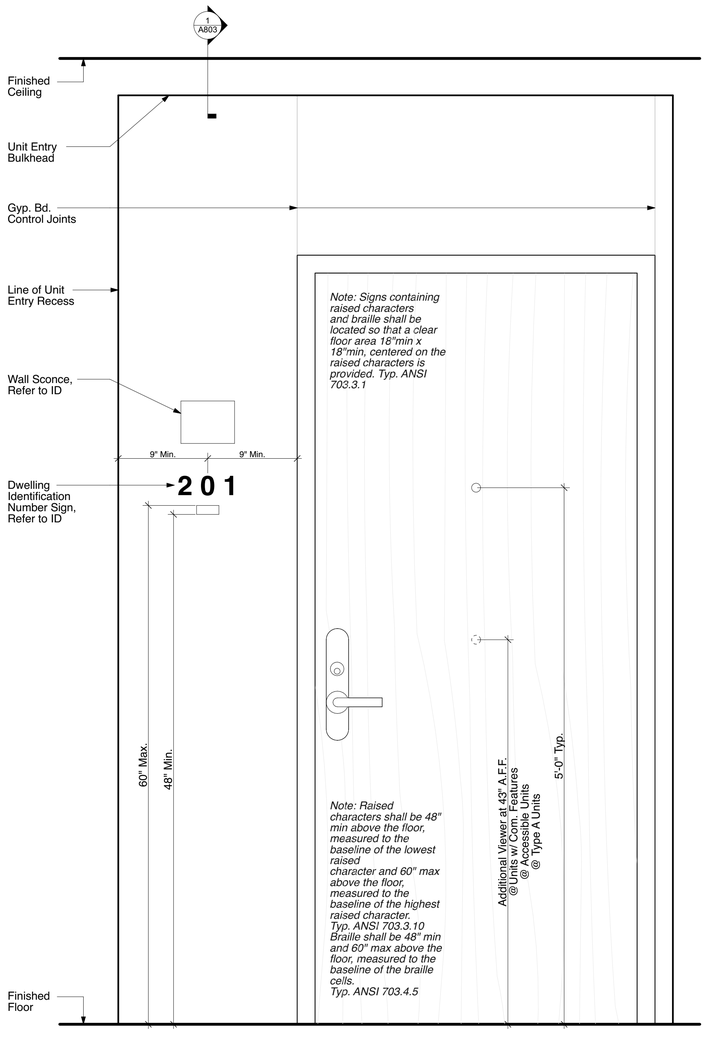
14. WHEN ENFORCING AGENCY DETERMINES, IF APPROPRIATE, SPECIAL DESIGNS AND COLORS MAY BE APPROVED.

BRAILLE

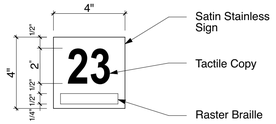
15. USE CONTRASTED GRADE 2 BRAILLE. DOTS TO BE 0.1 INCH ON CENTER IN EACH CELL. 16. 0.2 INCH SPACE BETWEEN CELLS.

17. DOTS RAISED MINIMUM 0.025 INCH ABOVE BACKGROUND.

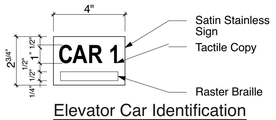
18. SEE 4/T-4 FOR MORE INFORMATION.



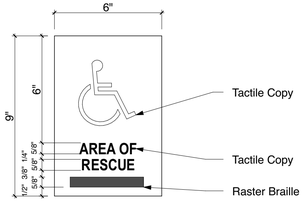
Dwelling Sign Location



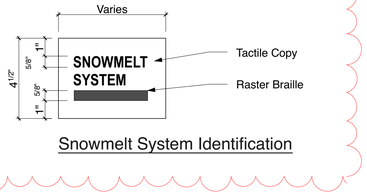
Elevator Floor Designation



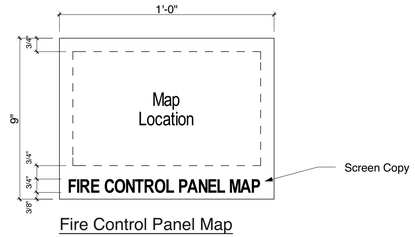
Elevator Car Identification



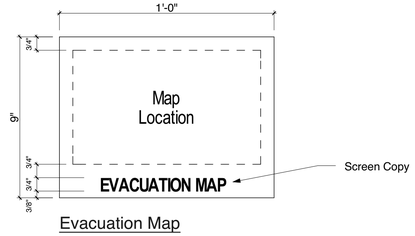
Rescue Assistance



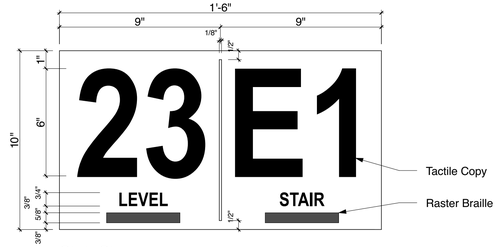
Snowmelt System Identification



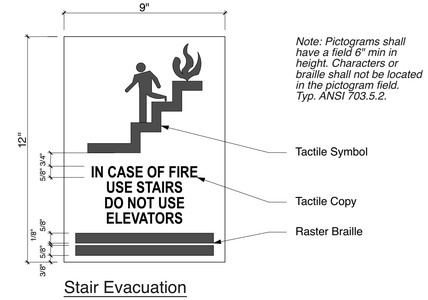
Fire Control Panel Map



Evacuation Map

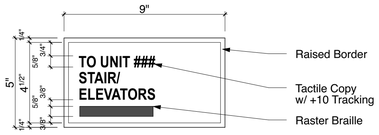


Stair Signage

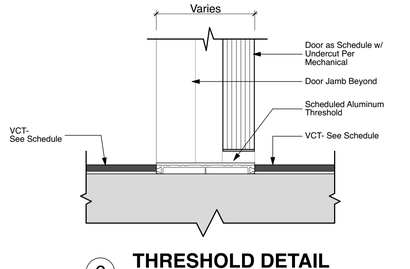


Note: Pictograms shall have a field 6" min in height. Characters or braille shall not be located in the pictogram field. Typ. ANSI 703.5.2.

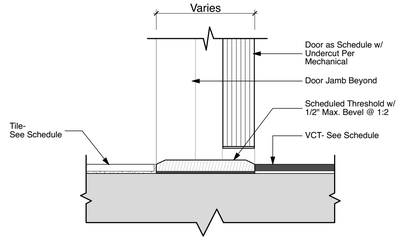
Stair Evacuation



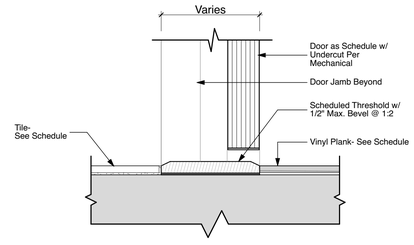
Room Identification



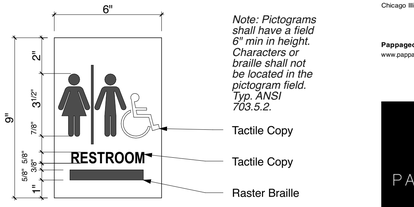
6 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"



5 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"

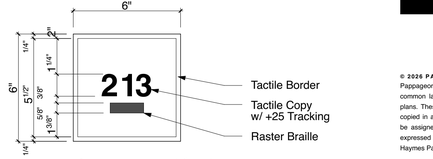


4 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"

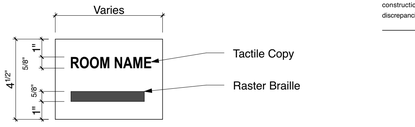


Note: Pictograms shall have a field 6" min in height. Characters or braille shall not be located in the pictogram field. Typ. ANSI 703.5.2.

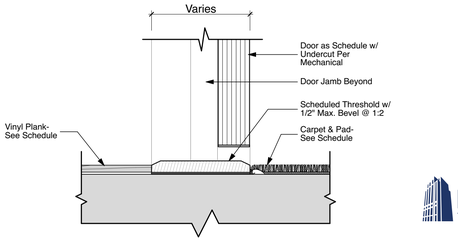
Restroom Identification



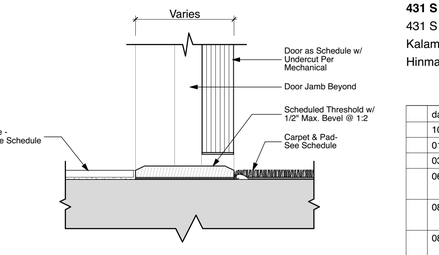
Dwelling Identification



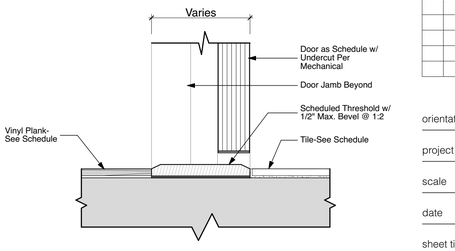
Room Identification



3 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"



2 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"



1 **THRESHOLD DETAIL**
SCALE: 3" = 1'-0"

640 N Lasalle
Suite 400
Chicago Illinois 60654
312 337 3344
Architecture
Urban Planning

Pappageorge Haymes Partners
www.pappageorgehaymes.com

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HINMAN

avb

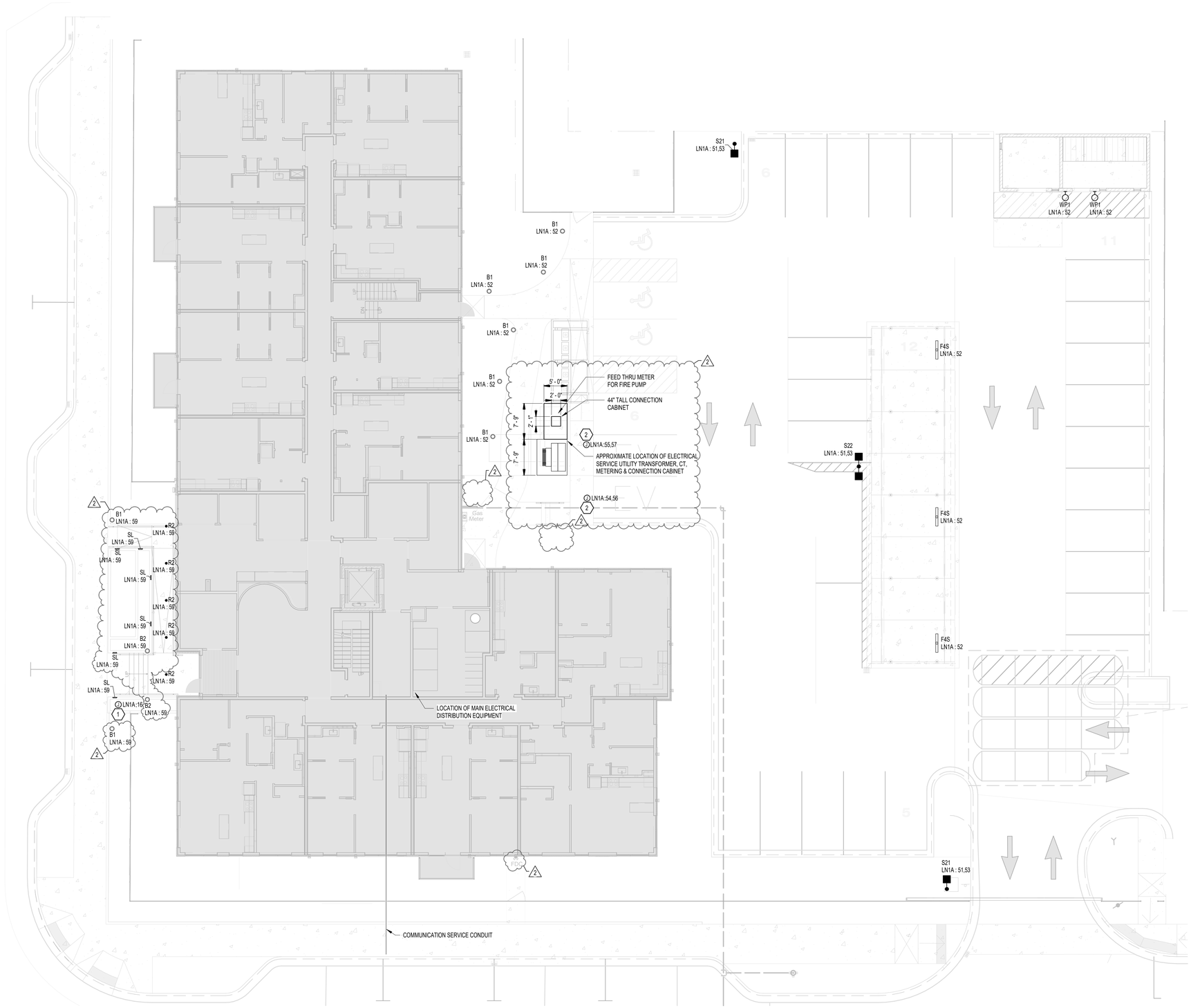
431 S Rose
431 S Rose
Kalamazoo, MI 49007
Hinman Company / AVB Inc.

	date	description
	10/01/25	Schematic Design
	01/12/26	Design Development
	03/24/26	Issue for GMP
	06/03/26	Issue for Site Plan Review
	08/12/26	Issue for Site Plan Review Resubmittal
	08/28/26	Issue for Site Plan Review Resubmittal
	09/29/26	Issue for Site Plan Review Resubmittal

orientation	
project number	252958
scale	As Noted
date	10/15/26
sheet title	Threshold & Signage Details
sheet number	A810

KEYED NOTES

1. BUILDING SIGN - PROVIDE 20A, 120V CONNECTION. VERIFY FINAL LOCATION WITH ARCHITECT.
2. EV CHARGERS - PROVIDE 40A, 208V-1PH DEDICATED CONNECTION.



1 ELECTRICAL SITE PLAN
3/32" = 1'-0"

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JAY J. CAIN REG. NO. 12637
DATE: 03/23/2026

Issues and Revisions:

#	DATE	DESCRIPTION
	11/25/2025	PROGRESS SET
	12/19/2025	DD SET
	03/23/2026	ISSUE FOR GMP
1	08/12/2026	ISSUE FOR SITE PLAN REVIEW RESUBMITTAL
2	08/28/2026	ISSUE FOR SITE PLAN REVIEW RESUBMITTAL

431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	KJK
CHECKED BY:	JJC
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

ELECTRICAL SITE PLAN

SHEET

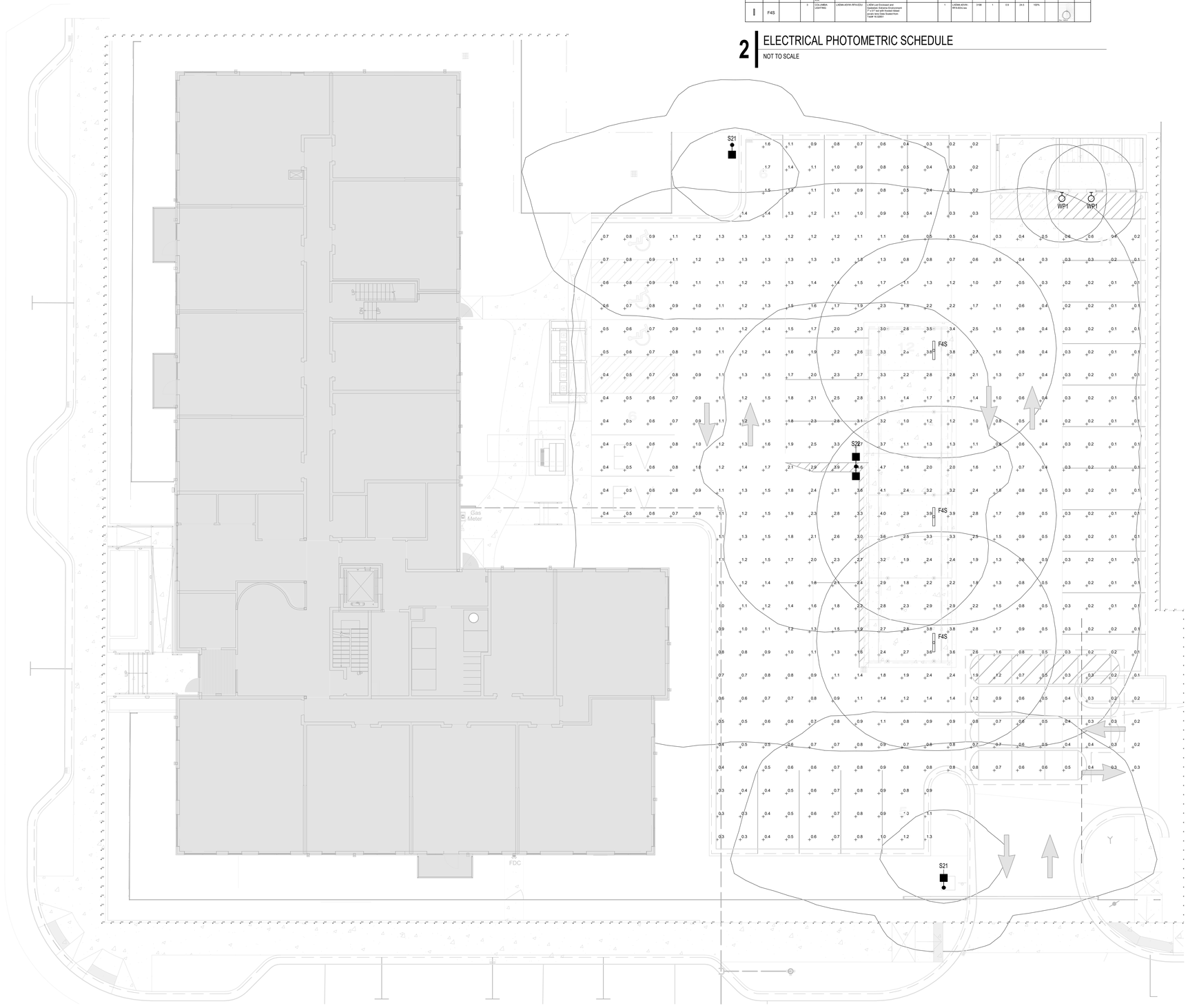
E100

Statistics						
Description	Avg	Max	Min	Max/Min	Avg/Min	Symbol
Parking Lot	2.1 fc	4.7 fc	0.1 fc	47.0:1	21.0:1	+
Property Line	0.1 fc	0.3 fc	0.0 fc	N/A	N/A	+

Schedule																
Symbol	Label	Image	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	Lumen Multiple	LLF	Wattage	Efficiency	Distribution	Polar Plot	Notes
	S22		1	Lithonia Lighting	DSXO LED P5 40K TFTM THM HS	D-Series Size 0 Area Luminaire P5 Performance Package 4000K CCT Thermal Modular Houseside Shield		1	DSXO LED P5 40K TFTM THM.ies	15579.847	1	0.9	137.9	100%	TYPE IV, MEDIUM, NEMA DISTRIBUTION 6		
	S21		2	Lithonia Lighting	DSXO LED P3 40K TFTM THM HS ECO F	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT Thermal Modular Houseside Shield Forward External Door Shield		1	DSXO LED P3 40K TFTM THM ECO F.ies	9133.468	1	0.9	45.14	100%	TYPE III, MEDIUM, NEMA DISTRIBUTION 5		
	WP1		2	BEGA (Used as Lithonia Lighting)	33573	33573	LED 3W	1	33573_BEGA_IES.ies	348.0328	1	0.9	6.9	100%			
	F4S		3	COLUMBIA LIGHTING	LAEMA-40WR-WFA-EDU	LAEM Led Enclosed and Gasketed, Extreme Environment 3" x 3.5" tall with frosted ribbed polycarbonate lens. Ordered from Trade 14 Optics		1	LAEMA-40WR-WFA-EDU.ies	5186	1	0.9	24.5	100%			

2 ELECTRICAL PHOTOMETRIC SCHEDULE

NOT TO SCALE



1 ELECTRICAL PHOTOMETRIC PLAN

3/32" = 1'-0"

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431 S ROSE
KALAMAZOO, MI

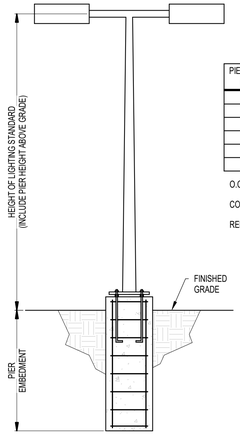
PROJECT NUMBER:	2025-149
DRAWN BY:	KJK
CHECKED BY:	JJC
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

ELECTRICAL PHOTOMETRIC PLAN

SHEET

E150

HEIGHT OF STANDARD (FEET)	AREA OF LUMINAIRE(S) PRESENTED TO WIND (SQ. FT)	EQUIVALENT FORCE AT TOP OF STANDARD (LBS)	PIER DIAMETER (INCHES)	PIER EMBEDMENT (FEET-INCHES)
14	2	120	16	4'-0"
	3	150	16	4'-3"
	4	180	16	4'-6"
16	2	120	16	4'-3"
	3	150	16	4'-6"
	4	180	16	4'-9"
18	3	150	18	4'-6"
	4	180	18	4'-9"
	5	220	18	5'-0"
20	4	180	18	5'-0"
	5	220	18	5'-3"
	6	260	18	5'-6"
22	5	220	18	5'-6"
	6	260	20	5'-6"
	7	310	20	5'-9"
24	6	260	20	5'-9"
	7	310	24	5'-9"
	8	360	24	6'-0"
26	6	260	24	5'-6"
	7	310	24	5'-9"
	8	360	24	6'-0"
28	7	310	24	6'-0"
	8	360	24	6'-3"
	9	410	24	6'-6"
30	8	360	24	6'-6"
	9	410	24	6'-9"
	10	520	24	7'-0"
35	8	360	24	7'-0"
	10	520	30	7'-0"
	12	620	30	7'-6"
	14	710	30	7'-9"
40	10	520	30	7'-3"
	12	620	30	7'-9"
	14	710	36	7'-6"
	16	800	36	8'-0"



PIER DIAMETER (INCHES)	VERTICAL BARS (QTY & SIZE)	HORIZONTAL TIES (SIZE & SPACING)
16	(4) #5	#3 @ 10" O.C.
18	(4) #6	#3 @ 12" O.C.
20	(4) #6	#3 @ 12" O.C.
24	(4) #6	#3 @ 12" O.C.
30	(4) #7	#3 @ 14" O.C.
36	(4) #8	#3 @ 16" O.C.

O.C. = ON CENTER

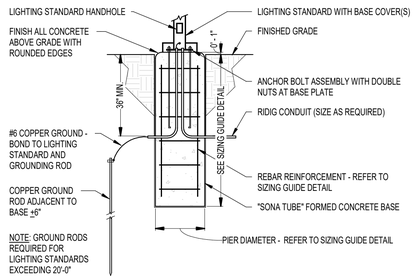
CONCRETE = 3,000 PSI

REBAR - 60,000 PSI (ASTM A615 GRADE 60

SIZING GUIDE ASSUMPTION:
SITE HAS GOOD GRANULAR SOILS.
IF SOILS ARE QUESTIONABLE, PROJECT STRUCTURAL ENGINEER WILL NEED TO CONSULTED.

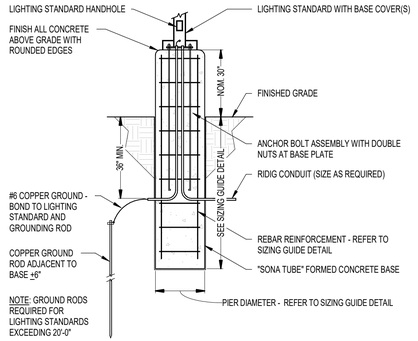
1 LIGHTING FOUNDATION SIZING GUIDE

NOT TO SCALE



3 LIGHTING ASSEMBLY FLUSH CONCRETE FOUNDATION

NOT TO SCALE



2 LIGHTING ASSEMBLY RAISED CONCRETE FOUNDATION

NOT TO SCALE

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KALAMAZOO, MI

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CHECKED BY:	JJC
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

ELECTRICAL DETAILS

SHEET

E700

EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

Mark	Description	Location	Voltage	Phase	FLA	KW	HP	MCA	MOCP	Notes
B-1	BOILER	107 MECH	120 V	1					15	SEE NOTE 4 BELOW.
B-2	BOILER	107 MECH	120 V	1					15	SEE NOTE 4 BELOW.
DSI-1	DUCTLESS SPLIT SYSTEM - INDOOR UNIT		208 V	2						
DSI-2	DUCTLESS SPLIT SYSTEM - OUTDOOR UNIT		208 V	1						
DSO-1	DUCTLESS SPLIT SYSTEM - INDOOR UNIT	ROOF	208 V	1				25	35	
DSO-2	DUCTLESS SPLIT SYSTEM - OUTDOOR UNIT	ROOF	208 V	1				20	30	
EDH-104	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-105	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-110	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-112	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-115	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-116	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-117	ELECTRIC DUCT HEATER		208 V	1		7				
EDH-T01	ELECTRIC DUCT HEATER		208 V	1		7				
EDH-T02	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-T03	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-T04	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T05	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T08	ELECTRIC DUCT HEATER		208 V	1		7				
EDH-T09	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-T10	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-T12	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T13	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T14	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T15	ELECTRIC DUCT HEATER		208 V	1		5				
EDH-T16	ELECTRIC DUCT HEATER		208 V	1		6				
EDH-T17	ELECTRIC DUCT HEATER		208 V	1		7				
EDH-T18	ELECTRIC DUCT HEATER		208 V	1		6				
EF-1	WALL MOUNTED FAN	106 RESTROOM	120 V	1			FRAC			
EF-R	ROOF MOUNTED UTILITY FAN	ROOF	120 V	1			1/4			
EL-1	ELEVATOR	ELEV SHAFT	208 V	3			30		100	2,3,4
EUH-1	ELECTRIC UNIT HEATER	WATER ROOM	208 V	1		3.75				
EWH-1.1	ELECTRIC WALL HEATER	VESTIBULE	208 V	1		4				
EWH-1.2	ELECTRIC WALL HEATER	STAIR	208 V	1		4				
EWH-4.1	ELECTRIC WALL HEATER	STAIR	208 V	1		2				
EWH-4.2	ELECTRIC WALL HEATER	STAIR	208 V	1		2				
FC-1	FAN COIL		208 V	2				4.9		
FC-2	FAN COIL		208 V	1		0		4.9	15	
FC-104	FAN COIL		208 V	1						
FC-105	FAN COIL		208 V	1						
FC-110	FAN COIL		208 V	1						
FC-112	FAN COIL		208 V	1						
FC-115	FAN COIL		208 V	1						
FC-116	FAN COIL		208 V	1						
FC-117	FAN COIL		208 V	1						
FC-T01	FAN COIL		208 V	1						
FC-T02	FAN COIL		208 V	1						
FC-T03	FAN COIL		208 V	1						
FC-T04	FAN COIL		208 V	1						
FC-T05	FAN COIL		208 V	1						
FC-T08	FAN COIL		208 V	1						
FC-T09	FAN COIL		208 V	1						
FC-T10	FAN COIL		208 V	1						
FC-T12	FAN COIL		208 V	1						
FC-T13	FAN COIL		208 V	1						
FC-T14	FAN COIL		208 V	1						
FC-T15	FAN COIL		208 V	1						
FC-T16	FAN COIL		208 V	1						
FC-T17	FAN COIL		208 V	1						
FC-T18	FAN COIL		208 V	1						
HP-1	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-2	HEAT PUMP	ROOF	208 V	1				11.6	15	
HP-104	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-105	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-106	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-110	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-112	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-115	HEAT PUMP	ROOF	208 V	1				11.6	15	
HP-116	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-117	HEAT PUMP	ROOF	208 V	1				21.6	25	
HP-118	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T01	HEAT PUMP	ROOF	208 V	1				21.6	25	
HP-T02	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T03	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T04	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T05	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T06	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T07	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T08	HEAT PUMP	ROOF	208 V	1				21.6	25	
HP-T09	HEAT PUMP	ROOF	208 V	1				21.6	25	
HP-T10	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T11	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T12	HEAT PUMP	ROOF	208 V	1				14.6	15	
HP-T13	HEAT PUMP	ROOF	208 V	1				11.6	15	
HP-T14	HEAT PUMP	ROOF	208 V	1				11.6	15	
HP-T15	HEAT PUMP	ROOF	208 V	1				11.6	15	
HP-T16	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T17	HEAT PUMP	ROOF	208 V	1				21.6	25	
HP-T18	HEAT PUMP	ROOF	208 V	1				21.4	25	
HP-T19	HEAT PUMP	ROOF	208 V	1				21.4	25	
P-1	PUMP	107 MECH	208 V	3			2		20	
RCP-1	PUMP	WATER ROOM	120 V	1			1/6			
RTU-1	ROOF TOP UNIT	ROOF	208 V	3				19	25	
RTU-2	ROOF TOP UNIT	ROOF	208 V	3				19	25	
SP-1	SUMP PUMP	BIKE ROOM	120 V	1			1/2			
SP-2	SUMP PUMP	BIKE ROOM	120 V	1			1/2			
WH-1	WATER HEATER	WATER ROOM	120 V	1						
WH-2	WATER HEATER	WATER ROOM	120 V	1						
WS-1	WATER SOFTENER	WATER ROOM	120 V	1	1.3					

CONNECTION SCHEDULE GENERAL NOTES

A. CONNECTION REQUIREMENTS FOR ALL EQUIPMENT SHALL BE VERIFIED WITH THE FINAL APPROVED SHOP DRAWINGS FOR EACH PIECE OF EQUIPMENT TO BE CONNECTED PRIOR TO INSTALLATION AND ADJUSTED ACCORDINGLY, WITHIN THE SCOPE OF THE ASSOCIATED SYSTEM. FOR EXAMPLE, HVAC AND FOOD SERVICE, AND ELEVATOR SHOP DRAWINGS SHALL BE USED IN DETERMINING THE CONNECTION REQUIREMENTS WHICH MAY DIFFER FROM THE ELECTRICAL AND OTHER DRAWINGS. THIS DOES NOT CONSTITUTE A WHOLESALE CHANGE IN THE APPLICABLE SYSTEM TYPE. CONNECTION SIZES AS WELL AS CONFIGURATION, EXACT LOCATION AND NUMBER OF COMPONENTS SHALL BE ADJUSTED IN THE FIELD TO COORDINATE WITH THE ACTUAL EQUIPMENT BEING PROVIDED. THE ELECTRICAL DRAWINGS WILL NOT, AT THE OPTION OF THE ELECTRICAL ENGINEER, BE CHANGED TO REFLECT THESE CHANGES AND ALL ASSOCIATED CONSTRUCTION COSTS ARE TO BE INCLUDED WITHIN THE ELECTRICAL CONTRACT.

B. INPUT AND OUTPUT CONDUCTORS TO AND FROM VFD'S SHALL BE INSTALLED IN SEPARATE RACEWAYS INDEPENDENT FROM ANY OTHER CONDUCTORS, AND SHALL NOT PASS THRU ANY COMMON WIREWAY OR RACEWAY.

CONNECTION SCHEDULE KEYED NOTES

1. NEC (NATIONAL ELECTRICAL CODE) REQUIRED GROUNDING AND BONDING SHALL BE PROVIDED (COMPLETE) BY THE SYSTEM INSTALLATION CONTRACTOR.
2. MAKE ALL ASSOCIATED ELECTRICAL CONNECTIONS AS INDICATED BY THE ELEVATOR AND ELECTRICAL SPECIFICATIONS AND THE ELEVATOR EQUIPMENT SUBMITTAL DRAWINGS.
3. INTERLOCK WITH ELEVATOR LOBBY, SHAFT AND EQUIPMENT ROOM SMOKE/HEAT DETECTORS, SMOKE DAMPERS AND PROVIDE KEYED OVERRIDE SWITCH AT MAIN LEVEL ELEVATOR LOBBY AS REQUIRED BY THE ELEVATOR CODE AND/OR THE LOCAL AUTHORITY HAVING JURISDICTION.
4. COORDINATE EXACT CONNECTION REQUIREMENTS WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. UNIT SMOKE DETECTION PROVIDED INTEGRAL WITH EQUIPMENT BY DIVISION 23.
6. PROVIDE SMOKE DUCT DETECTORS IN BOTH SUPPLY AND RETURN DUCT - INTERLOCK WITH FIRE ALARM SYSTEM AND RESPECTIVE HVAC SYSTEM FOR SMOKE SHUTDOWN. REFER TO SPECIFICATIONS 28 31 00 FOR ADDITIONAL REQUIREMENTS. DEFECTORS SHALL BE LOCATED AS RECOMMENDED BY THE MECHANICAL CONTRACTOR.
7. REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR INTERLOCK AND CONTROL REQUIREMENTS FOR OPERATION, ETC.
8. INTERLOCK WITH APPROPRIATE AREA SMOKE DETECTORS FOR UNIT SHUTDOWN - DIVISION 28 TO COORDINATE WITH DIVISION 23 FOR INTERLOCK REQUIREMENTS FOR EACH UNIT.

LIGHT FIXTURE SCHEDULE

Mark	Description	Lens Louver	Mounting	Lamp	Ballast / Driver	Voltage	Watts	Manufacturer	Catalog Number	Notes
A1	LED SURFACE DOWNLIGHT WET LOCATION RATED.	FROSTED WHITE ACRYLIC	CEILING	LED	DIMMABLE	120 V	13 W	KICHLER	43855WHLED30T	
A2	LED WALL SOCNCE	FROSTED WHITE ACRYLIC	WALL	LED	DIMMABLE	120 V	30 W	SUNSET LIGHTING	F2862-80-LED-JA8	
A3	LED SURFACE DOWNLIGHT	FROSTED WHITE ACRYLIC	CEILING	LED	DIMMABLE	120 V	60 W	KICHLER	43855WHLED30T	
A4	FAN RATED JUNCTION BOX.	N.A.	CEILING	N.A.	N.A.	120 V	324 W	N.A.	N.A.	
B1	42" CAST ALUMINUM LIGHTING BOLLARD WITH DARK BRONZE FINISH.	CLEAR GLASS WITH DIE CAST ALUMINUM LOUVERS	FLUSH CONCRETE FOUNDATION	LED	DIMMABLE	120 V	118 W	BEGA	99577 SERIES	
B2	PATHWAY LED WITH SHIELDED LIGHT. HARDSCAPE BASE FOR FOUNDATION INSTALLATION.	CLEAR GLASS WITH DIE CAST ALUMINUM LOUVERS	FLUSH CONCRETE FOUNDATION	LED	DIMMABLE	120 V	118 W	BEGA	77276 SERIES	
DL1	27" DECORATIVE PENDANT BOWL WITH DECORATIVE BRONZE METAL TRIM. PROVIDE SWIVEL MOUNTING CANOPY AS REQUIRED.	FROSTED WHITE ACRYLIC	PENDANT - VERIFY LENGTH	LED	DIMMABLE	120 V	80 W	OWNER	OWNER	
DL2	27" DECORATIVE PENDANT BOWL WITH DECORATIVE BRONZE METAL TRIM. PROVIDE SWIVEL MOUNTING CANOPY AS REQUIRED.	FROSTED WHITE ACRYLIC	PENDANT - VERIFY LENGTH	LED	DIMMABLE	120 V	104 W	OWNER	OWNER	
DL3	27" DECORATIVE PENDANT BOWL WITH DECORATIVE BRONZE METAL TRIM. PROVIDE SWIVEL MOUNTING CANOPY AS REQUIRED.	FROSTED WHITE ACRYLIC	PENDANT - VERIFY LENGTH	LED	DIMMABLE	120 V	104 W	OWNER	OWNER	
DL4	DECORATIVE WALL SCONCE	OWNER	WALL	LED	DIMMABLE	120 V	15 W	OWNER	OWNER	
DL5	DECORATIVE WALL SCONCE	OWNER	WALL	LED	DIMMABLE	120 V	30 W	OWNER	OWNER	
DL6	DECORATIVE PENDANT BOWL.	FROSTED WHITE ACRYLIC	PENDANT - VERIFY LENGTH	LED	DIMMABLE	120 V	72 W	OWNER	OWNER	
DL7	DECORATIVE PENDANT BOWL.	FROSTED WHITE ACRYLIC	PENDANT - VERIFY LENGTH	LED	DIMMABLE	120 V	25 W	OWNER	OWNER	
DL8	LOW PROFILE GIMBLE RING STYLE LED TRACK LIGHTING HEAD WITH INTEGRAL DRIVER, HEAT SINK, LED ENGINE, AND ADJUSTABLE ARM.	N.A.	TRACK	LED	DIMMABLE	120 V	12 W	JUNO	T286L SERIES	
DL10	DECORATIVE WALL SSONCE	OWNER	WALL	LED	DIMMABLE	120 V	25 W	OWNER	OWNER	
DL11	STRIP LIGHT	OWNER	SURFACE	4.3W PER LF	DIMMABLE	120 V	220 W	NOVA FLEX	TUNABLE WHITE SERIES	
DL12	STRIP LIGHT	OWNER	SURFACE	4.3W PER LF	DIMMABLE	120 V	220 W	NOVA FLEX	TUNABLE WHITE SERIES	
DL13	STRIP LIGHT	OWNER	SURFACE	4.3W PER LF	DIMMABLE	120 V	10 W	NOVA FLEX	TUNABLE WHITE SERIES	
E1	CONTEMPORARY LED SINGLE FACED EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING, RED LETTERS, AND CHEVRON ARROWS AS SHOWN ON PLANS.	RED STENCIL LETTERS	UNIVERSAL	LED 50000 HR	---	120 V	5 W	LITHONIA	QUANTUM SERIES	1
E2	CONTEMPORARY LED SINGLE FACED EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING, RED LETTERS, AND CHEVRON ARROWS AS SHOWN ON PLANS.	RED STENCIL LETTERS	UNIVERSAL	LED 50000 HR	---	120 V	5 W	LITHONIA	QUANTUM SERIES	1
F4	4' LINEAR LED WRAPAROUND WITH STEEL HOUSING AND END CAPS.	LINEAR REFRACTOR HIGH IMPACT ACRYLIC	SURFACE OR SUSPENDED TO 9'-0"	LED	DIMMABLE	120 V	39 W	LITHONIA DAY-BRITE NEW STAR LIGHTING	WL SERIES OWL SERIES STWL SERIES	
F4S	4' LINEAR LED WRAPAROUND WITH STEEL HOUSING AND END CAPS.	LINEAR REFRACTOR HIGH IMPACT ACRYLIC	SURFACE OR SUSPENDED TO 9'-0"	LED	DIMMABLE	120 V	25 W	LITHONIA DAY-BRITE NEW STAR LIGHTING	WL SERIES OWL SERIES STWL SERIES	
G4	4' LOW PROFILE LINEAR LED WET LOCATION FIXTURE WITH NON-METALLIC HOUSING, AND GASKETED LENS ASSEMBLY.	LINEAR RIBBED REFRACTOR CLEAR ACRYLIC	SURFACE OR CHAIN SUSPEND 9'-0"	LED	---	120 V	61 W	LITHONIA DAY-BRITE METALUX COLUMBIA LIGHTING	FEM-LED SERIES DW-LED SERIES VAPORTITE LED SERIES LXEM SERIES	
G4S	4' LOW PROFILE LINEAR LED WET LOCATION FIXTURE WITH NON-METALLIC HOUSING, AND GASKETED LENS ASSEMBLY.	LINEAR RIBBED REFRACTOR CLEAR ACRYLIC	SURFACE OR CHAIN SUSPEND 9'-0"	LED	---	120 V	61 W	LITHONIA DAY-BRITE METALUX COLUMBIA LIGHTING	FEM-LED SERIES DW-LED SERIES VAPORTITE LED SERIES LXEM SERIES	
R1	LED SURFACE DOWNLIGHT	FROSTED WHITE ACRYLIC	CEILING	LED	DIMMABLE	120 V	13 W	KICHLER	43855WHLED30T	
R1E	LED SURFACE DOWNLIGHT WITH BATTERY BACKUP.	FROSTED WHITE ACRYLIC	CEILING	LED	DIMMABLE	120 V	60 W	KICHLER	43855WHLED30T	1
R2	LED SURFACE DOWNLIGHT, WET RATED.	FROSTED WHITE ACRYLIC	CEILING	LED	DIMMABLE	120 V	15 W	KICHLER	43855WHLED30T	
S21	ONE (1) RECTANGULAR FULL CUTOFF SHOEBOX FIXTURES WITH DIE CAST ALUMINUM HOUSING, GASKETED ALUMINUM DOOR, BROWN/BRONZE FINISH, IES TYPE II DISTRIBUTION, UL LISTED FOR WET LOCATION, MOUNTED AT 0° ON SQUARE STRAIGHT ALUMINUM POLE (NOM. 0.25 WALL THICKNESS), WITH ACCESS PANEL AT BASE AND BASE COVER(S). PROVIDE WITH INTEGRAL OCCUPANCY SENSOR CONTROLS TO REDUCE LIGHTING TO 30% WHEN SPACE IS UN-OCCUPIED.	FLAT CLEAR TEMPERED GLASS	20' - 5" SQ STAIGHT STEEL STANDARD ON FLUSH CONCRETE FOUNDATION	LED	DIMMABLE	208 V	109 W	LITHONIA	KAD-LED SERIES	2
S22	TWO (2) RECTANGULAR FULL CUTOFF SHOEBOX FIXTURES WITH DIE CAST ALUMINUM HOUSING, GASKETED ALUMINUM DOOR, BROWN/BRONZE FINISH, IES TYPE II DISTRIBUTION, UL LISTED FOR WET LOCATION, MOUNTED AT 180° ON SQUARE STRAIGHT ALUMINUM POLE (NOM. 0.25 WALL THICKNESS). PROVIDE TRANSFORMER BASE WITH ACCESS PANEL AND BASE COVER.	FLAT CLEAR TEMPERED GLASS	20' - 5" SQ STAIGHT STEEL STANDARD ON FLUSH CONCRETE FOUNDATION	LED	DIMMABLE	208 V	218 W	LITHONIA	KAD-LED SERIES	2
SL	12" LED STEP-LIGHT FIXTURE, FINISH SPECIFIED BY ARCHITECT	CHOSEN BY ARCHITECT	RECESSED	LED	DIMMABLE	120 V	11 W	BEGA	24202 SERIES	
WP1	DECORATVIE OURDOOR WALL SCONCE	N.A.	WALL	LED	DIMMABLE	120 V	6 W	BEGA	33223 SERIES	2

GENERAL LIGHTING SCHEDULE NOTES

A. "APPROVED MANUFACTURE" IS UNDERSTOOD TO MEAN THE ENGINEER'S AND ARCHITECT'S APPROVAL OF THE MANUFACTURER ONLY. HAVING PRIOR APPROVAL ON A MANUFACTURER ONLY, DOES NOT RELIEVE THE MANUFACTURER OF MEETING ALL FEATURES OF THE SPECIFIED LUMINAIRE, FINAL ACCEPTANCE OR REJECTION WILL BE BASED ON REVIEW OF THE SHOP DRAWINGS SUBMITTALS BY THE ENGINEER AND ARCHITECT.

B. CATALOG NUMBERS ARE INDICATED FOR GENERAL DESIGN REQUIREMENTS. ALL ACCESSORIES REQUIRED FOR MOUNTING, ETC MAY NOT BE LISTED, CONTRACTOR IS RESPONSIBLE FOR THE CONFIRMATION OF ALL PART NUMBERS WITH THE MANUFACTURER / FACTORY PRIOR TO ORDERING OF MATERIALS.

C. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND THE ELECTRICAL GENERAL PROJECT NOTES FOR REQUIREMENTS RELATED TO THE PROVISIONS FOR ADDITIONAL MATERIALS SUCH AS LAMPS, LENSES, ETC.

LIGHTING FIXTURE SCHEDULE NOTES

1. PROVIDE WITH INTEGRAL BATTERY BACKUP FOR EMERGENCY EXIT AND/OR EGRESS LIGHTING FUNCTION.
2. LUMINAIRES / ASSEMBLIES SHALL BE PROVIDED WITH INTEGRAL OCCUPANCY SENSOR CONTROLS TO REDUCE LIGHTING TO 30% WHEN SPACE IS UN-OCCUPIED.
3. LUMINAIRES / ASSEMBLIES SHALL BE PROVIDED WITH INTEGRAL OCCUPANCY SENSOR CONTROLS TO REDUCE LIGHTING TO 10% WHEN SPACE IS UN-OCCUPIED.
4. PROVIDE COMPLETE WITH ALL MOUNTING HARDWARE, CONNECTORS, ETC. AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
5. SEE ARCHITECTURAL DETAILS FOR EXACT LENGTHS, MOUNTING REQUIREMENTS, ADDITIONAL INFORMATION, AND DETAILING.

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PAPPAGEORGE HAYMES

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JAY J. CAIN REG. NO. 12637
DATE: 03/23/2026

Issues and Revisions:

#	DATE	DESCRIPTION
	11/25/2025	PROGRESS SET
	12/19/2025	DD SET
	03/23/2026	ISSUE FOR GMP
2	08/28/2026	ISSUE FOR SITE PLAN REVIEW RESUBMITTAL

431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	KJK
CHECKED BY:	JJC
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

ELECTRICAL SCHEDULES

SHEET

E800

GENERAL NOTES

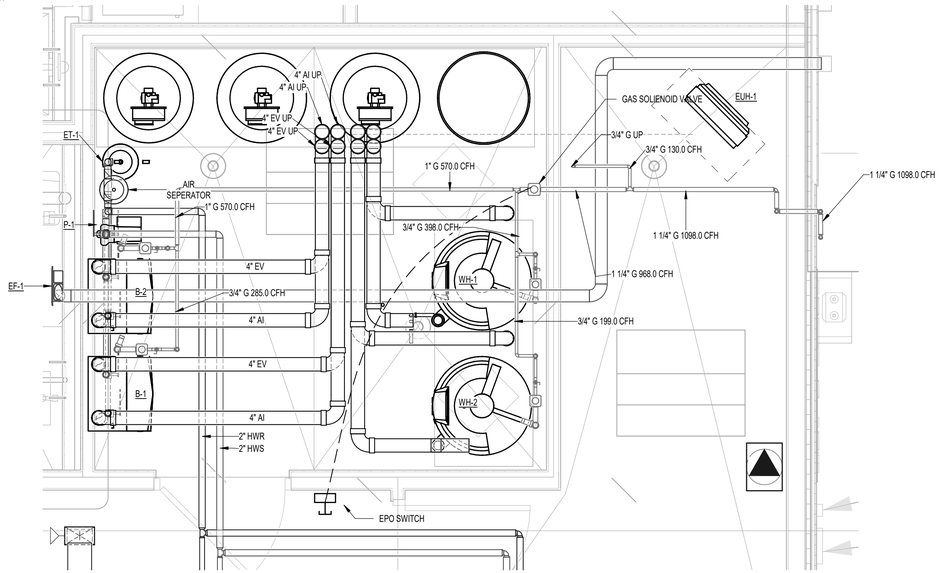
A. FLEX DUCTWORK SHALL BE PERMITTED ONLY ON FINAL RUNS TO DIFFUSERS WHERE INDICATED, UP TO A MAXIMUM LENGTH OF 6'-0". NO OTHER FLEX DUCT WILL BE PERMITTED.

B. PROVIDE BALANCE DAMPERS AT ALL BRANCH DUCTS SERVING DIFFUSERS.

C. NO PIPING SHALL PASS DIRECTLY OVER ELECTRICAL POWER DISTRIBUTION CABINETS. CONTRACTOR SHALL COORDINATE PANEL LOCATIONS PRIOR TO PIPING INSTALLATION.

D. PROVIDE ALL REQUIRED FIRE DAMPERS, SMOKE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADIATION DAMPERS IN RATED WALLS/ASSEMBLIES, WHETHER SHOWN ON THESE DRAWINGS OR NOT.

E. MAINTAIN MINIMUM OF 10'-0" (25'-0" FOR HEALTH CARE FACILITIES) CLEARANCE BETWEEN ANY OUTDOOR AIR INTAKES AND EXHAUST OUTLETS OR SOURCES OF CONTAMINATION.



1 MECHANICAL ROOM
1/2" = 1'-0"

2 MECHANICAL SITE PLAN
1" = 10'-0"

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SCOTT D. THOMAS REG. NO. 21659
DATE: 03/23/2026

Issues and Revisions:

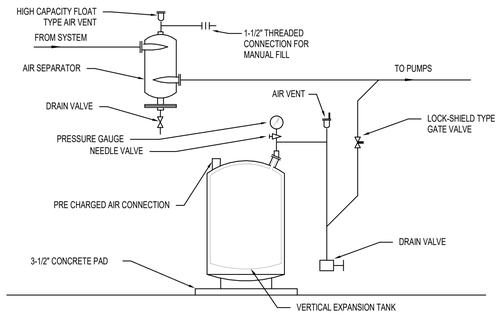
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431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	NJO
CHECKED BY:	SDT
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

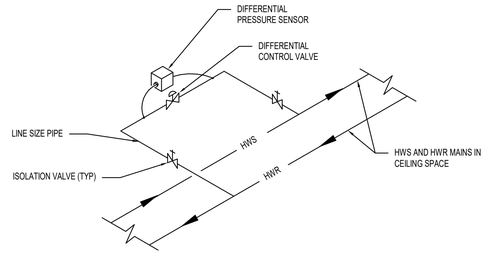
MECHANICAL SITE PLAN

SHEET
M200



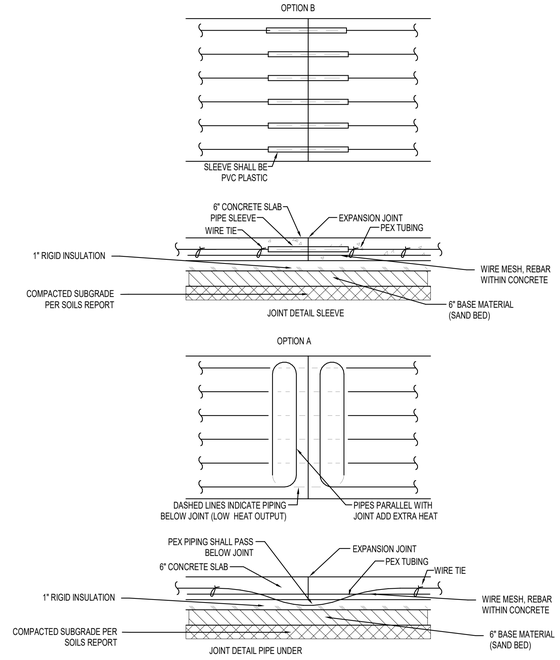
4 AIR CONTROL - VERTICAL DIAPHRAGM TANK

NOT TO SCALE



3 DIFFERENTIAL FLOW CONTROL SYSTEM

NOT TO SCALE



2 SNOW-MELT PIPING

NOT TO SCALE

1 SNOW MELT SYSTEM SCHEMATIC

NOT TO SCALE

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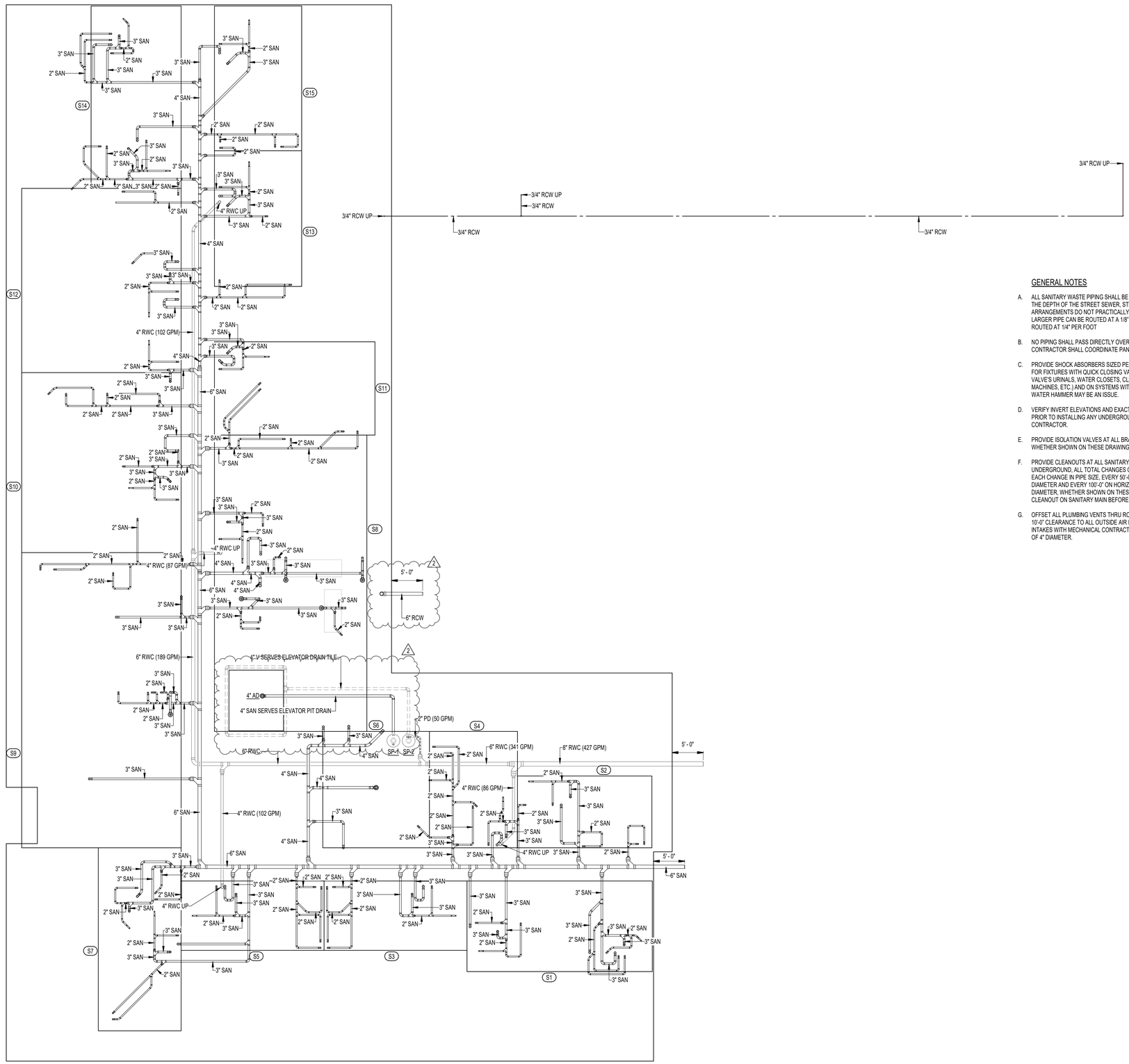
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MECHANICAL DETAILS

SHEET

M401



1 PLUMBING PLAN-Underground

1/8" = 1'-0"

GENERAL NOTES

A. ALL SANITARY WASTE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT, UNLESS THE DEPTH OF THE STREET SEWER, STRUCTURAL INTERFERENCES, OR OTHER BUILDING ARRANGEMENTS DO NOT PRACTICALLY ALLOW FOR 1/4" PER FOOT, THEN, A 4" OR LARGER PIPE CAN BE ROUTED AT A 1/8" PER FOOT; PIPES SMALLER THAN 4" SHALL BE ROUTED AT 1/4" PER FOOT

B. NO PIPING SHALL PASS DIRECTLY OVER ELECTRICAL POWER DISTRIBUTION CABINETS. CONTRACTOR SHALL COORDINATE PANEL LOCATIONS PRIOR TO PIPING INSTALLATION.

C. PROVIDE SHOCK ABSORBERS SIZED PER PDI STANDARD PDI-WH 201 WHERE REQUIRED FOR FIXTURES WITH QUICK CLOSING VALVES (INCLUDING BUT NOT LIMITED TO FLUSH VALVE'S URINALS, WATER CLOSETS, CLINIC SERVICE SINKS, DISHWASHERS, ICE MACHINES, ETC.) AND ON SYSTEMS WITH HIGHER THAN NORMAL PRESSURE WHERE WATER HAMMER MAY BE AN ISSUE.

D. VERIFY INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING ANY UNDERGROUND PIPING. COORDINATE WITH SITE UTILITY CONTRACTOR.

E. PROVIDE ISOLATION VALVES AT ALL BRANCH TAKE-OFF'S FROM DOMESTIC WATER MAINS, WHETHER SHOWN ON THESE DRAWINGS OR NOT.

F. PROVIDE CLEANOUTS AT ALL SANITARY AND STORM STACKS BEFORE TURNING UNDERGROUND, ALL TOTAL CHANGES OF DIRECTION GREATER THAN 90 DEGREES, AT EACH CHANGE IN PIPE SIZE, EVERY 50'-0" ON HORIZONTAL RUNS ON PIPING LESS THAN 3" DIAMETER AND EVERY 100'-0" ON HORIZONTAL RUNS FOR PIPING GREATER THAN 4" DIAMETER, WHETHER SHOWN ON THESE DRAWINGS OR NOT. PROVIDE BUILDING CLEANOUT ON SANITARY MAIN BEFORE LEAVING BUILDING.

G. OFFSET ALL PLUMBING VENTS THRU ROOF INSIDE BUILDING AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE TO ALL OUTSIDE AIR INTAKES. COORDINATE LOCATION OF OUTSIDE AIR INTAKES WITH MECHANICAL CONTRACTOR. ALL VENTS THRU ROOF SHALL BE A MINIMUM OF 4" DIAMETER.

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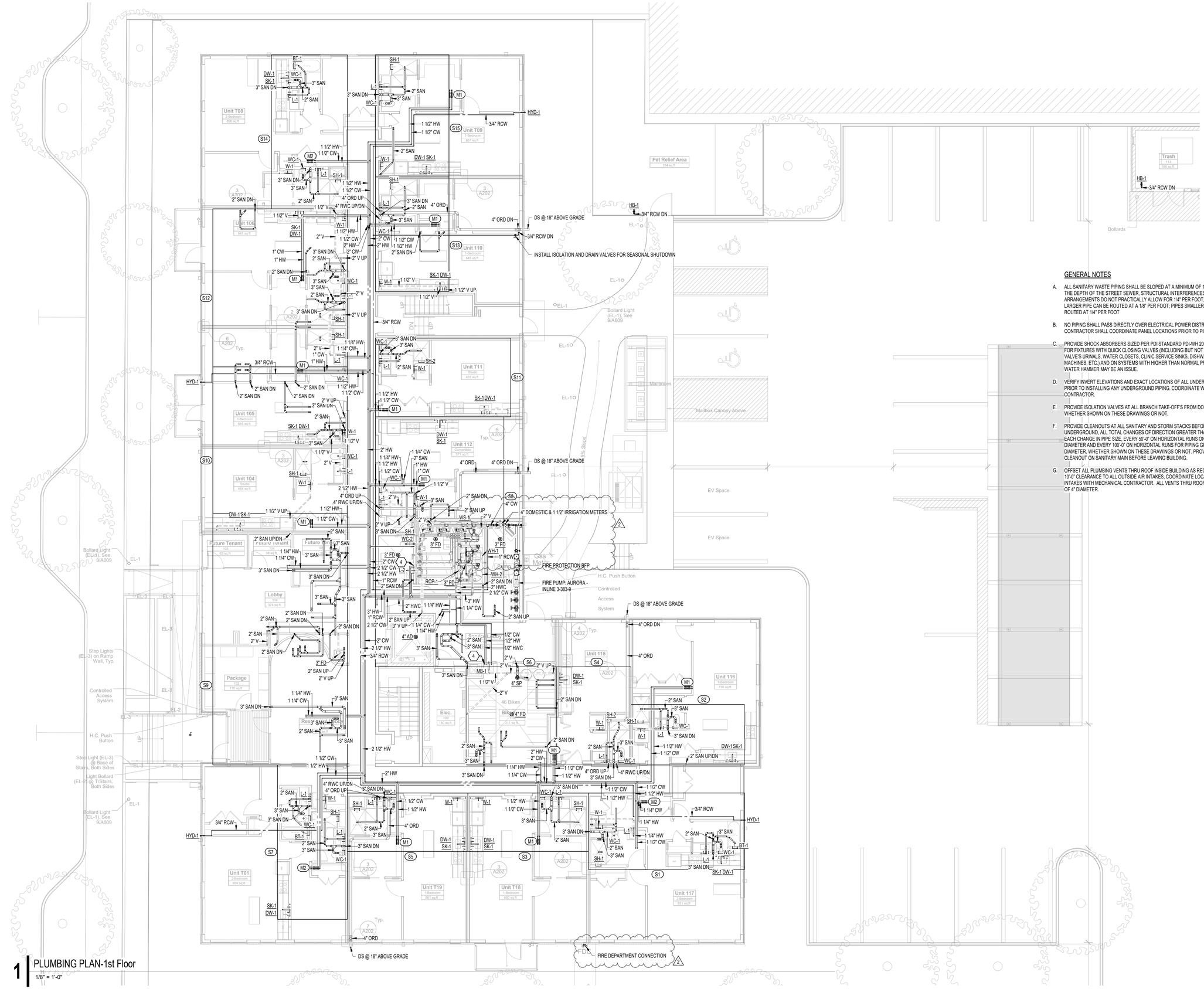
431 S ROSE
KALAMAZOO, MI

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PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

UNDERGROUND PLUMBING PLAN

SHEET

P010



1 PLUMBING PLAN-1st Floor
1/8" = 1'-0"

GENERAL NOTES

A. ALL SANITARY WASTE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT, UNLESS THE DEPTH OF THE STREET SEWER, STRUCTURAL INTERFERENCES, OR OTHER BUILDING ARRANGEMENTS DO NOT PRACTICALLY ALLOW FOR 1/4" PER FOOT, THEN, A 4" OR LARGER PIPE CAN BE ROUTED AT A 1/8" PER FOOT; PIPES SMALLER THAN 4" SHALL BE ROUTED AT 1/4" PER FOOT

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D. VERIFY INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING ANY UNDERGROUND PIPING. COORDINATE WITH SITE UTILITY CONTRACTOR.

E. PROVIDE ISOLATION VALVES AT ALL BRANCH TAKE-OFF'S FROM DOMESTIC WATER MAINS, WHETHER SHOWN ON THESE DRAWINGS OR NOT.

F. PROVIDE CLEANOUTS AT ALL SANITARY AND STORM STACKS BEFORE TURNING UNDERGROUND, ALL TOTAL CHANGES OF DIRECTION GREATER THAN 90 DEGREES, AT EACH CHANGE IN PIPE SIZE, EVERY 50'-0" ON HORIZONTAL RUNS ON PIPING LESS THAN 3" DIAMETER AND EVERY 100'-0" ON HORIZONTAL RUNS FOR PIPING GREATER THAN 4" DIAMETER, WHETHER SHOWN ON THESE DRAWINGS OR NOT. PROVIDE BUILDING CLEANOUT ON SANITARY MAIN BEFORE LEAVING BUILDING.

G. OFFSET ALL PLUMBING VENTS THRU ROOF INSIDE BUILDING AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE TO ALL OUTSIDE AIR INTAKES, COORDINATE LOCATION OF OUTSIDE AIR INTAKES WITH MECHANICAL CONTRACTOR. ALL VENTS THRU ROOF SHALL BE A MINIMUM OF 4" DIAMETER.

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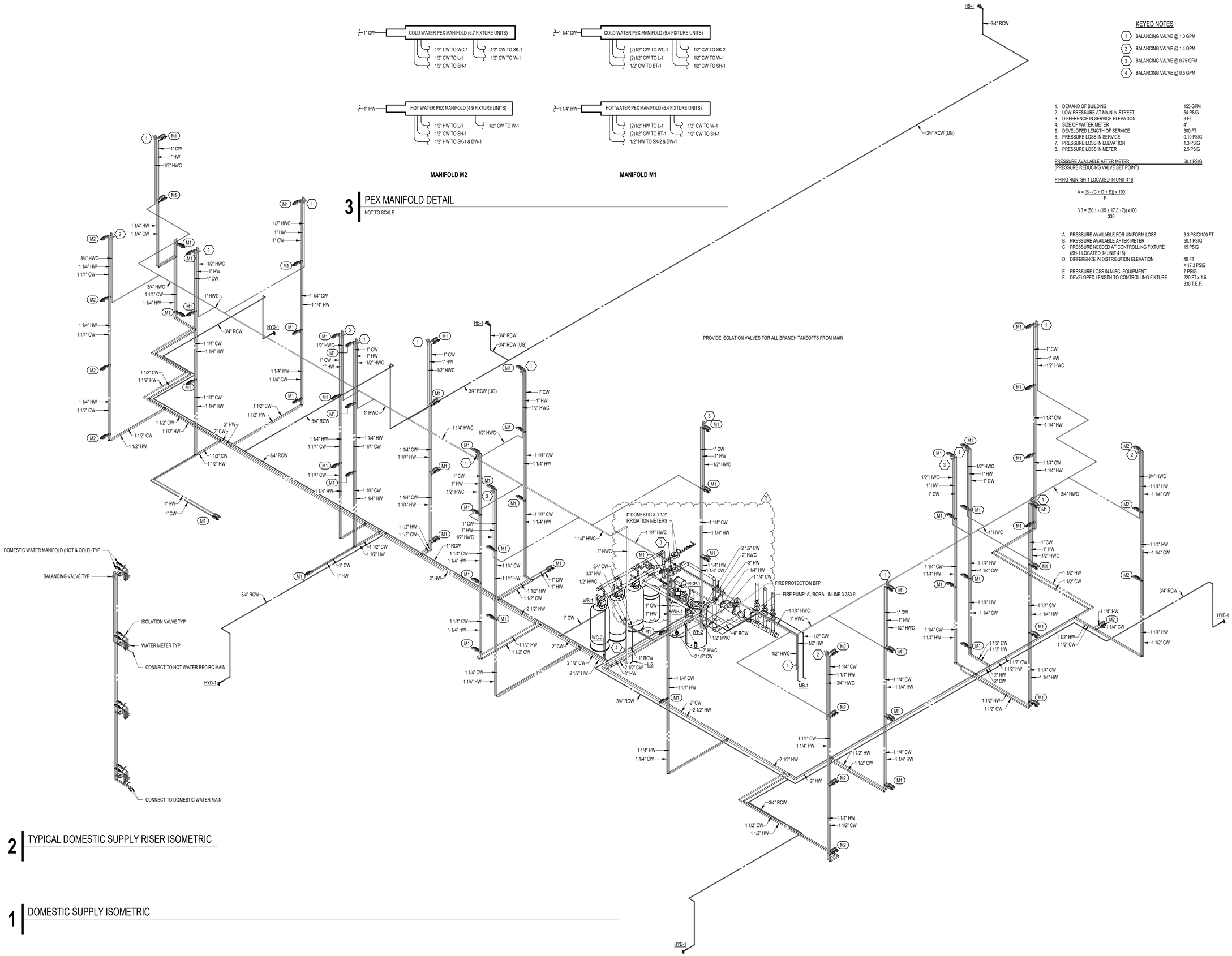
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431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	KDM
CHECKED BY:	SDT
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

1ST FLOOR
PLUMBING PLAN

SHEET
P100



3 PEX MANIFOLD DETAIL

NOT TO SCALE

KEYED NOTES

1. BALANCING VALVE @ 1.0 GPM
2. BALANCING VALVE @ 1.4 GPM
3. BALANCING VALVE @ 0.75 GPM
4. BALANCING VALVE @ 0.5 GPM

1. DEMAND OF BUILDING	155 GPM
2. LOW PRESSURE AT MAIN IN STREET	54 PSIG
3. DIFFERENCE IN SERVICE ELEVATION	3 FT
4. SIZE OF WATER METER	4"
5. DEVELOPED LENGTH OF SERVICE	300 FT
6. PRESSURE LOSS IN SERVICE	0.10 PSIG
7. PRESSURE LOSS IN ELEVATION	1.3 PSIG
8. PRESSURE LOSS IN METER	2.5 PSIG
PRESSURE AVAILABLE AFTER METER (PRESSURE REDUCING VALVE SET POINT)	50.1 PSIG

PIPING RUN: SH-1 LOCATED IN UNIT 416

$$A = \frac{(B - (C + D + E)) \times 100}{F}$$

$$3.3 = \frac{(50.1 - (15 + 17.3 + 7)) \times 100}{330}$$

A. PRESSURE AVAILABLE FOR UNIFORM LOSS	3.3 PSIG/100 FT
B. PRESSURE AVAILABLE AFTER METER	50.1 PSIG
C. PRESSURE NEEDED AT CONTROLLING FIXTURE (SH-1 LOCATED IN UNIT 416)	15 PSIG
D. DIFFERENCE IN DISTRIBUTION ELEVATION	40 FT = 17.3 PSIG
E. PRESSURE LOSS IN MISC. EQUIPMENT	7 PSIG
F. DEVELOPED LENGTH TO CONTROLLING FIXTURE	220 FT x 1.5 = 330 T.E.F.

2 TYPICAL DOMESTIC SUPPLY RISER ISOMETRIC

1 DOMESTIC SUPPLY ISOMETRIC

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SCOTT D. THOMAS REG. NO. 21659

DATE: 03/23/2026

Issues and Revisions:

#	DATE	DESCRIPTION
	11/25/2025	PROGRESS SET
	12/19/2025	DD SET
	03/23/2026	ISSUE FOR GMP
1	08/12/2026	ISSUE FOR SITE PLAN REVIEW RESUBMITTAL
2	08/28/2026	ISSUE FOR SITE PLAN REVIEW RESUBMITTAL

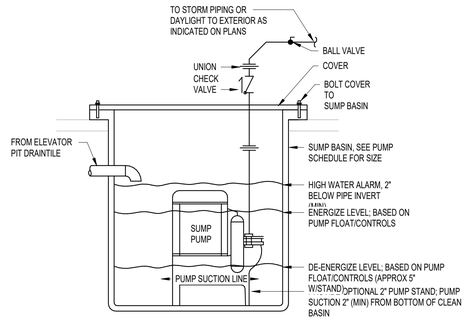
431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	KDM
CHECKED BY:	SDT
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

PLUMBING ISOMETRICS

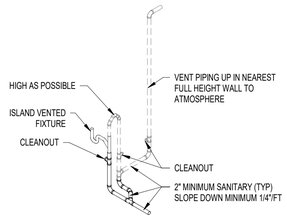
SHEET

P200



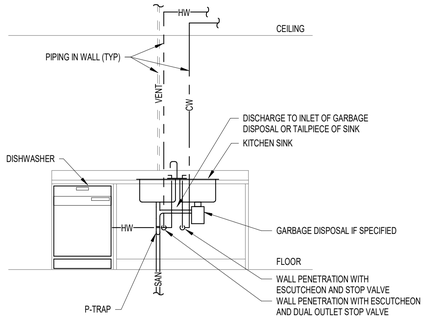
12 ELEVATOR DRAINTILE SUMP PUMP

NOT TO SCALE



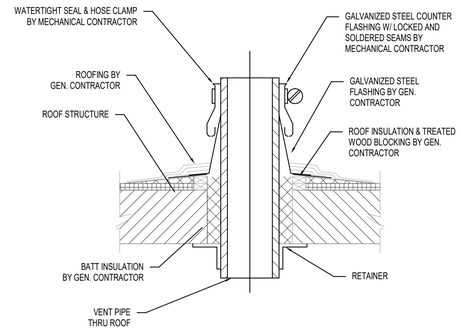
11 SINGLE ISLAND VENTING DETAIL

NOT TO SCALE



10 RESIDENTAIL DISHWASHER AIR GAP CONNECTION FITTING

NOT TO SCALE



9 VENT PIPE PENETRATION THRU ROOF

NOT TO SCALE

8 CLEVIS PIPE HANGER

NOT TO SCALE

7 SLEEVE AND STUD CONSTRUCTION

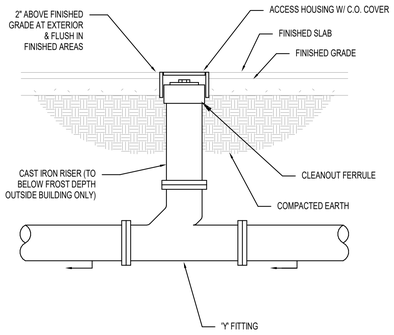
NOT TO SCALE

6 SLEEVE AND MASONRY CONSTRUCTION

NOT TO SCALE

5 WATER SOFTENER

NOT TO SCALE



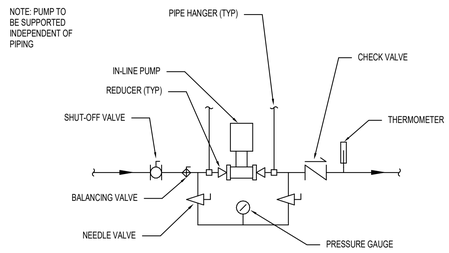
4 CLEANOUT (TYPICAL)

NOT TO SCALE

3 PP202 - WATER/FIRE SERVICE RISER DIAGRAM

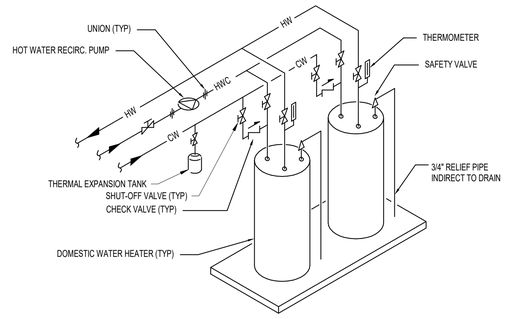
NOT TO SCALE

2



2 DOMESTIC HOT WATER IN-LINE CIRCULATION PUMP

NOT TO SCALE



1 DOUBLE DOMESTIC WATER HEATER

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SCOTT D. THOMAS REG. NO. 21659
DATE: 03/23/2026

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431 S ROSE
KALAMAZOO, MI

PROJECT NUMBER:	2025-149
DRAWN BY:	KDM
CHECKED BY:	SDT
PACKAGE DESCRIPTION	
ISSUE DATE:	03/23/2026

PLUMBING DETAILS

SHEET

P300

Plumbing Fixture Schedule

Type Mark	Description	Quantity	Type of Supply Control	Minimum Connection Size				Drainage Fixture Units		Water Supply Fixture Units						Notes
				CW	HW	San	Vent	DFU Each	DFU Total	CWFU Each	CWFU Total	HWFU Each	HWFU Total	Demand FU Each	Demand FU Total	
3" FD	3" FLOOR DRAIN	5	--	0"	0"	3"	2"	5	25	0	0	0	0	0	0	
4" AD	4" AREA DRAIN	1	--	0"	0"	4"	0"	6	6	0	0	0	0	0	0	
4" ERD	4" EMERGENCY ROOF DRAIN	4	--	0"	0"	4"	0"	0	0	0	0	0	0	0	0	
4" FD	4" FLOOR DRAIN	1	--	0"	0"	4"	2"	6	6	0	0	0	0	0	0	
4" RD	4" ROFF DRAIN	4	--	0"	0"	4"	0"	0	0	0	0	0	0	0	0	
4" SP	4" STAND PIPE	1	--	0"	0"	4"	2"	6	6	0	0	0	0	0	0	
BT-1	BATHTUB	12	MIXING VALVE	1/2"	1/2"	2"	1 1/2"	2	24	1	12	1	12	1.4	16.8	
DW-1	DISHWASHER	71	INTEGRAL	1/2"	1/2"	1 1/2"	1 1/4"	0	0	0	0	1.4	99.4	1.4	99.4	
HB-1	HOSE BIB	2	INTEGRAL	3/4"	0"	0"	0"	0	0	2	4	0	0	2	4	
HYD-1	WALL HYDRANT	4	INTEGRAL	3/4"	0"	0"	0"	0	0	2	8	0	0	2	8	
L-1	LAVATORY	81	FAUCET	1/2"	1/2"	2"	2"	1	81	0.5	40.5	0.5	40.5	0.7	56.7	1
L-1A	LAVATORY - ADA	2	FAUCET	1/2"	1/2"	2"	2"	1	2	0.5	1	0.5	1	0.7	1.4	1
L-2	LAVATORY	1	FAUCET	1/2"	1/2"	1 1/2"	1 1/2"	1	1	1.5	1.5	1.5	1.5	2	2	
MB-1	MOP BASIN	1	FAUCET	1/2"	1/2"	3"	1 1/2"	3	3	2.25	2.25	2.25	2.25	3	3	
SH-1	SHOWER	44	MIXING VALVE	1/2"	1/2"	2"	1 1/2"	2	88	1	44	1	44	1.4	61.6	
SH-2	SHOWER	25	MIXING VALVE	1/2"	1/2"	2"	1 1/2"	2	50	1	25	1	25	1.4	35	
SH-3	SHOWER - ADA ROLL-IN	2	MIXING VALVE	1/2"	1/2"	2"	1 1/2"	2	4	1	2	1	2	1.4	2.8	
SK-1	SINGLE COMPARTMENT SINK	69	FAUCET	1/2"	1/2"	2"	1 1/2"	2	138	1	69	1	69	1.4	96.6	
SK-1A	SINGLE COMPARTMENT SINK - ADA	2	FAUCET	1/2"	1/2"	2"	1 1/2"	2	4	1	2	1	2	1.4	2.8	
W-1	WASHING MACHINE BOX	71	INTEGRAL	1/2"	1/2"	2"	1 1/2"	2	142	1	71	1	71	1.4	99.4	
WC-1	WATER CLOSET	84	FLUSH TANK	3/4"	0"	3"	2"	3	252	2.2	184.8	0	0	2.2	184.8	
WC-2	WATER CLOSET	1	FLUSH TANK	3/4"	0"	4"	2"	3	3	2.2	2.2	0	0	2.5	2.5	
									835		469.25		369.65		676.8	

1. ONE OF THE LAVATORY SINKS WITHIN EACH APARTMENT SHALL RECEIVE CONDENSATE FROM THE FAN COIL. LAVATORY TAILPIECE SHALL HAVE A CONDENSATE CONNECTION, SEE MECHANICAL PLANS FOR LOCATION.

Sump Pump Schedule

Mark	Manufacturer	Model	Location	Type	Size	GPM	Head (ft)	RPM	Sump Basin Diameter (in)	Sump Basin Depth (in)	Electrical			Notes
											Voltage	Phase	HP	
SP-1	ZOELLER	137	BIKE ROOM	SUBMERSIBLE	2"	50	15	1750	24"	108"	120 V	1	1/2	SERVES ELEVATOR PIT DRAIN
SP-2	ZOELLER	137	BIKE ROOM	SUBMERSIBLE	2"	50	15	1750	24"	96"	120 V	1	1/2	SERVES ELEVATOR DRAIN TILE

Water Heater Schedule

Mark	Manufacturer	Model	Location	MBH Input	Gallons Storage	Gallons Recovery @ 100 Deg. Rise	Electrical				Notes
							Voltage	Phase	FLA	MOCP	
WH-1	AO SMITH	BTH-199	WATER ROOM	199.9	100	256	120 V	1			
WH-2	AO SMITH	BTH-199	WATER ROOM	199.9	100	256	120 V	1			

Water Softener Schedule

Mark	Manufacturer	Model	Location	GPM	P.D. at Design Flow	Grains Exch. Each Tank	Resin Cubic Ft. Each Tank	Manif. Size	Backwash G.P.M.	Exch / Brine Tank			Electrical				Notes
										Number	Diameter	Height	Voltage	Phase	FLA	MOCP	
WS-1	WATER CONTROL	LF-360-TRIPLEX	WATER ROOM	171	7	276000	12	2"	25	3/1	30"/30"	91"/50"	120 V	1	1.3		

Recirculating Pump Schedule

Mark	Manufacturer	Model	Location	Type	Size	GPM	Head (ft)	RPM	Electrical			Notes
									Voltage	Phase	HP	
RCP-1	BELL & GOSSETT	ECOCIRC XL 36-45	WATER ROOM	HOT WATER RECIRC	2"	19.95	7.46	2800	120 V	1	1/6	

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PLUMBING SCHEDULES

SHEET
P400