Water & Sewerage Department
CITY OF DETROIT

Detroit Water and Sewerage Department
Central Services Facility
6425 Huber Street, Detroit, MI 48211

313-267-8000 • detroitmi.gov/DWSD

Letter of Transmittal

Date:	9-5-2025
Petition Map:	25-86

Type of Petition

- ☑ Outright Vacation
- ☐ Conversion to Easement
- ☐ Dedication
- ☐ Encroachment
- ☐ Berm Use
- ☐ Temporary Closing

Review Status

The above petition has been received and reviewed by this office. Please see below for the review status as marked.

- ☑ Approved Subject to Attached Provisions
- ☐ Not Approved
- ☐ Revise and Resubmit

Additional Comments (if applicable):

DWSD records indicate there is DWSD assets in the public right-of-way requested for Outright vacation. DWSD has no objections to the requested for Outright vacation subject to the attached provisions are followed.

Attached is the DWSD provision related to the petition.

	Name	Title	Signature	Date
Reviewed by:	Mohammad Siddique	Engineer	Mohammad Siddique	9-5-2025
Approved by:	Syed Ali	Engineering Manager	Mohammad Siddique For Syed Ali	9-5-2025

PROVISIONS FOR OUTRIGHT VACATION

Provided that the petitioner shall design and construct proposed sewers and/or water mains and make the connections to the existing public sewers and/or water mains as required and approved by the Detroit Water and Sewerage Department (DWSD) prior to abandoning the sewers and/or water mains petitioned for outright vacation.

Provided that the plans for the sewers and or water mains shall be prepared by a licensed professional engineer registered in the State of Michigan; and further;

Provided that DWSD be and is hereby authorized to review the drawings for the proposed sewers and or water mains and to issue permits for the construction of the sewers and or water mains, and further;

Provided that the entire work is to be performed in accordance with the current DWSD standards/specifications and approved by DWSD and constructed under the inspection and approval of DWSD; and further;

Provided that the entire cost of the proposed sewers and or water mains construction, including inspection, survey and engineering shall be borne by the petitioner; and further;

Provided that the petitioner shall deposit with DWSD, in advance of engineering, inspection and survey, such amounts as the department deems necessary to cover the costs of these services; and further;

Provided that the petitioner shall grant to the City a satisfactory easement, if applicable, for the sewers and/or water mains; and further;

Provided that the Board of Water Commissioners shall accept and execute the easement grant on behalf of the City; and further;

Provided, that the petitioner shall provide DWSD with as –built drawings on the proposed sewers and or water mains; and further;

Provided that the petitioner shall provide a one (1) year warranty for the proposed sewers and or water mains; and further;

Provided that upon satisfactory completion, the proposed sewers and/or water mains shall become City property and become part of the City system. Any existing sewers and/or water mains that were abandoned shall belong to the petitioner and will no longer be the responsibility of the City.

Rev: 3/01/2021

August 19, 2025

City of Detroit
Maps and Records Bureau
2 Woodward Avenue, Room 216
Detroit, MI 48226

RE: REQUEST FOR EASEMENT VACATION

- **N/S 13.52-FT VACATED ALLEY LOCATED BETWEEN VACATED BREWSTER STREET AND ALFRED STREET**
- **E/W 20-FT VACATED ALLEY LOCATED BETWEEN 13.52 FT ALLEY DESCRIBED ABOVE AND CHRYSLER DRIVE**

DETROIT, WAYNE COUNTY, MICHIGAN

To whom it may concern:

On behalf of MHT Housing, Inc, applicant for the above referenced petition, we seek permission to vacate the following easements:

- 13.52-ft wide vacated alley located between vacated Brewster Street and Alfred Street;
- 20-ft wide vacated alley located between 13.52 ft alley described above and Chrysler Drive

The requested vacations are related to construction of three (3) new, 4-story, buildings consisting of 159 residential units. Combined sewer exists within the vacated alleys and the proposed buildings will encroach on the vacated alleys. The existing combined sewer will be removed, and new sanitary sewer is proposed to serve the development.

Currently, the subject property is unimproved.

We respectfully request permission to vacate the easements as described herein, and as illustrated in the attached site plan.

Sincerely,

Paul Stoddard

Paul Stoddard

Director of Design & Construction

MHT Housing, Inc.

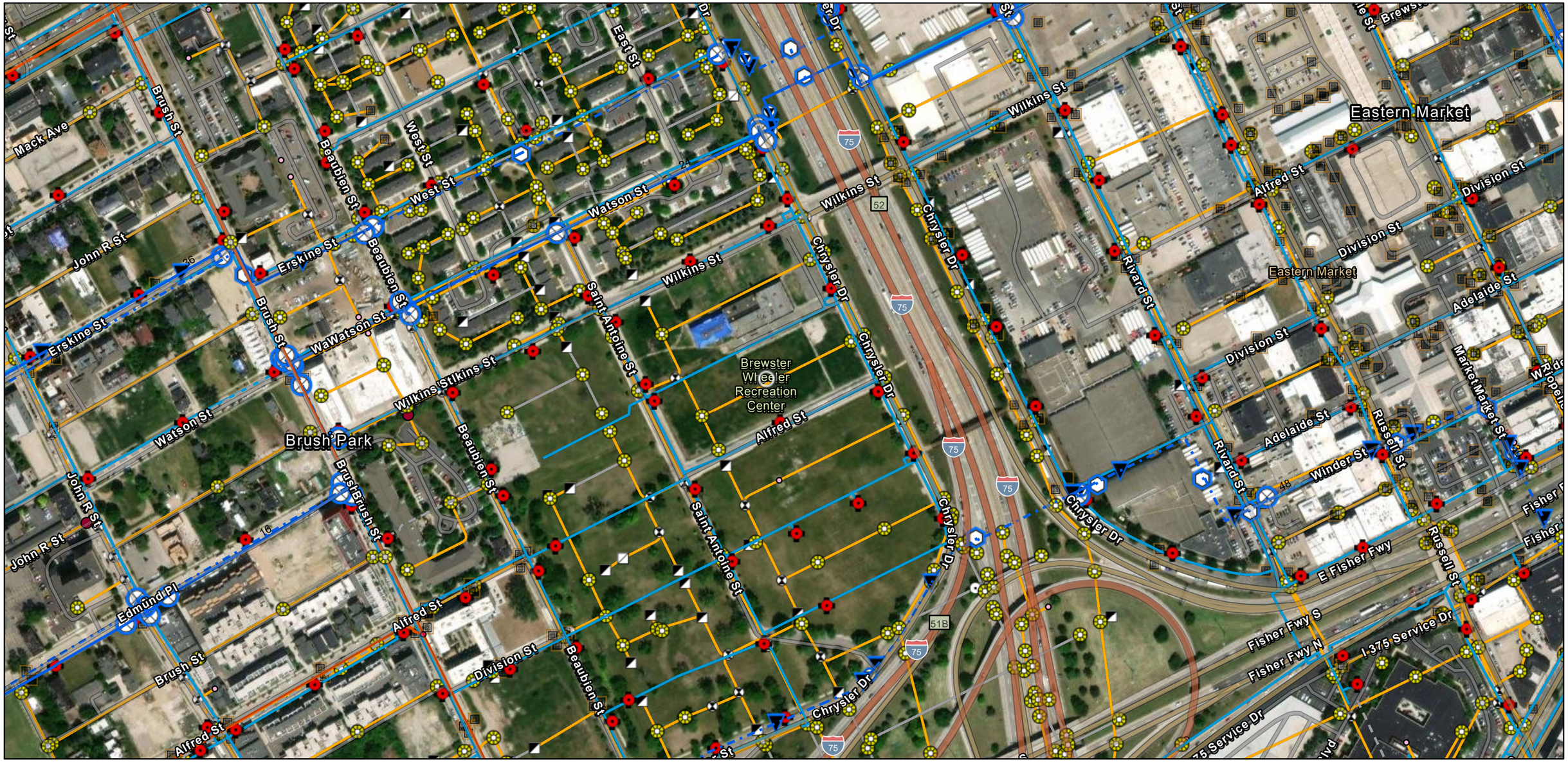
32500 Telegraph Road, Suite 100

Detroit, Michigan 48025

Tel.: 248-833-0552

Email:

651 Alfred Street



8/27/2025

Wastewater Structures - GLWA
- Bellmouth
- Manhole

Wastewater Mains - GLWA
- GLWA Gravity Main

Transmission System Mains - GLWA
- Abandoned/Inactive Water Main
- Active Water Main

Transmission System Valves - GLWA
- Blowoff
- Cone
- Gate
- Manual Air
- Tapping Sleeve
- Distribution System Hydrant

Distribution System Main
- Active
- Abandoned

- Wastewater Catch Basin
- Wastewater Manhole

Wastewater Fitting
- Bend/Slope Change
- Blind Connection
- Bulkhead/Cap
- Material/Size Change
- Crown/Main Point
- Crown/Main Point
- Wastewater Lamp Hole

Wastewater GravityMain
- Active
- Abandoned/Inactive/Retired
- Abandoned/Inactive/Retired
- Wastewater Regulator

World Imagery
Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery
Citations

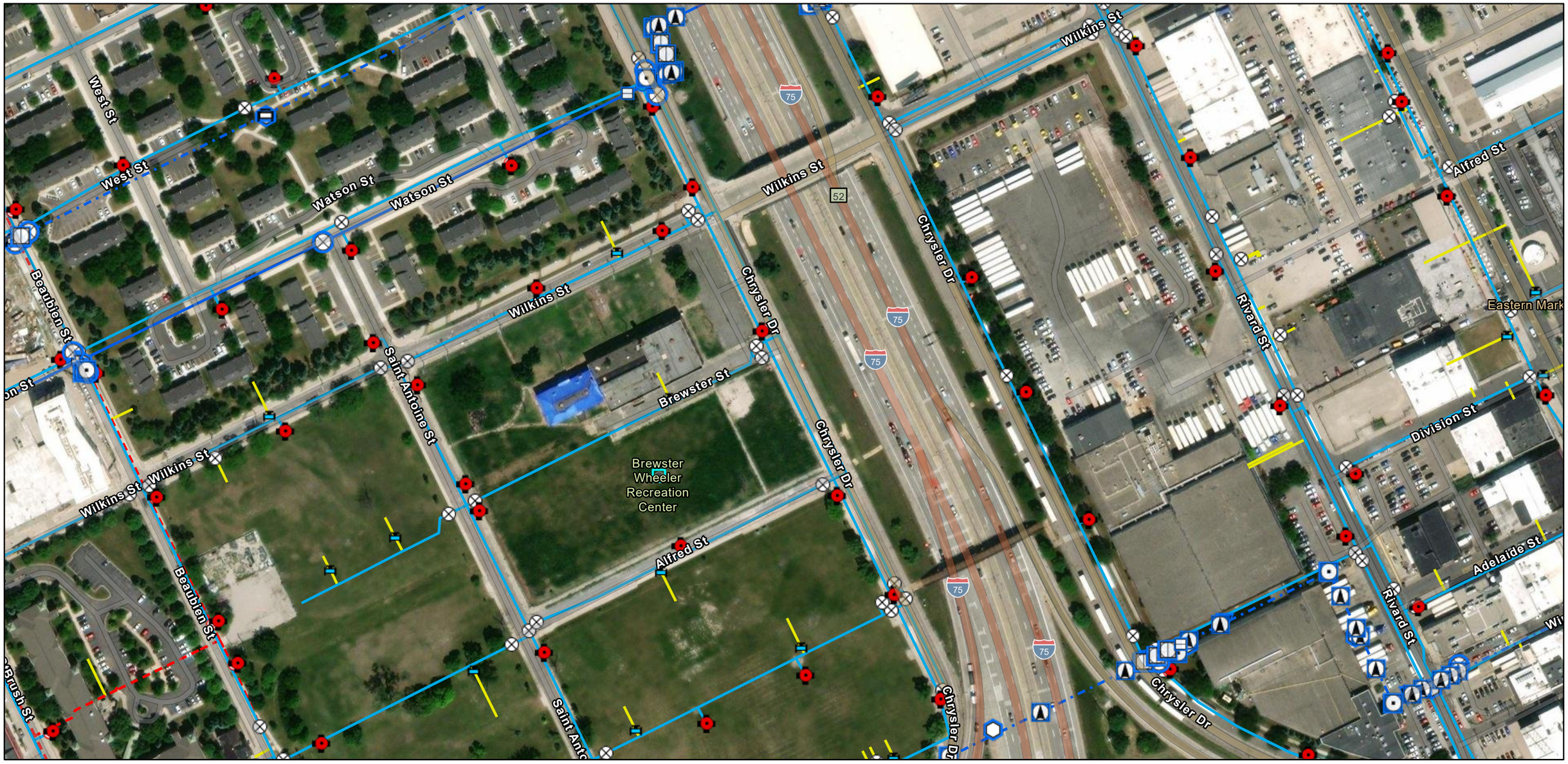
1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

DWSD, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

651 Alfred Street



8/27/2025, 10:58:43 AM

1:2,821

0 0.02 0.04 0.09 mi

0 0.04 0.07 0.15 km

Transmission System Fittings (GLWA)

- Coupling
- Cross
- Horizontal Bend
- Reducer
- Sleeve
- Tap
- Tee
- Vertical Bend

Transmission System Valves (GLWA)

- Blowoff
- Cone
- Gate
- Manual Air
- Tapping Sleeve

Transmission System Mains (GLWA)

- Abandoned/Inactive Water Main

- Abandoned/Inactive Water Main
- Active Water Main

Distribution System Hydrant

- DWSD

Distribution System Valve

- Gate
- TSV
- Hydrant

Distribution System Main

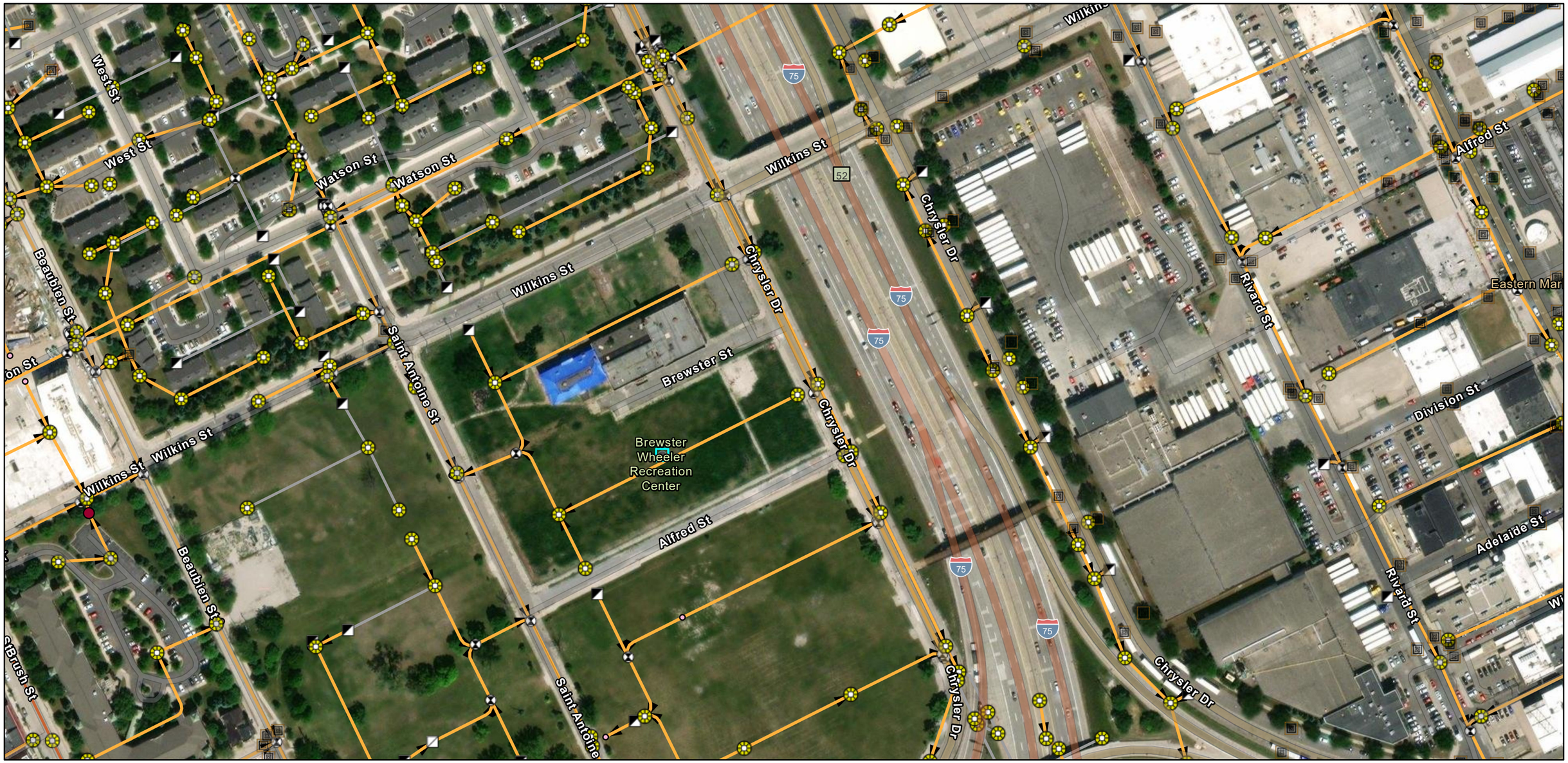
- Active
- Abandoned
- Distribution System Service Line

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

ArcGIS Web AppBuilder

Detroit Water and Sewerage Department | Maxar | Esri Community Maps Contributors, City of Windsor, Province of Ontario, SEMCOG, © OpenStreetMap, Microsoft, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NRCan, Parks

651 Alfred Street



8/27/2025, 10:58:46 AM

1:2,821

0 0.02 0.04 0.09 mi

0 0.04 0.07 0.15 km

Wastewater Catch Basin (DWSD)

Wastewater Lamp Hole (DWSD)

Wastewater Manhole (DWSD)

Wastewater Fitting (DWSD)

Blind Connection

Bulkhead/Cap

Material/Size Change

Crown/Main Point

Crown/Main Point

Wastewater Regulator (DWSD)

Wastewater Gravity Main (DWSD)

Active

Abandoned/Inactive/Retired

Abandoned/Inactive/Retired

Wastewater Structures (GLWA)

Manhole

Wastewater Mains (GLWA)

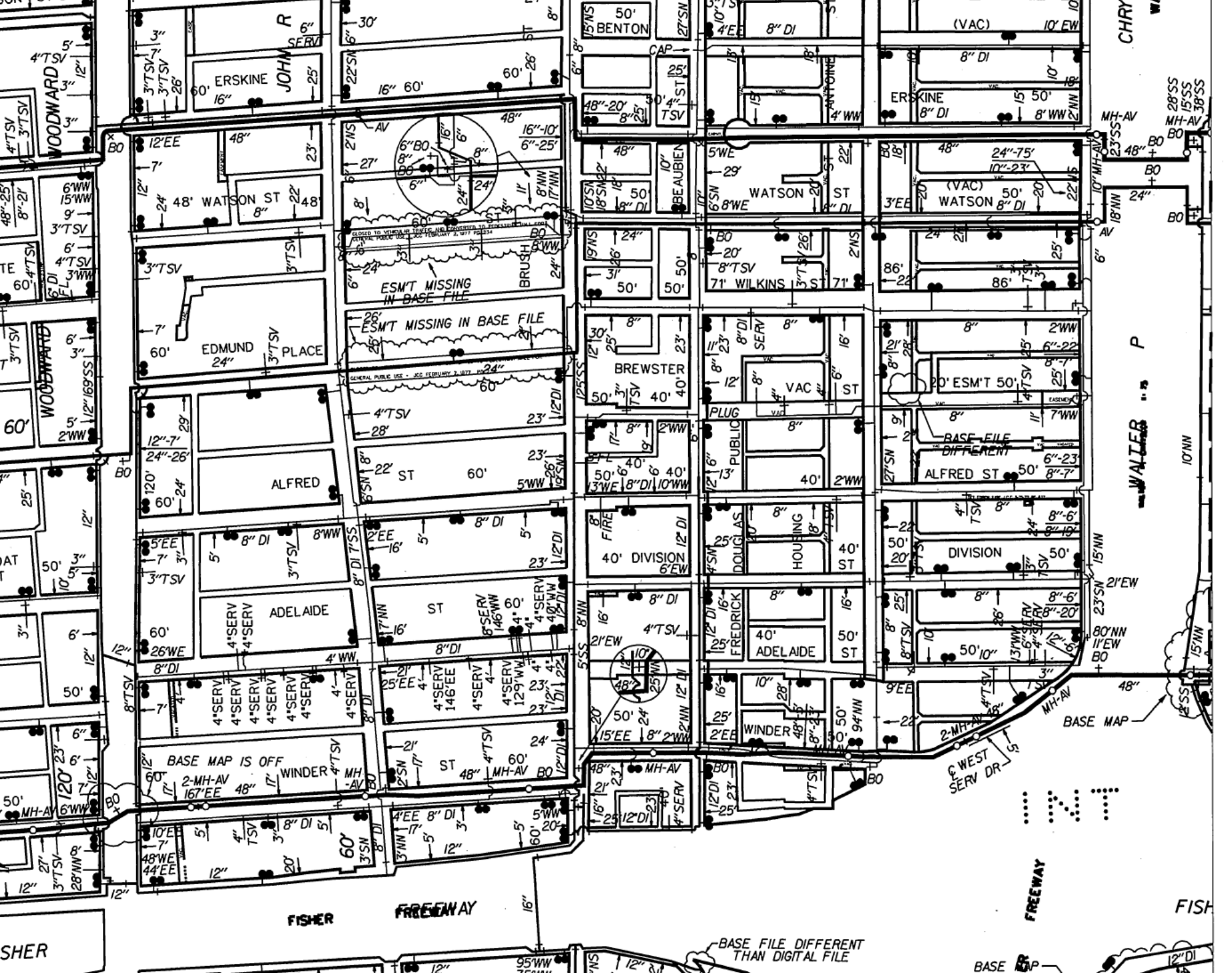
GLWA Gravity Main

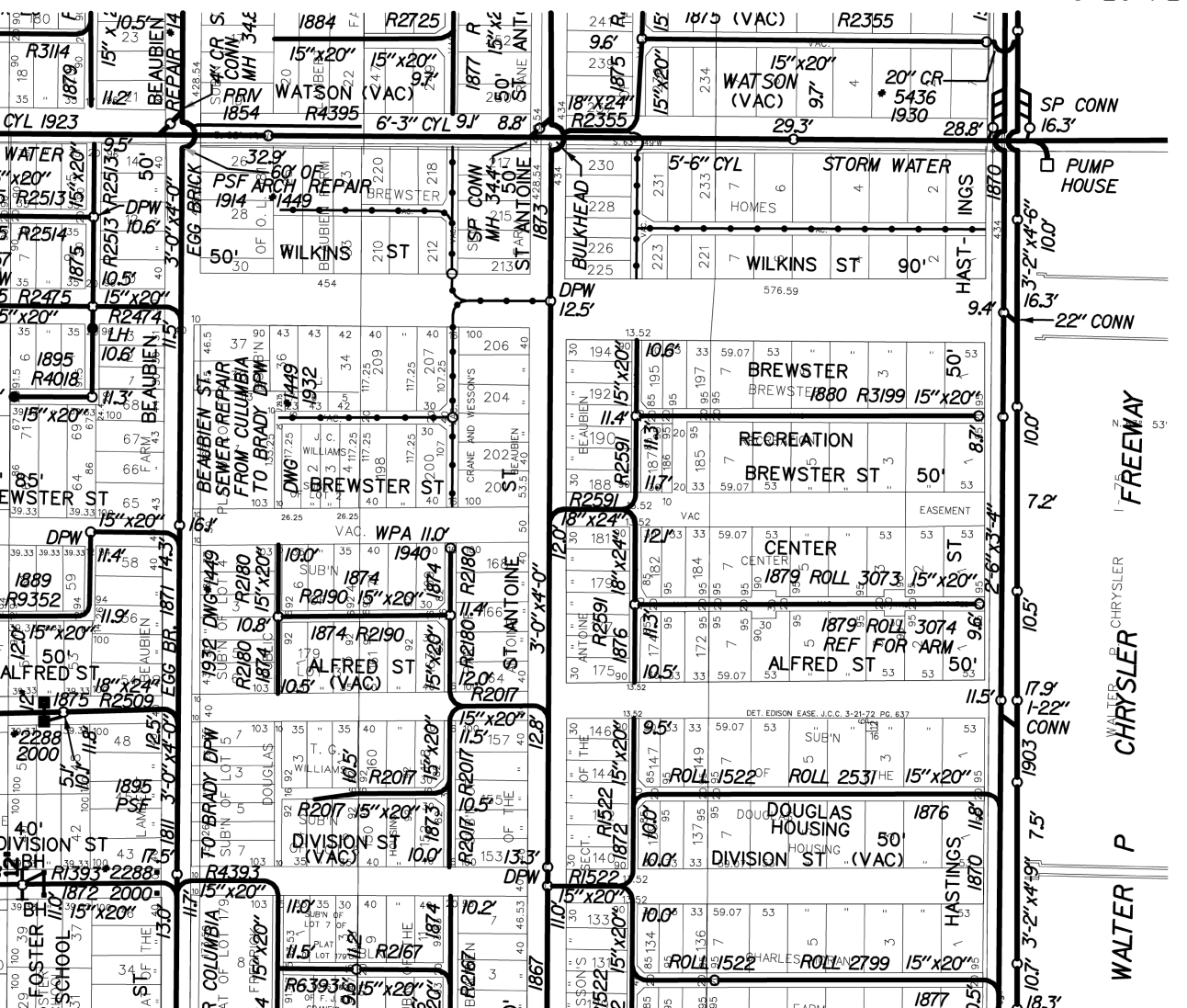
DWSD Wastewater Flow Direction

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

ArcGIS Web AppBuilder

Detroit Water and Sewerage Department | Maxar, Microsoft | Esri Community Maps Contributors, City of Windsor, Province of Ontario, SEMCOG, © OpenStreetMap, Microsoft, Esri Canada, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS,


WOODWARD
JOHN R
ERSKINE
WATSON ST
BRUSH
ESM'T MISSING IN BASE FILE
EDMUND PLACE
ALFRED ST
ADELAIDE ST
BASE MAP IS OFF
WINDER
BENTON
BEAUBIEN
WILKINS ST
BREWSTER
PUBLIC
DOUGLAS
HOUSING
FREDRICK
DIVISION
ANTOINE
CHRYSLER
WALTER P
BASE FILE DIFFERENT
20' ESM'T
BASE MAP
WEST SERV DR
FISHER FREEWAY
BASE FILE DIFFERENT THAN DIGITAL FILE


WATSON (VAC)
WATSON (VAC)
STORM WATER
HOMES
WILKINS ST
WILKINS ST
PSF ARCH REPAIR
EGG BRICK
BEAUBIEN REPAIR
BEAUBIEN ST.
SEWER REPAIR FROM COLUMBIA TO BRADY
BREWSTER ST
BREWSTER
RECREATION
BREWSTER ST
CENTER
ALFRED ST
ALFRED ST
DIVISION ST (VAC)
DIVISION ST (VAC)
DOUGLAS HOUSING
HOUSING
HASTINGS
ST ANTOINE
SP CONN
PUMP HOUSE
22" CONN
FREEWAY
CHRYSLER
WALTER P CHRYSLER
DET. EDISON EASE. J.C.C. 3-21-72 PG. 637

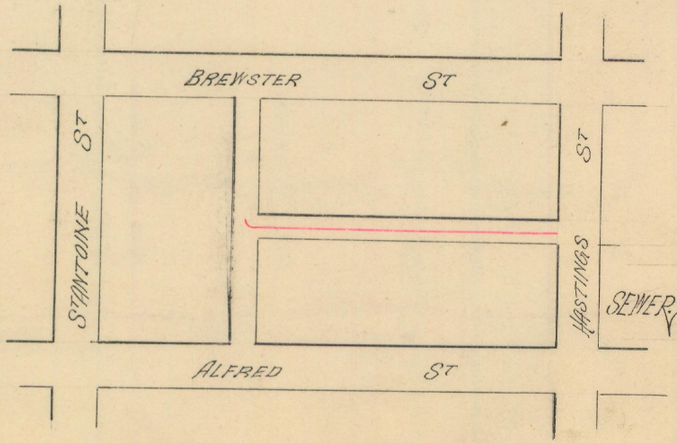
14

No. 14

LATERAL SEWER IN ALLEY

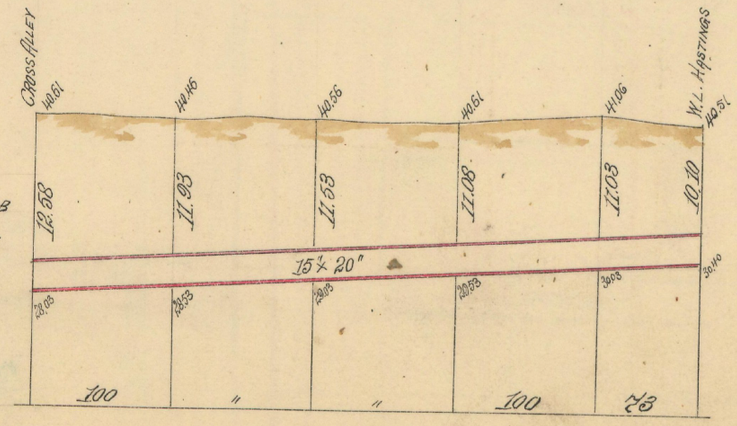
Bet. St Antoine, Hastings, Brewster and Alfred Sts.

1879



SEWER
- LENGTH OF SEWER 484 FT
- SIZE " " 15"x20" I.R.C.B
- GRADE " " 0.50 PER 100 FT

30



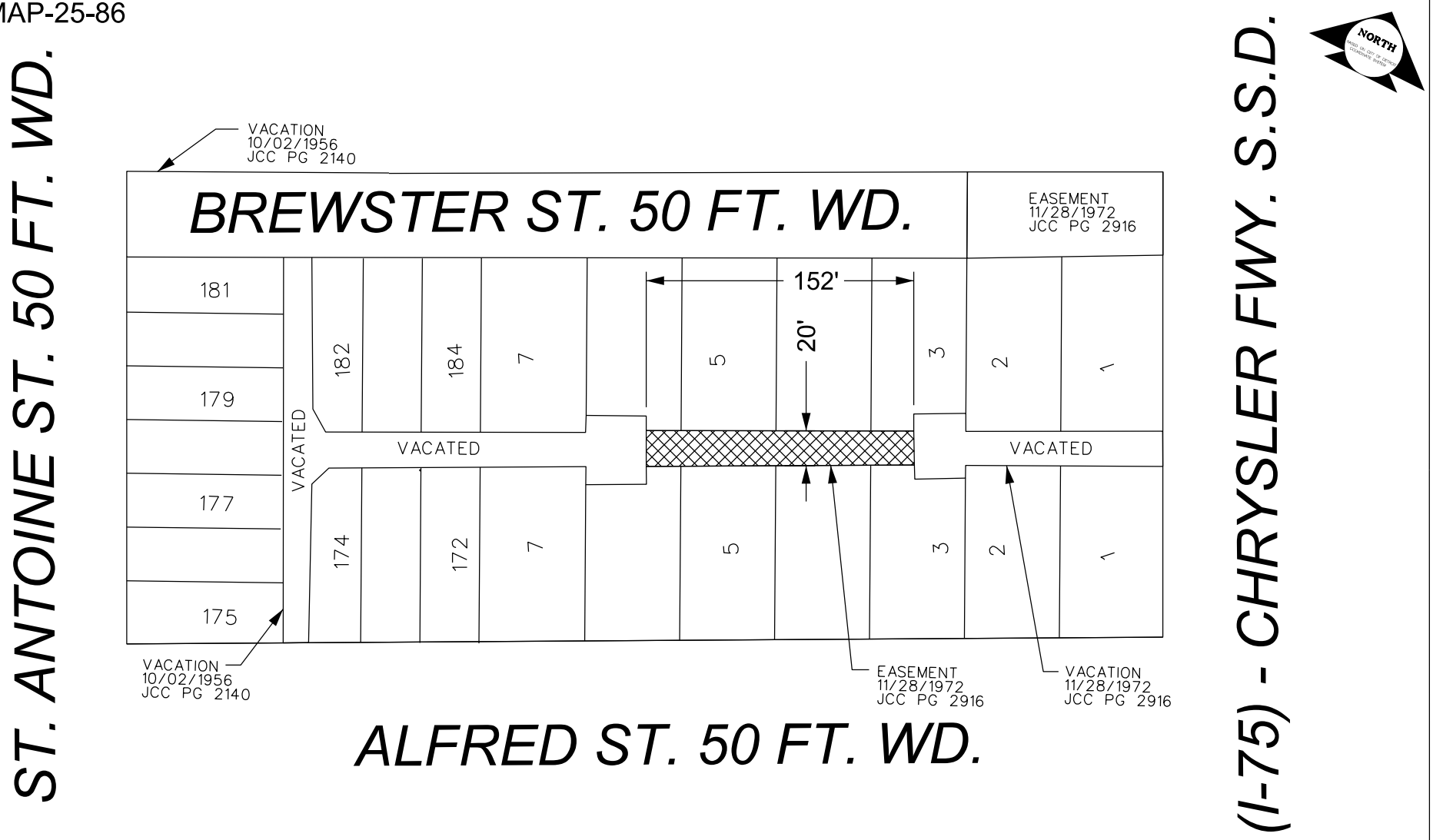
WHITTAKER & SCHNEIDER CONTRS
PRICE PER FOOT .41c

ROLL 3073

HOR; 1" = 100 FT
VER " 10 "

6602

MAP-25-86



- REQUEST OUTRIGHT VACATION

(FOR OFFICE USE ONLY)

CARTO 29 F

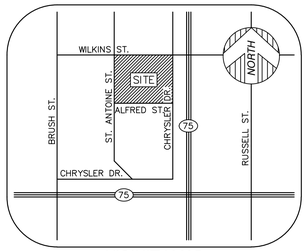
B					
A					
DESCRIPTION		DRWN	CHKD	APPD	DATE
REVISIONS					
DRAWN BY	AP	CHECKED	LC / TS		
DATE	08-25-2025	APPROVED	GE		

REQUEST OUTRIGHT VACATION
A PORTION OF THE EAST/WEST ALLEY
BOUNDED BY CHRYSLER FWY. S.S.D.,
ALFRED ST., ST. ANTOINE ST., AND
BREWSTER ST.

CITY OF DETROIT
CITY ENGINEERING DIVISION
SURVEY BUREAU

JOB NO. 25-86

DRWG. NO.



VICINITY MAP
(NOT TO SCALE)

PARKING

HANDICAP PARKING = 0 STALLS
STANDARD PARKING = 41 STALLS

PARCEL AREA

273,351± SQUARE FEET = 6.27± ACRES

BASIS OF BEARING

NORTH 63°00'01" EAST, BEING THE SOUTHERLY LINE OF WILKINS ST, BASED ON GPS OBSERVATION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83.

BENCHMARK

SITE BENCHMARK #1
NAIL IN NORTH SIDE OF POWER POLE AT THE SOUTHWEST CORNER OF ALFRED STREET AND CHRYSLER DRIVE
ELEVATION = 619.92' (NAVD 88)

SITE BENCHMARK #2
ARROW ON HYDRANT NORTHWEST OF VEHICULAR APPROACH TO SITE.
ELEVATION = 622.09' (NAVD 88)

SITE BENCHMARK #3
ARROW ON HYDRANT AT SOUTH CENTER OF PROPERTY NORTH OF ALFRED STREET.
ELEVATION = 621.87' (NAVD 88)

LEGEND

- FOUND MONUMENT (AS NOTED)
- FOUND SECTION CORNER (AS NOTED)
- (R&M) RECORD AND MEASURED DIMENSION
- (R) RECORD DIMENSION
- (M) MEASURED DIMENSION
- 0.00 GROUND ELEVATION
- ELECTRIC MANHOLE
- UTILITY POLE
- GAS METER
- GAS VALVE
- LIGHT POLE WITH STREET LAMP
- PUBLIC LIGHTING MANHOLE
- CLEANOUT
- SEWER MANHOLE
- SQUARE CATCH BASIN
- FIRE HYDRANT
- WATER GATE MANHOLE
- WATER VALVE
- STEAM VAULT
- UNKNOWN MANHOLE
- LIGHTPOST/LAMP POST
- SINGLE POST SIGN
- SOIL BORING
- TREE (AS NOTED)
- PARCEL BOUNDARY LINE
- PLATTED LOT LINE
- ADJOINER PARCEL LINE
- SECTION LINE
- EASEMENT (AS NOTED)
- BUILDING
- BUILDING OVERHANG
- CONCRETE CURB
- RAISED CONCRETE
- PARKING
- EDGE OF CONCRETE (CONC.)
- EDGE OF ASPHALT (ASPH.)
- FENCE (AS NOTED)
- WALL (AS NOTED)
- OVERHEAD UTILITY LINE
- G GAS LINE
- S SANITARY LINE
- D STORM LINE
- W WATER LINE
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BUILDING AREA
- ASPHALT
- CONCRETE

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26163C0285F, DATED 10/21/2021, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

ZONING REGULATIONS

PD – PLANNED DEVELOPMENT DISTRICT

LOT DIMENSIONS, SETBACKS, HEIGHT LIMITATIONS, LOT COVERAGE PERCENTAGES, AND FLOOR AREA RATIOS SHOULD BE APPROPRIATE TO THE NATURE OF THE PROJECT AND RELATE WELL TO SURROUNDING DEVELOPMENT.

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE CITY OF DETROIT WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.

MANHOLE SCHEDULE

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
10013	STORM CB	618.35	B/STRUCTURE		614.45
			NO PIPES VISIBLE		
10035	SEWER MH	618.84	10	E	608.54
		618.84	42	NW	606.14
		618.84	42	SE	606.14
10038	STORM CB	618.42	B/STRUCTURE		614.72
			NO PIPES VISIBLE		
10058	SEWER MH	618.84	10	E	608.34
		618.84	42	SE	606.34
		618.84	42	NW	606.34
10073	SEWER MH	618.75	12	NE	615.50
10094	STORM CB	618.30	B/STRUCTURE		615.10
			NO PIPES VISIBLE		
10109	STORM CB	617.78	B/STRUCTURE		612.98
			NO PIPES VISIBLE		
10144	STORM CB	618.49	B/STRUCTURE		613.59
			NO PIPES VISIBLE		
10173	SEWER MH	619.36	36	NE	609.26
		619.36	8	N	615.16
		619.36	36	SE	609.16
		619.36	36	NW	609.16
10209	STORM CB	619.08	12	NE	611.18
10219	SEWER MH	619.40	36	NW	602.90
		619.40	36	SE	602.90
		619.40	12	SW	610.50
70001	STORM CB	618.90	12	S	614.60
70002	SEWER MH	618.86	12	N	614.26
		618.86	12	SE	614.16
70003	STORM CB	618.99	B/STRUCTURE		614.99
			NO PIPES VISIBLE		
70007	STORM CB	618.85	B/STRUCTURE		614.65
			NO PIPES VISIBLE		
70066	STORM CB	618.83	B/STRUCTURE		612.63
			NO PIPES VISIBLE		
70108	SEWER MH	619.00	12	NE	608.00
		619.00	36	NW	607.70
		619.00	12	SE	613.55
		619.00	36	SE	607.70
		619.00	6	N	615.20
		619.00	12	NW	609.40
70203	STORM CB	619.57	10	N	614.37
		619.57	10	NE	614.67
70273	SEWER MH	619.52	12	W	612.27
70274	STORM CB	619.62	T/DEBRIS		617.62
70308	SEWER MH	619.56	12	W	614.36
		619.56	T/WATER		616.36
70401	STORM CB	618.43	T/WATER		616.63
		618.43	B/STRUCTURE		615.93
			POSSIBLE LEACHING BASIN		
70486	STORM CB	619.40	T/WATER		615.50
		619.40	B/STRUCTURE		615.30
			POSSIBLE LEACHING BASIN		
70619	SEWER MH	618.62	10	N	612.87
70620	SEWER MH	620.03	18	N	607.93
		620.03	18	NE	608.03
		620.03	18	S	607.88
		620.03	6	SW	617.73
70773	STORM CB	619.07	T/WATER		614.82
		619.07	B/STRUCTURE		614.07
			POSSIBLE LEACHING BASIN		
70878	STORM CB	619.29	T/DEBRIS		617.19
			POSSIBLE LEACHING BASIN		
75004	STORM CB	618.17	12	SW	613.82
75019	STORM CB	618.25	T/DEBRIS		614.15
			NO PIPES VISIBLE		
75048	STORM CB	617.34	B/STRUCTURE		615.34
			NO PIPES VISIBLE		
75053	STORM CB	616.99	12	S	612.64
75087	STORM CB	619.12	B/STRUCTURE		609.92
			NO PIPES VISIBLE		
75098	STORM CB	618.90	T/DEBRIS		607.60
			NO PIPES VISIBLE		
75117	STORM CB	619.17	T/DEBRIS		613.07
			NO PIPES VISIBLE		
75132	STORM CB	619.07	B/STRUCTURE		613.07
			NO PIPES VISIBLE		
75145	STORM CB	619.78	12	W	616.43
75146	SEWER MH	619.79	12	E	
		619.79	T/DEBRIS		614.29
			NO PIPES VISIBLE		
75149	STORM CB	619.83	12	SW	616.73
75150	SEWER MH	619.77	12	NE	616.37
		619.77	T/DEBRIS		615.67
			NO PIPES VISIBLE		
75183	STORM CB	618.41	B/STRUCTURE		613.41
			NO PIPES VISIBLE		
75202	STORM CB	618.02	T/DEBRIS		616.77
75203	STORM CB	618.36	CANNOT OPEN		
75214	SEWER MH	619.22	42	NW	606.87
		619.22	42	SE	608.12
		619.22	42	SW	606.97
75217	STORM CB	618.46	12	SW	615.06
75224	SEWER MH	618.57	CANNOT OPEN-LOCKED		
75249	STORM CB	618.28	T/DEBRIS		617.18
75269	STORM CB	618.43	B/STRUCTURE		615.18
			NO PIPES VISIBLE		
75273	STORM CB	618.11	T/DEBRIS		617.61

SURVEYOR'S NOTES

1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

2. THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

3. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. THERE IS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE CINNAIRE TITLE SERVICES, LLC COMMITMENT No. 705658, DATED JANUARY 18, 2023, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

2. INTEREST OF THE CITY OF DETROIT AS EVIDENCED BY QUIT CLAIM DEED RECORDED IN LIBER 54245, PAGE 343 AND BY AFFIDAVIT RECORDED IN LIBER 57879, PAGE 1148. (NOT PLOTTABLE, SEE DOCUMENTS FOR TERMS AND CONDITIONS)

3. DECLARATION OF TRUST RECORDED IN LIBER 51568, PAGE 505. (NOT PLOTTABLE, SEE DOCUMENT FOR TERMS AND CONDITIONS)

4. DECLARATION OF TRUST AND RESTRICTIVE COVENANT RECORDED IN LIBER 50371, PAGE 1370. (NOT PLOTTABLE, SEE DOCUMENT FOR TERMS AND CONDITIONS)

5. DECLARATION OF TRUST RECORDED IN LIBER 50400, PAGE 1228. (NOT PLOTTABLE, SEE DOCUMENT FOR TERMS AND CONDITIONS)

PROPERTY DESCRIPTION

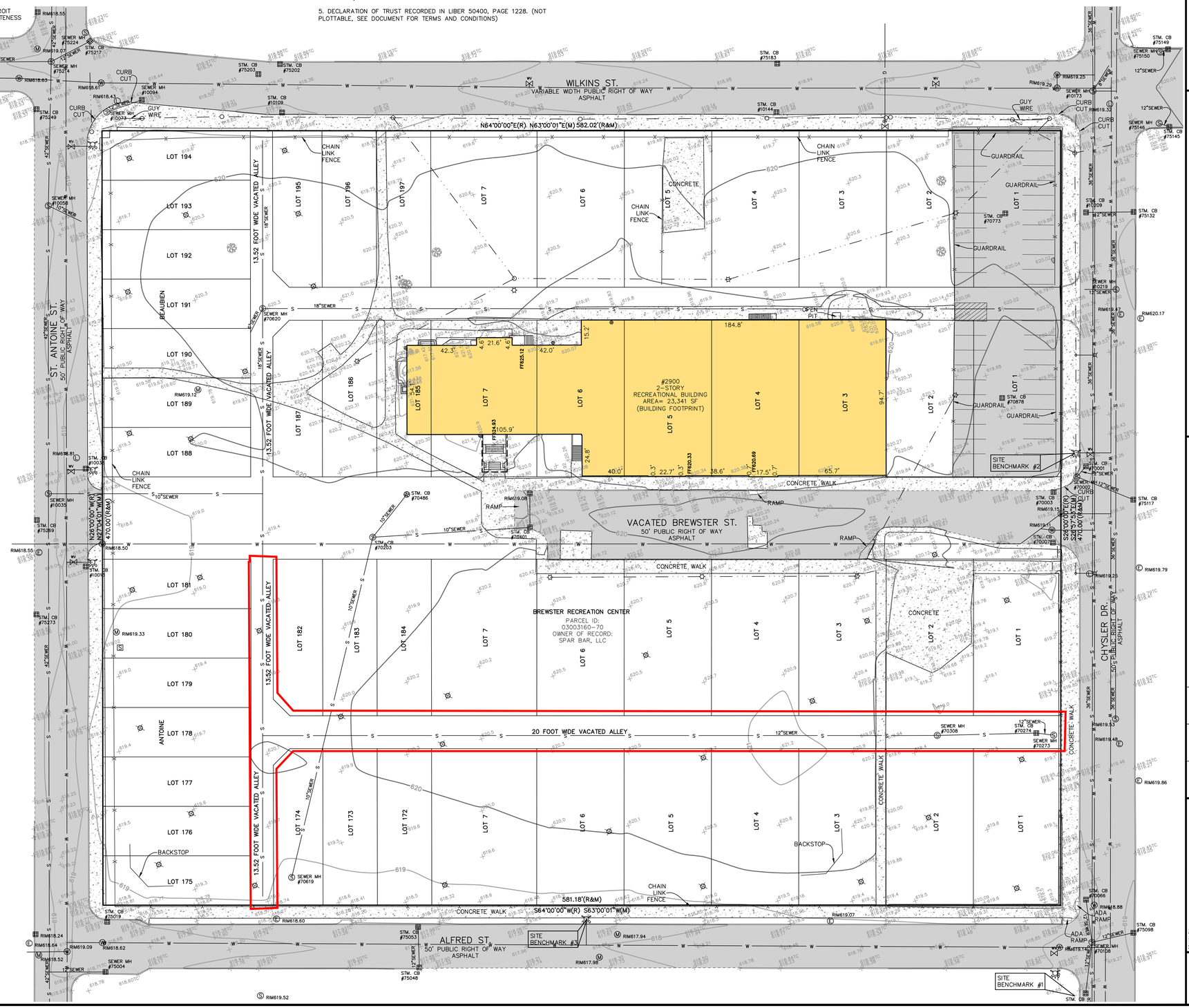
THE LAND SITUATED IN THE COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

LOTS 172 THROUGH 197 OF THE CRANE & WESSONS SUBDIVISION, AS RECORDED IN LIBER 1, PAGE 9 OF PLATS, WAYNE COUNTY RECORDS, ALSO NORTH ALFRED LOTS 1 THROUGH 7, SOUTH BREWSTER LOTS 1 THROUGH 7, NORTH BREWSTER LOTS 1 THROUGH 7, SOUTH WILKINS LOTS 1 THROUGH 7 AND VACATED BREWSTER AND ALLEY'S ADJACENT C. MORAN FARM SUBDIVISION, AS RECORDED IN LIBER 1 PAGE 254 OF PLATS WAYNE COUNTY RECORDS.

ADDRESS: 2900 S. ANTOINE STREET

NORTH

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.



SURVEYOR'S CERTIFICATION

TO CINNAIRE TITLE SERVICES, LLC; AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B, 8, 9, 10A, 11A, 11B, 13, 16, 17, 19, AND 20 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 04/20/23.

DATE OF PLAT OR MAP: 04/28/23

DRAFT

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemtec-survey.com

KEM-TEC
PROFESSIONAL ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES
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ALTA / NSPS LAND TITLE SURVEY

PREPARED FOR: MHT HOUSING, INC.
2900 ST. ANTOINE STREET, DETROIT, MICHIGAN,

REVISION	DATE	BY	DESCRIPTION

DRAWN BY:	JDM	04/28/23
CHECKED BY:	ATS	04/28/23
DATE:	APRIL 28, 2023	
PROJECT NO.	23-00677	SCALE: 1" = 30'

1

1 OF 1 SHEETS


Brewster
Alfred
Saint Antoine
SI-75 Service Drive
SI-75 Service Drive
SI-75 Service Drive
NI-75 Service Drive
SI-75
NI-75
SI-375
S Connector-8/NI-7
SI-75
SI-375
NI-75
POWERED BY
esri

contract for the construction of Lateral Sewer 6921 in Right-of-Way West of Schaefer South of Fullerton, Contract PW-2175, with Mole Construction Company, in the amount of $8,274.00, and be it further

Resolved, That the Controller be and he is hereby authorized and directed to honor vouchers when presented, the vouchers to include the cost of advertising, inspection, and minor contingencies, as well as the Contract costs and charge them to Account 925-2383-923.

Adopted as follows:

Yeas — Councilmen Beck, Connor, Lincoln, Rogell, Smith, Van Antwerp, Wise, Youngblood, and President Miriani—9.

Nays—None.

Department of Public Works

September 25, 1956.

Honorable Common Council:

Gentlemen—On July 24, 1956, JCC Page 1540, your Honorable Body authorized the sale of $3,350,000 Motor Vehicle Highway Fund Bonds to provide funds for the Street Betterment program of the Department of Public Works.

The Municipal Finance Commission of the State of Michigan approved the issuance of these bonds under date of September 18, 1956, and bids for the purchase will be opened on October 2, 1956.

Pending the printing and delivery of these bonds and availability of funds from the sale thereof—funds will be needed to make payments to contractors for work done under the Street Betterment program.

It is therefor requested that your Honorable Body authorize the City Controller to advance the sum of $1,000,000.00 from 4th Quarter allotment of Account 144-2421-121 to Fund 952 for this purpose, which sum will be repaid when funds are available from sale of the Motor Vehicle Highway Fund Bonds.

Respectfully submitted,
GLENN C. RICHARDS,
Commissioner.

Approved:
E. P. RIEHL, Deputy Controller.

By Councilman Wise:

Whereas, it appears that within the Public Works Sanitation Fund, certain moneys are not at this time necessary or required for the purposes specified, and further that said moneys will not be required for the service or fund specified until June, 1957, and is therefore available for loan to the Motor Vehicle Highway Bond Fund (1956) and

Whereas, Said Public Works—Sanitation Fund shall hereafter be reimbursed, should said moneys be necessary or essential to meet the requirements of said fund prior to June, 1957. Now, therefore, be it

Resolved, That the sum of $1,000,000.00 be temporarily loaned from Public Works 144-2421-121, Wages, to 952 Motor Vehicle Highway Bond Fund (1956) in order to pay current expenditures of the re-surfacing program, which loan will be repaid from proceeds of bond sale authorized July 24, 1956, J.C.C. 1504-1545; and be it further

Resolved, That the City Controller and the City Treasurer be and they are hereby authorized and directed to effect the necessary transfer to carry out the intent of this resolution.

Approved:
P. T. DWYER, Corp. Counsel.

Adopted as follows:

Yeas — Councilmen Beck, Connor, Lincoln, Rogell, Smith, Van Antwerp, Wise, Youngblood, and President Miriani—9.

Nays—None.

Department of Public Works

September 19, 1956.

Honorable Common Council:

Gentlemen—We are returning herewith the petition of the Department of Parks and Recreation requesting the vacation of Brewster Avenue, east of St. Antoine Avenue, and the vacation of certain alleys north and south of Brewster Avenue, east of St. Antoine Avenue. The request was approved by the City Plan Commission and the petition was then referred to this office by your Committee of the Whole for investigation and report.

Our investigations are completed and they disclose that several City Departments are affected by the vacation of said street and alleys.

An easement is reserved in the vacating resolution for the Department of Water Supply for the maintenance of its water main located in Brewster Avenue.

On May 11, 1956, the petitioners issued an interdepartmental purchase order No. 2352, in the amount of $4,000.00 in favor of the Public Lighting Commission to cover the costs of relocating P.L.C. facilities necessitated by the vacation of said street and alleys.

The petitioners on August 2, 1956, issued an interdepartmental purchase order No. B-2650, in the amount of $800.00 in favor of the Detroit Fire Department to cover the cost of relocating two fire hydrants located in the portion of Brewster Avenue to be vacated.

The petitioners have requested that the paved returns at the entrance of the street and alleys to be vacated remain in their present status as the petitioner plans to utilize same, and has agreed to pay all costs incidental to the removal of said returns at such time in the future as the removal becomes necessary. This meets with the approval of the Department of Public Works.

A proper provision is incorporated

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Resolved, That the City Controller and the City Treasurer be and they are hereby authorized and directed to effect the necessary transfer to carry out the intent of this resolution.

Approved:

P. T. DWYER, Corp. Counsel.

Adopted as follows:

Yeas — Councilmen Beck, Connor, Lincoln, Rogell, Smith, Van Antwerp, Wise, Youngblood, and President Miriani—9.

Nays—None.

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A proper provision is incorporated

into the vacating resolution protecting the City's interests in the sewers located in the alleys to be vacated.

All other City Departments and privately owned utility companies reported that they will be unaffected by the vacation of said street and alleys.

As the vacation of the street and alleys is necessary for the proper utilization of the recreational site, we recommend the adoption of the attached resolution.

Respectfully submitted,
GLENN C. RICHARDS,
Commissioner.

By Councilman Wise:

Resolved, That all that part of Brewster Avenue 50 feet wide east of St. Antoine Avenue, as platted in the Plat of the Subdivision of Charles Moran Farm, between Gratiot and Indiana Streets, City of Detroit, as recorded in Liber 1, Page 254 of Plats, Wayne County Records, and the Plat of Crane and Wesson's Section of the Antoine Beaubien Farm, north of Elizabeth Street, City of Detroit, Wayne County, Michigan, as recorded in Liber 1, Page 9 of Plats, Wayne County Records, lying north of and adjoining the north line of lots 181 to 184 both inclusive, north of and adjoining the north line of the north-south alley 13.52 feet wide lying between lots 181 and 182, south of and adjoining the south line of lots 185 to 188 both inclusive, and south of and adjoining the south line of the north-south public alley 13.52 feet wide lying between lots 187 and 188 of the last mentioned subdivision, lying south of and adjoining the south line of lots 3 to 7 both inclusive, said lots lying on the north side of Brewster Avenue, and north of and adjoining the north line of lots 3 to 7 both inclusive, said lots lying on the south side of Brewster Avenue, of the above mentioned Plat of the Subdivision of Charles Moran Farm.

Also all of the north-south public alley 13.52 feet wide, east of St. Antoine Avenue, between Brewster and Alfred Streets, as platted in said Plat of Crane and Wesson's Section of the Antoine Beaubien Farm, as recorded in Liber 1, Page 9 of Plats, Wayne County Records, lying east of and adjoining the east line of lots 175 to 181 both inclusive, west of and adjoining the west line of lots 174 and 182, and west of and adjoining the west line of the east-west public alley lying between lot 174 and 182 of the last mentioned subdivision.

Also all of the east-west public alley 20 feet wide east of St. Antoine Avenue, between Brewster and Alfred Avenues, as platted in said Plat of the Subdivision of the Charles Moran Farm, as recorded in Liber 1, Page 254 of Plats, Wayne County Records, and said Plat of Crane and Wesson's Section of the Antoine Beaubien Farm, as recorded in Liber 1, Page 9 of Plats, Wayne County Records, lying north of and adjoining the north line of lots 172, 173, and 174, and south of and adjoining the south line of lots 182, 183, and 184 of the last mentioned subdivision, lying south of and adjoining the south line of lot 7, south of and adjoining the south line of the west 30 feet of lot 6 on the south side of Brewster Avenue, north of and adjoining the north line of lot 7, and north of and adjoining the north line of the west 30 feet of lot 6 on the north side of Alfred Avenue of the above mentioned Plat of the Subdivision of the Charles Moran Farm. Also also all of the alley turn around set aside by the Common Council of the City of Detroit on June 13, 1922, being the south 5 feet of the west 30 feet of lot 6 on the south side of Brewster Avenue, and the north 5 feet of the west 30 feet of lot 6 on the north side of Alfred Avenue, as platted in said Plat of the Subdivision of the Charles Moran Farm, as recorded in Liber 1, Page 254 of Plats, Wayne County Records.

Also all of the east-west public alley 20 feet wide in the block bounded by St. Antoine, Hastings, Wilkins, and Brewster Avenues, as platted in said Plat of Subdivision of the Charles Moran Farm, as recorded in Liber 1, Page 254 of Plats, Wayne County Records and the Plat of Crane and Wesson's Section of the Antoine Beaubien Farm, as recorded in Liber 1, Page 9 of Plats, Wayne County Records lying south of and adjoining the south line of lot 197, south of and adjoining the south line of the east 20 feet of lot 196, north of and adjoining the north line of 185, and north of and adjoining the north line of the east 20 feet of lot 186 of the last mentioned subdivision, south of and adjoining the south line of lot 1 to 7 both inclusive on the south side of Wilkins Avenue, and north of and adjoining the north line of lots 1 to 7 both inclusive on the north side of Brewster Avenue of the above mentioned Plat of the Subdivision of the Charles Moran Farm.

Also all of the north-south public alley 20 feet wide east of St. Antoine Avenue, north of Brewster Avenue, said alley being conveyed to the City of Detroit by the United States on June 2, 1936, J.C.C. Pages 1360, 1361, and 1362, which alley is in fact the east 20 feet of lot 186 of said Plat of Crane and Wesson's Section of the Antoine Beaubien Farm, as recorded in Liber 1, Page 9 of Plats, Wayne County Records.

Be and the same are hereby vacated as a public street and alleys to become a part and parcel of the adjoining property, subject to the following provision:

1. Provided, that by reason of the vacation of the above described street, the City of Detroit does not waive

any right to the sewers located therein and at all times shall have the right to enter upon the premises, if found necessary, on account of said sewers to repair, alter, or service same; and further

2. Provided, that if a building is to be constructed over said sewers, the sewers shall be replaced with cast iron pipe of the same size, re-routed or encased in 6 inches of Class A concrete, or in lieu of the above, such work shall be done as will be specified by the City Engineer, all of the work mentioned to be done under the supervision and inspection of the Department of Public Works and all costs entailed to be borne by the petitioners, their successors, or assigns; and further

3. Provided, That no buildings shall be constructed over said sewers without the prior approval of such building construction by the City Engineer and the Department of Buildings and Safety Engineering; and further

4. Provided, In the event that the sewers located in said street, if built upon, shall break causing damage to any construction above, the petitioners and its assigns, by acceptance of the permit for building over said sewers, waive all claims for damages to such construction and agree to pay all costs incident to the repair of such broken sewer.

5. An easement or right-of-way is hereby reserved in and over vacated Brewster Avenue, for the purpose of maintaining, repairing, removing, or replacing the 8 inch water main located in said street;

6. No buildings, structures, or obstacles of any nature shall be constructed or placed upon the easement or any part thereof, in order that the easement shall be accessible at all time to vehicles and equipment of this department;

7. The petitioner (Department of Parks and Recreation) shall assume full responsibility and shall release and shall assume the defense of and indemnify and save harmless the Board of Water Commissioners from any and all claims for damages which may occur as a result of the existence of, or the failure of the 8 inch water main, or from the acts of this department or its agents in inspecting, maintaining, operating, repairing or replacing the water main or its appurtenances.

8. It shall be understood that the petitioner will assume all respnsibility for and expense of restoring any pavement, lawn, shrubbery, or other improvement, located in the easement, which may be damaged by this department or its agents in pursuance of its rights under the provisions of the easement.

Adopted as follows:

Yeas — Councilmen Beck, Connor, Lincoln, Rogell, Smith, Van Antwerp, Wise, Youngblood, and President Miriani—9.

Nays—None.

Department of Public Works

September 26, 1956.

Honorable Common Council:

Gentlemen—We are returning herewith Petitions Nos. 10565 and 10566 of the S. Weissman Excavating Company, Incorporated, to force pave Keeler from Dale to the westerly City limits, and to force pave Midland from Dale to the westerly City limits.

An investigation has been made on the ground and it is found that these two streets are direct connecting links between Telegraph Road and Dale Avenue, one block to the east which is a light manufacturing area. Since the Wayne County Road Commission is going to pave the half block between the City limits and Telegraph Road we believe that it would be desirable for the City to pave the other half block easterly of the City limits extending to Dale which latter street is now paved. Although this is a side street, it is zoned entirely for business and the abutting property will bear the entire expense of the assessed portion.

The following resolution is offered for your consideration if it meets with your approval.

Respectfully submitted,

GLENN C. RICHARDS,
Commissioner.

By Councilman Wise:

Resolved, That the paving of Midland Avenue from Dale Avenue to the westerly City limits and the paving of Keeler Avenue from Dale Avenue to the westerly City limits be and are hereby declared to be a necessity; and that the Commissioner of Public Works be and is hereby authorized and directed to enter into contracts for the paving of said streets under the Force Paving Clause of the City Charter, the cost of the improvement to be assessed to the abutting property in accordance with the benefits derived.

Adopted as follows:

Yeas — Councilmen Beck, Connor, Lincoln, Rogell, Smith, Van Antwerp, Wise, Youngblood, and President Miriani—9.

Nays—None.

Department of Public Works

September 28, 1956.

Honorable Common Council:

Gentlemen—In answer to your request for information, we are submitting herewith a "Report on the Effect of Accepting Sanitary Sewage from Outside of the City on the Detroit Sewerage System."

We would be happy to supply any

1002-414, Rental of Buildings and Space.

Respectfully submitted,
STANLEY C. RICH,
Second Deputy Commissioner

Approved:
W. I. STECHER,
Controller

By Councilman Levin:

Resolved, That the Detroit Police Department be and is hereby authorized to lease antennae and radio equipment space at the Fisher Building at a cost not to exceed $137 per month in accordance with the foregoing communication; and be it further

Reolved, That the Controller be and is hereby authorized and directed to honor vouchers when presented and charge them to Account No. 118-1002-414, Rental of Buildings and Space, subject to confirmation of lease agreement by Common Council.

Adopted as follows:

Yeas — Councilmen Eberhard, Henderson, Hood, Levin, Wierzbicki, and President Ravitz — 6.

Nays — None.

Department of Police

November 13, 1972

Honorable Common Council:

Subject: Request permission to reimburse sergeant Joseph Brooks $38.00 for personal property loss.

Gentlemen — In accordance with Common Council Resolution of February 7, 1961, and the City Controller Directive No. 23, the Detroit Police Department requests permission to reimburse Sergeant Joseph Brooks $38,00 for personal property loss.

On August 4, 1972, while affecting the arrest of a defendant, Sergeant Brooks removed his prescription glasses and placed them in his inside jacket pocket just prior to taking action. During the foot chase, which resulted in an extortion arrest, the officer fell inside an apartment building losing his glasses. A search of the immediate area was to no avail.

Inasmuch as the officer was performing in the line of duty at the time of the incident, will you kindly authorize the department to reimburse Sergeant Joseph Brooks $38.00 to cover his loss.

Respectfully submitted,
STANLEY C. RICH,
Second Deputy Commissioner

Approved:
W. I. STECHER,
Controller

By Councilman Levin:

Resolved, That the Department of Police be and it is hereby authorized to pay the claim outlined in the above communication; and be it further

Resolved, That the Controller be and he is hereby authorized and directed to honor vouchers when presented in accordance with the foregoing communication.

Adopted as follows:

Yeas — Councilmen Eberhard, Henderson, Hood, Levin, Wierzbicki, and President Ravitz — 6.

Nays — None.

Department of Police

November 13, 1972

Honorable Common Council:

Subject: Request Permission to reimburse Patrolman Robert Mathis $90 for personal property loss.

Gentlemen — In accordance with Common Council Resolution of February 7, 1961, and the City Controller Directive No. 23, the Detroit Police Department requests permission to reimburse Patrolman Robert Mathis $90 for personal property loss.

On July 22, 1972 Patrolman Robert Mathis in company with his partner answered a radio run to assist another scout car. Upon arrival, the officers observed a large crowd gathering at the scene. Patrolman Mathis attempted to arrest one of the defendants, and at this time the defendant pulled the officer's Hamilton chromomatic wrist watch from his wrist and threw it into the crowd. A search was made but to no avail.

Inasmuch as the officer was performing police duties at the time of this incident, will you kindly authorize the department to reimburse Patrolman Robert Mathis $90 to cover his loss.

Respectfully submitted,
STANLEY C. RICH,
Second Deputy Commissioner

Approved:
W. I. STECHER,
Controller

By Councilman Levin:

Resolved, That the Department of Police be and it is hereby authorized to pay the claim outlined in the above communication; and be it further

Resolved, That the Controller be and he is hereby authorized and directed to honor vouchers when presented in accordance with the foregoing communication.

Adopted as follows:

Yeas — Councilmen Eberhard, Henderson, Hood, Levin, Wierzbicki, and President Ravitz — 6.

Nays — None.

Department of Public Works

November 15, 1972.

Honorable Common Council:

Re: Petition No. 2274; Department of Parks & Recreation; Vacation of Brewster Street west of the Chrysler Freeway and the east-west alley west of the Chrysler Freeway betwen Brewster and Alfred.

Gentlemen — The above petition requests the vacation of the above described street and alley. The requested vacations were recommended by the City Plan Commission. The petition was then referred to us for investigation and report. Our report, accompanied by the original petition, is as follows:

The petitioner has requested that the paved returns at the entrance to Brewster and the alley to be vacated remain in their present status as the petitioner plans to utilize same, and has agreed by letter filed with the original petition to pay all costs incidental to the removal of same whenever the discontinuance of use makes such removal necessary.

An easement is reserved in the vacating resolution for the Michigan Consolidated Gas Company and the Detroit Metro Water Department for the maintenance of their installations located in Brewster Avenue to be vacated.

All other involved City departments and privately-owned utility companies reported that they have no objection to the proposed vacations or that they have reached satisfactory agreements with the petitioner regarding their installations therein.

An appropriate resolution is attached for consideration by your Honorable Body.

Respectfully submitted,
CLARENCE C. RUSSELL
Commissioner

By Councilman Hood:

Resolved, That all that part of the east-west public alley, 20 and 30 feet wide, in the block bounded by St. Antoine, the Chrysler Freeway, Alfred, and Brewster as platted abutting the rear line of lots 1 and 2 and the easterly 30 feet of lot 3 located on the south side of Brewster Avenue and abutting the rear line of lots 1 and 2 and the easterly 30 feet of lot 3 located on the north side of Alfred Street; and being the southerly 5 feet of the easterly 30 feet of lot 3 located on the south side of Brewster and being the northerly 5 feet of the easterly 30 feet of lot 3 located on the north side of Alfred Street as set aside for alley purposes on June 13, 1922, all inclusive of the Plat of the Subdivision of the Charles Moran Farm between Gratiot and Indiana Streets, City of Detroit, Wayne County, Michigan, as recorded in Liber 1, Page 254, Plats, Wayne County records;

Be and the same is hereby vacated as a public alley to become a part and parcel of the abutting property, and further

Resolved, That all that part of Brewster Avenue, 50 feet wide, between St. Antoine and the Chrysler Freeway abutting the southerly line of lots 1 and 2 located on the north side of Brewster Avenue and abutting the northerly line of lots 1 and 2 located on the south side of Brewster Avenue as platted in the Plat of the Charles Moran Farm between Gratiot and Indiana Streets, as recorded in Liber 1, Page 254, Plats, Wayne County records,

Be and the same is hereby vacated as a public street and is hereby converted into an easement of the full width of the street for the Michigan Consolidated Gas Company and Detroit Metro Water Department, which easement shall be subject to the following convenant and agreement, uses, reservations and regulations, which shall be observed by the owners of the lots abutting on said street and by their heirs, executors, administrators and assigns, forever to wit:

Said owners hereby grant to and for the use of the Michigan Consolidated Gas Company and the Detroit Metro Water Department an easement or right of way over said vacated public street hereinabove described for the purposes of maintaining, installing, repairing, removing, or replacing public utilities such as water mains, gas lines or mains, or things usually placed or installed in a public street in the City of Detroit, with the right to ingress and egress at any time to and over said easement for the purpose above set forth.

Adopted as follows:

Yeas — Councilmen Eberhard, Henderson, Hood, Levin, Wierzbicki, and President Ravitz — 6.

Nays — None.

Department of Public Works

November 8, 1972.

Honorable Common Council:

Re: Demolition of Buildings; Group CO 72-4; Contract PW-6230C; Award of Contract.

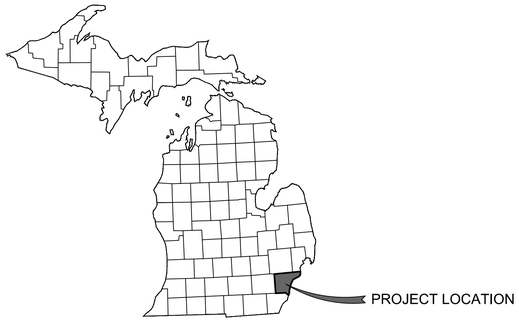
Gentlemen — In response to published advertisements, six bids were received on October 31, 1972 for Contract PW-6230C, Demolition of City-Owned Buildings at the locations listed below.

2505 St. Jean
11235-45 E. Vernor.
12800 14th Street.
4326 W. Warren.

Tabulation of the bids received is attached.

The low bid is regular in all respects and in accordance with the Contract requirements.

It is therefore recommended that the Contract be awarded to the Chick Reed Demolition & Ecavating Co. in the amount of $5,124.00. It is estimated that $6,525.00 will be required, which includes the cost of design, advertising, field inspection, and minor changes in addition to the Contract price. An appropriation is



VICINITY MAP

BREWSTER WHEELER I LDHA, LLC
BREWSTER WHEELER II LDHA, LLC
BREWSTER WHEELER III LDHA, LLC
NEW HOUSING
631,651,671 ALFRED STREET
WAYNE COUNTY, MICHIGAN 48201

INDEX OF SHEETS

Property Address:
2900 St. Antoine Street
City of Detroit, Michigan 48201

Parcel Number:
0300316070

Property Description:

THE LAND SITUATED IN THE COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

LOTS 172 THROUGH 197 OF THE CRANE & WESSONS SUBDIVISION, AS RECORDED IN LIBER 1, PAGE 9 OF PLATS, WAYNE COUNTY RECORDS, ALSO NORTH ALFRED LOTS 1 THROUGH 7, SOUTH BREWSTER LOTS 1 THROUGH 7, NORTH BREWSTER LOTS 1 THROUGH 7, SOUTH WILKINS LOTS 1 THROUGH 7 AND VACATED BREWSTER AND ALLEYS ADJACENT C. MORAN FARM SUBDIVISION, AS RECORDED IN LIBER 1 PAGE 254 OF PLATS WAYNE COUNTY RECORDS.

Property Zoning:
PD - Planned Development District / Brush Park FBC

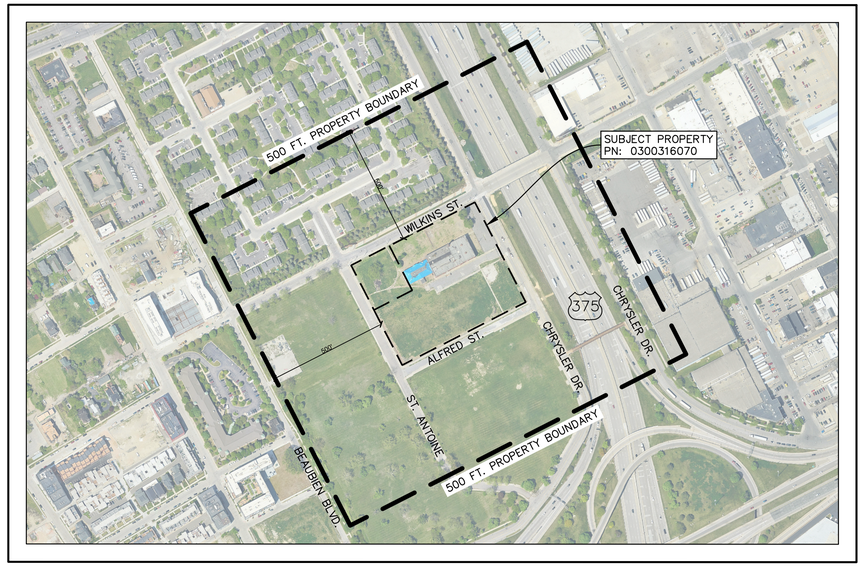
Setbacks:

Front: 10 ft. min., 20 ft. max.

Side: 5 ft.

Rear: 20 ft.

Maximum Allowable
Building Height: xx ft.



NEIGHBORHOOD MAP

NORTH

0 300 600
SCALE IN FEET

OWNER

BREWSTER WHEELER I LDHA, LLC
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
PHONE: 248-833-0552

BREWSTER WHEELER II LDHA, LLC
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
PHONE: 248-833-0552

BREWSTER WHEELER III LDHA, LLC
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
PHONE: 248-833-0552

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

For protection of underground utilities, the CONTRACTOR shall dial 1-800-482-7171 OR 811 a minimum of three working days, excluding Saturdays, Sundays and holidays, prior to excavation in the vicinity of utility lines. All "MISS DIG" participating members will thus be routinely notified. This does not relieve the CONTRACTOR of the responsibility of notifying the utility owners who may not be part of the "MISS DIG" alert system.

BM "X"

BENCH MARKS:

BM 1 NAIL IN NORTH SIDE OF POWER POLE AT THE SOUTHWEST CORNER OF ALFRED STREET AND CHRYSLER DRIVE.
Elevation: 619.92 ft. (NAVD 88)

BM 2 ARROW ON HYDRANT NORTHWEST OF VEHICULAR APPROACH TO SITE.
Elevation: 622.09 ft. (NAVD 88)

BM 3 ARROW ON HYDRANT AT SOUTH CENTER OF PROPERTY NORTH OF ALFRED STREET.
Elevation: 621.87 ft. (NAVD 88)

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MICHIGAN
BRUCE A. CALLEN
No. 34172
LICENSED PROFESSIONAL ENGINEER

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

DATE OF PLAN: 08-01-25

ISSUANCES

90% CD'S	11-22-24
BUILDING PERMIT	12-06-24
SITE PLAN REVIEW RESPONSE #1	03-31-25
SITE PLAN REVIEW RESPONSE #2	08-01-25

REVISIONS

DESIGNED BY:

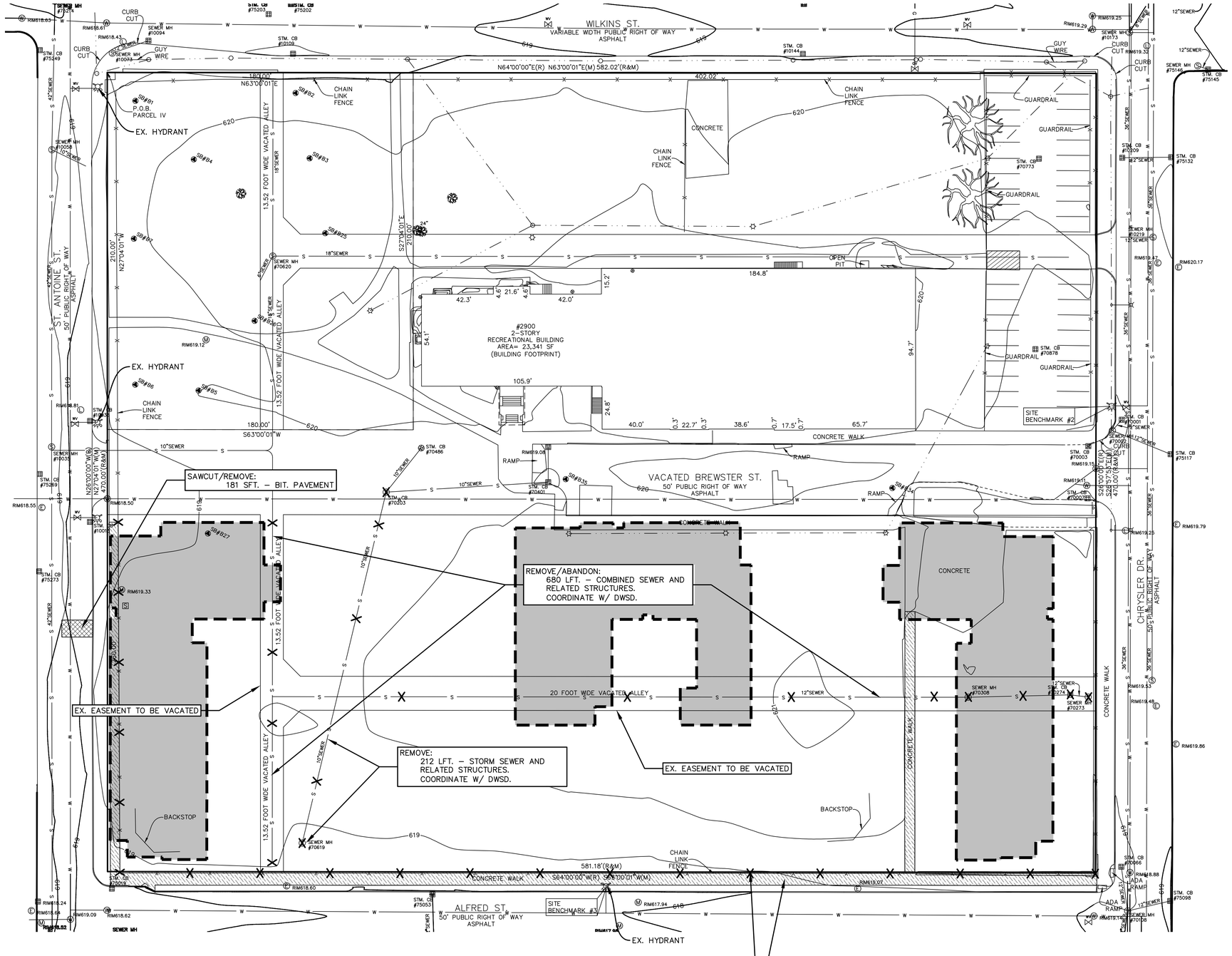
callen civil engineers

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

Drawn by J.W.C.
Engineer B.A.C. Check A.J.B.

Callen Engineering Project No.
023 - BREWSTER - PHASE 1-3

Sheet No.
CS



PUBLIC UTILITY REMOVALS QUANTITIES THIS SHEET			
ITEM DESCRIPTION	UNIT	QUANTITY	FINAL QUANTITY
COMBINED SEWER	LFT	680	
8 INCH STORM SEWER	LFT	212	
COMBINED SEWER STRUCTURE	EA	3	
STORM STRUCTURE	EA	2	

DEMOLITION NOTES

ALL MATERIAL THAT IS NOT SUITABLE AS BACKFILL AND MATERIALS THAT ARE EXCESS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL. LOCAL, STATE, AND FEDERAL REGULATIONS.

ALL AREAS OF UNDERGROUND DEMOLITION; UTILITY LINE REMOVAL; AND UNDERGROUND TREE, STUMP, AND VEGETATION REMOVAL SHALL BE BACKFILLED.

BACKFILLING SHALL PROMPTLY FOLLOW UNDERGROUND DEMOLITION OR REMOVAL WORK AND SHALL CONTINUE AS THE DEMOLITION PROGRESSES.

CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY DEMOLITION PERMITS AND PAYING FOR ANY ASSOCIATED PERMIT FEES.

NOTIFY ARCHITECT/ENGINEER OF ANY OTHER UNDERGROUND MATERIALS OR EQUIPMENT ENCOUNTERED DURING EXCAVATION NOT SPECIFICALLY NOTED ON THE DRAWING(S).

PRIVATE UTILITY REMOVAL - CONTRACTOR TO COORDINATE PRIVATE UTILITY (GAS, ELECTRIC, PHONE, CABLE, ETC.) REMOVAL WITH APPROPRIATE AUTHORITY. ALTHOUGH ALL PRIVATE UTILITY SERVICES MAY NOT BE SHOWN ON THIS DRAWING, CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SERVICE AS NECESSARY.

PUBLIC UTILITY REMOVAL - CONTRACTOR TO COORDINATE PUBLIC UTILITY (WATER, SEWER, STORM) REMOVAL WITH APPROPRIATE UTILITY COMPANY. ALTHOUGH ALL PUBLIC UTILITY SERVICES MAY NOT BE SHOWN ON THIS DRAWING, CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SERVICE AS NECESSARY.

WHERE CURBING OR PAVEMENT IS INDICATED TO BE REMOVED, IT SHALL BE SAWCUT FULL DEPTH. REMOVE TO THE NEAREST JOINT, IF THE JOINT IS WITHIN 3 FEET OF THE REMOVAL LINE. VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.

Property Address:
2900 St. Antoine Street
City of Detroit, Michigan 48201

Parcel Number:
0300316070

Property Description:

THE LAND SITUATED IN THE COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

LOTS 172 THROUGH 197 OF THE CRANE & WESSONS SUBDIVISION, AS RECORDED IN LIBER 1, PAGE 9 OF PLATS, WAYNE COUNTY RECORDS, ALSO NORTH ALFRED LOTS 1 THROUGH 7, SOUTH BREWSTER LOTS 1 THROUGH 7, NORTH BREWSTER LOTS 1 THROUGH 7, SOUTH WILKINS LOTS 1 THROUGH 7 AND VACATED BREWSTER AND ALLEYS ADJACENT C. MORAN FARM SUBDIVISION, AS RECORDED IN LIBER 1 PAGE 254 OF PLATS WAYNE COUNTY RECORDS.

Property Zoning:
PD - Planned Development District / Brush Park FBC

Setbacks:

Front: 10 ft. min., 20 ft. max.

Side: 5 ft.

Rear: 20 ft.

Maximum Allowable
Building Height: xx ft.

REMOVALS LEGEND

- PROPOSED BUILDING FOOTPRINT
- PAVEMENT REMOVAL AREA
- CONCRETE REMOVAL AREA
- X REMOVAL ITEM

PRELIMINARY - NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

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Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

NO.	ISSUANCE / REVISION	BY	DATE
1.	90% CD'S	B.A.C.	11-22-24
2.	BUILDING PERMIT	B.A.C.	12-06-24
3.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
4.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	06-01-25
5.			

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

EXISTING CONDITIONS & REMOVALS PLAN

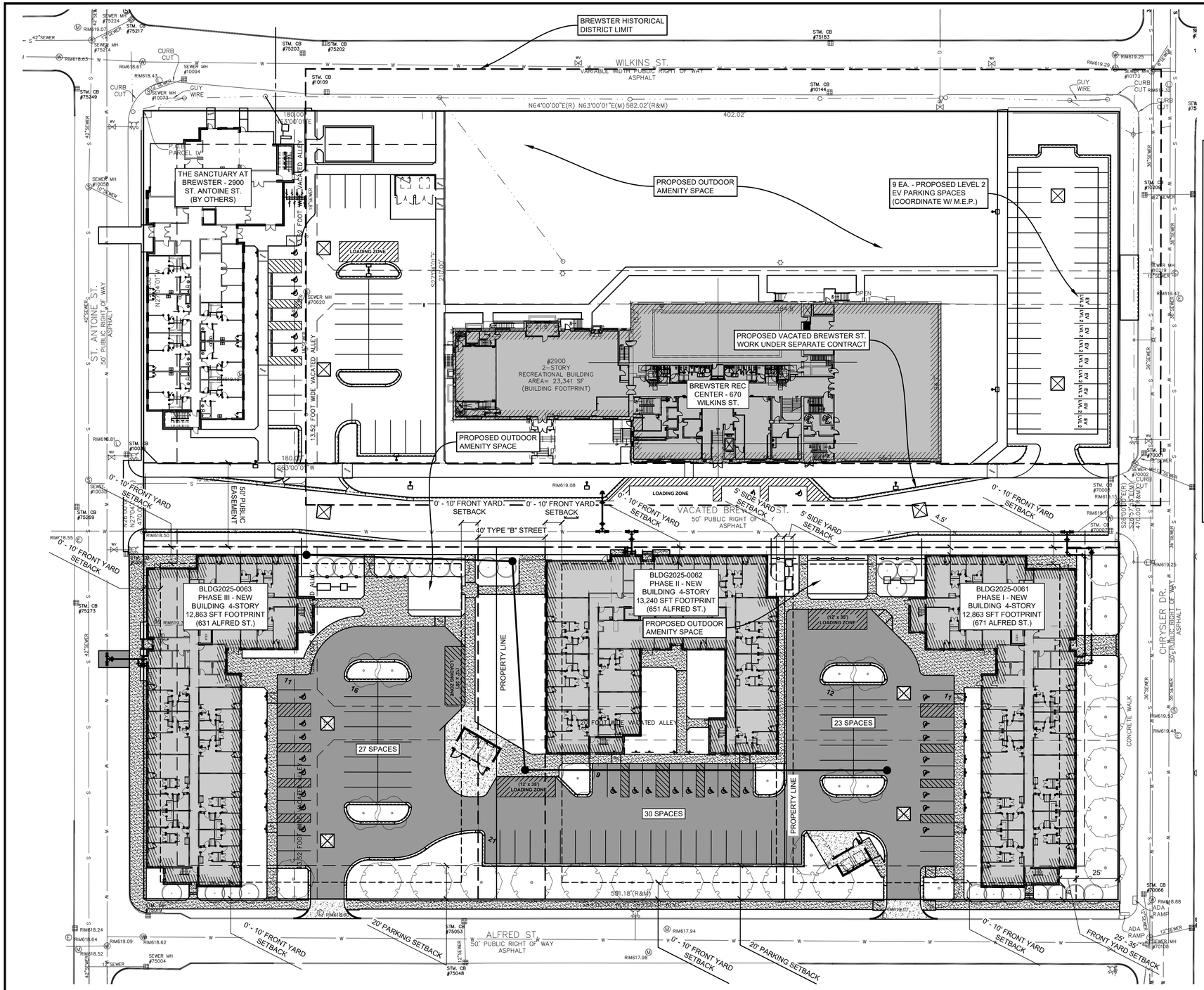
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C0.1



GENERAL NOTES

1. PROJECT INCLUDES CONSTRUCTION OF THREE (3) NEW FOUR (4) STORY RESIDENTIAL BUILDINGS WITH 159 TOTAL RESIDENTIAL UNITS. RELATED IMPROVEMENTS INCLUDE PARKING, LANDSCAPING, SIGNAGE, LIGHTING, UTILITIES, AND STORM WATER DRAINAGE FACILITIES.
2. THE DEVELOPMENT SHALL BE SERVED BY PUBLIC WATER MAIN AND PUBLIC SANITARY SEWER.
3. ACCESS TO THE DEVELOPMENT SHALL BE VIA. TWO (2) PROP. CURBCUTS ONTO ALFRED ST.
4. ALL WORK IN THE CITY RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH CITY OF DETROIT DPW STANDARDS.
5. STORM WATER SHALL BE DETAINED ON SITE, MEETING THE REQUIREMENTS OF THE CITY OF DETROIT GUIDELINES FOR STORM WATER MANAGEMENT.
6. PARKING AND DRIVE AREAS SHALL BE PAVED WITH BITUMINOUS AND CONCRETE PAVEMENTS.
7. PARKING:
   MULTI-FAMILY DWELLING:
   REQUIRED: 0.75 PARKING SPACES PER DWELLING UNIT.

   DWELLING UNITS = 159 UNITS
   0.75 * 159 = 120 SPACES

   120 SPACES

   PROVIDED:

   TOTAL = 80 SPACES, INCLUDING TWENTY FOUR (24) BARRIER FREE SPACES.
8. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. PROPOSED SITE LIGHTING SHALL BE A COMBINATION OF PROPOSED WALL & POLE-MOUNTED FIXTURES, DIRECTED TO INHIBIT LIGHTING BEYOND PROPERTY LIMITS, MEETING THE REQUIREMENTS OF APPLICABLE SECTIONS OF THE CITY OF DETROIT ZONING ORDINANCE.
10. LANDSCAPING AND SCREENING SHALL MEET THE INTENT OF THE CITY OF DETROIT ZONING ORDINANCE.
11. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT DWSD STANDARD SPECIFICATIONS AND DETAILS.
12. ALL DAMAGED PUBLIC SIDEWALKS ADJACENT TO THE PROPERTY SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH DPW STANDARDS.

PROPOSED FEATURES LEGEND

- NEW LIGHT DUTY CONCRETE SIDEWALK AREA
- NEW HMA PAVEMENT AREA
- NEW 8" HEAVY DUTY CONCRETE PAVEMENT AREA

NORTH
0 30 60
SCALE IN FEET

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

STATE OF MICHIGAN BRUCE A. CALLEN 61047392 LICENSED PROFESSIONAL ENGINEER

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DATE OF PLAN: 06-23-25

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www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	SITE CO'S	B.A.C.	11-22-24
2.	BUILDING PERMIT	B.A.C.	12-06-24
3.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
4.	ADDENDUM #4	B.A.C.	06-23-25
6.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	

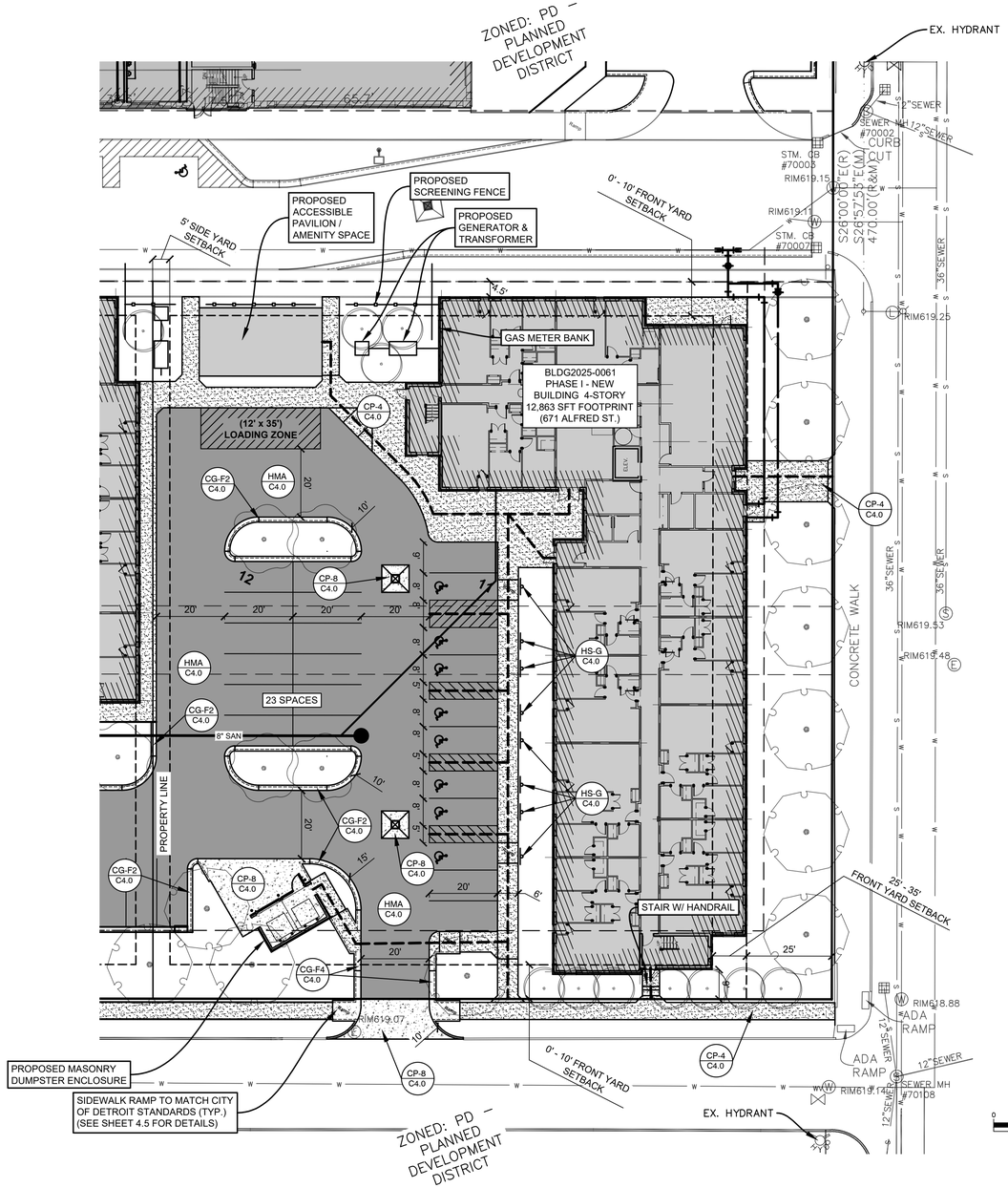
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

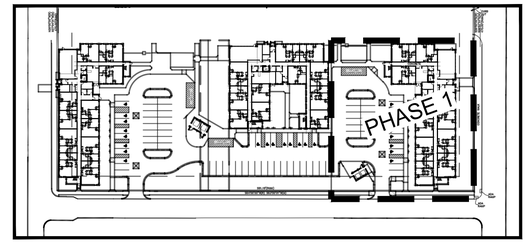
OVERALL SITE LAYOUT PLAN

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE JUN '25
SCALE	
DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C1.0





KEY MAP

PROPOSED FEATURES LEGEND

- NEW LIGHT DUTY CONCRETE SIDEWALK AREA
- NEW HMA PAVEMENT AREA
- NEW 8" HEAVY DUTY CONCRETE PAVEMENT AREA
- ACCESSIBLE ROUTE

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STATE OF MICHIGAN BRUCE A. CALLEN 21047392 LICENSED PROFESSIONAL ENGINEER

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:
Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

DATE OF PLAN: 08-01-25

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www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
4.	BUILDING PERMIT	B.A.C.	12-06-24
5.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
6.	ADDENDUM #4	B.A.C.	06-23-25
7.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

BREWSTER I LDHA, LLC
671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

PHASE 1 SITE LAYOUT PLAN

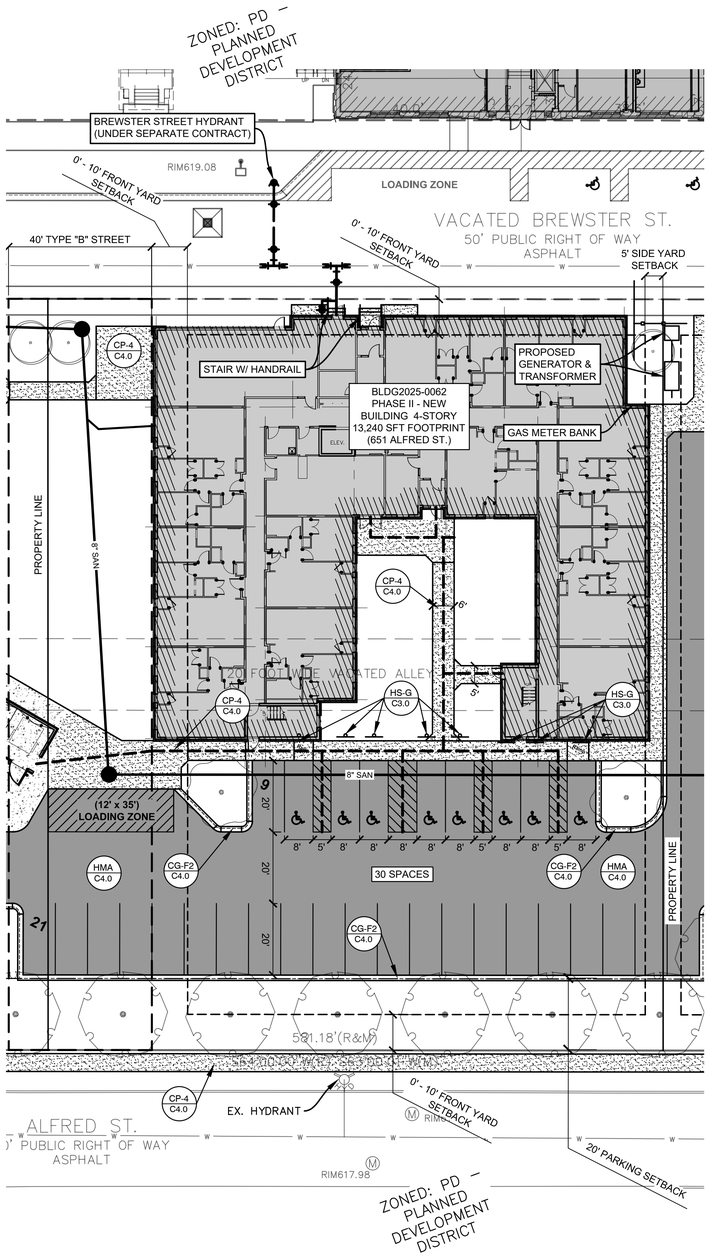
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

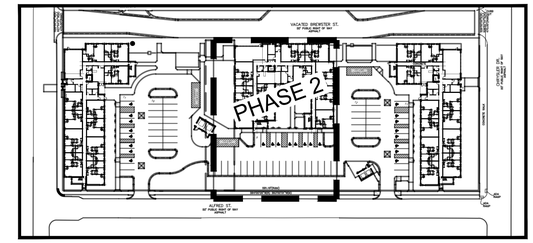
SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C1.1





KEY MAP

PROPOSED FEATURES LEGEND

- NEW LIGHT DUTY CONCRETE SIDEWALK AREA
- NEW HMA PAVEMENT AREA
- NEW 8" HEAVY DUTY CONCRETE PAVEMENT AREA
- ACCESSIBLE ROUTE

NORTH

0 20 40
SCALE IN FEET

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

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Callen Engineering, Inc.
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Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

STATE OF MICHIGAN BRUCE A. CALLEN LICENSED PROFESSIONAL ENGINEER 61047392

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DATE OF PLAN: 08-01-25

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www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
4.	BUILDING PERMIT	B.A.C.	12-06-24
5.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
6.	ADDENDUM #4	B.A.C.	06-23-25
7.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

BREWSTER II LDHA, LLC
651 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

PHASE 2 SITE LAYOUT PLAN

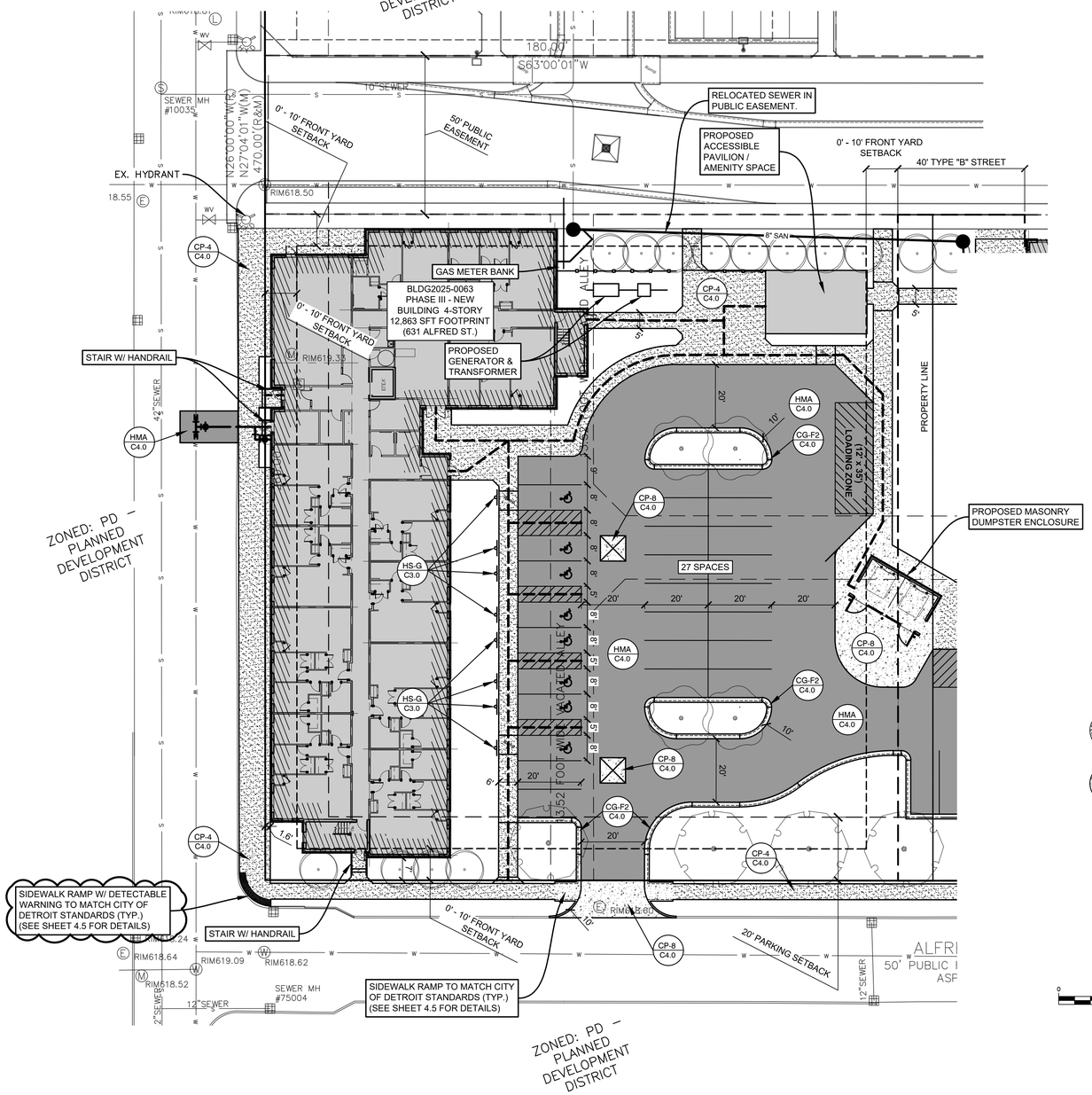
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

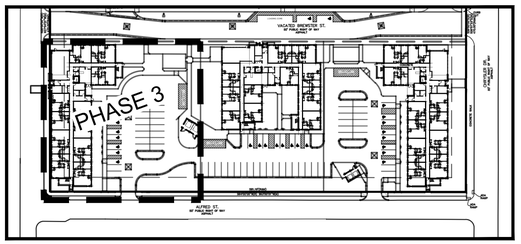
SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C1.2





KEY MAP

PROPOSED FEATURES LEGEND

- NEW LIGHT DUTY CONCRETE SIDEWALK AREA
- NEW HMA PAVEMENT AREA
- NEW 8" HEAVY DUTY CONCRETE PAVEMENT AREA
- ACCESSIBLE ROUTE

NORTH

0 20 40
SCALE IN FEET

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616–414–5260
email: bcallen@callenengineering.com

STATE OF MICHIGAN BRUCE A. CALLEN LICENSED PROFESSIONAL ENGINEER No. 1047392

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DATE OF PLAN: 08-01-25

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108 East Savidge Street
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www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
4.	BUILDING PERMIT	B.A.C.	12–06–24
5.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03–31–25
6.	ADDENDUM #4	B.A.C.	06–23–25
7.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08–01–25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

BREWSTER III LDHA, LLC
631 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

PHASE 3 SITE LAYOUT PLAN

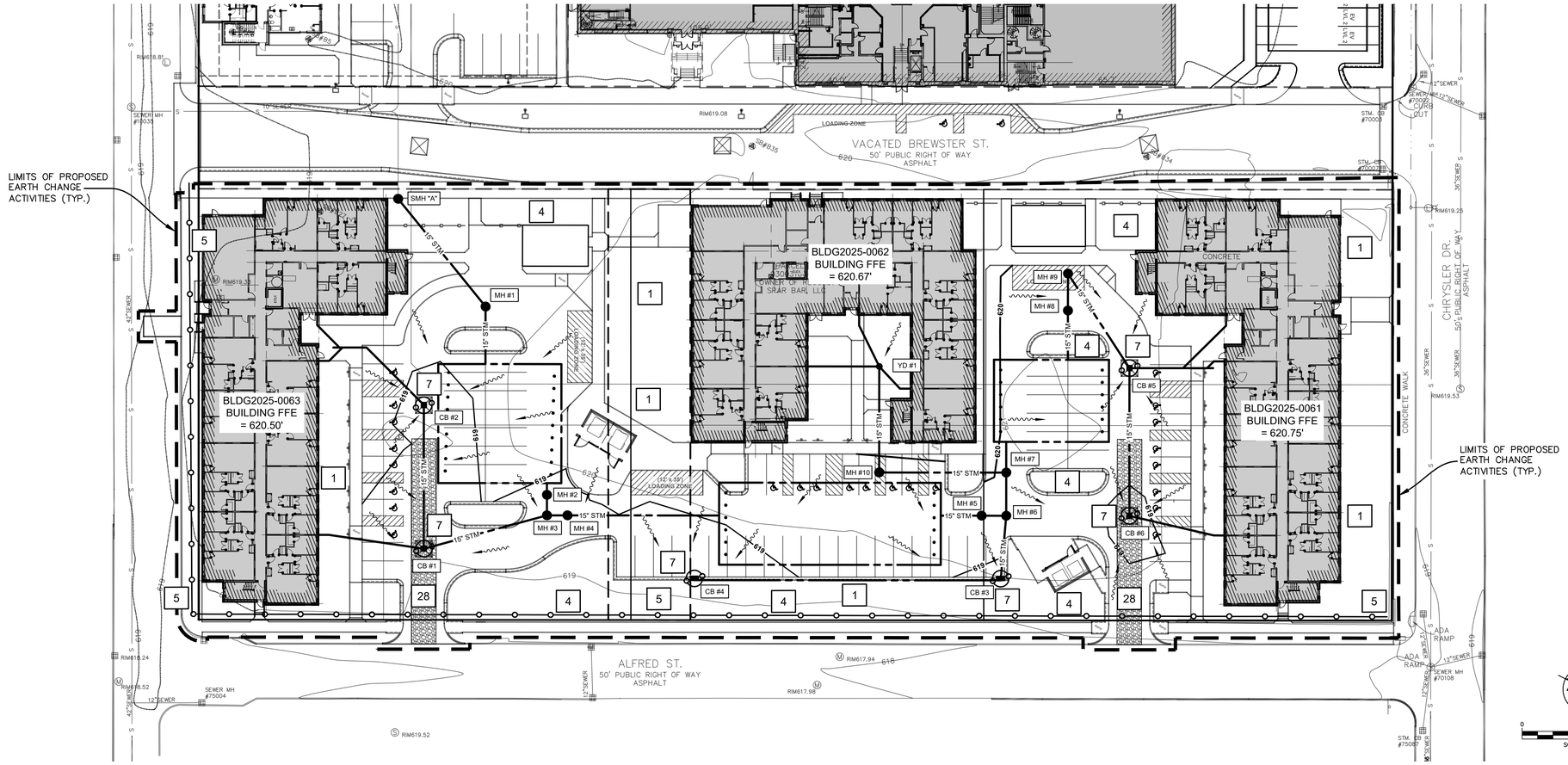
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C1.3



EROSION CONTROL MEASURES

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding		When bare soil is exposed, temporarily or permanently, to erosive forces from wind and or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces from wind or water.
4	Trees, Shrubs, Vines and Ground Cover		When bare soil or recently vegetated slopes are exposed to erosive forces from wind and/or water.
5	Perimeter Sediment Control Measures (Silt Fence, Straw Wattles, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected outlets.
7	Storm Drain Inlet Protection		Around the entrance to a catch basin or an inlet that will capture runoff from an earth change activity.
28	Stone Construction Access		At locations where construction equipment will enter and exit the drain easement and tracking of soil is anticipated.

*SESC MEASURES SHALL COMPLY WITH MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SESC MANUAL SPECIFICATIONS

SESC NOTES

TOTAL DISTURBED AREA: 133,002 SFT (3.05 ACRES)

ADDITIONAL EROSION CONTROL MEASURES NOT SHOWN ON THE SITE PLAN MAY BE NECESSARY AS SITE WORK PROGRESSES. PERMITTEE IS RESPONSIBLE FOR ALL MEASURES NECESSARY TO PREVENT OFFSITE SEDIMENTATION.

GEOTEXTILE SILT FENCE AND ALL CATCH BASIN PROTECTION MEASURES SHALL BE PROPERLY PLACED AS SHOWN ON PLANS AND AS NEEDED TO RETAIN SOILS ONSITE. PERIODIC MAINTENANCE AND INSPECTION OF SESC MEASURES IS REQUIRED FOR PROPER EFFECTIVENESS.

STABILIZE SITE AS SOON AS POSSIBLE.

CONSTRUCTION IS ANTICIPATED TO BEGIN APRIL 2025 WITH SUBSTANTIAL SITEWORK COMPLETION NO LATER THAN NOV 2025.

SILT FENCE

DRAINAGE FLOW DIRECTION

PRELIMINARY - NOT FOR CONSTRUCTION

BENCH MARKS:

BM 1 NAIL IN NORTH SIDE OF POWER POLE AT THE SOUTHWEST CORNER OF ALFRED STREET AND CHRYSLER DRIVE.
Elevation: 619.92 ft. (NAVD 88)

BM 2 ARROW ON HYDRANT NORTHWEST OF VEHICULAR APPROACH TO SITE.
Elevation: 622.09 ft. (NAVD 88)

BM 3 ARROW ON HYDRANT AT SOUTH CENTER OF PROPERTY NORTH OF ALFRED STREET.
Elevation: 621.87 ft. (NAVD 88)

CONSTRUCTION SEQUENCE / PHASES OF EARTHWORK	Operation Time Schedule												
	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
INSTALL SILT FENCE AND CONSTRUCTION ENTRANCE.	X												
STRIP TOPSOIL AND BEGIN GRADING.	X	X											
CONSTRUCT UNDERGROUND UTILITIES.		X	X	X									
CONSTRUCT BUILDINGS.		X	X	X	X	X	X						
CONSTRUCT FLATWORK AND PAVEMENT AREAS.		X	X	X				X	X				
FINE GRADE LAWN AREAS, LANDSCAPE, MULCH, IRRIGATE								X	X				
STABILIZE SITE (TOPSOIL, SEED AND MULCH)								X	X				
REMOVE TEMP SESC CONTROLS													X

SUBSURFACE CONDITIONS

Contractor(s) shall familiarize themselves with the information and findings presented in the Geotechnical Evaluation Report prepared by SME dated Apr. 28, 2023.
SME Project No. 092556.00

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

STATE OF MICHIGAN BRUCE A. CALLEN LICENSED PROFESSIONAL ENGINEER No. 47392

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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DATE OF PLAN: 08-01-25

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MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
2.	IFC	B.A.C.	11-22-24
3.	IFC CO'S	B.A.C.	12-06-24
4.	BUILDING PERMIT	B.A.C.	03-31-25
5.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	06-01-25
5.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

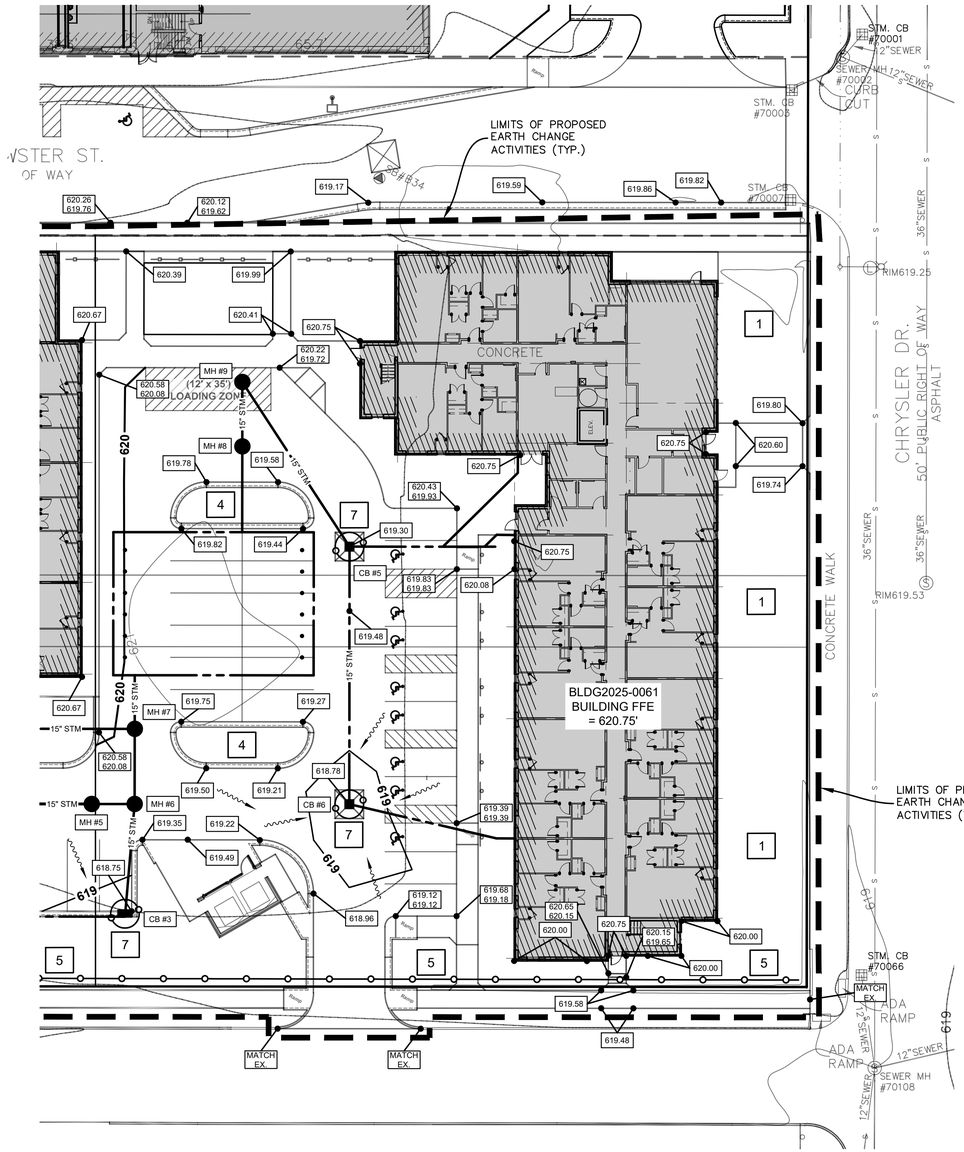
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

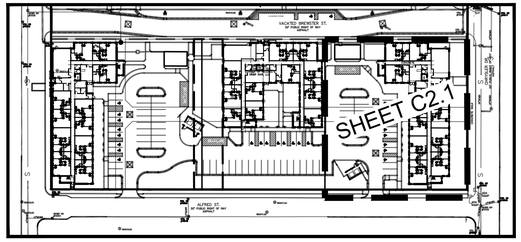
GRADING, DRAINAGE, AND SESC PLAN

DRAWN BY J.W.C.	DATE SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C2.0





KEY MAP

EROSION CONTROL MEASURES

KEY	SESC MEASURE	SYMBOL	WHERE USED
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28	Stone Construction Access		At locations where construction equipment will enter and exit the drain easement and tracking of soil is anticipated.

*SESC MEASURES SHALL COMPLY WITH MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SESC MANUAL SPECIFICATIONS

SILT FENCE | PROPOSED SPOT ELEVATION (XXX.XX) | DRAINAGE FLOW DIRECTION | EX. SPOT ELEVATION (XXX.XX)

BM "X"

BENCH MARKS:

BM 1 NAIL IN NORTH SIDE OF POWER POLE AT THE SOUTHWEST CORNER OF ALFRED STREET AND CHRYSLER DRIVE.
Elevation: 619.92 ft. (NAVD 88)

BM 2 ARROW ON HYDRANT NORTHWEST OF VEHICULAR APPROACH TO SITE.
Elevation: 622.09 ft. (NAVD 88)

BM 3 ARROW ON HYDRANT AT SOUTH CENTER OF PROPERTY NORTH OF ALFRED STREET.
Elevation: 621.87 ft. (NAVD 88)

SUBSURFACE CONDITIONS

Contractor(s) shall familiarize themselves with the information and findings presented in the Geotechnical Evaluation Report prepared by SME dated Apr. 28, 2023.
SME Project No. 092556.00

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

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MICHIGAN BRUCE A. CALLEN LICENSED PROFESSIONAL ENGINEER 61047392

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	90% CD'S	B.A.C.	11-22-24
2.	BUILDING PERMIT	B.A.C.	12-06-24
3.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
4.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

BREWSTER I LDHA, LLC
671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

GRADING, DRAINAGE, AND SESC PLAN

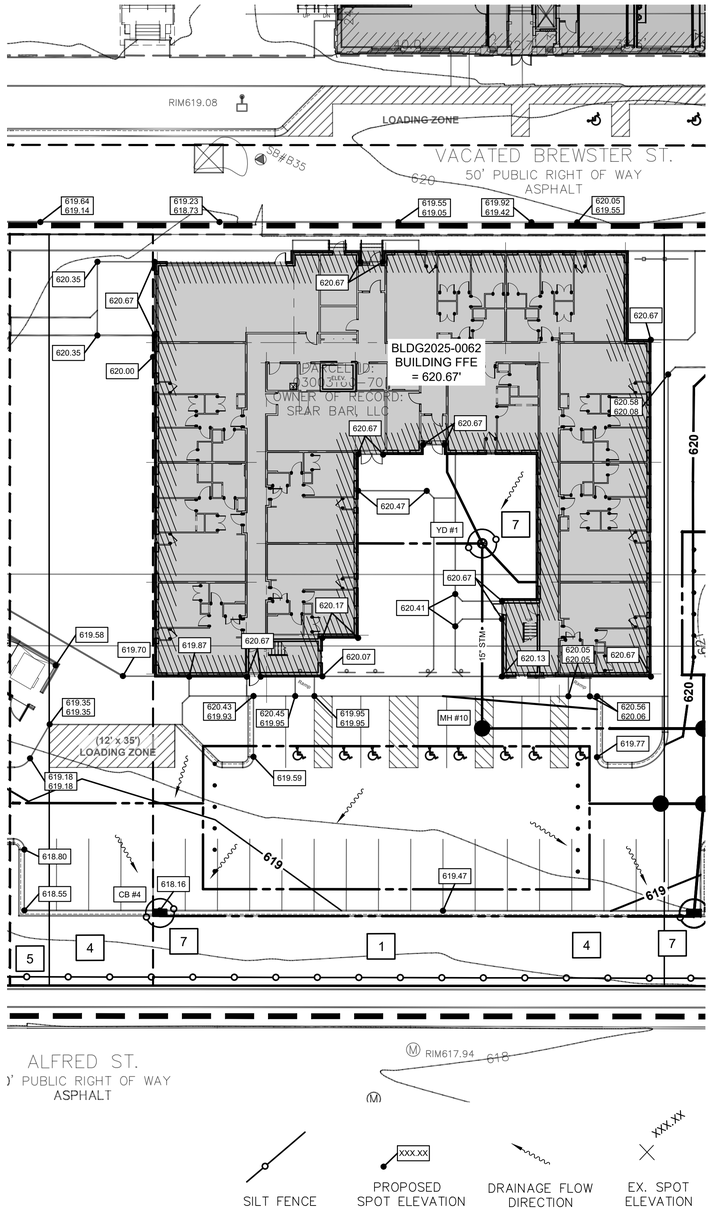
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

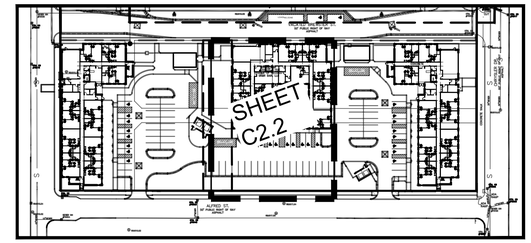
SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C2.1





KEY MAP

EROSION CONTROL MEASURES

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding		When bare soil is exposed, temporarily or permanently, to erosive forces from wind and or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces from wind or water.
4	Trees, Shrubs, Vines and Ground Cover		When bare soil or recently vegetated slopes are exposed to erosive forces from wind and/or water.
5	Perimeter Sediment Control Measures (Silt Fence, Straw Wattles, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected outlets.
7	Storm Drain Inlet Protection		Around the entrance to a catch basin or an inlet that will capture runoff from an earth change activity.
28	Stone Construction Access		At locations where construction equipment will enter and exit the drain easement and tracking of soil is anticipated.

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STATE OF MICHIGAN
BRUCE A. CALLEN
LICENSED PROFESSIONAL ENGINEER
No. 47047392

Plan Prepared By:
Bruce A. Callen, PE
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108 E. Savidge St.
Spring Lake, Michigan 49456
Tel: 616-414-5260
email: bcallen@callenengineering.com

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248-833-0552

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4	SITE PLAN REVIEW RESPONSE #2	B.A.C.	06-01-25
5	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	------

BREWSTER II LDHA, LLC
651 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

GRADING, DRAINAGE, AND SESC PLAN

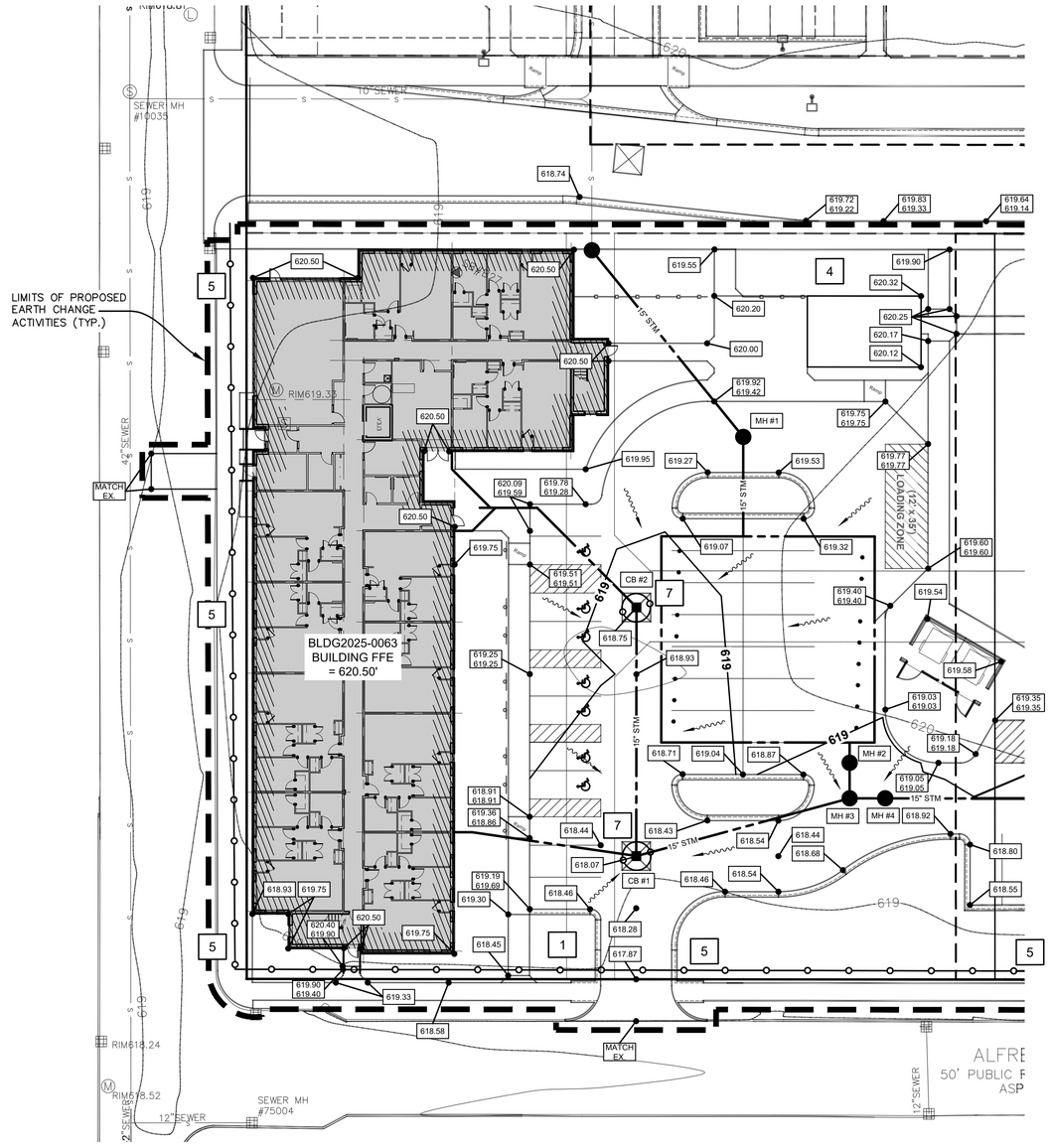
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

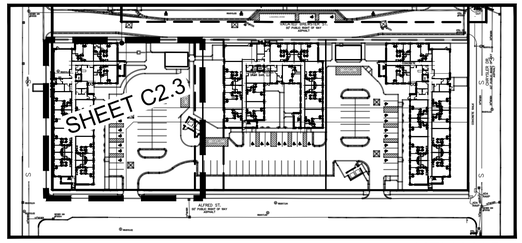
SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C2.2





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NORTH

0 20 40
SCALE IN FEET

SILT FENCE | PROPOSED SPOT ELEVATION (XXX.XX) | DRAINAGE FLOW DIRECTION | EX. SPOT ELEVATION (XXX.XX)

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Plan Prepared By:

Bruce A. Callen, PE
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108 E. Savidge St.
Spring Lake, Michigan 49456

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email: bcallen@callenengineering.com

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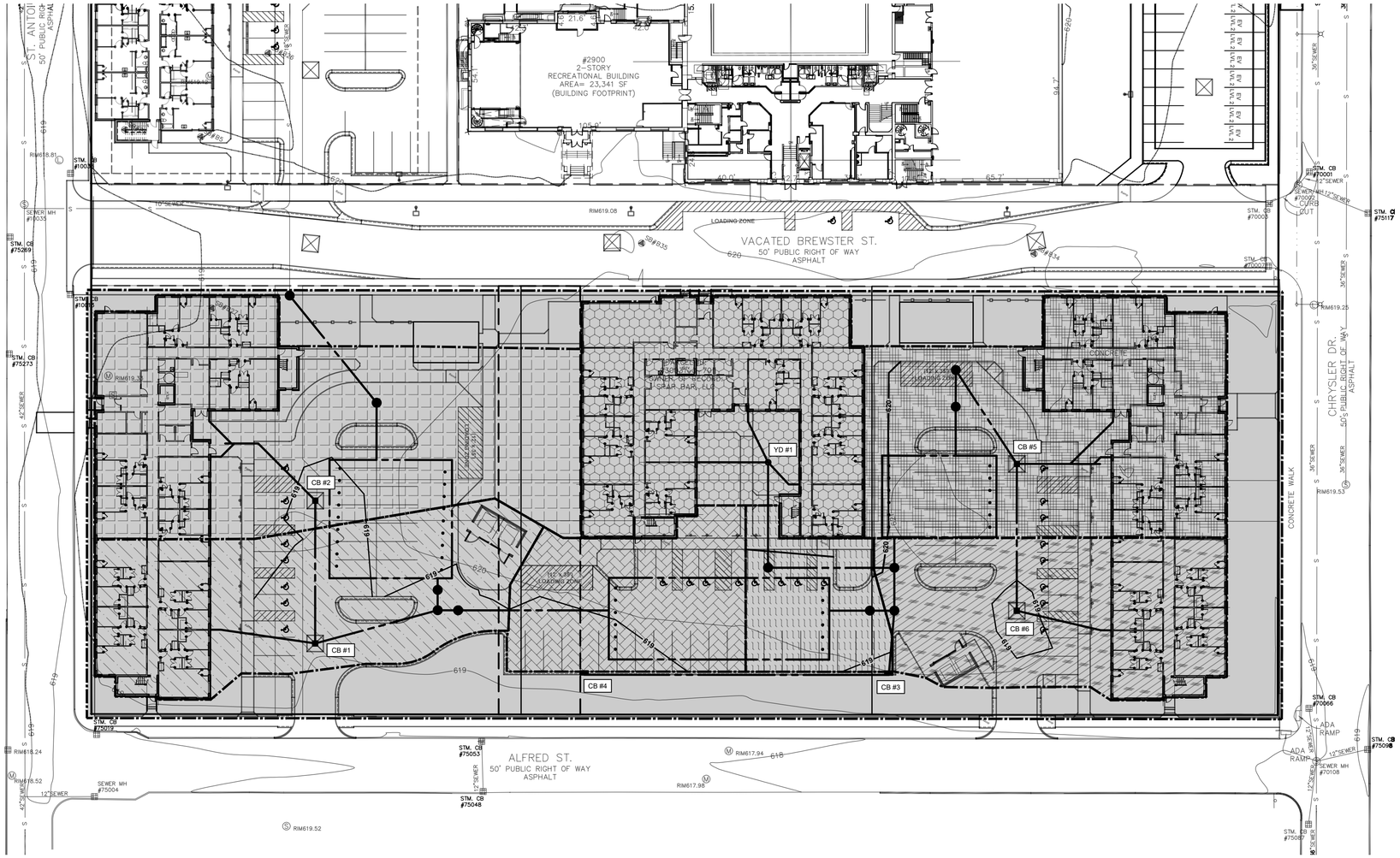
BREWSTER III LDHA, LLC
631 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

GRADING, DRAINAGE, AND SESC PLAN

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C2.3



CB#1 CONTRIBUTING AREA = 0.34 ACRES

CB#2 CONTRIBUTING AREA = 0.44 ACRES

CB#3 CONTRIBUTING AREA = 0.11 ACRES

CB#4 CONTRIBUTING AREA = 0.18 ACRES

CB#5 CONTRIBUTING AREA = 0.43 ACRES

CB#6 CONTRIBUTING AREA = 0.29 ACRES

YD#1 CONTRIBUTING AREA = 0.36 ACRES

CONTRIBUTING AREA TO PROPOSED STORM SYSTEM = 2.82 ACRES

PRELIMINARY - NOT FOR CONSTRUCTION

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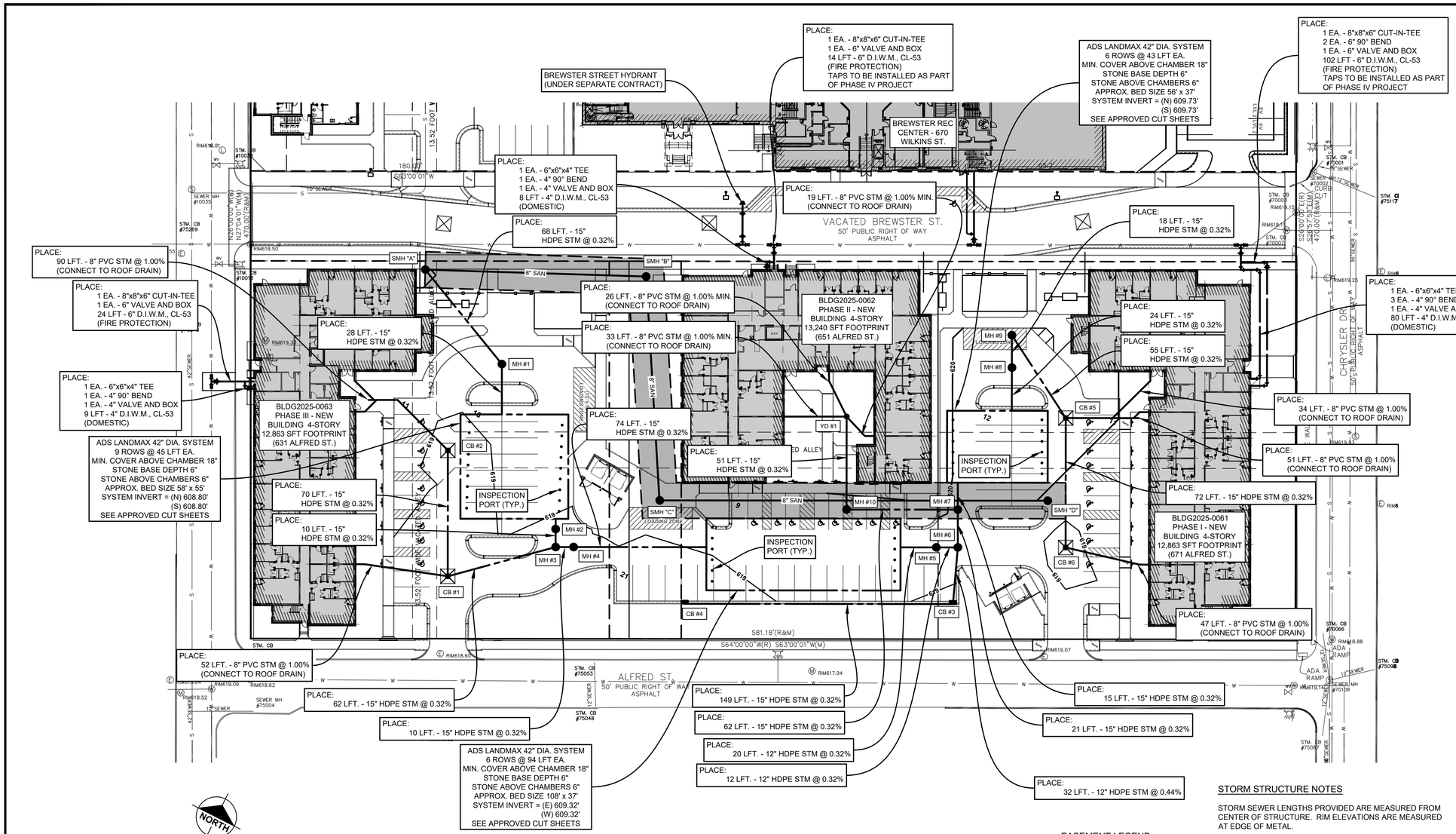
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

CONTRIBUTING AREA PLAN

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE	
DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C2.4



STORM STRUCTURE SCHEDULE
(THIS SHEET)

MH #1 (6' DIA W/ PARTITION WALL) RIM = 619.44 FT
(COVER: EJIW 1045 SERIES W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (NW) = 608.61 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 608.71 FT (SOLID WALL HDPE @ 0.32%)
TOP OF WALL = 612.30 FT
0.9" ORIFICE = 608.71 FT (BANKFULL / FLOOD CONTROL)

MH#2 (6' DIA - ADS BARRACUDA MAX S-6) RIM = 618.82 FT
(COVER: EJIW 1045 SERIES W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 608.82 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 608.82 FT (SOLID WALL HDPE @ 0.32%)

MH#3 (5' DIA) RIM = 618.74 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 608.85 FT (SOLID WALL HDPE @ 0.32%)
15" INV (E) = 608.95 FT (SOLID WALL HDPE @ 0.32%)
15" INV (SW) = 608.95 FT (SOLID WALL HDPE @ 0.32%)

MH#4 (6' DIA) RIM = 618.84 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (E) = 609.08 FT (SOLID WALL HDPE @ 0.32%)
15" INV (W) = 608.98 FT (SOLID WALL HDPE @ 0.32%)
WEIR WALL = 612.82 FT
0.8" ORIFICE = 609.08 FT (BANKFULL / FLOOD CONTROL)

MH#5 (6' DIA - ADS BARRACUDA MAX S-6) RIM = 619.55 FT
(COVER: EJIW 1045 SERIES W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (E) = 609.38 FT (SOLID WALL HDPE @ 0.32%)
15" INV (W) = 609.38 FT (SOLID WALL HDPE @ 0.32%)

MH#6 (5' DIA) RIM = 619.51 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 609.52 FT (SOLID WALL HDPE @ 0.32%)
15" INV (E) = 609.52 FT (SOLID WALL HDPE @ 0.32%)
15" INV (SW) = 609.42 FT (SOLID WALL HDPE @ 0.32%)

MH#7 (6' DIA) RIM = 619.94 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 609.68 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 609.58 FT (SOLID WALL HDPE @ 0.32%)
15" INV (W) = 609.68 FT (SOLID WALL HDPE @ 0.32%)
WEIR WALL = 613.19 FT
0.9" ORIFICE = 609.54 FT (BANKFULL / FLOOD CONTROL)

MH#8 (6' DIA - ADS BARRACUDA MAX S-6) RIM = 619.68 FT
(COVER: EJIW 1045 SERIES W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 609.81 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 609.81 FT (SOLID WALL HDPE @ 0.32%)

MH#9 (5' DIA) RIM = 619.78 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 609.97 FT (SOLID WALL HDPE @ 0.32%)
15" INV (E) = 609.87 FT (SOLID WALL HDPE @ 0.32%)

MH#10 (4' DIA) RIM = 619.94 FT
(COVER: EJIW 1045 W/ SOLID COVER OR A.E.)
EXTERNAL DROP MANHOLE
SEE DETAIL SHEET C4.4 (DETAIL 330561-6)
15" INV (N) = 609.98 FT (SOLID WALL HDPE @ 0.32%)
15" INV (E) = 609.88 FT (SOLID WALL HDPE @ 0.32%)

CB#1 (4' DIA) RIM = 618.07 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
15" INV (N) = 609.24 FT (SOLID WALL HDPE @ 0.32%)
15" INV (NE) = 609.14 FT (SOLID WALL HDPE @ 0.32%)
8" INV (W) = 609.24 FT (PVC STM @ 1.00%)

CB#2 (2' DIA) RIM = 618.75 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
8" INV (NW) = 609.46 FT (PVC STM @ 0.32%)
15" INV (S) = 609.46 FT (SOLID WALL HDPE @ 0.32%)

CB#3 (4' DIA) RIM = 618.75 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
15" INV (NW) = 609.62 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 609.72 FT (SOLID WALL HDPE @ 0.32%)

CB#4 (2' DIA) RIM = 618.16 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
15" INV (E) = 610.20 FT (SOLID WALL HDPE @ 0.32%)

CB#5 (4' DIA) RIM = 619.30 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
15" INV (NW) = 610.15 FT (SOLID WALL HDPE @ 0.32%)
15" INV (S) = 610.25 FT (SOLID WALL HDPE @ 0.32%)
8" INV (E) = 610.25 FT (PVC STM @ 1.00%)

CB#6 (2' DIA) RIM = 618.78 FT
(COVER: EJIW 1045 Z W/ M1 GRATE OR A.E.)
15" INV (N) = 610.48 FT (SOLID WALL HDPE @ 0.32%)
8" INV (E) = 610.48 FT (PVC STM @ 1.00%)

YD#1 (2' DIA) RIM = 619.55 FT
(COVER: EJIW 1045Z W/ TYPE 02 GRATE OR A.E.)
10" INV (S) = 610.14 FT (SOLID WALL HDPE @ 0.32%)
8" INV (NW) = 610.14 FT (PVC STM @ 1.00%)
8" INV (W) = 610.14 FT (PVC STM @ 1.00%)
8" INV (SE) = 610.14 FT (PVC STM @ 1.00%)

STORM STRUCTURE NOTES

STORM SEWER LENGTHS PROVIDED ARE MEASURED FROM CENTER OF STRUCTURE. RIM ELEVATIONS ARE MEASURED AT EDGE OF METAL.

STORM SEWER SHALL BE WATER-TIGHT, SOLID-WALL HDPE OR APPROVED EQUAL, UNLESS INDICATED ON THE PLANS.

MANHOLES AND CATCH BASINS SHALL BE IN ACCORDANCE WITH MDOT STANDARD SPECIFICATIONS. CATCH BASINS SHALL INCLUDE 2-FT SUMP.

ALL EXISTING CATCH BASINS TO REMAIN SHALL BE CLEANED AND INSPECTED TO VERIFY OPERABILITY.

CONNECTIONS TO MANHOLES SHALL BE MADE WITH A RESILIENT CONNECTOR FOR PIPE DIAMETERS 24 INCHES OR LESS.

MANHOLE RIM ELEVATIONS SHALL BE SET 1/4" BELOW PLAN GRADE.
CATCH BASIN RIM ELEVATIONS SHALL BE SET 1 3/16" BELOW PLAN GRADE.

ALL CURB DIMENSIONS ARE MEASURED FROM EDGE OF METAL.

THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATION AND DEPTH OF EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONFLICTS IN GRADES SHALL BE REPORTED TO ENGINEER AND ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO OWNER.

EASEMENT LEGEND

20' SANITARY EASEMENT

PUBLIC UTILITY QUANTITIES THIS SHEET			
ITEM DESCRIPTION	UNIT	QUANTITY	FINAL QUANTITY
15 INCH STORM SEWER	LFT	789	
12 INCH STORM SEWER	LFT	64	
8 INCH PVC STORM SEWER	LFT	352	
6 FT STORM MANHOLE	EA	6	
5 FT STORM MANHOLE	EA	3	
4 FT STORM MANHOLE	EA	1	
4 FT CATCH BASIN	EA	3	
2 FT CATCH BASIN	EA	3	
2 FT YARD DRAIN	EA	1	
6 INCH D.I.W.M.	LFT	140	
4 INCH D.I.W.M.	LFT	97	
8 INCH SANITARY SEWER	LFT	463	
6 INCH SANITARY LATERAL	LFT	128	
4 FT SANITARY MANHOLE	EA	4	

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

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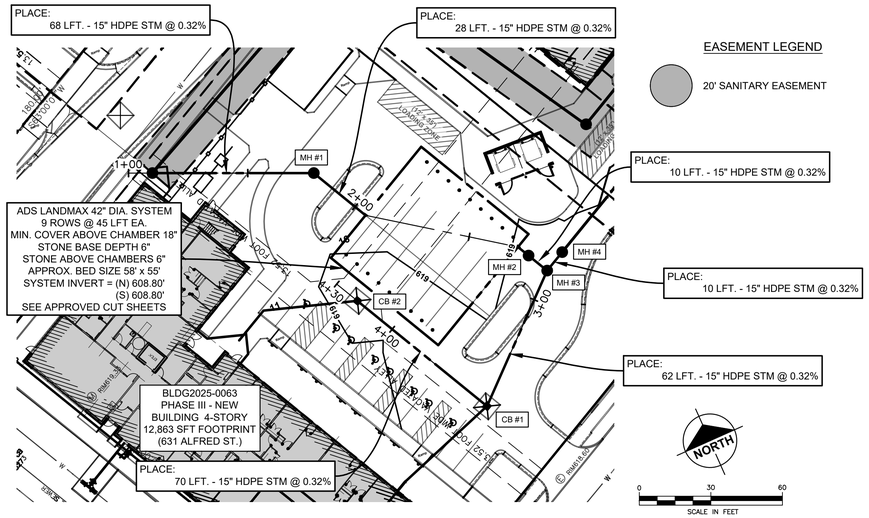
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

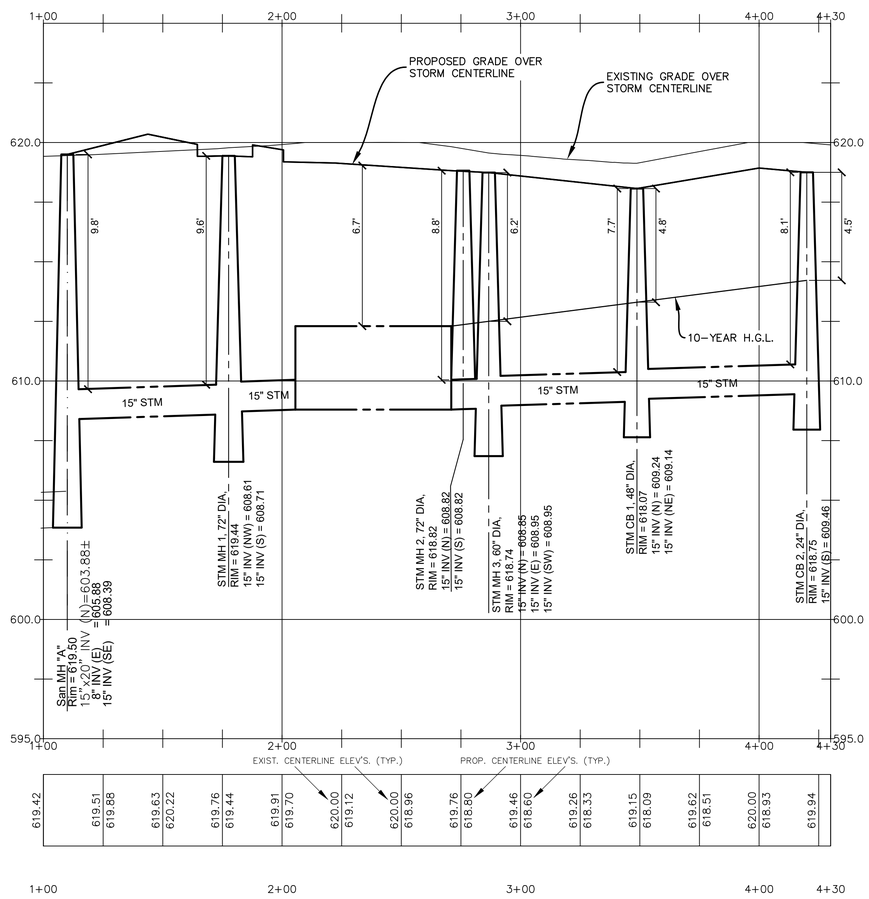
OVERALL SITE UTILITY PLAN

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25
SCALE	
DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C3.0





HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'

SUBSURFACE CONDITIONS

Contractor(s) shall familiarize themselves with the information and findings presented in the Geotechnical Evaluation Report prepared by SME dated Apr. 28, 2023.
SME Project No. 092556.00

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MICHIGAN
BRUCE A. CALLEN
No. 47047392
LICENSED PROFESSIONAL ENGINEER

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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

For protection of underground utilities, the CONTRACTOR shall dial 1-800-482-7171 OR 811 a minimum of three working days, excluding Saturdays, Sundays and holidays, prior to excavation in the vicinity of utility lines. All "MISS DIG" participating members will thus be routinely notified. This does not relieve the CONTRACTOR of the responsibility of notifying the utility owners who may not be part of the "MISS DIG" alert system.

DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T. 616.414.5260
www.callenengineering.com

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
2.	90% CD'S	B.A.C.	11-22-24
3.	BUILDING PERMIT	B.A.C.	12-06-24
4.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
5.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	06-01-25

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

STORM PLAN & PROFILE

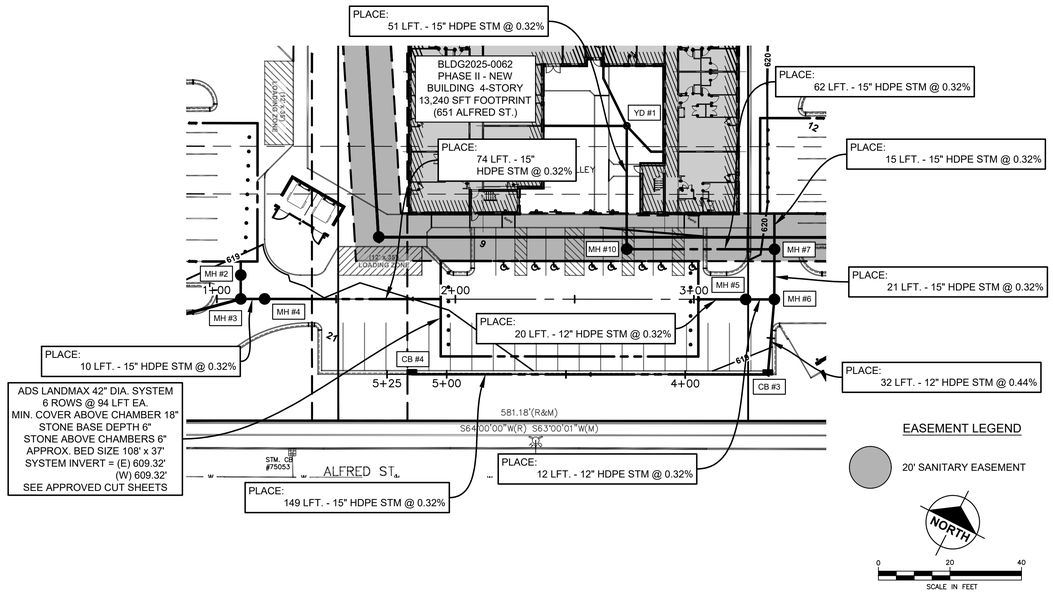
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25

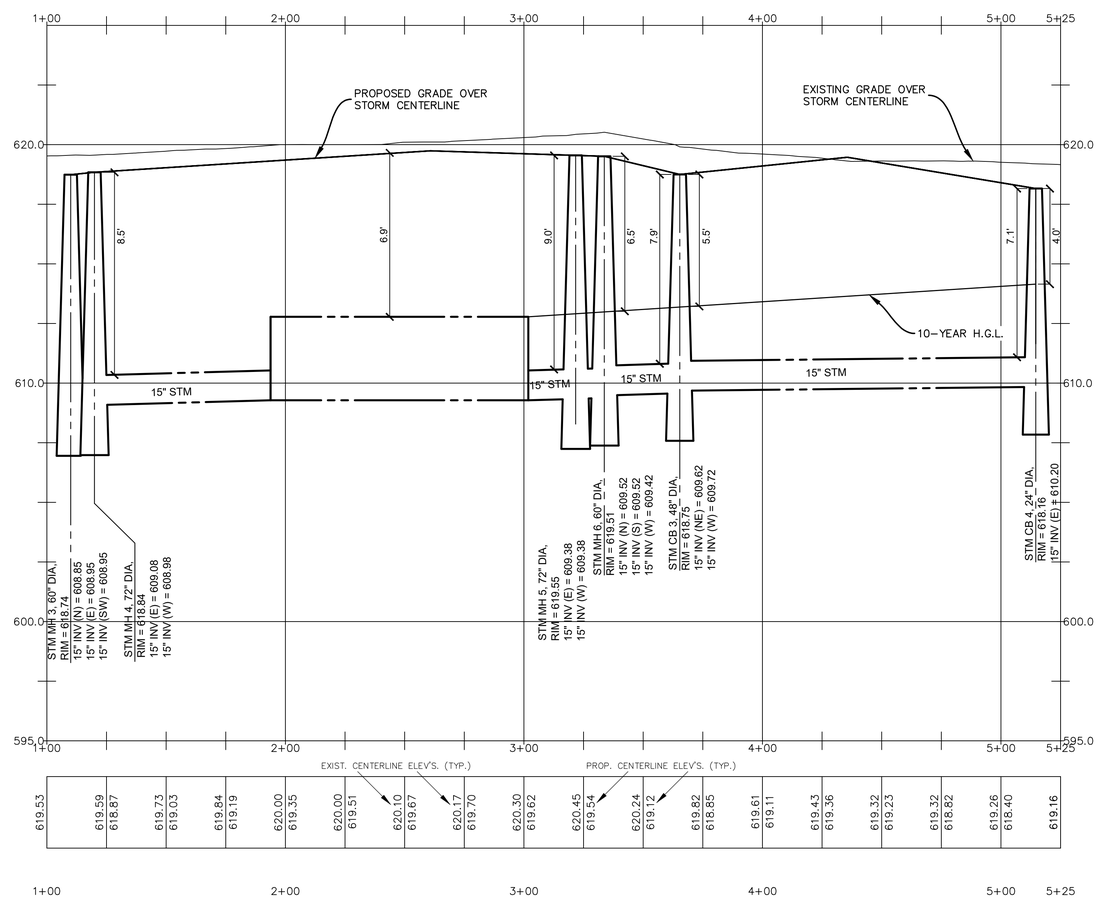
SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C3.1





HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'

SUBSURFACE CONDITIONS

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SME Project No. 092556.00

PRELIMINARY - NOT
FOR CONSTRUCTION

STATE OF MICHIGAN
BRUCE A. CALLEN
LICENSED PROFESSIONAL ENGINEER
No. 48104792

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

811
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DATE OF PLAN: 08-01-25

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callen
civil engineers

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REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

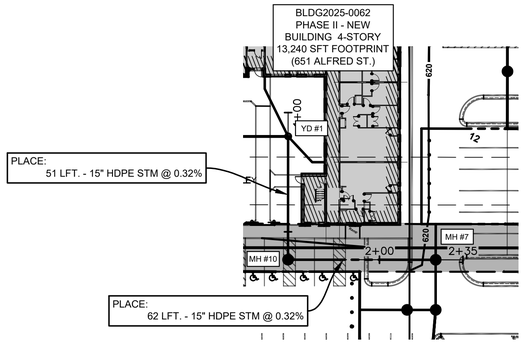
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

STORM PLAN & PROFILE

DRAWN BY J.W.C.	DATE SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING AS NOTED	PLOT SCALE 1:1

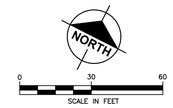
PROJECT 023 BREWSTER SANCTUARY

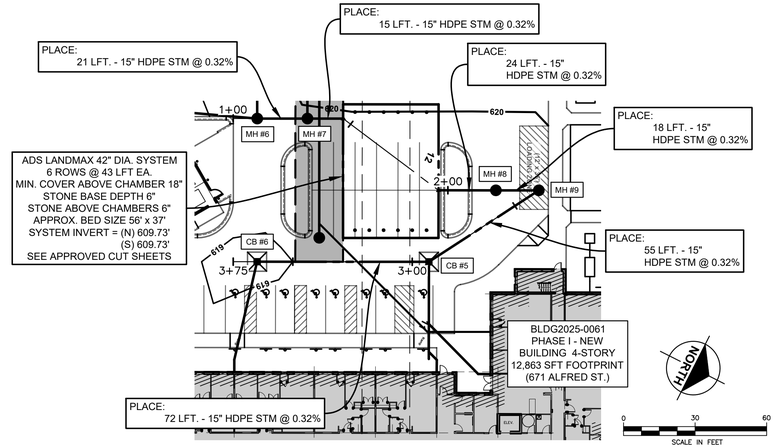
SHEET NO. C3.2

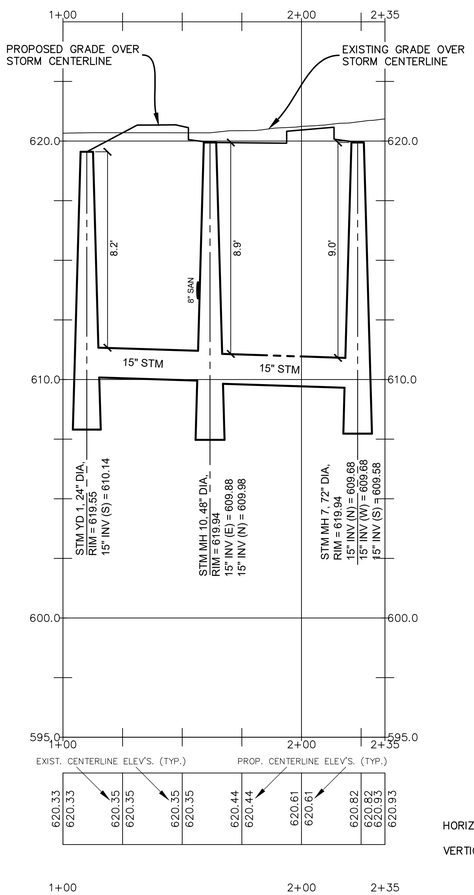


EASEMENT LEGEND

20' SANITARY EASEMENT

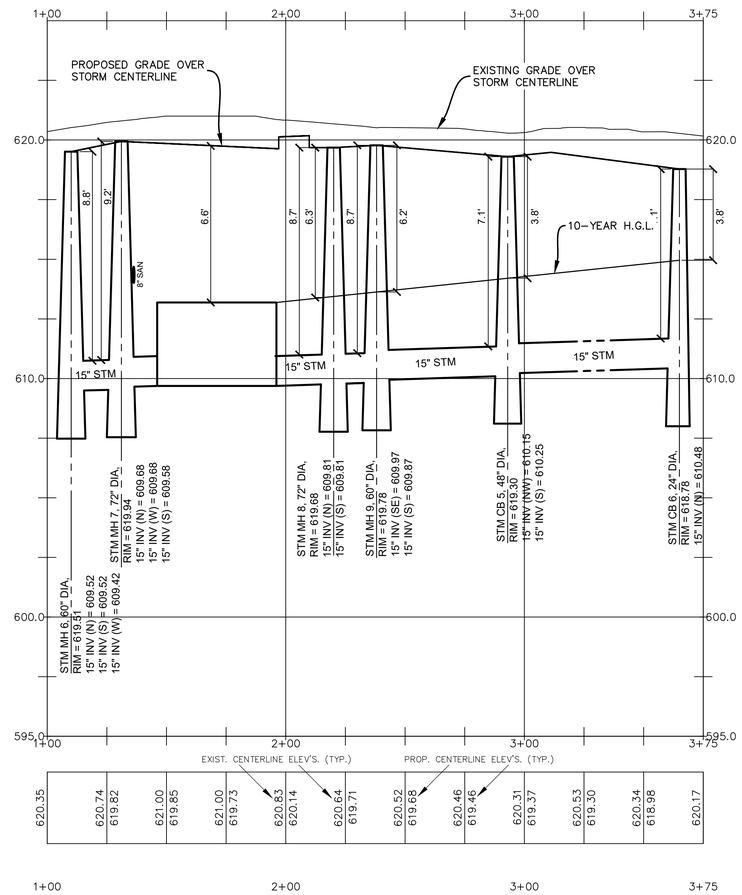






HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'



HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'

PRELIMINARY - NOT FOR CONSTRUCTION

SUBSURFACE CONDITIONS

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SME Project No. 092556.00

STATE OF MICHIGAN
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callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	SITE CO'S	B.A.C.	11-22-24
3.	BUILDING PERMIT	B.A.C.	12-06-24
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5.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25
5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	

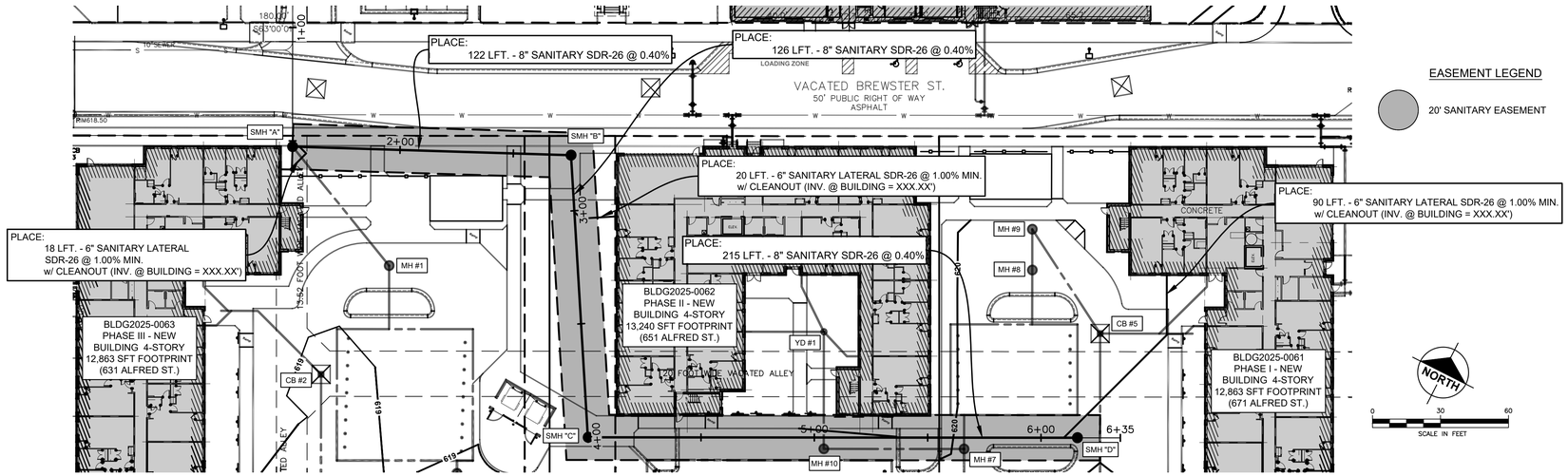
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

STORM PLAN & PROFILE

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C3.3



EASEMENT LEGEND

20' SANITARY EASEMENT

SANITARY SEWER NOTES

1. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. MAINTAIN MINIMUM 18 INCHES OF VERTICAL SEPARATION AND 10 FEET OF HORIZONTAL SEPARATION BETWEEN ALL WATERMAIN AND SEWER.
3. ALL INSTALLATION OF AND MATERIALS FOR COMBINED / SANITARY SEWER, LATERALS, AND CONNECTION THE EXISTING SANITARY SEWER SHALL BE IN ACCORDANCE WITH CITY OF DETROIT SPECIFICATIONS.

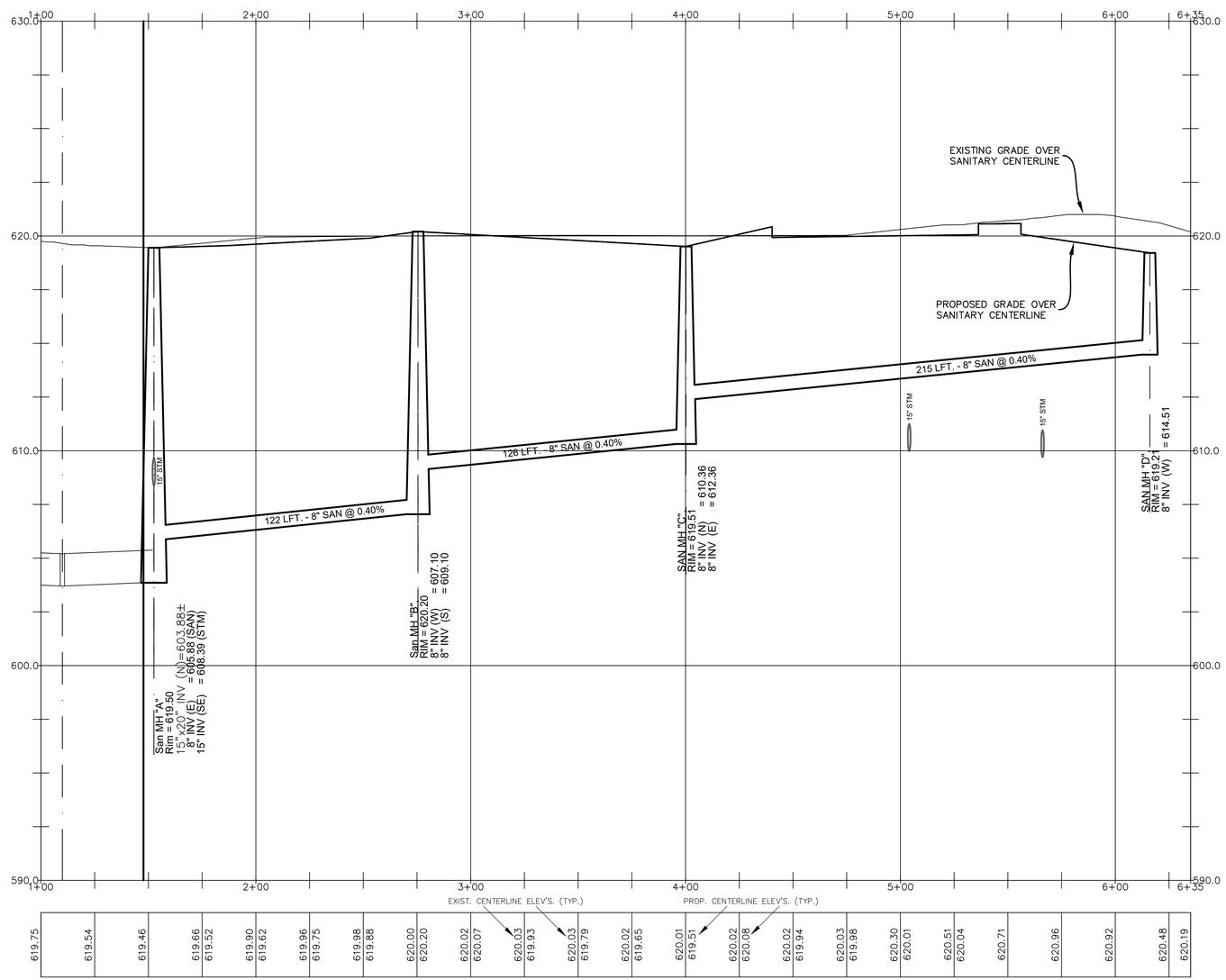
SANITARY STRUCTURE SCHEDULE
(THIS SHEET)

SMH "A" (4' DIA - EXTERNAL DROP) RIM = 620.00 FT (SOLID COVER)
12" INV (SW) = 610.65 FT (12" CS PVC SDR-26)
12" INV (NE) = 614.08 FT (12" HDPE STM)
6" INV (SE) = 615.31 FT (8" PVC SDR-26)

SMH "B" (4' DIA - EXTERNAL DROP) RIM = 620.20 FT (SOLID COVER)
8" INV (W) = 607.10 FT (8" PVC SDR-26)
8" INV (S) = 609.10 FT (8" PVC SDR-26)

SMH "C" (4' DIA - EXTERNAL DROP) RIM = 619.51 FT (SOLID COVER)
8" INV (W) = 610.36 FT (8" PVC SDR-26)
8" INV (S) = 612.36 FT (8" PVC SDR-26)

SMH "D" (4' DIA) RIM = 619.21 FT (SOLID COVER)
8" INV (W) = 614.51 FT (8" PVC SDR-26)



HORIZONTAL SCALE: 1"=30'

VERTICAL SCALE: 1"=3'

PRELIMINARY - NOT FOR CONSTRUCTION

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SUBSURFACE CONDITIONS

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SME Project No. 092556.00

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DATE OF PLAN: 08-01-25

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NO.	ISSUANCE / REVISION	BY	DATE
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5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	

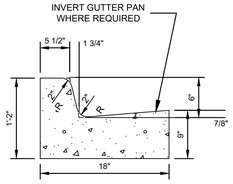
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

SANITARY PLAN & PROFILE

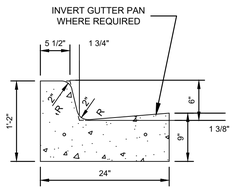
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C3.4

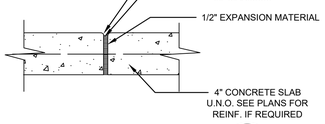


CONCRETE CURB & GUTTER — CG-F2
DETAIL F2, MODIFIED
NO SCALE

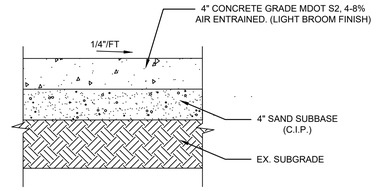


CONCRETE CURB & GUTTER — CG-F4
DETAIL F4, MODIFIED
NO SCALE

WALK CONTROL JOINT — SW-CJ
NO SCALE

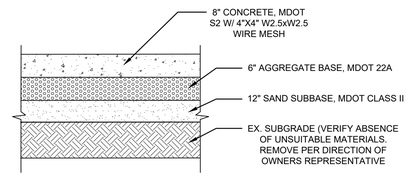


WALK EXPANSION JOINT — SW-EJ



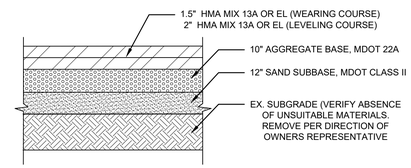
NOTE: 1) PROVIDE CONTROL JOINTS AT 5' O/C

CONCRETE SIDEWALK SECTION — CP-4
NO SCALE



NOTE: CONTRACTOR(S) SHALL FAMILIARIZE THEMSELVES WITH THE INFORMATION AND FINDINGS PRESENTED IN THE GEOTECHNICAL EVALUATION REPORT PREPARED BY SME DATED APRIL 28, 2023 SME PROJECT NO. 092556.00

8" CONCRETE PAVEMENT SECTION — CP-8
NO SCALE



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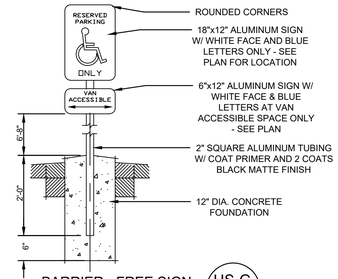
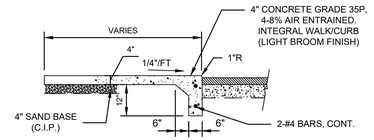
HMA PAVEMENT SECTION — HMA
NO SCALE

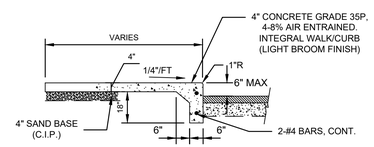


BARRIER - FREE SIGN — HS-G
NO SCALE



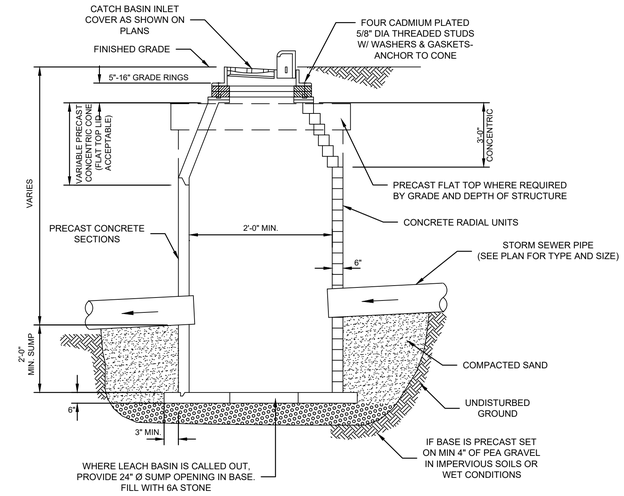
NOTE: 1) PROVIDE 3/8" EXPANSION JOINT WHERE WALK MEETS BUILDING
2) PROVIDE CONTROL JOINTS AT 6' O/C

CONCRETE SIDEWALK W/ FLUSH CURB — SW-2
NO SCALE

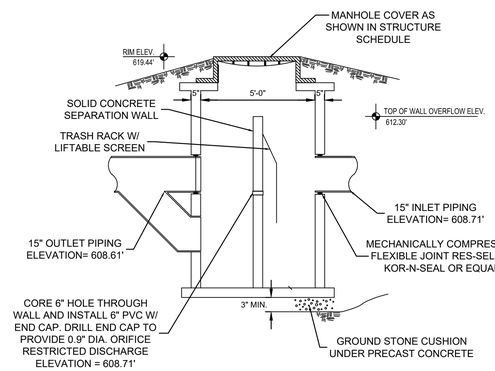


NOTE: 1) PROVIDE 3/8" EXPANSION JOINT WHERE WALK MEETS BUILDING
2) PROVIDE CONTROL JOINTS AT 6' O/C

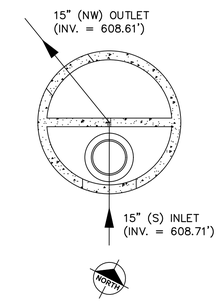
INTEGRAL WALK / CURB — SW-1
NO SCALE



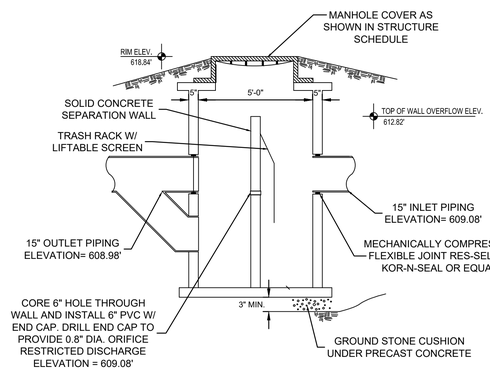
CATCH BASIN DETAIL
NO SCALE



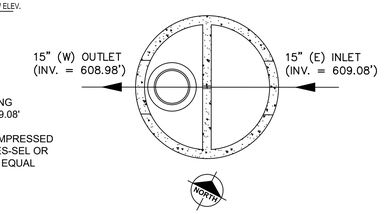
MANHOLE MH #1 SECTION VIEW
NO SCALE



MANHOLE MH #1 PLAN VIEW
NO SCALE

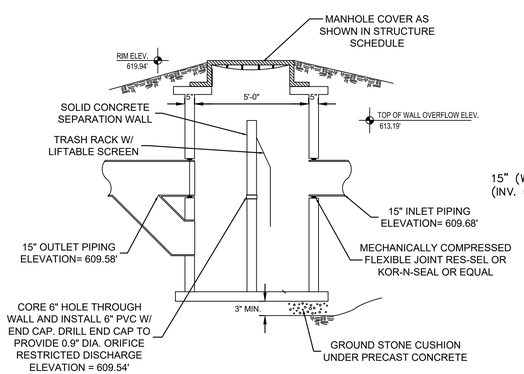


MANHOLE MH #4 SECTION VIEW
NO SCALE

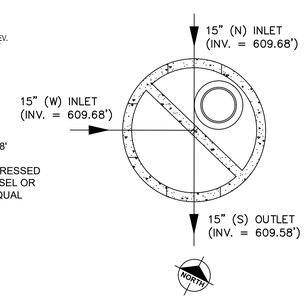


MANHOLE MH #4 PLAN VIEW
NO SCALE

PRELIMINARY - NOT
FOR CONSTRUCTION



MANHOLE MH #7 SECTION VIEW
NO SCALE



MANHOLE MH #7 PLAN VIEW
NO SCALE

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

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

STATE OF MICHIGAN
BRUCE
CALLEN
47392
LICENSED PROFESSIONAL ENGINEER

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DATE OF PLAN: 08-01-25

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callen
civil engineers

THE SANCTUARY BREWSTER LDHA, LLC
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
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5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

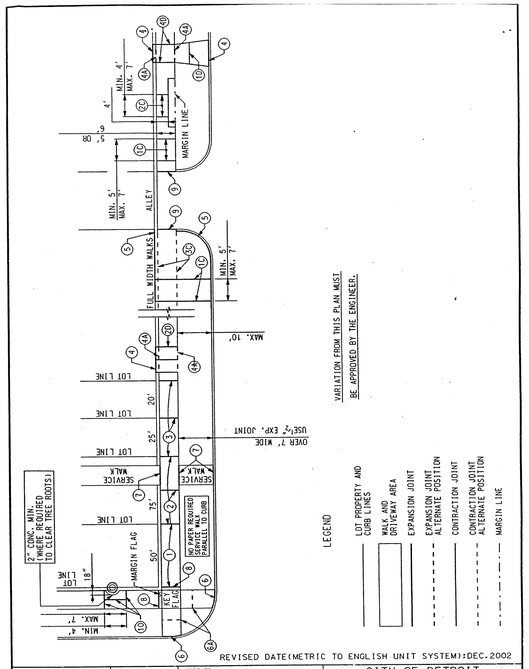
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C4.0



VARIATION FROM THIS PLAN MUST BE APPROVED BY THE ENGINEER.

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM):DEC.2002

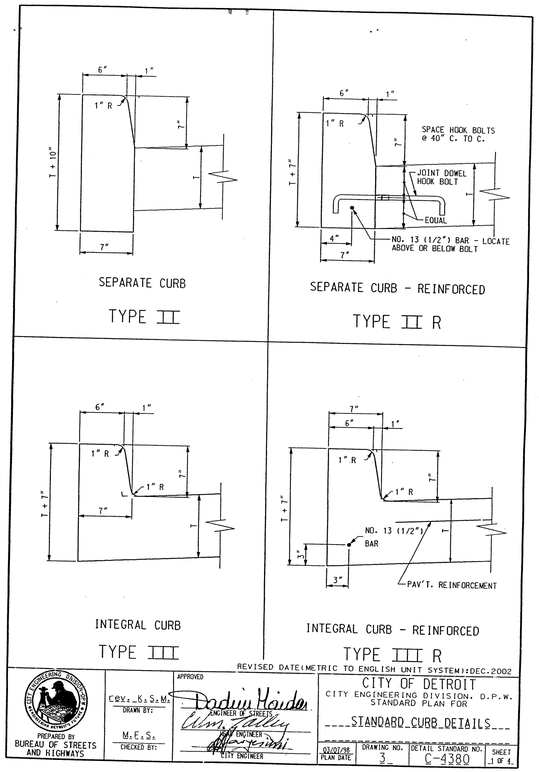
PREPARED BY BUREAU OF STREETS AND HIGHWAYS

rev. K.S.M. — DRAWN BY:
M.F.S. — CHECKED BY:

APPROVED: ENGINEER OF STREETS; HEAD ENGINEER; CITY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
SIDEWALK JOINTING STANDARD

03/07/98 PLAN DATE	DRAWING NO. 9	DETAIL STANDARD NO. C-4462	SHEET 1 OF 2



REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM):DEC.2002

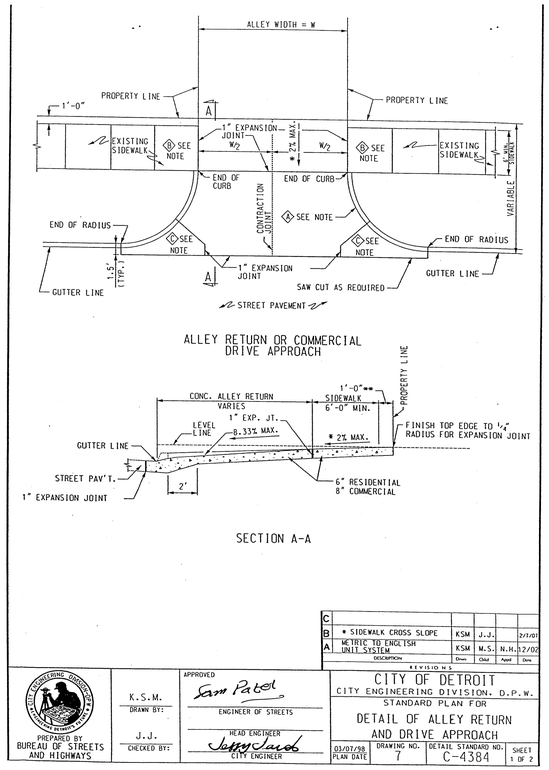
PREPARED BY BUREAU OF STREETS AND HIGHWAYS

rev. K.S.M. — DRAWN BY:
M.F.S. — CHECKED BY:

APPROVED: ENGINEER OF STREETS; HEAD ENGINEER; CITY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
STANDARD CURB DETAILS

03/07/98 PLAN DATE	DRAWING NO. 3	DETAIL STANDARD NO. C-4380	SHEET 1 OF 4



C				
B	* SIDEWALK CROSS SLOPE	KSM	J.J.	2/1/01
A	METRIC TO ENGLISH UNIT SYSTEM	KSM	M.S. N.H.	12/02
	DESCRIPTION	Dwn	Chkd Apvd	Date

REVISIONS

PREPARED BY BUREAU OF STREETS AND HIGHWAYS

K.S.M. — DRAWN BY:
J.J. — CHECKED BY:

APPROVED: ENGINEER OF STREETS; HEAD ENGINEER; CITY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
DETAIL OF ALLEY RETURN AND DRIVE APPROACH

03/07/98 PLAN DATE	DRAWING NO. 7	DETAIL STANDARD NO. C-4384	SHEET 1 OF 2

EXPANSION JOINTS

ALL EXPANSION JOINT PAPER SHALL EXTEND 1" BELOW THE BOTTOM OF THE THINNER OF ADJOINING PAVEMENT SECTIONS.

1. PLACE 1/2" PAPER EXPANSION JOINTS AT LOT LINES WHEN LOT LINES ARE BETWEEN 25' AND 50' APART.
2. PLACE ADDITIONAL 1/2" PAPER EXPANSION JOINTS SO THAT THE DISTANCE BETWEEN JOINTS DOES NOT EXCEED 15.2 m WHEN LOT LINES ARE OVER 15.240 m APART.
3. PLACE 1/2" PAPER EXPANSION JOINTS AT EVERY SECOND LOT LINE AND CONTRACTION JOINT AT INTERVENING LOT LINE WHEN LOT LINES ARE LESS THAN 25' APART.
4. PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE OR AT ALTERNATE POSITION (4A) AS SHOWN FOR DRIVEWAY.
5. PLACE 1" PAPER EXPANSION JOINTS AT CURB AND BUILDING OR PROPERTY LINE FOR FULL WIDTH SIDEWALK EXCEEDING 7' IN WIDTH.
6. PLACE 1" PAPER EXPANSION JOINTS AT CURB CIRCLES OR AT ALTERNATE POSITION (6A) AS SHOWN.
7. PLACE 1" PAPER EXPANSION JOINTS AT INTERSECTIONS OF SERVICE WALKS AND SIDEWALKS AND SERVICE WALKS AND CURBS.
8. PLACE 1" PAPER EXPANSION JOINTS AT MARGIN FLAGS AT CROSSWALKS.
9. PLACE 1" PAPER EXPANSION JOINTS AT ALLEY APRONS.
10. PLACE 1/2" PAPER EXPANSION JOINT BOTH SIDES OF SIDEWALK FLAG ABUTTING TREE AND ON CENTERLINE JOINT.

CONTRACTION JOINTS

1C. PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 5' NOR MORE THAN 7' ON WALKS 5' WIDE OR WIDER, INCLUDING FULL WIDTH WALKS.

2C. PLACE CONTRACTION JOINTS AT INTERVALS OF NOT LESS THAN 4' NOR MORE THAN 7' ON WALKS 4' WIDE.

3C. PLACE CONTRACTION JOINTS AT THE MARGIN LINE ON FULL WIDTH WALKS (OPTIONAL).

DRIVEWAYS

1D. PLACE CONTRACTION JOINTS IN DRIVEWAYS SO THAT NO SLAB WILL EXCEED THE DIMENSIONS OF 15' BY 15'.

2D. PLACE 1" PAPER EXPANSION JOINTS ON ALL SIDES OF COMMERCIAL DRIVES.

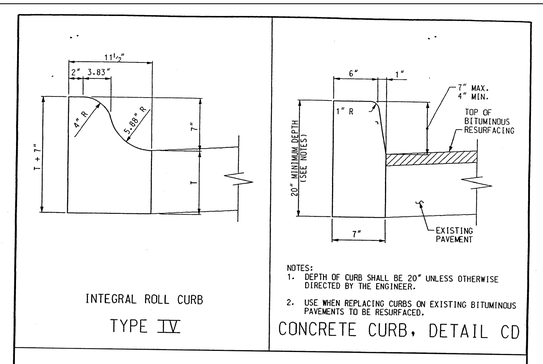
3D. PLACE CONSTRUCTION OR CONTRACTION JOINT ON CENTERLINE WHEN WIDTH OF DRIVEWAY EXCEEDS 15'

4D. PLACE 1/2" PAPER EXPANSION JOINTS ON BOTH SIDES OF RESIDENTIAL DRIVEWAYS. IF DRIVEWAY EDGE IS WITHIN 2' OF LOT LINE, PLACE THIS EXPANSION PAPER AT PROPERTY LINE.

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM):DEC.2002

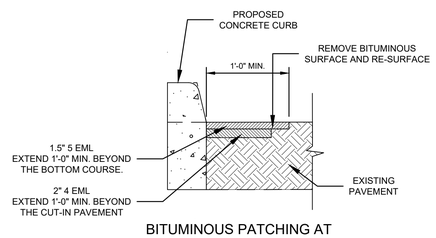
CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
SIDEWALK JOINTING STANDARD

03/07/98 PLAN DATE	DRAWING NO. 9	DETAIL STANDARD NO. C-4462	SHEET 2 OF 2



NOTES:
1. DEPTH OF CURB SHALL BE 20" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. USE WHEN REPLACING CURBS ON EXISTING BITUMINOUS PAVEMENTS TO BE RESURFACED.

CONCRETE CURB, DETAIL CD



BITUMINOUS PATCHING AT PROPOSED CURB EDGE

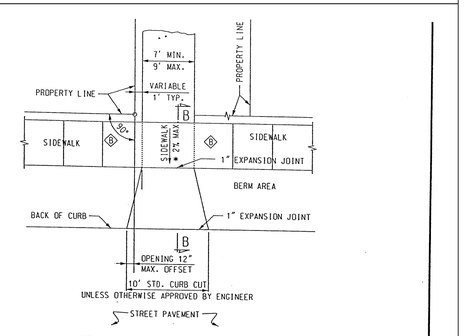
NO SCALE

NOTE:

THIS DETAIL SHALL BE USED AT LOCATIONS WHERE PROPOSED CURB IS CONSTRUCTED ADJACENT TO EXISTING BITUMINOUS PAVEMENT NOT TO BE RE-SURFACED.

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
STANDARD CURB DETAILS

03/07/98 PLAN DATE	DRAWING NO. 3	DETAIL STANDARD NO. C-4380	SHEET 2 OF 4



NOTES:

IF ALLEY IS PAVED, CONSTRUCT RETURN WITH 1" EXPANSION JOINT ON PROPERTY LINE.

(A) RADIUS TO BE 10' UNLESS OTHERWISE SHOWN ON PAVING PLAN.

(B) SIDEWALK FLAGS ABUTTING ALLEY SHALL BE 6" THICK. SIDEWALK SHALL BE REPLACED FOR A SMOOTH TRANSITION AND TO ATTAIN A CROSS SLOPE OF 2% MAX. OR AS DIRECTED BY THE ENGINEER.

(C) KEY JOINT OR "B" JOINT IF REINFORCED PAVEMENT.

ALL DIMENSIONS ARE IN INCHES(") UNLESS OTHERWISE NOTED.

* SIDEWALK CROSS SLOPE SHALL BE 2% MAX. OR AS DIRECTED BY THE ENGINEER.

** THE SLOPE OF THE DRIVEWAY IN THE 1 FT. SPACE ADJACENT TO THE PROPERTY LINE MAY BE ALTERED UP TO 10% TO MEET EXISTING CONDITIONS.

C				
B	* SIDEWALK CROSS SLOPE	KSM	J.J.	2/1/01
A	Chgd. THICKNESS NOTE	KSM	N.H. W.T.	10/00
	DESCRIPTION	Dwn	Chkd Apvd	Date

REVISIONS

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM):DEC.2002

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
DETAIL OF ALLEY RETURN AND DRIVE APPROACH

03/07/98 PLAN DATE	DRAWING NO. 7	DETAIL STANDARD NO. C-4384	SHEET 2 OF 2

Know what's below. Call before you dig.

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

For protection of underground utilities, the CONTRACTOR shall dial 1-800-482-7171 OR 811 a minimum of three working days, excluding Saturdays, Sundays and holidays, prior to excavation in the vicinity of utility lines. All "MISS DIG" participating members will thus be routinely notified. This does not relieve the CONTRACTOR of the responsibility of notifying the utility owners who may not be part of the "MISS DIG" alert system.

DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

THE SANCTUARY BREWSTER LDHA, LLC
32500 TELEGRAPH ROAD, SUITE 100
DETROIT, MICHIGAN 48025
248-833-0552

NO	ISSUANCE / REVISION	BY	DATE
1	90% CD'S	B.A.C.	11-15-24
2	BUILDING PERMIT	B.A.C.	12-06-24
3	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
4	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25
5	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

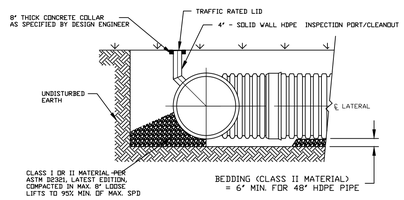
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER	DATE
B.A.C.	SEP '24
EDIT	DATE
J.W.C.	AUG '25

SCALE

DRAWING	PLOT SCALE
AS NOTED	1:1

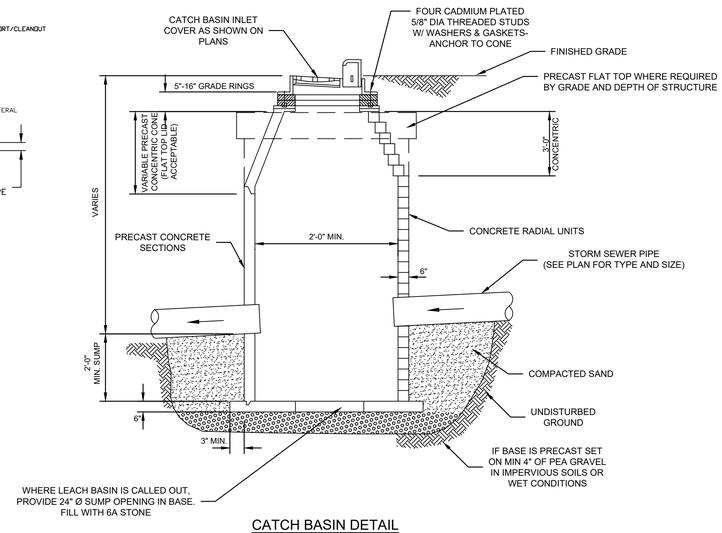
PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C4.1



INSPECTION PORT DETAIL

NO SCALE



CATCH BASIN DETAIL

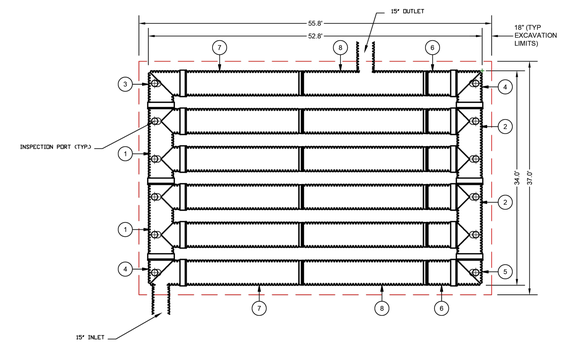
NO SCALE

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN.	VENDOR	NOTE
1	2		4252AN65B	42" WT DOUBLE MANIFOLD TEE (BxBxBxG)	STAN	ADS	SEE DETAIL
2	2		4252AN65G	42" WT DOUBLE MANIFOLD TEE (GxGxGxB)	STAN	ADS	SEE DETAIL
3	1		4298AN65BB	42" WT MANIFOLD 90 DEG BEND (BxB)	STAN	ADS	SEE DETAIL
4	2		4298AN65BG	42" WT MANIFOLD 90 DEG BEND (BxG)	STAN	ADS	SEE DETAIL
5	1		4298AN65GG	42" WT MANIFOLD 90 DEG BEND (GxG)	STAN	ADS	SEE DETAIL
6	6 STICKS		STICK-1	42" N12 HWY WTIB,SOLID,20'	CUS	ADS	SEE DETAIL
7	6 STICKS		STICK-2	42" N12 HWY WTIB,SOLID,20'	CUS	ADS	SEE DETAIL
8	6 STICKS	119 LF	4265002IB8	42" N12 HWY WTIB,SOLID,20'	STAN	ADS	AS SHOWN
9	2 ROLLS	1000 SY	0601TG	601.15' X 300' (500 SY),(NTPEP SCAN),(20% OVERAGE)	STAN	ADS	SEE DETAIL
10	10276 CF	381 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

STORAGE VOLUME PROVIDED THIS SYSTEM = 3,191 CFT



ADS GEOTEXTILE FABRIC

BREWSTER PHASE 1
DETROIT MI
DATE: 11/26/24 DRAWN: A.B.
PROJECT # CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

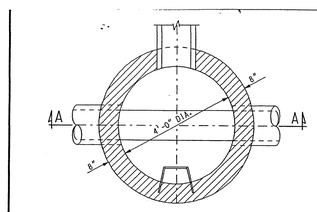
42" WT IB SOLID DETENTION SYSTEM
LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

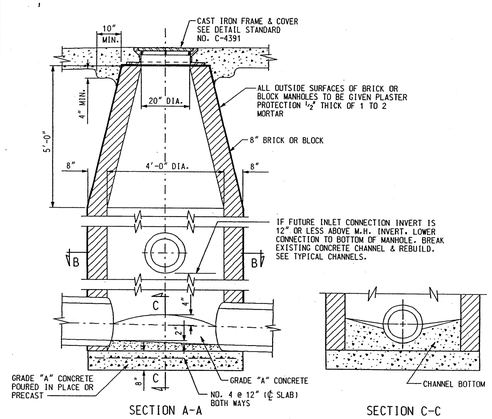
SCALE 0 10 20

THIS DRAWING WAS PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL ASSUME SOLE RESPONSIBILITY FOR THE ACCURACY AND ADEQUACY OF THE PROJECT DESIGN PARAMETERS AS SHOWN ON THIS DRAWING AND SHALL REVIEW AND ACCEPT THE DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PROJECT DESIGN MEETS ALL APPLICABLE CODES AND REGULATIONS.

SHEET
2 OF 6



PLAN VIEW AT B-B



SECTION A-A

SEWER MANHOLE

SECTION C-C

REVISED DATE(METRIC TO ENGLISH UNIT SYSTEM):DEC.2002

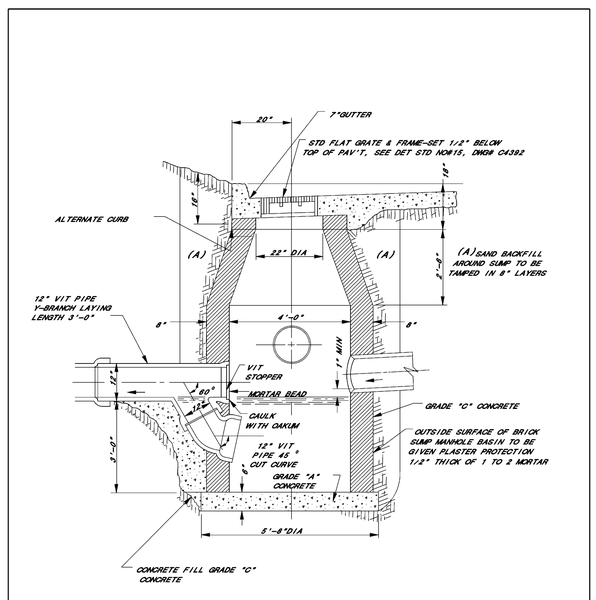
PREPARED BY BUREAU OF STREETS AND HIGHWAYS

rev. K.S.M. DRAWN BY:
M.F.S. CHECKED BY:

APPROVED
ENGINEER OF STREETS
HEAD ENGINEER
CITY ENGINEER

CITY OF DETROIT
CITY ENGINEERING DIVISION. D.P.W.
STANDARD PLAN FOR
STANDARD SEWER AND DROP MANHOLES

03/07/98	DRAWING NO.	DETAIL STANDARD NO.	SHEET
PLAN DATE	10	C-4387	1 OF 3



SECTION MAP	TOWN	RANGE	STATION	PORTION
O				
B				
A				

DESCRIPTOIN	DRW	CKD	APP	DATE

REVISIONS

DRAWN BY: A H BARAKA S-03
CHECKED BY: N LITVIN S-03
APPROVED:

MANHOLE BASIN WITH WYE BRANCH TRAP

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

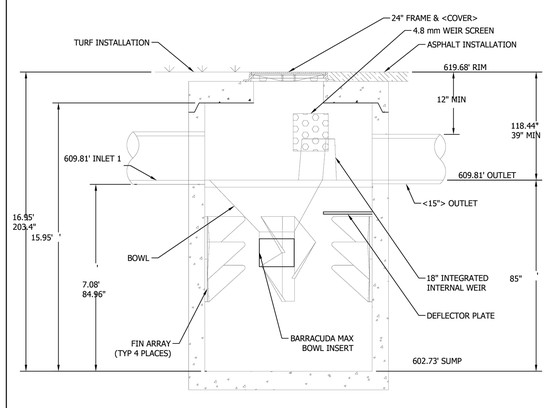
CONT
A- 20

BARRACUDA MAX S6	
UNIT ID	MH#8
PEAK FLOW RATE(CFS)	N/A
TREATMENT FLOW RATE (CFS)	0.63

PRODUCT SPECIFICATIONS

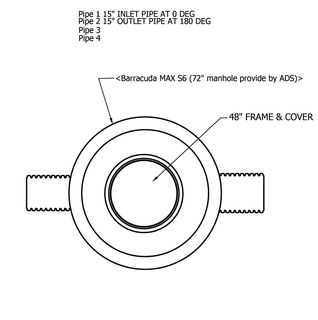
- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW, IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE 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 CURRENT NJDEP/NJCAT HDS PROTOCOL.



SECTION VIEW A-A

N.T.S.



PLAN VIEW

N.T.S.

BREWSTER PHASE 1
DETROIT MI
DATE: 11/26/24 DRAWN: XX
PROJECT # CHECKED: XX

DATE	DRW	CHK	DESCRIPTION

Barracuda Max
Stormwater Separator

4640 TRUEMAN BLVD
HILLIARD, OH 43026

SCALE 0 10 20

THIS DRAWING WAS PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL ASSUME SOLE RESPONSIBILITY FOR THE ACCURACY AND ADEQUACY OF THE PROJECT DESIGN PARAMETERS AS SHOWN ON THIS DRAWING AND SHALL REVIEW AND ACCEPT THE DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PROJECT DESIGN MEETS ALL APPLICABLE CODES AND REGULATIONS.

SHEET
2 OF 2

PRELIMINARY - NOT FOR CONSTRUCTION

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

STATE OF MICHIGAN BRUCE A. CALLEN 61047393 LICENSED PROFESSIONAL ENGINEER

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616–414–5260
email: bcallen@callenengineering.com

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DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
BINGHAM FARMS, MI 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	90% CD'S	B.A.C.	11-22-24
2.	BUILDING PERMIT	B.A.C.	12-06-24
3.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
4.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	06-01-25
5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1

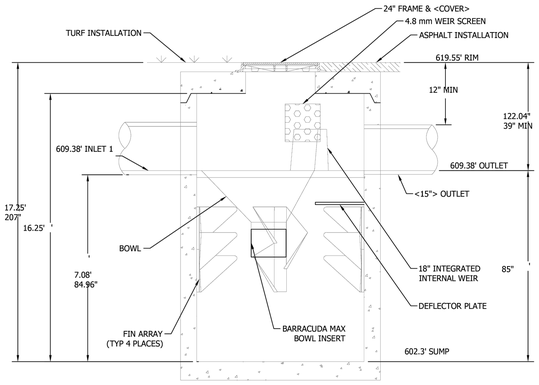
PROJECT 023 BREWSTER SANCTUARY

SHEET NO: C4.2

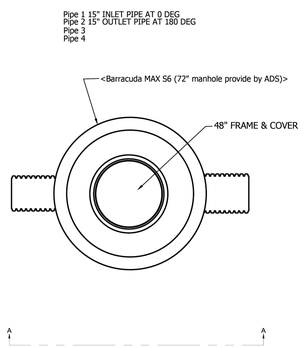
BARRACUDA MAX S6	
UNIT ID	MH#5
PEAK FLOW RATE (CFS)	N/A
TREATMENT FLOW RATE (CFS)	1.18

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 CURRENT NJDEP/NJCAT HDS PROTOCOL.



SECTION VIEW A-A
N.T.S.



PLAN VIEW
N.T.S.

BREWSTER PHASE 2 | DETROIT-MI | DATE: 11/26/24 | DRAWN: | PROJECT #: | CHECKED: XX

DATE	DRAWN	CHKD	DESCRIPTION

Barracuda Max Stormwater Separator

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

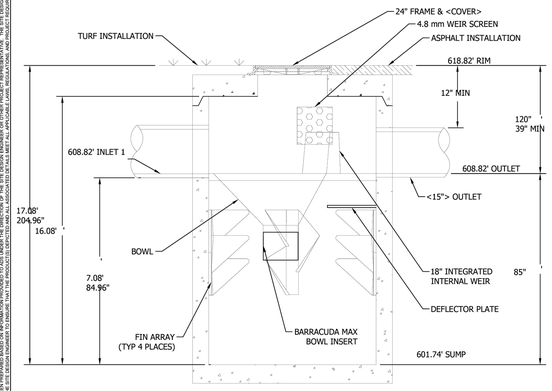
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED HEREON MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

SHEET 2 OF 2

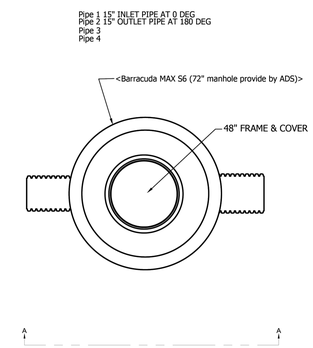
BARRACUDA MAX S6	
UNIT ID	MH#2
PEAK FLOW RATE (CFS)	N/A
TREATMENT FLOW RATE (CFS)	1.83

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 CURRENT NJDEP/NJCAT HDS PROTOCOL.



SECTION VIEW A-A
N.T.S.



PLAN VIEW
N.T.S.

BREWSTER PHASE 3 | DETROIT-MI | DATE: 11/26/24 | DRAWN: | PROJECT #: | CHECKED: XX

DATE	DRAWN	CHKD	DESCRIPTION

Barracuda Max Stormwater Separator

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED HEREON MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

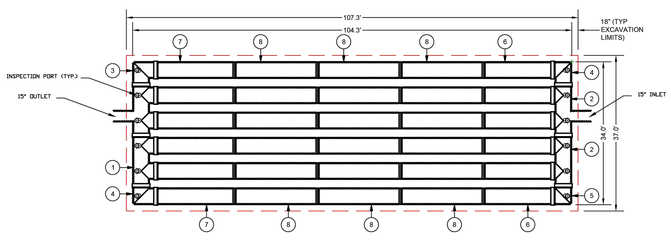
SHEET 2 OF 2

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN	VENDOR	NOTE
1	2		4252AN65B	42" WT DOUBLE MANIFOLD TEE (BxBxBxG)	STAN	ADS	SEE DETAIL
2	2		4252AN65G	42" WT DOUBLE MANIFOLD TEE (GxGxGxB)	STAN	ADS	SEE DETAIL
3	1		4298AN65BB	42" WT MANIFOLD 90 DEG BEND (BxB)	STAN	ADS	SEE DETAIL
4	2		4298AN65BG	42" WT MANIFOLD 90 DEG BEND (BxG)	STAN	ADS	SEE DETAIL
5	1		4298AN65GG	42" WT MANIFOLD 90 DEG BEND (GxG)	STAN	ADS	SEE DETAIL
6	6 STICKS		STICK-1	42" N12 HWY WTB.SOLID 20'	CUS	ADS	SEE DETAIL
7	6 STICKS		STICK-2	42" N12 HWY WTB.SOLID 20'	CUS	ADS	SEE DETAIL
8	18 STICKS	355 LF	4265002IB	42" N12 HWY WTB.SOLID 20'	STAN	ADS	AS SHOWN
9	3 ROLLS	1500 SY	0601TG	601.15' X 300' (500 SY) (NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
10	19741 CF	732 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

STORAGE VOLUME PROVIDED THIS SYSTEM = 6,076 CFT



ADS GEOTEXTILE FABRIC

BREWSTER PHASE 2 | DETROIT | DATE: 11/25/2024 | DRAWN: AB | PROJECT #: | CHECKED: N/A

DATE	DRAW.	CHK.	DESCRIPTION

42" WT18 SOLID DETENTION SYSTEM **LandMax** Stormwater Management System

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED HEREON MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS. THE ADS PRODUCT(S) DEPICTED HEREIN WILL NOT BE INSTALLED UNDER THE DIRECTION OF THE ADS EMPLOYEE(S) OR AGENT(S). ADS WILL NOT BE RESPONSIBLE FOR ANY ADDITIONAL COSTS INCURRED WITHOUT PRIOR APPROVAL. ADS SHALL REVIEW THIS DRAWING PRIOR TO BEGINNING ANY CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED HEREON MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS. ADS ASSUMES NO LIABILITY FOR ANY ADDITIONAL COSTS INCURRED WITHOUT PRIOR APPROVAL.

SHEET 2 OF 6

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN	VENDOR	NOTE
1	1		4251AN65B	42" WT SINGLE MANIFOLD TEE (GxBxB)	STAN	ADS	SEE DETAIL
2	1		4251AN65G	42" WT SINGLE MANIFOLD TEE (GxGxB)	STAN	ADS	SEE DETAIL
3	3		4252AN65B	42" WT DOUBLE MANIFOLD TEE (BxBxBxG)	STAN	ADS	SEE DETAIL
4	3		4252AN65G	42" WT DOUBLE MANIFOLD TEE (GxGxGxB)	STAN	ADS	SEE DETAIL
5	1		4298AN65BB	42" WT MANIFOLD 90 DEG BEND (BxB)	STAN	ADS	SEE DETAIL
6	2		4298AN65BG	42" WT MANIFOLD 90 DEG BEND (BxG)	STAN	ADS	SEE DETAIL
7	1		4298AN65GG	42" WT MANIFOLD 90 DEG BEND (GxG)	STAN	ADS	SEE DETAIL
8	9 STICKS		STICK-1	42" N12 HWY WTB.SOLID 20'	CUS	ADS	SEE DETAIL
9	9 STICKS		STICK-2	42" N12 HWY WTB.SOLID 20'	CUS	ADS	SEE DETAIL
10	9 STICKS	178 LF	4265002IB	42" N12 HWY WTB.SOLID 20'	STAN	ADS	AS SHOWN
11	2 ROLLS	1000 SY	0601TG	601.15' X 300' (500 SY) (NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
12	15863 CF	588 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
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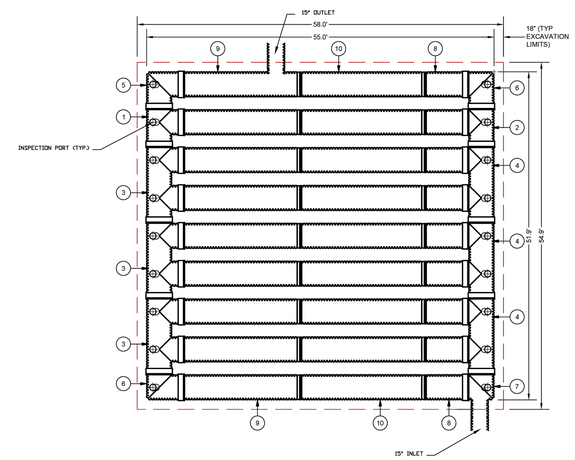
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

STORAGE VOLUME PROVIDED THIS SYSTEM = 4,996 CFT



ADS GEOTEXTILE FABRIC

BREWSTER PHASE 3 | DETROIT | DATE: 11/25/2024 | DRAWN: AB | PROJECT #: | CHECKED: N/A

DATE	DRAW.	CHK.	DESCRIPTION

42" WT18 SOLID DETENTION SYSTEM **LandMax** Stormwater Management System

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473

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SHEET 2 OF 6

PRELIMINARY - NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616–414–5260
email: bcallen@callenengineering.com

For protection of underground utilities, the CONTRACTOR shall dial 1-800-482-7171 OR 811 a minimum of three working days, excluding Saturdays, Sundays and holidays, prior to excavation in the vicinity of utility lines. All "MISS DIG" participating members will thus be routinely notified. This does not relieve the CONTRACTOR of the responsibility of notifying the utility owners who may not be part of the "MISS DIG" alert system.

DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
108 East Savidge Street
Spring Lake, MI 49456
T.616.414.5260
www.callenengineering.com

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
BINGHAM FARMS, MI 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	90% CD'S	B.A.C.	11–22–24
2.	BUILDING PERMIT	B.A.C.	12–06–24
3.	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03–31–25
4.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	06–01–25
5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

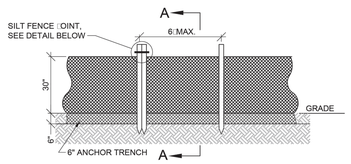
DRAWN BY	DATE
J.W.C.	SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25

SCALE

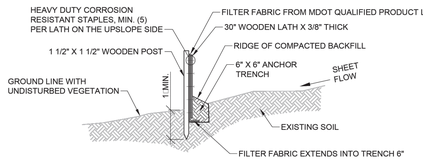
DRAWING	PLOT SCALE
AS NOTED	1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO: C4.3

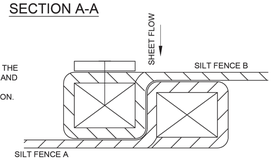


ELEVATION



SECTION A-A

GENERAL NOTE:
SILT FENCE MATERIAL SHALL MEET THE REQUIREMENTS IN SECTION 910.04 AND TABLE 910-1 IN MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.



NOTE:
FABRIC TO BE WRAPPED AROUND FENCE POST.

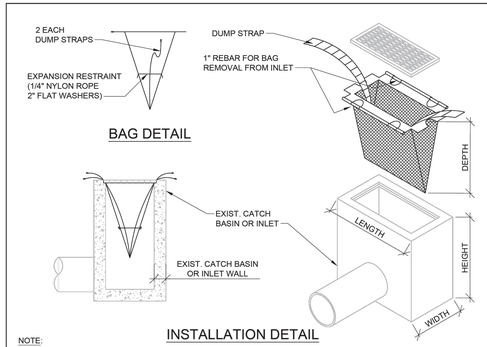
SILT FENCE JOINT - TOP VIEW

REV	DESCRIPTION	DATE
	REVISIONS	

EROSION CONTROL, SILT FENCE

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 09/2018	DWG. No. 015:13-02

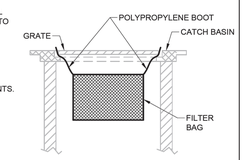


INSTALLATION DETAIL

NOTE:

TEMPORARY INLET SEDIMENT FILTER TO BE INSTALLED ON ALL PAVED CATCH BASINS OR STORM INLETS. SEDIMENT FILTERS TO BE SIMILAR TO:

1. "SILTSACK" TYPE B, REGULAR FLOW, BY ACF ENVIRONMENTAL, INC.
2. "INLET PRO SEDIMENT BAG", STANDARD FLOW, WITH OPTIONAL FOAM DEFLECTOR BY HANES GEO COMPONENTS.
3. "DANDY CURB SACK" BY DANDY PRODUCTS, INC.
4. "BASIN BAG", REGULAR FLOW BY CSI GEOTURF, CLEAN FILTER AS NEEDED.



GENERAL NOTES

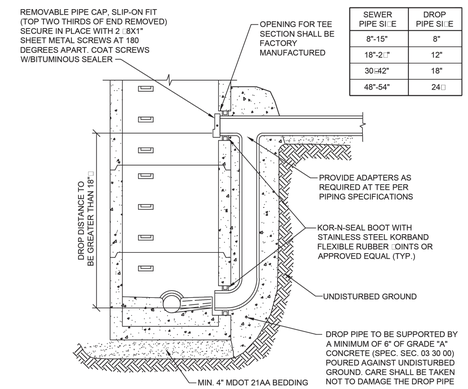
1. CONTRACTOR SHALL OBTAIN PERMISSION OF THE ENFORCING ROAD AGENCY BEFORE THIS TYPE OF CONTROL IS CONSTRUCTED IN THE ROAD RIGHT-OF-WAY.
2. CONTRACTOR SHALL KEEP CURBS GUTTER INLET FILTERS (AFTER PAVING) IN PLACE UNTIL ALL AREAS CONTRIBUTING TO THEM ARE STABILIZED WITH VEGETATION.
3. CONTRACTOR SHALL PERFORM WEEKLY INSPECTION AND MAINTENANCE TO ENSURE THAT THE CURB GUTTER INLET FILTER (AFTER PAVING) OPERATES EFFICIENTLY.

REV	DESCRIPTION	DATE
	REVISIONS	

INLET PROTECTION FABRIC DROP

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 09/2018	DWG. No. 015:13-05



SEWER PIPE SIZE	DROP PIPE SIZE
8"-15"	8"
18"-27"	12"
30"-42"	18"
48"-54"	24"

NOTES:

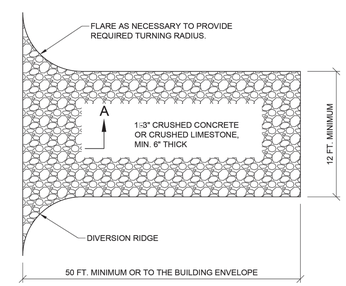
1. DROP PIPE LOCATION SHALL NOT INTERFERE WITH MANHOLE STEPS, OR STEPS AND CONE SHALL BE REPOSITIONED.
2. SEE STANDARD MANHOLE DRAWING FOR OTHER MANHOLE REQUIREMENTS.

REV	DESCRIPTION	DATE
1	UPDATED	06/2020
	REVISIONS	

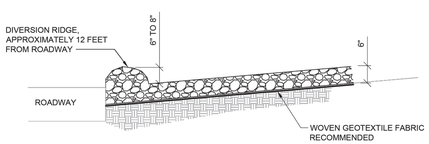
MANHOLE, EXTERIOR DROP

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 9/2018	DWG. No. 330561-06



PLAN VIEW



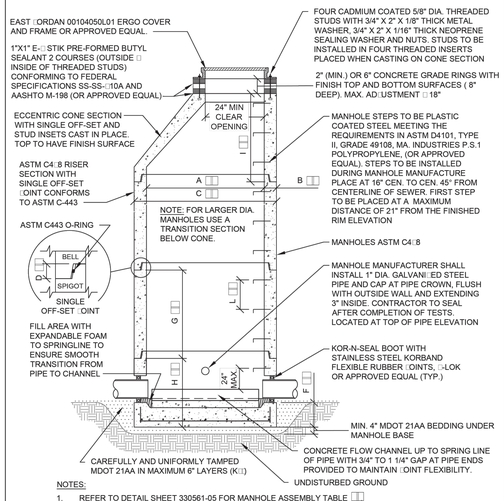
CROSS-SECTION A-A

REV	DESCRIPTION	DATE
	REVISIONS	

GRAVEL ACCESS APPROACH

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 09/2018	DWG. No. 015:13-0



NOTES:

1. REFER TO DETAIL SHEET 330561-05 FOR MANHOLE ASSEMBLY TABLE
2. PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO ALL THE REQUIREMENTS OF "SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE RISERS AND TOPS" ASTM C-478 WITH SINGLE OFF-SET JOINT CONFORMS TO ASTM C-443.
3. EACH SECTION SHALL HAVE NOT MORE THAN TWO HOLES FOR HANDLING PURPOSES. THESE HOLES SHALL BE SATISFACTORILY PLUGGED WITH GROUT AFTER INSTALLATION.

REV	DESCRIPTION	DATE
1	UPDATED	06/2020
	REVISIONS	

STANDARD MANHOLE PRECAST

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 09/2018	DWG. No. 330561-02

PRELIMINARY - NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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DATE OF PLAN: 08-01-25

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MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
BINGHAM FARMS, MI 48025
248-833-0552

NO	ISSUANCE / REVISION	BY	DATE
1	90% CD'S	B.A.C.	11-22-24
2	BUILDING PERMIT	B.A.C.	12-06-24
3	SITE PLAN REVIEW RESPONSE #1	B.A.C.	03-31-25
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5	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

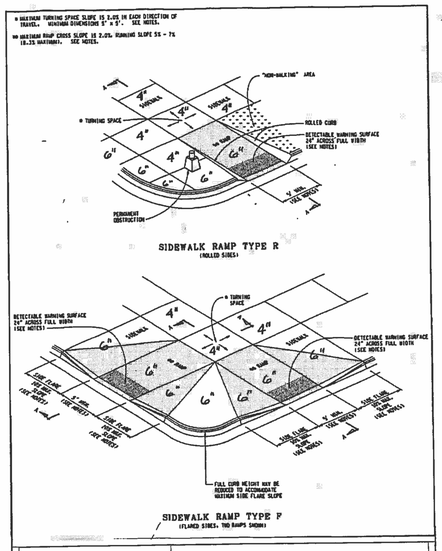
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

DRAWN BY J.W.C.	DATE SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1

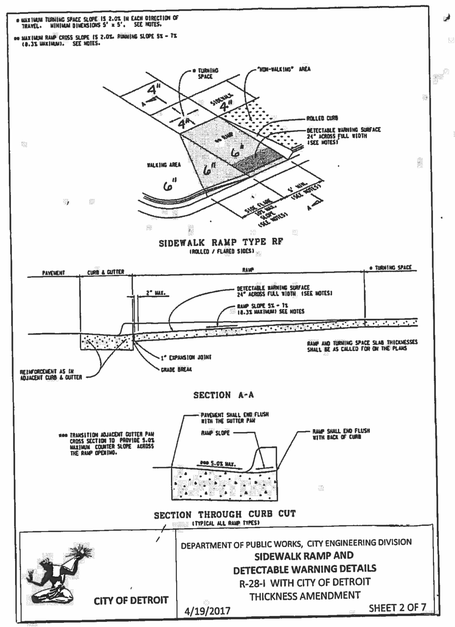
PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C4.4



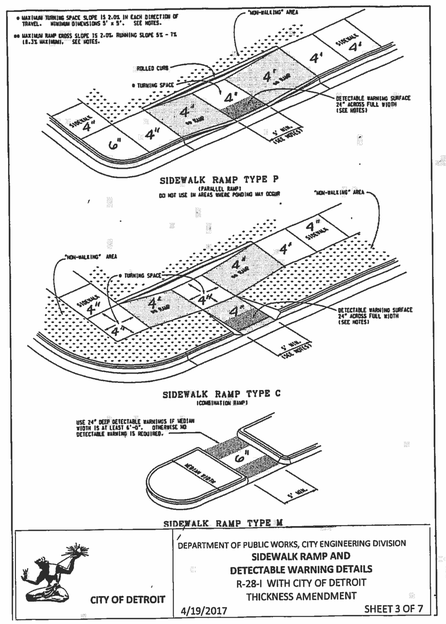
CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DETROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 1 OF 7



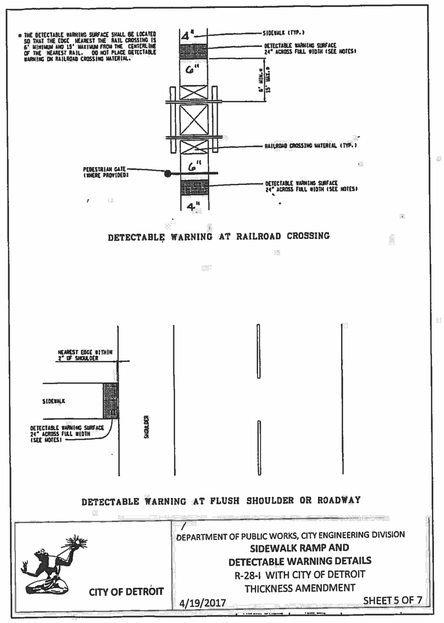
CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DETROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 2 OF 7



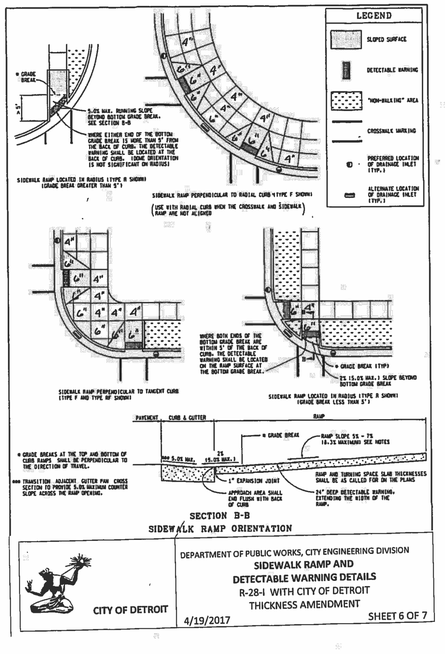
CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DETROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 3 OF 7



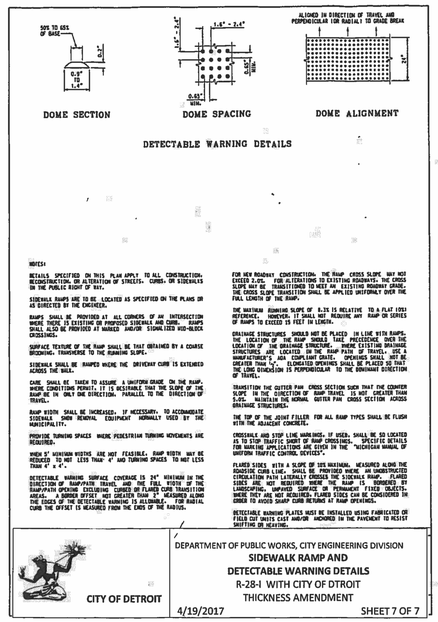
CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DETROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 5 OF 7



CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DETROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 6 OF 7



CITY OF DETROIT

DEPARTMENT OF PUBLIC WORKS, CITY ENGINEERING DIVISION
SIDEWALK RAMP AND
DETECTABLE WARNING DETAILS
R-28-I WITH CITY OF DTROIT
THICKNESS AMENDMENT
4/19/2017 SHEET 7 OF 7

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MICHIGAN
BRUCE A. CALLEN
47047392
PROFESSIONAL ENGINEER

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616–414–5260
email: bcallen@callenengineering.com

811
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DATE OF PLAN: 08-01-25

Callen Engineering, Inc.
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T.616.414.5260
www.callenengineering.com

callen civil engineers

MHT HOUSING, INC.
32500 TELEGRAPH ROAD, SUITE 100
BINGHAM FARMS, MI 48025
248-833-0552

NO.	ISSUANCE / REVISION	BY	DATE
1.	90% CD'S	B.A.C.	11-22-24
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4.	SITE PLAN REVIEW RESPONSE #2	B.A.C.	08-01-25
5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS		

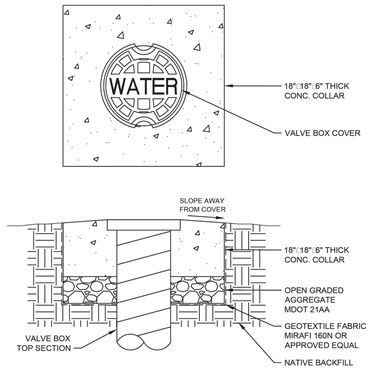
BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

DRAWN BY J.W.C.	DATE SEP '24
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE	
DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. C4.5



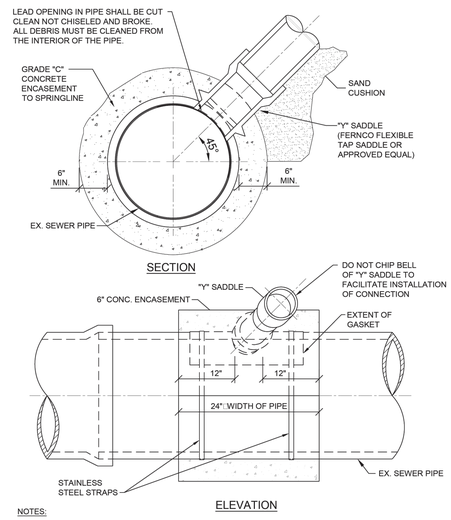
NOTE:
1. CLASS B CONCRETE, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS □4,000 PSI.

REV	DESCRIPTION	DATE
	REVISIONS	

CONCRETE VALVE BOX COLLAR

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 5/2020	DWG. No. 331419-09



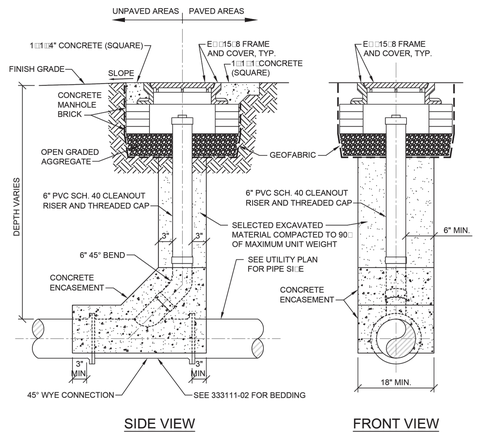
NOTES:
1. FOR SEWERS 18" OR LESS A "Y" SADDLE MAY BE USED IF THE OUTSIDE DIA. OF THE TAP IS LESS THAN ONE HALF THE DIA. OF THE SEWER BEING TAPPED.
2. PROVIDE EXTENSION CLAMPS FOR 15" SEWERS AND LARGER.
3. CONCRETE BELOW PIPE IS ONLY REQUIRED FOR 15" SEWERS AND LARGER WITH STRAPS.

REV	DESCRIPTION	DATE
1	UPDATED	06/2020
	REVISIONS	

CONNECTION, SADDLE TO LATERAL SEWER

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 09/2018	DWG. No. 333111-01



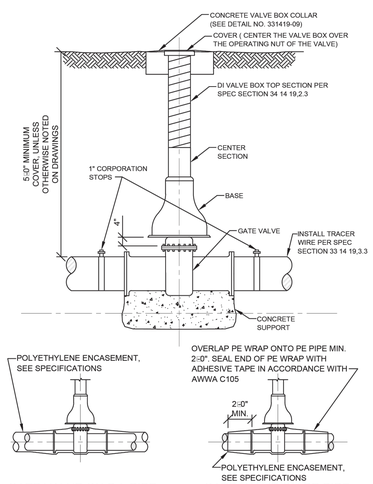
NOTES:
1. MINIMUM SEPARATION DISTANCE BETWEEN LATERALS: 5 FT
2. MINIMUM DEPTH OF COVER OVER PIPE: 2 FT

REV	DESCRIPTION	DATE
1	UPDATED	06/2020
	REVISIONS	

CLEANOUT

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 9/2018	DWG. No. 333111-03



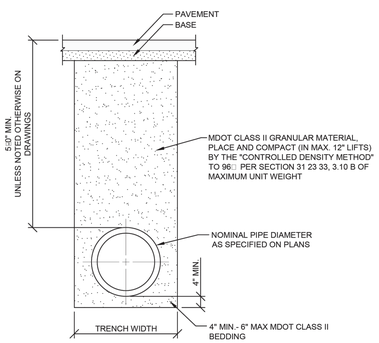
NOTES:
1. ALL MECHANICAL □OINTS REQUIRE RETAINER GLAND.
2. 12 INCH DIAMETER VALVES AND SMALLER SHALL BE TWO PIECE TYPE.
3. VALVES LARGER THAN 12 INCH DIAMETER SHALL BE THREE PIECE TYPE.
4. WRAP ALL BURIED VALVES, MECHANICAL □OINTS, AND □OINT RESTRAINT DEVICES WITH WAX TAPE IN ACCORDANCE WITH AWWA C21□. OVERWRAP WAX TAPE WITH ONE WRAP OF PE ENCASEMENT IN ACCORDANCE WITH AWWA C105. TIGHTLY TAPE THE PE WRAP TO SEAL ALL □OINTS AND FOLDS.

REV	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	UPDATED	5/2020
	REVISIONS	

VALVE BOX INSTALLATION

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 1
DATE 9/2018	DWG. No. 331419-04



NOMINAL PIPE DIAMETER	MAXIMUM TRENCH WIDTH
LESS THAN 18"	30"
18" TO 24"	PIPE DIAMETER PLUS 18"
GREATER THAN 24"	PIPE DIAMETER PLUS 24"

NOTES:
1. NO EXTRA PAYMENT WILL BE MADE FOR BASE AND PAVEMENT RESTORATION ITEMS DUE TO ADDITIONAL EXCAVATION BEYOND THE MAXIMUM TRENCH WIDTH LISTED ABOVE.
2. REFER TO PAVEMENT RESTORATION DETAILS FOR BASE AND PAVEMENT WIDTH.
3. TRENCHING SHALL BE PER OSHA 29 CFR, SUBPART P AND SHALL BE PERFORMED TO MINIMI□E THE SURFACE DISRUPTION.

STANDARD TRENCH DETAIL FOR WATER MAIN UNDER ROAD BED, PARKING LOTS, SIDEWALKS, DRIVEWAYS, CURBS, GRAVEL ROADS AND ALLEYS

REV	DESCRIPTION	DATE
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	UPDATED	5/2020
	REVISIONS	

UTILITY TRENCH, WATER MAIN

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
ENGINEERING DIVISION

SCALE NONE	SHEET 1 OF 3
DATE 9/2018	DWG. No. 312333-04

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MICHIGAN
BRUCE A. CALLEN
No. 1047392
LICENSED PROFESSIONAL ENGINEER

Plan Prepared By:

Bruce A. Callen, PE
Callen Engineering, Inc.
108 E. Savidge St.
Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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5.	REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS	B.A.C.	/------/

BREWSTER PHASE 1-3
631,651,671 ALFRED STREET
DETROIT, MI 48201
WAYNE COUNTY, MICHIGAN

X-SECTIONS, NOTES, AND DETAILS

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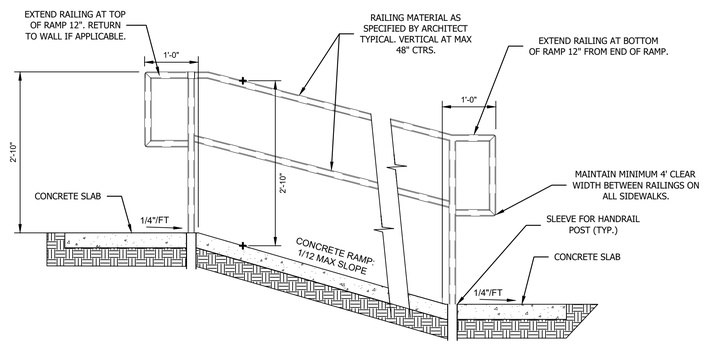
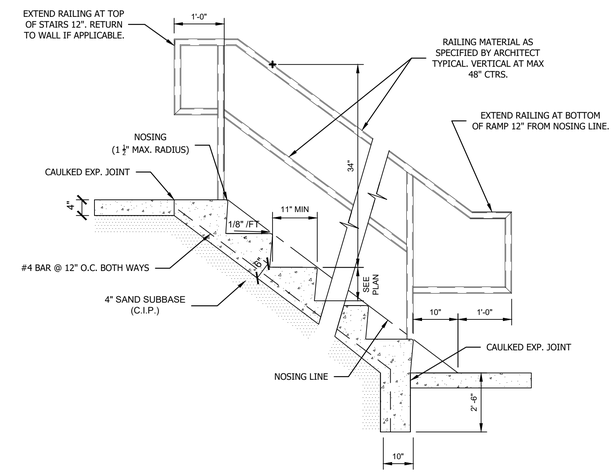
ENGINEER B.A.C.	DATE SEP '24
EDIT J.W.C.	DATE AUG '25
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1
PROJECT 023 BREWSTER SANCTUARY	
SHEET NO. C4.6	



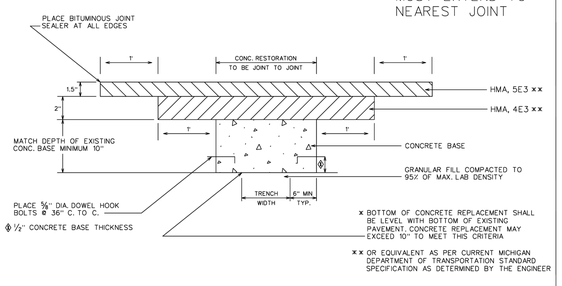
RAMP HANDRAIL DETAIL HC-HR
NO SCALE



CONCRETE STAIR DETAIL - UNIVERSAL DESIGN HC-CS
NO SCALE

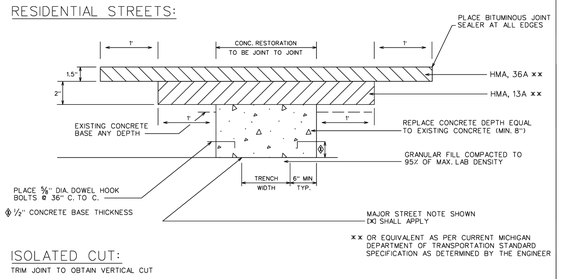
MAJOR STREETS:

NOTE: PAVEMENT CUTS MUST EXTEND TO NEAREST JOINT



EXCEPTION:
TO ABOVE 3" HMA REPLACEMENT. WHEN PAVEMENT REPLACEMENT IS 100 FEET FROM EITHER SIDE OF UNDERPASS, REPLACE 10" MIN CONCRETE BASE WITH TOP OF CONCRETE LEVEL WITH TOP OF EXISTING CONCRETE AND REPLACE HMA SECTION AS EXISTING

RESIDENTIAL STREETS:



ISOLATED CUT:
TRIM JOINT TO OBTAIN VERTICAL CUT

B					
A					
DESCRIPTION		DRWN	CHKD	APPD	DATE
REVISIONS					
DRAWN BY WLW	CHECKED KSM				
DATE 08/29/18	APPROVED SRB				

HMA SURFACE ON CONCRETE BASE UTILITY TRENCH CONSTRUCTION PAVEMENT RESTORATION

CITY OF DETROIT
CITY ENGINEERING DIVISION
SURVEY BUREAU
JOB NO.
DRWG. NO. 1 OF 2

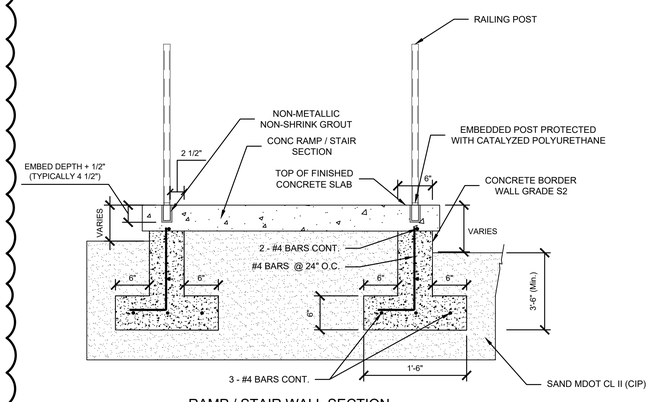
CITY OF DETROIT NOTES

1. MILL (REMOVE) HMA PAVEMENT WITHIN AND BEYOND THE AREA OF TRENCH PAVEMENT REMOVAL IN ORDER TO DETERMINE LOCATION OF UNDERLYING CONCRETE BASE PAVEMENT JOINTS. MILL MINIMUM TO 1' BEYOND NEAREST CONCRETE JOINTS.
2. EXTEND UTILITY TRENCH CONCRETE PAVEMENT REMOVAL TO ALL CONCRETE PAVEMENT JOINTS AND / OR CURBS ADJACENT TO THE TRENCH AREA. REMOVAL SHALL BE "JOINT TO JOINT".
3. CONCRETE PAVEMENT CUTS SHALL BE MINIMUM 3' WIDE.
4. ALL PAVEMENT CUTS SHALL BE MINIMUM 1' WIDER THAN TRENCH WIDTH.
5. ALL REMOVALS SHALL BE SAWCUT STRAIGHT AND SQUARE (90 DEGREES).
6. CONCRETE RESTORATION PAVEMENT SHALL BE MDOT P1 MIX (3,500 PSI).
7. RESTORED CONCRETE PAVEMENT SHALL MATCH THICKNESS OF EXISTING CONCRETE PAVEMENT IN CONFORMANCE WITH MDOT STANDARDS DETAIL R-44-F.
8. RESTORED CONCRETE SHALL BE ANCHORED TO EXISTING CONCRETE PAVEMENT IN CONFORMANCE WITH MDOT STANDARD DETAIL R-44-F
9. APPLY HMA TACK COAT PER MDOT STANDARD SPECIFICATIONS SECTION 904.
10. RESTORE HMA PAVEMENT 3½" TO MATCH EXISTING, IN 2 LIFTS:
    1ST LIFT - 2" MDOT HMA 4E3 (13A RESIDENTIAL), COMPACTED, EXTENDED 1' BEYOND BASE CONCRETE REPAIR.
    2ND LIFT - 1½" MDOT HMA 5E3 (36A RESIDENTIAL), COMPACTED, EXTENDED 1' BEYOND 1ST LIFT..
11. BITUMINOUS JOINT SEALER SHALL BE PLACED AT ALL FINISHED HMA JOINTS.
12. ALL DISTRUBED PAVEMENT MARKINGS AND OTHER ASSETS, INCLUDING BIKE LANE DELINEATORS, WILL HAVE TO BE REPLACED AT THE COST OF THE PERMIT HOLDER, AND SHALL CONFORM TO THE LATEST CED / TED STANDARDS.
13. FOR OTHER RELATED SPECIFICATIONS (BACKFILL COMPACTION, MATERIALS, ETC...), REFER TO DIVISION 15 OF THE STANDARD SPECIFICATIONS FOR PAVING AND RELATED CONSTRUCTION.
14. NOTIFY THE CITY OF DETROIT ENGINEERING DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION.
15. ANY OPEN EXCAVATIONS ARE TO BE STEEL PLATED. IF EXCAVATIONS ARE IN THE PAVEMENT, THE PLATES ARE TO BE SPIKED AND RAMPED WITH COLD PATCH. CONTACT THE CITY WITH LOCATION OF THE STEEL PLATE.
16. THE CITY OF DETROIT REQUIRES ALL CONCRETE WORK TO BE STAMPED WITH A CONTRACTORS IDENTIFICATION STAMP.

B					
A					
DESCRIPTION		DRWN	CHKD	APPD	DATE
REVISIONS					
DRAWN BY WLW	CHECKED KSM				
DATE 08/29/18	APPROVED SRB				

HMA SURFACE ON CONCRETE BASE UTILITY TRENCH CONSTRUCTION PAVEMENT RESTORATION

CITY OF DETROIT
CITY ENGINEERING DIVISION
SURVEY BUREAU
JOB NO.
DRWG. NO. 2 OF 2



RAMP / STAIR WALL SECTION
NO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

Plan Prepared By:

Bruce A. Callen, PE
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Spring Lake, Michigan 49456

Tel: 616-414-5260
email: bcallen@callenengineering.com

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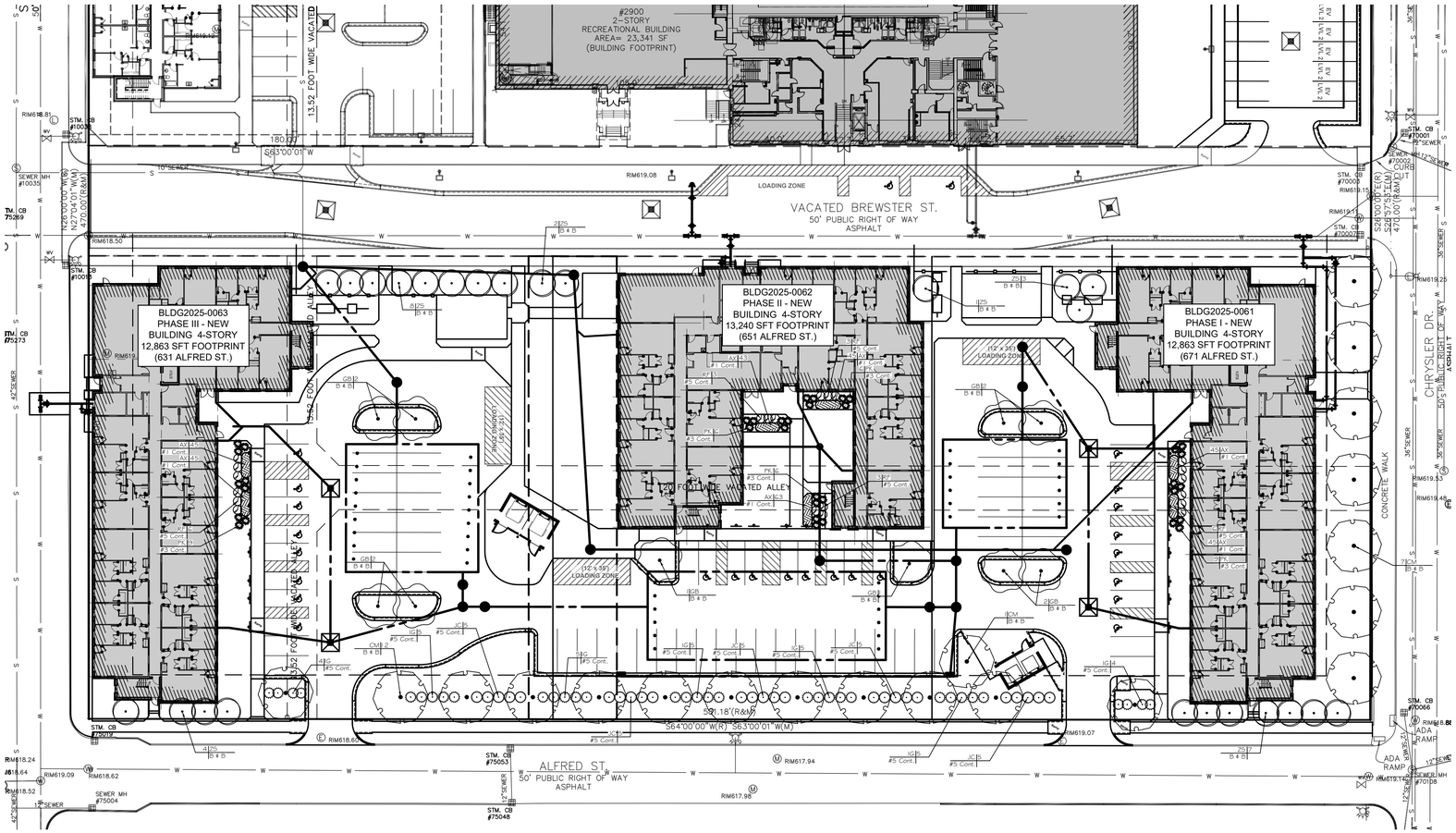
SCALE DRAWING	PLOT SCALE
AS NOTED	1:1
PROJECT 023 BREWSTER SANCTUARY	
SHEET NO. C4.7	



LANDSCAPE DATA

Off street parking areas

Required - 61-14-221 Right of Way Screening

Buffer strip with a minimum width of five feet between the off-street parking area and the right-of-way.

One tree shall be provided for each 30 lft. of buffer. 395 lft./30 = 13 trees

Vegetation, a berm, or masonry wall forming a continuous screen at least 30 inches, but not more than 36 inches, in height, shall be located within the landscape buffer.

Vegetative screening material that is designed to provide 75 percent opacity on a year-round basis.

Proposed

13 trees

Shrubs at least 30", but not more than 36".

Vegetative screening material that is designed to provide 75 percent opacity on a year-round basis.

Parking Lot

Required - 61-14-223 Interior Landscaping

25--100 spaces - 18 square feet of landscape area per parking space.

85 parking spaces x 18 sf. = 1530 sf.

The total number of trees required to be planted in the interior of an off-street parking area shall be calculated and provided at a rate of one shade tree for each 250 square feet or fraction thereof, of required interior landscaped area;

1530 sf. / 250 sf. = 7 trees

Each island shall include 1 shade tree.

Proposed

1687 sft. Landscape area.

One shade tree per 250 sft. = 7 trees

Each island includes 1 shade tree.

Landscaping in required setbacks.

Required - 50-14-362. - Landscaping of required setbacks.

Where certain land uses require a setback from a public street, at least one tree shall be provided for each 30 linear feet of lot width.

940 lft./ 30 lft. = 31 trees

Proposed 31 trees

Plant Size

Required - 61-14-205 Shrubs and Trees

Shrubs min. size equal to or greater than a number 3 container and have a min. ht. of 18" at time of planting.

Trees min. dia. Of 2" measured at 12" above root ball. Clear stem of at least 5'.

Proposed

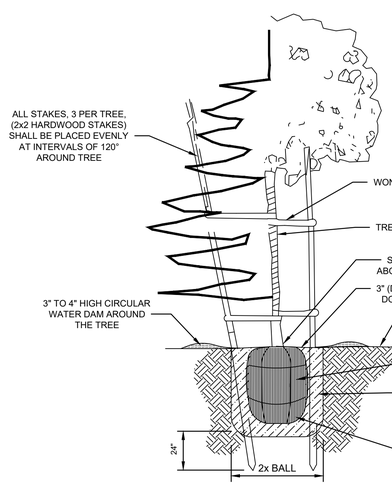
Complies

Required - 61-14-206 Ground Treatment

All unpaved areas are to be treated with groundcover, mulched areas, sod or seed lawns, or pavers.

Proposed

Complies



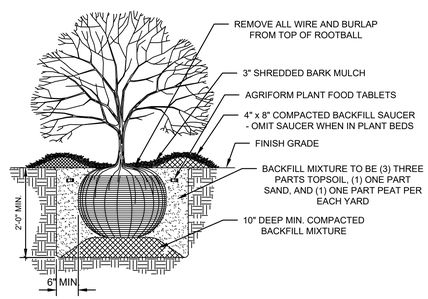
NOTES:

1. INSTALLATION INCLUDES REMOVAL OF STAKES ONE YEAR AFTER INSTALLATION
2. SHAPE SOIL SURFACE TO PROVIDE WATERING RING
3. ADJUST TREE TIES TO ALLOW ROOM FOR GROWTH DURING ESTABLISHMENT (ALLOW SLACK)
4. TREE PIT DEPTH SHALL EQUAL ROOTBALL DEPTH (MEASURE BEFORE DIGGING TO AVOID OVER EXCAVATION)

21 GRAM "AGRIFORM" PLANTING TABLETS AS FOLLOWS:
2 TABLETS PER 1 GAL. PLANT
3 TABLETS PER 5 GAL. PLANT
4 TABLETS PER 15 GAL. PLANT
LARGER PLANTS (2) TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER

TYPICAL - TREE STAKING

NO SCALE



SHRUB INSTALLATION

NO SCALE

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	CAL		QTY
TREES						
	CM	Celtis x 'Magnifica' / Magnifica Common Hackberry	B & B	2.5"Cal		20
	GB	Ginkgo biloba 'Autumn Gold' / Autumn Gold Maidenhair Tree	B & B	2.5"Cal		10
	ZS	Zelkova serrata 'Musashino' / Musashino Japanese Zelkova	B & B	2.5"Cal		25
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT		QTY
SHRUBS						
	IG	Ilex glabra 'ILEXFARROWTRACEY' / Strongbox® Inkberry Holly	#5 Cont.	Min. 18" Ht.		33
	JC	Juniperus chinensis 'Parsoni' / Parsoni Juniper	#5 Cont.	Min. 18" Ht.		25
	PK	Pennisetum orientale 'Karley Rose' / Karley Rose Fountain Grass	#3 Cont.			36
	RF	Rhamnus frangula 'SMNRFBT' / Fine Line® Improved Buckthorn	#5 Cont.	Min. 5' - 6' Ht.		21
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	SPACING	QTY
GROUND COVERS						
	AX	Allium x 'Millenium' / Millenium Ornamental Onion	#1 Cont.		12" o.c.	331

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LANDSCAPE PLAN

DRAWN BY	DATE
J.W.C.	DEC '23
ENGINEER B.A.C.	DATE DEC '23
EDIT J.W.C.	DATE AUG '25
SCALE	
DRAWING AS NOTED	PLOT SCALE 1:1

PROJECT 023 BREWSTER SANCTUARY

SHEET NO. L1.0