

City of Muskegon 2024 Road & Utility Construction Project Summary

Project Name: Bluffton Area – Wilcox Ave, Thompson Ave, Edgewater St, Plum Ave, Cherry St, Walnut St and the alley between Cherry St and Walnut St.

Project Type: Complete reconstruction including new sewers, new water mains, water service lines replaced to the meter, new road, new sidewalks, and new driveways.

Contractor: Kamminga & Roodvoets

City Neighborhood(s): Beachwood-Bluffton

Project Summary: The utilities in the traditional Bluffton area have reached the end of their life. In order to replace them, the entire street from sidewalk to sidewalk will need to be dug up and replaced. The project includes replacing your water service line all the way to the meter, so the contractor will need to enter your basement (or the area where your water service enters your home). You'll need to allow extra time to get to and from your home this spring and summer since Edgewater or Waterworks will be closed, and at times you will need to park on a street that may be a block or two away from your home. Your water will need to be shut off for short periods of time and you will always have notice of when this will happen.

Changes to Expect: The road will look very similar to how it looks today, but everything on the surface and many things underground will be new. Many trees will need to be removed, but they will be replaced in the year following the project. Terrace parking is no longer allowed in the City, so all the terraces (the area between the road and the sidewalk) will be planted with grass and will have curbs to protect them. You'll be able to park on the street if you don't have a garage or driveway.

Timeline/Timeframe: Work will start in early March 2024 and should be complete by the end of the summer (work is planned to be done before Labor Day). The project will be done in two parts, with Thompson, Walnut, the alley between Walnut and Cherry, and Edgewater (Wilcox to Thompson) in the first part. Wilcox, Plum, and Cherry will be in the second part. The two parts will overlap a bit in the early summer, but either Edgewater or Waterworks will always be open (though rarely both).

Lane, Road or Intersection Shutdown: All streets in the Bluffton area will be closed at various times.

Contractor Project Update Link:

https://www.preinnewhof.com/construction_projects/wilcox-thompson/

Save this link to view frequent updates (with photos) from the contractor. A great tool to keep informed on the project.

Project Contact Information:

Todd Myers
Deputy Director of Public Works
Todd.myers@shorelinecity.com
(231) 724-6920

Matt Hulst
Prein & Newhof (Consultant)
Mhulst@preinnewhof.com
(231) 798-0101

FAQs:

How will my trash get picked up? The contractor will work with the City and Republic Waste to make sure your trash is picked up. You may have to bring your trash can to a different location than normal.

Why do all the trees in the streets need to be removed? The sewers and water mains that are being replaced are far underground, in some cases as deep as 12 feet down. In order to safely dig down that far, the trees need to be removed. Replacement trees will be planted the year after the project.

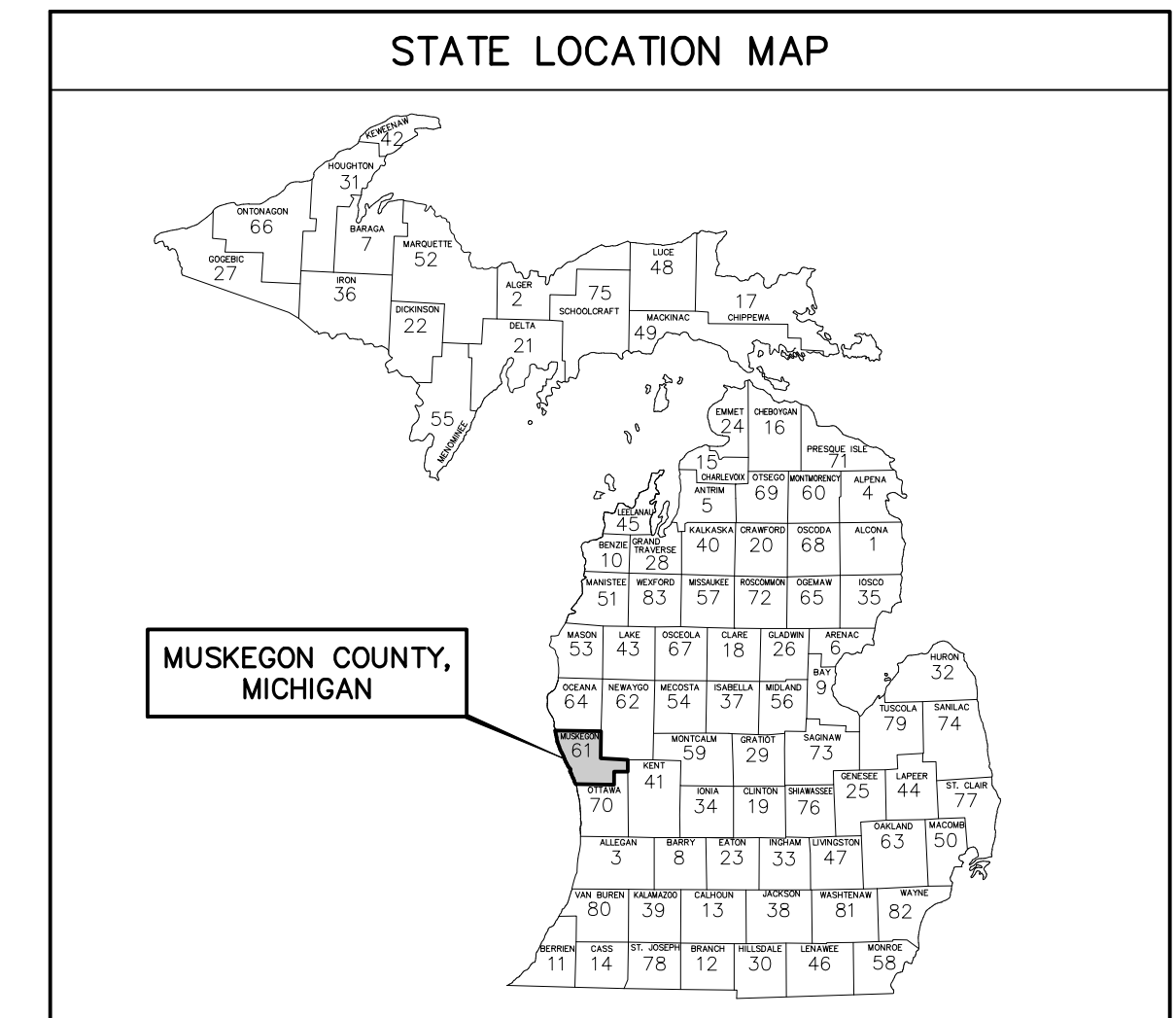
Cool Info: This project is funded in part by grants from the Bi-Partisan Infrastructure Law

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

UTILITY AND STREET IMPROVEMENTS

WILCOX & THOMPSON AVENUES EDGEWATER, PLUM, WALNUT & CHERRY STREETS

SRF PROJECT #5790-01 DWRP PROJECT #7467-01



PROJECT DATUM INFORMATION

COORDINATE SYSTEM : STATE PLANE GRID
 ZONE : MICHIGAN SOUTH 2113
 ELLIPSOID : GRS 80
 HORIZONTAL DATUM : NAD 83 (2011)
 VERTICAL DATUM : NAVD 88
 GEOID : GEOID 18
 UNITS : INTERNATIONAL FEET
 PROJECT COMBINED SCALE FACTOR (PCSF) = 0.999923934485
 GROUND DISTANCE = GRID DISTANCE/PCSF

SOIL BORING GENERAL NOTES

WITHIN EACH SOIL BORING, WHERE SHOWN, SOIL SAMPLES WERE OBTAINED BY THE STANDARD PENETRATION TEST METHOD, ASTM D1586, WHEREBY A SPLIT-SPOON SAMPLER IS DRIVEN THREE SUCCESSIVE 6-INCH INCREMENTS WITH A 140 POUND WEIGHT FALLING 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER FOR EACH INCREMENT IS PRESENTED ON THE SOIL BORING LOGS.

GRANULAR SOILS (COARSE-GRAINED) HAVE MORE THAN SIZE OF THEIR DRY WEIGHT RETAINED ON A #200 SIEVE. THEY ARE DESCRIBED AS: Boulders, Cobbles, Gravel, OR SAND. FINE-GRAINED SOILS HAVE LESS THAN SIZE OF THEIR DRY WEIGHT RETAINED ON A #200 SIEVE. THEY ARE DESCRIBED AS: CLAYS OF CLAYEY SILTS IF THEY ARE COHESIVE, AND SILTS IF THEY ARE NON-COHESIVE. IN ADDITION TO GRADATION, GRANULAR SOILS ARE DEFINED BASED ON THEIR IN-SITU DENSITY; FINE-GRAINED SOILS ARE FURTHER DEFINED BASED ON THEIR STRENGTH OR CONSISTENCY, AND ON THEIR PLASTICITY.

MAJOR SOIL COMPONENT	GRADATION RANGE	DESCRIPTION TERM(S) (OF MAJOR SOIL CONSTITUENTS)	PERCENT OF DRY WEIGHT
BOULDERS	OVER 12 INCHES (305mm)	BRACE	1 - 10
COBBLES	12 INCHES TO 3 INCHES (305mm TO 76mm)	LITTLE	10 - 20
GRAVEL	3 INCHES TO 3/4 INCHES (76mm TO 19mm)	SOME	20 - 35
SAND	FINE	AND	35 - 50
	COARSE		
	#4 SIEVE TO #10 SIEVE (4.75mm TO 2.00mm)		
	MEDIUM		
	#10 SIEVE TO #40 SIEVE (2.00mm TO 0.425mm)		
	FINE		
	#40 SIEVE TO #200 SIEVE (0.425mm TO 0.075mm)		
SILT	PASSING #200 SIEVE (0.075mm) TO 0.0075mm		
CLAY	SMALLER THAN 0.0075mm		

CONSISTENCY OF COHESIVE SOILS

UNCOMPACTED COMP. STRENGTH, q_u (kPa)	CONSISTENCY
<0.25	VERY SOFT
0.25 - 0.50	SOFT
0.50 - 1.00	MEDIUM (FIRM)
1.00 - 2.00	STIFF
2.00 - 4.00	VERY STIFF
4.00 - 8.00	HARD
>8.00	VERY HARD

IN-SITU DENSITY OF GRANULAR SOILS:

N - BLOWS/FT.	IN-SITU DENSITY
0 - 4	VERY LOOSE
5 - 10	LOOSE
11 - 30	MEDIUM DENSE
31 - 50	DENSE
50 +	VERY DENSE

WATER LEVELS INDICATED ON THE BORING LOGS ARE THE LEVELS MEASURED IN THE BORING AT THE TIMES INDICATED. IT SHOULD BE NOTED THAT GROUNDWATER LEVELS OBSERVED DURING DRILLING IN PREDOMINANTLY COHESIVE SOILS ARE NOT NECESSARILY INDICATIVE OF THE STABLE GROUNDWATER LEVEL. THIS IS DUE TO THE RELATIVELY LOW PERMEABILITY OF CLAY SOILS AND THE TENDENCY OF DRILLING OPERATIONS TO TEMPORARILY SEAL OFF NATURAL PATHS OF GROUNDWATER MIGRATION INTO THE BORING. ADDITIONALLY, FLUCTUATIONS IN GROUNDWATER LEVELS SHOULD BE ANTICIPATED WITH SEASONAL VARIATIONS AND FOLLOWING PERIODS OF HEAVY OR PROLONGED PRECIPITATION.

THE SOIL BORING LOGS SHOWN ON THE CONSTRUCTION PLANS ARE BEING FURNISHED FOR YOUR CONVENIENCE AND GENERAL INFORMATION ONLY. THE DATA SHOWN ON THE BORING LOGS REPRESENTS SOIL AND GROUNDWATER CONDITIONS ENCOUNTERED AT THE RESPECTIVE BORING LOCATIONS. VARIATIONS MAY OCCUR BETWEEN THESE LOCATIONS. ADDITIONALLY, THE STRATIGRAPHIC LINES REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN SOIL TYPES. HOWEVER, THE TRANSITION MAY BE MORE GRADUAL THAN WHAT IS SHOWN. THE BIDDER WILL BE RESPONSIBLE FOR MAKING THEMSELVES FAMILIAR WITH SUBSURFACE CONDITIONS BY WHATEVER MEANS THEY DEEM NECESSARY AND SHALL MAKE THEIR OWN DETERMINATIONS THEREFROM.

THE BIDDER BY SUBMITTING A BID, WAIVES ALL CLAIMS FOR DAMAGES WHICH THEY MAY SUFFER BY REASONS OF THE INADEQUACIES OR DISCREPANCIES OF THE INFORMATION SHOWN ON THESE SOIL BORING LOGS AND UNDERSTANDS THAT NO COMPENSATION WILL BE PAID TO THEM DUE TO AN INADEQUACY OR DISCREPANCY IN THIS DATA.

GENERAL NOTES

- CONTRACTOR TO CALL MISS DIG (CALL TOLL FREE 1-800-482-7171) THREE WORKING DAYS BEFORE STARTING YOUR PROJECT. (EXCLUDING WEEKENDS AND HOLIDAYS)
- CONTRACTOR SHALL PRESERVE ALL GOVERNMENT AND PROPERTY CORNERS.

SOIL EROSION CONTROL NOTES

EROSION CONTROL BLANKET -
 SOIL EROSION CONTROL BLANKET SHALL BE REPLACED ON ALL DISTURBED SLOPES THAT ARE 1 ON 3 OR STEEPER AND IN ALL DISTURBED DITCH BOTTOMS.

TEMPORARY SEEDING -
 TEMPORARY SEEDING SHALL BE CAST ON ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER WITHIN 1 WEEK OF DISTURBANCE.

UTILITIES

ELECTRIC-DISTRIBUTION

CONSUMERS ENERGY
 700 E. STERNBERG RD.
 MUSKEGON, MI 49441
 PHONE : (231) 332-2682
 ATTN: JOEL BROWN
 JOEL.M.BROWN@CSEENERGY.COM

GAS

DTE ENERGY
 2359 OLTHOF DR.
 MUSKEGON, MI 49444
 PHONE : (231) 726-0943
 ATTN: ANTHONY FERRIER
 ANTHONY.FERRIER@DTEENERGY.COM

WATER & SANITARY

CITY OF MUSKEGON
 1350 E. KEATING AVE.
 MUSKEGON, MI 49442
 PHONE : (231) 724-4184
 ATTN: DAVE BAKER
 DAVE.BAKER@SHORELINECITY.COM

STORM SEWER

CITY OF MUSKEGON
 1350 E. KEATING AVE.
 MUSKEGON, MI 49442
 PHONE : (231) 724-6992
 ATTN: VERNON BERNDT
 VERN.BERNDT@SHORELINECITY.COM

COMMUNICATION

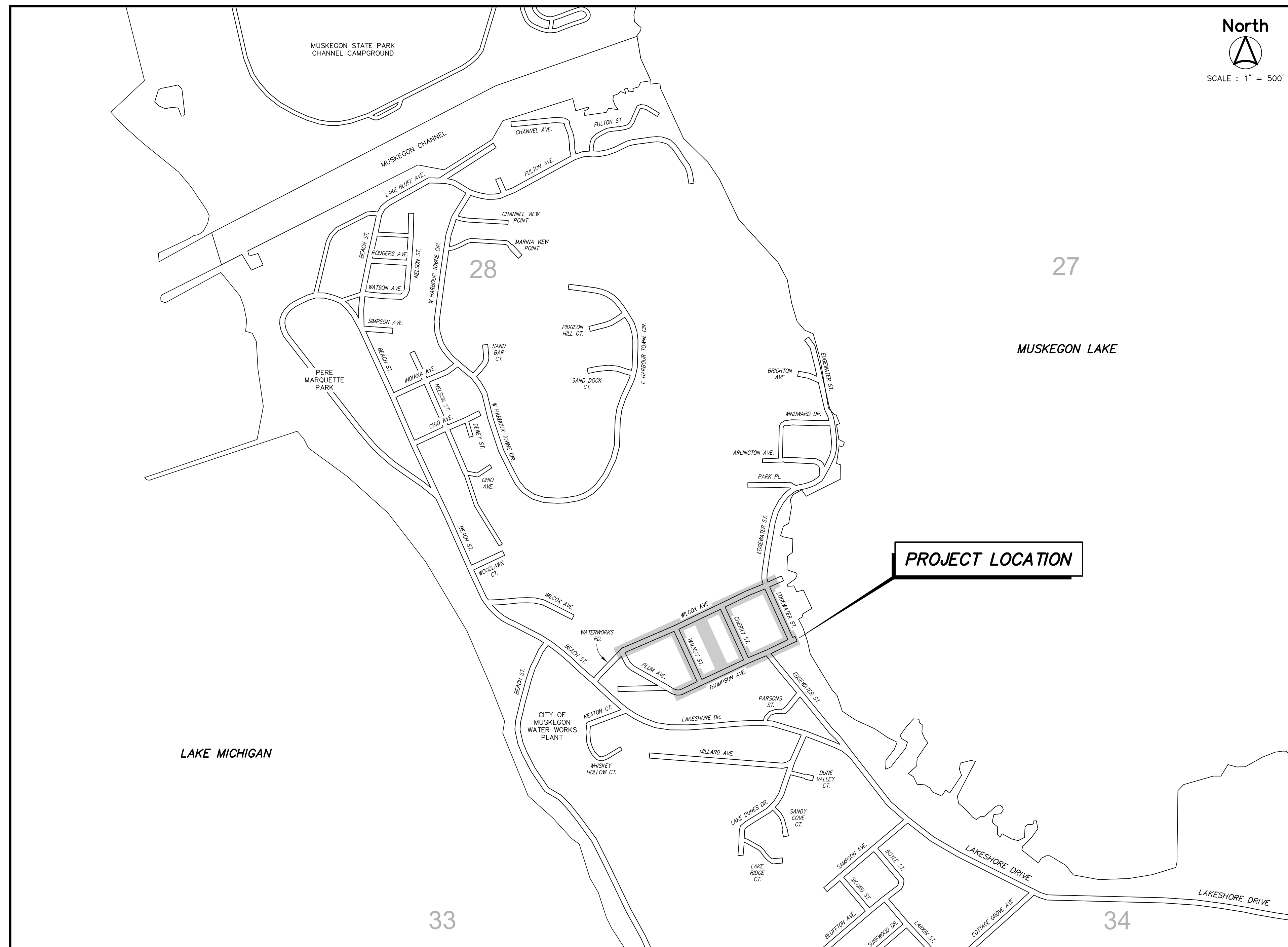
FRONTIER COMMUNICATIONS
 960 TERRACE ST.
 MUSKEGON, MI 49443
 PHONE : (231) 727-1134
 ATTN: CINDY WHITEMAN
 CINDY.WHITEMAN@FTR.COM

CABLE TELEVISION

COMCAST
 700 W. BROADWAY
 MUSKEGON, MI 49441
 PHONE: (231) 375-5112
 ATTN: JON CHARLAND
 JONATHAN_CHARLAND@COMCAST.COM



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

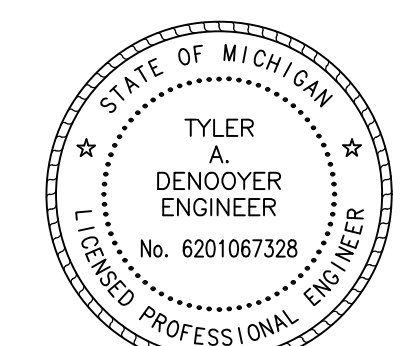


North

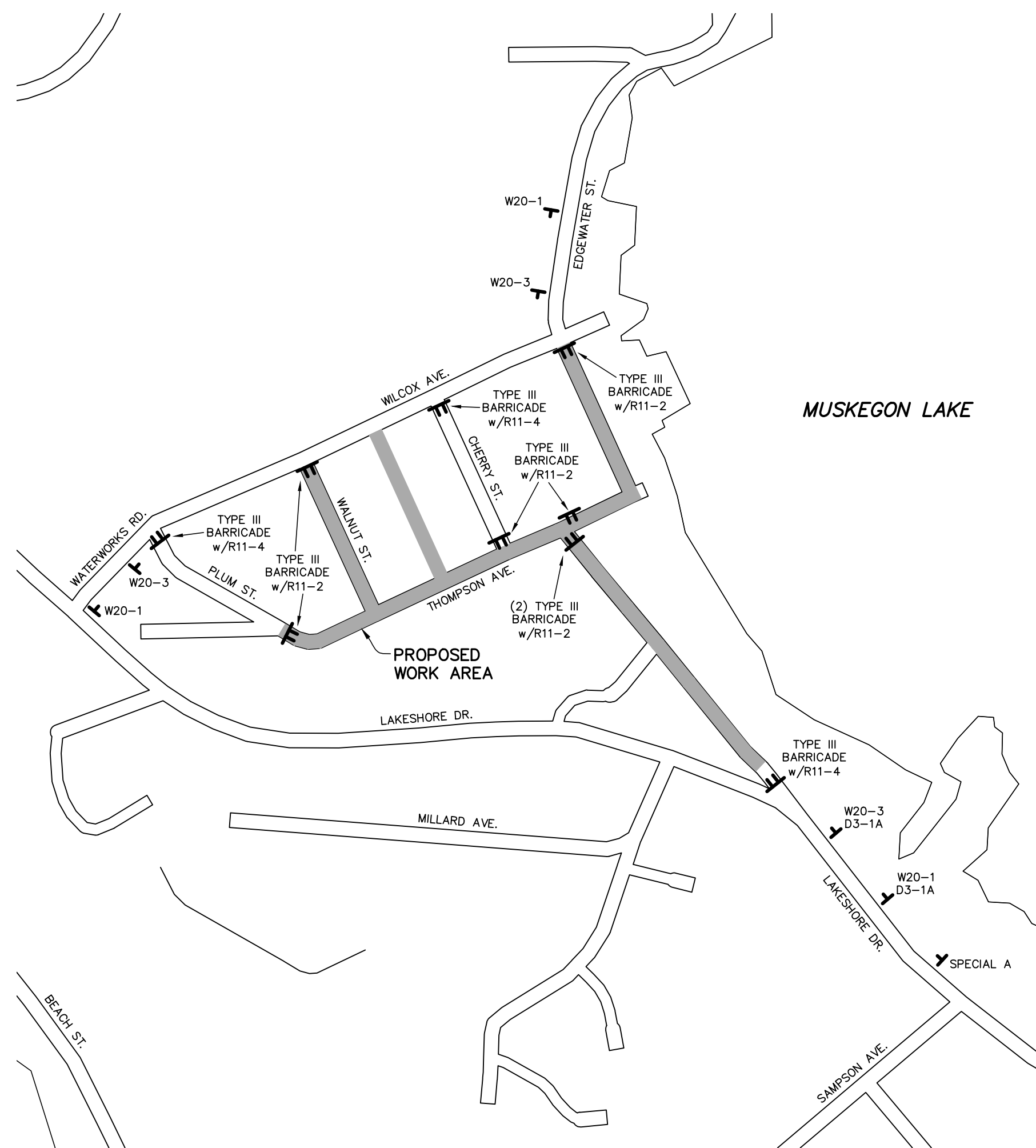
 SCALE: 1" = 500'

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6	WILCOX AVENUE (STA. 58+00 TO STA. 65+00)
7	THOMPSON AVENUE (STA. 29+00 TO STA. 35+00)
8	THOMPSON AVENUE (STA. 35+00 TO STA. 40+00)
9	WALNUT STREET
10	ALLEY
11	CHERRY STREET
12	EDGEWATER STREET
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<p>Prein & Newhof Engineers • Surveyors • Environmental • Laboratory</p>	PROJECT NO. 2221072
	SHEET NO. 1 OF 32



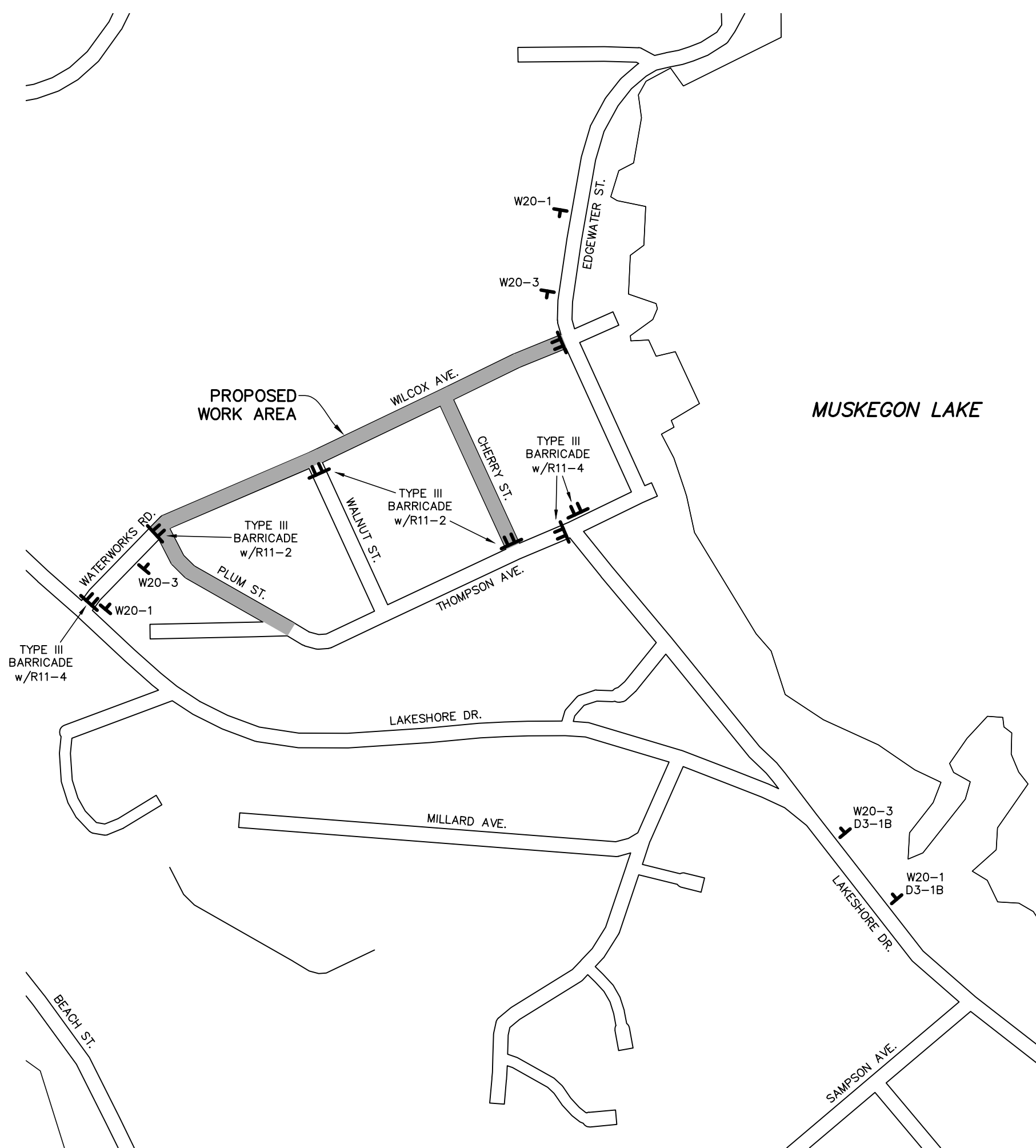
MAINTENANCE OF TRAFFIC – STAGE 1

SCALE : 1" = 300'



NOTES

1. WATER SERVICES ON EDGEWATER STREET FROM LAKESHORE TO THOMPSON ARE TO BE COMPLETED UNDER STAGE 1 WITH LANE CLOSURES AS NECESSARY.
2. CONTRACTOR MUST PROVIDE A PHASING AND MAINTENANCE OF TRAFFIC PLAN FOR WORK IN THE EDGEWATER/WILCOX INTERSECTION. ACCESS TO EDGEWATER STREET NORTH OF WILCOX MUST BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE OWNER.



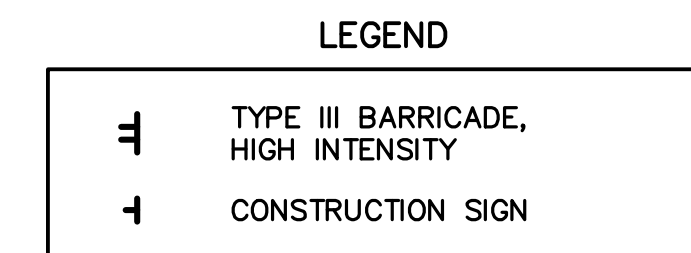
MAINTENANCE OF TRAFFIC – STAGE 2

SCALE : 1" = 300'

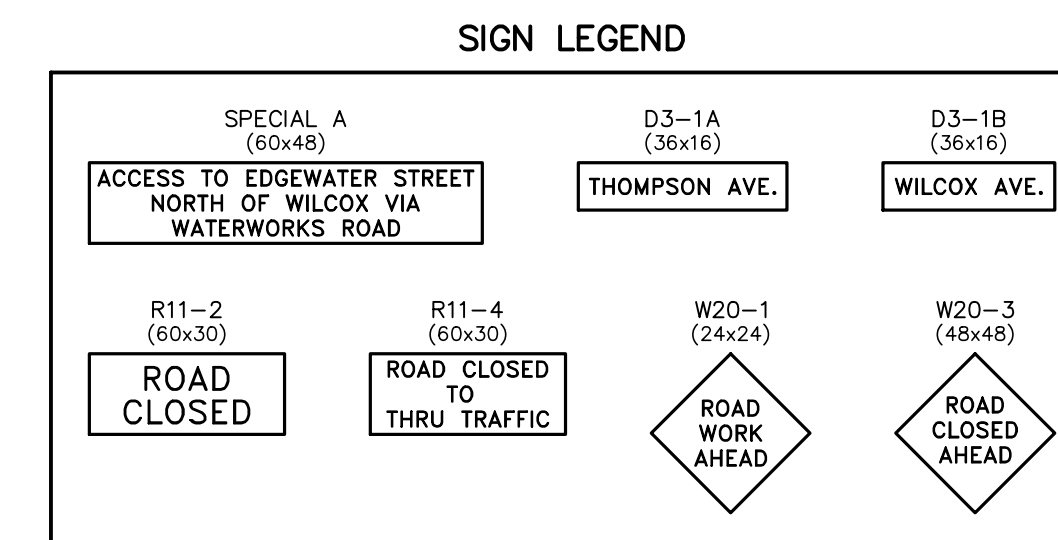


NOTES

1. WATER SERVICES ON PLUM STREET FROM WILCOX TO THOMPSON ARE TO BE COMPLETED UNDER STAGE 2 WITH LANE CLOSURES AS NECESSARY.
2. CONTRACTOR MUST PROVIDE A PHASING AND MAINTENANCE OF TRAFFIC PLAN FOR WORK IN THE EDGEWATER/WILCOX INTERSECTION. ACCESS TO EDGEWATER STREET NORTH OF WILCOX MUST BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE OWNER.



- GENERAL NOTES**
1. THE CONTRACTOR SHALL ERECT ALL DETOUR SIGNS, BARRICADES, AND PLASTIC DRUMS IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (REVISED 2011).
 2. THE CONTRACTOR SHALL STAKE PROPOSED LOCATIONS (WHITE FLAGGING) AND CALL MISS DIG PRIOR TO PLACING ANY GROUND DRIVEN SIGNS.



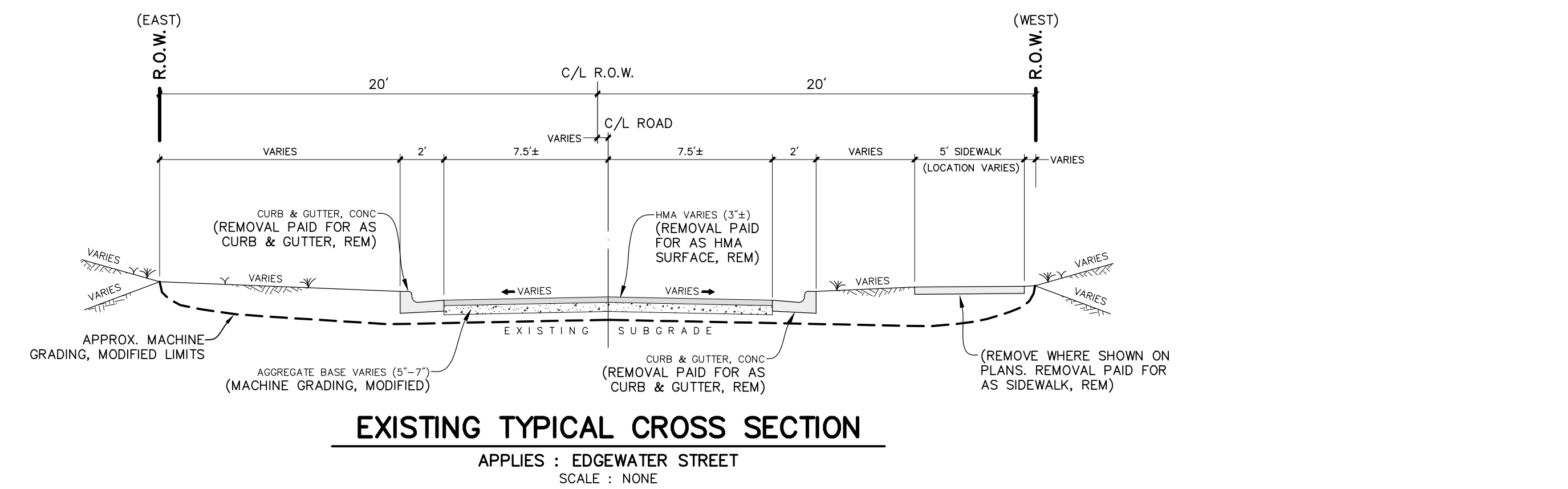
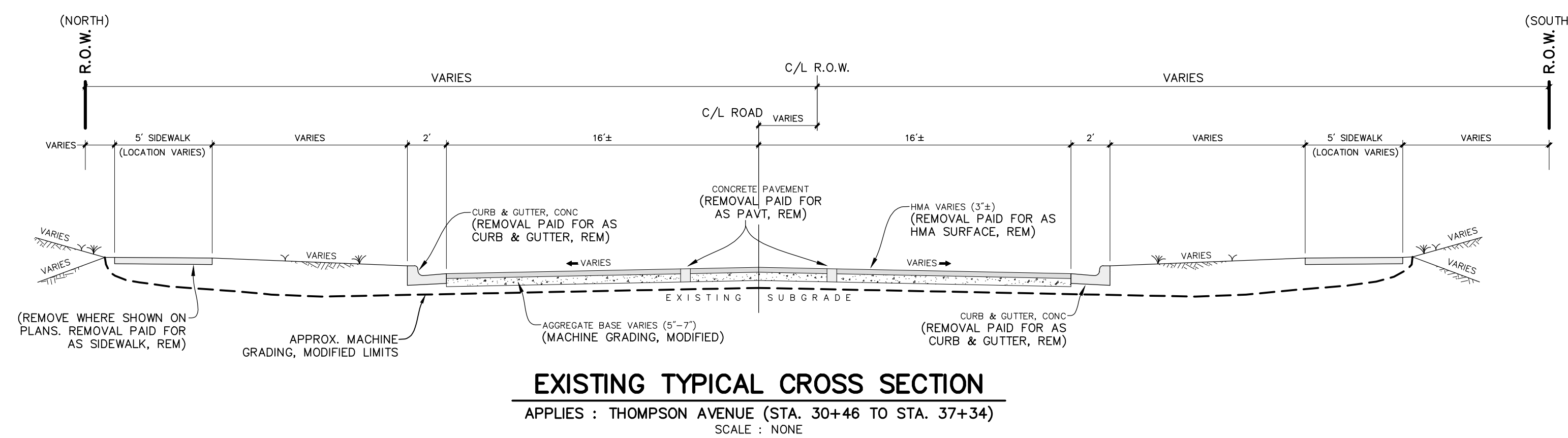
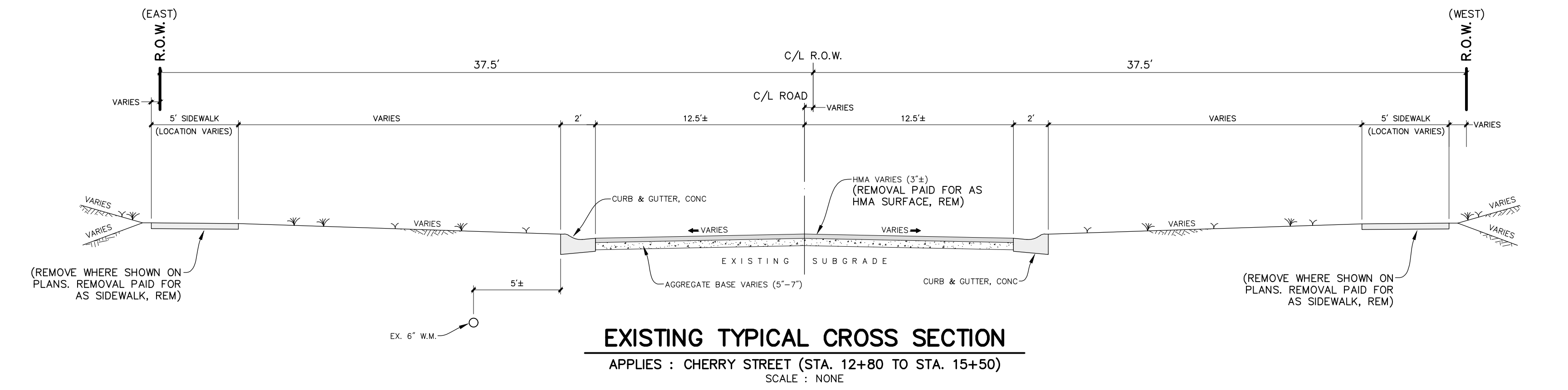
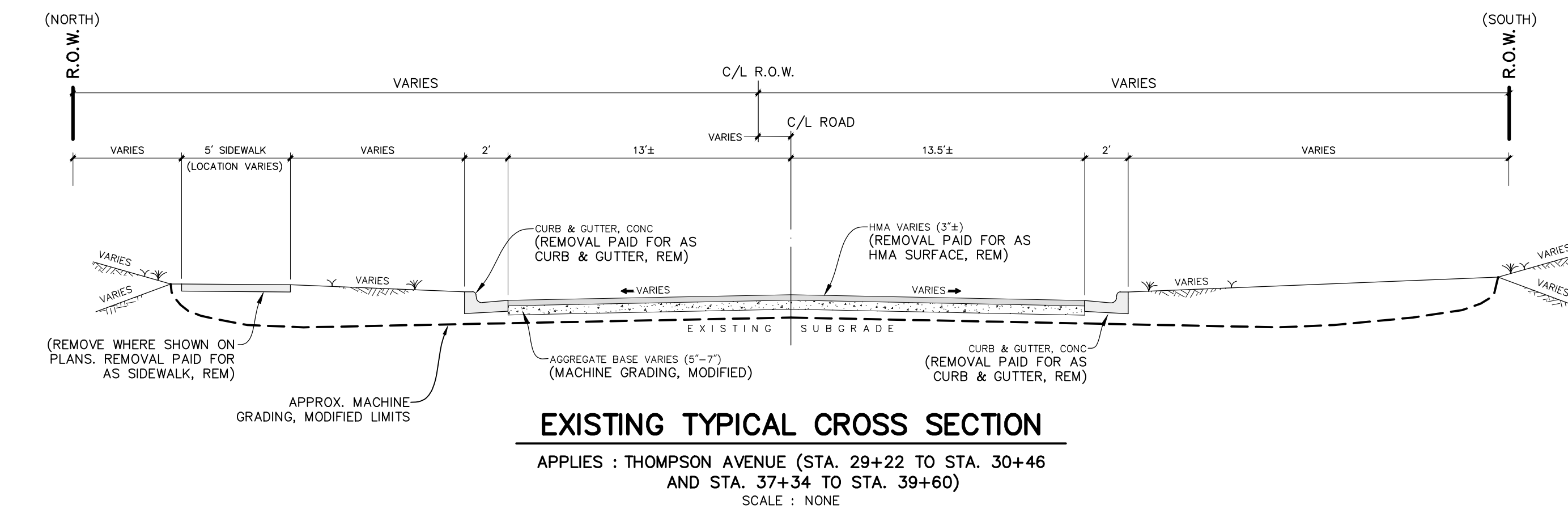
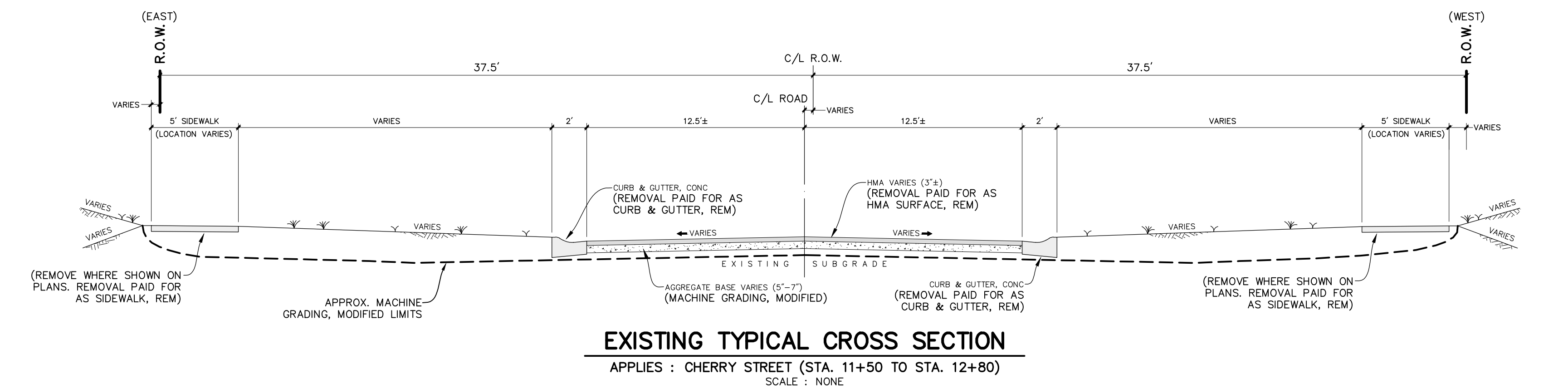
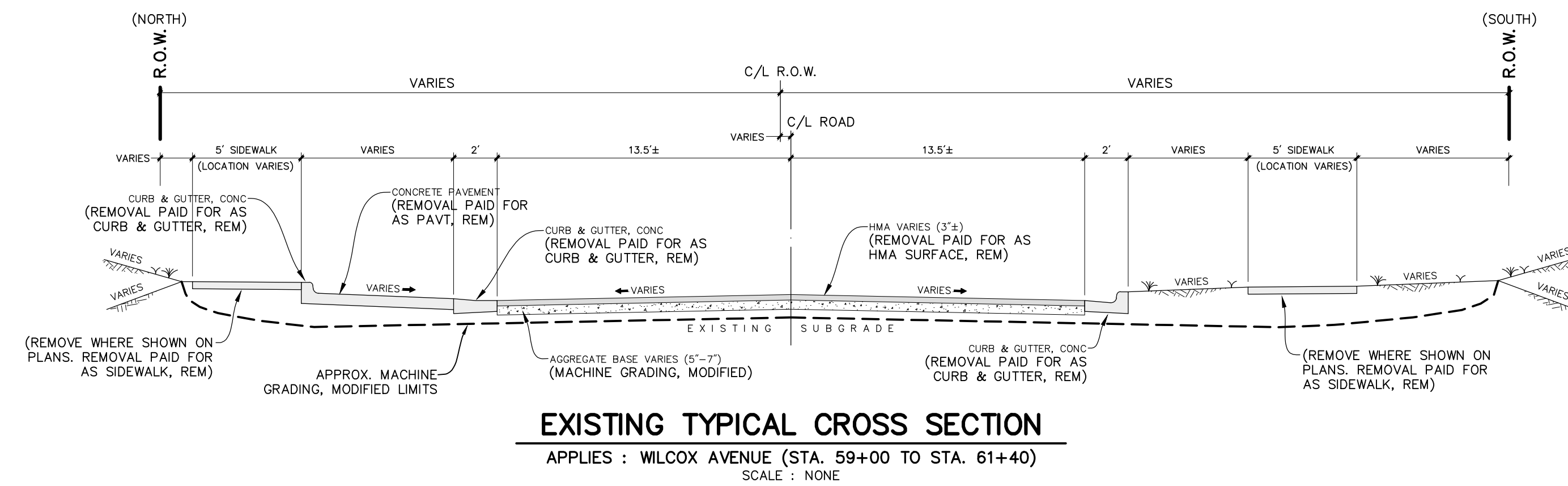
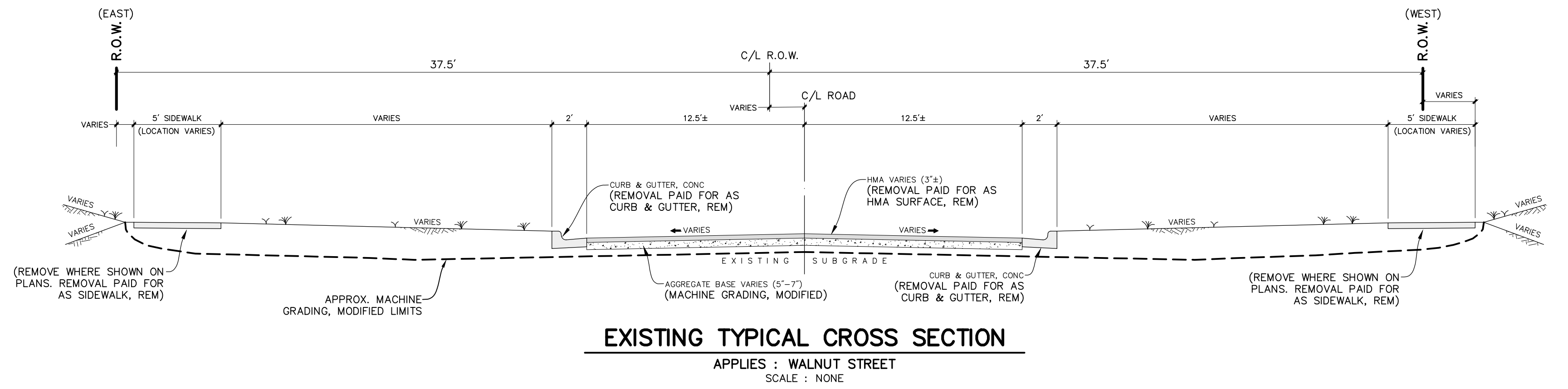
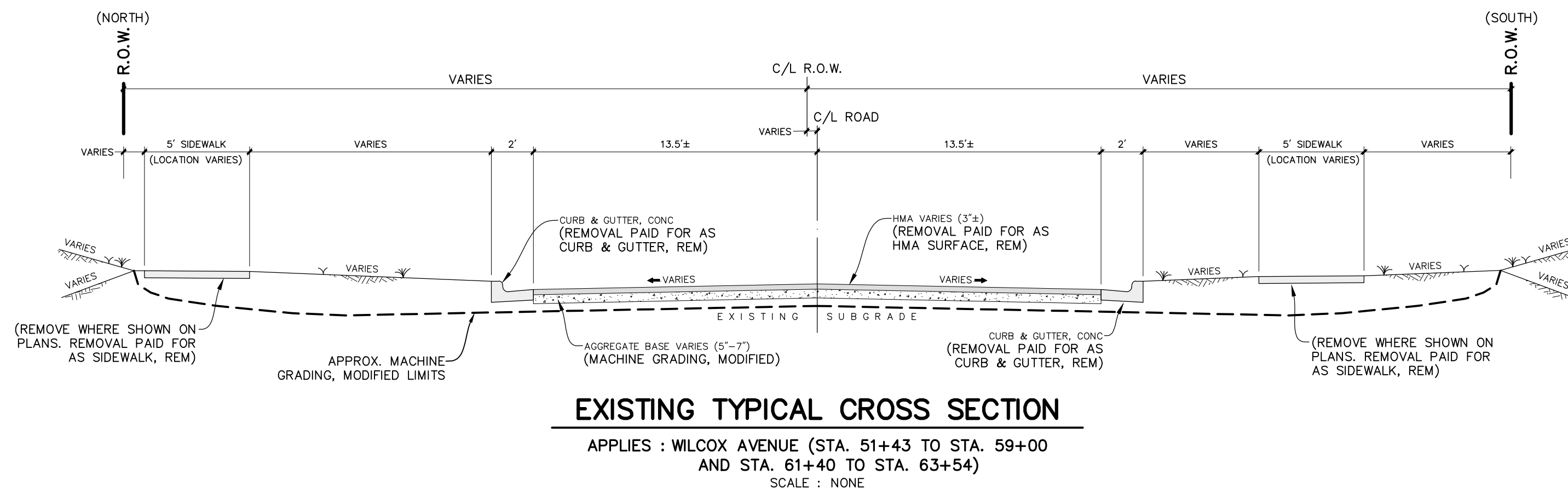
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NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				DATE: MAR. '23
				CHECKED: M.R.H.
				DATE: MAY '23

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
STREET IMPROVEMENTS
MAINTENANCE OF TRAFFIC

PROJECT NO.
2221072
SHEET NO.
2 OF 32



NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
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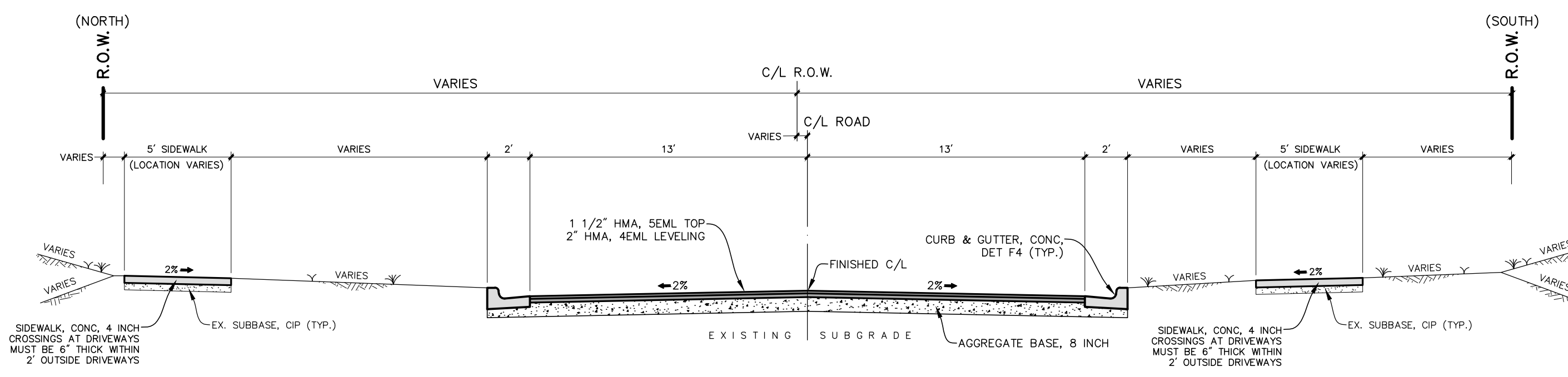
CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN

STREET IMPROVEMENTS
TICAL CROSS SECTIONS

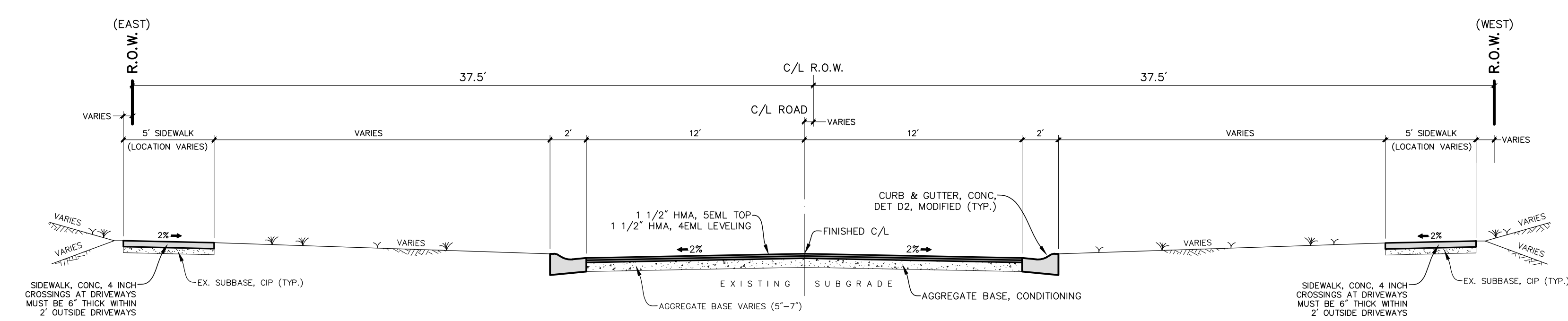
PROJECT NO.
2221072

SHEET NO.
3 OF 32

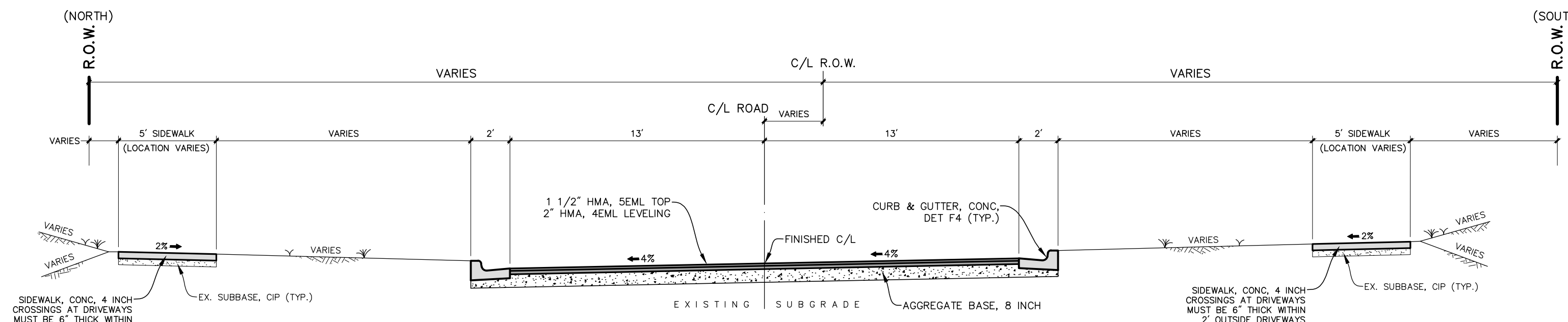
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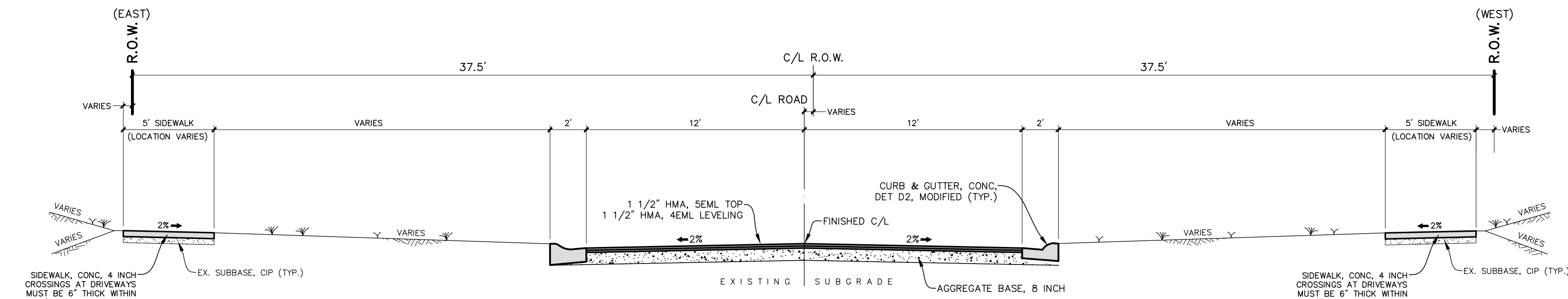
PROPOSED TYPICAL CROSS SECTION
 APPLIES : WILCOX AVENUE (STA. 51+43 TO STA. 63+54)
 SCALE : NONE



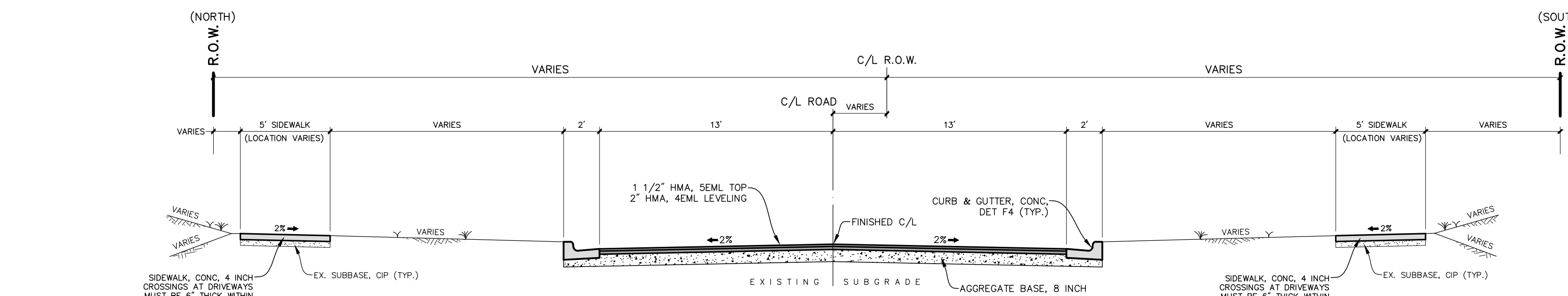
PROPOSED TYPICAL CROSS SECTION
 APPLIES : CHERRY STREET (STA. 11+50 TO STA. 12+80)
 SCALE : NONE



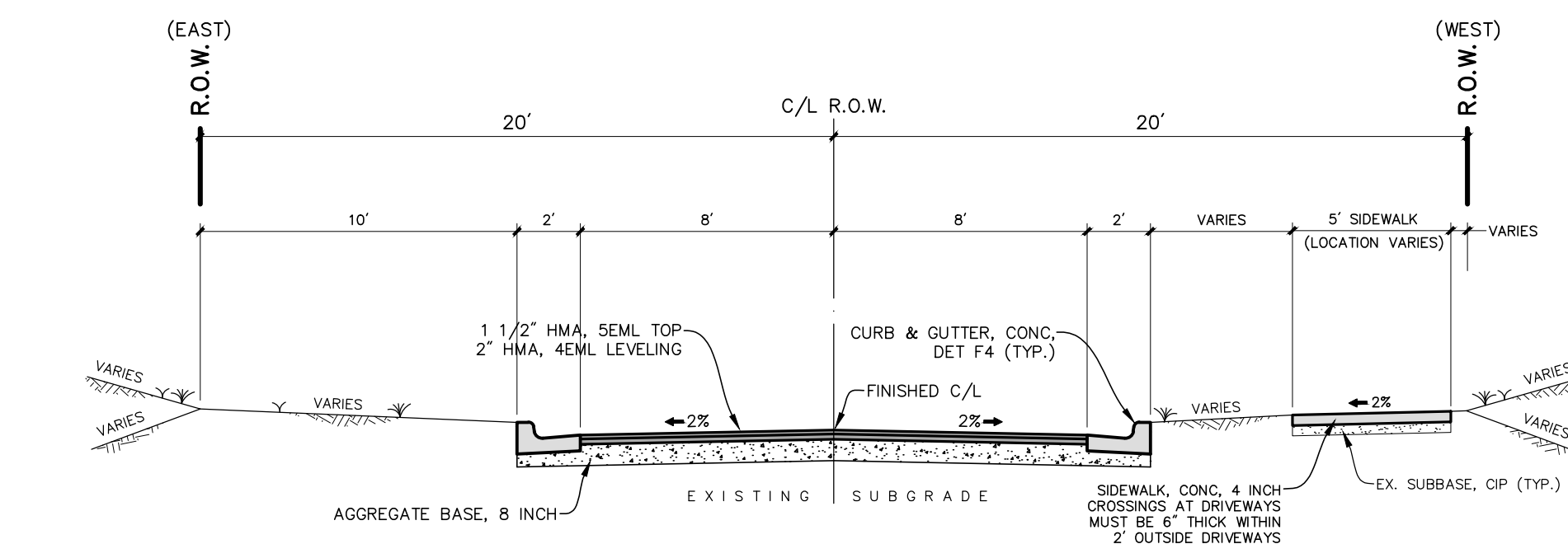
PROPOSED TYPICAL CROSS SECTION
 APPLIES : THOMPSON AVENUE (STA. 29+22 TO STA. 31+25)
 SCALE : NONE



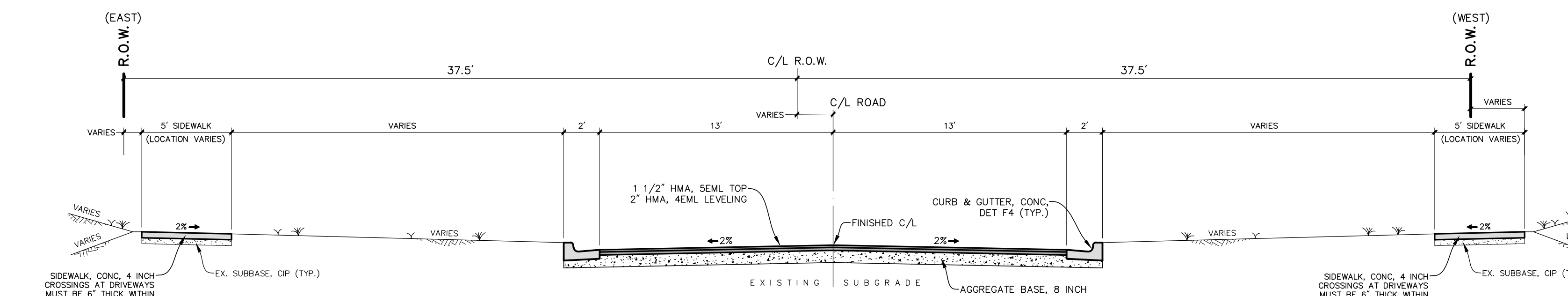
PROPOSED TYPICAL CROSS SECTION
 APPLIES : CHERRY STREET (STA. 12+80 TO STA. 15+50)
 SCALE : NONE



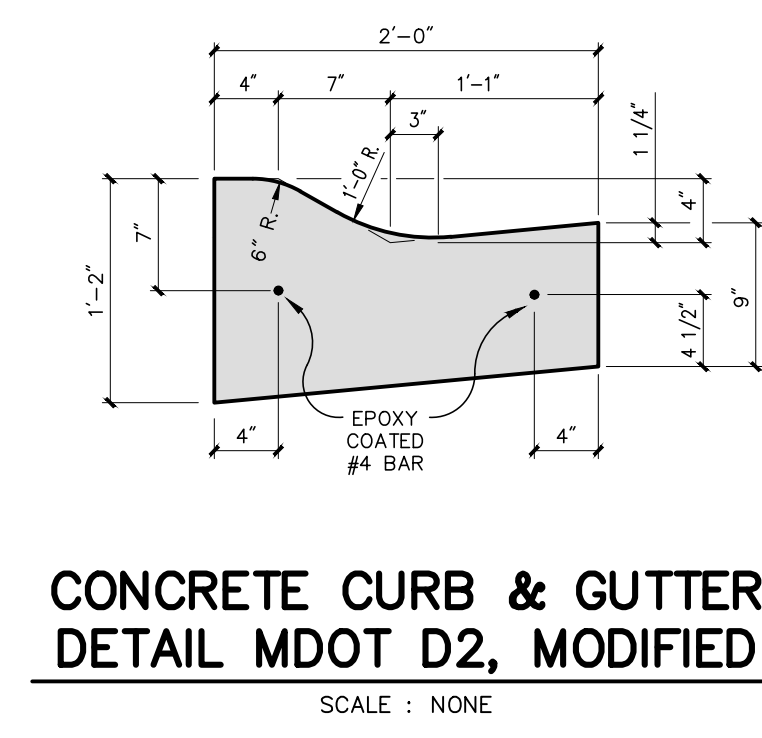
PROPOSED TYPICAL CROSS SECTION
 APPLIES : THOMPSON AVENUE (STA. 31+25 TO STA. 39+60)
 SCALE : NONE



PROPOSED TYPICAL CROSS SECTION
 APPLIES : EDGEWATER STREET
 SCALE : NONE



PROPOSED TYPICAL CROSS SECTION
 APPLIES : WALNUT STREET
 SCALE : NONE



**CONCRETE CURB & GUTTER
 DETAIL MDOT D2, MODIFIED**
 SCALE : NONE

HOT MIX ASPHALT APPLICATION TABLE

IDENT. #	PAY ITEM	MIXTURE	APPLICATION RATE	PERFORMANCE GRADE BINDER	REMARKS
HMA, 4EML	HMA, 4EML	HMA, 4EML	165 LBS/SYD	PG 64-28	CHERRY ST. LEVELING
HMA, 4EML	HMA, 4EML	HMA, 4EML	220 LBS/SYD	PG 64-28	WILCOX & THOMPSON AVE. WALNUT & EDGEWATER ST. LEVELING
HMA, 5EML	HMA, 5EML	HMA, 5EML	165 LBS/SYD	PG 64-28	WILCOX & THOMPSON AVE. WALNUT & EDGEWATER ST. & CHERRY ST. TOP

NOTES:
 1. HMA BOND COAT (MDOT SS-1h) SHALL BE APPLIED @ 0.05-0.15 GAL/SYD BETWEEN HMA LIFTS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE HMA ITEMS. HMA BOND COAT SHALL ALSO BE APPLIED TO THE VERTICAL EDGE OF THE ADJACENT HMA PAVEMENT AND/OR CONCRETE CURB & GUTTER.

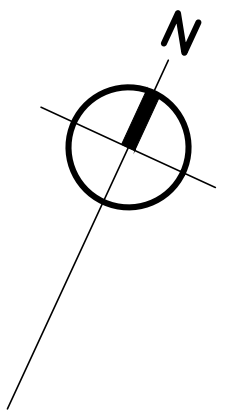
NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
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CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN
 STREET IMPROVEMENTS
 TYPICAL CROSS SECTIONS & DETAILS

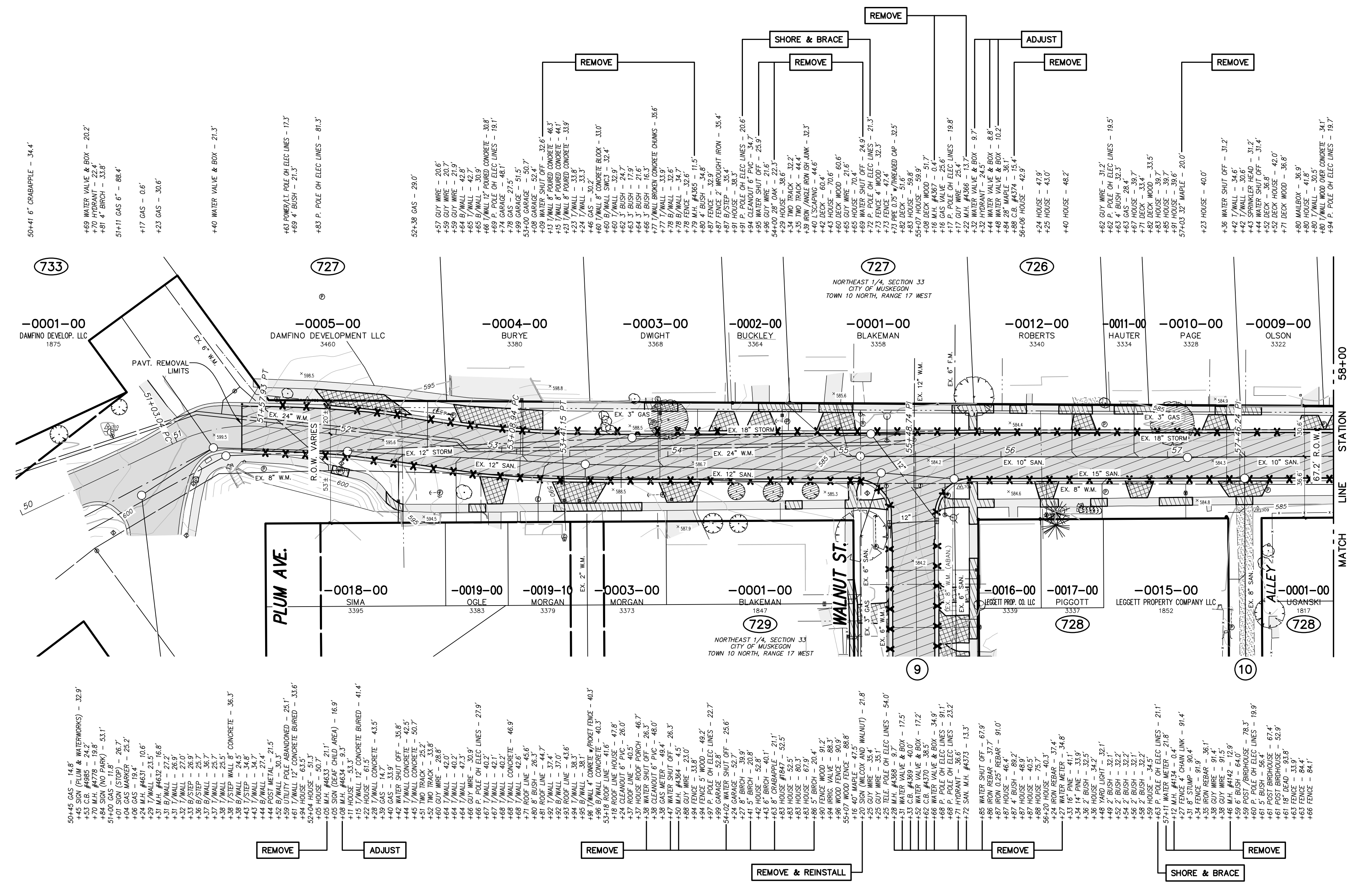
PROJECT NO.
 2221072
 SHEET NO.
 4 OF 32

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B.M.	EL. 601.81
WILCOX AVENUE & PLUM AVENUE, 25'± N OF C/L "X", TOP OF HYDRANT FLANGE BOLT UNDER "E" IN E.W. (1.8' A/GROUND)	
B.M.	EL. 600.55
WILCOX AVENUE & PLUM AVENUE, HOUSE #3395 FOUND CHISELED SQUARE TOP OF NW END OF 8" CONC. WALL (0.7' A/WALK)	
B.M.	EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'± E & 30'± S OF C/L "X", TOP OF NE CORNER BOTTOM CONC. STEP (0.7' A/GROUND)	

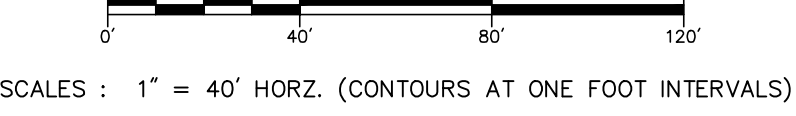
CONTROL POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEVATION
302	632323.492	12601401.540	596.44
303	632444.267	12601227.500	600.29
304	632428.180	12601074.440	601.15
311	632373.716	12601009.440	602.99
706	632470.772	12601819.610	598.93
708	632955.228	12601352.520	596.50



REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL

WILCOX AVENUE
(RIGHT OF WAY WIDTH VARIES 27' ASPHALT PAVEMENT WIDTH)



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				J.J.S.
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				MAY '23

CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN
REMOVAL PLAN
WILCOX AVENUE

PROJECT NO.	2221072
SHEET NO.	5 OF 32

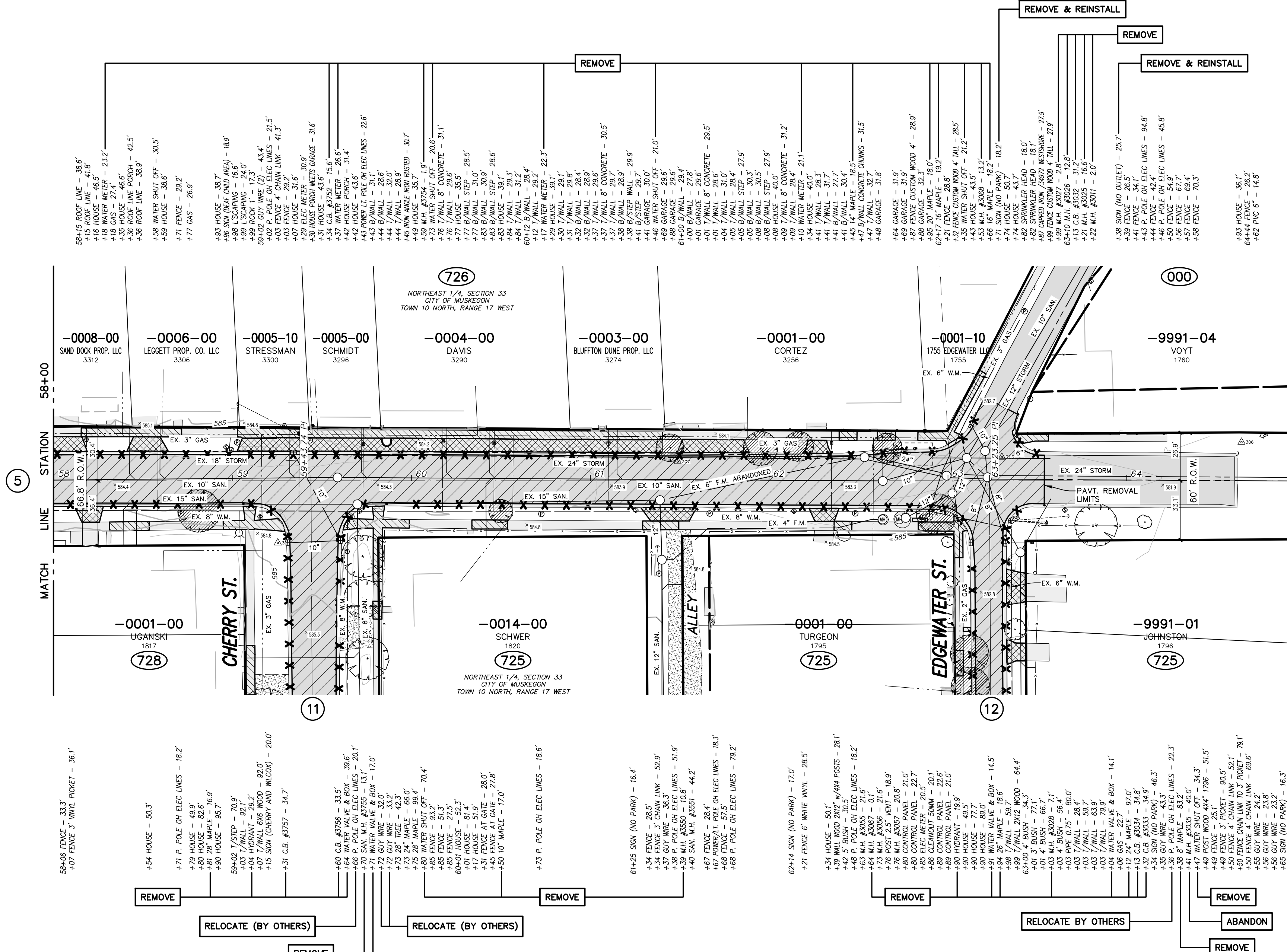
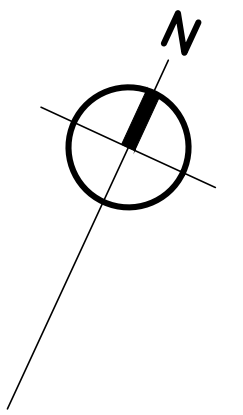
T:\QVA\30 PROJECTS\2023\2221072_MUSKOGON_2023 IMPV STREET IMPV4_PROD\WILCOX\2221072_DBAO_WILCOX.DWG - JENISTRA - May, 24, 2023 - 11:22am - P:\aha\mwh\c\

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

B.M. EL. 583.66
WILCOX AVENUE & EDGEWATER STREET, SE CORNER OF INTERSECTION, FOUND 600 NAIL NW SIDE P. POLE (0.5' A/GROUND)

B.M. EL. 583.58
WILCOX AVENUE & EDGEWATER STREET, 150' E & 25' N OF C/A 'X', TOP OF SE CORNER OF 'B' CONC. (1.0' A/GROUND)

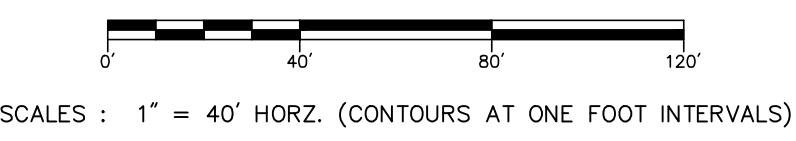
POINT No.	NORTHING	EASTING	ELEVATION
306	633288.612	12601854.400	582.95
307	633156.533	12601552.660	583.65
308	633021.457	12601568.640	584.95
703	633234.805	12601716.220	582.85



REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL

WILCOX AVENUE
(RIGHT OF WAY WIDTH VARIES 27' ASPHALT PAVEMENT WIDTH)



NO.	REVISIONS	BY	DATE
		J.J.S.	MAR. '23
		M.R.H.	MAY '23

Prein & Newhof
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CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN

REMOVAL PLAN
WILCOX AVENUE

PROJECT NO.
2221072

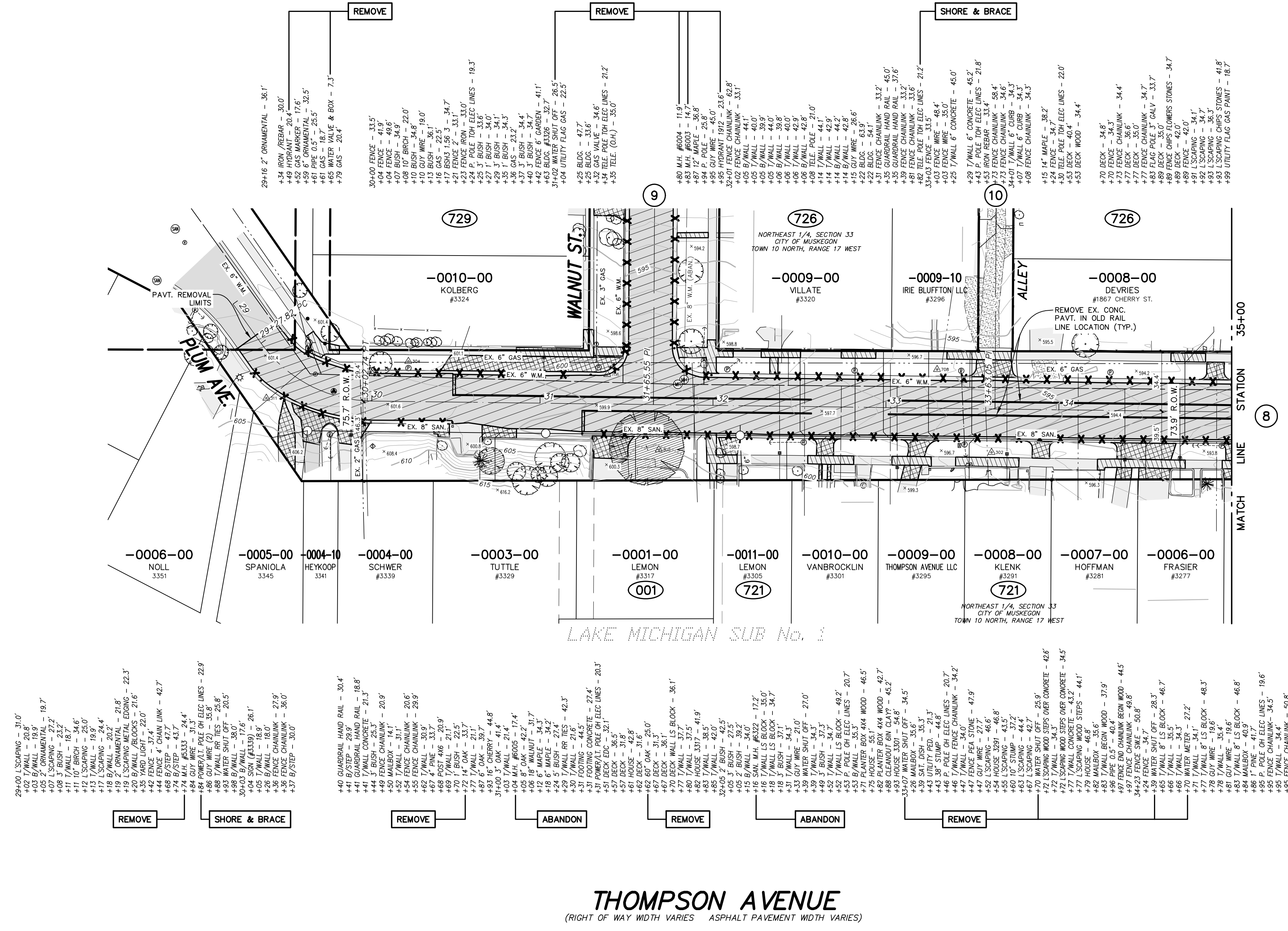
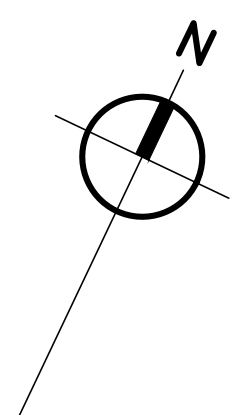
SHEET NO.
6 OF 32

T:\DWG\PROJECTS\2023\2221072_MUSKOGON_2023.DWG - MAY 24, 2023 - 11:23am - P:\data\mch\c

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

B.M. EL. 598.39
 THOMPSON AVENUE & WALNUT STREET,
 180' ± E & 30' ± S OF C/L 'X', AT HOUSE
 #3291, NW CORNER OF PROPERTY, TOP OF
 NW CORNER OF 8" CONC. RETAINING WALL,
 CHISELED SQUARE (1.5' A/GROUND)

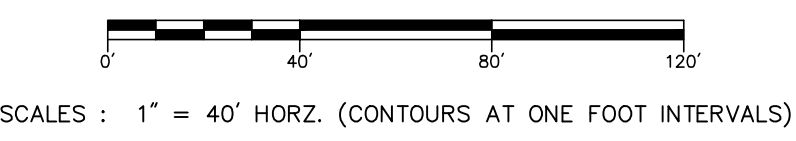
POINT No.	NORTHING	EASTING	ELEVATION
302	632525.492	12601401.540	596.44
303	632444.267	12601227.150	600.29
304	632428.190	12601074.440	601.15
708	632470.772	12601181.610	598.93
709	632555.228	12601352.520	596.50



REMOVAL LEGEND

	REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
	REMOVE APPROACH, PAID FOR AS: PAVT, REM
	REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
	REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
	TREE REMOVAL

THOMPSON AVENUE
 (RIGHT OF WAY WIDTH VARIES ASPHALT PAVEMENT WIDTH VARIES)



NO.	REVISIONS	BY	DATE

DRAWN	J.J.S.
DATE	MAR. '23
CHECKED	M.R.H.
DATE	MAY '23

Prein & Newhof
 Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
 REMOVAL PLAN
 THOMPSON AVENUE

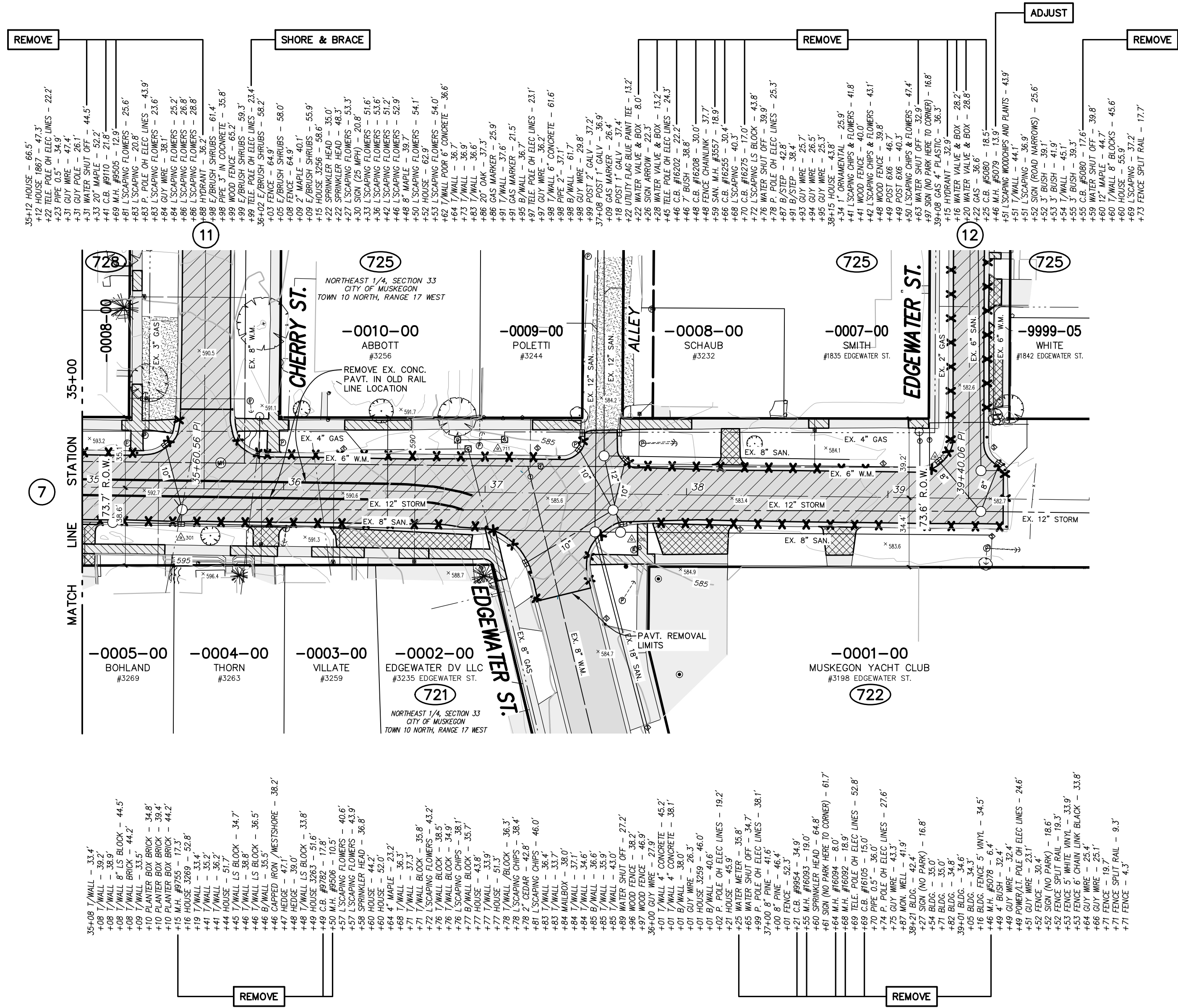
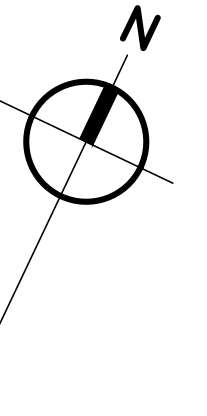
PROJECT NO.
2221072
 SHEET NO.
7 OF 32

T:\CIVIL\PROJECTS\2023\2221072_MUSKEGON_2023\DWG\STREET\MP14_PROD\WLCOA\2221072_DWG_THOMPSON.DWG - JENESIRA - May, 24 2023 - 11:28am - PdsMwbc\

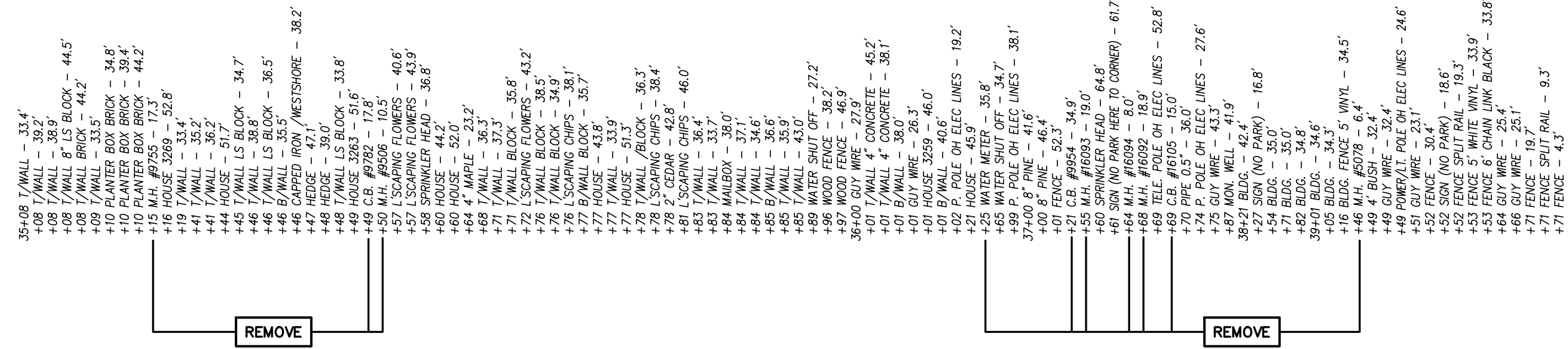
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

B.M. EL. 585.08
 THOMPSON AVENUE & EDGEWATER STREET,
 SE CORNER OF INTERSECTION, HOUSE
 #1873, TOP OF NW CORNER OF BOTTOM
 CONC. STEP (0.7' A/WALK)

POINT No.	NORTHING	EASTING	ELEVATION
300	1262098.898	12601774.510	584.14
301	632604.630	12601572.010	593.72
707	632801.633	12601892.760	583.01
711	632712.045	12601695.070	586.52



REMOVAL LEGEND	
	REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
	REMOVE APPROACH, PAID FOR AS: PAVT, REM
	REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
	REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
	TREE REMOVAL



THOMPSON AVENUE
 (73± RIGHT OF WAY WIDTH ASPHALT PAVEMENT WIDTH VARIES)



NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				M.R.H.

Prein & Newhof
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CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
 REMOVAL PLAN
THOMPSON AVENUE

PROJECT NO.
2221072
 SHEET NO.
8 OF 32

T:\O\A\30 PROJECTS\2023\2221072_MUSKEGON_2023 IMPV STREET IMPV4_PROD\W\CON\2221072_IDM0 THOMPSON.DWG - JENESIRA - May, 24, 2023 - 11:29am - P:\data\mwh\

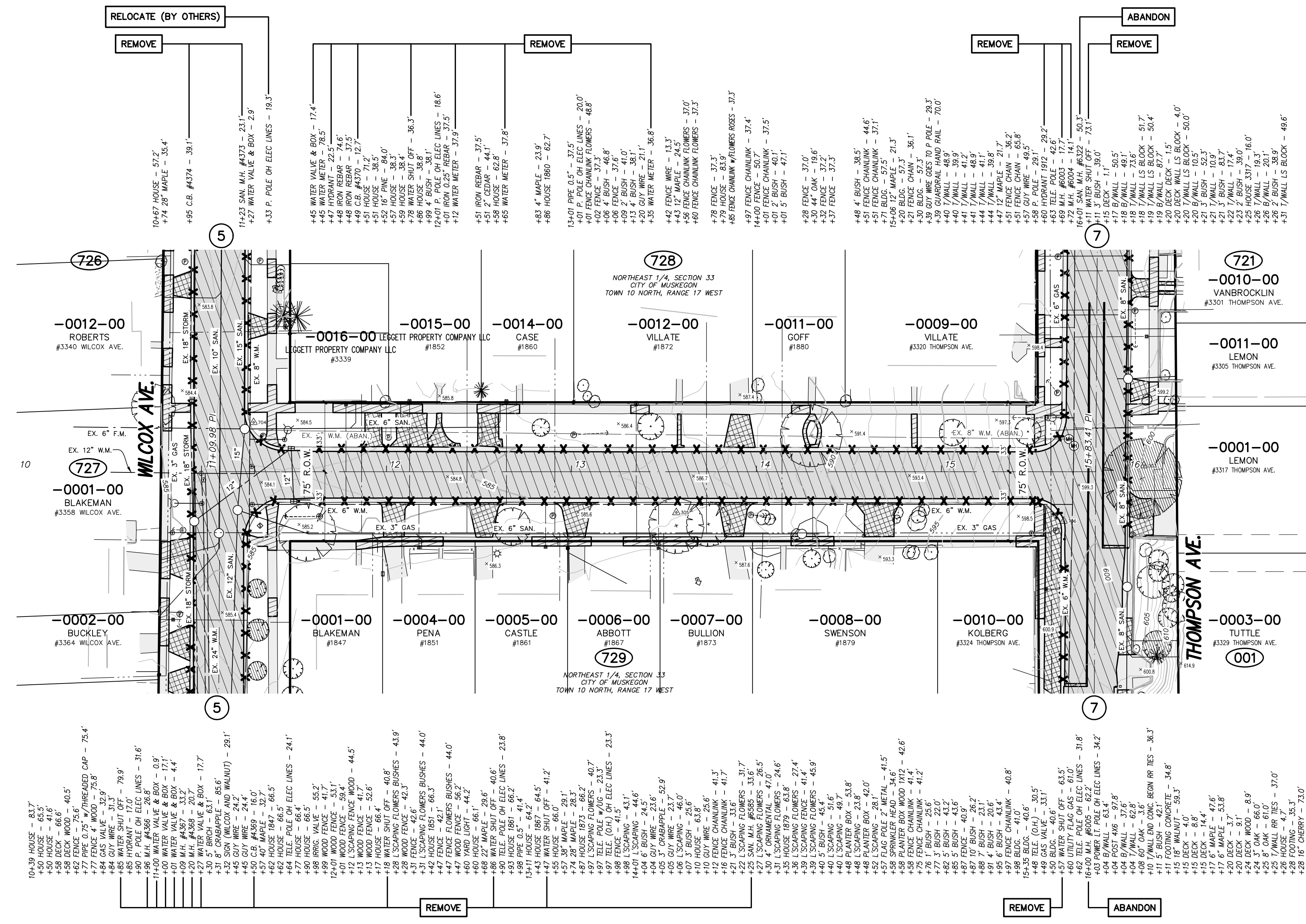
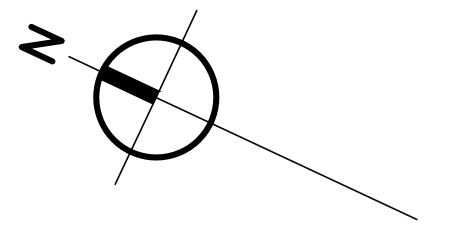
811
 Know what's below.
 Call before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L "X", TOP OF NE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

B.M. EL. 588.63
WALNUT STREET @ HOUSE #1873, TOP OF
NE CORNER BOTTOM OF CONC. STEP
(0.7' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
303	632444.267	12601227.150	600.29
305	632662.413	12601097.020	586.74
704	632889.999	12601044.170	584.24
706	632470.772	12601818.610	598.93

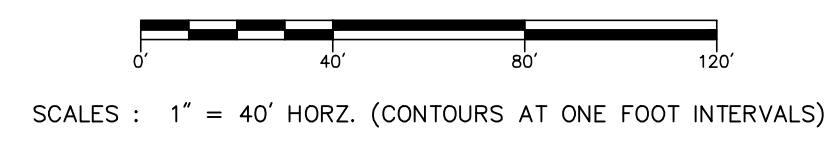


REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL

T:\CADD\PROJECTS\2023\2221072_MUSKEGON_2023\DWG\WALNUT_STREET_MP4_BROCK\WALNUT_STREET_2221072_DWG_WALNUT.DWG - May, 24, 2023 - 11:26am - PrintSheet.dwg

811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
Call before you dig.



WALNUT STREET
(75' RIGHT OF WAY WIDTH 25' ASPHALT PAVEMENT WIDTH)

NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
DATE: MAR. '23
CHECKED: M.R.H.
DATE: MAY '23

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

REMOVAL PLAN
WALNUT STREET

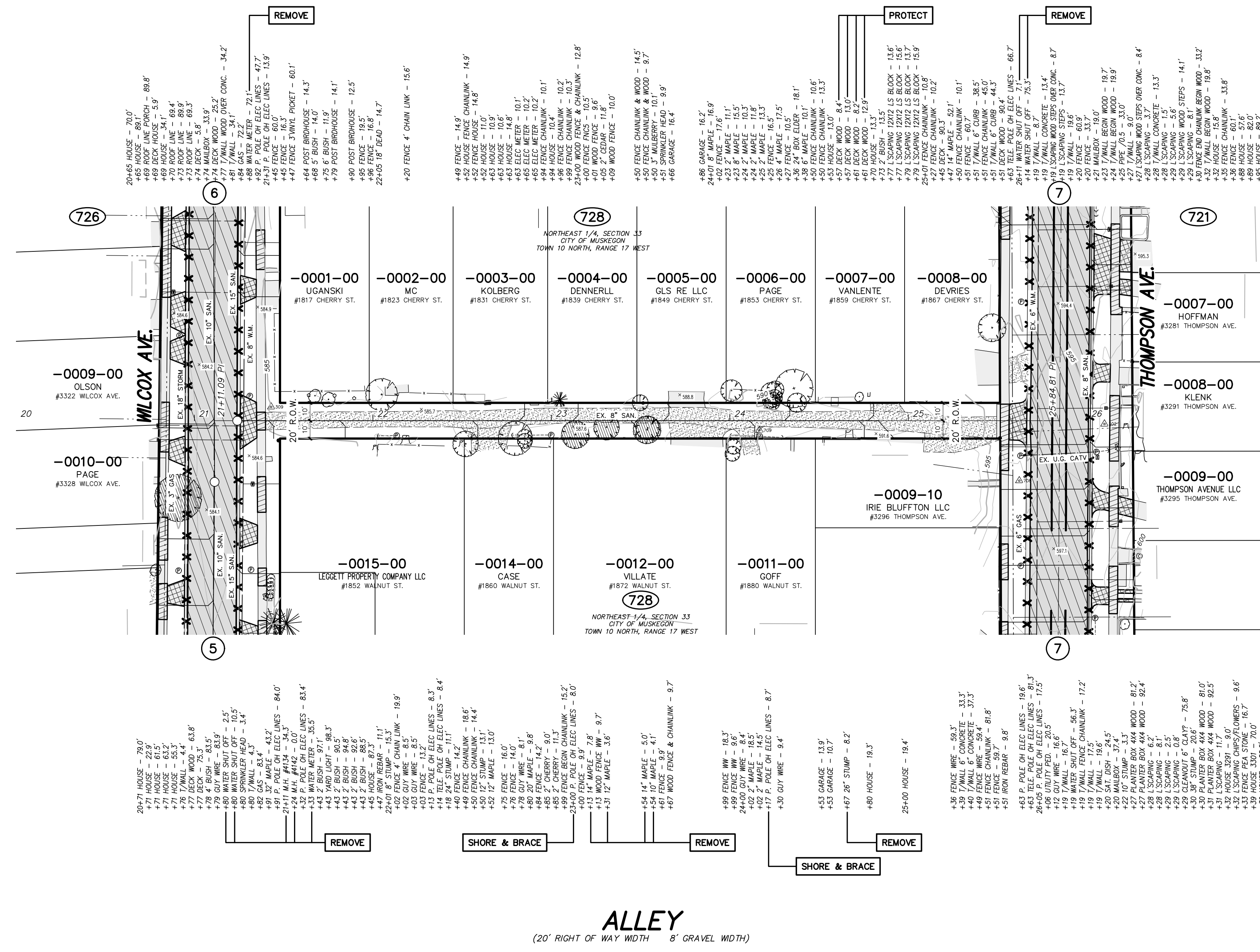
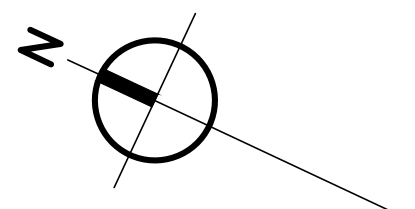
PROJECT NO.
2221072

SHEET NO.
9 OF 32

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L 'X', TOP OF NE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

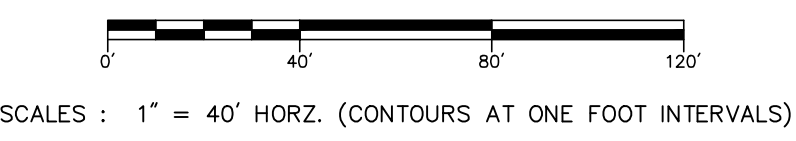
B.M. EL. 598.39
THOMPSON AVENUE & WALNUT STREET,
180'± E & 30'± S OF C/L 'X', AT HOUSE
#3291, NW CORNER OF PROPERTY, TOP OF
NW CORNER OF 8' CONC. RETAINING WALL,
CHISELED SQUARE
(1.5' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
302	632523.492	12601401.540	596.44
309	632952.356	12601212.150	585.02
708	632555.228	12601352.520	596.50
709	632699.064	12601316.330	589.78



REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL



NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
			MAR. '23	
				M.R.H.
			MAY '23	

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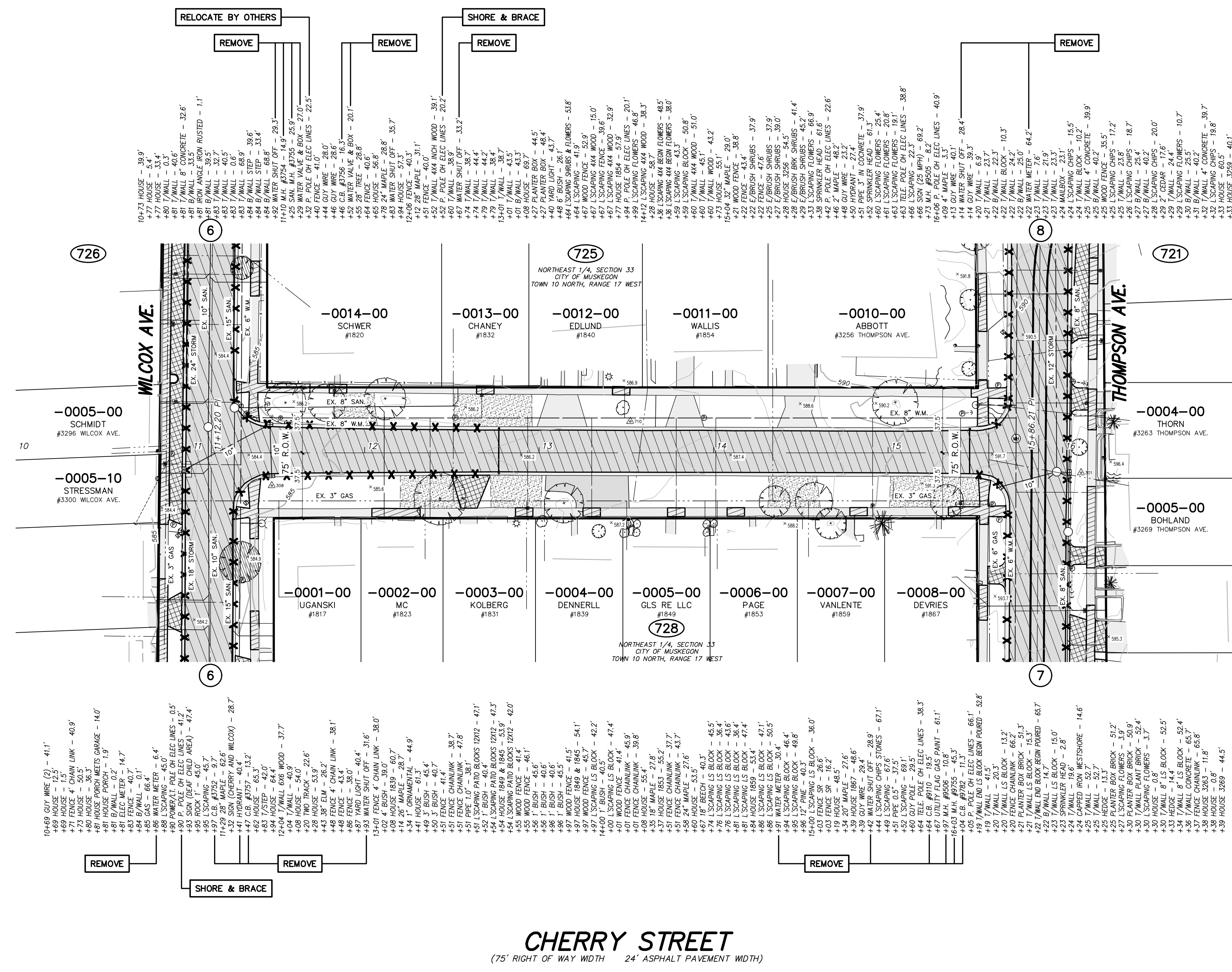
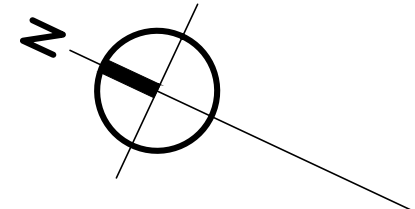
CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
REMOVAL PLAN
ALLEY

PROJECT NO.
2221072
SHEET NO.
10 OF 32

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811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
Know what's below.
Call before you dig.

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
301	63264.630	12601572.010	583.72
508	633021.457	12601568.640	584.95
710	632851.027	12601489.060	586.67

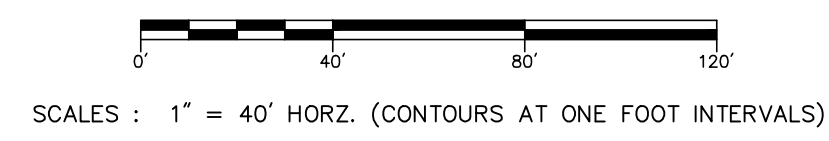


REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK, PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL

T:\CADD\PROJECTS\2023\2221072_MUSKEGON_2023\DWG\WILCOX\2221072_IDWG_CHERRY.DWG - JHESTRIN - May, 24, 2023 - 11:33am - Prein&Newhof

811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
Know what's below. Call before you dig.



NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
			MAR '23	
				M.R.H.
			MAY '23	

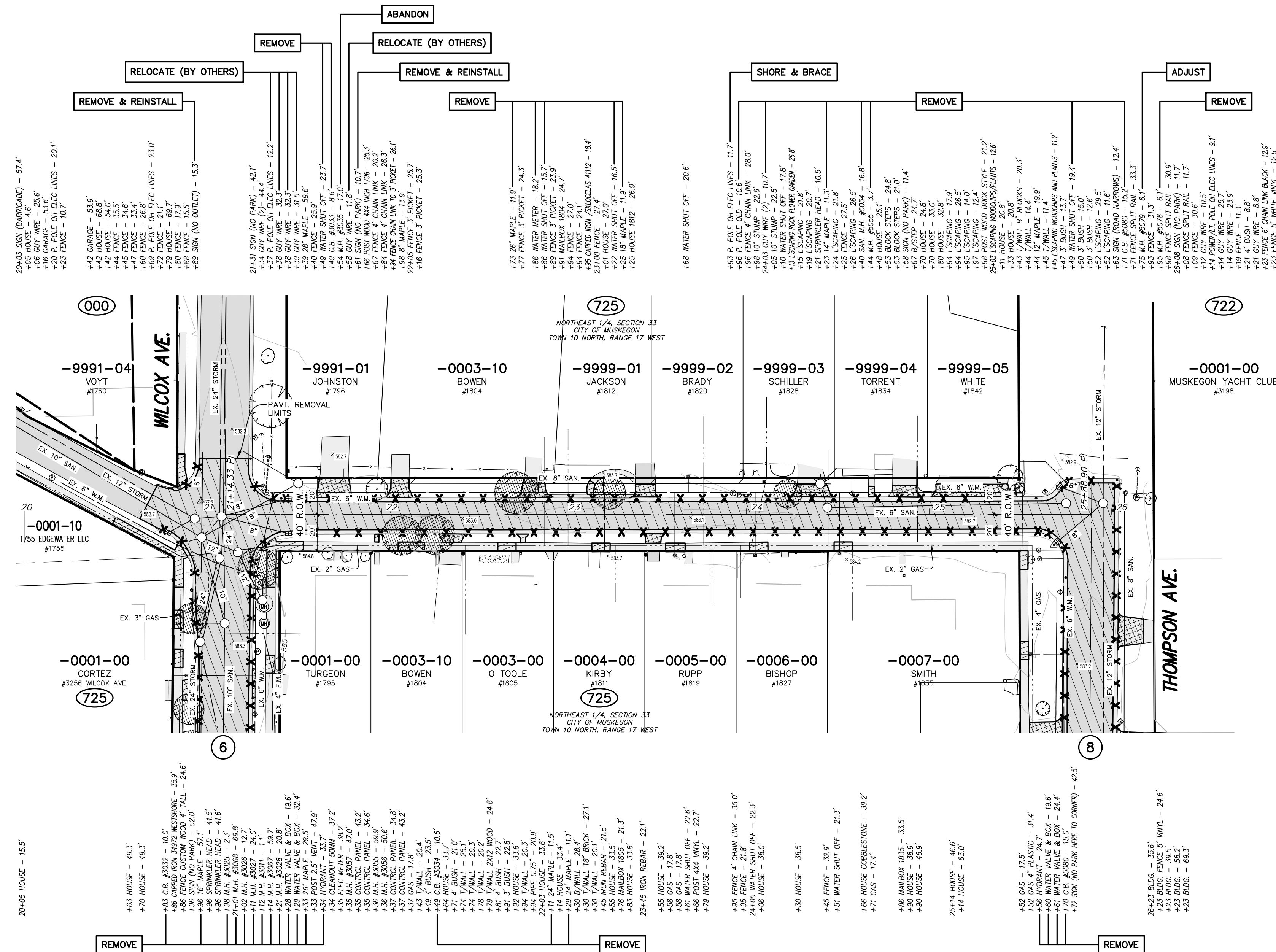
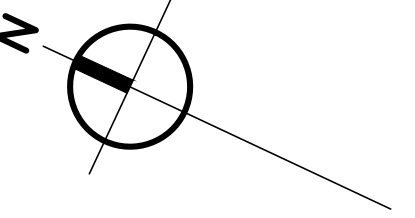
Prein & Newhof
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CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
REMOVAL PLAN
CHERRY STREET

PROJECT NO.
2221072
SHEET NO.
11 OF 32

B.M. EL. 583.66
 WILCOX AVENUE & EDGEWATER STREET, SE
 CORNER OF INTERSECTION, FOUND 600
 NAIL NW SIDE P. POLE (O.S. A/GROUND)

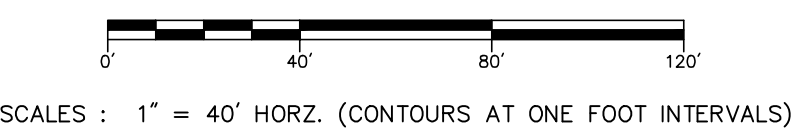
POINT No.	NORTHING	EASTING	ELEVATION
703	633234.805	12601716.220	582.85
707	632801.633	12601892.760	583.01



REMOVAL LEGEND

- REMOVE HMA SURFACE, PAID FOR AS: HMA SURFACE, REM
- REMOVE APPROACH, PAID FOR AS: PAVT, REM
- REMOVE CONCRETE SIDEWALK, PAID FOR AS: SIDEWALK, REM
- REMOVE CURB, GUTTER OR CURB AND GUTTER, PAID FOR AS: CURB AND GUTTER, REM
- TREE REMOVAL

EDGEWATER STREET
 (40' RIGHT OF WAY WIDTH 15' ASPHALT PAVEMENT WIDTH)



NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23



CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
 REMOVAL PLANS
 EDGEWATER STREET

PROJECT NO. 2221072
 SHEET NO. 12 OF 32

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

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

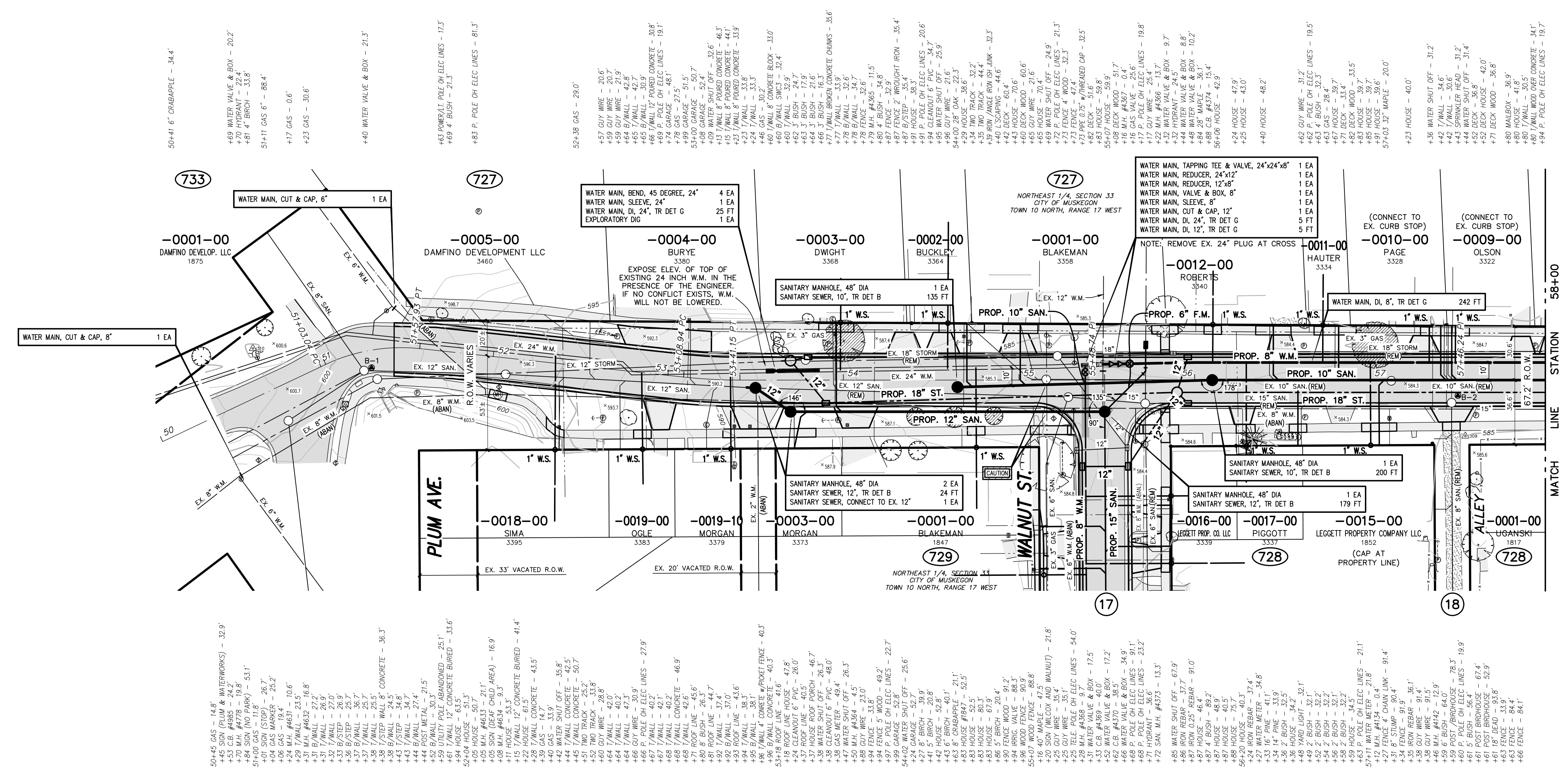
B.M. EL. 601.81
WILCOX AVENUE & PLUM AVENUE, 25'± N
OF C/L "X", TOP OF HYDRANT FLANGE,
BOLT UNDER "E" IN E.W. (1.8' A/GROUND)

B.M. EL. 600.55
WILCOX AVENUE & PLUM AVENUE, HOUSE
#3395 FOUND CHISELED SQUARE TOP OF
NW END OF 8" CONC. WALL (0.7' A/WALK)

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L "X", TOP OF NE
CORNER BOTTOM CONC. STEP (0.7' A/GROUND)

CONTROL POINT TABLE

POINT No.	NORTHING	EASTING	ELEVATION
302	132323.492	12601401.540	596.44
303	632444.267	12602273.500	600.29
304	632428.180	12601074.440	601.15
311	632373.716	12601009.440	602.99
706	632470.772	12601816.610	598.93
708	632955.228	12601320.520	596.50



TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 12 INCH x 6 INCH	2 EA
SANITARY SEWER, WYE, 10 INCH x 6 INCH	6 EA
SANITARY LATERAL, 6 INCH	291 EA
SANITARY LATERAL, CONNECTION TO EX.	6 EA

WATER SERVICE TOTALS (THIS SHEET)

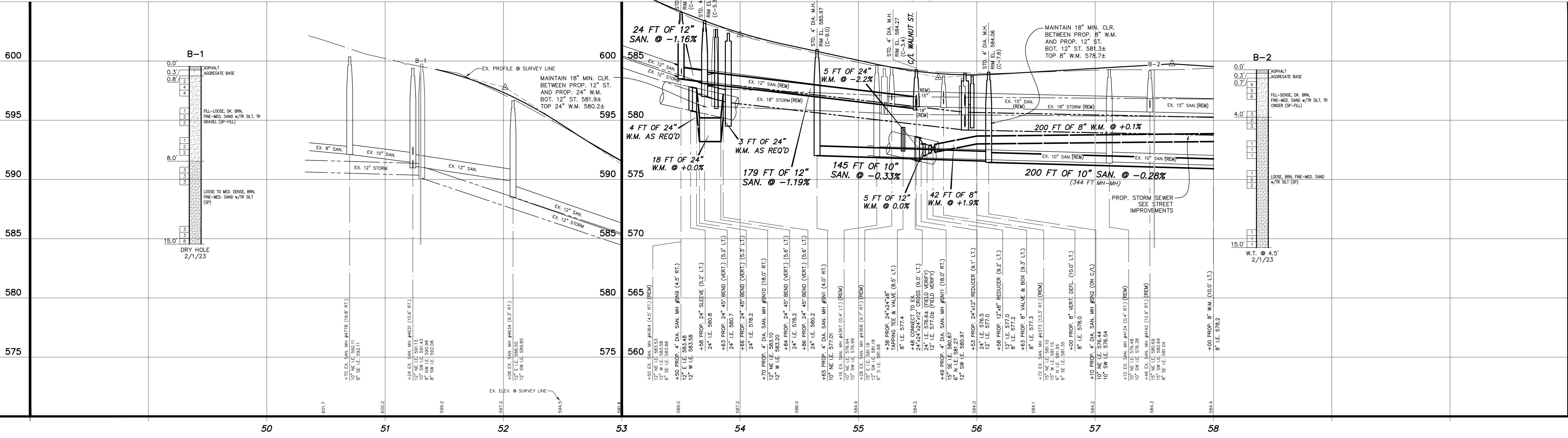
WATER SERVICE, CORPORATION STOP, 1 INCH	12 EA
WATER SERVICE, CURB STOP AND BOX, 1 INCH	10 EA
WATER SERVICE, 1 INCH	693 FT
WATER SERVICE, CONNECTION TO EX.	11 EA
WATER SERVICE, RESTORATION, PRIVATE	11 EA

- WATER MAIN CONSTRUCTION NOTES
- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
 - USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 3'± FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
 - SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
 - ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

- WATER SERVICE CONSTRUCTION NOTES
- WATER SERVICES SHOWN ON THE PLANS ARE LOCATED BASED ON RECORDS. ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN. ALIGNMENT OF EXISTING WATER SERVICE FROM THE CURB STOP BOX TO THE HOUSE IS UNKNOWN AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO REPLACEMENT.
 - WATER SERVICES ARE TO BE REPLACED TO THE WATER METER IF THE METER IS LOCATED INSIDE THE RESIDENCE UNLESS NOTED OTHERWISE. WATER SERVICES TO BE REPLACED TO 18 INCHES INSIDE THE RESIDENCES IF THE METER IS LOCATED OUTSIDE. LOCATION OF ENTRY INTO THE RESIDENCE, AND PLUMBING REQUIRED TO CONNECT TO THE EXISTING METER MUST BE APPROVED BY THE HOME OWNER AND ENGINEER PRIOR TO INSTALLATION. A NEW CURB STOP MUST BE INSTALLED AT THE PROPERTY LINE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE AND COMMUNICATE WITH THE PROPERTY OWNER AND RESIDENT FOR ENTRY INTO THE RESIDENCE.
 - IF THE WATER SERVICE METER IS LOCATED IN A PIT OUTSIDE THE HOUSE, THE CONTRACTOR SHALL ATTEMPT TO RELOCATE THE METER INTO THE RESIDENCE. RELOCATION MUST BE COORDINATED WITH THE CITY AND THE PROPERTY OWNER.
 - CONTRACTOR TO COORDINATE WITH THE CITY FOR METER REMOVAL AND REINSTALLATION.

- SANITARY SEWER CONSTRUCTION NOTES
- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
 - SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.

WILCOX AVENUE
(RIGHT OF WAY WIDTH VARIES
27' ASPHALT PAVEMENT WIDTH)



811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.



REVISIONS

NO.	REVISIONS	BY	DATE
1	J.J.S.		
2	MAR '23		
3	M.R.H.		
4	MAY '23		

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

UTILITY IMPROVEMENTS
WILCOX AVENUE

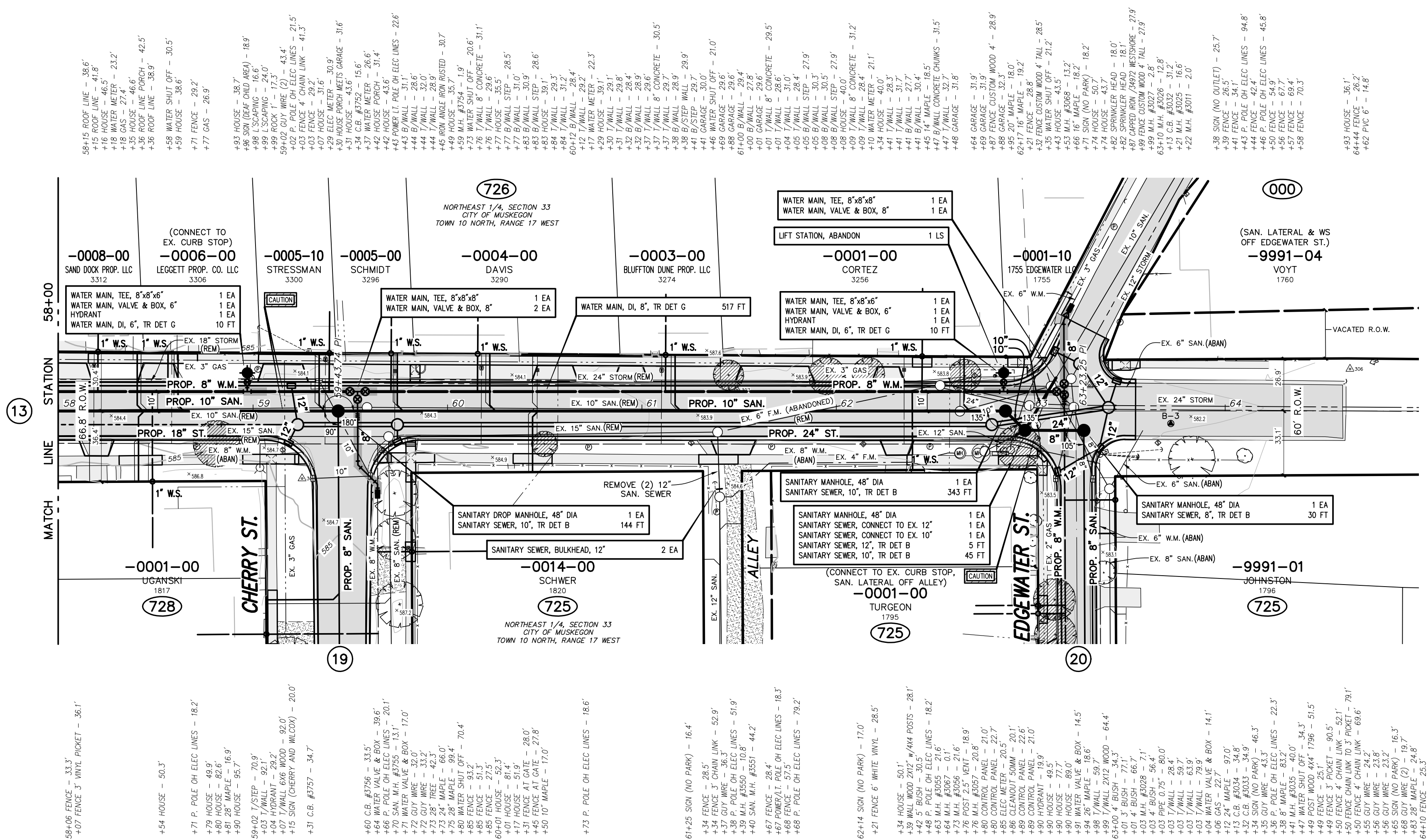
PROJECT NO.
2221072

SHEET NO.
13 OF 32

B.M. EL. 583.66
WILCOX AVENUE & EDGEWATER STREET, SE
CORNER OF INTERSECTION, FOUND 600
NAIL NW SIDE P. POLE (O.S. A/GROUND)

B.M. EL. 583.58
WILCOX AVENUE & EDGEWATER STREET,
150' E & 25' N OF C.A. X, TOP OF SE
CORNER OF B' CONC. (1.0' A/GROUND)

POINT No.	NORTHING	EASTING	ELEVATION
306	63328.612	126018.400	582.95
307	63316.533	1260152.660	583.65
308	63302.457	1260156.640	584.95
703	63324.805	1260174.220	582.85



TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)	
SANITARY SEWER, 8" DIA. x 6" INCH	9 EA
SANITARY LATERAL, 6" INCH	350 FT
SANITARY LATERAL, CONNECTION TO EX.	9 EA

WATER SERVICE TOTALS (THIS SHEET)	
WATER SERVICE, CORPORATION STOP, 1" INCH	9 EA
WATER SERVICE, CURB STOP AND BOX, 1" INCH	7 EA
WATER SERVICE, 1" INCH	428 FT
WATER SERVICE, CONNECTION TO EX.	9 EA
WATER SERVICE, RESTORATION, PRIVATE	7 EA

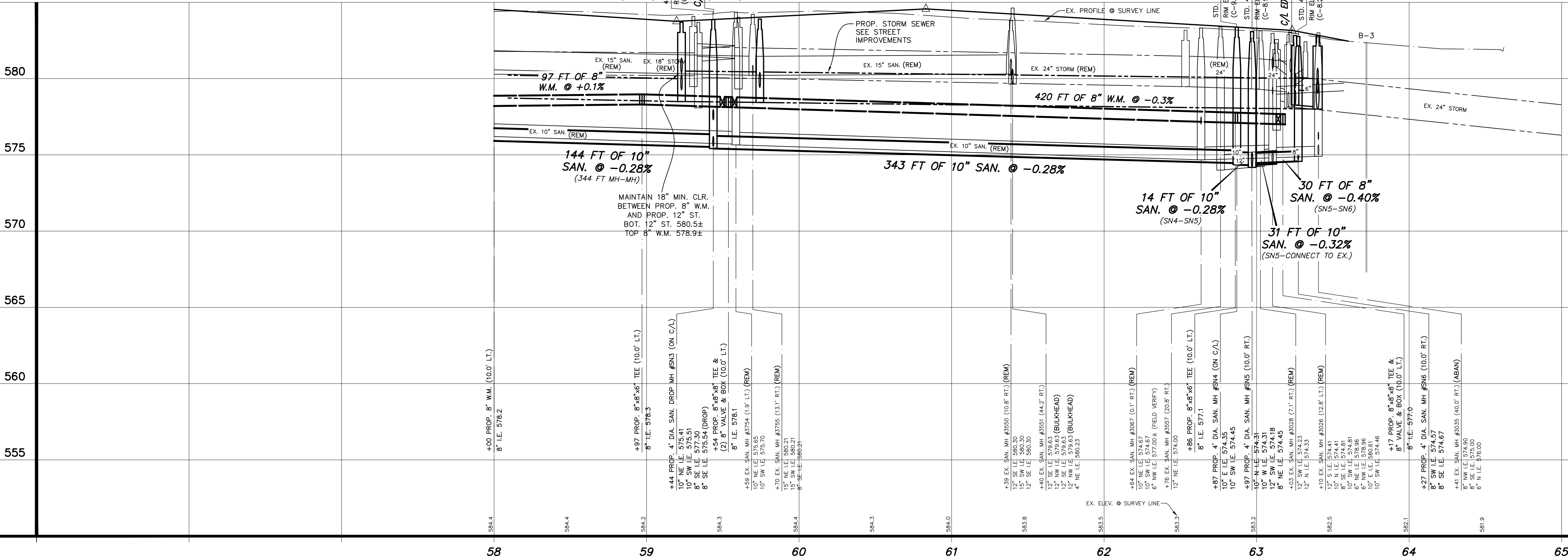
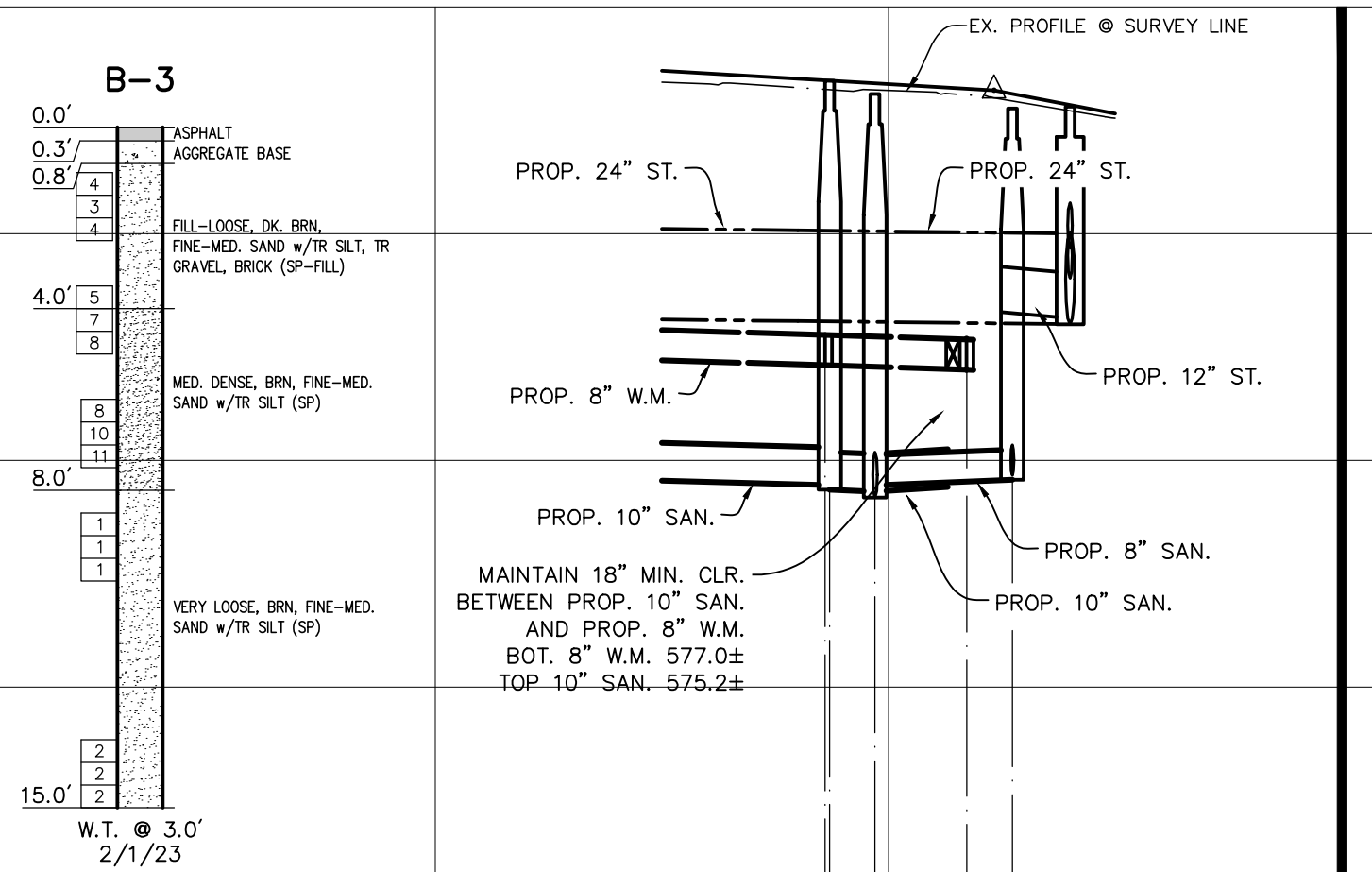
ABANDONED LIFT STATION NOTES
EXISTING ABANDONED LIFT STATION CONCRETE WET WELL IS FILLED WITH PEASTONE & CAPPED WITH AN 8" INCH CONCRETE SLAB AT APPROXIMATELY 3 FEET BELOW FINISHED GRADE. REMOVE EX. 12" INCH THICK CONCRETE WALLS & PEASTONE TO A MINIMUM DEPTH OF 8 FEET BELOW FINISHED GRADE. COVER EXISTING PEASTONE WITH GEOTEXTILE BLANKET & BACKFILL WITH COMPACTED CLASS II GRANULAR MATERIAL. PAID FOR AS LIFT STATION, ABANDON.

WATER MAIN CONSTRUCTION NOTES
1. CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
2. USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 3" +/- FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
3. SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
4. ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

WATER SERVICE CONSTRUCTION NOTES
1. WATER SERVICES SHOWN ON THE PLANS ARE LOCATED BASED ON RECORDS. ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN. ALIGNMENT OF EXISTING WATER SERVICES FROM THE CURB STOP BOX TO THE HOUSE IS UNKNOWN AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO REINSTALLATION.
2. WATER SERVICES ARE TO BE REPLACED TO THE WATER METER IF THE METER IS LOCATED INSIDE THE RESIDENCE UNLESS NOTED OTHERWISE. WATER SERVICES TO BE REPLACED TO 18" INCHES INSIDE THE RESIDENCES IF THE METER IS LOCATED OUTSIDE. LOCATION OF ENTRY INTO THE RESIDENCE, AND PLUMBING REQUIRED TO CONNECT TO THE EXISTING METER MUST BE APPROVED BY THE HOME OWNER AND ENGINEER PRIOR TO INSTALLATION. A NEW CURB STOP MUST BE INSTALLED AT THE PROPERTY LINE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE AND COMMUNICATE WITH THE PROPERTY OWNER AND RESIDENT FOR ENTRY INTO THE RESIDENCE.
3. IF THE WATER SERVICE METER IS LOCATED IN A PIT OUTSIDE THE HOUSE, THE CONTRACTOR SHALL ATTEMPT TO RELOCATE THE METER INTO THE RESIDENCE. RELOCATION MUST BE COORDINATED WITH THE CITY AND THE PROPERTY OWNER.
4. CONTRACTOR TO COORDINATE WITH THE CITY FOR METER REMOVAL AND REINSTALLATION.

SANITARY SEWER CONSTRUCTION NOTES
1. ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. ACTUAL LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
2. SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.

PROP. W.M. & SANITARY CLEARANCES @ WILCOX AVE. & EDGEWATER ST.



811
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Call before you dig.

NO.	REVISIONS	BY	DATE
1	ISSUED FOR PERMIT	J.J.S.	MAR '23
2	REVISED FOR FIELD CONDITIONS	M.R.H.	MAY '23

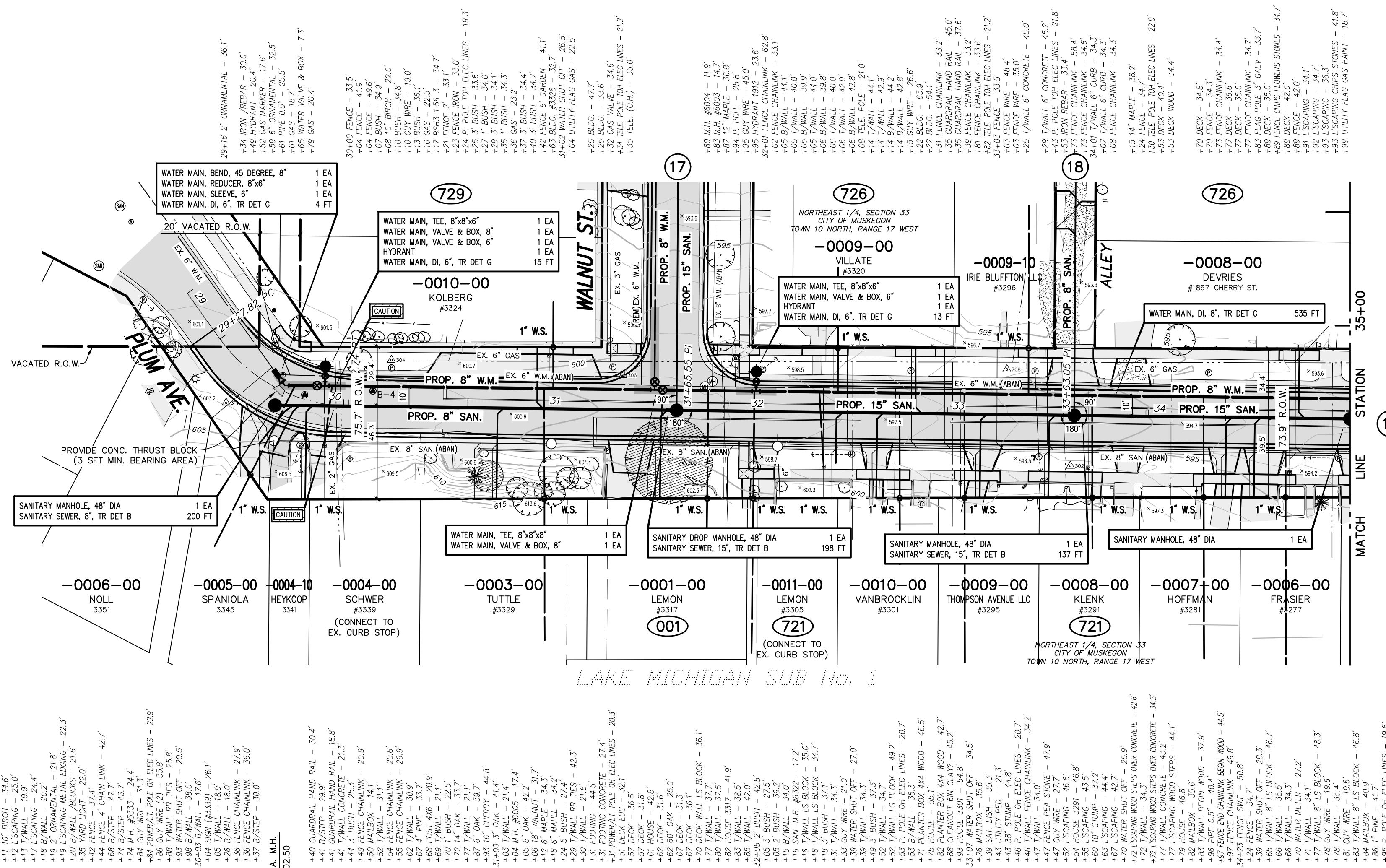
SCALES: 1" = 40' HORZ. (CONTOURS AT ONE FOOT INTERVALS)
1" = 4' VERT.

PROJECT NO. 2221072	Prein & Newhof Engineers-Surveyors-Environmental-Laboratory	PROJECT NO. 2221072
SHEET NO. 14 OF 32		SHEET NO. 14 OF 32

CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN
UTILITY IMPROVEMENTS
WILCOX AVENUE

B.M. EL. 598.39
 THOMPSON AVENUE & WALNUT STREET,
 180'± E & 30'± S OF C/L 'X', AT HOUSE
 #3291, NW CORNER OF PROPERTY, TOP OF
 NW CORNER OF 8" CONC. RETAINING WALL,
 CHISELED SQUARE (1.5' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
302	632525.492	12601401.540	596.44
303	632444.287	12601227.150	600.29
304	632428.190	12601074.440	601.15
708	632410.772	12601181.810	598.93
709	632555.228	12601352.520	596.50



TOPOGRAPHY TEXT NOTE
 TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 15 INCH x 6 INCH	8 EA
SANITARY SEWER, WYE, 8 INCH x 6 INCH	6 EA
SANITARY LATERAL, 6 INCH	1330 FT
SANITARY LATERAL, CONNECTION TO EX.	14 EA

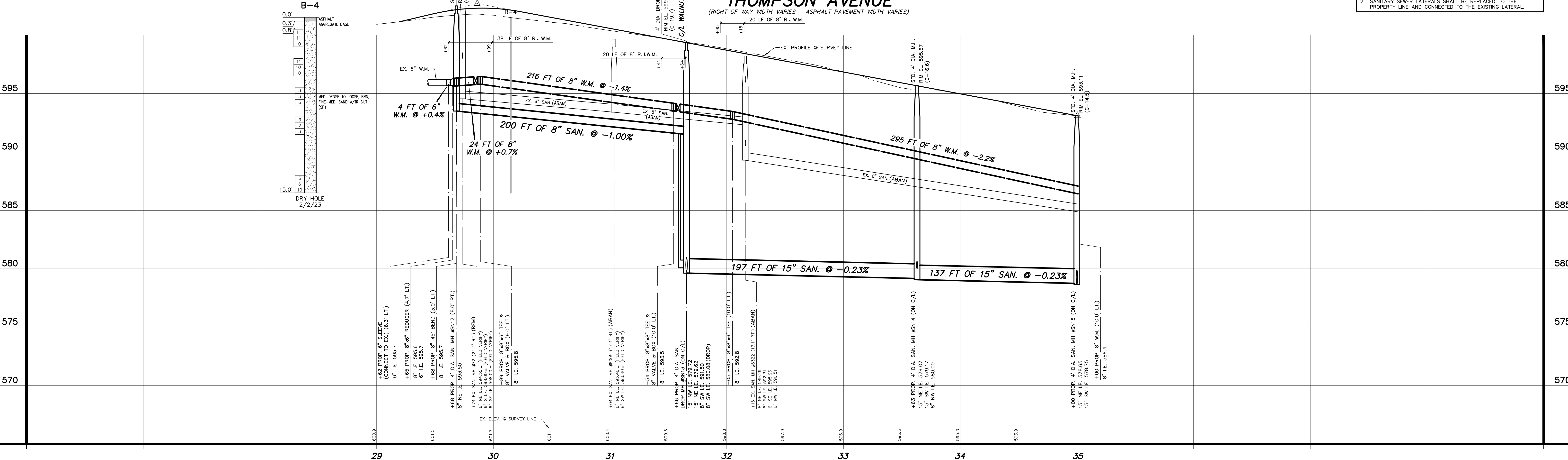
WATER SERVICE TOTALS (THIS SHEET)

WATER SERVICE, CORPORATION STOP, 1 INCH	14 EA
WATER SERVICE, CURB STOP AND BOX, 1 INCH	12 EA
WATER SERVICE, 1 INCH	1378 FT
WATER SERVICE, CONNECTION TO EX.	14 EA
WATER SERVICE, RESTORATION, PRIVATE	12 EA

- WATER MAIN CONSTRUCTION NOTES**
- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
 - USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 3"± FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
 - SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
 - ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

- WATER SERVICE CONSTRUCTION NOTES**
- WATER SERVICES SHOWN ON THE PLANS ARE LOCATED BASED ON RECORDS. ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN. ALIGNMENT OF EXISTING WATER SERVICES FROM THE CURB STOP BOX TO THE HOUSE IS UNKNOWN AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO REPLACEMENT.
 - WATER SERVICES ARE TO BE REPLACED TO THE WATER METER IF THE METER IS LOCATED INSIDE THE RESIDENCE UNLESS NOTED OTHERWISE. WATER SERVICES TO BE REPLACED TO 18 INCHES INSIDE THE RESIDENCES IF THE METER IS LOCATED OUTSIDE. LOCATION OF ENTRY INTO THE RESIDENCE, AND PLUMBING REQUIRED TO CONNECT TO THE EXISTING METER MUST BE APPROVED BY THE HOME OWNER AND ENGINEER PRIOR TO INSTALLATION. A NEW CURB STOP MUST BE INSTALLED AT THE PROPERTY LINE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE AND COMMUNICATE WITH THE PROPERTY OWNER AND RESIDENT FOR ENTRY INTO THE RESIDENCE.
 - IF THE WATER SERVICE METER IS LOCATED IN A PIT OUTSIDE THE HOUSE, THE CONTRACTOR SHALL ATTEMPT TO RELOCATE THE METER INTO THE RESIDENCE. RELOCATION MUST BE COORDINATED WITH THE CITY AND THE PROPERTY OWNER.
 - CONTRACTOR TO COORDINATE WITH THE CITY FOR METER REMOVAL AND REINSTALLATION.

- SANITARY SEWER CONSTRUCTION NOTES**
- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
 - SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.



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

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NO. REVISIONS BY DATE DRAWN

J.J.S.
 MAR. '23
 M.R.H.
 MAY '23

DATE CHECKED

DATE

SCALE: 1" = 40' HORIZ. (CONTOURS AT ONE FOOT INTERVALS)
 1" = 4' VERT.

Prein & Newhof
 Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN

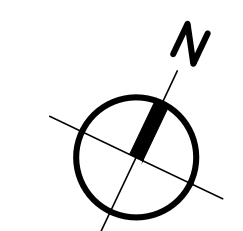
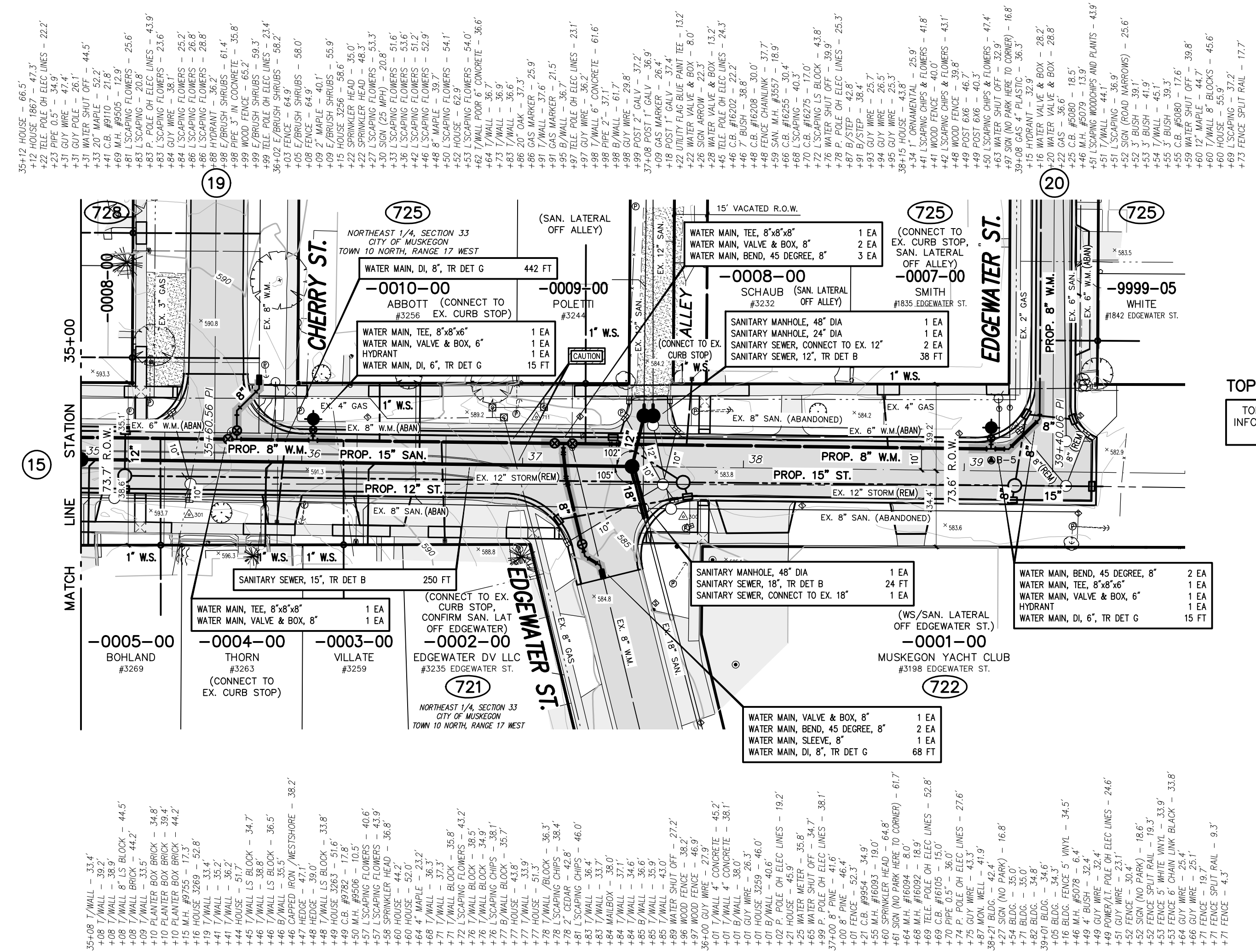
UTILITY IMPROVEMENTS
 THOMPSON AVENUE

PROJECT NO.
2221072

SHEET NO.
15 OF 32

B.M. EL. 585.08
 THOMPSON AVENUE & EDGEWATER STREET,
 SE CORNER OF INTERSECTION, HOUSE
 #1873, TOP OF NW CORNER OF BOTTOM
 CONC. STEP

POINT NO.	NORTHING	EASTING	ELEVATION
300	132689.898	1260174.910	584.14
301	632604.633	12601572.010	593.72
707	632801.633	12601692.760	583.01
711	632712.045	12601695.070	586.52



TOPOGRAPHY TEXT NOTE
 TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 15 INCH x 6 INCH	4 EA
SANITARY LATERAL, 6 INCH	155 FT
SANITARY LATERAL, CONNECTION TO EX.	4 EA

WATER SERVICE TOTALS (THIS SHEET)

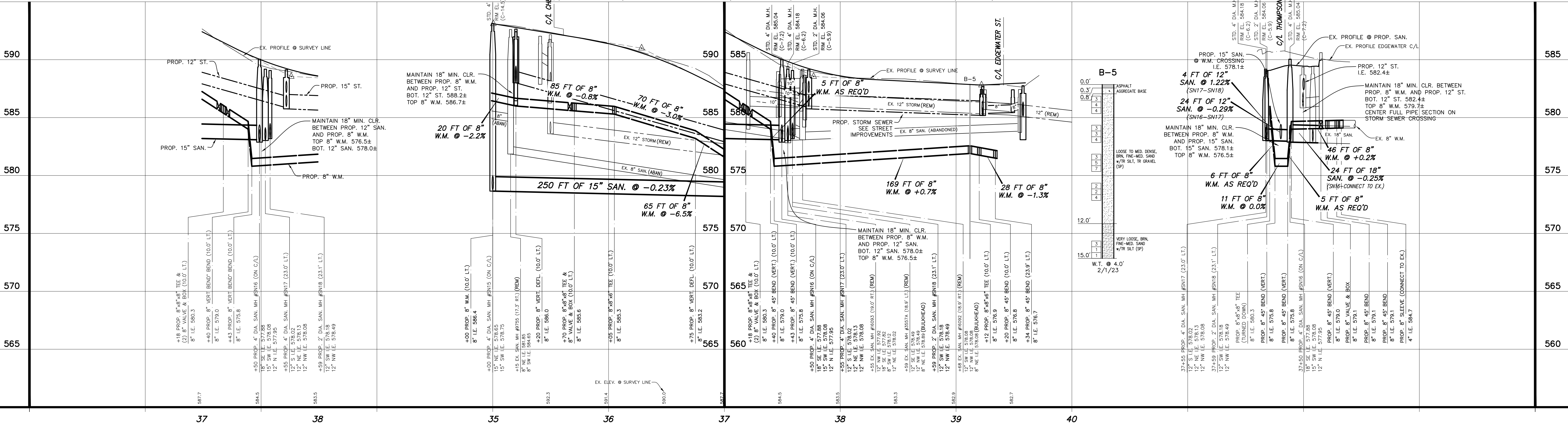
WATER SERVICE, CORPORATION STOP, 1 INCH	8 EA
WATER SERVICE, CURB STOP AND BOX, 1 INCH	3 EA
WATER SERVICE, 1 INCH	412 FT
WATER SERVICE, CONNECTION TO EX.	8 EA
WATER SERVICE, RESTORATION, PRIVATE	3 EA

- WATER MAIN CONSTRUCTION NOTES**
- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
 - USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 5'-4" FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
 - SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
 - ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

- WATER SERVICE CONSTRUCTION NOTES**
- WATER SERVICES SHOWN ON THE PLANS ARE LOCATED BASED ON RECORDS, ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN. ALIGNMENT OF EXISTING WATER SERVICES FROM THE CURB STOP BOX TO THE HOUSE IS UNKNOWN AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO REPLACEMENT.
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 - SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.

PROP. W.M. & SANITARY CLEARANCES @ THOMPSON AVE. & EDGEWATER ST.



THOMPSON AVENUE
 (73± RIGHT OF WAY WIDTH ASPHALT PAVEMENT WIDTH VARIES)

W.M. CONNECTION @ EDGEWATER ST.
 ALL W.M. TO BE RESTRAINED JOINT

SCALES : 1" = 40' HORZ. (CONTOURS AT ONE FOOT INTERVALS)
 1" = 4' VERT.

NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
			MAR. '23	
			M.R.H.	
			MAY '23	

Prein & Newhof
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CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
 UTILITY IMPROVEMENTS
 THOMPSON AVENUE

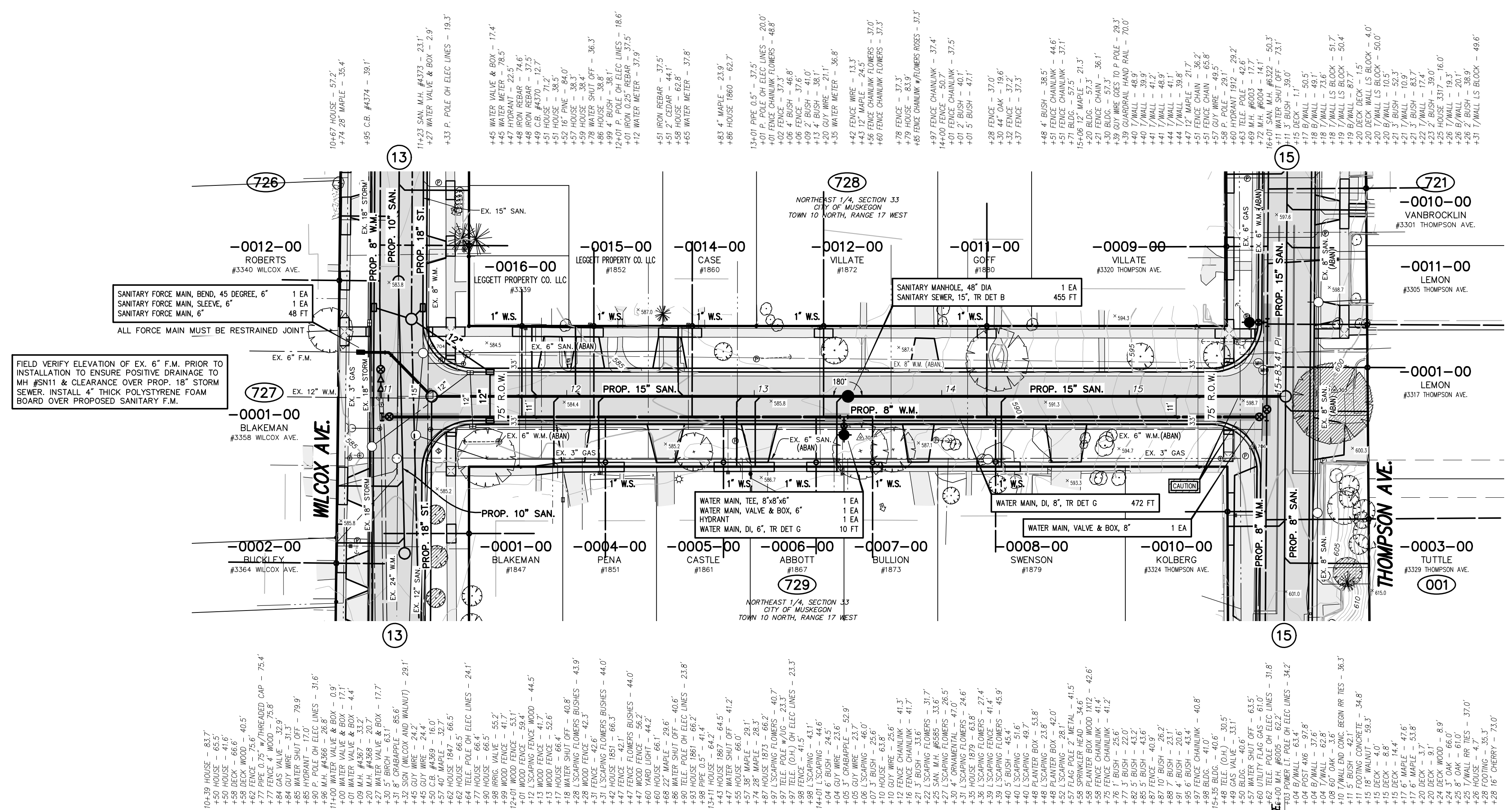
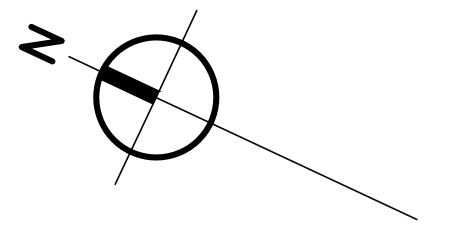
PROJECT NO.
 2221072
 SHEET NO.
 16 OF 32

T:\D\PROJECTS\2023\2221072_MUSKEGON_2023 IMPV STREET IMPV 4. PROJ\W\CON\2221072_PRR_UTL_THOMPSON.DWG - SOUTH - May, 18, 2023 - 10:51am - P:\d\m\h\c

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L "X", TOP OF NE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

B.M. EL. 588.63
WALNUT STREET @ HOUSE #1873, TOP OF
NE CORNER BOTTOM OF CONC. STEP
(0.7' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
303	632444.267	12601227.150	600.29
305	632662.413	12601097.020	586.74
704	632889.999	12601044.170	584.24
706	632470.772	12601818.610	598.93



TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 15 INCH x 6 INCH	9 EA
SANITARY LATERAL, 6 INCH	359 FT
SANITARY LATERAL, CONNECTION TO EX.	9 EA

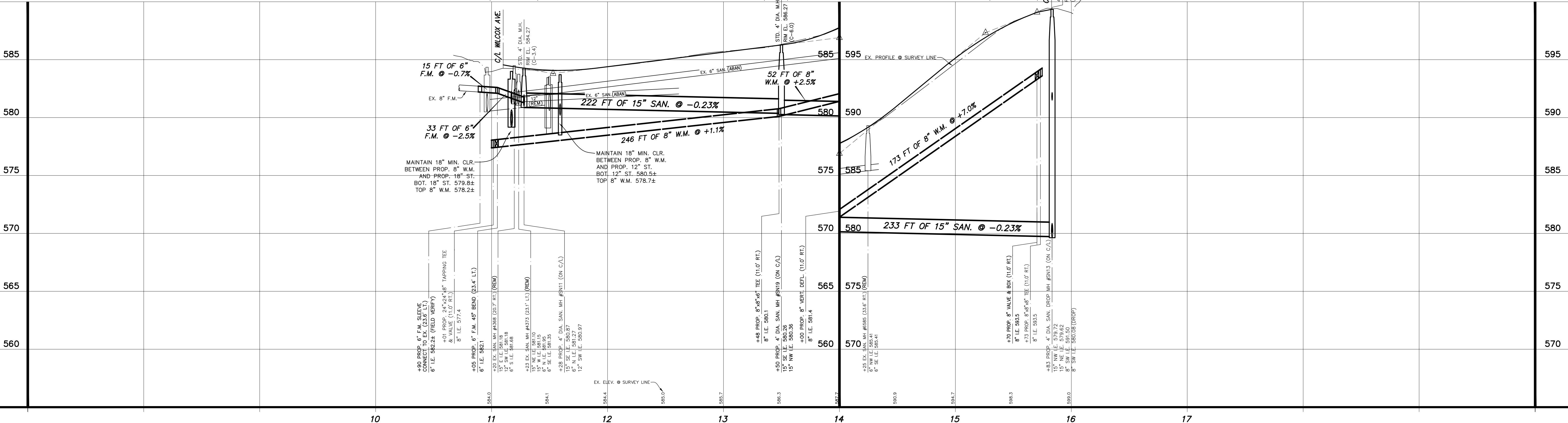
WATER SERVICE TOTALS (THIS SHEET)

WATER SERVICE, CORPORATION STOP, 1 INCH	10 EA
WATER SERVICE, CURB STOP AND BOX, 1 INCH	10 EA
WATER SERVICE, 1 INCH	856 FT
WATER SERVICE, CONNECT TO EX.	10 EA
WATER SERVICE, RESTORATION, PRIVATE	10 EA

- WATER MAIN CONSTRUCTION NOTES**
- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
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- WATER SERVICE CONSTRUCTION NOTES**
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 - CONTRACTOR TO COORDINATE WITH THE CITY FOR METER REMOVAL AND REINSTALLATION.

- SANITARY SEWER CONSTRUCTION NOTES**
- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
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Call before you dig.



NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
DATE: MAR. '23
CHECKED: M.R.H.
DATE: MAY '23

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

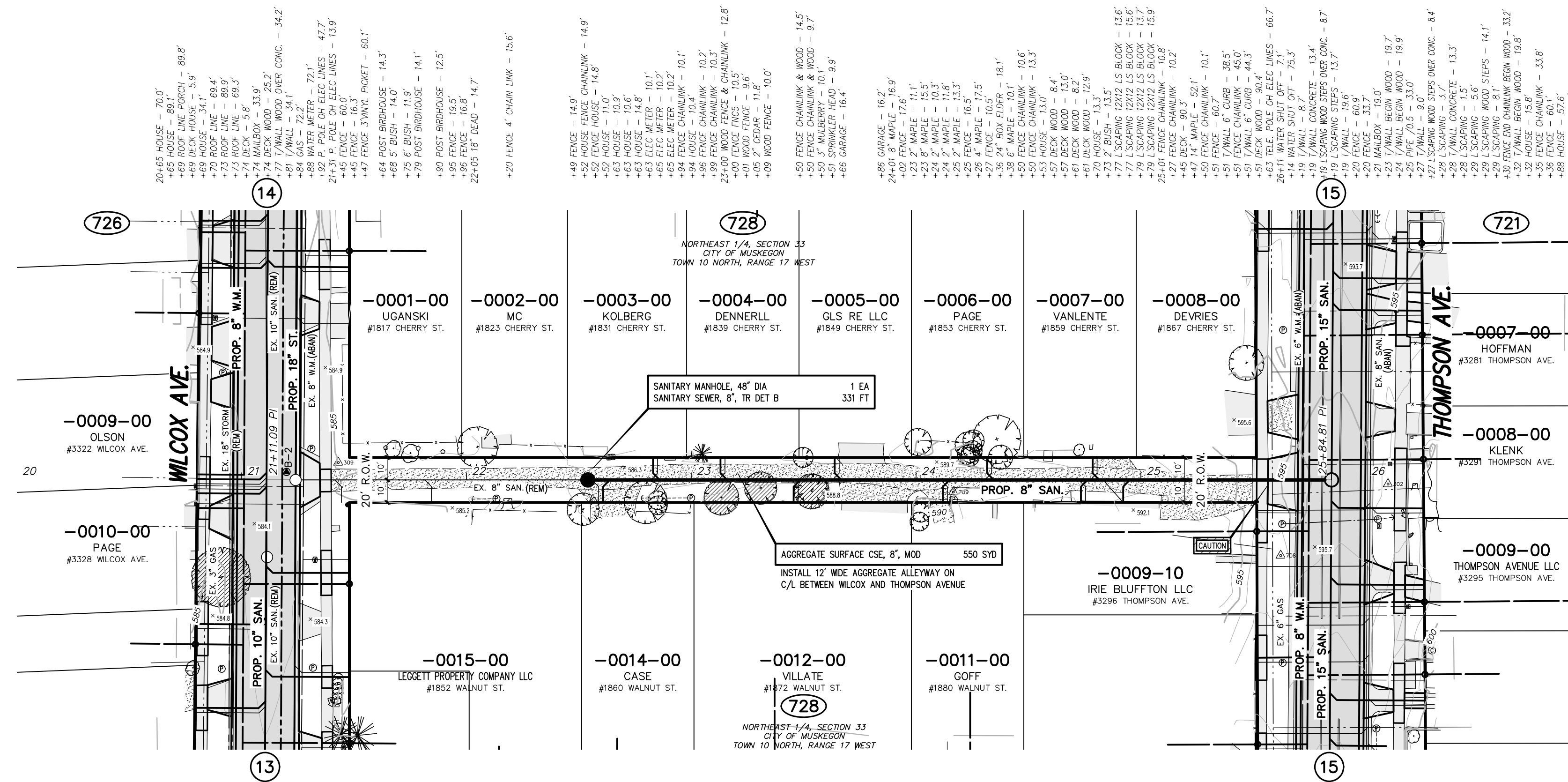
UTILITY IMPROVEMENTS
WALNUT STREET

PROJECT NO. 2221072
SHEET NO. 17 OF 32

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L 'X', AT HOUSE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

B.M. EL. 598.39
THOMPSON AVENUE & WALNUT STREET,
180'± E & 30'± S OF C/L 'X', AT HOUSE
#3291, NW CORNER OF PROPERTY, TOP OF
NW CORNER OF 8' CONC. RETAINING WALL,
CHISELED SQUARE
(1.5' A/GROUND)

POINT No.	NORTHING	EASTING	ELEVATION
302	632523.492	12601401.540	596.44
309	632952.356	12601212.150	585.02
708	632555.228	12601352.520	596.50
709	632699.064	12601316.330	589.78



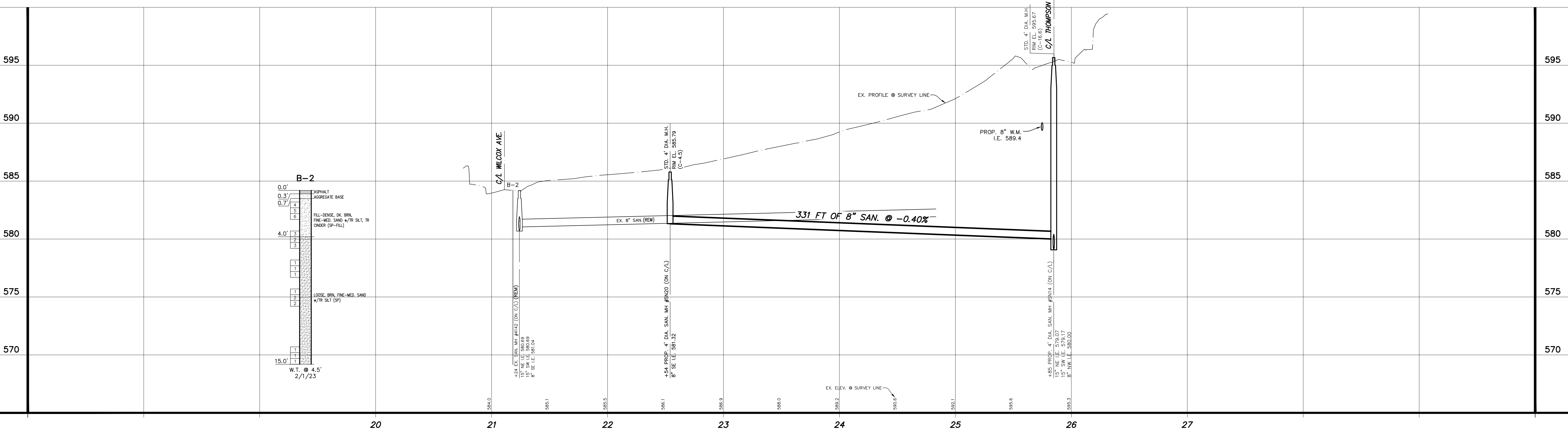
TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 8 INCH x 6 INCH	10 EA
SANITARY LATERAL, 6 INCH	113 LF
SANITARY LATERAL, CONNECTION TO EX.	10 EA

SANITARY SEWER CONSTRUCTION NOTES

- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
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NO. REVISIONS BY DATE DRAWN
DATE: J.J.S.
MAY '23
CHECKED: M.R.H.
DATE: MAY '23

SCALE: 1" = 40' HORZ. (CONTOURS AT ONE FOOT INTERVALS)
1" = 4' VERT.

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

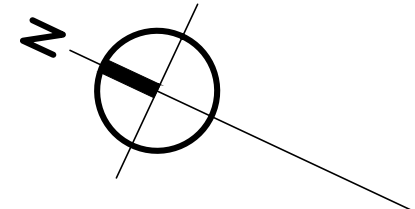
CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN

UTILITY IMPROVEMENTS

ALLEY

PROJECT NO. 2221072
SHEET NO. 18 OF 32

POINT No.	NORTHING	EASTING	ELEVATION
301	63264.630	12601572.010	583.72
508	633021.457	12601568.640	584.95
710	632851.027	12601489.060	586.67



TOPOGRAPHY TEXT NOTE

TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 8" INCH x 6" INCH	2 EA
SANITARY LATERAL, 6" INCH	78 FT
SANITARY LATERAL, CONNECTION TO EX.	2 EA

WATER SERVICE TOTALS (THIS SHEET)

WATER SERVICE, CORPORATION STOP, 1" INCH	8 EA
WATER SERVICE, CURB STOP AND BOX, 1" INCH	10 EA
WATER SERVICE, 1" INCH	728 FT
WATER SERVICE, CONNECTION TO EX.	10 EA
WATER SERVICE, RESTORATION, PRIVATE	10 EA

WATER MAIN CONSTRUCTION NOTES

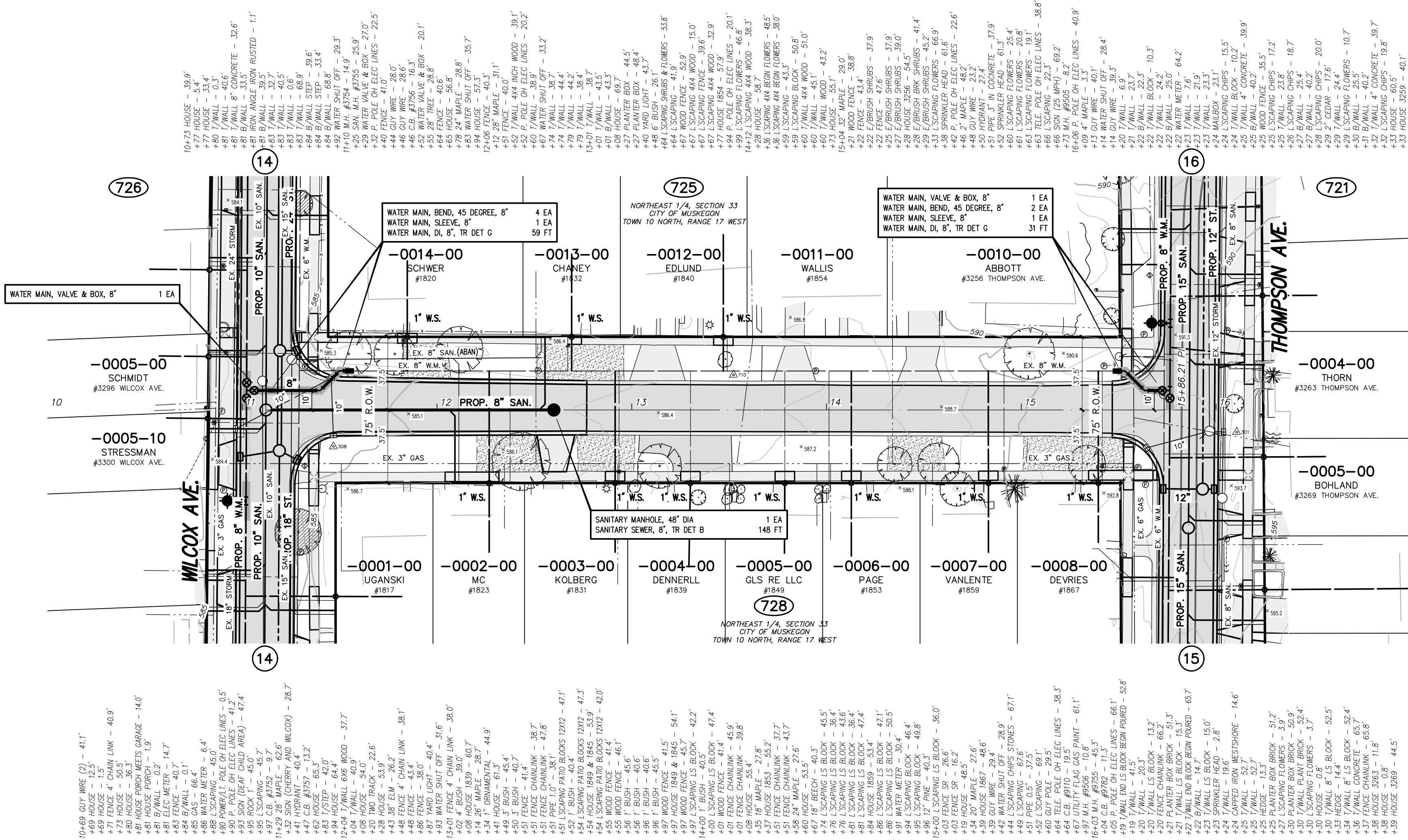
- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
- USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 3" +/- FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
- SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
- ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

WATER SERVICE CONSTRUCTION NOTES

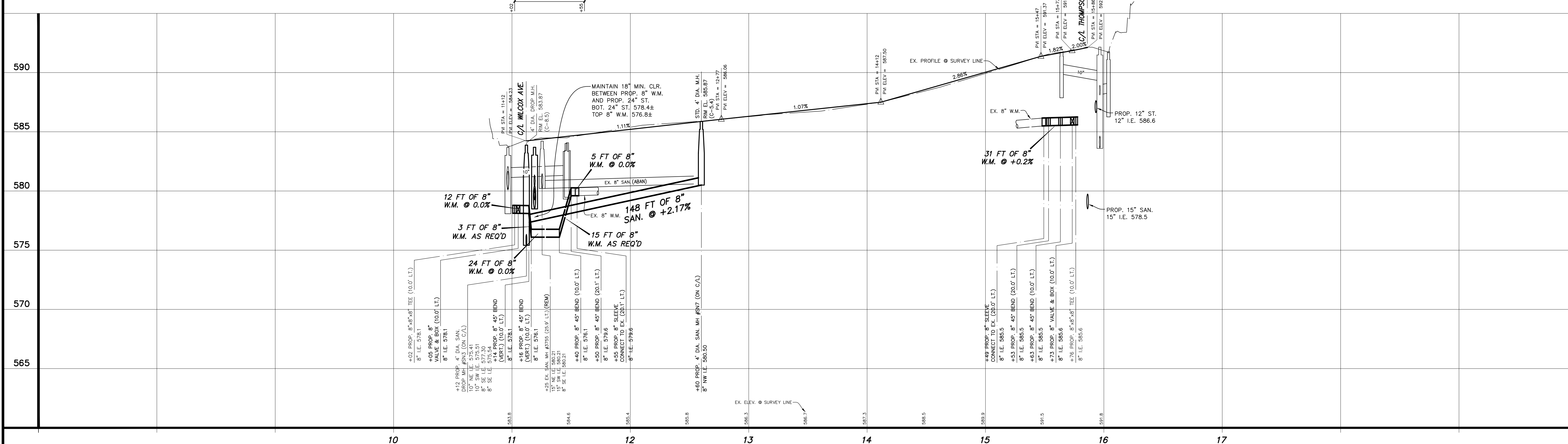
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SANITARY SEWER CONSTRUCTION NOTES

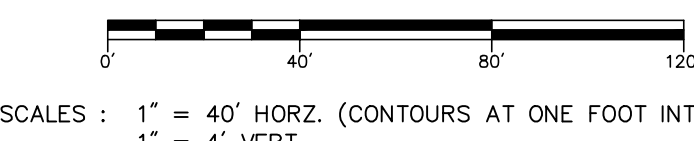
- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
- SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.



CHERRY STREET
(75' RIGHT OF WAY WIDTH 24' ASPHALT PAVEMENT WIDTH)



NO.	REVISIONS	BY	DATE

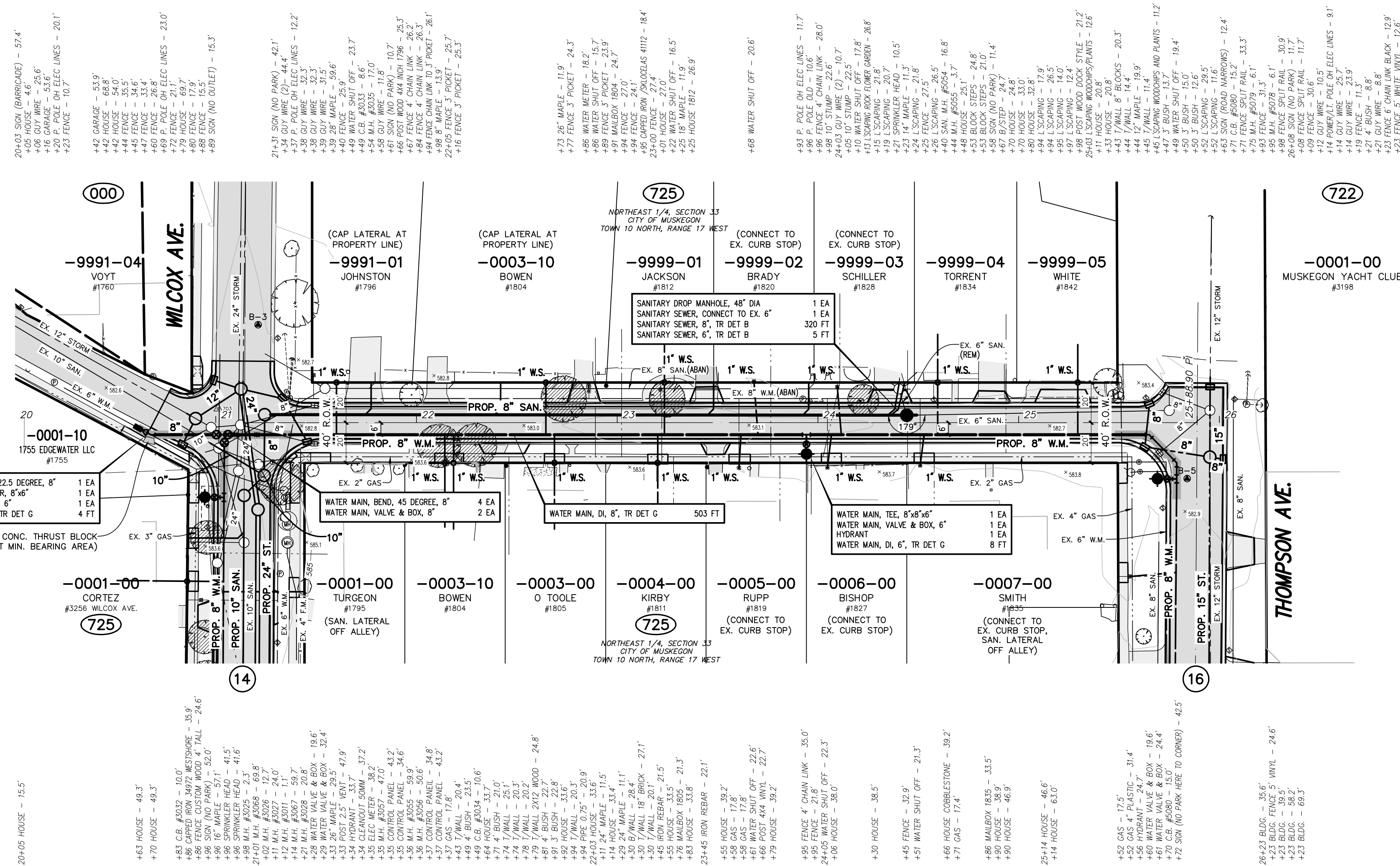


Prein & Newhof Engineers • Surveyors • Environmental • Laboratory		PROJECT NO. 2221072
CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN		SHEET NO. 19 OF 32
UTILITY IMPROVEMENTS CHERRY STREET		DRAWN J.J.S. DATE MAR. '23 CHECKED M.R.H. DATE MAY '23

T:\QAD\PROJECTS\2023\2221072_MUSKEGON_2023\DWG\WILCOX\2221072_PRR UTIL CHERRY.DWG - SMH - May 18, 2023 - 10:55am - P:\workbench

B.M. EL. 583.66
 WILCOX AVENUE & EDGEWATER STREET, SE
 CORNER OF INTERSECTION, FOUND 600
 NAIL NW SIDE P. POLE (O.S. A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
703	63224.805	1260176.220	582.85
707	632801.633	12601892.760	583.01



TOPOGRAPHY TEXT NOTE

TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

SANITARY LATERAL TOTALS (THIS SHEET)

SANITARY SEWER, WYE, 8" INCH x 6" INCH	6 EA
SANITARY LATERAL, 6" INCH	106 FT
SANITARY LATERAL, CONNECTION TO EX.	4 EA

WATER SERVICE TOTALS (THIS SHEET)

WATER SERVICE, CORPORATION STOP, 1" INCH	14 EA
WATER SERVICE, CURB STOP AND BOX, 1" INCH	9 EA
WATER SERVICE, 1" INCH	479 FT
WATER SERVICE, CONNECTION TO EX.	12 EA
WATER SERVICE, RESTORATION, PRIVATE	7 EA

WATER MAIN CONSTRUCTION NOTES

- CONTRACTOR MUST PROVIDE A MINIMUM OF 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN PROPOSED WATER MAIN, AND STORM AND SANITARY SEWERS.
- USE HYDRANT EXTENSIONS OR VERTICAL BENDS ON HYDRANT LEADS TO ENSURE HYDRANT BREAKAWAY FLANGE IS 3" +/- FROM FINISHED GRADE. COST SHALL BE INCLUDED IN THE HYDRANT PAY ITEM.
- SHADED WATER MAIN INDICATES RESTRAINED JOINT WATER MAIN.
- ALL HYDRANTS MUST BE RESTRAINED TO THE TEE.

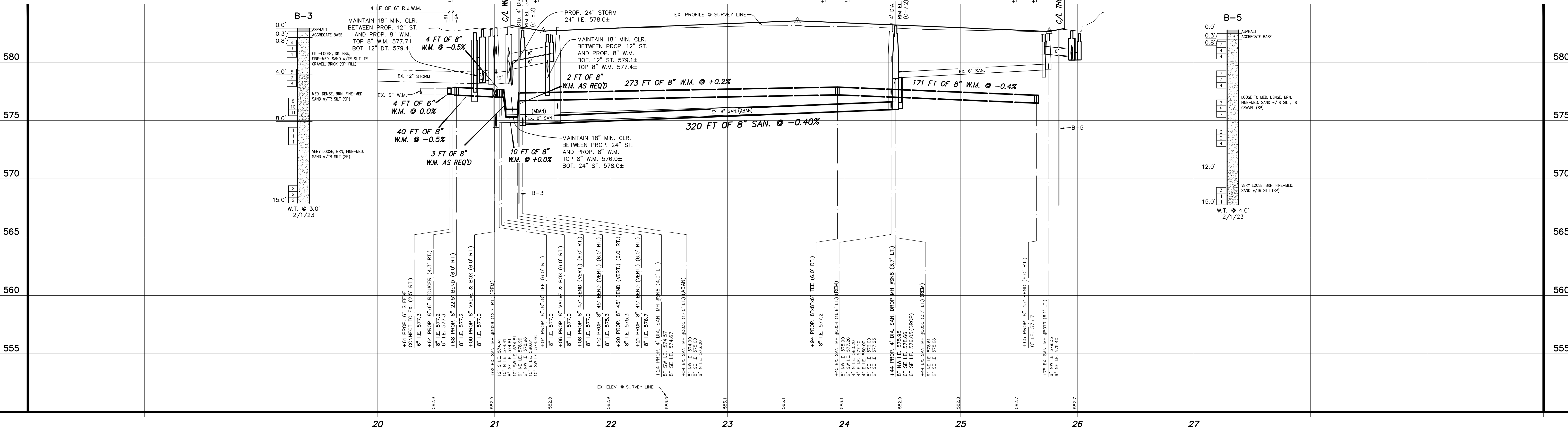
WATER SERVICE CONSTRUCTION NOTES

- WATER SERVICES SHOWN ON THE PLANS ARE LOCATED BASED ON RECORDS. ACTUAL LOCATION MAY BE DIFFERENT THAN SHOWN. ALIGNMENT OF EXISTING WATER SERVICE FROM THE CURB STOP BOX TO THE HOUSE IS UNKNOWN AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO REPLACEMENT.
- WATER SERVICES ARE TO BE REPLACED TO THE WATER METER IF THE METER IS LOCATED INSIDE THE RESIDENCE UNLESS NOTED OTHERWISE. WATER SERVICES TO BE REPLACED TO 18 INCHES INSIDE THE RESIDENCES IF THE METER IS LOCATED OUTSIDE. LOCATION OF ENTRY INTO THE RESIDENCE, AND PLUMBING REQUIRED TO CONNECT TO THE EXISTING METER MUST BE APPROVED BY THE HOME OWNER AND ENGINEER PRIOR TO INSTALLATION. A NEW CURB STOP MUST BE INSTALLED AT THE PROPERTY LINE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE AND COMMUNICATE WITH THE PROPERTY OWNER AND RESIDENT FOR ENTRY INTO THE RESIDENCE.
- IF THE WATER SERVICE METER IS LOCATED IN A PIT OUTSIDE THE HOUSE, THE CONTRACTOR SHALL ATTEMPT TO RELOCATE THE METER INTO THE RESIDENCE. RELOCATION MUST BE COORDINATED WITH THE CITY AND THE PROPERTY OWNER.
- CONTRACTOR TO COORDINATE WITH THE CITY FOR METER REMOVAL AND REINSTALLATION.

SANITARY SEWER CONSTRUCTION NOTES

- ALIGNMENT & LOCATION OF EXISTING SANITARY SEWER LATERALS ARE FROM AVAILABLE RECORDS. EXACT LOCATION IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY LATERALS PRIOR TO INSTALLATION OF WYES.
- SANITARY SEWER LATERALS SHALL BE REPLACED TO THE PROPERTY LINE AND CONNECTED TO THE EXISTING LATERAL.

EDGEWATER STREET
 (40' RIGHT OF WAY WIDTH 15' ASPHALT PAVEMENT WIDTH)



SCALES : 1" = 40' HORIZ. (CONTOURS AT ONE FOOT INTERVALS)
 1" = 4' VERT.

NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23

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CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN
 UTILITY IMPROVEMENTS
 EDGEWATER STREET

PROJECT NO.
2221072
 SHEET NO.
20 OF 32

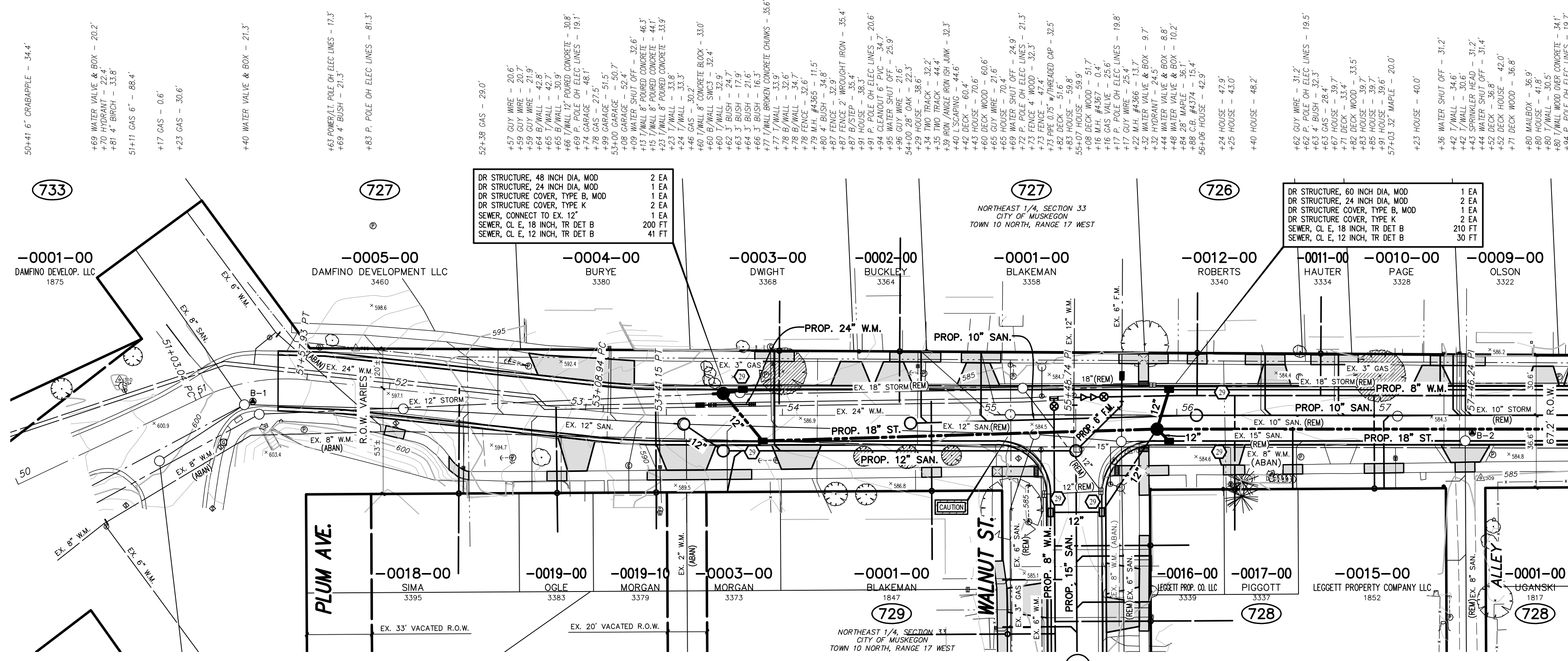
T:\CADD\PROJECTS\2023\2221072\MUSKOGON_2023\DWG\EDGWATER.DWG - SMH - May, 24, 2023 - 07:54am - P:\cadd\mch

B.M. EL. 601.81
WILCOX AVENUE & PLUM AVENUE, 25'± N
OF C/L "X", TOP OF HYDRANT FLANGE
BOLT UNDER "E" IN E.W. (1.8' A/GROUND)

B.M. EL. 600.55
WILCOX AVENUE & PLUM AVENUE, HOUSE
#3395 FOUND CHISELED SQUARE TOP OF
NW END OF 8" CONC. WALL
(0.7' A/WALK)

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L "X", TOP OF NE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

POINT No.	NORTHING	EASTING	ELEVATION
302	133233.492	12601401.540	596.44
303	632444.267	12601227.500	600.29
304	632428.180	12601074.440	601.15
311	632373.716	12601009.440	602.99
706	632470.772	12601181.610	598.93
708	632955.228	12601352.520	596.50

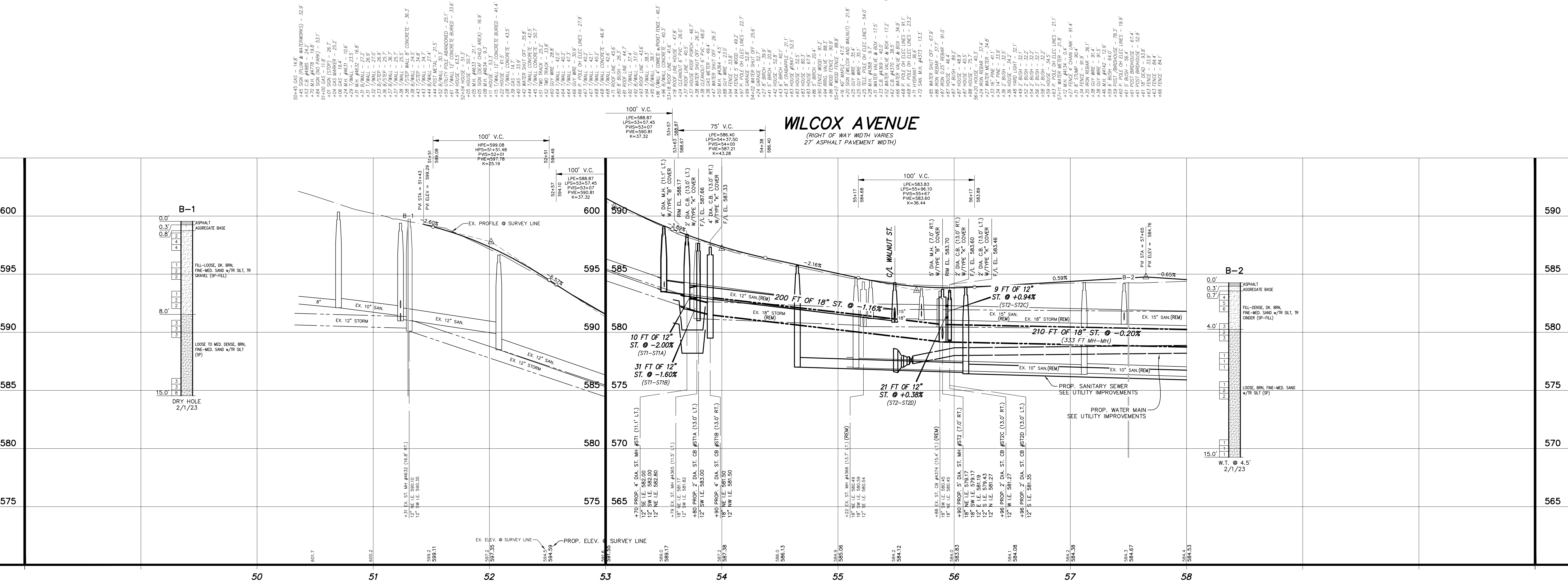
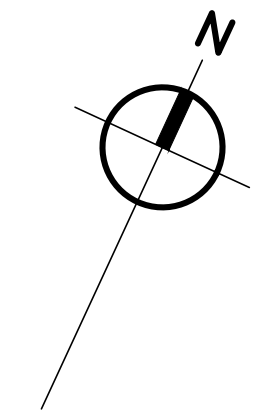


TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

PROPOSED
PAVEMENT LEGEND
PROPOSED DRIVEWAY,
NONREIN. CONC. 6 INCH OR
SIDEWALK, CONC. 4/6 INCH

NOTES: PROPOSED PAVEMENT ON
STREET & INTERSECTIONS
NOT SHADED FOR CLARITY.

SOIL EROSION
CONTROL LEGEND
PROPOSED EROSION CONTROL
INLET PROTECTION FABRIC DROP



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL
MEASUREMENTS OR AVAILABLE RECORDS. THEY
SHOULD NOT BE INTERPRETED TO BE EXACT
LOCATIONS NOR SHOULD IT BE ASSUMED THAT
THEY ARE THE ONLY UTILITIES IN THIS AREA.



NO.	REVISIONS	BY	DATE

DESIGNED BY: J.J.S.
DATE: MAR. '23
CHECKED BY: M.R.H.
DATE: MAY '23

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

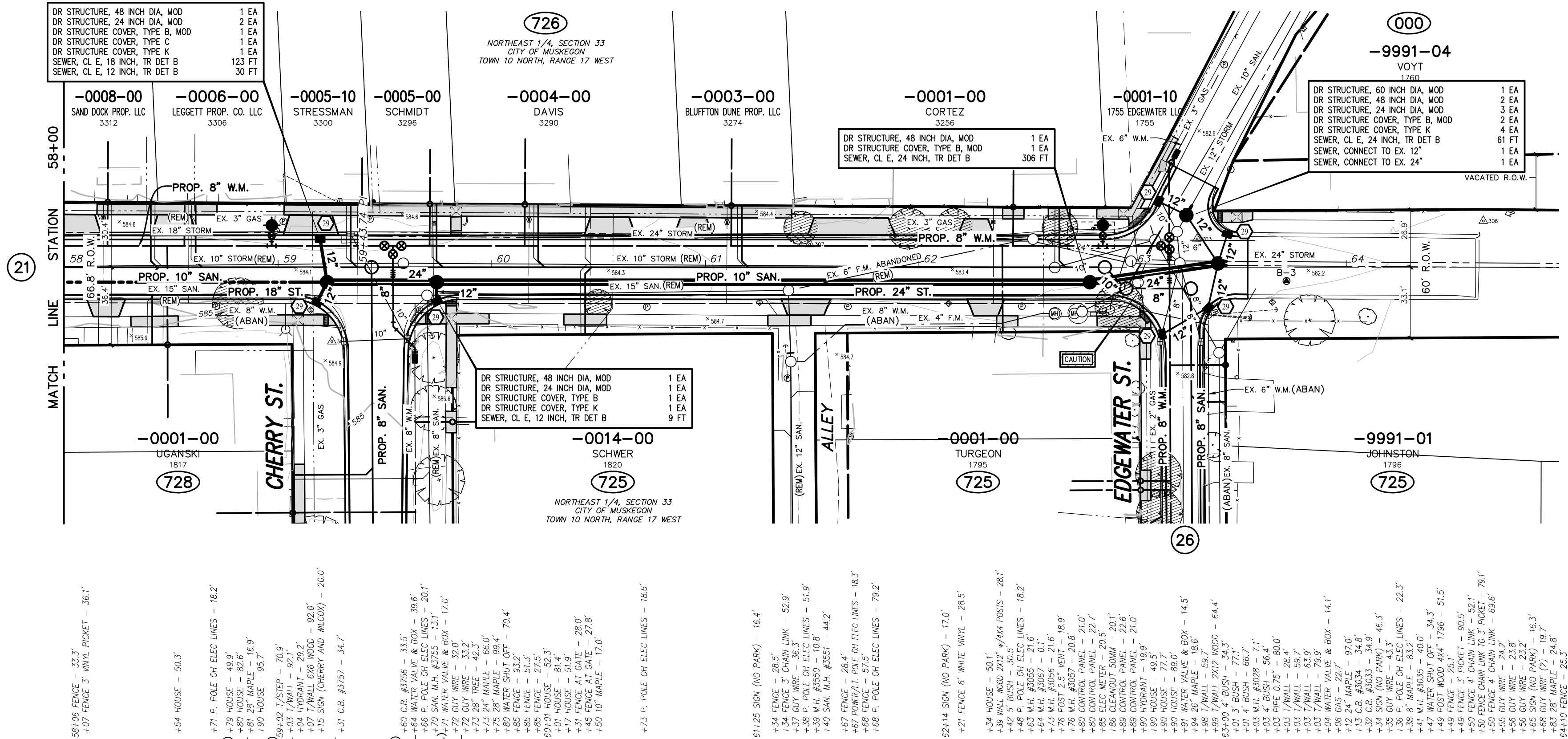
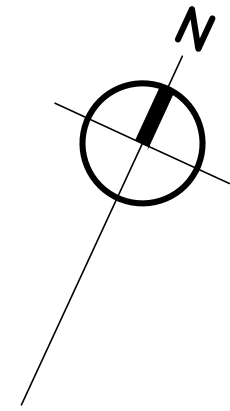
STREET IMPROVEMENTS
WILCOX AVENUE

PROJECT NO. 2221072
SHEET NO. 21 OF 32

B.M. EL. 583.66
WILCOX AVENUE & EDGEWATER STREET, SE
CORNER OF INTERSECTION, FOUND 600
NAIL NW SIDE P. POLE (0.5' A/GROUND)

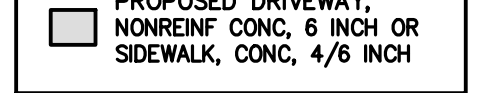
B.M. EL. 583.58
WILCOX AVENUE & EDGEWATER STREET,
150' E & 25' N OF C.A. 'X', TOP OF SE
CORNER OF 'B' CONC. (1.0' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
306	63328.612	1260185.400	582.95
307	633156.533	12601552.660	583.65
308	633021.457	12601568.640	584.95
703	633234.805	12601716.220	582.85



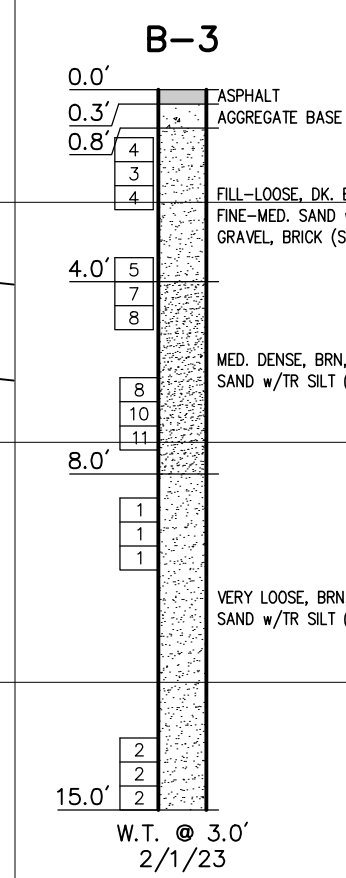
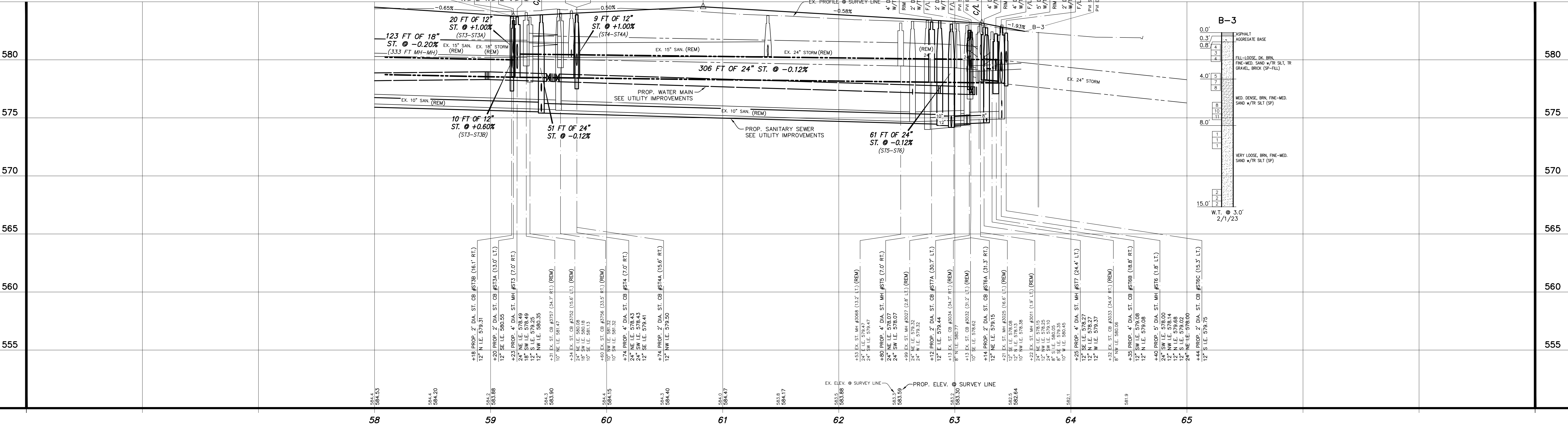
TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR
INFORMATION ONLY. SEE REMOVAL
PLANS FOR ACTION ITEMS.

**PROPOSED
PAVEMENT LEGEND**



NOTES: PROPOSED PAVEMENT ON
STREET & INTERSECTIONS
NOT SHADED FOR CLARITY.

**SOIL EROSION
CONTROL LEGEND**



811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETTED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
Know what's below. Call before you dig.



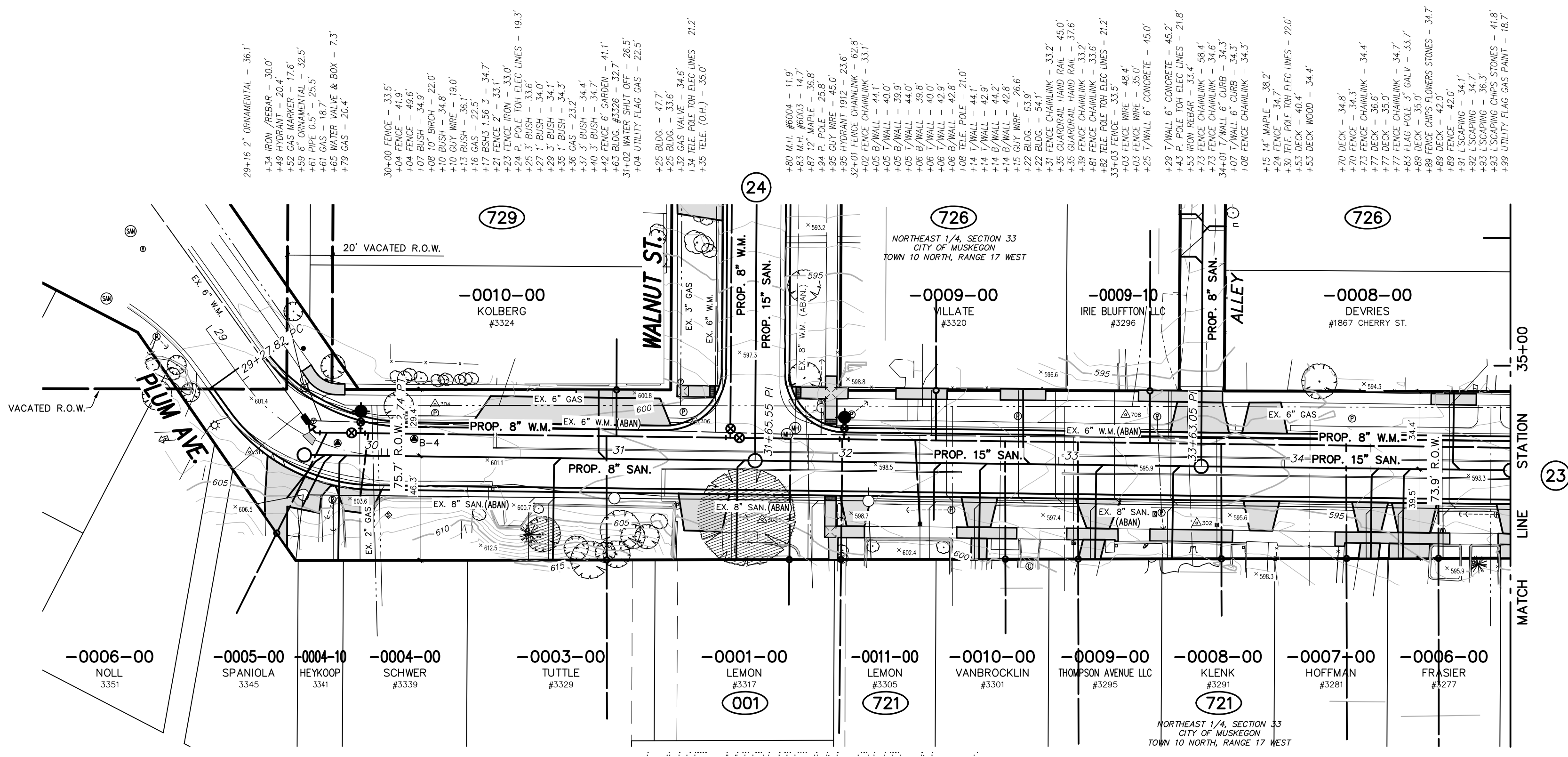
NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
			MAR. '23	
				M.R.H.
			MAY '23	

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CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
UTILITY IMPROVEMENTS
WILCOX AVENUE
PROJECT NO. 2221072
SHEET NO. 22 OF 32

B.M. EL. 598.39
 THOMPSON AVENUE & WALNUT STREET,
 180' ± E & 30' ± S OF C/L 'X', AT HOUSE
 #3291, NW CORNER OF PROPERTY, TOP OF
 NW CORNER OF 'B' CONC. RETAINING WALL,
 CHISELED SQUARE (1.5' A/GROUND)

POINT No.	NORTHING	EASTING	ELEVATION
302	632525.492	12601401.540	596.44
303	632444.267	12601227.150	600.29
304	632428.190	12601074.440	601.15
708	632410.772	12601181.610	598.93
709	632555.228	12601352.520	596.50



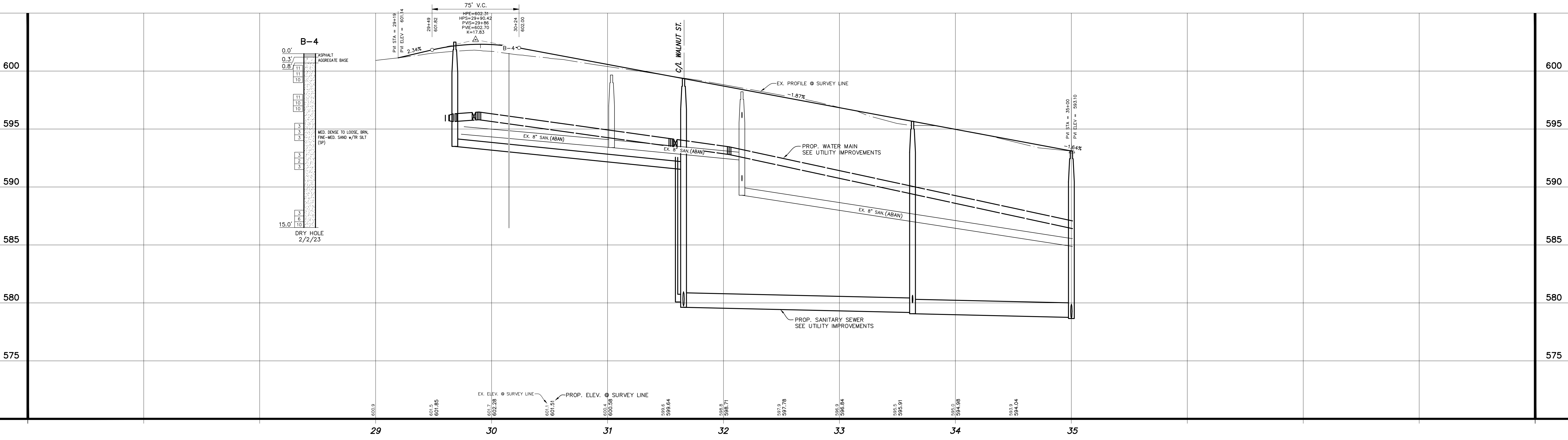
TOPOGRAPHY TEXT NOTE
 TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

PROPOSED PAVEMENT LEGEND

PROPOSED DRIVEWAY, NONREINFC CONC, 6 INCH OR SIDEWALK, CONC, 4/8 INCH

NOTES: PROPOSED PAVEMENT ON STREET & INTERSECTIONS NOT SHADED FOR CLARITY.

THOMPSON AVENUE
 (RIGHT OF WAY WIDTH VARIES ASPHALT PAVEMENT WIDTH VARIES)



SCALES: 1" = 40' HORZ. (CONTOURS AT ONE FOOT INTERVALS)
 1" = 4' VERT.

NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23

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CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN

STREET IMPROVEMENTS
 THOMPSON AVENUE

PROJECT NO. 2221072
 SHEET NO. 23 OF 32

T:\CADD\PROJECTS\2023\2221072_MUSKOGON_2023\DWG\STREET IMPROVEMENTS\THOMPSON AVENUE - STREET IMPROVEMENTS - 2221072.dwg - 11:02am - Prein\mwh

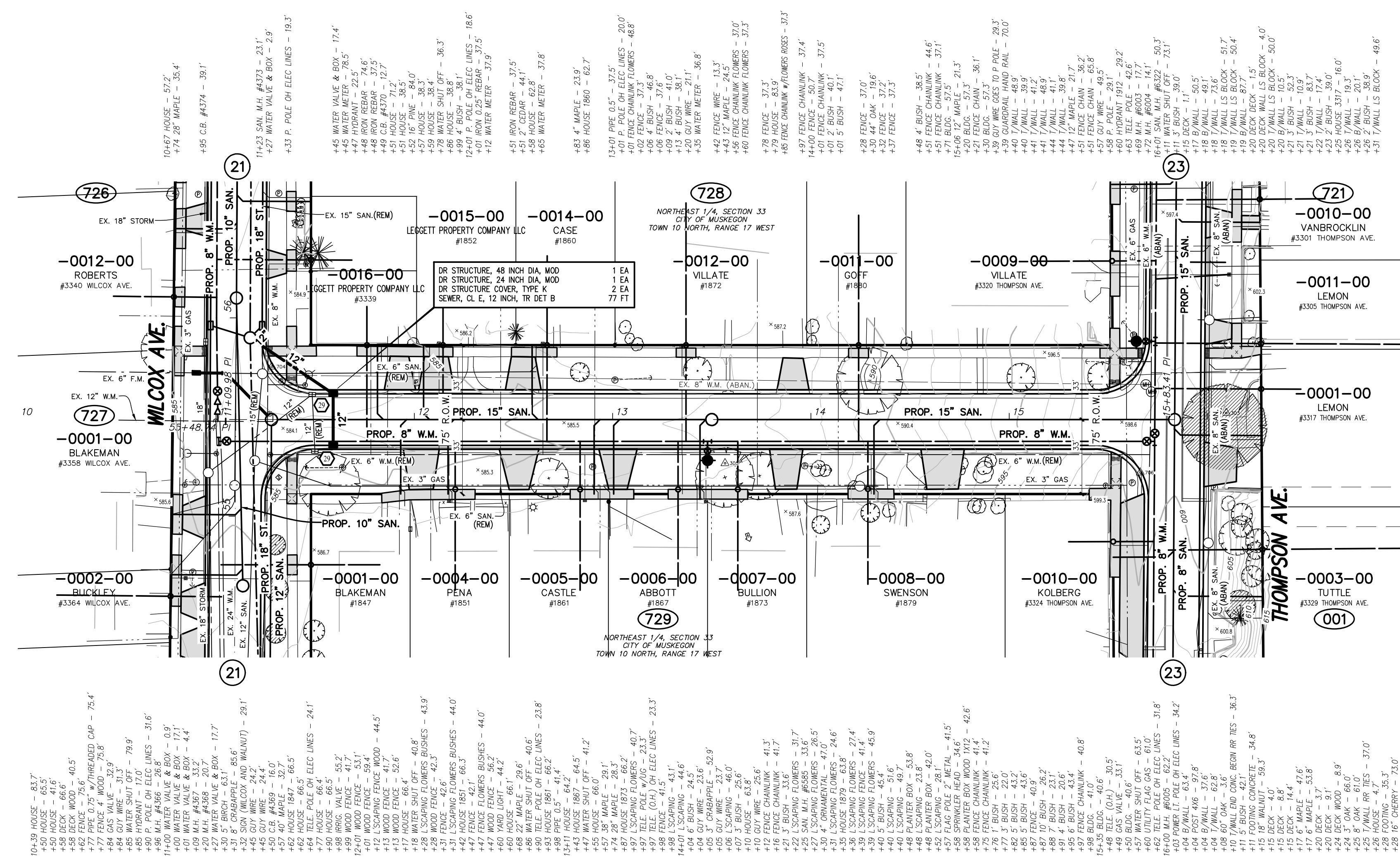
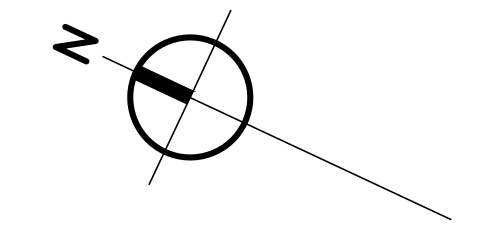
811
 Know what's below.
 Call before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

B.M. EL. 585.31
WILCOX AVENUE & WALNUT STREET, 100'±
E & 30'± S OF C/L "X", TOP OF NE
CORNER BOTTOM CONC. STEP
(0.7' A/GROUND)

B.M. EL. 588.63
WALNUT STREET @ HOUSE #1873, TOP OF
NE CORNER BOTTOM OF CONC. STEP
(0.7' A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
303	63244.267	12601227.150	600.29
305	632662.413	12601097.020	586.74
704	632889.999	12601044.170	584.24
706	632470.772	12601818.610	598.93



TOPOGRAPHY TEXT NOTE
TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

PROPOSED PAVEMENT LEGEND

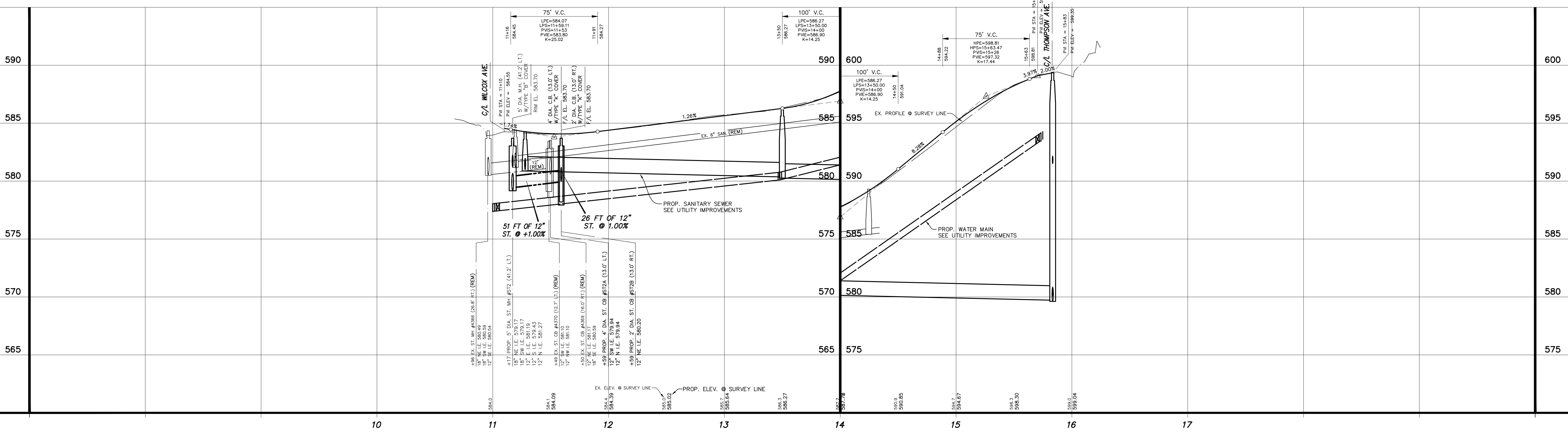
- PROPOSED DRIVEWAY, NONREINFORCED CONC., 6 INCH OR SIDEWALK, CONC., 4 INCH

NOTES: PROPOSED PAVEMENT ON STREET & INTERSECTIONS NOT SHADED FOR CLARITY.

SOIL EROSION CONTROL LEGEND

- PROPOSED EROSION CONTROL INLET PROTECTION FABRIC DROP

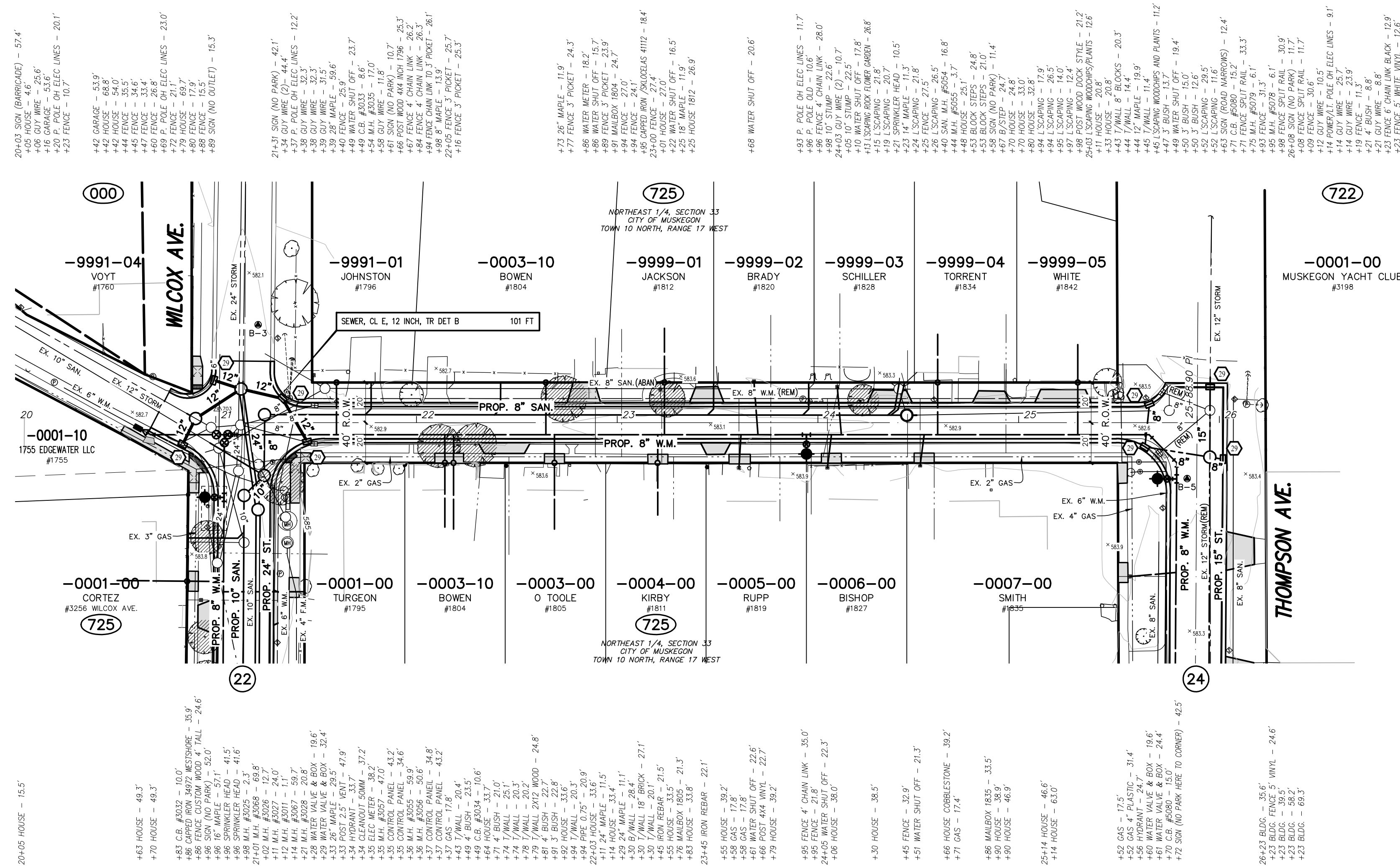
WALNUT STREET
(75' RIGHT OF WAY WIDTH 25' ASPHALT PAVEMENT WIDTH)



<p>UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETTED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.</p>	<p>NO. REVISIONS BY DATE</p>	<p>DATE: J.J.S. MAR. '23 CHECKED: M.R.H. DATE: MAY '23</p>	<p>DRAWN</p>	<p>CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN</p>	PROJECT NO. 2221072	
					SHEET NO. 25 OF 32	
					STREET IMPROVEMENTS WALNUT STREET	
					<p>Prein & Newhof Engineers • Surveyors • Environmental • Laboratory</p>	

B.M. EL. 583.66
 WILCOX AVENUE & EDGEWATER STREET, SE
 CORNER OF INTERSECTION, FOUND 600
 NAIL NW SIDE P. POLE (O.S. A/GROUND)

CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
703	633234.805	12601716.220	582.85
707	632801.633	12601892.760	583.01



TOPOGRAPHY TEXT NOTE
 TOPOGRAPHY TEXT SHOWN FOR INFORMATION ONLY. SEE REMOVAL PLANS FOR ACTION ITEMS.

PROPOSED PAVEMENT LEGEND

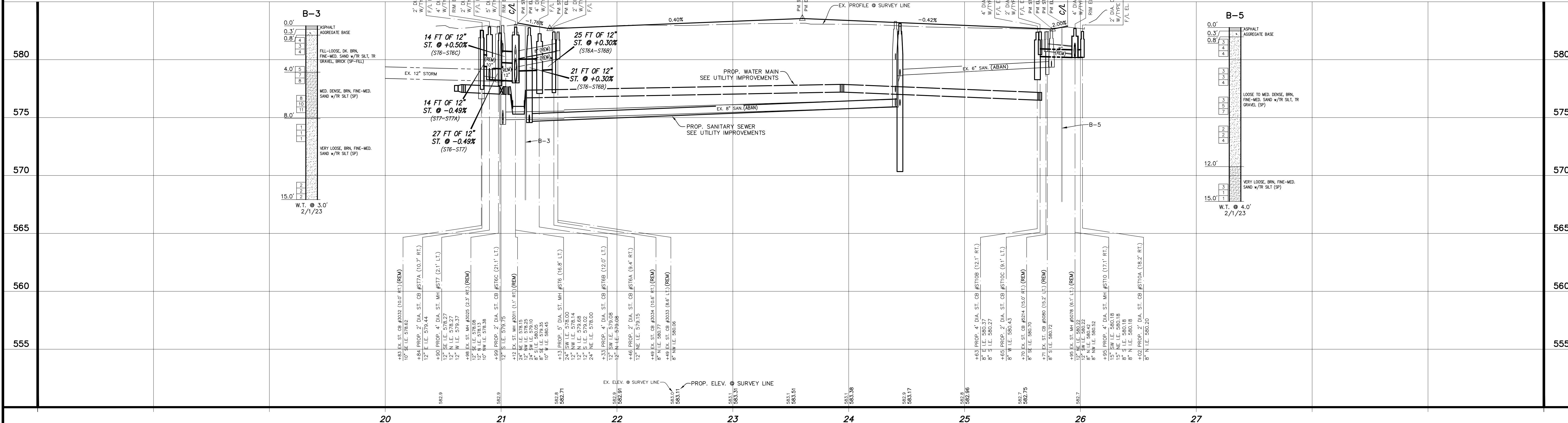
PROPOSED DRIVEWAY, NONREINFORCED CONC., 6 INCH OR SIDEWALK, CONC., 4/8 INCH

NOTES: PROPOSED PAVEMENT ON STREET & INTERSECTIONS NOT SHADED FOR CLARITY.

SOIL EROSION CONTROL LEGEND

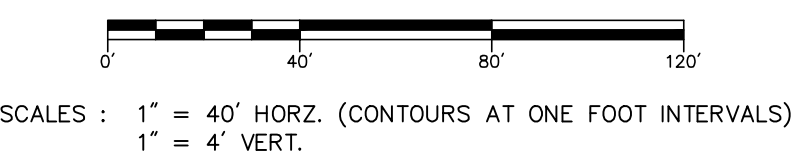
PROPOSED EROSION CONTROL INLET PROTECTION FABRIC DROP

EDGEWATER STREET
 (40' RIGHT OF WAY WIDTH
 15' ASPHALT PAVEMENT WIDTH)



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

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.



NO.	REVISIONS	BY	DATE

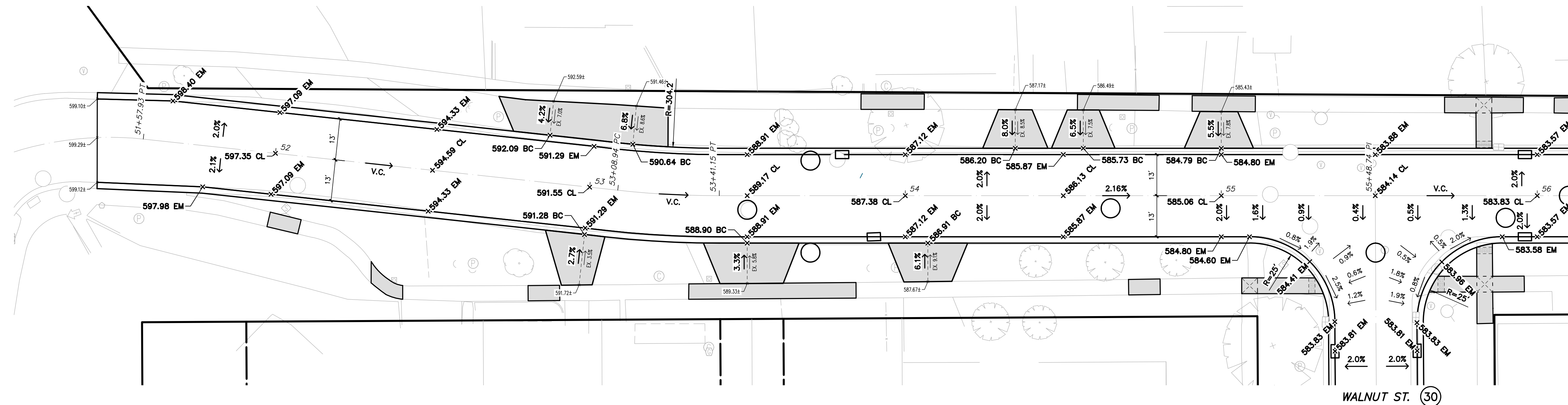
DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23

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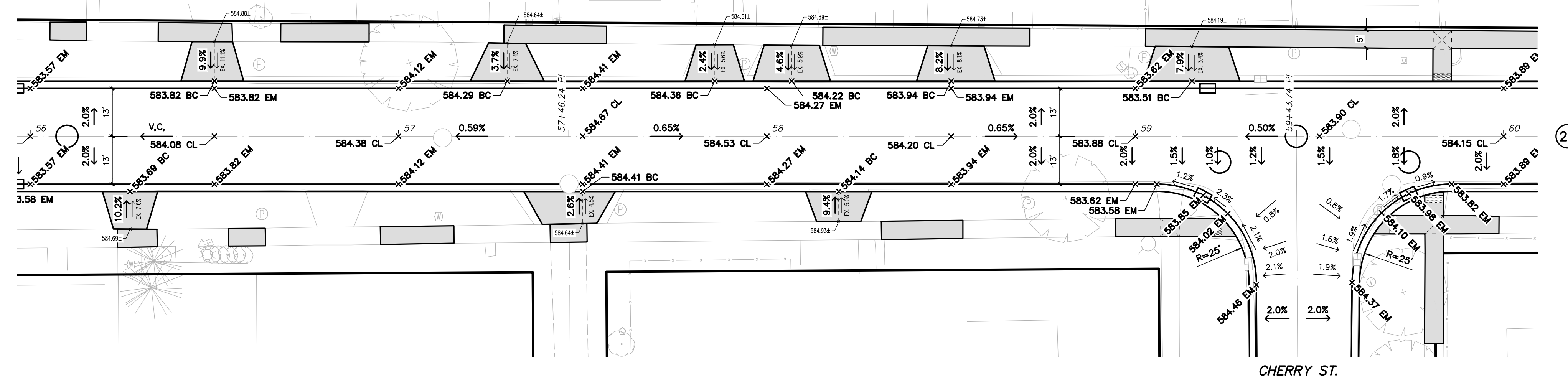
CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN

STREET IMPROVEMENTS
 EDGEWATER STREET

PROJECT NO. 2221072
 SHEET NO. 26 OF 32



GRADING DETAILS – WILCOX AVENUE North
 SCALE : 1" = 20'



GRADING DETAILS – WILCOX AVENUE North
 SCALE : 1" = 20'

T:\CADD\PROJECTS\2023\2221072_MUSKOGON\2023 IMPV STREET IMPV\4_PROD\WILCOX\2221072_GROAD_WILCOX.DWG - NENSTRA - May, 24, 2023 - 11:46am - Prein&Newhof

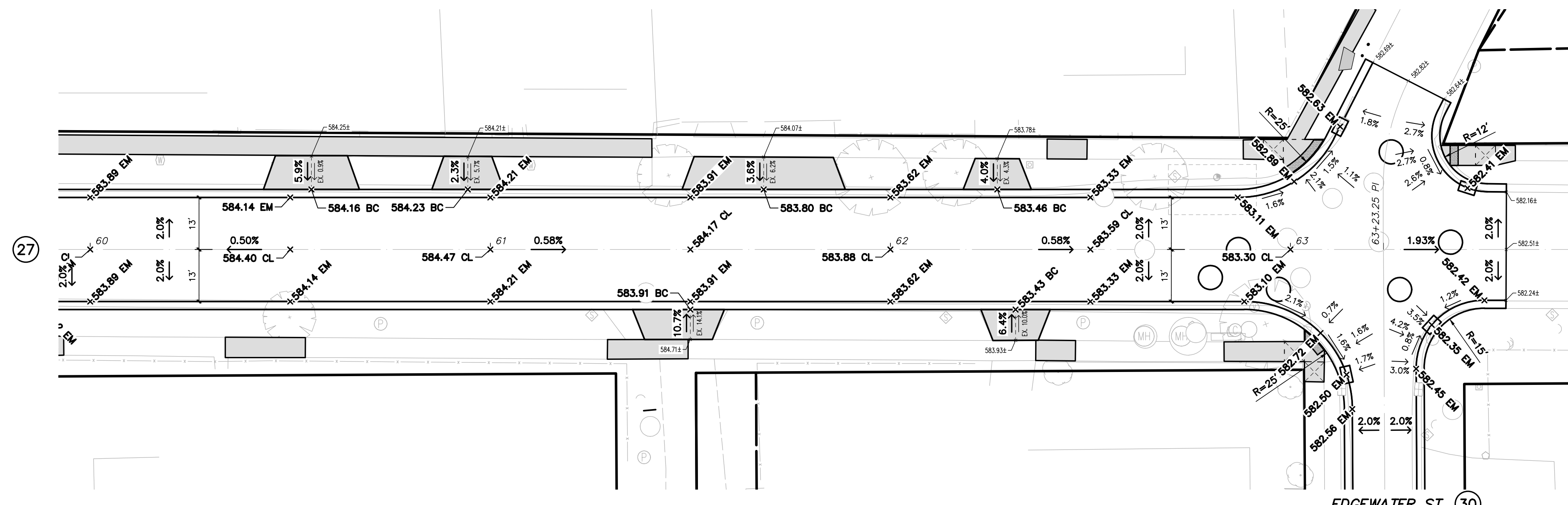
NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23

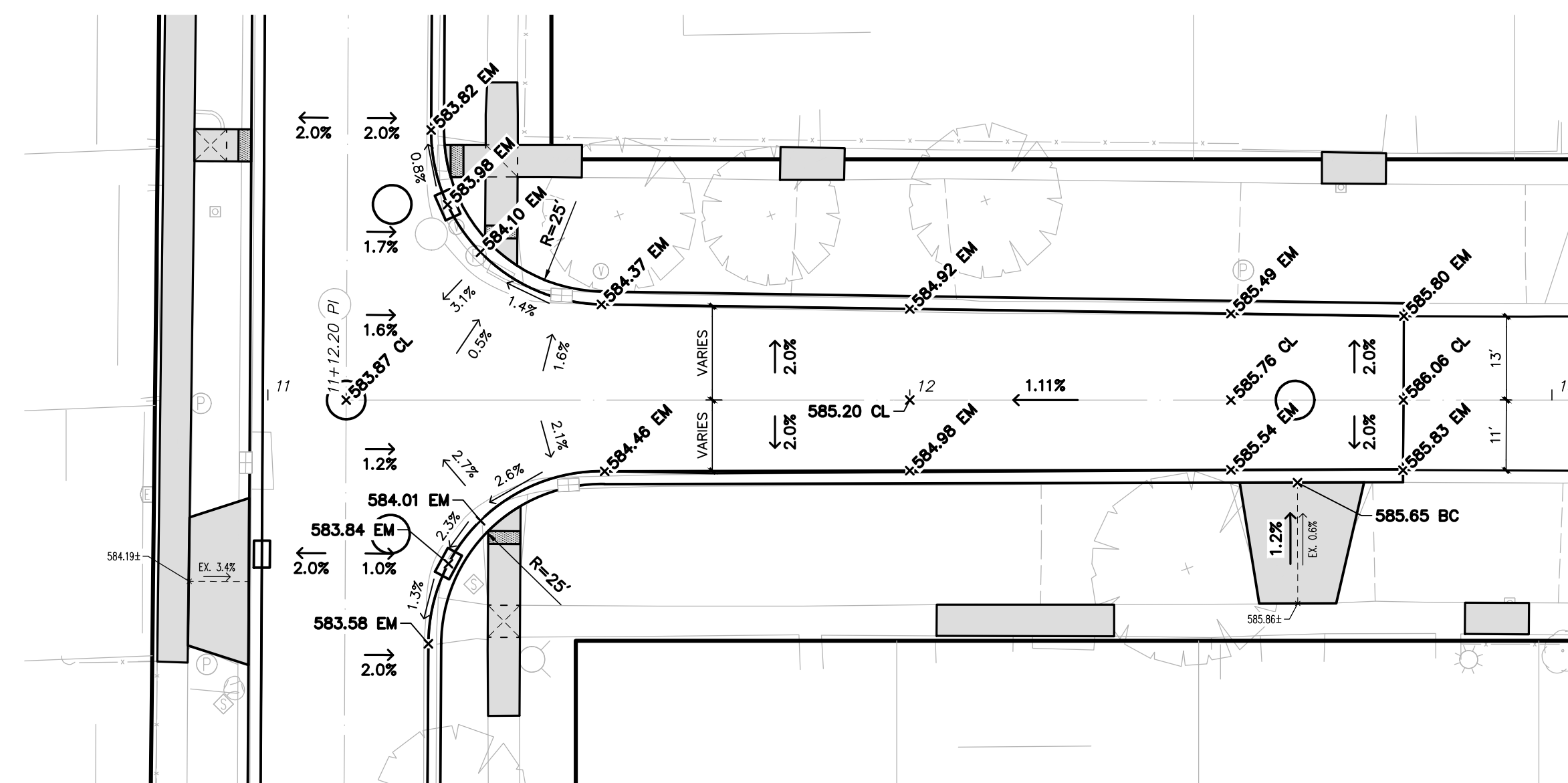
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CITY OF MUSKOGON
 MUSKOGON COUNTY, MICHIGAN
 STREET IMPROVEMENTS
 GRADING DETAILS

PROJECT NO. 2221072
 SHEET NO. 27 OF 32



GRADING DETAILS – WILCOX AVENUE North
SCALE : 1" = 20'



GRADING DETAILS – CHERRY STREET North
SCALE : 1" = 20'

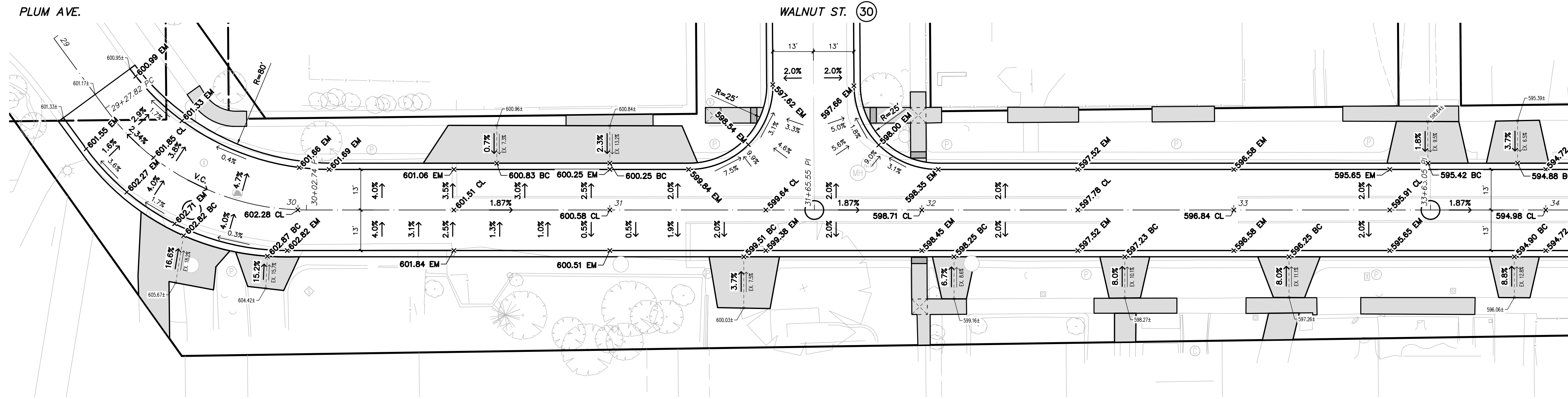
NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				DATE: MAR. '23
				CHECKED: M.R.H.
				DATE: MAY '23

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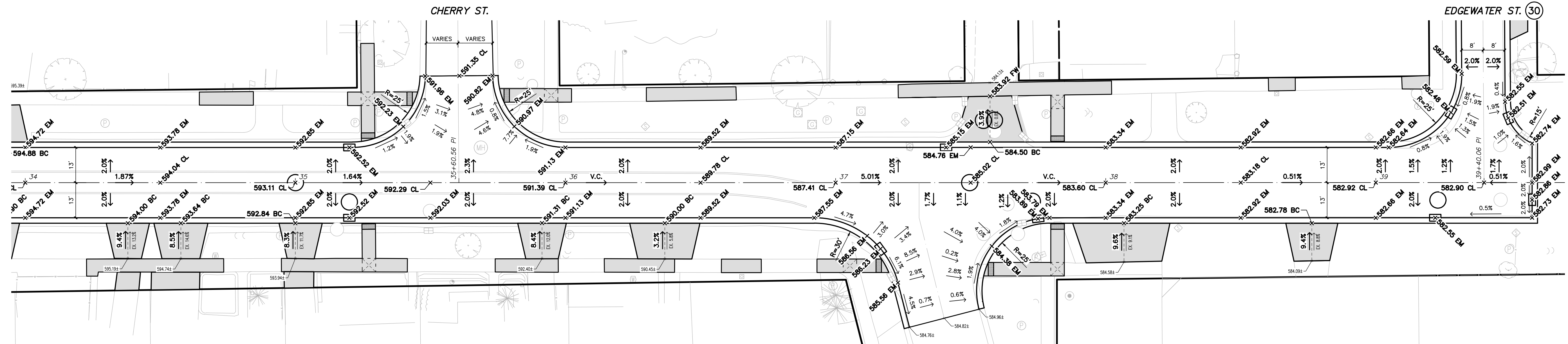
CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN
STREET IMPROVEMENTS
GRADING DETAILS

PROJECT NO.
2221072
SHEET NO.
28 OF 32

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GRADING DETAILS – THOMPSON AVENUE North
SCALE : 1" = 20'



GRADING DETAILS – THOMPSON AVENUE North
SCALE : 1" = 20'

I:\CADD\PROJECTS\2023\221072_MUSKEGON_2023\DWG\221072_GROAD_THOMPSON.DWG - SMITH - May, 18, 2023 - 11:11am - Predefined

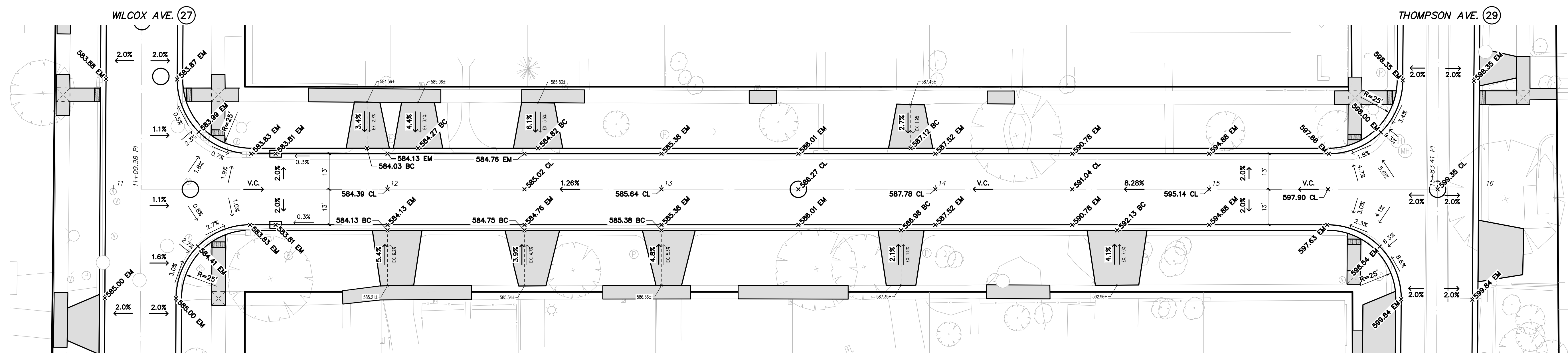
NO.	REVISIONS	BY	DATE

DRAWN: J.J.S.
 DATE: MAR. '23
 CHECKED: M.R.H.
 DATE: MAY '23

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CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
 STREET IMPROVEMENTS
 GRADING DETAILS

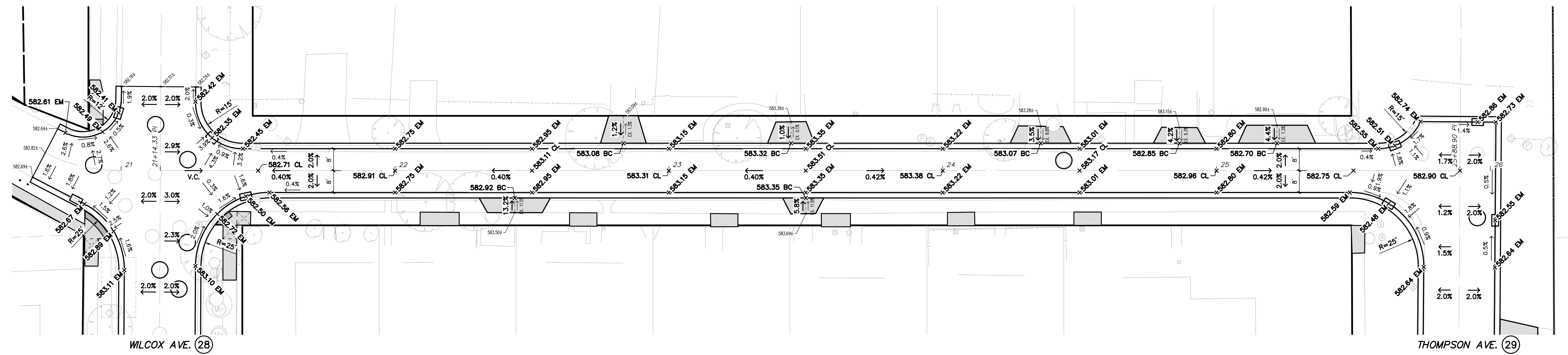
PROJECT NO.
 2221072
 SHEET NO.
 29 OF 32



GRADING DETAILS – WALNUT ST.

SCALE: 1" = 20'

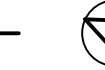
North



GRADING DETAILS – EDGEWATER ST.

SCALE: 1" = 20'

North

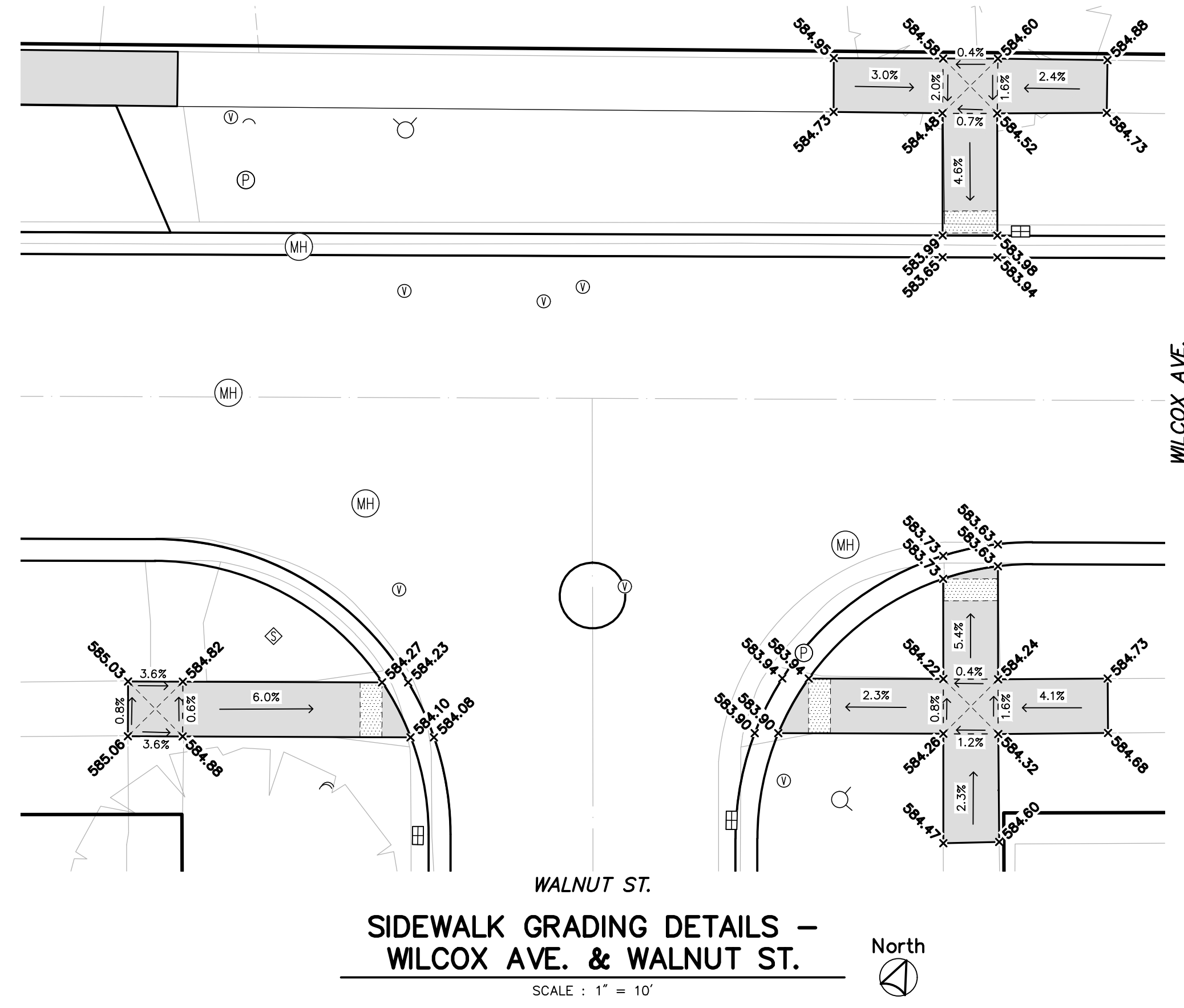


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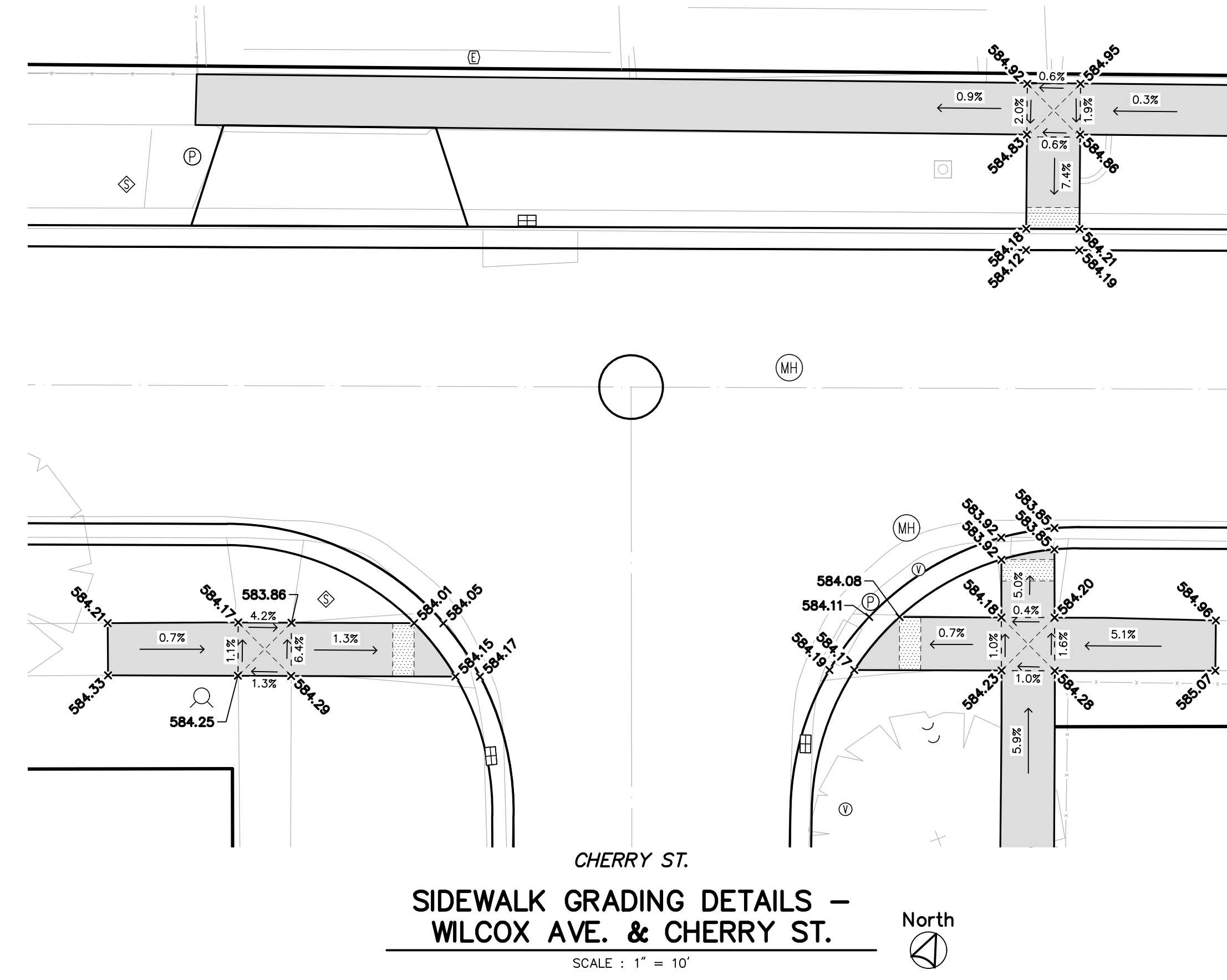
Table with columns: NO., REVISIONS, BY, DATE, DRAWN, CHECKED, DATE. Includes entries for J.J.S. on MAR '23 and M.R.H. on MAY '23.

Prein & Newhof Engineers-Surveyors-Environmental-Laboratory logo and contact information.

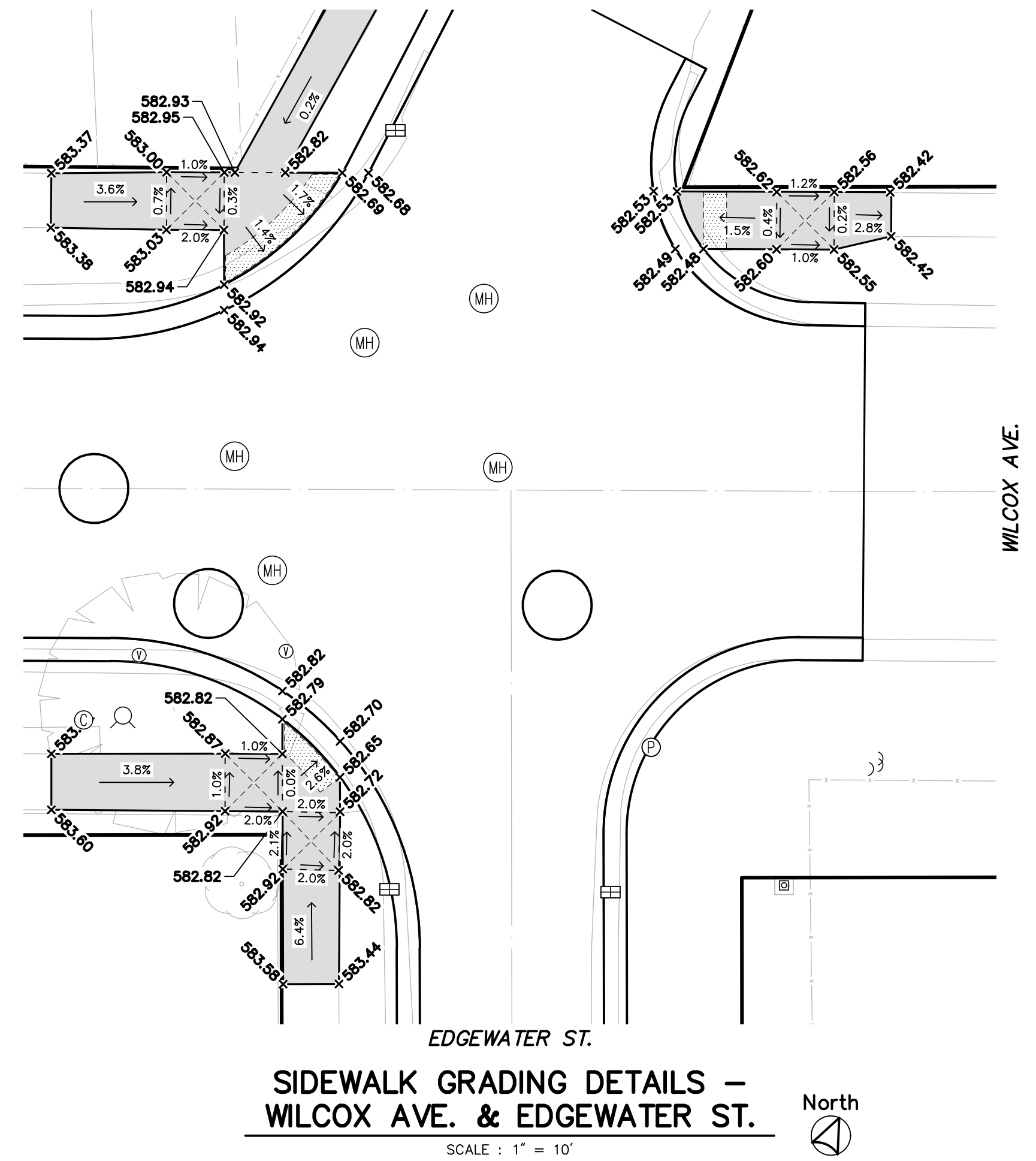
CITY OF MUSKEGON MUSKEGON COUNTY, MICHIGAN STREET IMPROVEMENTS GRADING DETAILS



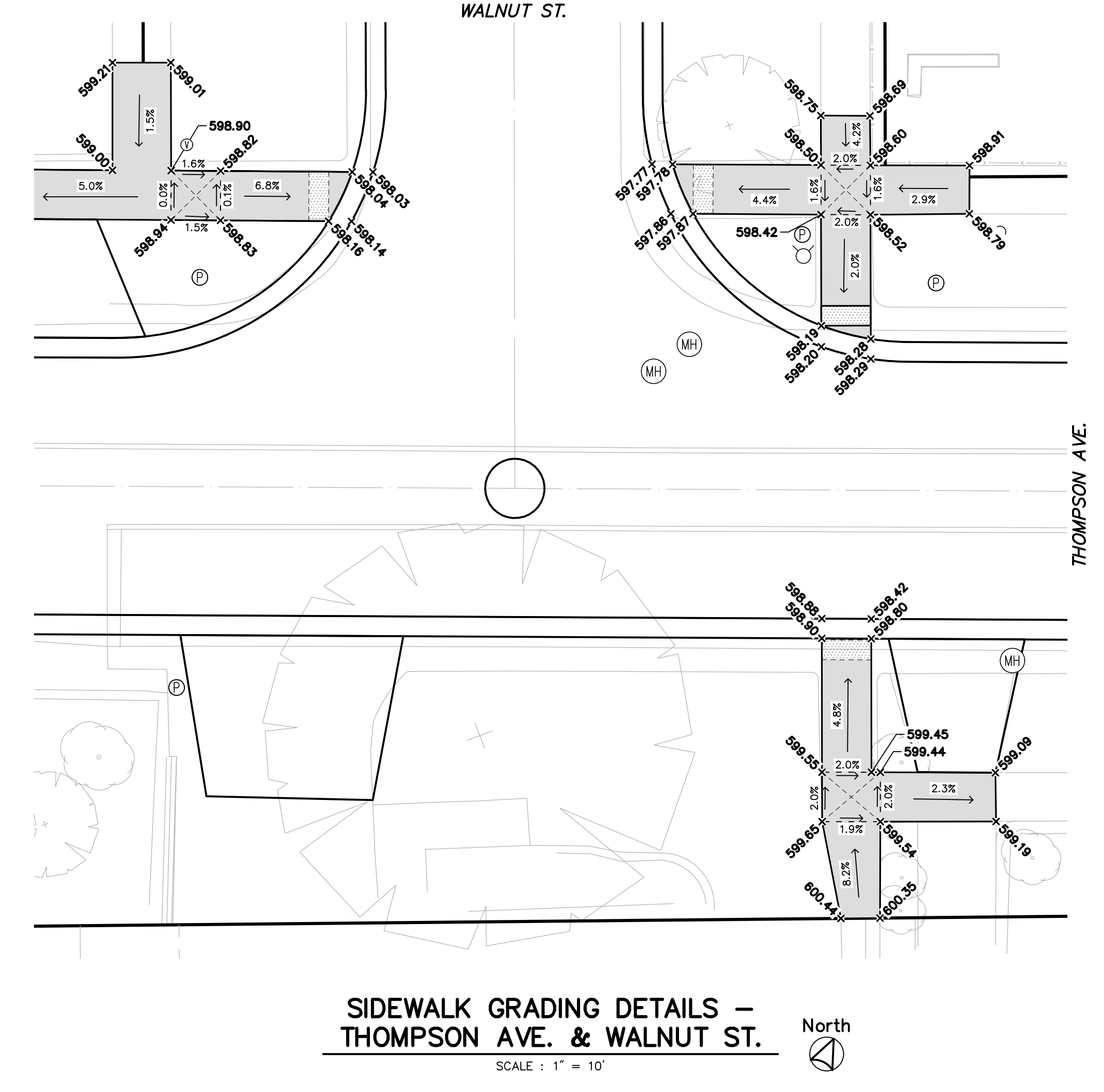
**SIDEWALK GRADING DETAILS –
WILCOX AVE. & WALNUT ST.**
SCALE : 1" = 10'



**SIDEWALK GRADING DETAILS –
WILCOX AVE. & CHERRY ST.**
SCALE : 1" = 10'



**SIDEWALK GRADING DETAILS –
WILCOX AVE. & EDGEWATER ST.**
SCALE : 1" = 10'



**SIDEWALK GRADING DETAILS –
THOMPSON AVE. & WALNUT ST.**
SCALE : 1" = 10'

I:\DWG\PROJECTS\2023\2221072_MUSKEGON_2023 IMPV STREET IMPV\4_PLOT\WILCOX\2221072_DWG_SIDWALKS.DWG - SMTH - May, 24, 2023 - 10:53am - Prein&Newhof

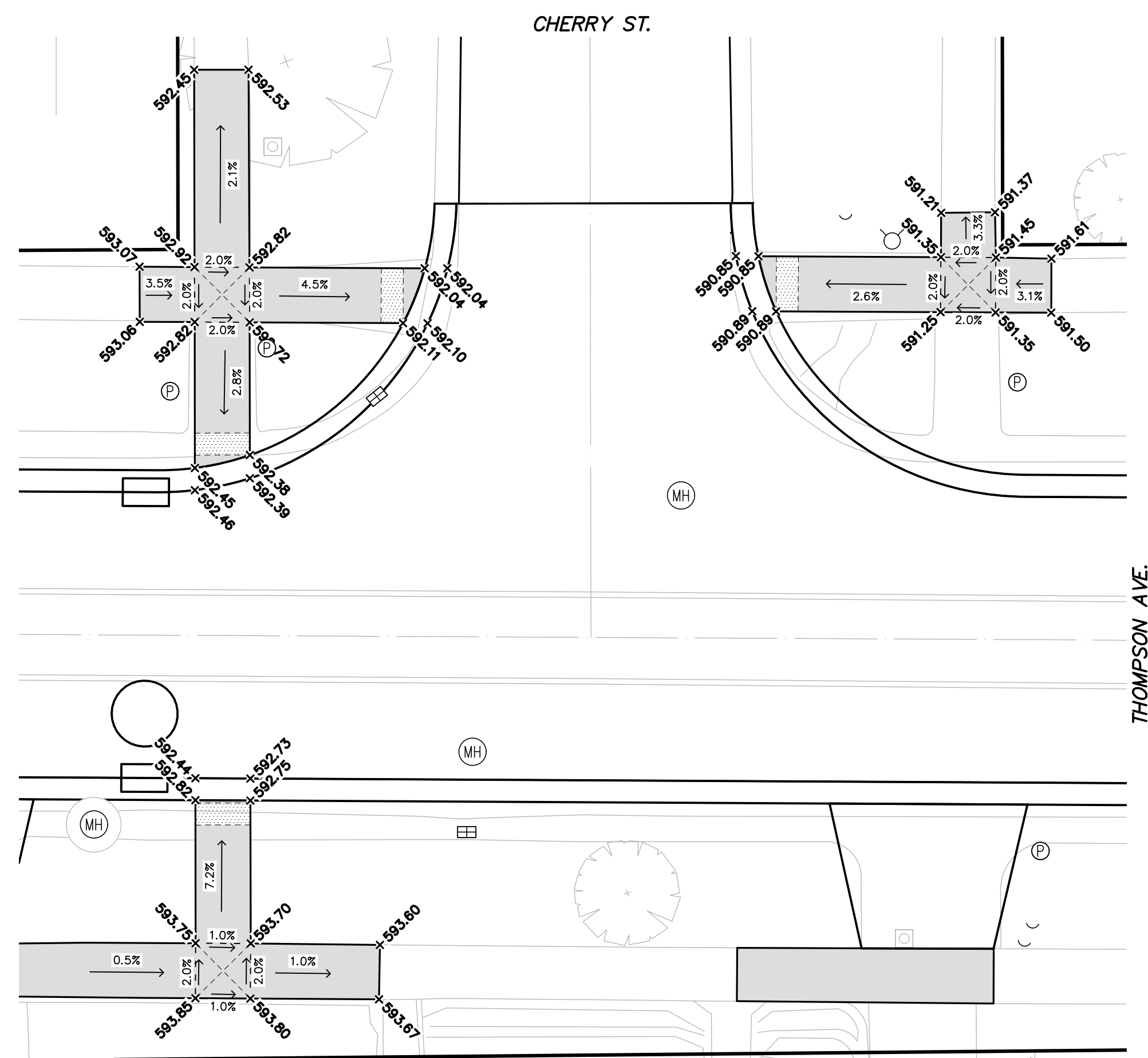
NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				DATE: MAR '23
				CHECKED: M.R.H.
				DATE: MAY '23

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CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
STREET IMPROVEMENTS
GRADING DETAILS

PROJECT NO.
2221072
SHEET NO.
31 OF 32

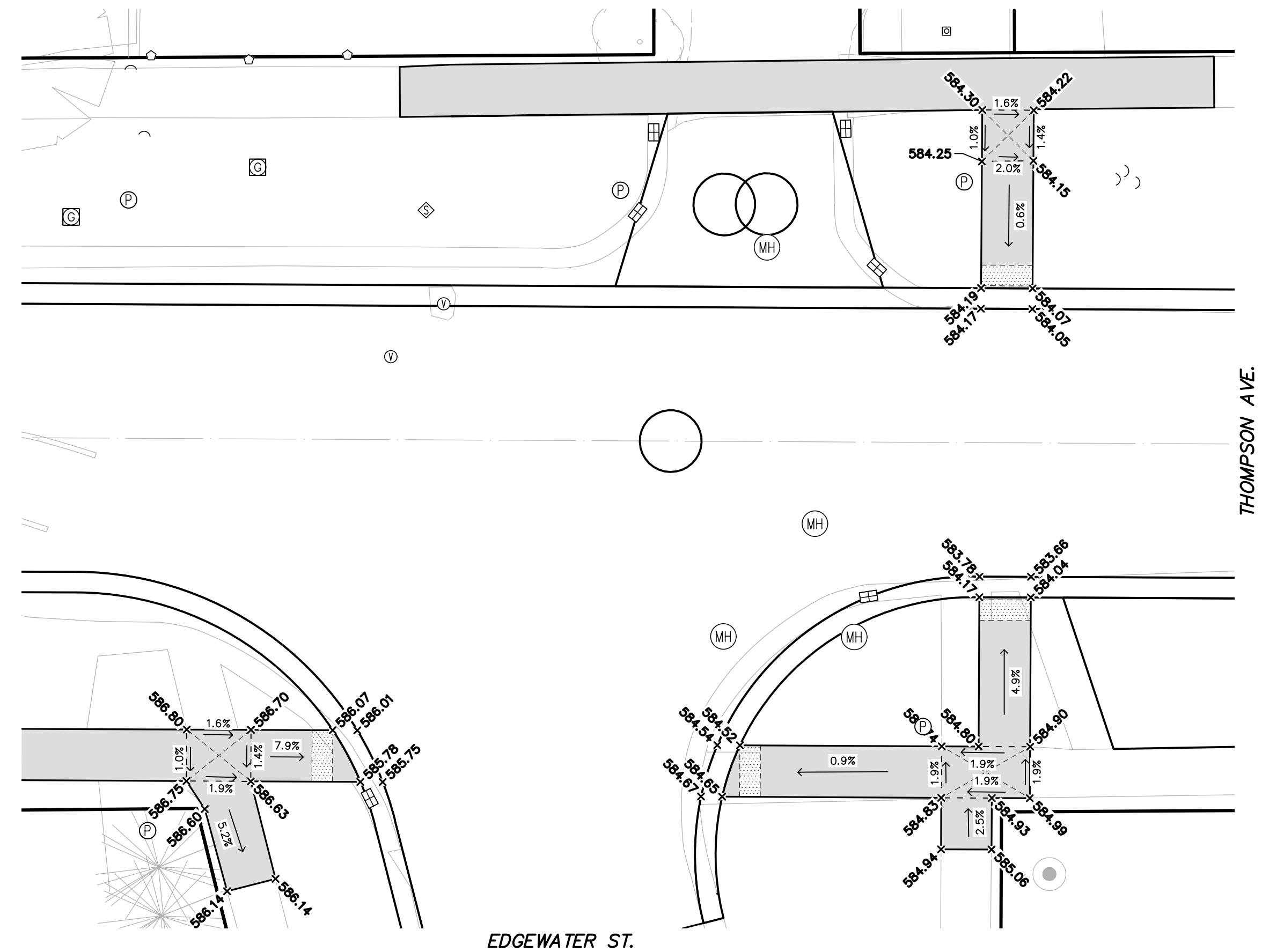
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SIDWALK GRADING DETAILS – THOMPSON AVE. & CHERRY ST.

SCALE : 1" = 10'

North



SIDWALK GRADING DETAILS – THOMPSON AVE. & EDGEWATER ST.

SCALE : 1" = 10'

North

NO.	REVISIONS	BY	DATE	DRAWN
				J.J.S.
				DATE: MAR. '23
				CHECKED: M.R.H.
				DATE: MAY '23

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STREET IMPROVEMENTS

SIDWALK GRADING DETAILS

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