CITY OF MUSKEGON

PLAN AND PROFILE OF PROPOSED

JEFFERSON & WESTERN PARKING LOT

PROJECT NUMBER B-253

NOTE:

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, CITY OF MUSKEGON STANDARD SPECIFICATIONS FOR WATERMAIN AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE IMPROVEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 AASHTO GUIDELINES.

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1.	TITLE SHEET
2.	DETAIL SHEET
3.	PARKING LOT PLAN
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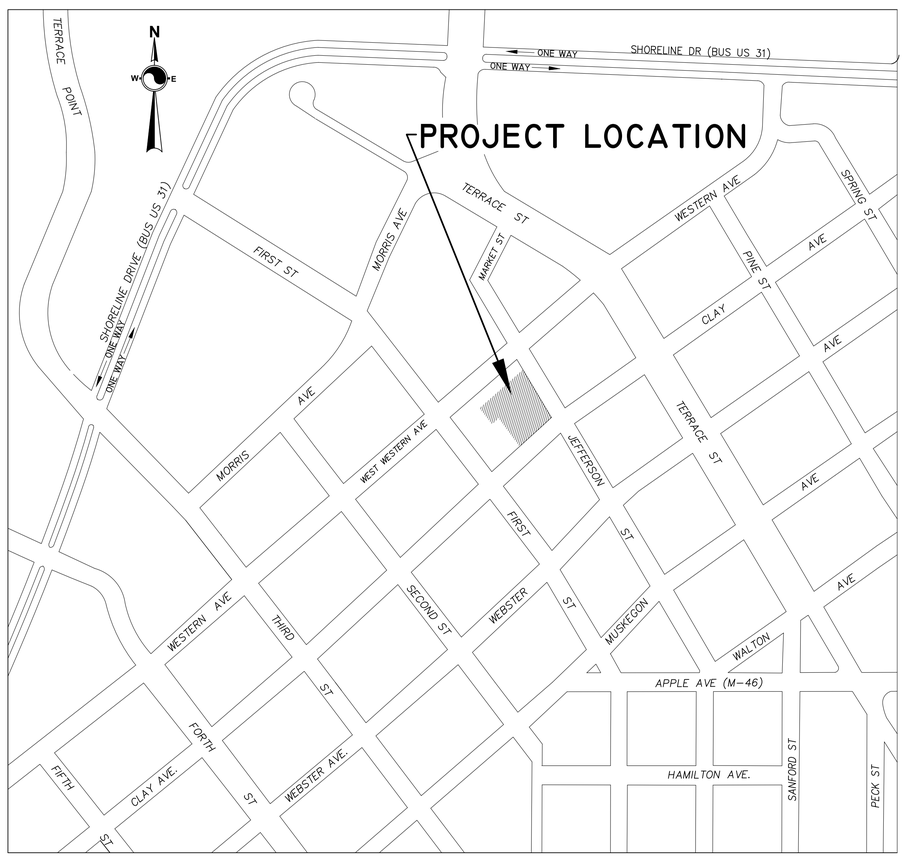
5.	SIGNING TRAFFIC CONTROL PLAN

STANDARD PLANS

R-1-G DRAINAGE STRUCTURES
R-7-F COVER B
R-9-D COVER D
R-29-I DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS
R-30-G CONCRETE CURB & GUTTER
R-83-C UTILITY TRENCHES
R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

STANDARD PLANS ARE INCLUDED IN PROPOSAL



UTILITIES

ELECTRIC

MICHELLE PETERSON
CONSUMERS ENERGY
700 E STERNBERG ROAD
NORTON SHORES, MI 49441
(231) 332-2601

TELEPHONE

DAVID B. FLERMOEN
FRONTIER COMMUNICATIONS
860 TERRACE STREET
MUSKEGON MI 49440
(231) 727-1319

GAS

VINCENT DUCA
DTE ENERGY
2359 OLTHOFF DRIVE
MUSKEGON MI 49444
(231) 578-0488 (CELL)

CABLE

JIM STITZEL
COMCAST
700 W BROADWAY AVENUE
MUSKEGON, MI 49441
(810) 217-1642

WATER & SEWER

WYATT EARP, DAVE BAKER
CITY OF MUSKEGON DPW
1350 E KEATING AVENUE
MUSKEGON MI 49442
(231) 724-4100

811
3 WORKING DAYS
EXCLUDING SAT, SUN & HOLIDAYS
BEFORE YOU DIG
CALL MISS DIG
Know what's below.
Call before you dig.

CONSTRUCTION INCLUDES PAVEMENT REMOVAL, STORM SEWER, 4,200 SYD HMA PAVEMENT, 330 FEET DECORATIVE BLOCK WALL, CONC CURB AND GUTTER, CONC SIDEWALK AND PAVEMENT MARKINGS ON HIGH POINT FLATS PARKING LOT, BLOCK 310 IN THE CITY OF MUSKEGON, MUSKEGON COUNTY.

PREPARED UNDER THE SUPERVISION OF:

LEIGHANN MIKESELL, P.E.
CITY ENGINEER

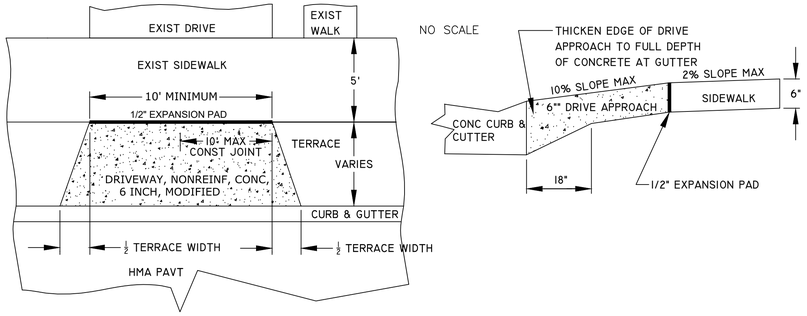
6201042090
REGISTRATION NUMBER

CITY OF MUSKEGON
ENGINEERING DEPARTMENT
1350 E KEATING AVE
MUSKEGON MI 49442

CITY OF MUSKEGON OFFICE OF THE CITY ENGINEER				JEFFERSON & WESTERN PARKING LOT		
DRAWN C WIGGINS	MAY 17	REVISION BROOKENS	JAN 18	SURVEY C WIGGINS	APRIL 17	PROJECT NO B-253
CHECKED		REVISION BROOKENS	MAR 18	AS-BUILT		
APPROVED		REVISION		SCALE NOT TO SCALE		SHEET NO 1 OF 5

DETAIL SHEET

TYPICAL DRIVE APPROACH DETAIL



GENERAL NOTES:

1. EXISTING CONDITIONS INCLUDING ELEVATIONS ARE SUBJECT TO CHANGE DUE TO CONSTRUCTION OUTSIDE THE CONTROL OF THE CITY OF MUSKEGON. CONTRACTOR IS TO VERIFY EXISTING CONDITIONS OF THE SITE, MATCH ALL EXISTING MEETS AND COORDINATE WORK ACTIVES WITH NEIGHBORING CONTRACTORS.
2. UPON REQUEST AND APPROVAL, THE CONTRACTOR MAY OBTAIN A WATER SUPPLY FROM THE CITY OF MUSKEGON FIRE HYDRANTS AT NO COST, PROVIDED THAT THEY FOLLOW THE CONDITIONS OF THE CITY WATER DEPARTMENT.
3. WHENEVER SMALL CASTINGS (STOP BOXES & METER PITS) THAT ARE ENCOUNTERED WITHIN THE WORK AREA, THEY SHALL BE ADJUSTED AT NO COST TO THE CITY. PAYMENT FOR ADJUSTING THESE CASTINGS SHALL BE INCLUDED IN THE PAYMENT FOR NEW WATER SERVICES PAY ITEMS.
4. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL MISS DIG, 1-800-482-7171, A MINIMUM OF 3 WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO EXCAVATING IN THE VICINITY OF ALL UTILITY LINES. ALL MISS DIG PARTICIPATING MEMBERS WILL THUS BE NOTIFIED, THIS DOES NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE PART OF THE MISS DIG ALERT SYSTEM.
5. PUBLIC UTILITIES OF ALL TYPES HAVE BEEN SHOWN ON THE PLAN USING AVAILABLE INFORMATION, BUT ARE NOT GUARANTEED AS ACCURATE OR THAT UTILITIES OTHER THAN THOSE SHOWN ARE NOT PRESENT.
6. THE CONTRACTOR SHALL SAW CUT ALL MEETS RELATIVE TO SIDEWALK OR PAVEMENT CONSTRUCTION UNLESS WAIVED BY THE ENGINEER. PAYMENT FOR SAW CUTTING SHALL BE INCLUDED IN THE PAYMENT FOR THE PAY ITEMS PAVT, REM, MODIFIED, CURB AND GUTTER, REM, HMA SURFACE, REM AND SIDEWALK, REM. NO ADDITIONAL PAYMENT WILL ALLOWED FOR SAW CUTTING.
7. THE CONTRACTOR SHALL PREVENT EROSION AND CONTROL SEDIMENTATION ASSOCIATED WITH THE PROJECT. KEEP SEDIMENTATION WITHIN THE RIGHT OF WAY (OR CONSTRUCTION LIMITS) AND OUT OF SURFACE WATERS. CONSTRUCT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS, TO INCLUDE INLET PROTECTION, FABRIC DROPS ON ALL INLET STRUCTURES NEW AND EXISTING AND INSTALL TEMPORARY EROSION, SEDIMENTATION CONTROLS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REMOVE ON A DAILY BASIS SOIL TRACKED ONTO EXISTING PAVED ROADS, (VACUUM METHODS ARE PREFERRED BUT BROOM SWEEPING IS ACCEPTABLE IF THE MATERIAL IS REMOVED) THE CONTRACTOR SHALL INSPECT ALL SOIL EROSION / SEDIMENTATION CONTROL MEASURES ON A WEEKLY BASIS OR AFTER EACH RAIN FALL EVENT, CLEAN REPAIR, OR REPLACE, AS NECESSARY, TO ENSURE PROPER FUNCTION. ALL SOIL EROSION / SEDIMENTATION CONTROLS SHALL REMAIN UNTIL ALL DISTURBED AREAS ARE STABILIZED. ALL SOIL EROSION / SEDIMENTATION CONTROL, EXCEPT FOR THE EROSION CONTROL, INLET PROTECTION, FABRIC DROP, SHALL BE INCLUDED WITH THE PAY ITEM PROJECT CLEAN UP NO OTHER PAYMENT SHALL BE MADE.

HMA APPLICATION RATE

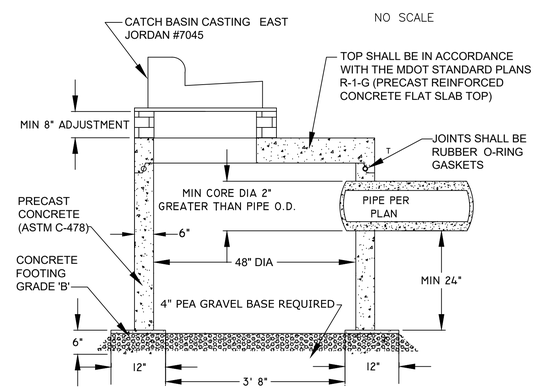
HMA MIX	RATE	PERFORMANCE GRADE	
HMA, 36A (TOP COURSE)	165# / SYD	64-28	1.5 INCH-1 LIFT AWI 220, MIN
HMA, 13A (LEVEL COURSE)	220# / SYD	64-28	2 INCH-1 LIFT

HMA BOND COAT, SS-1H, AT 0.05 GAL/SY, SHALL BE PLACED BETWEEN EACH LIFT THE COST IS INCLUDED WITH THE HMA PAY ITEM.

DRAINAGE STRUCTURE COVERS

TYPE	CASTING DESCRIPTION	QTY
COVER B, MODIFIED	MANHOLE CASTING EAST JORDAN #1045 OR EQUAL TYPE A - SOLID COVER AS DETAILED BELOW	1
COVER D, MODIFIED	CATCH BASIN CASTING EAST JORDAN #5105 OR EQUAL	3
COVER C, MODIFIED	CATCH BASIN CASTING EAST JORDAN #7045 OR EQUAL	0

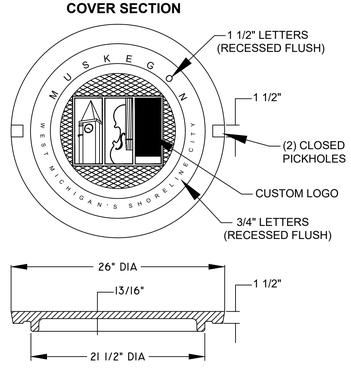
CATCH BASIN SPECIAL DETAIL



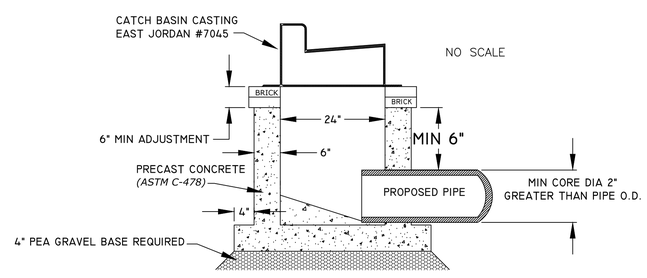
DETAIL FOR COVER B

1040 A LOGO MANHOLE COVER

COVER SECTION

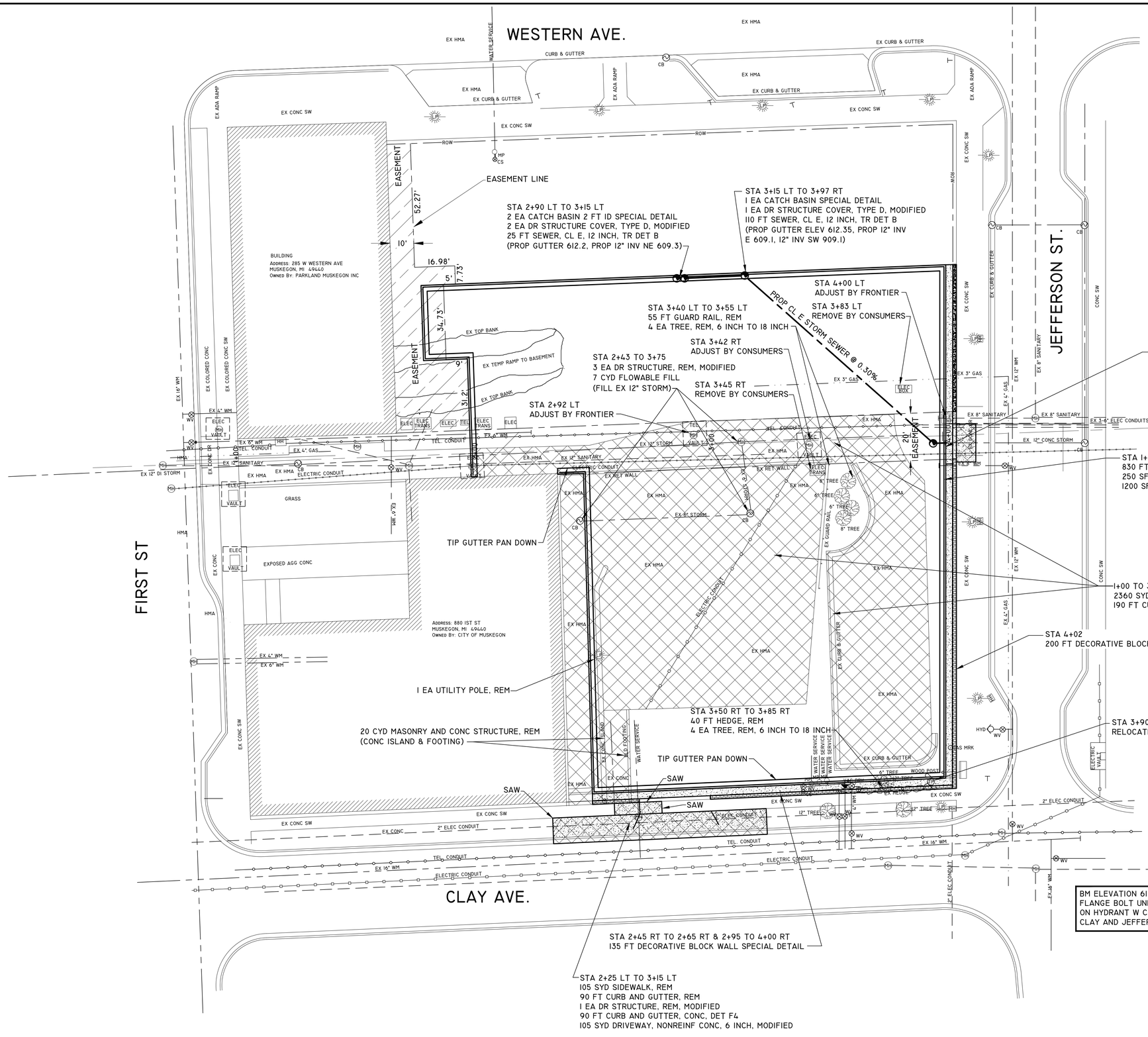


CATCH BASIN 2 FT ID SPECIAL DETAIL



DETAIL SHEET

CITY OF MUSKEGON OFFICE OF THE CITY ENGINEER						JEFFERSON & WESTERN PARKING LOT		
DRAWN C WIGGINS	MAY 17	REVISION Brookens	JAN 18	SURVEY C WIGGINS	APRIL 17		PROJECT NO	
CHECKED		REVISION Brookens	MAR 18	AS-BUILT			B-253	
APPROVED		REVISION		SCALE NONE			SHEET NO 2 OF 5	



STA 0+91 TO 5+50 ADDITIONAL QUANTITIES THIS SHEET
1703 EXCAVATION, EARTH
80 EMBANKMENT, CIP
6 EA EROSION CONTROL, INLET PROTECTION, FABRIC DROP
4450 SYD AGGREGATE BASE, 6 INCH
500 TON HMA, 13A
370 TON HAM, 36A
100 SYD TOPSOIL SURFACE, FURN, 4 INCH
100 SYD HYDROSEEDING

BM ELEVATION 617.14
FLANGE BOLT UNDER E IN EJIW
ON HYDRANT W CORNER OF
CLAY AND JEFFERSON

QUANTITIES THIS SHEET		
TREE, REM, 6 INCH TO 18 INCH	8	EA
DR STRUCTURE, REM, MODIFIED	4	EA
PAVT, REM, MODIFIED	2407	SYD
SIDEWALK, REM	65	SYD
CURB AND GUTTER, REM	280	FT
GUARD RAIL, REM	55	FT
MASONRY AND CONC STRUCTURE, REM	20	CYD
UTILITY POLE, REM	1	EA
HEDGE, REM	40	FT
EXCAVATION, EARTH	1703	CYD
EMBANKMENT, CIP	80	CYD
EROSION CONTROL, INLET PROTECTION, FABRIC DROP	6	EA
AGGREGATE BASE, 6 INCH	4450	SYD
SEWER, CL E, 12 INCH, TR DET B	135	FT
DR STRUCTURE COVER, TYPE D, MODIFIED	3	EA
DR STRUCTURE COVER, TYPE B, MODIFIED	1	EA
CATCH BASIN SPECIAL DETAIL	2	EA
CATCH BASIN 2 FT ID SPECIAL DETAIL	2	EA
SEWER TAP, 12 INCH	1	EA
HMA, 13A	475	TON
HMA, 36A	350	TON
CONC PAVT, NONREINF, 8 INCH	35	SYD
DRIVEWAY, NONREINF CONC, 6 INCH, MODIFIED	75	SYD
CURB AND GUTTER, CONC, DET F4	920	FT
SIDEWALK, CONC, 4 INCH	1970	SFT
SIDEWALK, CONC, 6 INCH	500	SFT
SIDEWALK, CONC, 6 INCH, COLORED	120	SFT
SIDEWALK, CONC, 6 INCH, COLORED WITH ACIDIC STAIN	10	SFT
TOPSOIL SURFACE, FURN, 4 INCH	100	SYD
HYDROSEEDING	100	SYD
FLOWABLE FILL, NON-STRUCTURAL	7	CYD
DECORATIVE BLOCK WALL SPECIAL DETAIL	335	FT

CONSTRUCTION PLANS

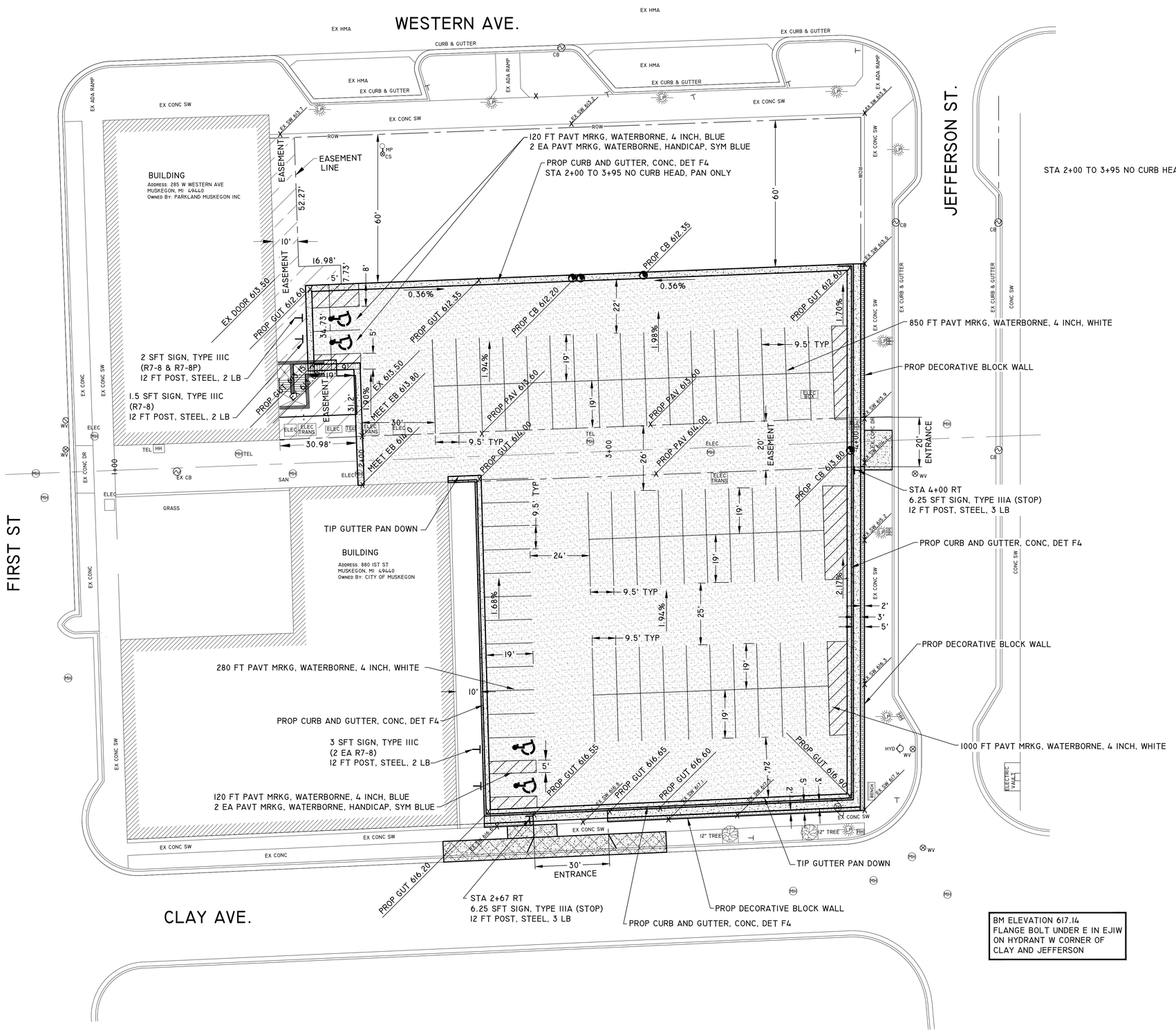
CITY OF MUSKEGON OFFICE OF THE CITY ENGINEER				JEFFERSON & WESTERN PARKING LOT			
DRAWN C WIGGINS	MAY 17	REVISION Brookens	JAN 18	SURVEY C WIGGINS	APRIL 17	PROJECT NO	
CHECKED		REVISION Brookens	MAR 18	AS-BUILT		B-253	
APPROVED		REVISION	SCALE	HOR. 1" = 20 FT		SHEET NO 3 OF 5	

PARKING LOT LAYOUT AND PAVEMENT MARKING DETAIL

= NEW CONCRETE SIDEWALK, DRIVEWAYS , PAVEMENT, & CURB AND GUTTER

= NEW HMA, PAVT

= DECORATIVE BLOCK WALL



TOTAL 89 PARKING SPACES
4 HANDICAP SPACES
85 STANDARD SPACES

TYPE, IIIA SIGNING QUANTITIES				
SIGN	DESCRIPTION	QUANTITY	DIMENSIONS	AREA
R1-1	STOP	2	24"X24"	8 SFT
R7-8	RESERVED HANDICAP	4	18"X12"	6 SFT
R7-8P	VAN ACCESSIBLE	1	12"X6"	0.5 SFT
			TOTAL AREA	14.5 SFT

PERMANENT PAVEMENT MARKING AND SIGNING QUANTITIES		
PAVT MRKG, WATERBORNE, 4 INCH, BLUE	220	FT
PAVT MRKG, WATERBORNE, 4 INCH, WHITE	2130	FT
PAVT MRKG, WATERBORNE, HANDICAP, SYM, BLUE	4	EA
SIGN, TYPE IIIA	15	SFT
POST, STEEL, 3 LB	24	FT
POST, STEEL, 2 LB	36	FT

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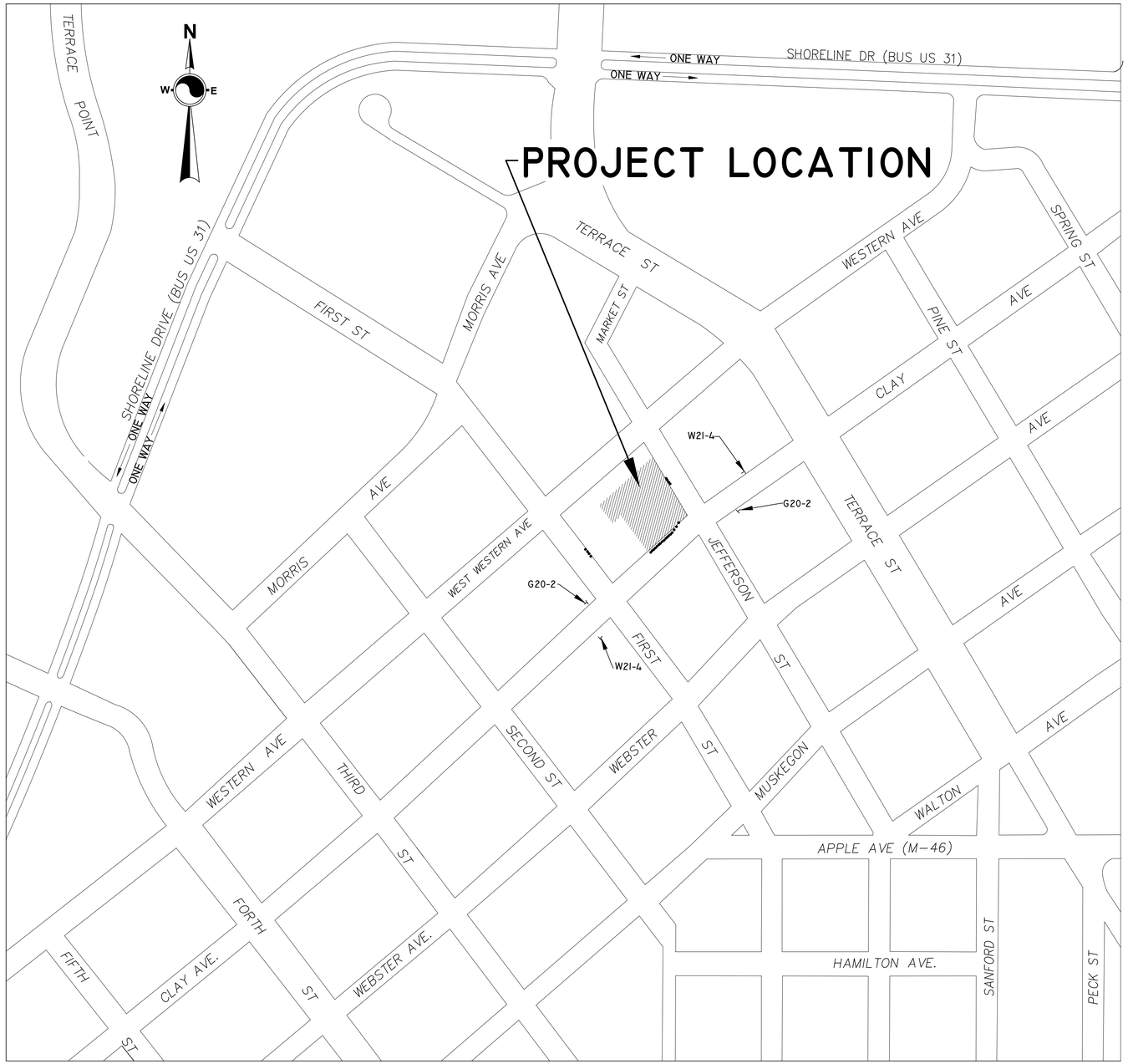
APPROVED		REVISION	SCALE	HOR. 1" = 20 FT		SHEET NO 4 OF 5		

TRAFFIC CONTROL DETAIL



TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES, RESIDENCES.

2. IN ADDITION TO THE PLASTIC BARRELS USED FOR CHANNELING DEVICES THE CONTRACTOR WILL SUPPLY AN ADDITIONAL 10 PLASTIC BARRELS, FOR MARKING TEMPORARY DRIVES, BLOCKING EXISTING DRIVES, AND SIDEWALKS, ETC. AS DIRECTED BY THE ENGINEER.

PHASE I ESTIMATED QUANTITIES
SIGN, TYPE B TEMPORARY

SIGN	DESCRIPTION	QUANTITY	AREA	TOTAL AREA
G20-2	END ROAD WORK	2	8 SFT	16 SFT
W21-4	ROAD WORK AHEAD	2	16 SFT	32 SFT
			TOTAL	48 SFT

ESTIMATED PHASE I TRAFFIC CONTROL DEVICES

PLASTIC DRUM, HIGH INTENSITY, FURN	25	EA
PLASTIC DRUM, HIGH INTENSITY, OPER	25	EA
SIGN, TYPE B TEMP, PRISMATIC, FURN	48	SFT
SIGN, TYPE B TEMP, PRISMATIC, OPER	48	SFT
MINOR TRAFFIC DEVICES	1	LS

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CHECKED		REVISION BROOKENS	MAR 18	AS-BUILT		B-253	
APPROVED		REVISION	SCALE	HOR. 1" = 20 FT.		SHEET NO 5 OF 5	