

CITY OF MUSKEGON

PROPOSED McGRAFT PARKING LOT IMPROVEMENTS

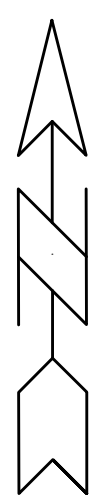
INDEX TO SHEETS

SHEET	DESCRIPTION
1	TITLE SHEET
2	DETAIL SHEET
3	STA 1+14 (P.O.B.) TO STA 5+39 (P.O.E.) ROAD PLAN AND PARKING LOT GRADES

STANDARD PLANS

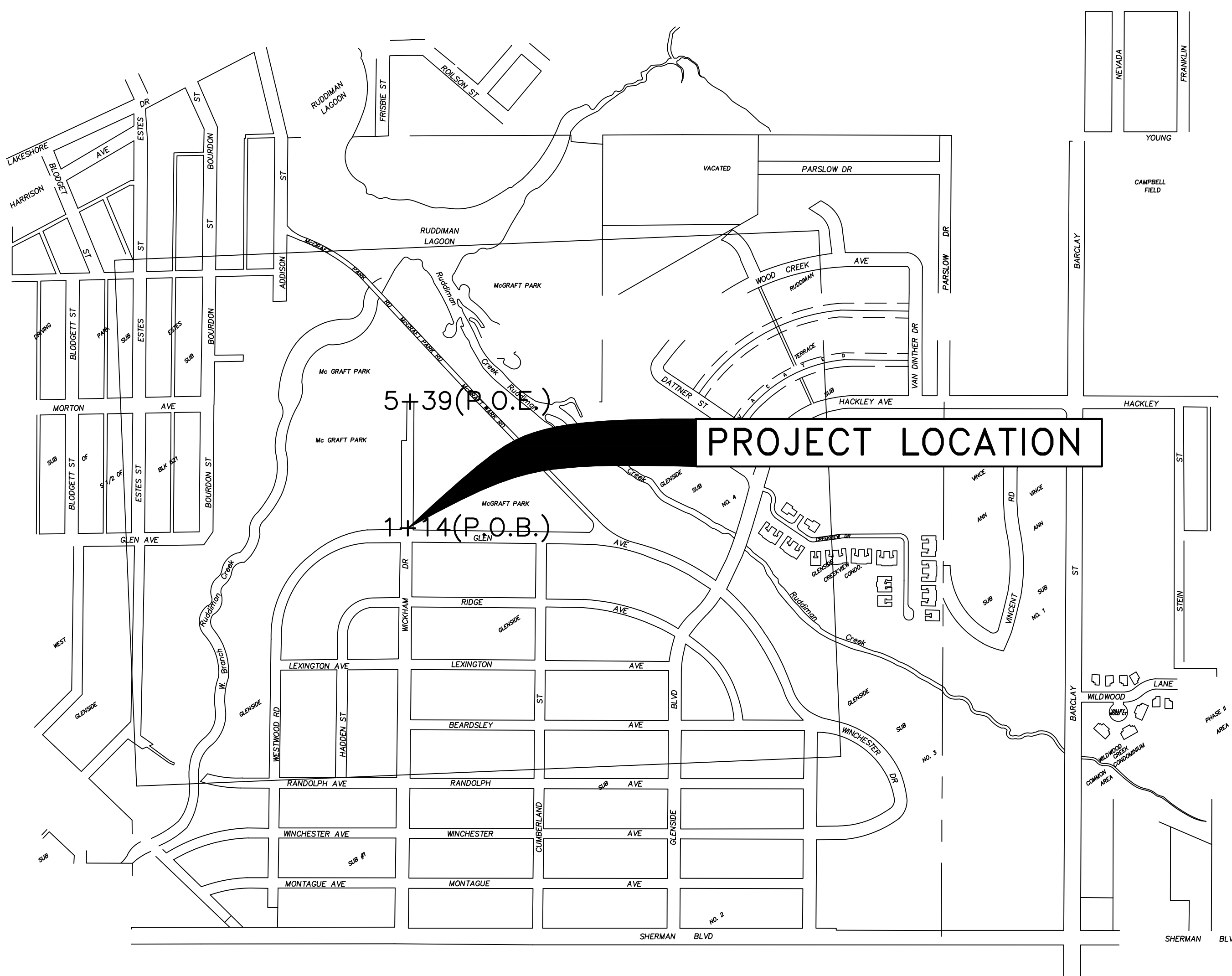
- R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
- R-29-I DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALKS
- R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER
- R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

NOTE: STANDARD PLANS INCLUDED IN PROPOSAL

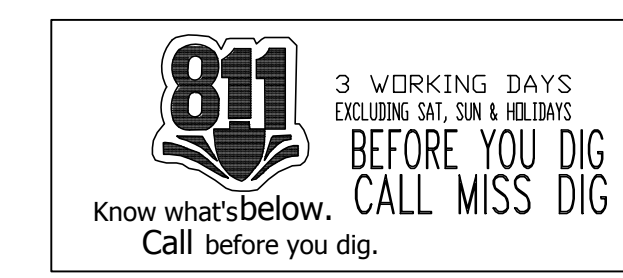


NO SCALE

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



ROOSEVELT PARK

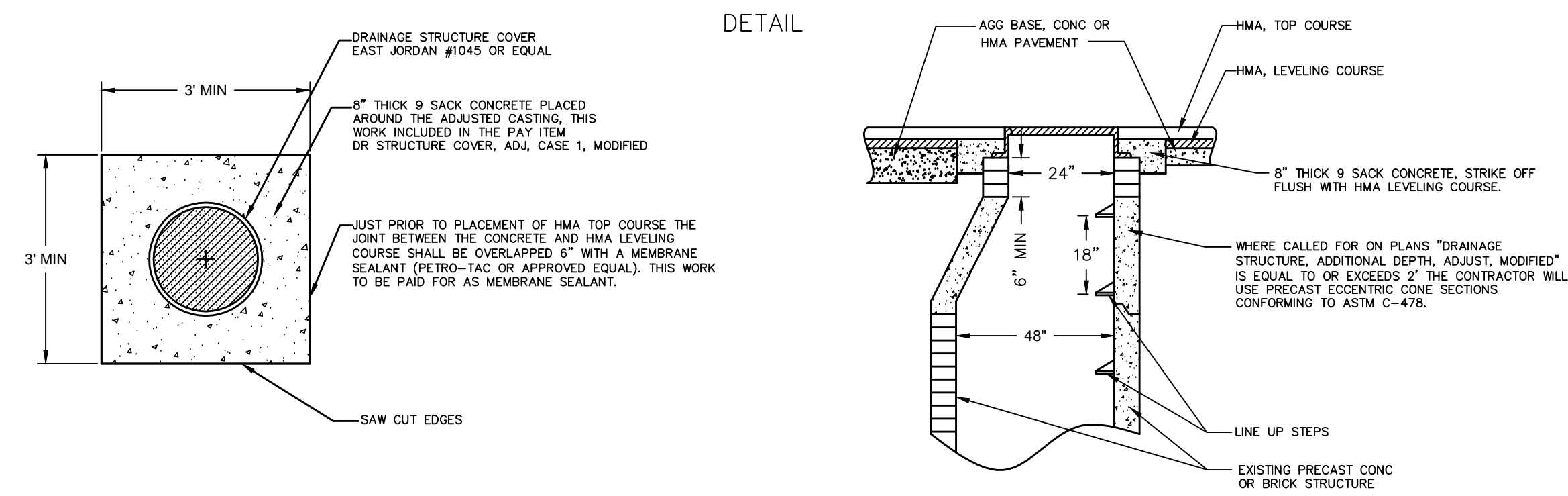


UTILITIES

- ELECTRIC**
CONSUMERS ENERGY - MICHELLE PETERSON
700 E. STERNBERG RD.
NORTON SHORES, MI 49441
(231) 332-2621
- TELEPHONE**
FRONTIER COMM. - DAVID B. FLERMOEN
860 TERRACE STREET
MUSKEGON, MI 49440
(231) 727-1319
- GAS**
DTE ENERGY- VINCE DUCA
2359 OLTHOFF DRIVE
MUSKEGON, MI 49444
(231) 777-4034
- CABLE**
COMCAST - JIM ZAWACKI
3500 PATTERSON AVENUE
GRAND RAPIDS, MI 49512
(616) 575-0501
- WATER & SEWER**
CITY OF MUSKEGON DPW -
DAVE BAKER, MIKE HANNAN
1350 E KEATING AVENUE
MUSKEGON, MI 49442
(231) 724-4100

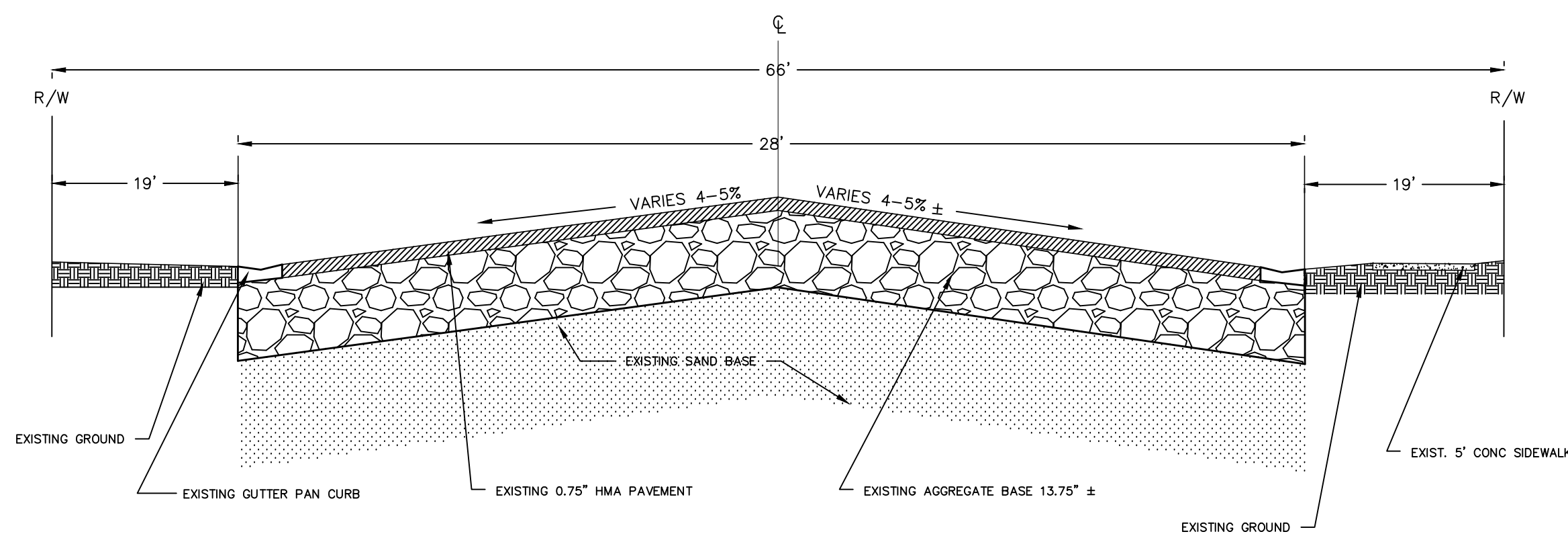
CITY OF MUSKEGON		McGRAFT PARK	
OFFICE OF THE CITY ENGINEER		PARKING LOT	
DRAWN F. PEASE FEB 18	REVISION	SURVEY F. PEASE MAY 09	H-1716
CHECKED	REVISION	AS-BUILT	PROJECT NO
APPROVED	REVISION	SCALE NO	SCALE SHEET NO 1 OF 3

DR STRUCTURE COVER, ADJ, CASE I MODIFIED



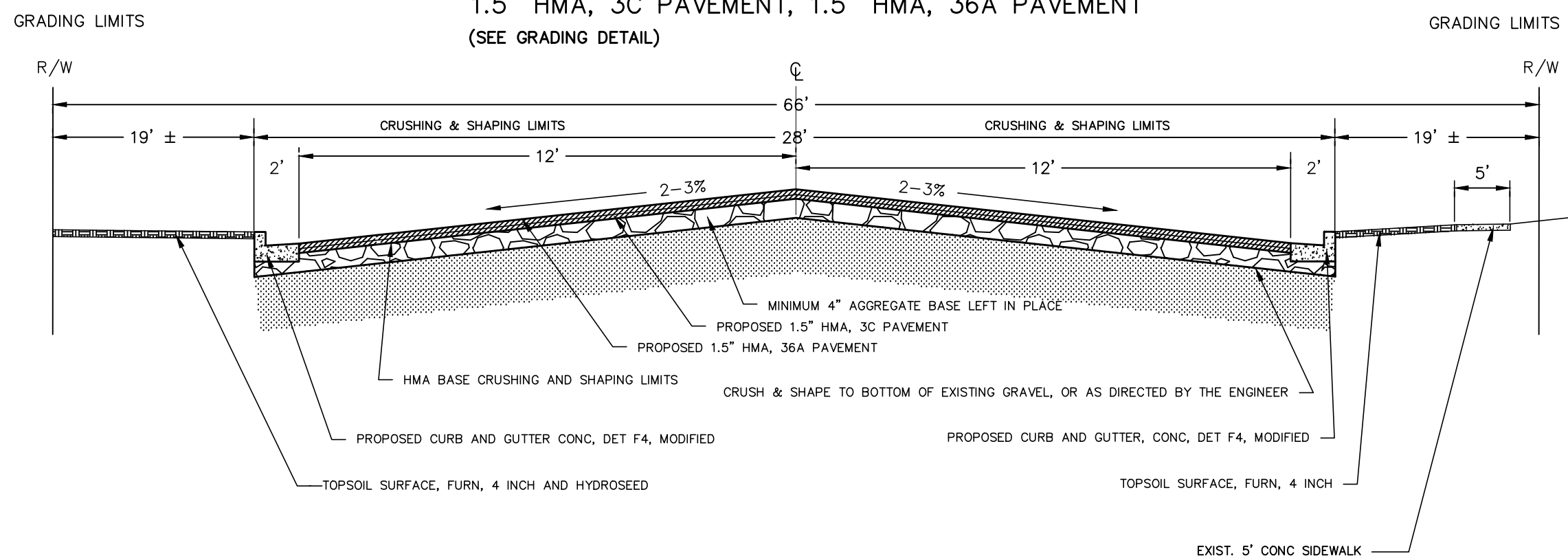
NOT TO SCALE

TYPICAL EXISTING CROSS SECTION STATION 1+14(P.O.B.)-3+25



NOT TO SCALE

TYPICAL PROPOSED CROSS SECTION STATION 1+14(P.O.B.)-3+25(ENTRANCE TO PRKG LOT) PRKG LOT TRANSITION- 3+25 TO 5+33, PROPOSED 1.5\"/>



NOT TO SCALE

HMA BASE CRUSHING AND SHAPING NOTE: THERE WILL BE APPROXIMATELY 316 CYD LM EXCAVATION OF WHICH APPROXIMATELY 0 CYD WILL BE USED FOR EMBANKMENT. ALL 316 CYD OF EXCAVATION WILL BE REMOVED FROM THE JOB SITE AND BECOME THE PROPERTY OF THE CONTRACTOR. THE REMOVAL OF THIS EXCAVATION MATERIAL WILL BE PAID FOR UNDER THE MATERIAL, SURPLUS AND UNSUITABLE, REM, LM PAY ITEM.

DETAIL SHEET

SUMMARY OF PAVEMENT CORING

CORE #	STATION #	HMA THICKNESS	GRAVEL THICKNESS	SOIL TYPE TO 10' BELOW PAVT
1	2+00 CL	0.75"	13.75"	SAND: LIGHT BROWN FINE
2	4+50 RT	1.75"	0"	SAND: LIGHT BROWN FINE

NOTE: NO GROUND WATER ENCOUNTERED

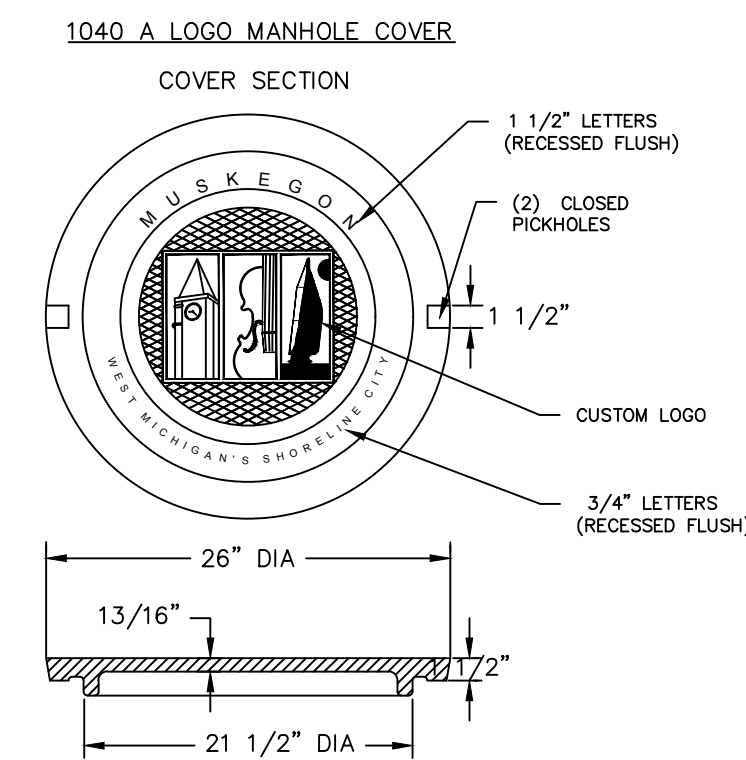
ENTRANCE & PARKING LOT HMA APPLICATION

HMA MIX	RATE	PERFORMANCE GRADE	DESCRIPTION
HMA, 36A (TOP COURSE)	165# / SYD	64-28	1 1/2 INCH-1 LIFT
HMA, 3C (LEVELING COURSE)	165# / SYD	64-28	1 1/2 INCH - 1 LIFT

HMA PAVING NOTE:

HMA BOND COAT, SS-1H, AT 0.10 GAL/SY, SHALL BE PLACED BETWEEN EACH LIFT WERE APPLICABLE. THE COST IS INCLUDED WITH THE HMA PAY ITEMS.

DETAIL FOR COVER B

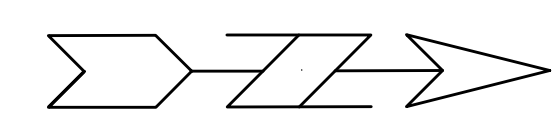
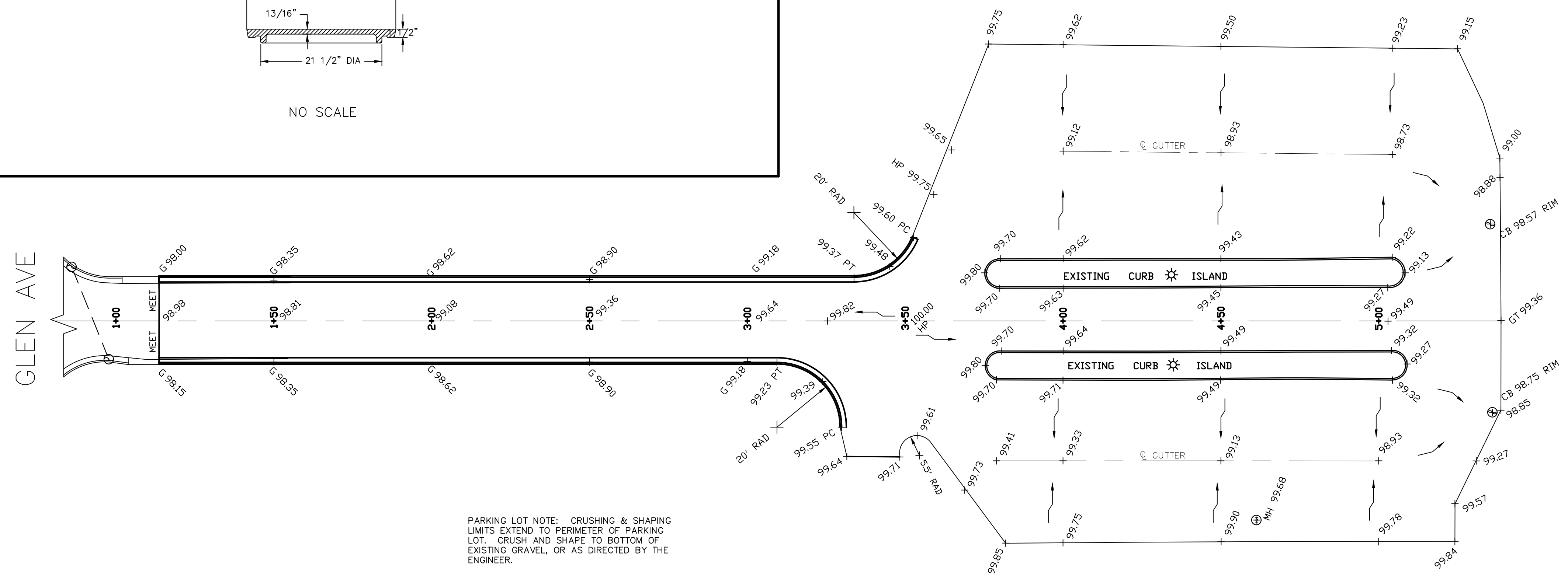


NO SCALE

GENERAL NOTES:

- 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.
- 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 BE NOTIFIED, THIS DOES NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE PART OF THE MISS DIG ALERT SYSTEM.
- 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. THE CONTRACTOR SHALL CALL MISS DIG 3 WORKING DAYS (EXCLUDING SAT., SUN., AND HOLIDAYS) BEFORE DIGGING (1-800-482-7171).
- EXISTING TRAFFIC CONTROL SIGNS THAT NEED TO BE REMOVED TO ALLOW THE CONTRACTOR TO WORK WILL BE REMOVED BY THE CONTRACTOR AND STORED IN A SAFE PLACE TO AVOID DAMAGE. THE CONTRACTOR SHALL THEN REINSTALL THE SIGNS IN THEIR ORIGINAL LOCATION OR AS DIRECTED BY THE ENGINEER. REMOVAL AND REPLACEMENT OF THE SIGNS WILL BE INCLUDED IN THE ITEM OF MINOR TRAF DEVICES. SIGNS THAT ARE DAMAGED BY THE CONTRACTOR WILL BE REPLACED BY CITY FORCES, AND THE CONTRACTOR WILL PAY THE CITY FOR THE COST OF REPLACEMENT.
- 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 HMA BASE CRUSHING AND SHAPING, CURB, REM, AND SIDEWALK, REM. NO ADDITIONAL PAYMENT WILL ALLOWED FOR SAW CUTTING.
- IRRIGATION SYSTEMS AS MARKED OR STAKED, AND ARE DAMAGED THROUGH CARELESS WORK BY THE CONTRACTOR WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE CITY OF MUSKEGON. THE CITY OF MUSKEGON WILL PAY FOR RELOCATION OF IRRIGATION SYSTEMS DUE TO WIDENING OF ROAD OR IN CONFLICT WITH THE CONSTRUCTION OF UNDERGROUND WORK. PAYMENT WILL BE MADE BY A NEGOTIATED UNIT PRICE THROUGH A CONTRACT MODIFICATION. IT SHALL BE AT THE ENGINEER'S DISCRETION AS TO WHAT IRRIGATION REPAIR AND/OR RELOCATION IS THE RESULT OF CARELESS WORK BY THE CONTRACTOR OR THAT WHICH NECESSARY TO THE CONSTRUCTION OF ROAD OR UTILITY WORK.
- THE CONTRACTOR SHALL PREVENT EROSION AND CONTROL SEDIMENTATION ASSOCIATED WITH THE PROJECT. KEEP SEDIMENTATION WITHIN THE RIGHT OF WAY AND OUT OF SURFACE WATERS. CONSTRUCT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS, CONTROLS TO INCLUDE EROSION CONTROL, 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.

GRADING DETAIL FOR MCGRAFT PARK ENTRANCE & PARKING LOT



NO SCALE

CITY OF MUSKEGON OFFICE OF THE CITY ENGINEER		McGRAFT PARK PARKING LOT	
DRAWN F. PEASE FEB 18	REVISION	SURVEY F. PEASE MAY 09	H-1716
CHECKED	REVISION	AS-BUILT	PROJECT NO
APPROVED	REVISION	SCALE	SHEET NO 2 OF 3

CITY OF MUSKEGON

PROPOSED McGRAFT PARKING LOT IMPROVEMENTS

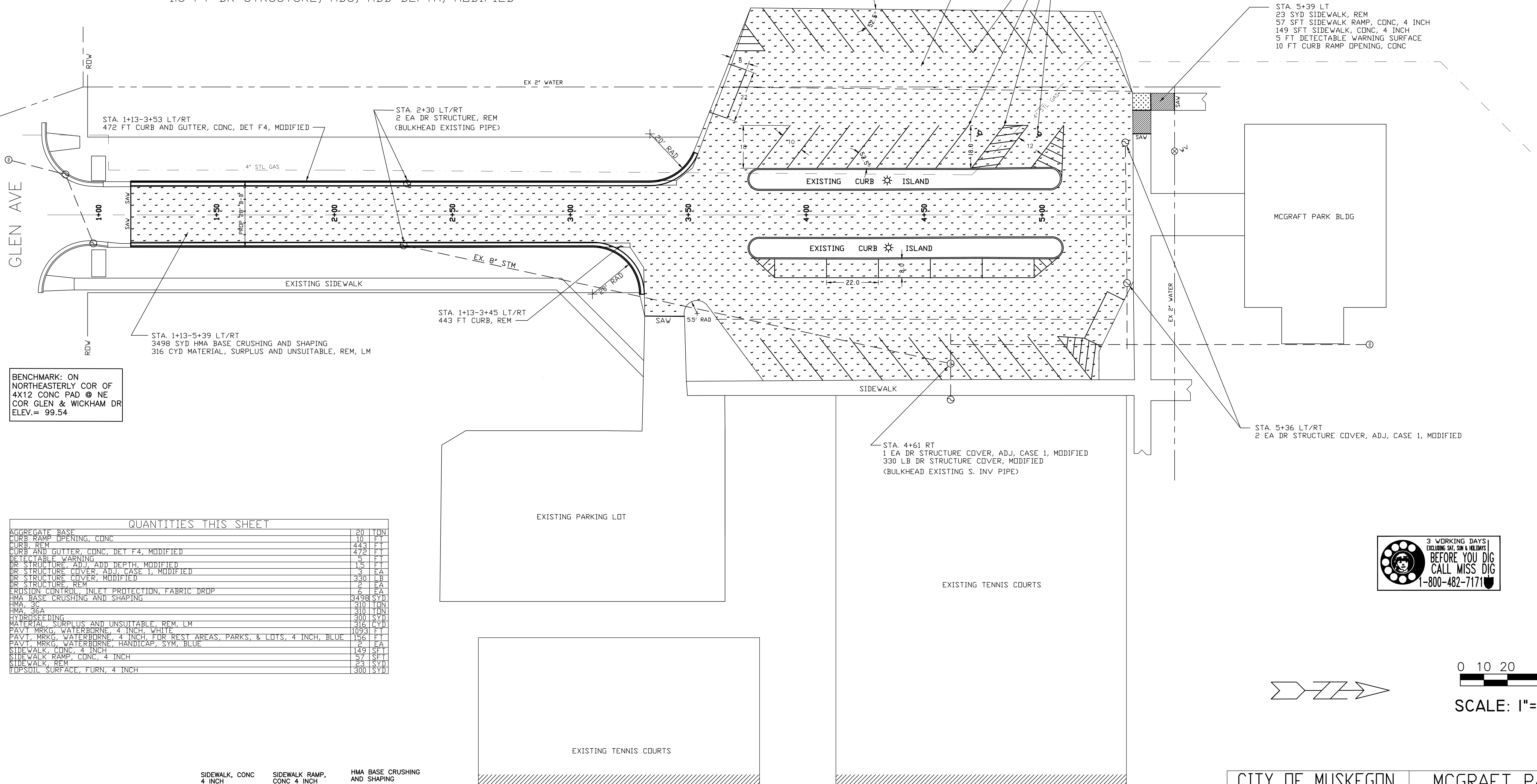
STA. 1+13-5+39 LT/RT
 6 EA EROSION CONTROL, INLET PROTECTION, FABRIC DROP
 20 TON AGGREGATE BASE
 300 SYD TOPSOIL SURFACE, FURN, 4 INCH
 300 SYD HYDROSEEDING
 1.5 FT DR STRUCTURE, ADJ, ADD DEPTH, MODIFIED

BENCHMARK: ON
 SOUTHEASTERLY COR OF
 4X12 CONC PAD @ SW
 COR PARKING LOT
 ELEV.= 98.04

STA. 1+13-5+39 LT/RT
 310 TON HMA, 3C
 310 TON HMA, 36A

STA. 3+59-5+35 LT/RT
 1093 FT PAVT MRKG, WATERBORNE, 4 INCH, WHITE
 156 FT PAVT MRKG, WATERBORNE, FOR REST AREAS, PARKS, & LOTS, 4 INCH, BLUE
 2 EA PAVT MRKG, WATERBORNE, HANDICAP, SYM, BLUE

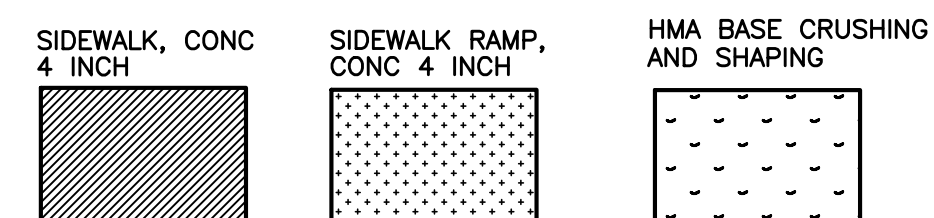
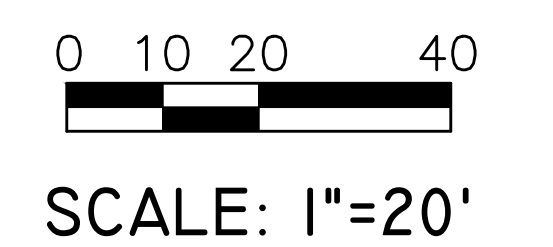
STA. 5+39 LT
 23 SYD SIDEWALK, REM
 57 SFT SIDEWALK RAMP, CONC, 4 INCH
 149 SFT SIDEWALK, CONC, 4 INCH
 5 FT DETECTABLE WARNING SURFACE
 10 FT CURB RAMP OPENING, CONC



BENCHMARK: ON
 NORTHEASTERLY COR OF
 4X12 CONC PAD @ NE
 COR GLEN & WICKHAM DR
 ELEV.= 99.54

QUANTITIES THIS SHEET

AGGREGATE BASE	20	TON
CURB RAMP OPENING, CONC	10	FT
CURB, REM	443	FT
CURB AND GUTTER, CONC, DET F4, MODIFIED	472	FT
DETECTABLE WARNING	5	FT
DR STRUCTURE, ADJ, ADD DEPTH, MODIFIED	1.5	FT
DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED	3	EA
DR STRUCTURE COVER, MODIFIED	330	LB
DR STRUCTURE, REM	2	EA
EROSION CONTROL, INLET PROTECTION, FABRIC DROP	6	EA
HMA BASE CRUSHING AND SHAPING	3498	SYD
HMA, 3C	310	TON
HMA, 36A	310	TON
HYDROSEEDING	300	SYD
MATERIAL SURPLUS AND UNSUITABLE, REM, LM	316	CYD
PAVT MRKG, WATERBORNE, 4 INCH, WHITE	1093	FT
PAVT MRKG, WATERBORNE, 4 INCH, FOR REST AREAS, PARKS, & LOTS, 4 INCH, BLUE	156	FT
PAVT MRKG, WATERBORNE, HANDICAP, SYM, BLUE	2	EA
SIDEWALK, CONC, 4 INCH	149	SFT
SIDEWALK RAMP, CONC, 4 INCH	57	SFT
SIDEWALK, REM	23	SYD
TOPSOIL SURFACE, FURN, 4 INCH	300	SYD



CITY OF MUSKEGON OFFICE OF THE CITY ENGINEER		McGRAFT PARK PARKING LOT	
DRAWN F. PEASE 2-18	REVISION	SURVEY F. PEASE 5-09	H-1716
CHECKED	REVISION	AS-BUILT	PROJECT NO
APPROVED	REVISION	SCALE 1"=20' VERT.	SHEET NO 3 OF 3