

LIVONIA PUBLIC SCHOOLS
CENTRAL OFFICE PAVEMENT PROGRAM
PHASE 1

ENGINEERING PLANS
15125 FARMINGTON ROAD
LIVONIA, MI 48150

NTH PROJECT NO. 23001951

PERMITTING	
PERMIT TYPE	INFORMATION
CITY OF LIVONIA SOIL EROSION AND SEDIMENT CONTROL (SESC)	SEND THREE SETS OF PLANS, SIGNED AND SEALED, TO CITY OF LIVONIA DEPARTMENT OF ENGINEERING WITH APPLICATION AND FEE CHECK

NOTE:
CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING FEES ASSOCIATED WITH THIS PROJECT

LIST OF ABBREVIATIONS

@	AT	FM	FORCEMAIN	PT	POINT
¢	CENTERLINE	FNDN	FOUNDATION	POT	POINT OF TANGENCY
°	DEGREE OR DEGREES	FO	FIBER OPTIC	PVC	POLYVINYL CHLORIDE
Ø	DIAMETER	FT	FOOT OR FEET	PVMT	PAVEMENT
·	FOOT, FEET	FTG	FOOTING	PZ	PNEUMATIC PIEZOMETER
"	INCH, INCHES	FWY	FREEWAY		
#	NUMBER OR POUND			R	RADIUS
±	PLUS OR MINUS	G	GAUGE	R	REINFORCED CONCRETE PIPE
		GALV	GALVANIZED	RCP	ROAD
A	ANCHOR BOLT	GMP	GROUND MONITORING POINT	RD	REINFORCED/
AB	ACRE(S)	GB	GRADE BEAM	REINF	REINFORCEMENT
AC	APPROXIMATE	GP	GUSSET PLATE	REQD	REQUIRED
APPOX.	ARCHITECTURAL	GS	GROUND SURFACE	R.O.W.	RIGHT OF WAY
ARCH	ASPHALT	GR	GRADE	RR	RAILROAD
ASPH	AMERICAN STANDARDS AND TESTING MATERIALS	GV	GATE VALVE	RTNG	RETAINING
ASTM	AVERAGE	GV&W	GATE VALVE AND WELL		
AVG		GW	GATE WELL	S	SOUTH
				S	SANITARY
B	BOTTOM	H	HIGH/HORIZONTAL	SAN	SOIL BORING
B	BITUMINOUS	HGL	HYDRAULIC GRADE LINE	SB	SHEAR CONNECTOR/
BIT	BUILDING	HOR	HORIZONTAL	SC	SHEAR CONNECTION
BLDG	BENCHMARK	HP	HIGH PRESSURE	SCH	SCHEDULE
BM	B.O.	HT	HEIGHT	SE	SOUTHEAST
BOF	BLOW OFF			SEC	SECTION
BP	BOTTOM OF FOUNDATION	I	INCLINOMETER	SESC	SOIL EROSION AND SEDIMENT CONTROL
BRG	BASE PLATE	ID	INNER DIAMETER	SF	SQUARE FOOT
BRKT	BEARING	I	INVERT	SHT	SHEET
BRKT	BRACKET	I.E.	INVERT ELEVATION	SIM	SIMILAR
BSMT	BASEMENT	IN	INCH(ES)	SPA	SPACE/SPACING
BW	BOTTOM OF WALL	INV	INVERT	SL	SPURCE LENGTH
				SOG	SLAB ON GRADE
C	CATCH BASIN	J	JOIST	SQ	SQUARE
CB	CENTER TO CENTER	JST	JOINT	SS	STAINLESS STEEL
C-C	CUBIC FEET	JT	JOINT	SSP	STEEL SHEET PILE
CF	CUBIC FEET PER SECOND			STA	STATION
CFS	CAST IRON	L	LENGTH/LONG	STD	STANDARD
CI	CAST-IN-PLACE	LBS	POUNDS	STIFF	STIFFENER
CIP	CONTROL JOINT	LF	LINEAR FEET	STL	STEEL
CJ	CLEAR	LVL	LEVEL	STM	STORM
CLR	CORRUGATED METAL PIPE			STRUC	STRUCTURAL
CMP	CONCRETE MASONRY UNIT	M	METER	SUP	SUPPORT
CMU	CONSTRUCTION JOINT	m	MASONRY	SW	SOUTHWEST
CNJ	CLEAN OUT	MATL	MATERIAL	S/W	SIDEWALK
COL	COLUMN	MAX	MAXIMUM	SY	SQUARE YARDS
CONC	CONCRETE	MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION		
CONT	CONTINUOUS	MECH	MECHANICAL	T	TOP
CONST	CONSTRUCTION	MH	MANHOLE	T	TEST BORING
COV	COVER	MJ	MECHANICAL JOINT	T&B	TOP AND BOTTOM
CP	CAP PLATE	MTD	MANUFACTURED TREATMENT DEVICE	TC	TOP OF CONCRETE
CSO	COMBINED SEWER OUTFALL	MTL	METAL	TEMP	TEMPORARY
CTV	CABLE TELEVISION	MIN	MINIMUM	THK	THICK OR THICKNESS
		mm	MILLIMETER	TP	TURNING POINT
D	DETAIL	MW	MONITORING WELL	TO	TOP OF
DI	DUCTILE IRON			TOF	TOP OF FOUNDATION
DIA	DIAMETER	N	NORTH	TOPO	TOPOGRAPHIC
DIAG	DIAGONAL	NB	NORTHBOUND	TOS	TOP OF STEEL
DIM	DIMENSION	NE	NORTHEAST	TOW	TOP OF WALL
DIP	DUCTILE IRON PIPE	NIC	NOT IN CONTRACT	TYP	TYPICAL
DWG	DRAWING	NO	NUMBER	TW	TOP OF WALL
DWL	DOWELS	NTS	NOT TO SCALE	TYP.	TYPICAL
		NW	NORTHWEST	U	UNLESS NOTED OTHERWISE
E	EAST			UNO	
EA	EACH	O	O.C. ON CENTER	V	VERTICAL
EGL	ENERGY GRADE LINE	O.C.	ON CENTER	V	VITREOUS CLAY PIPE
EJ	EXPANSION JOINT	O.D.	OUTERDIAMETER	VCP	VERTICAL
EJW	EAST JORDAN IRON WORKS	OPNG	OPENING	VERT	VERIFY IN FIELD
EL	ELEVATION	OPP	OPPOSITE		
ELEC	ELECTRICAL	P	POINT OF CURVATURE	W	WEST
ENG	ENGINEERED	PERM	PERMANENT	W	WITH
EX	EXISTING	PL	PLATE	WD	WIDE
EXCAV	EXCAVATE(D)	P/L	PROPERTY LINE	WM	WATERMAIN
EXP	EXPANSION	POB	POINT OF BEGINNING	WWF	WELDED WIRE FABRIC
		POE	POINT OF ENDING		
F	FINISH FLOOR	PR	PROPOSED	Y	YEAR
FF	FINISHED GRADE	PSF	POUNDS PER SQUARE FOOT	YR	
FG	FIRE HYDRANT	PSI	POUNDS PER SQUARE INCH		
FH	FLOOR				
FL					

OWNER:

Livonia Public Schools
15125 Farmington Road
Livonia, Michigan 48154
Contact: Harry Lau
Phone: 734-812-8537

ENGINEER:

NTH Consultants, LTD.
41780 Six Mile Road
Northville, Michigan 48168
Contact: David R. Lutiz, P.E.
Phone: 248-662-2750

PROJECT DESCRIPTION:

LIVONIA PUBLIC SCHOOLS CENTRAL OFFICE PAVEMENT PROGRAM CONSISTS OF PAVEMENT IMPROVEMENT AT THE LIVONIA PUBLIC SCHOOLS CENTRAL OFFICE LOCATION, INCLUDING FULL-DEPTH PAVEMENT REMOVAL AND GRADING, CRACK FILLING, AND RESEALING. THE PROJECT SCOPE INCLUDES, BUT IS NOT LIMITED TO:

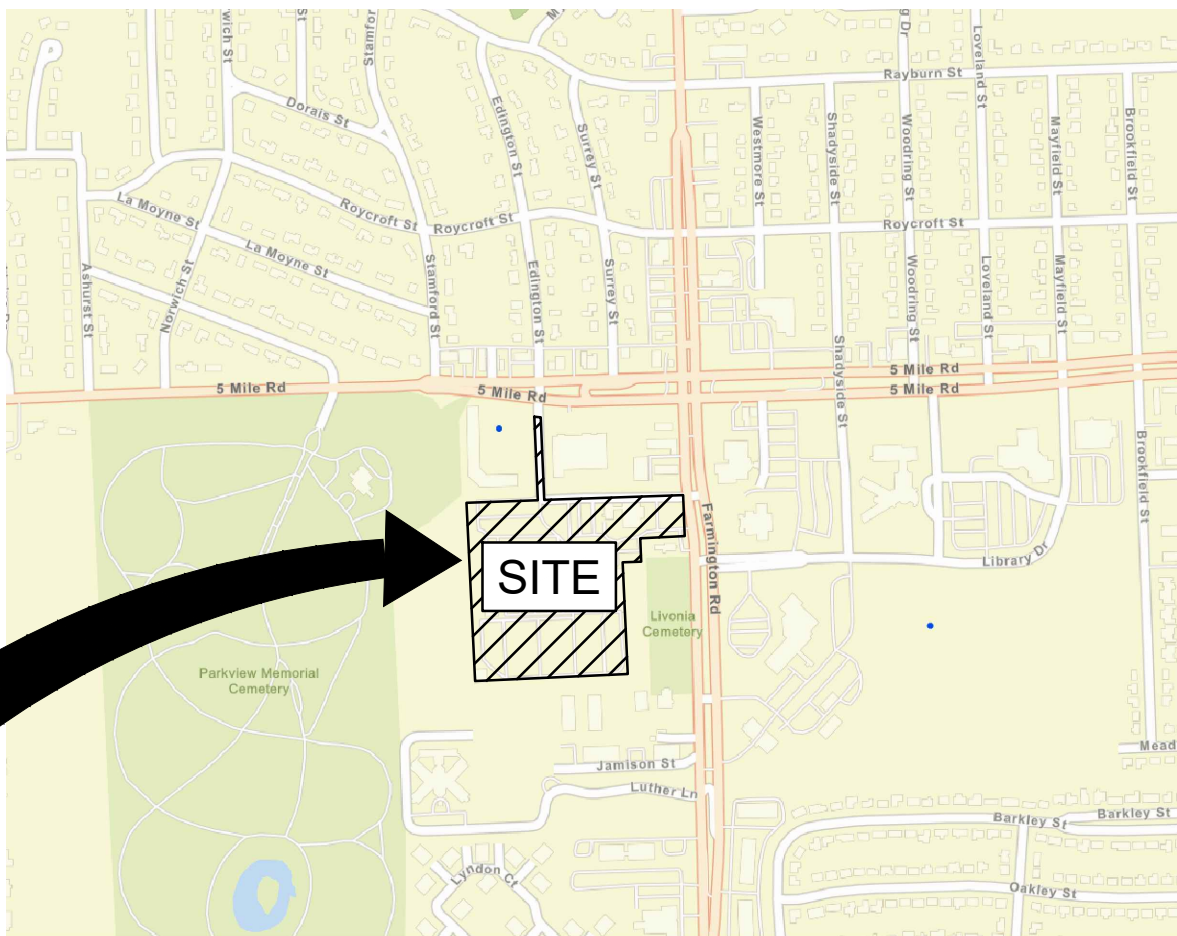
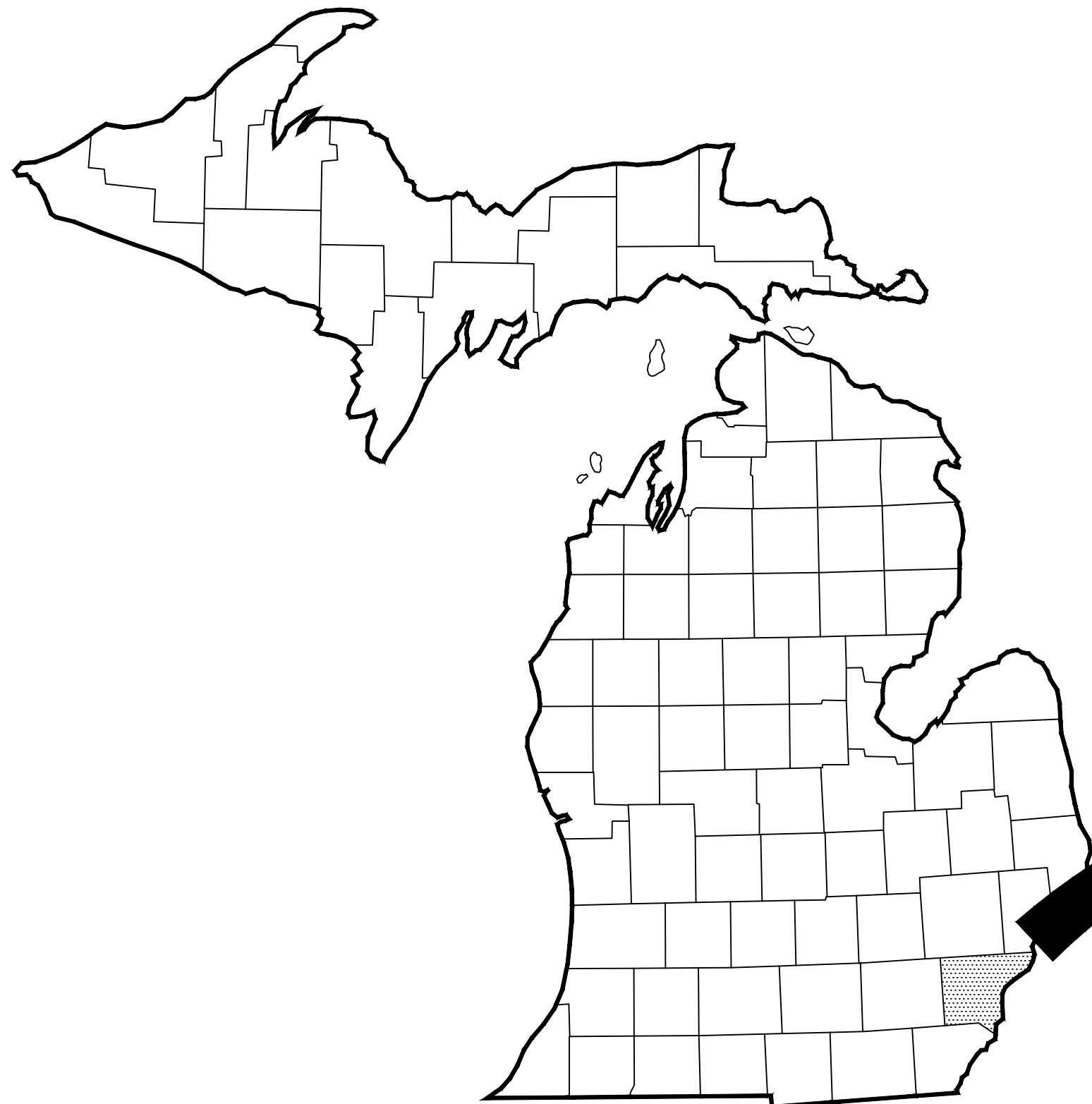
- 28,000 SQUARE FEET OF FULL DEPTH REMOVAL & REPLACEMENT (STANDARD DUTY ASPHALT)
- 88,000 SQUARE FEET OF FULL DEPTH REMOVAL & REPLACEMENT (HEAVY DUTY ASPHALT)
- 12,000 SQUARE FEET OF CRACK-FILL AND SEAL COAT
- INSTALLATION OF NEW CONCRETE BOX OUTS AND DRAIN TILES AROUND EXISTING DRAINAGE STRUCTURES, AND REPAIR OF EXISTING CONCRETE BOX OUTS WHERE NECESSARY.
- REPLACE 5 BOLLARD SLEEVES TO EXISTING BOLLARD POSTS.
- INSTALLATION OF 1 BOLLARD POST IN CAST-IN-PLACE CONCRETE FOUNDATION.
- PROVIDE 2 STOP SIGNS WITH PEDESTAL BASES AND ADDITIONAL SIGNAGE FOR 5 ADA PARKING SPACES.
- EXCAVATION AND REPLACEMENT OF A MAXIMUM DEPTH OF 18-INCHES BELOW THE BOTTOM OF THE PAVEMENT PROFILE FOR A MAXIMUM OF 11,600 SQUARE-Feet OF THE FULL-DEPTH ASPHALT REPLACEMENT AREA.

Sheet List

- | | |
|-------|---|
| C-100 | COVER SHEET |
| C-101 | TOPOGRAPHIC SURVEY |
| C-102 | SOIL EROSION & SEDIMENTATION CONTROL PLAN |
| C-103 | SESC STANDARD DETAILS |
| C-104 | DEMOLITION PLAN |
| C-105 | PROPOSED SITE AND GRADING PLAN |
| C-501 | CIVIL DETAILS (1 OF 2) |
| C-502 | CIVIL DETAILS (2 OF 2) |

NOTES

- TOPOGRAPHIC SURVEY WAS PERFORMED BY BY KEM-TEC & ASSOCIATES ON FEBRUARY 26, 2024.
- LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON-SITE, PRIOR TO CONSTRUCTION.
- FULL-DEPTH REMOVAL IS DEFINED AS REMOVING 100 PERCENT OF THE BITUMINOUS CONCRETE AND BASE WHERE NECESSARY TO ACHIEVE THE REQUIRED DESIGN PROFILE, AND PROOF ROLLING THE EXISTING AGGREGATE BASE OR SUBBASE. IF THE AGGREGATE BASE IS SOUND, INSTALL NEW BITUMINOUS CONCRETE PROFILE AS SPECIFIED (HEAVY-DUTY OR STANDARD-DUTY PROFILE). IF AGGREGATE BASE YIELDS UNDER PROOF ROLLING LOAD, AT THE DIRECTION OF THE OWNERS ENGINEER, REMOVE AGGREGATE BASE AND EXPOSE SUBGRADE SOILS. PROOF ROLL; IF THEY YIELD UNDER LOAD, REMOVE UP TO 18-INCHES OF SUBGRADE AND BACKFILL WITH COMPACTED STONE IN LIFTS NO GREATER THAN 6-INCHES. INSTALL NEW PAVEMENT OVER THE STONE (AGGREGATE BASE AND BITUMINOUS CONCRETE SECTION) AT DIRECTION OF THIRD PARTY TESTING FIRM.
- THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING PAVEMENTS DESIGNATED TO REMAIN. ANY PAVEMENT DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR TO INSPECT ALL MANHOLE STRUCTURES DURING CONSTRUCTION AND INFORM THE OWNER OF ANY STRUCTURES IN POOR CONDITION.
- CONTRACTOR SHALL NOTIFY THE CITY OF LIVONIA'S ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY WORK IN THE RIGHT-OF-WAY. INSPECTION AND APPROVAL IS REQUIRED AFTER SETTLING FORMS, BUT PRIOR TO POURING CONCRETE, WITHIN THE CITY'S RIGHT-OF-WAY.



WAYNE COUNTY
NO SCALE



MICHIGAN
APPROX SCALE 1"= 50 MILES

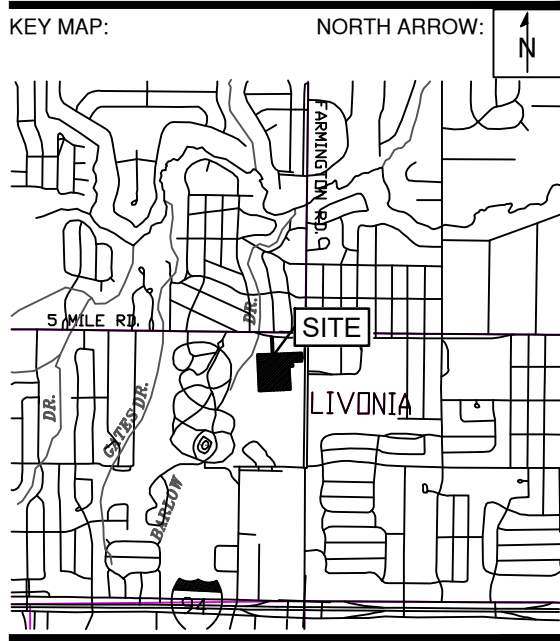


NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)



SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

PROJECT NAME:
LPS CENTRAL OFFICE
PAVEMENT - PHASE 1

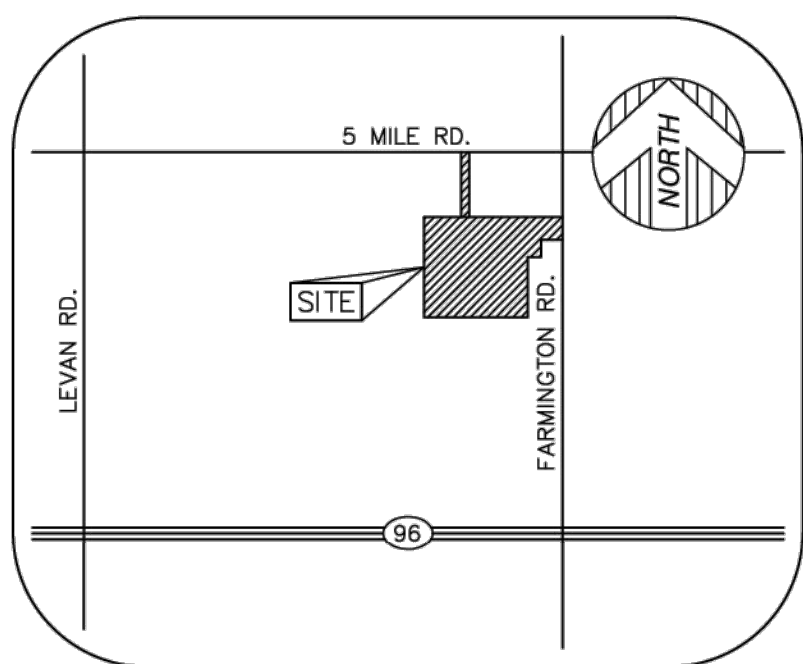
PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
COVER SHEET

SHEET NUMBER:

C-100



VICINITY MAP

(NOT TO SCALE)

MANHOLE SCHEDULE

LINE	TYPE	MANHOLE	SIZE (IN)	DIR.	INV. ELEV. (FT)
10000	STORM	660.76	30	W	660.76
10001	STORM	660.76	30	W	660.76
10002	STORM	660.76	30	W	660.76
10003	STORM	660.76	30	W	660.76
10004	STORM	660.76	30	W	660.76
10005	STORM	660.76	30	W	660.76
10006	STORM	660.76	30	W	660.76
10007	STORM	660.76	30	W	660.76
10008	STORM	660.76	30	W	660.76
10009	STORM	660.76	30	W	660.76
10010	STORM	660.76	30	W	660.76
10011	STORM	660.76	30	W	660.76
10012	STORM	660.76	30	W	660.76
10013	STORM	660.76	30	W	660.76
10014	STORM	660.76	30	W	660.76
10015	STORM	660.76	30	W	660.76
10016	STORM	660.76	30	W	660.76
10017	STORM	660.76	30	W	660.76
10018	STORM	660.76	30	W	660.76
10019	STORM	660.76	30	W	660.76
10020	STORM	660.76	30	W	660.76
10021	STORM	660.76	30	W	660.76
10022	STORM	660.76	30	W	660.76
10023	STORM	660.76	30	W	660.76
10024	STORM	660.76	30	W	660.76
10025	STORM	660.76	30	W	660.76
10026	STORM	660.76	30	W	660.76
10027	STORM	660.76	30	W	660.76
10028	STORM	660.76	30	W	660.76
10029	STORM	660.76	30	W	660.76
10030	STORM	660.76	30	W	660.76
10031	STORM	660.76	30	W	660.76
10032	STORM	660.76	30	W	660.76
10033	STORM	660.76	30	W	660.76
10034	STORM	660.76	30	W	660.76
10035	STORM	660.76	30	W	660.76
10036	STORM	660.76	30	W	660.76
10037	STORM	660.76	30	W	660.76
10038	STORM	660.76	30	W	660.76
10039	STORM	660.76	30	W	660.76
10040	STORM	660.76	30	W	660.76
10041	STORM	660.76	30	W	660.76
10042	STORM	660.76	30	W	660.76
10043	STORM	660.76	30	W	660.76
10044	STORM	660.76	30	W	660.76
10045	STORM	660.76	30	W	660.76
10046	STORM	660.76	30	W	660.76
10047	STORM	660.76	30	W	660.76
10048	STORM	660.76	30	W	660.76
10049	STORM	660.76	30	W	660.76
10050	STORM	660.76	30	W	660.76
10051	STORM	660.76	30	W	660.76
10052	STORM	660.76	30	W	660.76
10053	STORM	660.76	30	W	660.76
10054	STORM	660.76	30	W	660.76
10055	STORM	660.76	30	W	660.76
10056	STORM	660.76	30	W	660.76
10057	STORM	660.76	30	W	660.76
10058	STORM	660.76	30	W	660.76
10059	STORM	660.76	30	W	660.76
10060	STORM	660.76	30	W	660.76
10061	STORM	660.76	30	W	660.76
10062	STORM	660.76	30	W	660.76
10063	STORM	660.76	30	W	660.76
10064	STORM	660.76	30	W	660.76
10065	STORM	660.76	30	W	660.76
10066	STORM	660.76	30	W	660.76
10067	STORM	660.76	30	W	660.76
10068	STORM	660.76	30	W	660.76
10069	STORM	660.76	30	W	660.76
10070	STORM	660.76	30	W	660.76
10071	STORM	660.76	30	W	660.76
10072	STORM	660.76	30	W	660.76
10073	STORM	660.76	30	W	660.76
10074	STORM	660.76	30	W	660.76
10075	STORM	660.76	30	W	660.76
10076	STORM	660.76	30	W	660.76
10077	STORM	660.76	30	W	660.76
10078	STORM	660.76	30	W	660.76
10079	STORM	660.76	30	W	660.76
10080	STORM	660.76	30	W	660.76
10081	STORM	660.76	30	W	660.76
10082	STORM	660.76	30	W	660.76
10083	STORM	660.76	30	W	660.76
10084	STORM	660.76	30	W	660.76
10085	STORM	660.76	30	W	660.76
10086	STORM	660.76	30	W	660.76
10087	STORM	660.76	30	W	660.76
10088	STORM	660.76	30	W	660.76
10089	STORM	660.76	30	W	660.76
10090	STORM	660.76	30	W	660.76
10091	STORM	660.76	30	W	660.76
10092	STORM	660.76	30	W	660.76
10093	STORM	660.76	30	W	660.76
10094	STORM	660.76	30	W	660.76
10095	STORM	660.76	30	W	660.76
10096	STORM	660.76	30	W	660.76
10097	STORM	660.76	30	W	660.76
10098	STORM	660.76	30	W	660.76
10099	STORM	660.76	30	W	660.76
10100	STORM	660.76	30	W	660.76

LEGEND

●	FOUND MONUMENT (AS NOTED)
○	FOUND SECTION CORNER (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
0.00	GROUND ELEVATION
⊠	ELECTRIC PANEL
⊠	ELECTRIC RISER
⊠	TRANSFORMER
⊠	GENERATOR
⊠	UTILITY POLE
⊠	GAS METER
⊠	GAS VALVE
⊠	CLEANOUT
⊠	SANITARY MANHOLE
⊠	ROUND CATCH BASIN
⊠	SQUARE CATCH BASIN
⊠	STORM DRAIN MANHOLE
⊠	FIRE HYDRANT
⊠	FIRE DEPARTMENT CONNECTION
⊠	WATER GATE MANHOLE
⊠	WATER VALVE
⊠	MONITOR WELL
⊠	UNKNOWN MANHOLE
⊠	AIR CONDITIONING UNIT
⊠	BOLLARD
⊠	FLAGPOLE
⊠	GAS FILL
⊠	LIGHTPOST/LAMP POST
⊠	SINGLE POST SIGN
⊠	TREE (AS NOTED)
⊠	PARCEL BOUNDARY LINE
⊠	ADJOINER PARCEL LINE
⊠	SECTION LINE
⊠	EASEMENT (AS NOTED)
⊠	BUILDING
⊠	BUILDING OVERHANG
⊠	ASPHALT CURB
⊠	CONCRETE CURB
⊠	RAISED CONCRETE
⊠	PARKING
⊠	EDGE OF CONCRETE (CONC.)
⊠	EDGE OF ASPHALT (ASPH.)
⊠	EDGE OF BRICK
⊠	FENCE (AS NOTED)
⊠	WALL (AS NOTED)
⊠	TREE / BRUSH LINE (AS NOTED)
⊠	OVERHEAD UTILITY LINE
⊠	GAS LINE
⊠	SANITARY LINE
⊠	STORM LINE
⊠	WATER LINE
⊠	MINOR CONTOUR LINE
⊠	MAJOR CONTOUR LINE
⊠	BUILDING AREA
⊠	ASPHALT
⊠	CONCRETE

●	FOUND MONUMENT (AS NOTED)
○	FOUND SECTION CORNER (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
0.00	GROUND ELEVATION
⊠	ELECTRIC PANEL
⊠	ELECTRIC RISER
⊠	TRANSFORMER
⊠	GENERATOR
⊠	UTILITY POLE
⊠	GAS METER
⊠	GAS VALVE
⊠	CLEANOUT
⊠	SANITARY MANHOLE
⊠	ROUND CATCH BASIN
⊠	SQUARE CATCH BASIN
⊠	STORM DRAIN MANHOLE
⊠	FIRE HYDRANT
⊠	FIRE DEPARTMENT CONNECTION
⊠	WATER GATE MANHOLE
⊠	WATER VALVE
⊠	MONITOR WELL
⊠	UNKNOWN MANHOLE
⊠	AIR CONDITIONING UNIT
⊠	BOLLARD
⊠	FLAGPOLE
⊠	GAS FILL
⊠	LIGHTPOST/LAMP POST
⊠	SINGLE POST SIGN
⊠	TREE (AS NOTED)
⊠	PARCEL BOUNDARY LINE
⊠	ADJOINER PARCEL LINE
⊠	SECTION LINE
⊠	EASEMENT (AS NOTED)
⊠	BUILDING
⊠	BUILDING OVERHANG
⊠	ASPHALT CURB
⊠	CONCRETE CURB
⊠	RAISED CONCRETE
⊠	PARKING
⊠	EDGE OF CONCRETE (CONC.)
⊠	EDGE OF ASPHALT (ASPH.)
⊠	EDGE OF BRICK
⊠	FENCE (AS NOTED)
⊠	WALL (AS NOTED)
⊠	TREE / BRUSH LINE (AS NOTED)
⊠	OVERHEAD UTILITY LINE
⊠	GAS LINE
⊠	SANITARY LINE
⊠	STORM LINE
⊠	WATER LINE
⊠	MINOR CONTOUR LINE
⊠	MAJOR CONTOUR LINE
⊠	BUILDING AREA
⊠	ASPHALT
⊠	CONCRETE



PROPERTY DESCRIPTION

PARCEL 1: THE LAND SITUATED IN THE LIVONIA, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

THAT PART OF THE N E 1/4 OF SEC 21 DES AS BEG A POINT ON THE E LINE OF SAID SECTION DISTANT S 00 31M 30SEC E 478.50 FT FROM THE N E CORNER OF SEC 21 AND PROCEEDING TH S 00 31M 30SEC E ALONG SAID E LINE 194.0 FT TH S 88D 22M 40SEC W 210.50 FT TH S 00 31M 30SEC E 106.0 FT TH S 89D 47M 30SEC W 87.50 FT TH S 00 31M 30SEC E 527.34 FT TH S 89D 22M 40SEC W 719.52 FT TH N 00 41M 30SEC W 841.42 FT TH E 1020.03 FT TO THE POB.

PARCEL 2: THE LAND SITUATED IN THE LIVONIA, COUNTY OF WAYNE, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:

PT OF THE NE 1/4 SEC 21 T189E BEG AT A PTE DIST DUE W 653.42 FT AND S08D 31M 30S E 88.86 FT FROM THE NE COR OF SEC 21 TH S08D 31M 30S E 389.64 FT TH DUE W 30 FT TH N08D 31M 30S W 393.93 FT TH S81D 52M 56S E 30.34 FT POB 0.27 AC.

PARKING

HANDICAP PARKING = 13 STALLS
STANDARD PARKING = 340 STALLS
BUS PARKING = 166 STALLS

BASIS OF BEARING

SOUTH 00°31'30" EAST, BEING THE EAST LINE OF SECTION 21, AS DESCRIBED.

TITLE REPORT NOTE

A CURRENT TITLE POLICY HAS NOT BEEN FURNISHED AT TIME OF SURVEY, THEREFORE EASEMENTS AND/OR ENCUMBRANCES AFFECTING SUBJECT PARCEL MAY NOT BE SHOWN.

SURVEYOR'S NOTE

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

BENCHMARK

SITE BENCHMARK #1
RAILROAD SPIKE IN EAST SIDE OF UTILITY POLE APPROXIMATELY 5'± NORTH OF PARKING LOT AND APPROXIMATELY 42'± WEST OF CENTERLINE OF WILLIAMS WAY STREET.
ELEVATION = 665.46' (NAVD 88)

SITE BENCHMARK #2
ARROW ON HYDRANT APPROXIMATELY 70'± EAST OF WAREHOUSE BUILDING AND APPROXIMATELY 60'± NORTHWEST OF BUS MAINTENANCE BUILDING.
ELEVATION = 666.57' (NAVD 88)

SITE BENCHMARK #3
RAILROAD SPIKE IN EAST SIDE OF UTILITY POLE IN BUS PARKING LOT.
ELEVATION = 667.00' (NAVD 88)

SITE BENCHMARK #4
RAILROAD SPIKE IN WEST SIDE OF UTILITY POLE APPROXIMATELY 5'± WEST OF FARMINGTON ROAD AND NORTH APPROXIMATELY 27'± FROM CENTERLINE OF DRIVE.
ELEVATION = 667.34' (NAVD 88)

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY HEREIN DESCRIBED. THE ELEVATIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY AND THE DRAWING HEREON DELINEATED IS A CORRECT REPRESENTATION OF THE SAME.

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

ANTHONY T. SYCKO, JR.
PROFESSIONAL ENGINEER
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemttec-survey.com

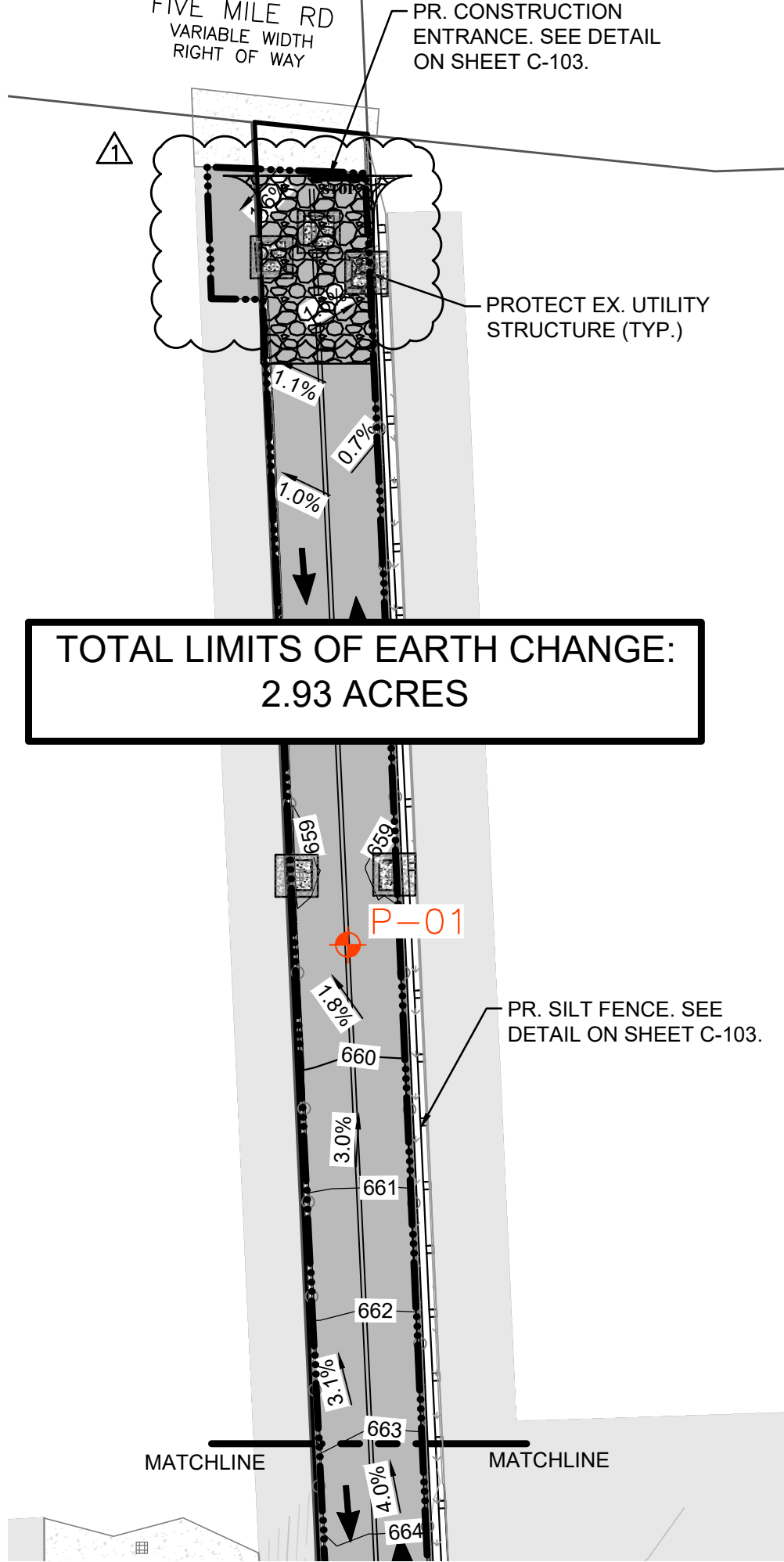
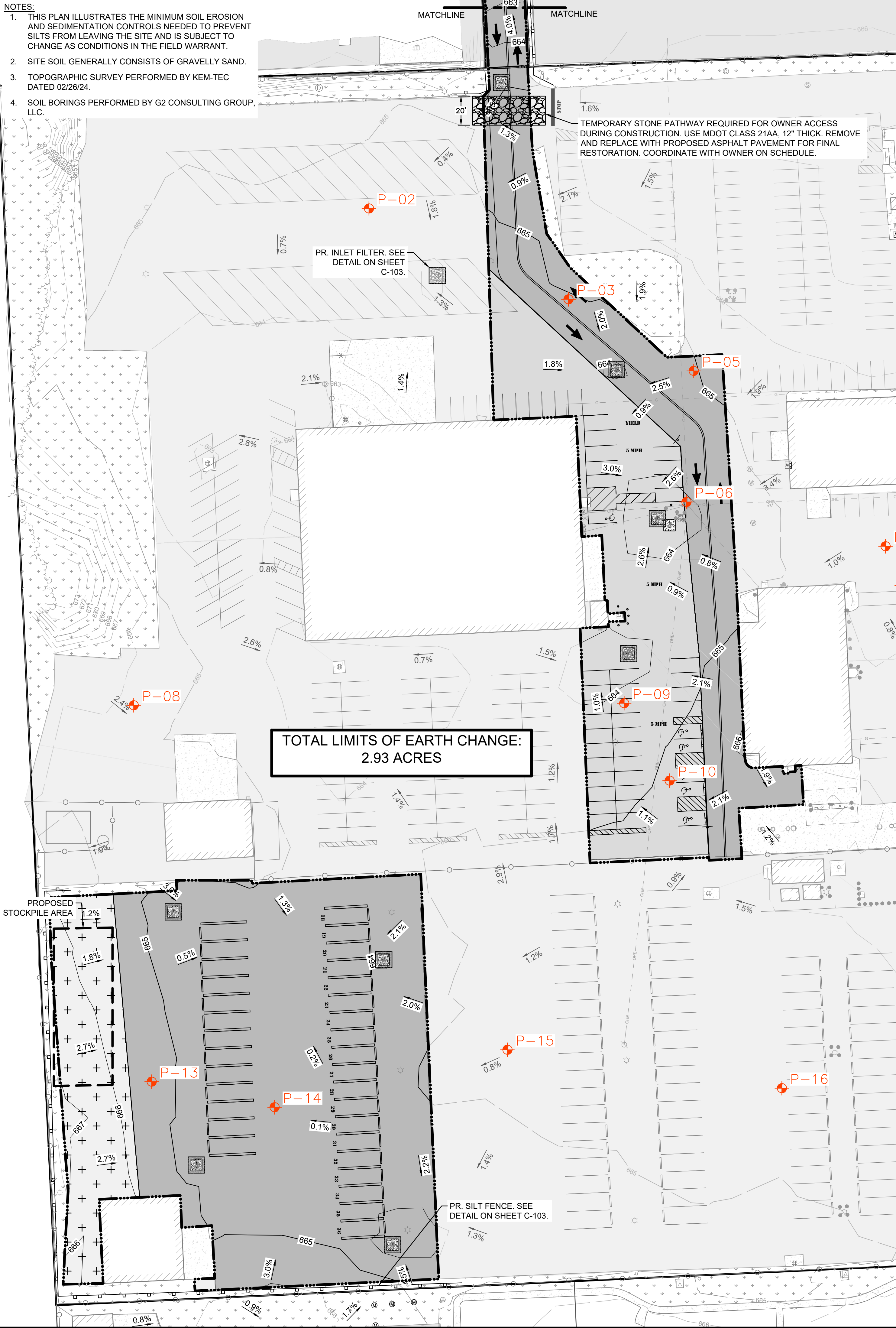
KEM-TEC
A GROUP OF COMPANIES
Eastpointe, MI 48021
(800) 256-7222
www.kemttecgroupofcompanies.com

TOPOGRAPHIC SURVEY
PREPARED FOR: LIVONIA PUBLIC SCHOOLS
15125 FARMINGTON ROAD, LIVONIA, MICHIGAN,
PART OF SECTION 21,
TOWN 1 SOUTH, RANGE 9 EAST

DATE	BY	REVISION
06/30/22	MRJ	1
06/30/22	ATS	2
JUNE 30, 2022	MRJ	3

1 OF 1 SHEETS

- NOTES:
1. THIS PLAN ILLUSTRATES THE MINIMUM SOIL EROSION AND SEDIMENTATION CONTROLS NEEDED TO PREVENT SILTS FROM LEAVING THE SITE AND IS SUBJECT TO CHANGE AS CONDITIONS IN THE FIELD WARRANT.
 2. SITE SOIL GENERALLY CONSISTS OF GRAVELLY SAND.
 3. TOPOGRAPHIC SURVEY PERFORMED BY KEM-TEC DATED 02/26/24.
 4. SOIL BORINGS PERFORMED BY G2 CONSULTING GROUP, LLC.



SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

CONTRACTOR SHALL ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PROTECT AGAINST LOSS OF SOIL BY THE ACTION OF WATER, ICE, GRAVITY AND WIND.

SUMMARY OF BASIC PRINCIPLES

1. KEEP DISTURBED AREA AS SMALL AS POSSIBLE.
2. STABILIZE AND/OR PROTECT DISTURBED AREAS AS SOON AS POSSIBLE.
3. KEEP STORM WATER RUNOFF VELOCITIES LOW.
4. RETAIN SEDIMENT WITHIN IMMEDIATE CONSTRUCTION AREA.

THE PURPOSE OF THIS PLAN IS TO SPECIFY METHODS FOR TEMPORARY EROSION CONTROL DURING CONSTRUCTION. IT IS INTENDED THAT MEASURES CALLED FOR IN THE SPECIFICATIONS AND SHOWN ON THESE PLANS BE STRICTLY ADHERED TO. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT CONSTRUCTION PROCEDURES UNDERTAKEN ARE IN CONFORMANCE WITH PART 91 OF ACT 451 OF 1994 THE STATE OF MICHIGAN'S SOIL EROSION AND SEDIMENTATION CONTROL ACT.

ALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE REGULARLY MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COLLECTED SILT AND SEDIMENTATION SHALL BE REMOVED PERIODICALLY TO MAINTAIN THE EFFECTIVENESS OF THE SILT TRAPS OR SEDIMENTATION CONTROL DEVICES. WHERE REQUIRED, THE CONTRACTOR SHALL REMOVE AND REPLACE FILTER MATERIALS WHICH HAVE BECOME INEFFECTIVE DUE TO CONTAMINATION OR PHYSICAL DETERIORATION.

ALL TEMPORARY EROSION CONTROL FACILITIES SHALL BE REMOVED BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION UNLESS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE SILTATION IN NEARBY DRAINAGE COURSES.

SURFACE DISRUPTION IN ADVANCE OF CONSTRUCTION INCLUDING CLEARING, GRADING OR SIGNIFICANT SOD REMOVAL SHALL BE PROCEEDED BY INSTALLATION OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES AS FOLLOWS, UNLESS PERMISSION IS OTHERWISE OBTAINED FROM THE GOVERNING AGENCY.

- A. WET WEATHER SEASON (MARCH, APRIL, MAY) - 5 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- B. DRY WEATHER SEASON (JUNE, JULY, AUGUST, SEPTEMBER, OCTOBER, NOVEMBER) - 10 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.
- C. COLD WEATHER SEASON (DECEMBER, JANUARY, FEBRUARY) - 15 DAYS PRIOR TO BEGINNING ANY EARTH CHANGE ACTIVITY.

MAINTENANCE NOTES

THE CONTRACTOR SHALL INSPECT SOIL EROSION AND SEDIMENTATION CONTROL DEVICES WEEKLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAIN EVENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

MAINTENANCE INCLUDES ALL WORK NECESSARY FOR PROPER OPERATION OF THE DEVICES. DEVICES WHICH CAN NOT BE REPAIRED SHALL BE REPLACED. MAINTENANCE OF THE DEVICES SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.

SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN THE EFFECTIVENESS OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.

SEDIMENT DEPOSITED ALONG SILT FENCE SHALL BE REMOVED WHEN IT REACHES 1/3 TO 1/2 THE HEIGHT OF THE FENCE AND PRIOR TO REMOVAL AT THE END OF THE PROJECT OR TIME OF FINAL REMOVAL.

TURF ESTABLISHMENT MEASURES SHALL BE MAINTAINED AS WOULD ANY OTHER DEVICES PRIOR TO ESTABLISHMENT OF PERMANENT TURF.

ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS FROM THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC
- EXISTING BOLLARD POST
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING HYDRANT
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT (HEAVY-DUTY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CRACK-FILL, SEAL AND REPAIR
- PROPOSED TRAFFIC STRIPING
- PROPOSED INLET FILTER
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED SILT FENCE
- LIMITS OF EARTH CHANGE
- SOIL BORING
- MATCHLINE

SOIL EROSION SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE, INLET FILTERS AND MUD MAT ON EXISTING CATCH BASINS. ESTIMATED DATE: 06/2024
2. DEMOLISH THE SITE PER THE PLANS. ESTIMATED DATE: 06/2024 THRU 09/2024
3. CONSTRUCT SITE FEATURES PER THE PLANS ESTIMATED DATE: 06/2024 TO 09/2024
4. STABILIZE DISTURBED AREAS AS NOTED ON THE PLANS WITHIN 5 DAYS OF FINAL GRADING. ESTIMATED DATE: 09/2024
5. RESTORE ALL OFF-SITE AREAS TO PRE-CONSTRUCTION CONDITION FOLLOWING SITE CONSTRUCTION.
6. CLEAN PAVEMENT AND SEWERS AS NECESSARY (SCRAPE DAILY, SWEEP MIN. 1 PER WEEK). A CERTIFIED STORM WATER OPERATOR SHALL INSPECT ALL SESC MEASURES ON A WEEKLY BASIS AND AFTER SIGNIFICANT RAIN EVENTS TO ENSURE THE SESC MEASURES ARE ADEQUATE.
7. REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS FOLLOWING SITE CONSTRUCTION, FINAL STABILIZATION OF WORK, AND FINAL INSPECTION. ESTIMATED DATE: 09/2024

TEMPORARY FACILITIES

THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH PART 91 OF ACT NO. 451 OF 1994, OF THE MICHIGAN COMPILED LAWS ENTITLED "SOIL EROSION AND SEDIMENTATION CONTROL" UNDER THE CONTROL OF THE LOCAL PERMIT AGENCY CHARGED WITH ADMINISTERING THE PROVISIONS OF THIS ACT. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES DELINEATED BELOW AND IN THE PROJECT SPECIFICATIONS AND CONSTRUCT AND MAINTAIN THE FACILITIES SHOWN ON THE DRAWINGS TO CONTROL WATER AND WIND EROSION DURING CONSTRUCTION OF THIS PROJECT.

ALL DISTURBED SURFACE AREA (INCLUDING UTILITY TRENCHES) SHALL BE TEMPORARILY GRADED AND/OR DITCHED TO DIRECT ALL WATER RUNOFF FROM SUCH AREAS TO SEDIMENTATION CONTROL DEVICES WHICH WILL PREVENT WATER CARRYING ERODED SOIL FROM ENTERING A WATERCOURSE, SEWER, ADJACENT LANDS, AND ROADWAYS. SUCH SEDIMENTATION CONTROL DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, PROTECTIVE DITCHES, SEDIMENT TRAPS, SEDIMENT FILTERS, DITCH TRAPS, PIPE BARRIERS, AND FILTERS AS DETAILED AND REQUIRED AND WHERE INDICATED ON THE DRAWINGS. AFTER THE PROJECT WORK HAS BEEN COMPLETED, INSPECTED, AND APPROVED, THE CONTRACTOR SHALL REMOVE ALL SEDIMENTATION CONTROL DEVICES, MATERIAL, AND THEIR COLLECTED SILT AND DEBRIS AND RESTORE THE AREA IN ACCORDANCE WITH THE DRAWINGS.

TEMPORARY AGGREGATE SURFACING SHALL BE PLACED IN ROADWAY AREAS IMMEDIATELY AFTER THE BACKFILLING OPERATION HAS BEEN COMPLETED. POSITIVE DUST CONTROL MEASURES SHALL BE TAKEN AT ALL TIMES.

PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 5 DAYS OF FINAL EARTH CHANGE. FINAL CLEANUP AND RESTORATION WILL CONSIST OF FINAL GRADING, TOPSOILING, SEEDING AND MULCHING AND/OR SODDING OF ALL DISTURBED AREAS OF THE PROJECT.

IF SEASONAL CONDITIONS PREVENT FINAL CLEANING AND RESTORATION, THE CONTRACTOR SHALL PROCEED WITH TEMPORARY STABILIZATION OF THE DISTURBED AREA. TEMPORARY STABILIZATION SHALL CONSIST OF ROUGH GRADING THE DISTURBED AREA IN ACCORDANCE WITH THESE SPECIFICATIONS AND INSTALLING THE SPECIFIED SOIL EROSION AND SEDIMENTATION CONTROL DEVICES. TEMPORARY STABILIZATION MATERIALS SHALL BE REMOVED AND DISPOSED OF AND FINAL CLEANUP AND RESTORATION SHALL BE COMPLETED NOT LATER THAN 5 DAYS AFTER SEASONAL CONDITIONS ALLOW PERFORMANCE OF THE REQUIRED WORK.

BULLETIN NO. 1

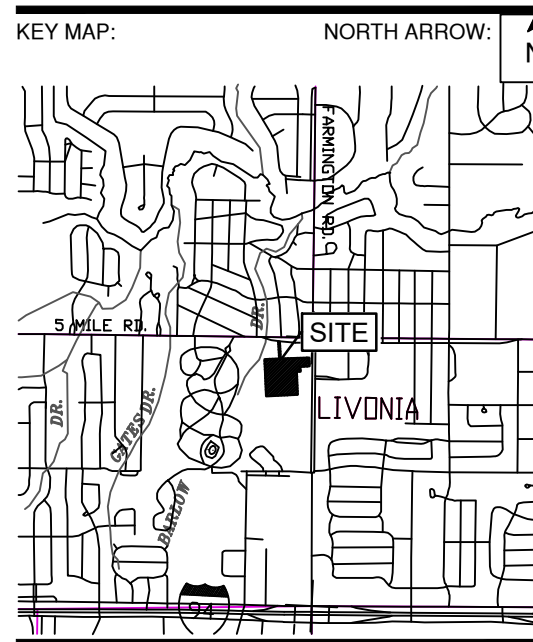


NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)



SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

PROJECT NAME:
**LPS CENTRAL OFFICE
PAVEMENT - PHASE 1**

PROJECT LOCATION:
**15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150**

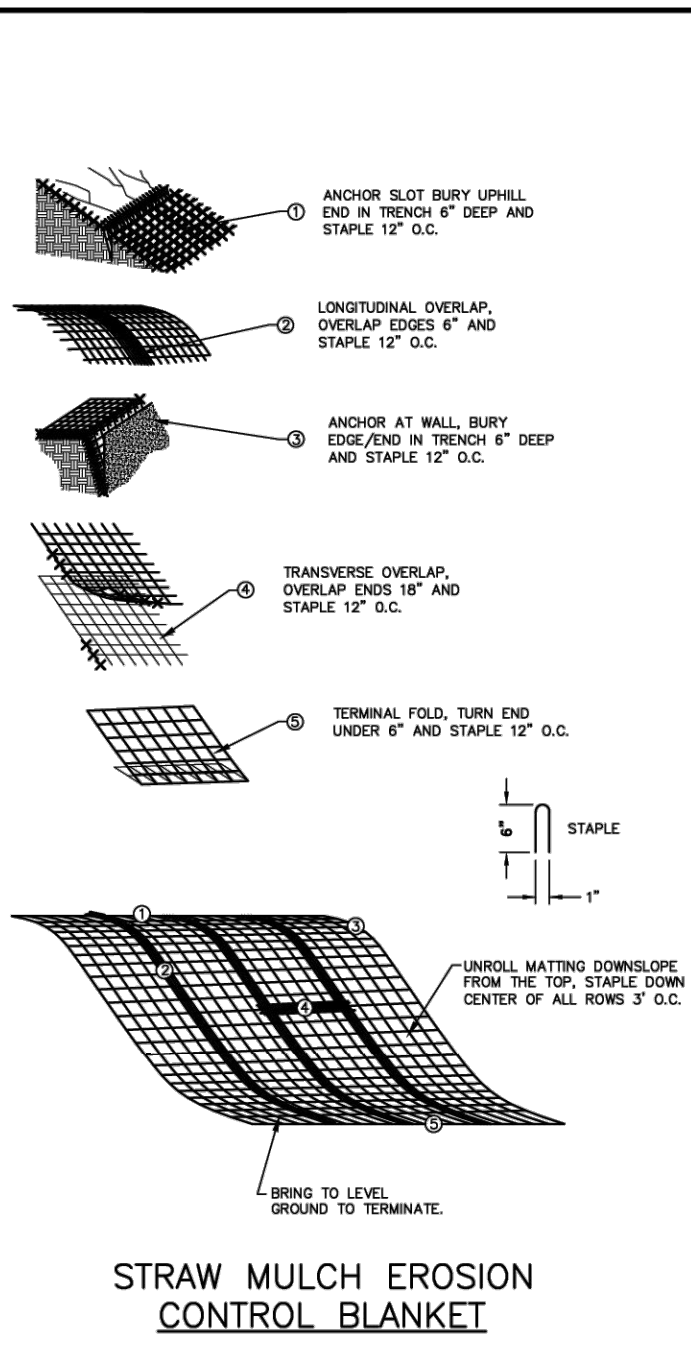
DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
**SOIL EROSION &
SEDIMENTATION
CONTROL PLAN**

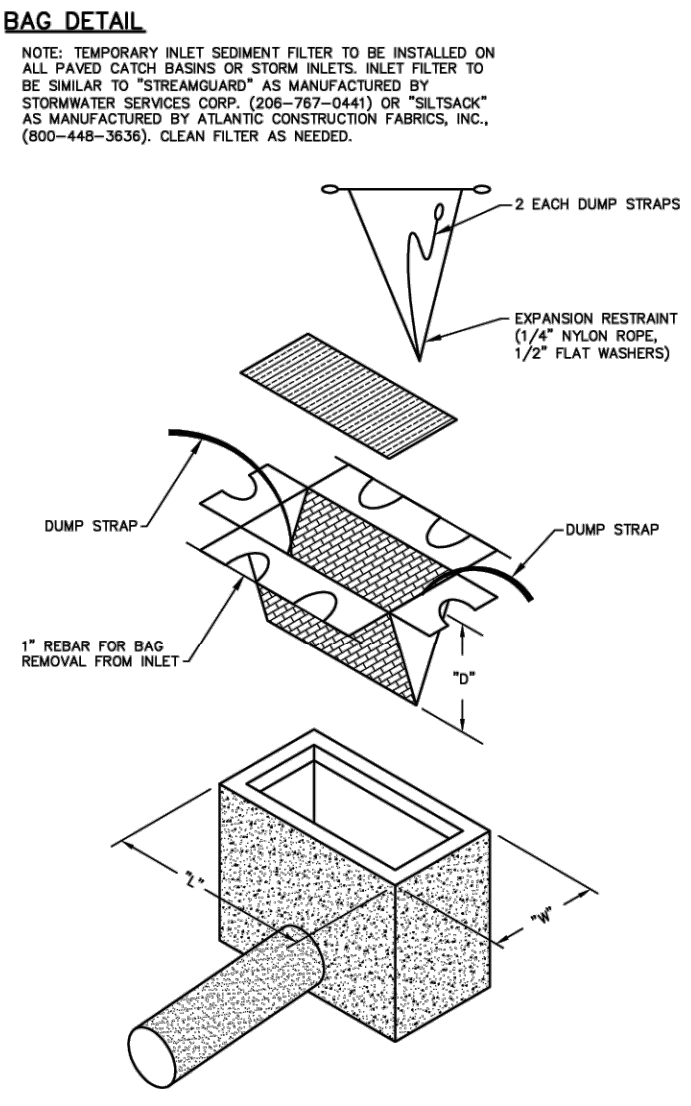
SHEET NUMBER:

C-102

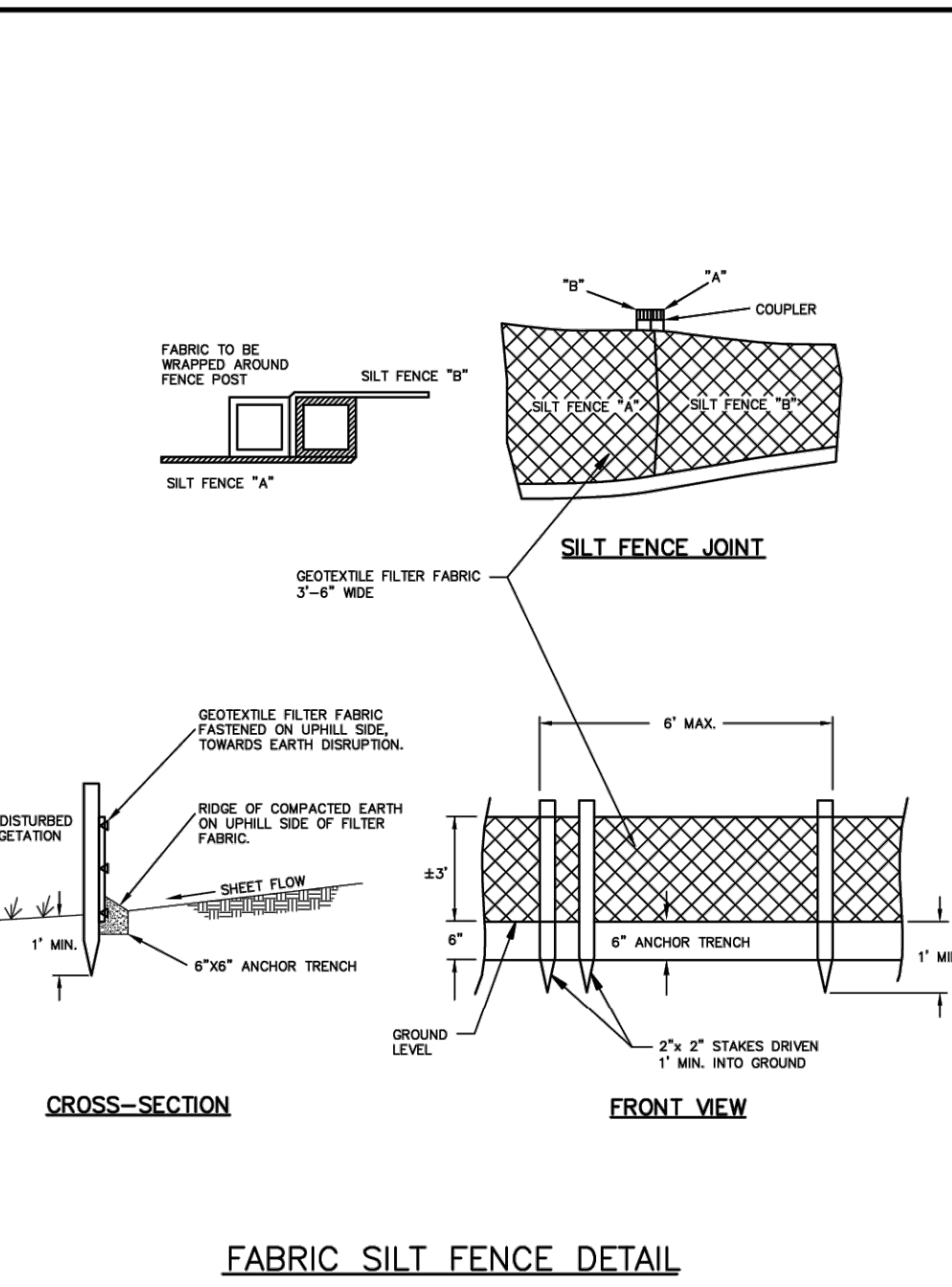
J:\2023\23001951\production\sheet\pavement\phase 1\23001951-nsec.dwg Plotted: 5/2/2024 9:29 AM by Kella Houston



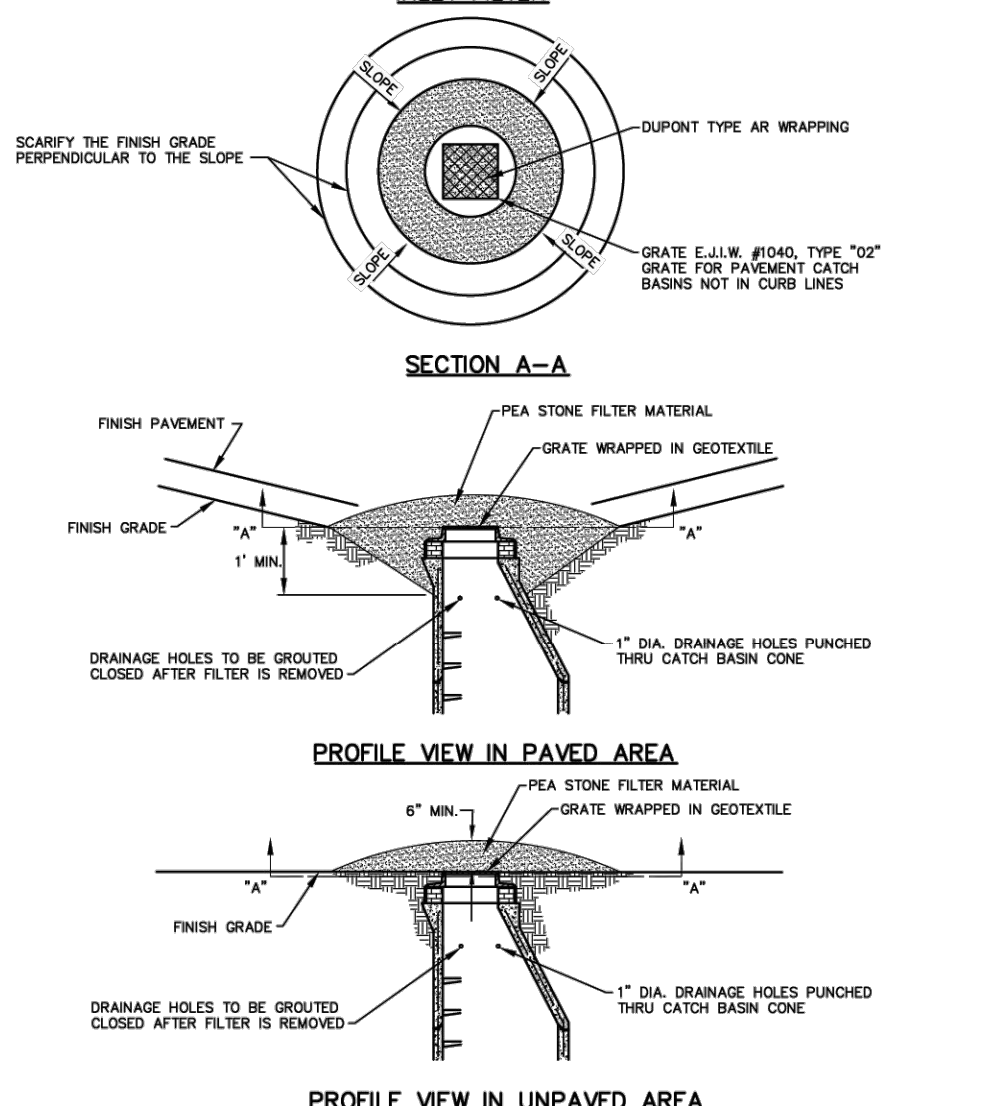
STRAW MULCH EROSION CONTROL BLANKET



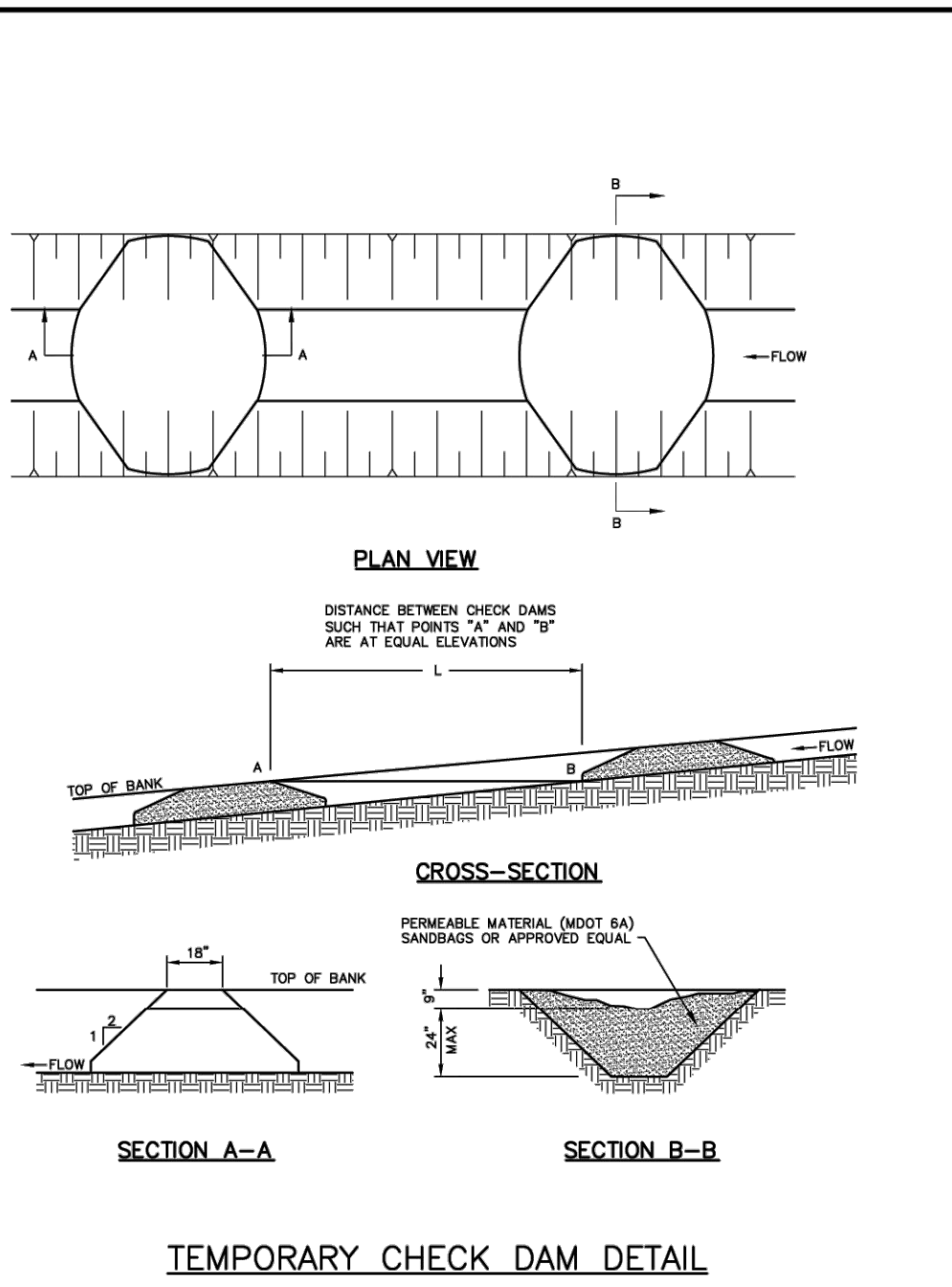
SILTSACK SEDIMENT FILTER DETAIL



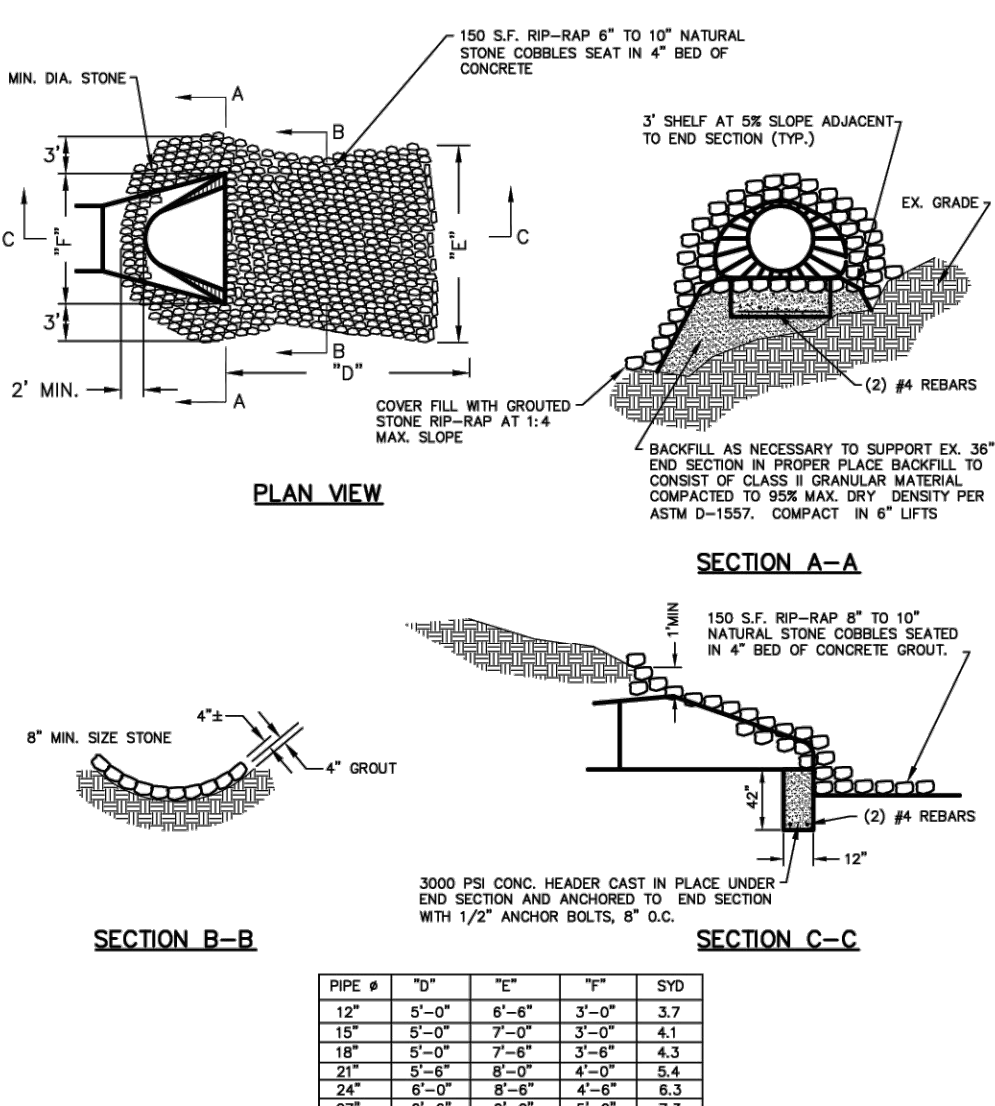
FABRIC SILT FENCE DETAIL



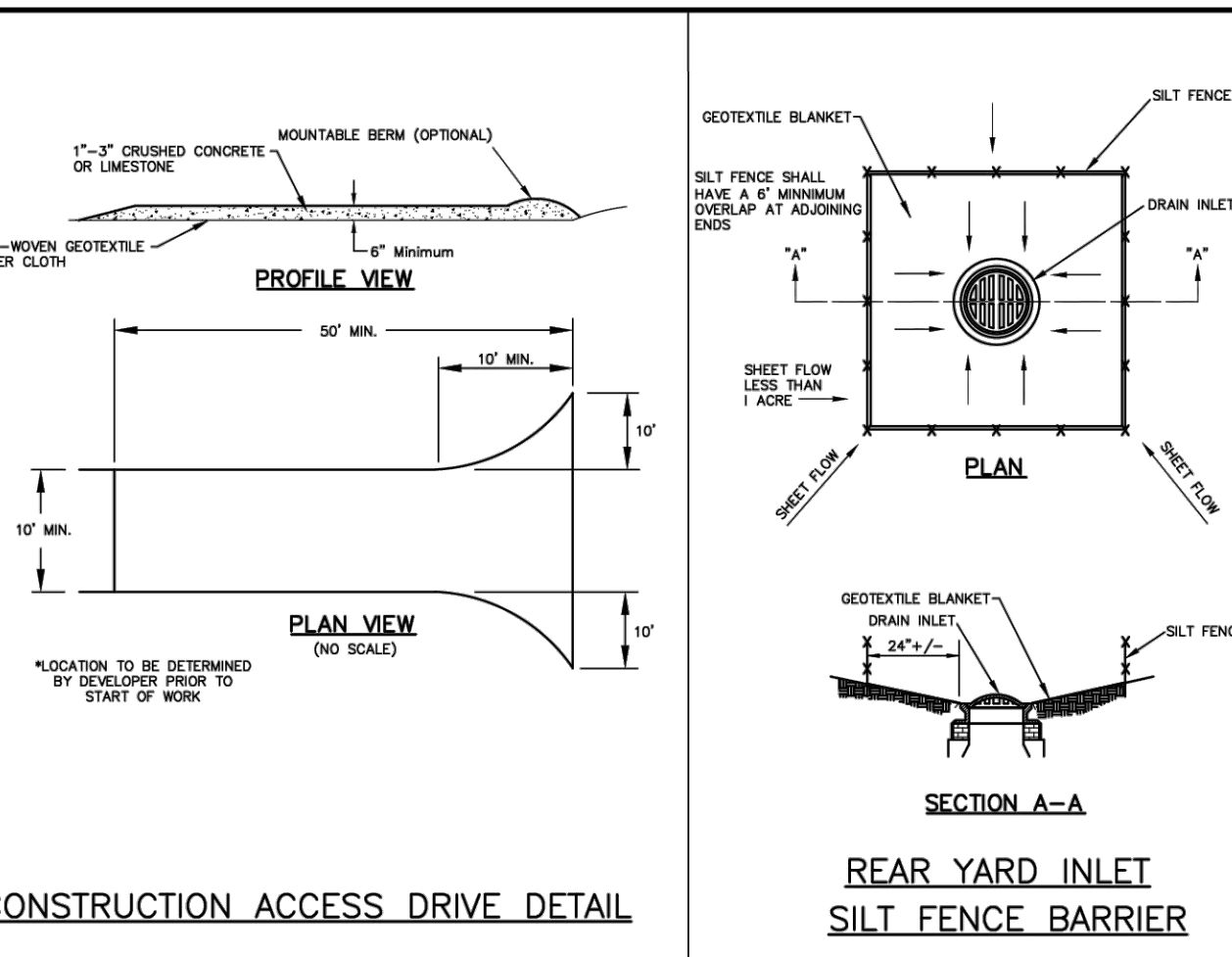
INLET FILTER DETAILS FOR SOIL EROSION & SEDIMENTATION CONTROL



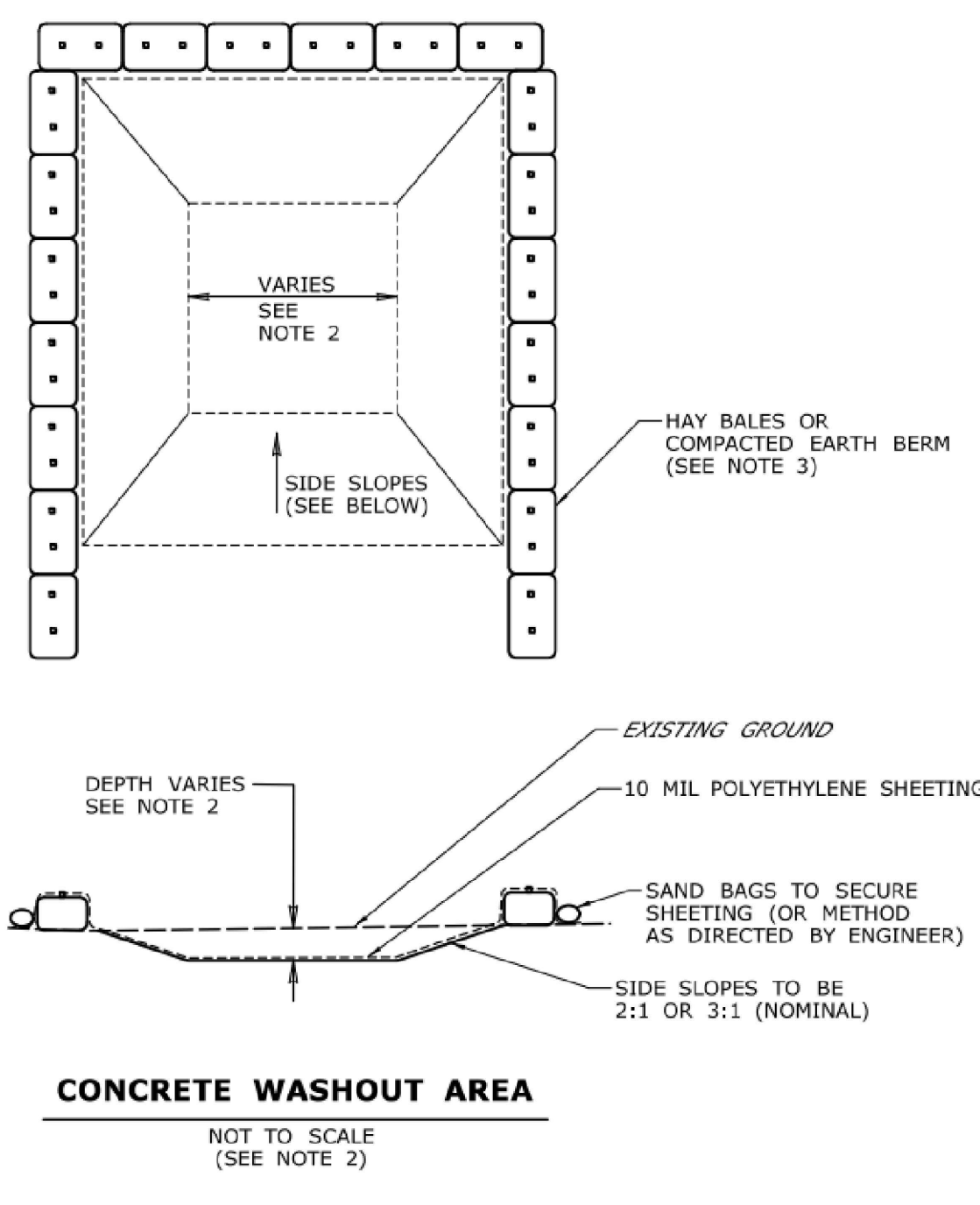
TEMPORARY CHECK DAM DETAIL



STORM OUTLET DETAIL WITH GROUTED STONE RIP-RAP



- SOIL EROSION AND SEDIMENTATION CONTROL MAINTENANCE SCHEDULE AND NOTES:**
- ALL MUD, DIRT, AND/OR DEBRIS TRACKED OR SPILLED ONTO ANY PAVED AREAS SHALL BE REMOVED/CLEANED DAILY IN A PROMPT MANNER BY THE CONTRACTOR AND/OR BUILDER. SCRAPING AND/OR SWEEPING OF PAVED AREAS TO REMOVE DEBRIS WILL BE REQUIRED WEEKLY.
 - SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE HEIGHT OF THE SEDIMENT ACCUMULATES TO $\frac{1}{2}$ TO $\frac{3}{4}$ OF THE HEIGHT OF THE FENCE OR IF THE FABRIC BEGINS TO SAG. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL, REPLACEMENT, RETRENCHING AND BACKFILLING OF THE SILT FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.
 - SILT SACK MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SEDIMENTATION OR OTHER DEBRIS FROM THE SILT SACK. THE REMOVAL OF SEDIMENTATION SHOULD BE ACCOMPLISHED BY USING A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF SILT SACKS CANNOT BE CLEANED, OR ARE DAMAGED, THEY MUST BE REPLACED ACCORDING TO THE PLANS.
 - PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH CHANGES HAVE BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED, OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASED, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN 5 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND/OR ESTABLISHED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED. ALL DRAIN BANKS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITHIN 5 CALENDAR DAYS AND SOO PEGGED IN PLACE.
 - FILTER BARRIERS AND LOW POINT INLET FILTERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - IF ANY FILTER FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, AND THE BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY. FILTER FENCING WHICH SAGS, FALLS OVER OR IS NOT STAKED IN, SHOULD PROMPTLY REPAIRED OR REPLACED.
 - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
 - ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES BOTH PERMANENT AND TEMPORARY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, UNLESS OTHERWISE NOTED. THESE MAINTENANCE RESPONSIBILITIES SHALL BE PART OF ANY FUTURE SALES AGREEMENT.
 - EXCAVATED MATERIALS SHALL REMAIN ON-SITE. PARTICULAR CARE SHOULD BE TAKEN WHEN WORKING ALONG THE PERIMETER OF THE SITE. IN NO EVENT SHALL THE WORK AREA EXTEND BEYOND THE LIMITS INDICATED ON THE PLANS.
 - ALL SOIL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF WAYNE COUNTY AND THE CITY OF LIVONIA.
 - DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
 - EROSION AND/OR SEDIMENT FROM ON-SITE WORK SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
 - SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION. SESC PRACTICES SHALL BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTING OF SILT OFF-SITE.
 - THE CONTRACTOR SHALL APPLY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED, AND AS DIRECTED ON THESE PLANS. TEMPORARY MEASURES SHALL BE REMOVED AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGES HAVE BEEN ACCOMPLISHED AND APPROVED BY THE CITY OF LIVONIA ENGINEERING DIVISION.
 - DEBRIS FROM THE PROJECT SITE SHALL BE LEFT ON-SITE BY DELIVERY OR CONSTRUCTION VEHICLES THROUGH THE USE OF CLEAN STONE EXITS(S). SHOULD THE STONE BECOME LESS EFFECTIVE AND/OR EFFICIENT IT SHALL BE REPLACED. ALL CONSTRUCTION TRAFFIC MUST USE THE CLEAN STONE EXIT(S).
 - DUST CONTROL SHALL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE DEVELOPER AND/OR HIS CONTRACTORS. SPRINKLING TANK TRUCKS MUST BE AVAILABLE AT ALL TIMES TO BE USED ON HAUL ROUTES OR OTHER PLACES WHERE DUST MAY BECOME A PROBLEM.
 - EARTH EMBANKMENT BRIDGES PLACED OVER NEW PAVEMENT SHALL BE LOCATED ONLY AT PAVEMENT HIGH-POINTS AND SHALL HAVE STRAW BALES PLACED ALONG EACH SIDE OF THE BRIDGE FOR THE WIDTH OF PAVEMENT.
 - IMMEDIATELY AFTER SEEDING, ALL SEEDED AREAS SHALL BE MULCHED WITH UNWEATHERED SMALL GRASS STRAW OR HAY, SPREAD UNIFORMLY AT THE RATE OF $\frac{1}{2}$ TONS TO 2 TONS PER ACRE OR 100 POUNDS PER 1000 SQUARE FEET. ANCHOR MULCH WITH DISC-TYPE ANCHORING TOOL, OR OTHER MEANS APPROVED BY THE CITY OF LIVONIA ENGINEERING DIVISION.



CONCRETE WASHOUT AREA
NOT TO SCALE
(SEE NOTE 2)


- CONCRETE WASHOUT AREA NOTES:**
- CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
 - THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.
 - SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
 - SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE WASHOUT OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD, AS NECESSARY.
 - WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
 - HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.
 - PAYMENT FOR THIS ITEM IS TO BE INCLUDED UNDER THE GENERAL COST OF THE WORK FOR THE PROJECT, INCLUDING SITE RESTORATION.
 - CONCRETE WASHOUT AREA(S) ARE TO BE REMOVED UPON COMPLETION OF THE JOB AND THE AREA RESTORED TO PREVIOUS SITE CONDITIONS, IN-KIND.



CITY OF LIVONIA
Department of Public Works, Engineering Division
15125 Farmington Road, Livonia, Michigan 48154
(734) 466-2570, (734) 466-2185 Fax

SOIL EROSION & SEDIMENTATION CONTROL
Standard Detail Sheet


DATE: 1/23/2023
REV. DATE: 5/2/2024
REV. BY: Kella Houston
REV. NO.: 1
JOB No.: 23001951
PROJECT: LPS CENTRAL OFFICE PAVEMENT - PHASE 1
SHEET: 1 OF 1
SHEET SIZE: ARCH D (24"x36")
SHEET NO.: 1
SHEET DATE: 5/2/2024
SHEET BY: Kella Houston
SHEET CHECKED: Kella Houston
SHEET APPROVED: Kella Houston
SHEET SCALE: AS SHOWN
SHEET TITLED: SESC Standard Details



NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI
Detroit, MI
Livonia, MI (Laboratory)

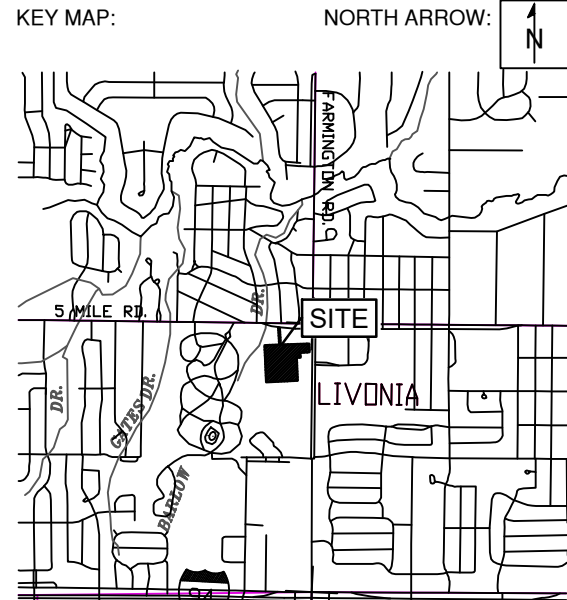
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For the location of public utility lines.
ALTERNATE NUMBER (811)
YOUR CODES FOR UTILITY LOCATING:
Yellow Orange Blue Red
Digging Phone & Gas Water
Ramp Electric Storm Drain
If you are going to work near overhead wires - call MISS DIG



LIVONIA PUBLIC SCHOOLS

SEAL/STAMP:

KEY MAP: NORTH ARROW: N



REVISION BLOCK

REV	DATE	DESCRIPTION
1	2024-07-18	REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

PROJECT NAME:
LPS CENTRAL OFFICE PAVEMENT - PHASE 1

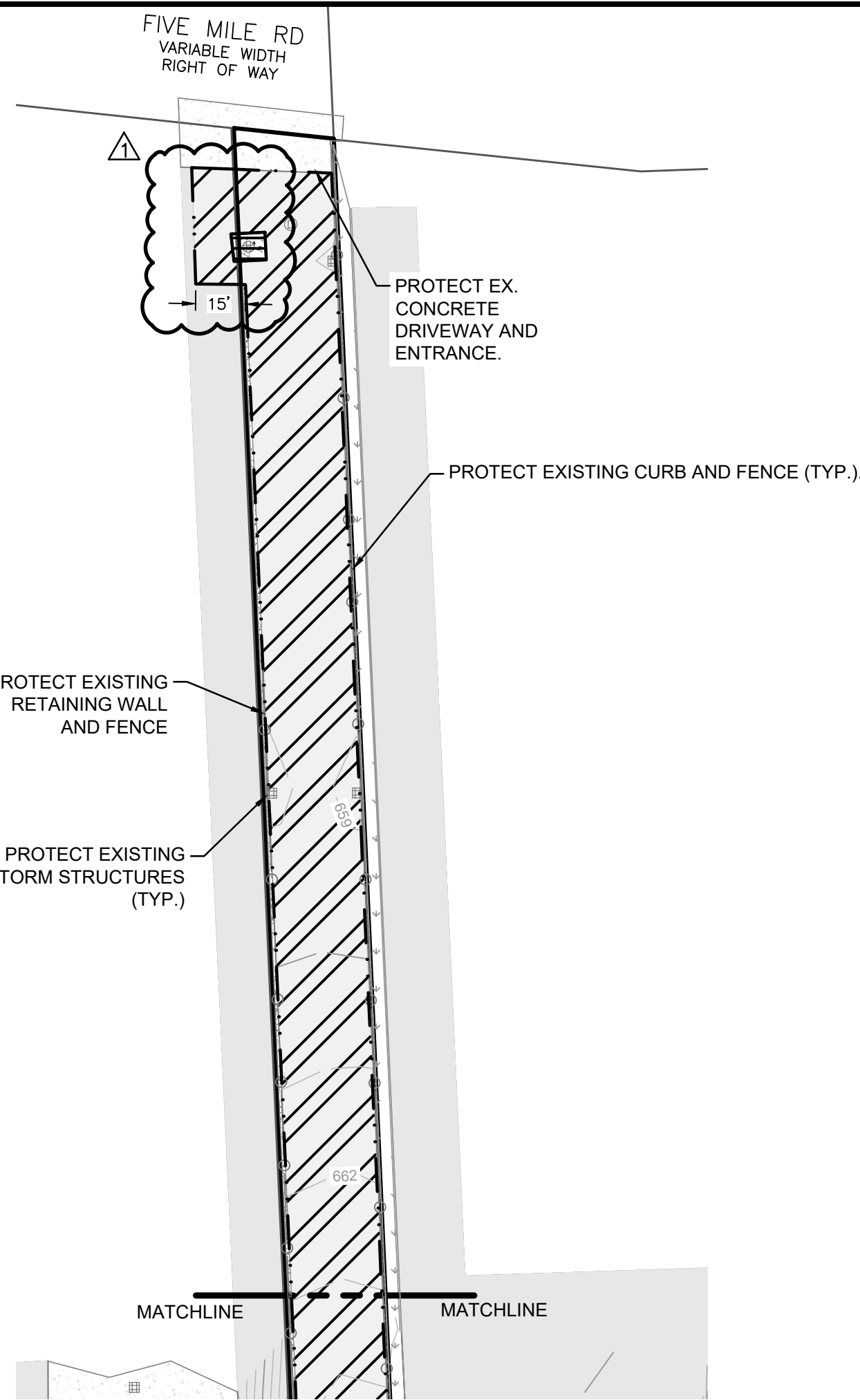
PROJECT LOCATION:
**15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150**

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
SESC STANDARD DETAILS

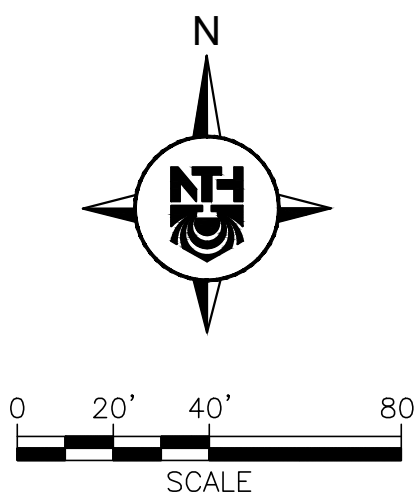
SHEET NUMBER:
C-103

BULLETIN NO. 1



LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING GUARDRAIL
- EXISTING BOLLARD POST
- EXISTING ELECTRICAL OVERHEAD
- EXISTING ELECTRICAL UNDERGROUND
- EXISTING LIGHT POLE
- EXISTING GAS UNDERGROUND
- EXISTING SANITARY SEWER
- EXISTING SANITARY STRUCTURE
- EXISTING STORM CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING STORM SEWER
- EXISTING TELEPHONE UNDERGROUND
- EXISTING WATER MAIN
- EXISTING HYDRANT
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING CONCRETE TO BE REMOVED
- PROPOSED CRACK-FILL, SEAL REPAIR
- PROPOSED FULL DEPTH ASPHALT REMOVAL
- SAWCUT
- EXISTING SIGN TO BE REMOVED
- EXISTING POST TO BE REMOVED
- EXISTING BOLLARD SLEEVE TO BE REMOVED AND PREPLACED



DEMOLITION NOTES

- LANDSCAPING SHALL NOT BE REMOVED UNLESS SPECIFIED ON PLANS. CONTRACTOR SHALL PROTECT AS NECESSARY DURING DURATION OF CONSTRUCTION.
- LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON -SITE, PRIOR TO CONSTRUCTION.
- UTILITIES AND ASSOCIATED STRUCTURES SHALL NOT BE REMOVED UNLESS SPECIFIED ON PLANS. CONTRACTOR SHALL FIELD VERIFY AND PROTECT ALL EXISTING UTILITY STRUCTURES AN SEWERAGE DURING THE DURATION OF CONSTRUCTION. PROVIDE FOR TEMPORARY BYPASS OF SEWERAGE AS REQUIRED TO FACILITATE CONSTRUCTION.
- ALL EXISTING ASPHALT TO BE REMOVED SHALL BE MILLED AND TRANSPORTED OFF-SITE TO LOCATIONS SUITABLE FOR PROPER DISPOSAL IN ACCORDANCE WITH ALL APPLICABLE ENVIRONMENTAL REGULATIONS.
- ALL STORM AND SANITARY SEWERAGE AND ASSOCIATED STRUCTURES SHALL BE CLEANED AND OPERABLE PRIOR TO CONSTRUCTION AND AGAIN AFTER CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL PROVIDE A LETTER DETAILING THAT ALL STORM AND SANITARY STRUCTURES AND SEWERS HAVE BEEN CLEANED AND ARE FREE FLOWING.
- ALL EXCESS MATERIALS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS.
- ALL EXISTING SIGNAGE SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
- AT LEAST ONE ENTRY AND EXIT TO PARKING LOTS TO REMAIN OPEN DURING CONSTRUCTION AT ALL TIMES.

BULLETIN NO. 1

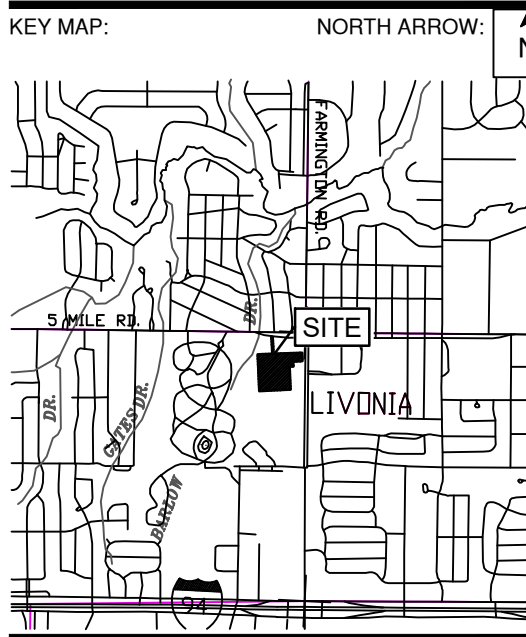


NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)



SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

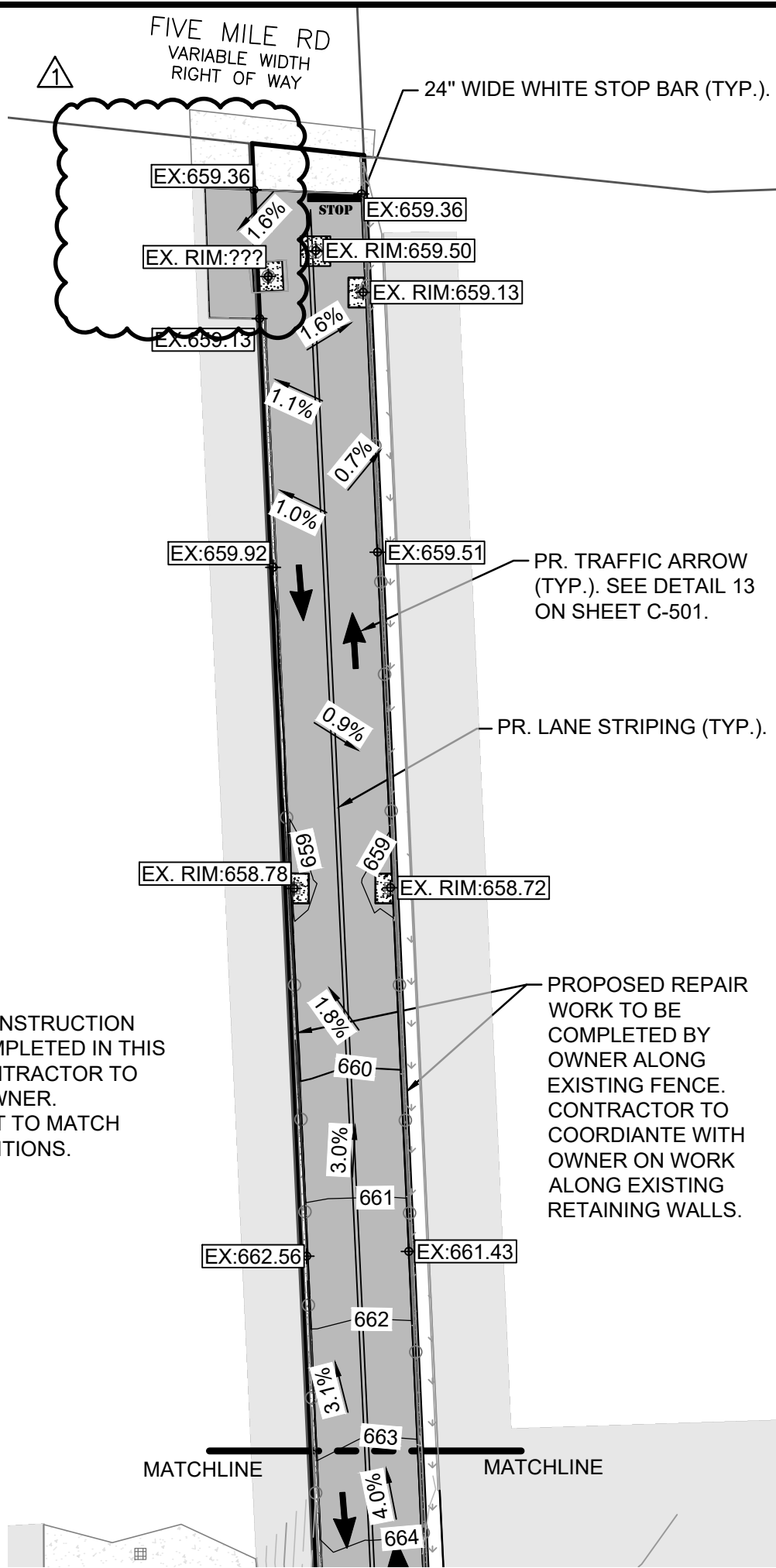
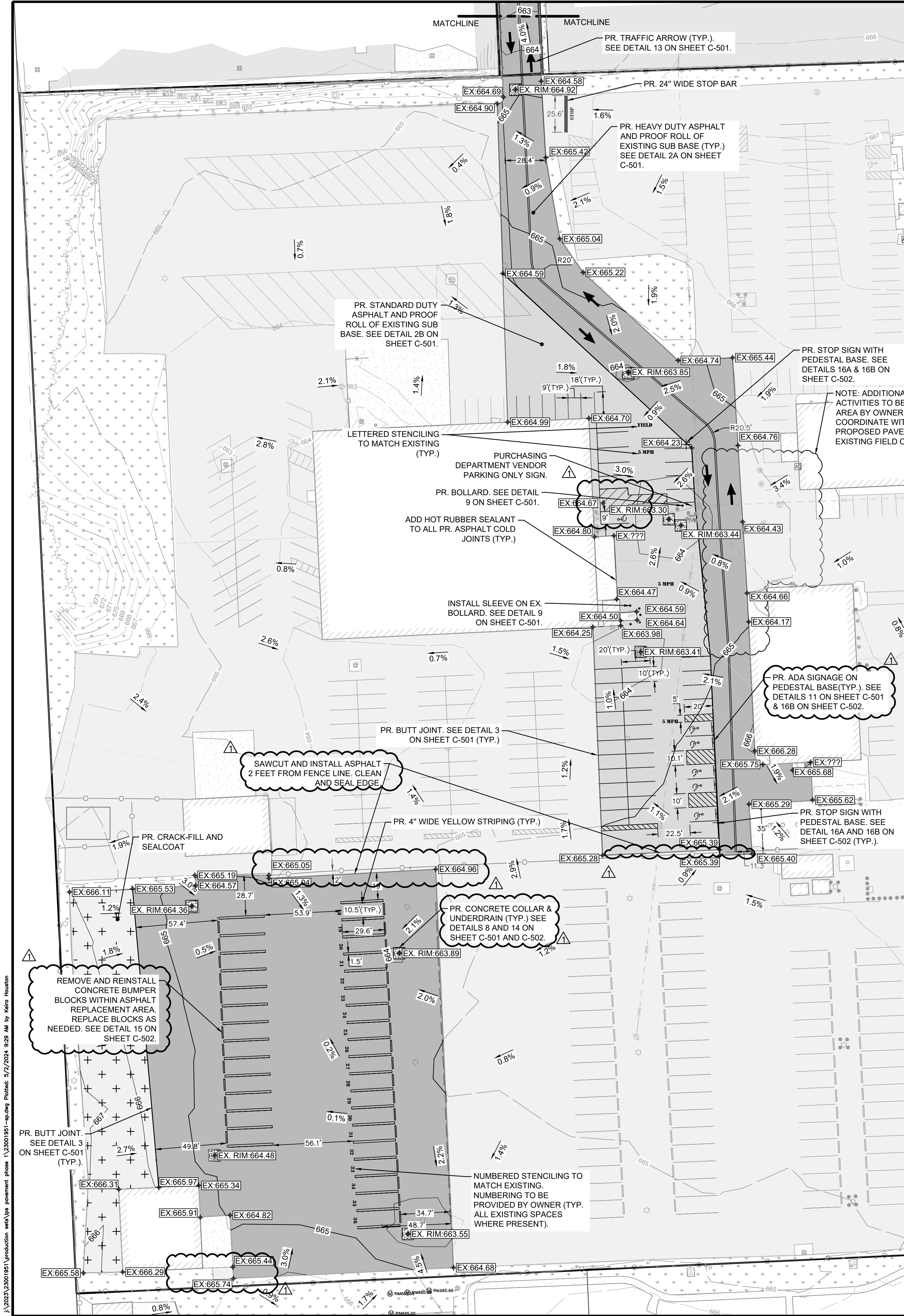
PROJECT NAME:
**LPS CENTRAL OFFICE
PAVEMENT - PHASE 1**

PROJECT LOCATION:
**15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150**

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
DEMOLITION PLAN

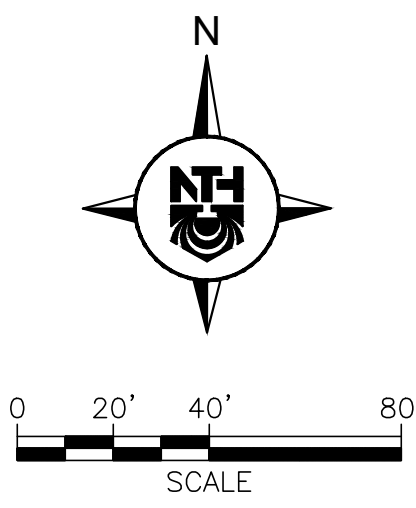
SHEET NUMBER:
C-104



SCALE: 1" = 10'

LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING BUILDING
- EXISTING CONTOURS
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING LANDSCAPING/LAWN AREA
- EXISTING FENCE
- EXISTING GUARDRAIL
- EXISTING BOLLARD POST
- EXISTING ELECTRICAL OVERHEAD
- EXISTING LIGHT POLE
- EXISTING STORM CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING SANITARY STRUCTURE
- EXISTING UNKNOWN UTILITY MANHOLE
- EXISTING HYDRANT
- PROPOSED CONTOURS
- PROPOSED SLOPE ARROW
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING RIM SPOT ELEVATION
- PROPOSED ASPHALT PAVEMENT (STANDARD-DUTY)
- PROPOSED ASPHALT PAVEMENT (HEAVY-DUTY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CRACK-FILL AND SEAL
- PROPOSED LANDSCAPE RESTORATION
- PROPOSED TRAFFIC STRIPING
- PROPOSED BOLLARD SLEEVE
- PROPOSED SIGN



GENERAL NOTES

- TOPOGRAPHIC SURVEY WAS PERFORMED BY BY KEM-TEC & ASSOCIATES ON FEBRUARY 26, 2024.
- LOCATION OF UTILITIES OR OTHER STRUCTURES SHOWN ON PLANS ARE TAKEN FROM SURVEY OF RECORD. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS. THE CONTRACTOR SHALL CONTACT MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION IN THE AREA OF WORK AND SHALL VERIFY ALL UNDERGROUND UTILITIES ON-SITE, PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL AND SIGNAGE TO MAINTAIN ACCESS TO AND WITHIN PROPERTY THROUGHOUT CONSTRUCTION IN ACCORDANCE WITH LOCAL, COUNTY AND STATE REQUIREMENTS OR AS DIRECTED BY ENGINEER. CONTRACTOR SHALL PROVIDE APPROPRIATE BARRICADES AROUND WORK AREAS FOR PEDESTRIAN AND VEHICULAR SAFETY.
- THE CONTRACTOR SHALL AVOID DAMAGE TO THE EXISTING PAVEMENTS DESIGNATED TO REMAIN. ANY PAVEMENT DAMAGE THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY CONSTRUCTION STAKING AND GRADE AND ALIGNMENT CONTROLS.
- ALL EXISTING SIGNAGE SHALL BE PROTECTED UNLESS OTHERWISE INDICATED ON PLANS.
- ALL AREAS OF EARTH DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED AND MULCHED WITH 3" TOPSOIL AND MDOT CLASS A SEED WHERE FINAL EARTH STABILIZATION MEASURES ARE NOT SPECIFICALLY DESIGNATED. SEE DETAIL 5 ON SHEET C-501.
- SPOT ELEVATIONS SHOWN ARE TOP OF PAVEMENT UNLESS OTHERWISE INDICATED.
- ALL PAVEMENT AREAS, EXISTING AND PROPOSED SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM DUMP TRUCK PRIOR TO PAVING. ANY UNSTABLE SUBGRADE SHALL BE REMOVED AND REPLACED WITH FILL COMPACTED TO 95% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR.

PAVEMENT MARKING TABLE			
MARKING	PAINT SPEC	SIZE	COATS/COLOR
PARKING STRIPES	SECTION 32 1723.13	4"	2/YELLOW
ADA PARKING STRIPES		4"	2/BLUE
ADA BUFFER STRIPING		4", 24" CENTER TO CENTER SPACING	2/BLUE
STOP/YIELD LINE		24"	2/WHITE
LETTERING		12" WIDTH X 18" TALL, 4" SPACING BETWEEN NUMBERS	2/YELLOW
NUMBERING		12" WIDTH X 18" TALL	2/YELLOW

BULLETIN NO. 1

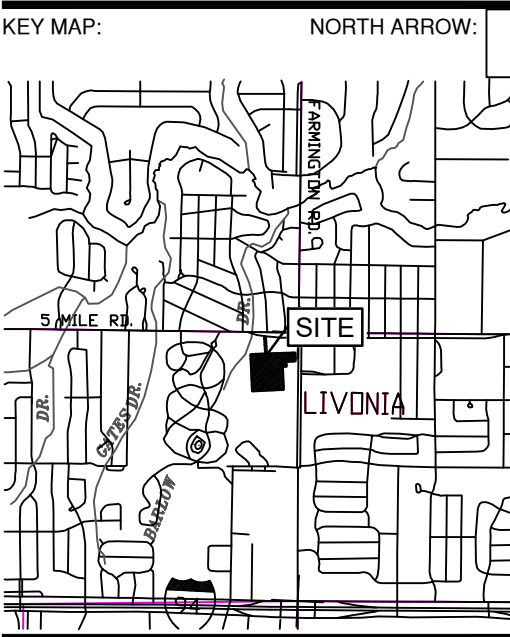


NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)



SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

PROJECT NAME:
**LPS CENTRAL OFFICE
PAVEMENT - PHASE 1**

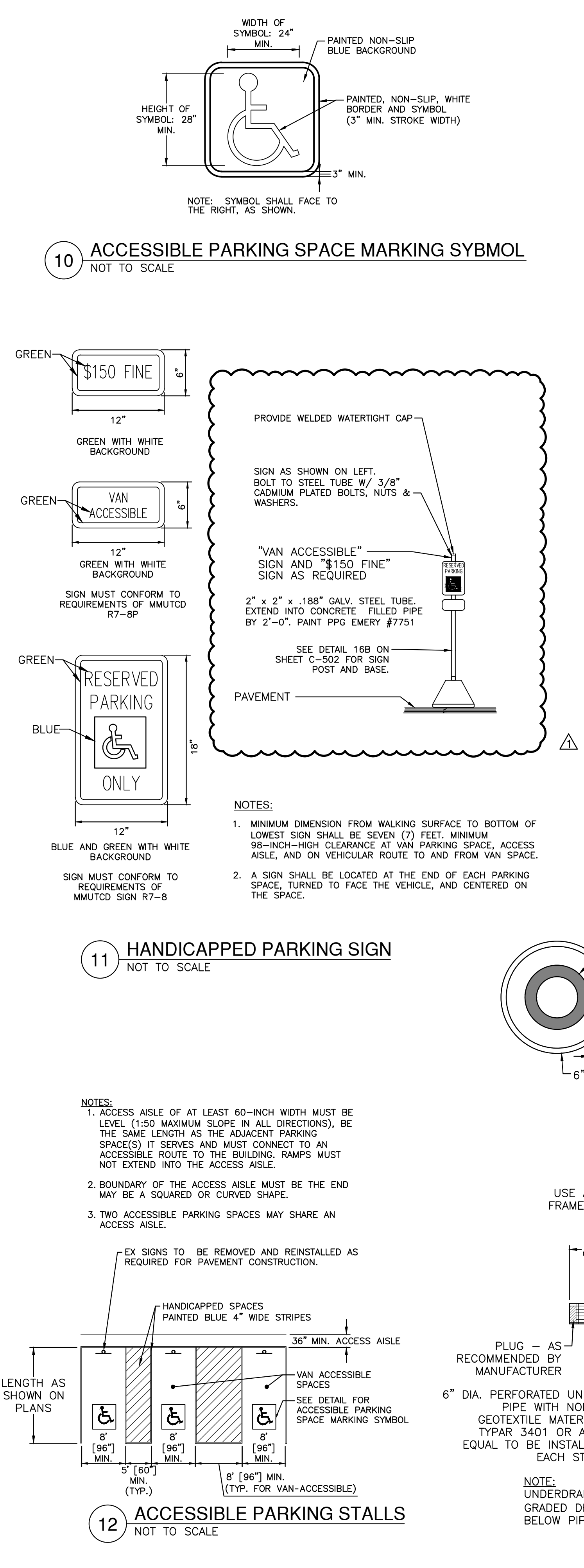
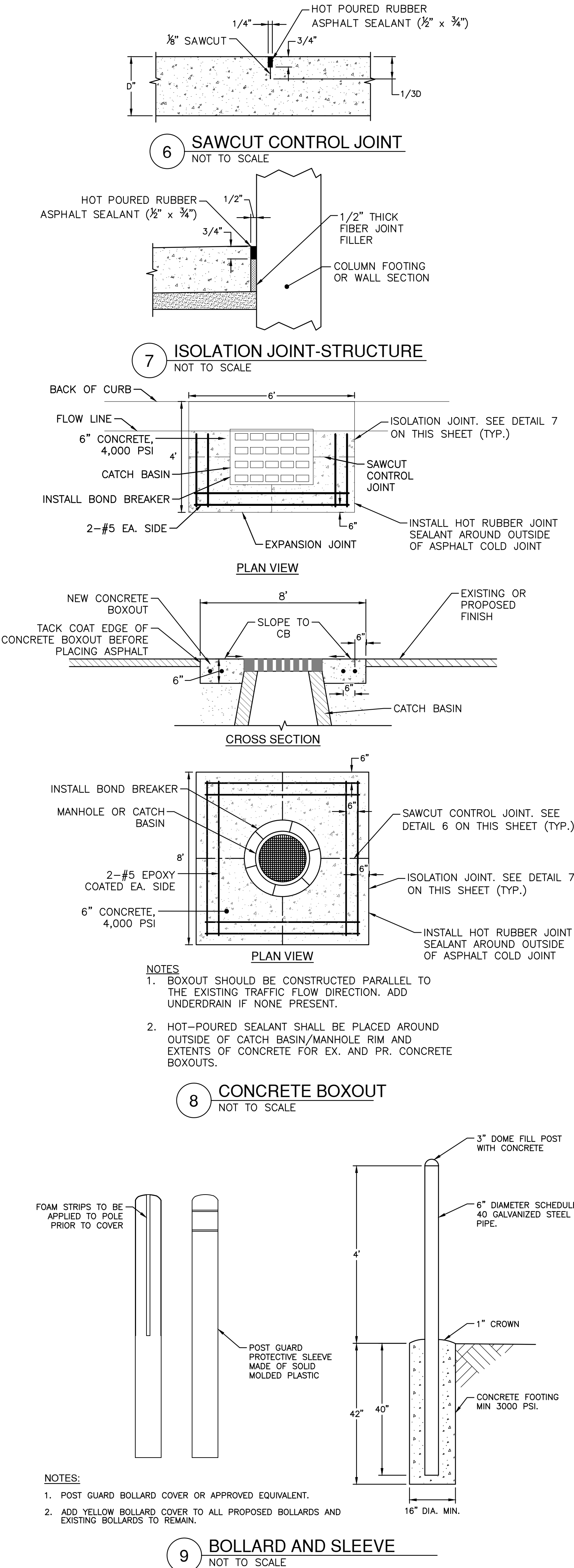
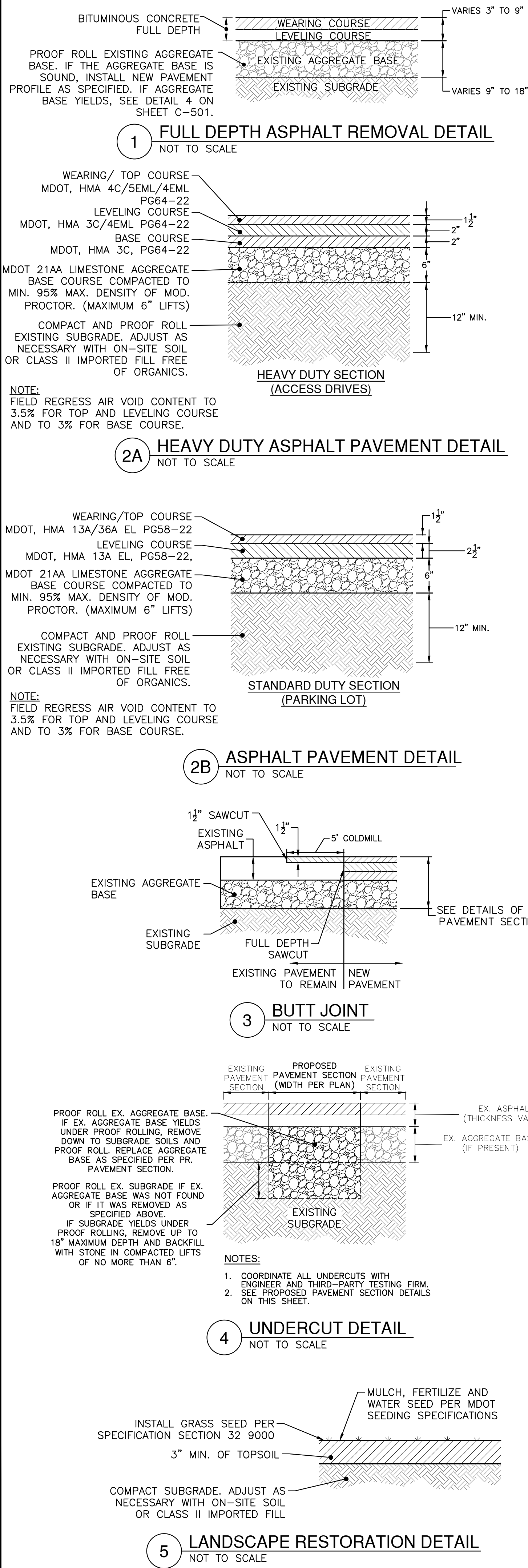
PROJECT LOCATION:
**15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150**

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
**PROPOSED SITE AND
GRADING PLAN**

SHEET NUMBER:
C-105

J:\2023\23001951\production\set\lps pavement phase 1\23001951-dwg.dwg Plotted: 5/22/2024 8:20 AM by Kaito Houston



BULLETIN NO. 1

NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI
Detroit, MI
Livonia, MI (Laboratory)

Lansing, MI
Grand Rapids, MI
Livonia, MI (Laboratory)

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For the location of public utility lines.
ALTERNATE NUMBER (811)
YOUR CODES FOR UTILITY LOCATING:
Yellow Digging
Blue Water
Red Gas
Green Electric
Purple Sewer
Pink Storm Drain
If you are going to work near overhead wires - CALL MISS DIG

SEAL/STAMP:

KEY MAP: NORTH ARROW: N

5 MILE RS
SITE
LIVONIA

REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

PROJECT NAME:
LPS CENTRAL OFFICE PAVEMENT - PHASE 1

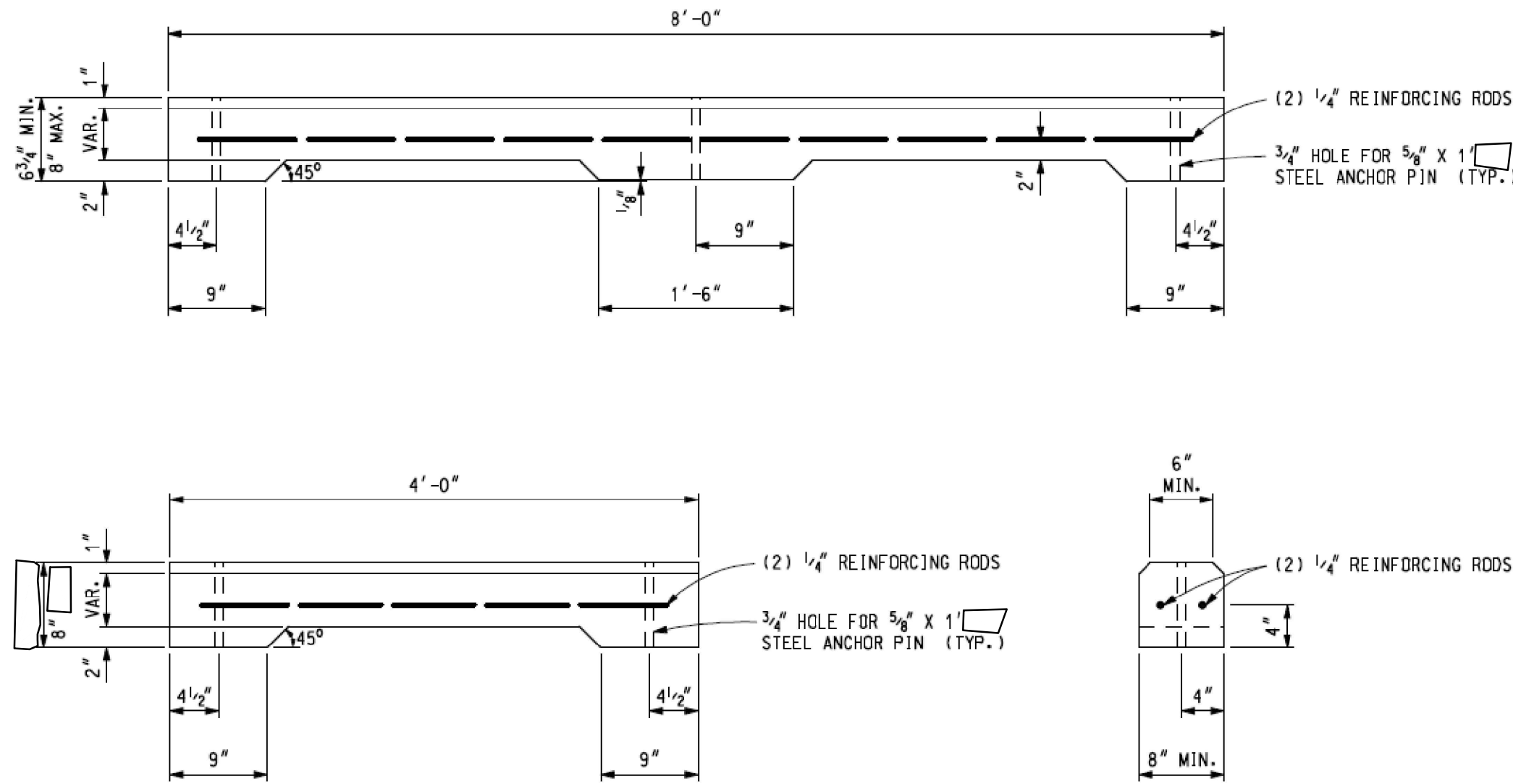
PROJECT LOCATION:
**15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150**

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
CIVIL DETAILS (1 OF 2)

SHEET NUMBER:
C-501

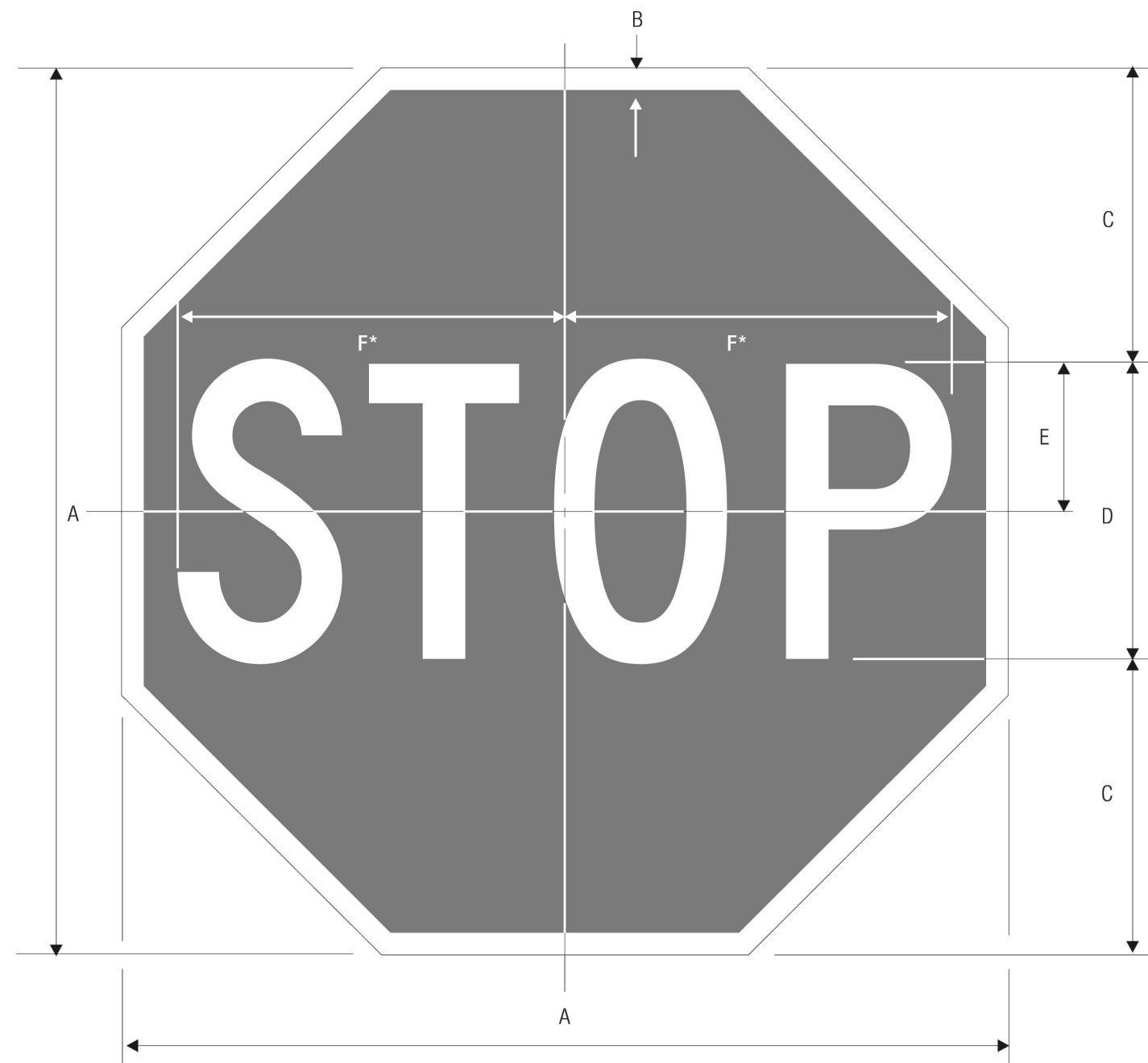
J:\2023\23001951\production\set\lps pavement phase 1\23001951-dsk.dwg Plotted: 5/2/2024 8:30 AM by Kaito Houston



NOTES:

1. DETAIL FROM MDOT ROAD AND BRIDGE STANDARDS R-74-D.
2. CONCRETE PARKING RAIL SHALL BE CONSTRUCTED IN 8'-0" LENGTHS UNLESS OTHERWISE INDICATED ON THE PLANS.
3. THIS DETAIL INCLUDES 5/8" x 1'-0" STAINLESS STEEL ANCHOR PINS TO FASTEN INTO CONCRETE PAVEMENT (4" MIN. EMBED; 6" MAX. EMBED)
4. PARKING BARRICADE SHALL BE PAINTED YELLOW.

15 CONCRETE PARKING BARRICADE
NOT TO SCALE

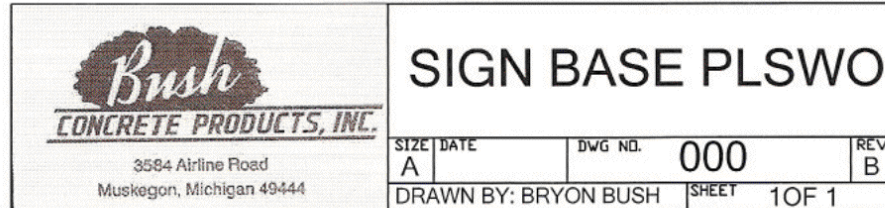
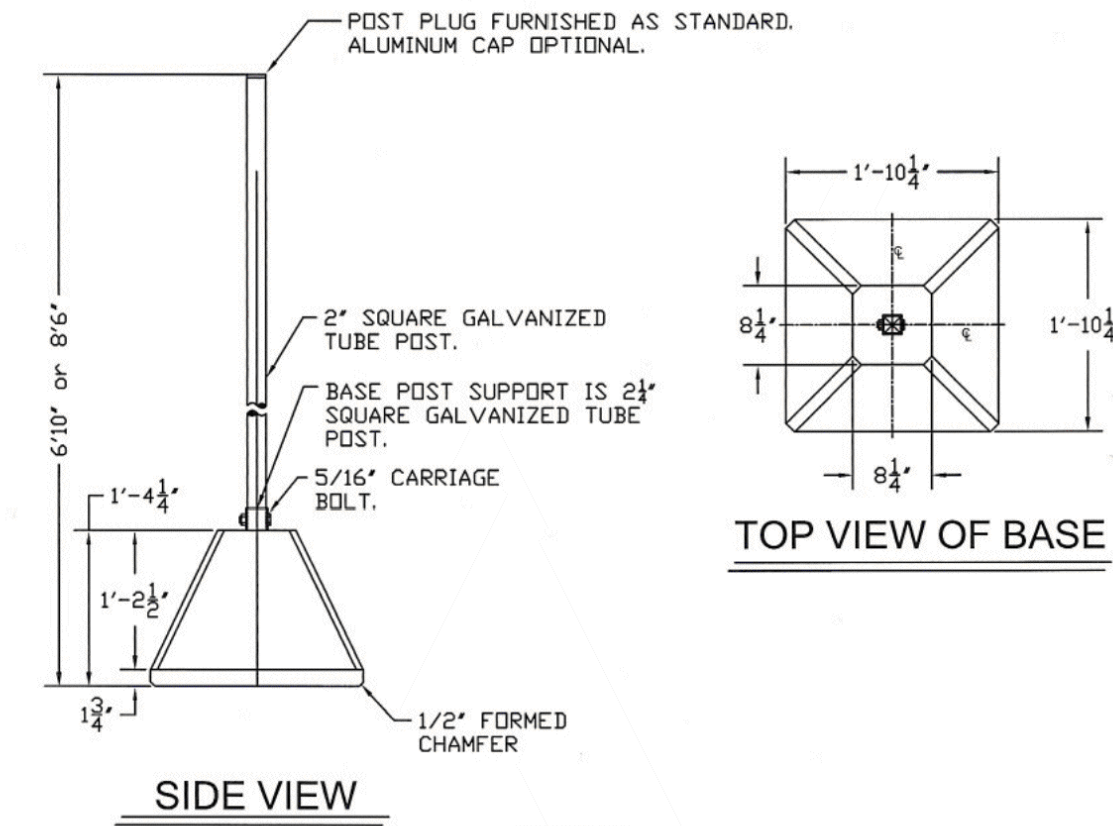


R1-1
STOP
*Reduce spacing 40%

A	B	C	D	E	F
18	.375	6	6 C	3	7.75
24	.625	8	8 C	4	10
30	.75	10	10 C	5	12.5
36	.875	12	12 C	6	15
48	1.25	16	16 C	8	20

COLORS: LEGEND — WHITE (RETROREFLECTIVE)
BACKGROUND — RED (RETROREFLECTIVE)

1-1
16A STOP SIGN
NOT TO SCALE



16B PEDESTAL SIGN BASE
NOT TO SCALE

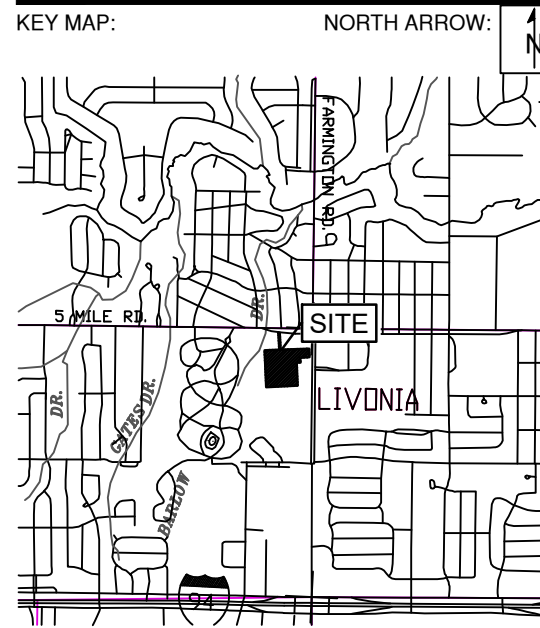


NTH Consultants, Ltd.
Infrastructure Engineering
Environmental Services
Facilities Engineering
www.nthconsultants.com

Northville, MI Lansing, MI
Detroit, MI Grand Rapids, MI
Livonia, MI (Laboratory)



SEAL/STAMP:



REVISION BLOCK	
REV	DATE: DESCRIPTION
1	2024-07-18: REVISIONS TO PAVING LIMITS, STRIPING, AND SIGNAGE PER PRE BID WALKTHROUGH COMMENTS

SUBMITTAL LOG	
DATE	PACKAGE NAME

PROJECT NAME:
LPS CENTRAL OFFICE
PAVEMENT - PHASE 1

PROJECT LOCATION:
15125 FARMINGTON ROAD
LIVONIA, MICHIGAN 48150

DESIGNED BY: SKG	NTH PROJECT NO.: 23001951
DRAWN BY: SKG	SHEET SIZE: ARCH D (24"x36")
CHECKED BY: SLG	DATE: 5/2/2024
CAD FILE NAME:	

SHEET TITLE:
CIVIL DETAILS (2 OF 2)

SHEET NUMBER:

C-502

BULLETIN NO. 1