



**TOWNSHIP BOARD MEETING**  
**LOCATION: 7527 HIGHLAND ROAD, WHITE LAKE - ANNEX BOARD ROOM**  
**TUESDAY, JANUARY 21, 2025 – 6:30 PM**

---

*White Lake Township | 7525 Highland Rd | White Lake, MI 48383 | Phone: (248) 698-3300 | www.whitelaketwp.com*

---

**AGENDA**

1. **CALL TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL**
4. **APPROVAL OF AGENDA**
5. **PUBLIC COMMENT**
6. **CONSENT AGENDA**
  - A. [REVENUE AND EXPENSES](#)
  - B. [CHECK DISBURSEMENTS](#)
  - C. [DEPARTMENT REPORT - POLICE](#)
  - D. [DEPARTMENT REPORT - FIRE](#)
  - E. [DEPARTMENT REPORT - COMMUNITY DEVELOPMENT](#)
  - F. [DEPARTMENT REPORT - TREASURER](#)
  - G. [2024-2025 OTHER POST EMPLOYMENT BENEFITS \(OPEB\) ACTUARIAL REPORTS AGREEMENT](#)
7. **MINUTES**
  - A. [APPROVAL OF MINUTES - REGULAR BOARD MEETING, NOVEMBER 19, 2024](#)
  - B. [APPROVAL OF MINUTES - SPECIAL BOARD MEETING, DECEMBER 02, 2024](#)
  - C. [APPROVAL OF MINUTES - REGULAR BOARD MEETING, DECEMBER 17, 2024](#)
8. **PRESENTATION**
  - A. SWEARING IN OF OFFICER MIKAEL ZIEGLER
9. **NEW BUSINESS**
  - A. [PRELIMINARY SITE PLAN APPROVAL - 9101 HIGHLAND RD](#)
  - B. [FIRST READING; REZONING REQUEST - 4001 CARON RIDGE](#)
  - C. [REQUEST TO APPROVE EARNED SICK TIME POLICY - FULL TIME AND PART TIME EMPLOYEES](#)
  - D. [REQUEST TO APPROVE PEERLESS MIDWEST WELL AND PUMP MAINTENANCE 2025 CONTRACT EXTENSION](#)
  - E. [FIRST READING; CONSIDER AMENDMENT TO CHAPTER 18, ARTICLE II, OF THE TOWNSHIP FIRE CODE](#)
  - F. [REQUEST TO APPROVE 2025 ADMINISTRATIVE VEHICLE PURCHASE - POLICE DEPARTMENT](#)
  - G. [REQUEST TO APPROVE 2025 FLEET VEHICLE PURCHASE - POLICE DEPARTMENT](#)
  - H. [REQUEST TO APPROVE PLANNED DEVELOPMENT AGREEMENT – PANERA](#)



- I. [REQUEST TO APPROVE CONSULTATION SERVICES PROPOSAL FOR MDNR LAND & WATER CONSERVATION FUND GRANT APPLICATION - BECKETT & RAEDER](#)
- J. [REQUEST TO APPROVE ENGAGEMENT LETTER FROM DICKINSON WRIGHT FOR ASSISTANCE WITH AMBULANCE PURCHASES](#)

**10. OLD BUSINESS**

- A. [SECOND READING; REZONING REQUEST - 9451 ELIZABETH LAKE ROAD](#)

**11. TRUSTEE COMMENTS**

**12. ADJOURNMENT**

**Procedures for accommodations for persons with disabilities:** The Township will follow its normal procedures for individuals with disabilities needing accommodations for effective participation in this meeting. **Please contact the Township Clerk's office at (248) 698-3300 X-7 at least five days in advance of the meeting.** An attempt will be made to provide reasonable accommodations.



GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND						
Revenues						
TAX COLLECTIONS						
101-000-402.000	CURRENT PROPERTY TAX	0.00	1,342,234.69	1,337,320.00	(4,914.69)	100.37
101-000-403.001	SPECIAL ASSMT STREET LIGHTS	0.00	17,096.00	17,150.00	54.00	99.69
101-000-405.000	TRAILER PARK TAX	847.00	9,351.00	7,500.00	(1,851.00)	124.68
101-000-412.000	DELINQUENT PROPERTY TAX	0.00	4,218.82	0.00	(4,218.82)	100.00
101-000-445.000	PENALTIES	0.00	17,837.67	17,000.00	(837.67)	104.93
101-000-445.001	PRIN RESIDENCE DENIALS	0.00	966.45	2,000.00	1,033.55	48.32
TAX COLLECTIONS		847.00	1,391,704.63	1,380,970.00	(10,734.63)	100.78
OTHER LICENSE & PERMITS						
101-000-458.000	OTHER PERMITS	200.00	200.00	0.00	(200.00)	100.00
101-000-459.000	SOLICITOR PERMIT	0.00	580.00	500.00	(80.00)	116.00
101-000-481.000	DOG LICENSES	0.00	2,689.80	1,400.00	(1,289.80)	192.13
OTHER LICENSE & PERMITS		200.00	3,469.80	1,900.00	(1,569.80)	182.62
TRANSPORTATION						
101-000-651.000	SENIOR ACTIVITIES	930.00	25,047.00	20,000.00	(5,047.00)	125.24
101-000-652.001	SENIOR CENTER REVENUE	53.23	4,050.12	3,000.00	(1,050.12)	135.00
TRANSPORTATION		983.23	29,097.12	23,000.00	(6,097.12)	126.51
PLANNING REVENUE						
101-000-608.000	ZONING BOARD OF APPEALS	1,155.00	10,230.00	8,000.00	(2,230.00)	127.88
101-000-609.000	PLANNING COMMISSION FEES	0.00	9,660.00	4,500.00	(5,160.00)	214.67
101-000-622.000	RE-ZONING APPLICATION FEES	1,985.50	6,560.50	3,000.00	(3,560.50)	218.68
101-000-622.002	PLANNING DEPARTMENT REVIEWS	0.00	8,985.00	8,000.00	(985.00)	112.31
101-000-622.003	LANDSCAPING INSPECTION FEES	0.00	0.00	1,000.00	1,000.00	0.00
101-000-622.004	PUNCH LIST ADMIN FEES	0.00	6,916.69	2,500.00	(4,416.69)	276.67
101-000-622.005	FINAL BACK CHECK FEES	0.00	0.00	500.00	500.00	0.00
101-000-625.000	SPECIAL MEETING FEES	0.00	0.00	500.00	500.00	0.00
PLANNING REVENUE		3,140.50	42,352.19	28,000.00	(14,352.19)	151.26
STATE SHARED						
101-000-576.000	STATE SHARED REV-CONSTITUTIONA	557,189.00	3,421,371.00	3,000,000.00	(421,371.00)	114.05
STATE SHARED		557,189.00	3,421,371.00	3,000,000.00	(421,371.00)	114.05
FEES FOR SERVICES						
101-000-621.000	PLATTING & LOT SPLIT FEES	605.00	1,265.00	2,000.00	735.00	63.25
101-000-623.000	N S F FEE	25.00	325.00	200.00	(125.00)	162.50
101-000-627.000	DUPLICATING & PHOTOSTAT	0.00	4,472.48	500.00	(3,972.48)	894.50
101-000-643.000	CEMETERY LOTS	0.00	8,400.00	20,000.00	11,600.00	42.00
101-000-644.000	GRAVESITE OPENINGS/CLOSINGS	0.00	0.00	25,000.00	25,000.00	0.00
101-000-644.001	MONUMENT FOUNDATIONS/BRICK PAVERS	0.00	971.16	11,000.00	10,028.84	8.83
101-000-650.000	OTHER MAPS, CODES, ETC	0.00	50.00	50.00	0.00	100.00
101-000-654.000	OC ENHANCED REVENUE	0.00	14,579.82	4,000.00	(10,579.82)	364.50
101-000-689.000	SUMMER TAX COLLECTION REIMB	0.00	83,158.87	80,000.00	(3,158.87)	103.95
101-000-695.001	OTHER CABLE TV	58,739.88	513,838.45	500,000.00	(13,838.45)	102.77
101-000-695.003	ADMIN FEES - GARBAGE FUND	0.00	0.00	112,670.00	112,670.00	0.00
101-000-695.004	ADMIN FEES - TRUST & AGENCY	0.00	18,151.95	23,000.00	4,848.05	78.92
101-000-695.005	ADMIN FEES	432.00	3,771.28	5,000.00	1,228.72	75.43
101-000-695.007	ADMIN FEE SPECIAL ASSESSMENTS	0.00	0.00	5,000.00	5,000.00	0.00
FEES FOR SERVICES		59,801.88	648,984.01	788,420.00	139,435.99	82

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND						
Revenues						
ORDINANCE FINES						
101-000-656.000	ORDINANCE FINES	0.00	8,390.62	8,000.00	(390.62)	104.88
ORDINANCE FINES		0.00	8,390.62	8,000.00	(390.62)	104.88
MISCELLANEOUS						
101-000-393.000	FUND BALANCE - DESIGNATED	0.00	0.00	669,976.00	669,976.00	0.00
101-000-441.000	INTERGOVERNMENTAL REVENUES	0.00	33,749.62	0.00	(33,749.62)	100.00
101-000-531.000	OTHER GRANTS	0.00	23,429.34	0.00	(23,429.34)	100.00
101-000-575.001	METRO ACT REVENUE	0.00	19,796.68	20,000.00	203.32	98.98
101-000-590.000	CASH BONDS CONTRIBUTIONS	0.00	0.00	600,000.00	600,000.00	0.00
101-000-590.001	GRINDERS-CONTRIBUTIONS	0.00	0.00	300,000.00	300,000.00	0.00
101-000-664.000	INTEREST INCOME	131,461.57	409,798.29	35,000.00	(374,798.29)	1,170.85
101-000-664.001	INTEREST - TRUST AND AGENCY	0.00	8,142.09	2,000.00	(6,142.09)	407.10
101-000-673.000	SALE OF FIXED ASSETS	0.00	383,303.00	385,000.00	1,697.00	99.56
101-000-676.000	ELECTION-REIMBURSEMENT	0.00	148,934.37	128,578.00	(20,356.37)	115.83
101-000-677.000	POSTAGE REVENUE	0.00	0.00	100.00	100.00	0.00
101-000-678.000	MISCELLANEOUS	3,316.63	6,360.03	10,000.00	3,639.97	63.60
101-000-685.000	OPIOID SETTLEMENT REVENUE	0.00	34,170.42	0.00	(34,170.42)	100.00
101-000-695.000	OTHER SUNDRY	0.00	1,652.12	1,200.00	(452.12)	137.68
MISCELLANEOUS		134,778.20	1,069,335.96	2,151,854.00	1,082,518.04	49.69
RENTS						
101-000-667.001	RENT COMMUNITY HALL	0.00	4,425.00	2,000.00	(2,425.00)	221.25
101-000-667.005	RENT-ORMOND RD TOWER	1,291.71	15,403.97	14,000.00	(1,403.97)	110.03
RENTS		1,291.71	19,828.97	16,000.00	(3,828.97)	123.93
<b>TOTAL REVENUES</b>						
		758,231.52	6,634,534.30	7,398,144.00	763,609.70	89.68
Expenditures						
TOWNSHIP BOARD						
101-101-703.000	SALARIES TRUSTEES	4,597.78	54,097.50	54,200.00	102.50	99.81
101-101-710.000	FEES & PER DIEM	530.00	6,780.00	14,000.00	7,220.00	48.43
101-101-715.000	SOCIAL SECURITY	393.07	4,269.33	3,760.00	(509.33)	113.55
101-101-717.000	GROUP LIFE INSURANCE	51.03	298.35	500.00	201.65	59.67
101-101-719.000	WORKERS' COMP INSURANCE	0.00	52.00	110.00	58.00	47.27
101-101-801.000	PROFESSIONAL FEES - ACTUARIAL	0.00	5,700.00	12,000.00	6,300.00	47.50
101-101-801.001	PROFESSIONAL FEES	0.00	0.00	10,000.00	10,000.00	0.00
101-101-807.000	AUDIT FEES	0.00	41,620.00	50,000.00	8,380.00	83.24
101-101-860.000	CONFERENCES & MILEAGE	93.80	2,961.49	4,000.00	1,038.51	74.04
101-101-957.000	SUBSCRIPTIONS	0.00	0.00	500.00	500.00	0.00
101-101-958.000	MEMBERSHIPS & DUES	1,579.00	19,159.33	18,000.00	(1,159.33)	106.44
101-101-962.000	MISCELLANEOUS	0.00	9,669.00	13,000.00	3,331.00	74.38
TOWNSHIP BOARD		7,244.68	144,607.00	180,070.00	35,463.00	80.31
SUPERVISOR						
101-171-703.000	SALARIES SUPERVISOR	8,396.85	108,698.34	109,115.00	416.66	99.62
101-171-704.000	SALARIES, DEPUTYY SUPERVISOR	6,779.02	87,769.82	88,110.00	340.18	99.61
101-171-706.000	SALARIES CLERICAL	4,437.97	59,582.38	59,820.00	237.62	99.60
101-171-708.000	SALARIES HR WAGES	6,838.07	93,043.54	93,390.00	346.46	99.60
101-171-709.000	OVERTIME	3,015.59	7,942.28	4,000.00	(3,942.28)	198.4
101-171-715.000	SOCIAL SECURITY	3,289.32	27,609.91	26,800.00	(809.91)	103.4

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
<b>Fund 101 - GENERAL FUND</b>						
<b>Expenditures</b>						
101-171-716.000	HOSP & OPTICAL INSURANCE	7,409.52	82,539.08	73,350.00	(9,189.08)	112.53
101-171-717.000	GROUP LIFE INSURANCE	62.80	345.40	435.00	89.60	79.40
101-171-718.000	PENSION	23,060.92	199,189.54	195,500.00	(3,689.54)	101.89
101-171-718.001	HEALTH CARE SAVINGS PROGRAM	463.13	4,416.98	4,300.00	(116.98)	102.72
101-171-718.002	457-EMPLOYER PORTION	138.03	1,242.27	1,200.00	(42.27)	103.52
101-171-719.000	WORKERS COMP INSURANCE	0.00	638.75	715.00	76.25	89.34
101-171-722.000	UNEMPLOYMENT INSURANCE	0.00	495.44	810.00	314.56	61.17
101-171-724.000	DENTAL INSURANCE	586.56	3,395.68	4,600.00	1,204.32	73.82
101-171-853.000	CELLULAR PHONE	43.33	476.17	800.00	323.83	59.52
101-171-864.000	CONFERENCES & MEETINGS	0.00	1,149.55	1,500.00	350.45	76.64
101-171-931.000	HR SERVICES ALLOCATION	0.00	0.00	(130,000.00)	(130,000.00)	0.00
101-171-957.000	SUBSCRIPTIONS	0.00	0.00	100.00	100.00	0.00
101-171-958.000	MEMBERSHIPS & DUES	200.00	464.00	500.00	36.00	92.80
101-171-959.000	COMMUNITY COMMUNICATIONS	0.00	0.00	20,000.00	20,000.00	0.00
101-171-960.000	TRAINING	0.00	0.00	300.00	300.00	0.00
101-171-960.001	TRAINING-HR	0.00	0.00	2,000.00	2,000.00	0.00
101-171-962.000	MISCELLANEOUS	42.72	103.14	650.00	546.86	15.87
<b>SUPERVISOR</b>		<b>64,763.83</b>	<b>679,102.27</b>	<b>557,995.00</b>	<b>(121,107.27)</b>	<b>121.70</b>
<b>ELECTIONS</b>						
101-191-706.000	PART TIME ELECTIONS	(390.00)	20,073.51	21,600.00	1,526.49	92.93
101-191-709.001	OVERTIME ELECTIONS	(1,181.73)	54,539.44	58,000.00	3,460.56	94.03
101-191-710.000	FEES & PER DIEM	2,225.00	125,192.50	128,779.00	3,586.50	97.21
101-191-715.000	SOCIAL SECURITY	170.13	11,031.22	8,500.00	(2,531.22)	129.78
101-191-722.000	UNEMPLOYMENT INSURANCE	40.06	2,366.81	1,900.00	(466.81)	124.57
101-191-730.000	POSTAGE-ELECTIONS	0.00	31,272.72	64,030.00	32,757.28	48.84
101-191-740.000	OPERATING SUPPLIES	3,221.32	55,776.58	59,185.00	3,408.42	94.24
101-191-860.000	MILEAGE	0.00	0.00	600.00	600.00	0.00
101-191-903.000	LEGAL NOTICES	0.00	3,110.50	6,900.00	3,789.50	45.08
101-191-934.000	EQUIPMENT MAINTENANCE	9,999.00	29,785.20	29,925.00	139.80	99.53
101-191-962.000	MISCELLANEOUS	0.00	0.00	4,000.00	4,000.00	0.00
<b>ELECTIONS</b>		<b>14,083.78</b>	<b>333,148.48</b>	<b>383,419.00</b>	<b>50,270.52</b>	<b>86.89</b>
<b>ACCOUNTING</b>						
101-192-701.000	SALARIES FINANCE DIRECTOR	8,106.45	110,468.71	110,190.00	(278.71)	100.25
101-192-702.000	SALARIES ASST FINANCE DIRECTOR	10,649.70	88,897.81	88,790.00	(107.81)	100.12
101-192-709.000	OVERTIME	0.00	212.17	1,500.00	1,287.83	14.14
101-192-715.000	SOCIAL SECURITY	2,031.20	15,854.84	15,265.00	(589.84)	103.86
101-192-716.000	HOSP & OPTICAL INSURANCE	1,669.53	21,581.54	22,800.00	1,218.46	94.66
101-192-717.000	GROUP LIFE INSURANCE	31.40	172.70	220.00	47.30	78.50
101-192-718.000	PENSION	1,490.90	17,890.89	18,120.00	229.11	98.74
101-192-719.000	WORKERS COMP INSURANCE	0.00	424.00	660.00	236.00	64.24
101-192-722.000	UNEMPLOYMENT INSURANCE	0.00	327.87	540.00	212.13	60.72
101-192-724.000	DENTAL INSURANCE	148.00	903.30	1,000.00	96.70	90.33
101-192-757.000	OPERATING SUPPLIES	(68.82)	0.00	0.00	0.00	0.00
101-192-957.000	SUBSCRIPTIONS	0.00	33.00	50.00	17.00	66.00
101-192-958.000	MEMBERSHIPS & DUES	0.00	425.00	550.00	125.00	77.27
101-192-960.000	TRAINING	0.00	0.00	300.00	300.00	0.00
101-192-962.000	MISCELLANEOUS	0.00	0.00	200.00	200.00	0.00
<b>ACCOUNTING</b>		<b>24,058.36</b>	<b>257,191.83</b>	<b>260,185.00</b>	<b>2,993.17</b>	<b>98.85</b>
<b>ASSESSING</b>						
101-209-706.001	SALARIES ASSESSOR	7,879.28	101,998.96	102,405.00	406.04	99
101-209-706.002	SALARIES PROPERTY APPRAISER	9,863.31	136,168.68	139,700.00	3,531.32	97

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND						
Expenditures						
101-209-706.003	SALARIES CLERICAL	4,033.27	46,153.29	57,735.00	11,581.71	79.94
101-209-707.000	SALARIES PART TIME	2,237.42	22,904.88	30,000.00	7,095.12	76.35
101-209-709.000	OVERTIME	0.00	408.29	1,500.00	1,091.71	27.22
101-209-715.000	SOCIAL SECURITY	2,848.87	24,213.50	25,300.00	1,086.50	95.71
101-209-716.000	HOSP & OPTICAL INSURANCE	8,791.67	91,215.18	93,280.00	2,064.82	97.79
101-209-717.000	GROUP LIFE INSURANCE	62.80	321.85	435.00	113.15	73.99
101-209-718.000	PENSION	4,247.93	45,401.24	50,500.00	5,098.76	89.90
101-209-718.001	HEALTH CARE SAVINGS PROGRAM	300.00	3,500.00	3,600.00	100.00	97.22
101-209-718.002	457-EMPLOYER PORTION	441.60	3,651.06	4,000.00	348.94	91.28
101-209-719.000	WORKERS COMP INSURANCE	0.00	1,383.50	2,455.00	1,071.50	56.35
101-209-722.000	UNEMPLOYMENT INSURANCE	0.00	1,002.83	1,350.00	347.17	74.28
101-209-724.000	DENTAL INSURANCE	969.28	5,552.40	6,400.00	847.60	86.76
101-209-801.000	PROFESSIONAL SERVICES	0.00	2,084.00	25,000.00	22,916.00	8.34
101-209-818.000	SOFTWARE SUPPORT FEES	0.00	1,858.10	4,500.00	2,641.90	41.29
101-209-820.000	LEGAL FEES	288.00	4,020.39	7,000.00	2,979.61	57.43
101-209-864.000	CONFERENCES & MEETINGS	0.00	1,042.10	3,200.00	2,157.90	32.57
101-209-903.000	LEGAL NOTICES	0.00	223.00	1,500.00	1,277.00	14.87
101-209-957.000	SUBSCRIPTIONS	0.00	0.00	200.00	200.00	0.00
101-209-958.000	MEMBERSHIPS & DUES	0.00	390.00	1,500.00	1,110.00	26.00
101-209-960.000	TRAINING	0.00	480.00	3,500.00	3,020.00	13.71
101-209-962.000	MISCELLANEOUS	0.00	581.19	2,000.00	1,418.81	29.06
ASSESSING		41,963.43	494,554.44	567,060.00	72,505.56	87.21
LEGAL FEES						
101-210-826.000	LEGAL FEES	6,426.00	52,089.72	80,000.00	27,910.28	65.11
101-210-826.001	TAX TRIBUNAL REFUNDS	0.00	0.00	2,000.00	2,000.00	0.00
101-210-826.002	LEGAL FEES-ORDINANCE	852.50	8,113.90	15,000.00	6,886.10	54.09
LEGAL FEES		7,278.50	60,203.62	97,000.00	36,796.38	62.07
CLERK						
101-215-703.000	SALARIES CLERK	7,975.94	103,260.91	103,660.00	399.09	99.62
101-215-704.000	SALARIES DEPUTY CLERK	6,779.03	87,769.79	88,115.00	345.21	99.61
101-215-706.001	SALARIES CLERICAL	9,192.10	123,411.05	123,920.00	508.95	99.59
101-215-709.000	OVERTIME	138.33	1,627.36	5,000.00	3,372.64	32.55
101-215-715.000	SOCIAL SECURITY	2,954.01	28,598.71	26,400.00	(2,198.71)	108.33
101-215-716.000	HOSP & OPTICAL INSURANCE	7,753.93	60,717.91	57,440.00	(3,277.91)	105.71
101-215-717.000	GROUP LIFE INSURANCE	62.80	345.40	435.00	89.60	79.40
101-215-718.000	PENSION	15,254.41	148,631.65	146,855.00	(1,776.65)	101.21
101-215-718.001	HEALTH CARE SAVINGS PROGRAM	990.37	9,401.60	9,050.00	(351.60)	103.89
101-215-718.002	457-EMPLOYER PORTION	168.63	1,516.03	2,500.00	983.97	60.64
101-215-719.000	WORKERS COMP INSURANCE	0.00	621.25	700.00	78.75	88.75
101-215-722.000	UNEMPLOYMENT INSURANCE	0.00	494.85	810.00	315.15	61.09
101-215-724.000	DENTAL INSURANCE	693.76	4,242.56	4,600.00	357.44	92.23
101-215-853.000	CELLULAR PHONE	82.22	871.02	1,200.00	328.98	72.59
101-215-860.000	MILEAGE	0.00	0.00	400.00	400.00	0.00
101-215-864.000	CONFERENCES & MEETINGS	1,710.00	4,857.94	6,000.00	1,142.06	80.97
101-215-903.000	LEGAL NOTICES	206.00	5,194.25	12,000.00	6,805.75	43.29
101-215-957.000	SUBSCRIPTIONS	0.00	0.00	300.00	300.00	0.00
101-215-958.000	MEMBERSHIPS & DUES	300.00	485.00	500.00	15.00	97.00
101-215-960.000	TRAINING	1,181.17	1,286.92	3,000.00	1,713.08	42.90
101-215-962.000	MISCELLANEOUS	0.00	395.95	700.00	304.05	56.56
CLERK		55,442.70	583,730.15	593,585.00	9,854.85	98.34

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
<b>Fund 101 - GENERAL FUND</b>						
<b>Expenditures</b>						
101-247-710.000	FEES & PER DIEM	300.00	2,300.00	2,600.00	300.00	88.46
101-247-864.000	CONFERENCES & MEETINGS	0.00	18.00	150.00	132.00	12.00
101-247-903.000	LEGAL PUBLICATIONS	0.00	0.00	750.00	750.00	0.00
<b>BOARD OF REVIEW</b>		<b>300.00</b>	<b>2,318.00</b>	<b>3,500.00</b>	<b>1,182.00</b>	<b>66.23</b>
<b>POSTAGE &amp; MAILING</b>						
101-248-730.000	POSTAGE	6,812.50	25,120.38	30,000.00	4,879.62	83.73
101-248-934.000	EQUIPMENT MAINTENANCE-POSTAGE METER	82.99	897.83	2,000.00	1,102.17	44.89
101-248-946.000	POSTAGE METER RENTAL	0.00	1,480.70	2,000.00	519.30	74.04
<b>POSTAGE &amp; MAILING</b>		<b>6,895.49</b>	<b>27,498.91</b>	<b>34,000.00</b>	<b>6,501.09</b>	<b>80.88</b>
<b>OFFICE SUPPLIES</b>						
101-249-727.000	OFFICE SUPPLIES	4,689.60	30,757.48	41,000.00	10,242.52	75.02
<b>OFFICE SUPPLIES</b>		<b>4,689.60</b>	<b>30,757.48</b>	<b>41,000.00</b>	<b>10,242.52</b>	<b>75.02</b>
<b>TREASURER</b>						
101-253-703.000	SALARIES TREASURER	7,975.94	103,260.91	103,660.00	399.09	99.62
101-253-704.000	SALARIES DEPUTY TREASURER	6,779.05	87,769.85	88,115.00	345.15	99.61
101-253-706.001	SALARIES CLERICAL FT	10,386.59	136,310.60	140,470.00	4,159.40	97.04
101-253-709.000	OVERTIME	784.85	1,091.31	500.00	(591.31)	218.26
101-253-715.000	SOCIAL SECURITY	2,963.95	25,469.59	25,325.00	(144.59)	100.57
101-253-716.000	HOSP & OPTICAL INSURANCE	6,940.64	78,623.54	73,350.00	(5,273.54)	107.19
101-253-717.000	GROUP LIFE INSURANCE	62.80	345.40	435.00	89.60	79.40
101-253-718.000	PENSION	16,298.94	144,810.81	146,325.00	1,514.19	98.97
101-253-718.001	HEALTH CARE SAVINGS PROGRAM	563.13	5,617.08	5,500.00	(117.08)	102.13
101-253-718.002	457-EMPLOYER PORTION	168.45	1,505.25	2,800.00	1,294.75	53.76
101-253-719.000	WORKERS COMP INSURANCE	0.00	629.50	710.00	80.50	88.66
101-253-722.000	UNEMPLOYMENT INSURANCE	0.00	496.42	810.00	313.58	61.29
101-253-724.000	DENTAL INSURANCE	693.76	4,242.56	4,600.00	357.44	92.23
101-253-818.000	OC SOFTWARE SUPPORT FEES	0.00	2,326.36	2,500.00	173.64	93.05
101-253-860.000	MILEAGE	0.00	412.04	400.00	(12.04)	103.01
101-253-864.000	CONFERENCES & MEETINGS	0.00	2,931.76	2,500.00	(431.76)	117.27
101-253-903.000	LEGAL NOTICES	0.00	0.00	100.00	100.00	0.00
101-253-958.000	MEMBERSHIPS & DUES	0.00	588.00	900.00	312.00	65.33
101-253-960.000	TRAINING	0.00	0.00	400.00	400.00	0.00
101-253-962.000	MISCELLANEOUS	0.00	0.00	1,100.00	1,100.00	0.00
<b>TREASURER</b>		<b>53,618.10</b>	<b>596,430.98</b>	<b>600,500.00</b>	<b>4,069.02</b>	<b>99.32</b>
<b>TOWNSHIP HALL &amp; GROUNDS</b>						
101-265-706.000	SALARIES MAINTENANCE	4,273.44	55,315.31	55,375.00	59.69	99.89
101-265-708.000	PART TIME MAINTENANCE	5,539.80	44,660.57	42,000.00	(2,660.57)	106.33
101-265-709.000	OVERTIME	1,800.26	6,265.49	8,000.00	1,734.51	78.32
101-265-715.000	SOCIAL SECURITY	1,147.87	8,399.54	8,125.00	(274.54)	103.38
101-265-716.000	HOSP & OPTICAL INSURANCE	1,716.79	18,435.99	18,800.00	364.01	98.06
101-265-717.000	GROUP LIFE INSURANCE	15.70	86.35	110.00	23.65	78.50
101-265-718.000	PENSION	1,252.69	14,000.75	15,125.00	1,124.25	92.57
101-265-718.001	HEALTH CARE SAVINGS PROGRAM	100.00	1,200.00	1,200.00	0.00	100.00
101-265-718.002	457-EMPLOYER PORTION	131.91	1,112.63	1,100.00	(12.63)	101.15
101-265-719.000	WORKERS COMP INSURANCE	0.00	2,876.25	4,465.00	1,588.75	64.42
101-265-722.000	UNEMPLOYMENT INSURANCE	9.17	679.04	600.00	(79.04)	113.17
101-265-724.000	DENTAL INSURANCE	135.12	832.97	900.00	67.03	92.55
101-265-853.000	TELEPHONE	2,051.85	13,456.04	12,000.00	(1,456.04)	112.50
101-265-863.000	VEHICLE MAINTENANCE	93.98	9,901.00	10,500.00	599.00	94

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BGD USED
<b>Fund 101 - GENERAL FUND</b>						
<b>Expenditures</b>						
101-265-867.000	GASOLINE	1,872.13	12,132.76	11,600.00	(532.76)	104.59
101-265-910.000	INSURANCE	0.00	64,114.32	65,000.00	885.68	98.64
101-265-921.001	ELECTRIC TWP HALL	2,709.04	31,267.65	35,000.00	3,732.35	89.34
101-265-922.000	UTILITIES-TWP HALL	0.00	7,277.39	7,200.00	(77.39)	101.07
101-265-923.000	HEAT TWP HALL	1,178.56	4,817.76	7,200.00	2,382.24	66.91
101-265-931.001	BLDG MAINTENANCE & SUPPLIES	6,413.02	55,021.10	60,000.00	4,978.90	91.70
101-265-931.002	GROUNDS MAINTENANCE	2,667.88	16,428.59	20,000.00	3,571.41	82.14
101-265-931.003	BLDG EQUIP MAINTENANCE	842.77	9,327.89	9,000.00	(327.89)	103.64
101-265-933.000	GROUNDS EQUIP MAINTENANCE	146.32	3,887.75	5,000.00	1,112.25	77.76
101-265-934.000	OFFICE EQUIP MAINTENANCE	0.00	185.15	1,500.00	1,314.85	12.34
101-265-940.000	TOWNSHIP RECORD RETENTION COSTS	249.98	2,779.38	1,600.00	(1,179.38)	173.71
101-265-971.000	TECHNOLOGY EQUIPMENT	59,407.31	190,162.45	190,000.00	(162.45)	100.09
101-265-974.000	IMPROVEMENTS & BETTERMENTS	1,525.00	1,525.00	85,000.00	83,475.00	1.79
101-265-977.000	EQUIPMENT ACQUISITIONS	0.00	6,000.00	125,000.00	119,000.00	4.80
<b>TOWNSHIP HALL &amp; GROUNDS</b>		<b>95,280.59</b>	<b>582,149.12</b>	<b>801,400.00</b>	<b>219,250.88</b>	<b>72.64</b>
<b>CEMETERY</b>						
101-276-910.000	INSURANCE	0.00	63.11	150.00	86.89	42.07
101-276-921.000	ELECTRIC OXBOW	30.98	204.17	200.00	(4.17)	102.09
101-276-921.001	ELECTRIC WHITE LAKE	35.24	505.65	380.00	(125.65)	133.07
101-276-932.000	CEMETERY MAINT	2,139.00	21,650.00	30,000.00	8,350.00	72.17
101-276-935.000	CEMETERY-GRAVESITE OPENING/CLOSINGS	0.00	4,168.80	21,000.00	16,831.20	19.85
101-276-936.000	CEMETERY FOUNDATIONS/MONUMENTS EXPENSE	0.00	418.80	8,000.00	7,581.20	5.24
101-276-962.000	MISCELLANEOUS	0.00	40.00	600.00	560.00	6.67
101-276-974.000	LAND IMPROVEMENTS	0.00	0.00	5,000.00	5,000.00	0.00
<b>CEMETERY</b>		<b>2,205.22</b>	<b>27,050.53</b>	<b>65,330.00</b>	<b>38,279.47</b>	<b>41.41</b>
<b>OTHER TOWNSHIP PROPERTIES</b>						
101-269-853.001	TELEPHONE FISK FARM	0.00	0.00	250.00	250.00	0.00
101-269-910.001	INSURANCE COMM HALL	0.00	575.65	800.00	224.35	71.96
101-269-910.004	INSURANCE FISK	0.00	1,932.86	3,000.00	1,067.14	64.43
101-269-910.008	INSURANCE-ANNEX	0.00	6,184.90	7,000.00	815.10	88.36
101-269-921.001	ELECTRIC COMM HALL	70.59	693.85	700.00	6.15	99.12
101-269-921.004	ELECTRIC FISK	226.91	2,036.33	1,800.00	(236.33)	113.13
101-269-921.006	M59/BOGIE PROP STREET LIGHT	105.58	1,678.40	2,100.00	421.60	79.92
101-269-921.011	ELECTRIC-TWP ANNEX	895.90	9,151.51	12,000.00	2,848.49	76.26
101-269-922.004	UTILITIES FISK	147.85	2,188.38	1,900.00	(288.38)	115.18
101-269-922.010	UTILITIES-TWP ANNEX	0.00	171.72	2,000.00	1,828.28	8.59
101-269-923.001	HEAT COMM HALL	321.65	1,356.75	2,000.00	643.25	67.84
101-269-923.004	HEAT FISK	266.85	1,186.14	2,000.00	813.86	59.31
101-269-923.011	GAS-TWP ANNEX	1,066.24	3,671.24	8,000.00	4,328.76	45.89
101-269-931.001	BLDG MAINT COMM HALL	295.02	1,504.12	3,000.00	1,495.88	50.14
101-269-931.004	BLDG EQUIPMENT MAINT COMM HALL	0.00	205.41	500.00	294.59	41.08
101-269-931.007	BLDG MAINT FISK	147.85	15,549.91	21,000.00	5,450.09	74.05
101-269-931.008	EQUIP MAINT FISK	164.85	3,920.45	5,100.00	1,179.55	76.87
101-269-931.013	BUILDING MAINTENANCE-TWP ANNEX	1,342.41	6,434.65	10,000.00	3,565.35	64.35
101-269-931.014	10895 ELIZABETH LK PROPERTY MAINTENANCE	0.00	0.00	5,000.00	5,000.00	0.00
101-269-932.000	ANNEX GROUND MAINTENANCE	0.00	269.00	1,500.00	1,231.00	17.93
101-269-962.000	MISCELLANEOUS	0.00	0.00	750.00	750.00	0.00
101-269-971.000	PROPERTY ACQUISITIONS	0.00	0.00	271,330.00	271,330.00	0.00
<b>OTHER TOWNSHIP PROPERTIES</b>		<b>5,051.70</b>	<b>58,711.27</b>	<b>361,730.00</b>	<b>303,018.73</b>	<b>16.23</b>
<b>HEALTH &amp; WELFARE</b>						
101-285-801.000	ENVIRONMENTAL PROFESSIONAL SERVICES	0.00	7,238.81	12,000.00	4,761.19	60

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BGD USED
Fund 101 - GENERAL FUND						
Expenditures						
HEALTH & WELFARE		0.00	7,238.81	12,000.00	4,761.19	60.32
PLANNING						
101-402-706.001	COMMUNITY DEVELOPMENT DIRECTOR	9,715.04	110,519.12	109,665.00	(854.12)	100.78
101-402-706.002	SALARIES CLERICAL	4,831.57	64,867.95	65,120.00	252.05	99.61
101-402-707.000	SALARIES STAFF PLANNER	5,511.00	75,809.58	84,450.00	8,640.42	89.77
101-402-709.000	OVERTIME	216.53	2,165.03	4,000.00	1,834.97	54.13
101-402-710.000	PLANNING/ZBA BOARD FEES	(1,690.00)	15,380.00	21,000.00	5,620.00	73.24
101-402-715.000	SOCIAL SECURITY	2,790.83	21,970.90	20,900.00	(1,070.90)	105.12
101-402-716.000	HOSP & OPTICAL INSURANCE	5,759.24	34,707.68	30,650.00	(4,057.68)	113.24
101-402-717.000	GROUP LIFE INSURANCE	47.10	243.35	325.00	81.65	74.88
101-402-718.000	PENSION	2,122.73	23,062.98	23,310.00	247.02	98.94
101-402-718.001	HEALTH CARE SAVINGS PROGRAM	200.00	2,400.00	2,400.00	0.00	100.00
101-402-718.002	457-EMPLOYER PORTION	150.27	1,870.42	3,000.00	1,129.58	62.35
101-402-719.000	WORKERS COMP INSURANCE	0.00	1,004.25	1,320.00	315.75	76.08
101-402-722.000	UNEMPLOYMENT INSURANCE	6.48	683.15	810.00	126.85	84.34
101-402-724.000	DENTAL INSURANCE	558.64	3,335.59	3,000.00	(335.59)	111.19
101-402-729.000	PRINTING	0.00	0.00	1,500.00	1,500.00	0.00
101-402-757.000	OPERATING SUPPLIES	0.00	91.40	600.00	508.60	15.23
101-402-801.000	PROFESSIONAL FEES	783.00	15,280.26	34,000.00	18,719.74	44.94
101-402-853.000	CELLULAR PHONE	81.61	867.72	1,300.00	432.28	66.75
101-402-864.000	CONFERENCES & MEETINGS	0.00	880.00	3,900.00	3,020.00	22.56
101-402-903.000	LEGAL NOTICES	586.00	4,360.00	6,000.00	1,640.00	72.67
101-402-910.000	INSURANCE	0.00	4,935.67	5,700.00	764.33	86.59
101-402-957.000	SUBSCRIPTIONS	0.00	0.00	700.00	700.00	0.00
101-402-958.000	MEMBERSHIPS & DUES	0.00	1,778.00	2,200.00	422.00	80.82
101-402-960.000	TRAINING	0.00	376.15	4,100.00	3,723.85	9.17
101-402-962.000	MISCELLANEOUS	64.08	496.08	500.00	3.92	99.22
PLANNING		31,734.12	387,085.28	430,450.00	43,364.72	89.93
HIGHWAYS & STREETS						
101-446-930.000	TRAFFIC SIGNAL MAINTENANCE	0.00	507.15	1,000.00	492.85	50.72
101-448-926.000	STREET LIGHTING	4,732.28	51,898.05	52,000.00	101.95	99.80
101-451-970.000	ROAD CONSTRUCTION/TRI PARTY	0.00	127,295.24	180,000.00	52,704.76	70.72
HIGHWAYS & STREETS		4,732.28	179,700.44	233,000.00	53,299.56	77.12
SENIOR CENTER						
101-757-703.000	SALARIES SENIOR DIRECTOR	5,795.92	75,028.14	75,325.00	296.86	99.61
101-757-704.000	SALARIES PROGRAM DEVELOPER	4,595.77	59,211.62	58,650.00	(561.62)	100.96
101-757-707.000	PART-TIME CLERICAL	2,322.52	18,800.78	25,000.00	6,199.22	75.20
101-757-709.000	OVERTIME	(41.35)	1,687.83	500.00	(1,187.83)	337.57
101-757-715.000	SOCIAL SECURITY	1,450.48	12,202.90	12,150.00	(52.90)	100.44
101-757-716.000	HOSP & OPTICAL INSURANCE	2,568.72	27,143.62	37,400.00	10,256.38	72.58
101-757-717.000	GROUP LIFE INSURANCE	31.40	172.70	220.00	47.30	78.50
101-757-718.000	PENSION	1,078.88	11,843.83	11,755.00	(88.83)	100.76
101-757-718.001	HEALTH CARE SAVINGS PROGRAM	100.00	1,200.00	1,200.00	0.00	100.00
101-757-719.000	WORKERS COMP INSURANCE	0.00	443.00	600.00	157.00	73.83
101-757-722.000	UNEMPLOYMENT INSURANCE	0.00	501.45	810.00	308.55	61.91
101-757-724.000	DENTAL INSURANCE	209.12	1,284.62	1,800.00	515.38	71.37
101-757-751.000	SENIOR ACTIVITIES	3,272.75	29,986.24	30,000.00	13.76	99.95
101-757-757.000	OPERATING SUPPLIES	61.45	3,454.34	2,500.00	(954.34)	138.17
101-757-853.000	TELEPHONE	227.76	1,366.56	3,000.00	1,633.44	45.55
101-757-860.000	MILEAGE	114.57	659.69	1,200.00	540.31	54.00
101-757-864.000	CONFERENCES & MEETINGS	0.00	0.00	500.00	500.00	0.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
<b>Fund 101 - GENERAL FUND</b>						
<b>Expenditures</b>						
101-757-910.000	INSURANCE	0.00	2,549.67	3,350.00	800.33	76.11
101-757-921.000	ELECTRIC	1,036.94	6,413.95	6,500.00	86.05	98.68
101-757-922.000	UTILITIES	0.00	2,152.58	2,000.00	(152.58)	107.63
101-757-923.000	HEAT	321.74	1,443.58	2,200.00	756.42	65.62
101-757-931.000	BUILDING MAINTENANCE	1,703.89	13,742.13	13,000.00	(742.13)	105.71
101-757-957.000	SUBSCRIPTIONS	0.00	0.00	150.00	150.00	0.00
101-757-958.000	MEMBERSHIPS & DUES	0.00	75.00	150.00	75.00	50.00
101-757-962.000	MISCELLANEOUS	0.00	19.33	2,000.00	1,980.67	0.97
101-757-976.000	ADD & IMPROVEMENTS	0.00	0.00	700.00	700.00	0.00
<b>SENIOR CENTER</b>		<b>24,850.56</b>	<b>271,383.56</b>	<b>292,660.00</b>	<b>21,276.44</b>	<b>92.73</b>
<b>RETIREE BENEFITS</b>						
101-863-730.000	RETIREE HEALTH INSURANCE	6,527.55	81,182.99	104,000.00	22,817.01	78.06
101-863-730.003	OPEB FUNDING	0.00	135,000.00	135,000.00	0.00	100.00
<b>RETIREE BENEFITS</b>		<b>6,527.55</b>	<b>216,182.99</b>	<b>239,000.00</b>	<b>22,817.01</b>	<b>90.45</b>
<b>OTHER</b>						
101-299-956.000	UNALLOCATED MISCELLANEOUS	1,119.31	13,776.17	15,000.00	1,223.83	91.84
101-863-801.000	PAYROLL SERVICE	2,940.65	27,770.06	26,000.00	(1,770.06)	106.81
101-906-991.000	PRINCIPAL-CAPITAL LEASE	0.00	5,712.12	6,000.00	287.88	95.20
101-906-995.000	INTEREST-CAPITAL LEASE	0.00	1,422.18	1,500.00	77.82	94.81
101-965-999.003	TRANSFER TO IMPROV REVOLVING	0.00	526,608.00	535,000.00	8,392.00	98.43
<b>OTHER</b>		<b>4,059.96</b>	<b>575,288.53</b>	<b>583,500.00</b>	<b>8,211.47</b>	<b>38.78</b>
<b>ORDINANCE</b>						
101-372-706.001	SALARIES ORDINANCE OFFICER	4,997.25	67,092.01	67,355.00	262.99	99.61
101-372-706.002	PART-TIME ORDINANCE	0.00	0.00	1,250.00	1,250.00	0.00
101-372-709.000	OVERTIME	0.00	103.62	1,000.00	896.38	10.36
101-372-715.000	SOCIAL SECURITY	584.93	5,074.25	5,325.00	250.75	95.29
101-372-716.000	HOSP & OPTICAL INSURANCE	2,135.04	34,305.82	36,350.00	2,044.18	94.38
101-372-717.000	GROUP LIFE INSURANCE	15.70	86.35	110.00	23.65	78.50
101-372-718.000	PENSION	1,110.61	13,327.32	13,500.00	172.68	98.72
101-372-719.000	WORKERS COMP INSURANCE	0.00	354.25	450.00	95.75	78.72
101-372-722.000	UNEMPLOYMENT INSURANCE	0.00	237.83	270.00	32.17	88.09
101-372-724.000	DENTAL INSURANCE	242.32	1,478.97	1,600.00	121.03	92.44
101-372-744.000	UNIFORMS-ORDINANCE	0.00	0.00	500.00	500.00	0.00
101-372-757.000	OPERATING SUPPLIES	0.00	91.38	200.00	108.62	45.69
101-372-853.000	CELLULAR PHONE	41.11	396.33	700.00	303.67	56.62
101-372-863.000	VEHICLE MAINTENANCE	4.00	2,068.83	2,500.00	431.17	82.75
101-372-864.000	CONFERENCE & MEETINGS	0.00	0.00	750.00	750.00	0.00
101-372-867.000	GASOLINE	184.19	875.75	1,500.00	624.25	58.38
101-372-910.000	INSURANCE	0.00	1,183.56	950.00	(233.56)	124.59
101-372-955.000	ORDINANCE ENFORCEMENTS COSTS	1,025.00	11,175.00	15,500.00	4,325.00	72.10
101-372-958.000	MEMBERSHIPS & DUES	0.00	0.00	150.00	150.00	0.00
101-372-960.000	TRAINING	0.00	309.00	500.00	191.00	61.80
101-372-962.000	MISCELLANEOUS	0.00	0.00	300.00	300.00	0.00
101-372-963.000	DANGEROUS BLDG DEMOLITIONS	6,040.00	6,257.25	10,000.00	3,742.75	62.57
<b>ORDINANCE</b>		<b>16,380.15</b>	<b>144,417.52</b>	<b>160,760.00</b>	<b>16,342.48</b>	<b>89.83</b>
<b>OTHER</b>						
101-000-934.000	CASH BONDS DEDUCTIONS	0.00	0.00	600,000.00	600,000.00	0.00
101-000-934.001	GRINDERS-DEDUCTIONS	0.00	0.00	300,000.00	300,000.00	0.00
<b>OTHER</b>		<b>0.00</b>	<b>0.00</b>	<b>900,000.00</b>	<b>900,000.00</b>	<b>38.10</b>



PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND						
Expenditures						
TOTAL EXPENDITURES		471,160.60	5,658,751.21	7,398,144.00	1,739,392.79	76.49
Fund 101 - GENERAL FUND:						
TOTAL REVENUES		758,231.52	6,634,534.30	7,398,144.00	763,609.70	89.68
TOTAL EXPENDITURES		471,160.60	5,658,751.21	7,398,144.00	1,739,392.79	76.49
NET OF REVENUES & EXPENDITURES		287,070.92	975,783.09	0.00	(975,783.09)	100.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDTG USED
<b>Fund 206 - FIRE</b>						
<b>Revenues</b>						
<b>REVENUES</b>						
206-000-393.000	FUND BALANCE - DESIGNATED	0.00	0.00	757,265.00	757,265.00	0.00
206-000-402.000	TAX COLLECTIONS	0.00	4,311,098.30	4,295,285.00	(15,813.30)	100.37
206-000-534.000	MISC GRANT REVENUE	0.00	768.75	0.00	(768.75)	100.00
206-000-607.000	PERMIT AND INSPECTION FEES	0.00	1,960.00	1,000.00	(960.00)	196.00
206-000-626.000	COST RECOVERY REVENUE	1,214.58	9,498.99	0.00	(9,498.99)	100.00
206-000-630.000	AMBULANCE TRANSPORTATION REVENUE	282.88	25,802.84	0.00	(25,802.84)	100.00
206-000-665.000	INTEREST	0.00	335,935.62	25,000.00	(310,935.62)	1,343.74
206-000-695.000	MISC REVENUE	4,671.45	17,461.07	1,000.00	(16,461.07)	1,746.11
206-336-977.002	USE OF FUND BALANCE	0.00	0.00	124,400.00	124,400.00	0.00
<b>REVENUES</b>		<b>6,168.91</b>	<b>4,702,525.57</b>	<b>5,203,950.00</b>	<b>501,424.43</b>	<b>90.36</b>
<hr/>						
<b>TOTAL REVENUES</b>		<b>6,168.91</b>	<b>4,702,525.57</b>	<b>5,203,950.00</b>	<b>501,424.43</b>	<b>90.36</b>
<hr/>						
<b>Expenditures</b>						
<b>OTHER</b>						
206-336-801.001	HR SERVICES	0.00	0.00	43,500.00	43,500.00	0.00
<b>OTHER</b>		<b>0.00</b>	<b>0.00</b>	<b>43,500.00</b>	<b>43,500.00</b>	<b>83.63</b>
<hr/>						
<b>CIVIL SERVICE</b>						
206-220-710.000	FEES & PER DIEM	0.00	450.00	1,000.00	550.00	45.00
206-220-727.000	SUPPLIES	0.00	895.00	500.00	(395.00)	179.00
206-220-903.000	LEGAL NOTICES	0.00	0.00	500.00	500.00	0.00
<b>CIVIL SERVICE</b>		<b>0.00</b>	<b>1,345.00</b>	<b>2,000.00</b>	<b>655.00</b>	<b>67.25</b>
<hr/>						
<b>SALARIES</b>						
206-336-705.000	SALARIES CHIEF	8,677.12	112,336.80	112,775.00	438.20	99.61
206-336-705.001	SALARIES CAPTAIN	22,566.52	315,967.25	308,000.00	(7,967.25)	102.59
206-336-706.001	SALARIES FIRE SERGEANT	42,446.38	490,752.88	531,315.00	40,562.12	92.37
206-336-706.003	SALARIES CLERICAL	7,586.58	67,622.94	65,120.00	(2,502.94)	103.84
206-336-706.005	SALARIES FIREFIGHTERS	67,232.88	853,257.25	882,340.00	29,082.75	96.70
206-336-706.007	FIRE MARSHAL	7,847.56	101,763.96	101,500.00	(263.96)	100.26
206-336-709.000	OVERTIME	10,632.39	153,595.08	160,000.00	6,404.92	96.00
206-336-710.000	PART TIME STAFF	2,365.84	32,356.80	55,000.00	22,643.20	58.83
206-336-720.000	HOLIDAY/PERSONAL PAY	151,622.16	243,320.70	270,500.00	27,179.30	89.95
<b>SALARIES</b>		<b>320,977.43</b>	<b>2,370,973.66</b>	<b>2,486,550.00</b>	<b>115,576.34</b>	<b>95.35</b>
<hr/>						
<b>PAYROLL BENEFITS</b>						
206-336-715.000	SOCIAL SECURITY	31,576.59	186,740.78	186,850.00	109.22	99.94
206-336-716.000	HOSP & OPTICAL INSURANCE	48,501.39	465,955.58	417,900.00	(48,055.58)	111.50
206-336-716.002	RETIREE HEALTH CARE PREMIUMS	6,487.08	98,341.83	100,500.00	2,158.17	97.85
206-336-717.000	GROUP LIFE INSURANCE	408.20	2,229.40	2,700.00	470.60	82.57
206-336-718.000	PENSTON	40,288.22	425,421.80	436,200.00	10,778.20	97.53
206-336-718.002	HEALTH CARE SAVINGS PLAN	4,661.45	39,359.85	37,150.00	(2,209.85)	105.95
206-336-718.003	OPEB FUNDING	0.00	150,000.00	150,000.00	0.00	100.00
206-336-718.004	457 - EMPLOYER PORTION	2,370.55	18,342.91	16,200.00	(2,142.91)	113.23
206-336-719.000	WORKERS COMP INSURANCE	0.00	89,995.41	90,000.00	4.59	99.99
206-336-722.000	UNEMPLOYMENT INSURANCE	50.15	4,643.54	7,050.00	2,406.46	65.87
206-336-724.000	DENTAL INSURANCE	4,284.80	24,658.48	26,500.00	1,841.52	93.05
<b>PAYROLL BENEFITS</b>		<b>138,628.43</b>	<b>1,505,689.58</b>	<b>1,471,050.00</b>	<b>(34,639.58)</b>	<b>101.12</b>

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 206 - FIRE						
Expenditures						
OTHER						
206-336-727.000	OFFICE SUPPLIES	482.51	4,170.15	6,000.00	1,829.85	69.50
206-336-730.000	POSTAGE, SHIPPING	0.00	206.83	200.00	(6.83)	103.42
206-336-744.000	UNIFORMS	7,871.66	25,005.69	23,000.00	(2,005.69)	108.72
206-336-744.002	FOOD ALLOWANCE	4,250.00	16,468.70	19,600.00	3,131.30	84.02
206-336-757.000	OPERATING SUPPLIES	2,452.34	40,992.90	43,000.00	2,007.10	95.33
206-336-758.000	OXYGEN & AIR	494.25	2,889.50	2,600.00	(289.50)	111.13
206-336-767.000	MEDICAL SUPPLIES	5,145.49	30,217.09	40,000.00	9,782.91	75.54
206-336-801.000	CONSULTANT/PROFESSIONAL SERVICES	0.00	0.00	500.00	500.00	0.00
206-336-807.000	AUDIT FEES	0.00	6,000.00	6,000.00	0.00	100.00
206-336-826.000	LEGAL FEES	1,251.00	4,475.00	10,000.00	5,525.00	44.75
206-336-826.002	TAX TRIBUNAL REFUNDS	0.00	0.00	4,000.00	4,000.00	0.00
206-336-835.000	MEDICAL SERVICES	0.00	1,612.58	5,000.00	3,387.42	32.25
206-336-851.000	RADIO MAINTENANCE	0.00	0.00	2,000.00	2,000.00	0.00
206-336-853.000	CELL PHONES	314.58	3,259.58	4,500.00	1,240.42	72.44
206-336-853.001	TELEPHONE STATION 1	357.32	2,669.31	500.00	(2,169.31)	533.86
206-336-853.002	TELEPHONE STATION 2	134.68	808.08	500.00	(308.08)	161.62
206-336-853.003	TELEPHONE STATION 3	134.68	808.08	500.00	(308.08)	161.62
206-336-863.001	VEHICLE MAINTENANCE	14,431.28	62,756.10	62,000.00	(756.10)	101.22
206-336-863.002	TIRES	0.00	2,486.90	10,000.00	7,513.10	24.87
206-336-864.000	CONFERENCES & MEETINGS	68.23	9,807.53	14,500.00	4,692.47	67.64
206-336-867.000	GASOLINE	4,372.52	26,595.07	36,000.00	9,404.93	73.88
206-336-903.000	LEGAL NOTICES	0.00	0.00	200.00	200.00	0.00
206-336-910.000	INSURANCE	0.00	55,250.89	60,000.00	4,749.11	92.08
206-336-921.001	ELECTRIC STATION 1	1,205.67	13,682.08	15,750.00	2,067.92	86.87
206-336-921.002	ELECTRIC STATION 2	414.28	5,173.80	5,500.00	326.20	94.07
206-336-921.003	ELECTRIC STATION 3	273.77	4,089.78	5,500.00	1,410.22	74.36
206-336-922.001	UTILITIES - STATION 1	0.00	1,317.12	0.00	(1,317.12)	100.00
206-336-923.001	HEAT STATION 1	923.58	4,449.62	6,700.00	2,250.38	66.41
206-336-923.002	HEAT STATION 2	321.92	1,541.08	3,000.00	1,458.92	51.37
206-336-923.003	HEAT STATION 3	334.76	1,446.05	3,000.00	1,553.95	48.20
206-336-931.001	MAINTENANCE STATION 1	1,915.20	17,541.88	45,000.00	27,458.12	38.98
206-336-931.002	MAINTENANCE STATION 2	3,435.98	6,163.09	25,000.00	18,836.91	24.65
206-336-931.003	MAINTENANCE STATION 3	708.68	6,604.52	25,000.00	18,395.48	26.42
206-336-933.000	EQUIPMENT MAINTENANCE	1,350.00	29,207.07	21,900.00	(7,307.07)	133.37
206-336-957.000	SUBSCRIPTIONS	0.00	9,674.60	15,000.00	5,325.40	64.50
206-336-958.000	MEMBERSHIPS & DUES	167.62	3,359.70	5,000.00	1,640.30	67.19
206-336-960.000	TRAINING	2,950.88	23,460.48	44,500.00	21,039.52	52.72
206-336-962.000	MISCELLANEOUS	725.60	12,380.82	5,000.00	(7,380.82)	247.62
206-336-976.000	TRANSFER TO OTHER FUNDS	0.00	500,000.00	500,000.00	0.00	100.00
OTHER		56,488.48	936,571.67	1,076,450.00	139,878.33	83.63
AQUISTITIONS						
206-336-977.000	EQUIPMENT ACQUISITIONS 04M	18.42	25,029.77	51,900.00	26,870.23	48.23
206-336-977.001	SUPPLY ACQUISITIONS 04M	0.00	67,657.92	72,500.00	4,842.08	93.32
AQUISTITIONS		18.42	92,687.69	124,400.00	31,712.31	74.51
<hr/>						
TOTAL EXPENDITURES		516,112.76	4,907,267.60	5,203,950.00	296,682.40	94.30
<hr/>						
Fund 206 - FIRE:		6,168.91	4,702,525.57	5,203,950.00	501,424.43	9
TOTAL REVENUES						13

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 206 - FIRE						
TOTAL EXPENDITURES		516,112.76	4,907,267.60	5,203,950.00	296,682.40	94.30
NET OF REVENUES & EXPENDITURES		(509,943.85)	(204,742.03)	0.00	204,742.03	100.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 207 - POLICE						
Revenues						
REVENUES						
207-000-393.000	DESIGNATED FUND BALANCE	0.00	0.00	703,115.00	703,115.00	0.00
207-000-402.000	TAX COLLECTIONS	0.00	6,960,230.19	6,934,565.00	(25,665.19)	100.37
207-000-530.000	FEDERAL GRANTS	0.00	1,050.00	0.00	(1,050.00)	100.00
207-000-530.001	GRANTS - OTHER	2,396.16	20,169.36	0.00	(20,169.36)	100.00
207-000-540.000	SNC (STATE 911) FUNDS	0.00	6,800.00	0.00	(6,800.00)	100.00
207-000-546.000	CRIMINAL JUSTICE TRNG 302 FUNDS	0.00	10,241.56	4,400.00	(5,841.56)	232.76
207-000-577.000	LIQUOR LICENSES	0.00	18,393.65	11,000.00	(7,393.65)	167.22
207-000-601.000	LIAISON OFFICER REIMBURSEMENT	0.00	60,150.00	45,000.00	(15,150.00)	133.67
207-000-607.000	SEX OFFENDERS REGISTRY FEE	0.00	2,050.00	1,500.00	(550.00)	136.67
207-000-608.000	PRELIMINARY BREATH TEST REV	290.00	530.00	0.00	(530.00)	100.00
207-000-608.001	WARRANT PROCESSING FEES	150.00	1,230.00	800.00	(430.00)	153.75
207-000-608.002	IMPOUND FEES	960.00	9,760.00	3,000.00	(6,760.00)	325.33
207-000-626.000	COST RECOVERY REVENUE	0.00	6,573.28	0.00	(6,573.28)	100.00
207-000-627.000	DUPLICATING & PHOTOSTAT	778.98	7,606.09	2,000.00	(5,606.09)	380.30
207-000-644.000	AUCTION PROCEEDS	0.00	1,500.00	0.00	(1,500.00)	100.00
207-000-656.000	ORDINANCE FINES & COSTS	11,963.96	168,744.85	120,000.00	(48,744.85)	140.62
207-000-665.000	INTEREST	0.00	341,338.66	25,000.00	(316,338.66)	1,365.35
207-000-665.002	INTEREST INCOME-TAX FUND	0.00	0.00	1,500.00	1,500.00	0.00
207-000-673.000	SALE OF FIXED ASSETS	0.00	0.00	20,000.00	20,000.00	0.00
207-000-684.000	CROSSING GUARDS REIMBURSEMENT	0.00	6,906.13	35,000.00	28,093.87	19.73
207-000-690.000	INSURANCE REBATES	4,885.80	22,815.67	23,000.00	184.33	99.20
207-000-695.000	MISCELLANEOUS REVENUE	8,536.68	33,921.47	1,000.00	(32,921.47)	3,392.15
REVENUES		29,961.58	7,680,010.91	7,930,880.00	250,869.09	96.84
<hr/>						
TOTAL REVENUES		29,961.58	7,680,010.91	7,930,880.00	250,869.09	96.84
<hr/>						
Expenditures						
OTHER						
207-301-730.000	POSTAGE	24.20	650.80	800.00	149.20	81.35
207-301-801.001	HR SERVICES	0.00	0.00	70,000.00	70,000.00	0.00
207-301-960.004	STATE CPE TRAINING	0.00	2,050.00	0.00	(2,050.00)	100.00
OTHER		24.20	2,700.80	70,800.00	68,099.20	85.62
<hr/>						
CIVIL SERVICE						
207-220-710.000	FEES & PER DIEM-CIVIL SVC	300.00	300.00	1,000.00	700.00	30.00
207-220-727.000	SUPPLIES-CIVIL SVC	1,000.00	1,269.00	1,000.00	(269.00)	126.90
207-220-903.000	LEGAL NOTICES-CIVIL SVC	0.00	0.00	1,000.00	1,000.00	0.00
CIVIL SERVICE		1,300.00	1,569.00	3,000.00	1,431.00	52.30
<hr/>						
SALARIES						
207-301-705.000	SALARIES CHIEF	8,677.44	112,336.48	112,775.00	438.52	99.61
207-301-706.001	SALARIES LIEUTENANTS	24,347.51	328,759.74	341,152.00	12,392.26	96.37
207-301-706.002	SALARIES SERGEANTS	17,660.99	329,557.02	415,623.00	86,065.98	79.29
207-301-706.003	SALARIES POLICE OFFICERS	124,255.49	1,813,849.19	1,854,100.00	40,250.81	97.83
207-301-706.004	SALARIES DISPATCHERS	26,652.49	357,972.44	351,770.00	(6,202.44)	101.76
207-301-706.005	SALARIES CLERICAL	12,719.87	169,385.08	159,025.00	(10,360.08)	106.51
207-301-706.006	SALARIES CADET	3,975.00	28,218.75	46,800.00	18,581.25	60.30
207-301-709.001	OVERTIME	22,516.33	145,380.68	180,000.00	34,619.32	80.77
207-301-709.002	COURT TIME	2,257.83	10,168.87	30,000.00	19,831.13	33.90
207-301-709.003	SHIFT PREMIUM	0.00	0.00	40,000.00	40,000.00	
207-301-720.000	HOLIDAY PAY	120,727.33	129,490.02	140,000.00	10,509.98	9

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 207 - POLICE						
Expenditures						
SALARIES		363,790.28	3,425,118.27	3,671,245.00	246,126.73	93.30
PAYROLL BENEFITS						
207-301-715.000	SOCIAL SECURITY	39,436.30	271,554.49	280,165.00	8,610.51	96.93
207-301-716.000	HOSP & OPTICAL INSURANCE	78,118.72	758,710.45	700,000.00	(58,710.45)	108.39
207-301-716.001	RETIREE HOSP & OPTICAL INSURANCE	28,021.90	313,696.40	323,500.00	9,803.60	96.97
207-301-717.000	GROUP LIFE INSURANCE	557.35	3,147.85	4,320.00	1,172.15	72.87
207-301-718.000	PENSION	73,006.65	823,126.13	861,000.00	37,873.87	95.60
207-301-718.001	HEALTH CARE SAVINGS PROGRAM	8,242.68	76,880.39	78,000.00	1,119.61	98.56
207-301-718.002	457-EMPLOYER PORTION	6,147.03	46,182.56	45,000.00	(1,182.56)	102.63
207-301-718.003	OPEB FUNDING	0.00	250,000.00	250,000.00	0.00	100.00
207-301-719.000	WORKERS COMP INSURANCE	0.00	62,001.08	68,420.00	6,418.92	90.62
207-301-722.000	UNEMPLOYMENT INSURANCE	51.68	7,079.06	11,900.00	4,820.94	59.49
207-301-724.000	DENTAL INSURANCE	7,983.44	42,769.35	45,900.00	3,130.65	93.18
PAYROLL BENEFITS		241,565.75	2,655,147.76	2,668,205.00	13,057.24	99.51
OTHER						
207-301-727.000	OFFICE SUPPLIES	607.80	9,926.60	11,000.00	1,073.40	90.24
207-301-741.000	FIRE ARMS, TRNG & RANGE SUPPLIES	0.00	6,897.80	10,000.00	3,102.20	68.98
207-301-744.000	UNIFORMS	2,622.64	11,685.32	10,000.00	(1,685.32)	116.85
207-301-744.004	UNIFORM ALLOWANCE PAYOUT	54.80	31,368.53	35,000.00	3,631.47	89.62
207-301-757.000	OPERATING SUPPLIES	2,610.65	10,624.49	12,000.00	1,375.51	88.54
207-301-805.000	SEX OFFENDERS REGISTRY FEE	60.00	1,230.00	1,500.00	270.00	82.00
207-301-807.000	AUDIT FEES	0.00	6,000.00	6,000.00	0.00	100.00
207-301-818.000	COMPUTER SERVICES	165.00	25,667.79	30,000.00	4,332.21	85.56
207-301-826.000	LEGAL FEES-PROSECUTIONS	8,333.33	91,666.63	101,000.00	9,333.37	90.76
207-301-826.001	TAX TRIBUNAL REFUNDS	0.00	0.00	5,000.00	5,000.00	0.00
207-301-826.002	LEGAL FEES - LABOR RELATED	0.00	930.00	12,000.00	11,070.00	7.75
207-301-851.000	EQUIPMENT REPAIRS	0.00	0.00	3,000.00	3,000.00	0.00
207-301-853.000	TELEPHONE	787.37	8,485.97	15,000.00	6,514.03	56.57
207-301-860.000	MILEAGE	0.00	0.00	1,000.00	1,000.00	0.00
207-301-861.000	WITNESS FEES	16.00	157.20	1,000.00	842.80	15.72
207-301-863.001	VEHICLE MAINTENANCE	5,885.40	54,476.03	57,000.00	2,523.97	95.57
207-301-863.002	TIRES	0.00	4,279.92	5,000.00	720.08	85.60
207-301-864.000	CONFERENCES	50.83	8,567.47	7,000.00	(1,567.47)	122.39
207-301-867.000	GASOLINE	10,635.71	74,678.72	90,000.00	15,321.28	82.98
207-301-903.000	LEGAL NOTICES	0.00	341.25	500.00	158.75	68.25
207-301-910.000	INSURANCE	0.00	138,261.24	165,000.00	26,738.76	83.79
207-301-931.001	BLDG MAINTENANCE & SUPPLIES	1,321.59	17,160.55	15,000.00	(2,160.55)	114.40
207-301-933.000	EQUIP LEASE/ MAINT CONTRACTS	681.26	94,714.19	105,000.00	10,285.81	90.20
207-301-934.000	OFFICE EQUIP MAINTENANCE	0.00	1,108.99	6,000.00	4,891.01	18.48
207-301-958.000	MEMBERSHIPS & DUES	0.00	1,975.00	2,000.00	25.00	98.75
207-301-960.000	TRAINING	0.00	13,554.90	16,000.00	2,445.10	84.72
207-301-960.001	CRIMINAL JUSTICE TRNG 302 FUNDS	0.00	4,650.80	5,700.00	1,049.20	81.59
207-301-960.002	SNC (STATE 911) TRAINING FUNDS	492.26	3,435.27	5,400.00	1,964.73	63.62
207-301-960.003	TUITION REIMBURSEMENT	955.00	7,045.75	15,000.00	7,954.25	46.97
207-301-961.000	CERT EXPENDITURES	0.00	0.00	2,000.00	2,000.00	0.00
207-301-962.001	MISCELLANEOUS	2,226.00	7,007.72	8,000.00	992.28	87.60
207-301-962.003	EVIDENCE COLLECTION	439.95	2,598.03	4,000.00	1,401.97	64.95
207-301-976.000	TRANSFER TO OTHER FUNDS	0.00	500,000.00	500,000.00	0.00	100.00
OTHER		37,945.59	1,138,496.16	1,262,100.00	123,603.84	85.62
AQUISTITIONS						
207-301-977.000	EQUIPMENT ACQUISITIONS	145.00	215,543.02	225,000.00	9,456.98	9

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 207 - POLICE						
Expenditures						
207-301-977.003	ACCREDITATION, SOFTWARE, MTCE	1,000.00	11,100.29	8,000.00	(3,100.29)	138.75
AQUISTITIONS		1,145.00	226,643.31	233,000.00	6,356.69	97.27
CROSSING GUARDS						
207-316-707.000	SALARIES PT - CROSSING GUARDS	2,031.00	20,676.00	20,000.00	(676.00)	103.38
207-316-715.000	SOCIAL SECURITY-CROSSING GUARDS	210.47	1,636.87	1,530.00	(106.87)	106.98
207-316-719.000	WORKERS COMP -CROSSING GUARDS	0.00	480.00	500.00	20.00	96.00
207-316-722.000	UNEMPLOYMENT INSUR CROSSING GUARDS	49.48	383.63	500.00	116.37	76.73
CROSSING GUARDS		2,290.95	23,176.50	22,530.00	(646.50)	102.87
<hr/>						
TOTAL EXPENDITURES		648,061.77	7,472,851.80	7,930,880.00	458,028.20	94.22
<hr/>						
Fund 207 - POLICE:						
TOTAL REVENUES		29,961.58	7,680,010.91	7,930,880.00	250,869.09	96.84
TOTAL EXPENDITURES		648,061.77	7,472,851.80	7,930,880.00	458,028.20	94.22
NET OF REVENUES & EXPENDITURES		(618,100.19)	207,159.11	0.00	(207,159.11)	100.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
<b>Fund 208 - PARKS AND RECREATION FUND</b>						
<b>Revenues</b>						
<b>REVENUES</b>						
208-000-393.000	FUND BALANCE - DESIGNATED	0.00	0.00	869,082.00	869,082.00	0.00
208-000-402.000	PARKS AND RECREATION TAX COLLECTIONS	0.00	422,418.14	420,918.00	(1,500.14)	100.36
208-000-652.000	FIELD RENTAL	0.00	1,590.00	6,000.00	4,410.00	26.50
208-000-665.000	INTEREST	12,862.70	64,071.55	4,000.00	(60,071.55)	1,601.79
208-000-675.000	SPECIAL EVENTS DONATIONS	2,000.00	3,750.00	0.00	(3,750.00)	100.00
208-000-696.000	BOND PROCEEDS	0.00	2,812,881.90	0.00	(2,812,881.90)	100.00
<b>REVENUES</b>		<b>14,862.70</b>	<b>3,304,711.59</b>	<b>1,300,000.00</b>	<b>(2,004,711.59)</b>	<b>254.21</b>
<b>TOTAL REVENUES</b>						
		<b>14,862.70</b>	<b>3,304,711.59</b>	<b>1,300,000.00</b>	<b>(2,004,711.59)</b>	<b>254.21</b>
<b>Expenditures</b>						
<b>EXPENSES</b>						
208-000-710.000	FEE'S AND PER DIEM	0.00	675.00	3,400.00	2,725.00	19.85
208-000-715.000	SOC SEC & MEDICARE TAX	0.00	0.00	250.00	250.00	0.00
208-000-720.000	EVENT EXPENSES	4,376.64	13,856.11	10,000.00	(3,856.11)	138.56
208-000-722.000	MI UNEMPLOYMENT TAX	0.00	0.00	50.00	50.00	0.00
208-000-727.000	OFFICE SUPPLIES	0.00	10.98	0.00	(10.98)	100.00
208-000-801.000	PROFESSIONAL SERVICES	0.00	341.00	20,000.00	19,659.00	1.71
208-000-903.000	LEGAL PUBLICATIONS	0.00	1,938.00	300.00	(1,638.00)	646.00
208-000-910.000	INSURANCE	0.00	4,845.75	5,200.00	354.25	93.19
208-000-921.000	ELECTRIC JUDY HAWLEY PARK	20.09	403.40	900.00	496.60	44.82
208-000-921.001	ELECTRIC - VETTER PARK	99.19	682.01	900.00	217.99	75.78
208-000-922.000	UTILITIES- PARKS	466.44	4,861.44	4,000.00	(861.44)	121.54
208-000-931.001	GROUNDS MAINTENANCE	0.00	21,585.31	43,000.00	21,414.69	50.20
208-000-932.000	PARK EQUIPMENT	0.00	625.17	5,000.00	4,374.83	12.50
208-000-958.000	MEMBERSHIPS AND DUES	0.00	0.00	500.00	500.00	0.00
208-000-962.000	MISCELLANEOUS	0.00	750.00	1,500.00	750.00	50.00
208-000-972.000	PATHWAY PROJECTS	2,337.50	688,821.07	800,000.00	111,178.93	86.10
208-000-973.000	BLOOMER PARK IMPROVEMENTS	0.00	0.00	5,000.00	5,000.00	0.00
208-000-974.000	PARK IMPROVEMENTS	1,782.50	38,925.00	400,000.00	361,075.00	9.73
208-000-992.000	BOND INTEREST	0.00	500.00	0.00	(500.00)	100.00
<b>EXPENSES</b>		<b>9,082.36</b>	<b>778,820.24</b>	<b>1,300,000.00</b>	<b>521,179.76</b>	<b>59.91</b>
<b>TOTAL EXPENDITURES</b>						
		<b>9,082.36</b>	<b>778,820.24</b>	<b>1,300,000.00</b>	<b>521,179.76</b>	<b>59.91</b>
<b>Fund 208 - PARKS AND RECREATION FUND:</b>						
<b>TOTAL REVENUES</b>		<b>14,862.70</b>	<b>3,304,711.59</b>	<b>1,300,000.00</b>	<b>(2,004,711.59)</b>	<b>254.21</b>
<b>TOTAL EXPENDITURES</b>		<b>9,082.36</b>	<b>778,820.24</b>	<b>1,300,000.00</b>	<b>521,179.76</b>	<b>59.91</b>
<b>NET OF REVENUES &amp; EXPENDITURES</b>		<b>5,780.34</b>	<b>2,525,891.35</b>	<b>0.00</b>	<b>(2,525,891.35)</b>	<b>100.00</b>



PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 249 - BUILDING DEPARTMENT FUND						
Revenues						
REVENUES						
249-000-393.000	FUND BALANCE - DESIGNATED	0.00	0.00	636,510.00	636,510.00	0.00
REVENUES		0.00	0.00	636,510.00	636,510.00	0.00
BUILDING REVENUE						
249-000-452.000	CONTRACTORS GENERAL LICENSES	660.00	4,960.00	4,500.00	(460.00)	110.22
249-000-453.000	ELECTRICAL LICENSES	380.00	2,980.00	2,500.00	(480.00)	119.20
249-000-454.000	HEATING LICENSES	240.00	1,405.00	1,400.00	(5.00)	100.36
249-000-455.000	PLUMBING LICENSES	13.00	85.00	250.00	165.00	34.00
249-000-477.000	BUILDING PERMITS	35,759.50	407,454.44	380,000.00	(27,454.44)	107.22
249-000-478.000	ELECTRICAL PERMITS	6,985.00	92,813.50	80,000.00	(12,813.50)	116.02
249-000-479.000	HEATING PERMITS	8,220.00	113,221.40	110,000.00	(3,221.40)	102.93
249-000-480.000	PLUMBING PERMITS	3,839.00	48,455.50	48,000.00	(455.50)	100.95
249-000-482.000	PLOT PLAN REVIEWS	0.00	0.00	12,000.00	12,000.00	0.00
249-000-484.000	BUILDING PLAN REVIEWS	0.00	0.00	18,000.00	18,000.00	0.00
249-000-484.001	FIRE SAFETY REVIEWS	910.50	3,253.50	5,000.00	1,746.50	65.07
249-000-622.000	RENTAL REGISTRATION FEE	0.00	17,318.00	20,000.00	2,682.00	86.59
249-000-665.000	INTEREST	0.00	67,643.68	18,000.00	(49,643.68)	375.80
249-000-695.000	MISCELLANEOUS REVENUE	2,050.00	32,275.00	5,000.00	(27,275.00)	645.50
BUILDING REVENUE		59,057.00	791,865.02	704,650.00	(87,215.02)	112.38
<hr/>						
TOTAL REVENUES		59,057.00	791,865.02	1,341,160.00	549,294.98	59.04
Expenditures						
SALARIES						
249-000-706.001	SALARIES BLDG OFFICIAL	7,407.22	95,891.09	96,300.00	408.91	99.58
249-000-706.002	SALARIES CLERICAL	12,911.93	110,472.61	130,760.00	20,287.39	84.49
249-000-706.003	CONTRACT BLDG INSPECTORS	6,520.00	62,076.00	65,000.00	2,924.00	95.50
249-000-706.005	BUILDING INSPECTOR	0.00	0.00	60,000.00	60,000.00	0.00
249-000-707.000	ELECTRICAL INSPECTOR	4,922.70	48,730.20	75,000.00	26,269.80	64.97
249-000-707.001	PLUMBING/MECHANICAL INSPECTOR	8,450.70	86,767.90	125,000.00	38,232.10	69.41
249-000-709.000	OVERTIME	167.75	167.75	2,000.00	1,832.25	8.39
SALARIES		40,380.30	404,105.55	554,060.00	149,954.45	72.94
PAYROLL BENEFITS						
249-000-715.000	SOCIAL SECURITY	2,048.95	16,745.83	22,050.00	5,304.17	75.94
249-000-716.000	HOSP & OPTICAL INSURANCE	4,072.72	49,304.65	74,550.00	25,245.35	66.14
249-000-716.001	RETIREE MEDICAL	407.63	3,193.47	4,000.00	806.53	79.84
249-000-717.000	GROUP LIFE INSURANCE	47.10	259.05	435.00	175.95	59.55
249-000-718.000	PENSION	2,852.97	29,056.79	32,800.00	3,743.21	88.59
249-000-718.001	HEALTH CARE SAVINGS PROGRAM	300.00	3,600.00	4,800.00	1,200.00	75.00
249-000-718.002	OPEB FUNDING	260.28	50,520.56	50,000.00	(520.56)	101.04
249-000-718.003	457-EMPLOYER PORTION	273.93	3,797.83	1,700.00	(2,097.83)	223.40
249-000-719.000	WORKERS COMP INSURANCE	0.00	2,037.50	2,830.00	792.50	72.00
249-000-722.000	UNEMPLOYMENT INSURANCE	0.00	501.40	685.00	183.60	73.20
249-000-724.000	DENTAL INSURANCE	619.76	3,790.91	5,000.00	1,209.09	75.82
PAYROLL BENEFITS		10,883.34	162,807.99	198,850.00	36,042.01	81.87
EXPENSES						
249-000-727.000	OFFICE SUPPLIES	70.73	852.26	3,500.00	2,647.74	2
249-000-730.000	POSTAGE	0.00	997.11	750.00	(247.11)	13

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BDGT USED
Fund 249 - BUILDING DEPARTMENT FUND						
Expenditures						
249-000-757.000	OPERATING SUPPLIES	349.01	1,871.24	1,500.00	(371.24)	124.75
249-000-801.000	PROFESSIONAL FEES	1,767.50	32,882.78	30,000.00	(2,882.78)	109.61
249-000-801.001	HR SERVICES	0.00	0.00	4,000.00	4,000.00	0.00
249-000-801.002	RENTAL INSPECTIONS	640.00	9,413.90	10,500.00	1,086.10	89.66
249-000-807.000	AUDIT FEES	0.00	4,000.00	4,000.00	0.00	100.00
249-000-853.000	CELLULAR PHONE	366.03	3,260.58	2,500.00	(760.58)	130.42
249-000-863.000	VEHICLE MAINTENANCE	8.00	145.97	1,500.00	1,354.03	9.73
249-000-864.000	CONFERENCES & MEETINGS	0.00	0.00	2,000.00	2,000.00	0.00
249-000-867.000	GASOLINE	108.50	904.73	1,000.00	95.27	90.47
249-000-910.000	INSURANCE	0.00	4,961.68	5,500.00	538.32	90.21
249-000-957.000	SUBSCRIPTIONS	0.00	0.00	500.00	500.00	0.00
249-000-958.000	MEMBERSHIPS & DUES	0.00	520.00	800.00	280.00	65.00
249-000-960.000	TRAINING	0.00	0.00	2,000.00	2,000.00	0.00
249-000-962.000	MISCELLANEOUS	0.00	0.00	700.00	700.00	0.00
249-000-971.000	TECHNOLOGY EQUIPMENT	(5,767.48)	15,157.85	15,000.00	(157.85)	101.05
249-000-976.000	TRANSFER TO IMPROV REV	0.00	500,000.00	500,000.00	0.00	100.00
249-000-991.000	PRINCIPAL-CAPITAL LEASE	0.00	1,904.04	2,000.00	95.96	95.20
249-000-995.000	INTEREST-CAPITAL LEASE	0.00	474.06	500.00	25.94	94.81
EXPENSES		(2,457.71)	577,346.20	588,250.00	10,903.80	98.15
TOTAL EXPENDITURES		48,805.93	1,144,259.74	1,341,160.00	196,900.26	85.32
Fund 249 - BUILDING DEPARTMENT FUND:						
TOTAL REVENUES		59,057.00	791,865.02	1,341,160.00	549,294.98	59.04
TOTAL EXPENDITURES		48,805.93	1,144,259.74	1,341,160.00	196,900.26	85.32
NET OF REVENUES & EXPENDITURES		10,251.07	(352,394.72)	0.00	352,394.72	100.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR	YTD BALANCE	2024	AVAILABLE	% BDCGT
		MONTH 12/31/2024	12/31/2024	AMENDED BUDGET	BALANCE	USED
Fund 591 - WATER						
Revenues						
REVENUES						
591-000-393.000	FUND BALANCE - DESIGNATED	0.00	0.00	464,397.00	464,397.00	0.00
591-000-445.000	PENALTIES	0.00	12,161.94	10,412.00	(1,749.94)	116.81
591-000-530.000	GRANT REVENUE	0.00	0.00	15,000.00	15,000.00	0.00
591-000-626.000	METERS	1,976.35	34,228.67	20,500.00	(13,728.67)	166.97
591-000-627.000	METER INSTALLATIONS	375.00	6,525.00	5,000.00	(1,525.00)	130.50
591-000-642.000	WATER	922.92	1,439,755.75	1,103,297.00	(336,458.75)	130.50
591-000-650.000	MISC SERVICE CHARGES	450.00	6,800.00	6,751.00	(49.00)	100.73
591-000-650.001	SPRINKLER SYSTEM	250.00	4,150.00	2,080.00	(2,070.00)	199.52
591-000-665.000	INTEREST EARNED	18,955.31	91,673.86	10,000.00	(81,673.86)	916.74
591-000-665.004	INTEREST - CAPITAL FUND	8,655.39	79,569.18	10,000.00	(69,569.18)	795.69
591-000-665.011	INTEREST INCOME M59 EAST (7)	0.00	199.42	2,500.00	2,300.58	7.98
591-000-665.014	INTEREST INCOME NORDIC DRIVE WAT MAIN	0.00	0.00	2,000.00	2,000.00	0.00
591-000-665.015	INTEREST INCOME SIGNED AGREEMENTS	0.00	0.00	2,000.00	2,000.00	0.00
591-000-673.000	SALE OF FIXED ASSETS	0.00	0.00	20,000.00	20,000.00	0.00
591-000-674.001	CONNECTION FEES	11,375.00	193,541.08	130,000.00	(63,541.08)	148.88
591-000-674.004	WATERMAIN RECOVERY COSTS	0.00	41,726.48	0.00	(41,726.48)	100.00
591-000-674.010	NEW RESIDENTIAL CONST WATER USE FEE	520.00	8,424.00	8,000.00	(424.00)	105.30
591-000-695.000	MISCELLANEOUS INCOME	2,805.76	10,599.33	6,569.00	(4,030.33)	161.35
591-000-699.000	SEWER ADMIN FEES	0.00	0.00	240,000.00	240,000.00	0.00
591-000-699.001	GEN TWP SERVICE FEES	0.00	0.00	25,000.00	25,000.00	0.00
REVENUES		46,285.73	1,929,354.71	2,083,506.00	154,151.29	92.60
TOTAL REVENUES		46,285.73	1,929,354.71	2,083,506.00	154,151.29	92.60
Expenditures						
OFFICE SUPPLIES						
591-000-727.000	OFFICE SUPPLIES	190.30	8,417.21	10,102.00	1,684.79	83.32
591-000-730.000	POSTAGE	0.00	6,380.95	5,115.00	(1,265.95)	124.75
OFFICE SUPPLIES		190.30	14,798.16	15,217.00	418.84	97.25
OTHER						
591-000-958.000	DUES & MISC	3,299.59	7,339.81	7,632.00	292.19	96.17
591-000-960.000	EDUCATION & TRAINING	0.00	1,232.90	4,500.00	3,267.10	27.40
591-000-962.000	MISCELLANEOUS	0.00	427.96	12,000.00	11,572.04	3.57
591-000-968.000	DEPRECIATION WATER SYSTEM	0.00	0.00	365,000.00	365,000.00	0.00
591-000-969.000	DEPRECIATION & AMORTIZATION	0.00	0.00	90,000.00	90,000.00	0.00
591-000-976.000	BOND INTEREST-DWRP	0.00	11,062.50	14,000.00	2,937.50	79.02
591-000-977.000	VEHICLES	0.00	0.00	10,000.00	10,000.00	0.00
591-000-991.001	PRINCIPAL COPIER LEASE	0.00	0.00	1,700.00	1,700.00	0.00
591-000-995.000	MISC SERVICE CHARGES	33.00	2,036.20	0.00	(2,036.20)	100.00
591-000-995.001	WELL HEAD PROTECTION PROGRAM	0.00	3,481.04	13,138.00	9,656.96	26.50
591-000-995.002	INTEREST COPIER LEASE	0.00	0.00	200.00	200.00	0.00
OTHER		3,332.59	25,580.41	518,170.00	492,589.59	27.69
SALARIES						
591-000-703.000	DPS DIRECTOR	8,435.91	109,221.37	109,645.00	423.63	99.61
591-000-706.000	WAGES CLERICAL	9,214.97	121,617.42	121,975.00	357.58	99.71
591-000-707.000	WAGES MAINTENANCE	10,014.22	153,216.85	210,345.00	57,128.15	72.84
591-000-707.001	WAGES PART TIME	(397.90)	5,363.80	15,000.00	9,636.20	35.76
591-000-707.002	WEEKEND ON CALL WATER OPERATOR	388.39	2,202.63	4,000.00	1,797.37	50.00
591-000-709.000	WAGES OVERTIME	3,076.58	18,058.84	8,000.00	(10,058.84)	22.00

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR MONTH 12/31/2024	YTD BALANCE 12/31/2024	2024 AMENDED BUDGET	AVAILABLE BALANCE	% BGD USED
<b>Fund 591 - WATER</b>						
<b>Expenditures</b>						
<b>SALARIES</b>						
		30,732.17	409,680.91	468,965.00	59,284.09	87.36
<b>PAYROLL BENEFITS</b>						
591-000-715.000	SOCIAL SECURITY	3,631.74	32,207.18	35,800.00	3,592.82	89.96
591-000-716.000	HOSP & OPTICAL INSURANCE	9,891.61	104,560.91	118,170.00	13,609.09	88.48
591-000-717.000	GROUP LIFE INSURANCE	94.20	518.10	760.00	241.90	68.17
591-000-718.000	PENSION	5,001.49	52,284.35	52,050.00	(234.35)	100.45
591-000-718.001	HEALTH CARE SAVINGS PLAN	600.00	7,200.00	8,400.00	1,200.00	85.71
591-000-718.002	457-EMPLOYER PORTION	248.22	1,965.31	2,100.00	134.69	93.59
591-000-719.000	WORKERS COMP INSURANCE	0.00	7,363.26	9,300.00	1,936.74	79.17
591-000-720.000	OTHER POST RETIREMENT BENEFITS	0.00	70,000.00	70,000.00	0.00	100.00
591-000-722.000	UNEMPLOYMENT INSURANCE	0.00	1,099.33	2,160.00	1,060.67	50.89
591-000-724.000	DENTAL INSURANCE	948.96	5,830.39	7,200.00	1,369.61	80.98
<b>PAYROLL BENEFITS</b>						
		20,416.22	283,028.83	305,940.00	22,911.17	92.51
<b>OTHER</b>						
591-000-976.005	BOND INTEREST NORDIC DR MAIN	0.00	573.75	750.00	176.25	76.50
591-000-976.006	2022 DWRP BOND INTEREST	0.00	131,375.34	50,000.00	(81,375.34)	262.75
<b>OTHER</b>						
		0.00	131,949.09	50,750.00	(81,199.09)	27.69
<b>OPERATING EXPENSES</b>						
591-000-740.000	OPERATING SUPPLIES	6.48	7,391.02	10,368.00	2,976.98	71.29
591-000-744.000	SAFETY GEAR AND CLOTHING	890.31	3,897.60	10,424.00	6,526.40	37.39
591-000-745.000	SYSTEM CHEMICALS	7,484.00	42,211.00	58,751.00	16,540.00	71.85
591-000-748.000	TESTING WATER SYSTEMS	1,845.03	27,655.74	18,494.00	(9,161.74)	149.54
591-000-750.000	OPERATING SUPPLIES METERS	4,681.50	57,973.10	38,183.00	(19,790.10)	151.83
591-000-750.001	OPERATING SUPP METER TRANSMITT	0.00	10,209.05	22,878.00	12,668.95	44.62
591-000-755.000	OPERATING SUPPLIES TOOLS	972.71	2,653.60	10,000.00	7,346.40	26.54
591-000-801.000	FINANCIAL CONSULT FEES	0.00	0.00	5,500.00	5,500.00	0.00
591-000-801.001	HR SERVICES	0.00	0.00	10,500.00	10,500.00	0.00
591-000-802.000	ENG & ARCH FEES	335.00	3,520.00	50,000.00	46,480.00	7.04
591-000-803.000	IRON FILTRATION EXPENSES	0.00	18,746.75	40,377.00	21,630.25	46.43
591-000-807.000	ACCOUNTING & AUDITING	0.00	5,000.00	5,000.00	0.00	100.00
591-000-818.000	CONTRACTED SERVICES	5,003.24	61,538.31	50,000.00	(11,538.31)	123.08
591-000-826.000	ATTORNEY FEES	0.00	1,193.50	10,000.00	8,806.50	11.94
591-000-853.000	TELEPHONE/CELL PHONE SERVICES	572.16	5,401.15	8,000.00	2,598.85	67.51
591-000-867.000	GASOLINE/FUEL	1,346.95	11,345.52	6,926.00	(4,419.52)	163.81
591-000-903.000	LEGAL NOTICES	0.00	0.00	2,500.00	2,500.00	0.00
591-000-911.000	GENERAL LIAB INSURANCE	0.00	30,101.26	36,000.00	5,898.74	83.61
<b>OPERATING EXPENSES</b>						
		23,137.38	288,837.60	393,901.00	105,063.40	73.33
<b>MAINTENANCE</b>						
591-000-863.000	REPAIRS & MAINT VEHICLES	1,646.84	8,238.51	5,863.00	(2,375.51)	140.52
591-000-931.000	REPAIR & MAINT BLDG & EQUIP	739.79	57,054.12	100,000.00	42,945.88	57.05
591-000-931.001	GROUND MAINTENANCE	0.00	0.00	15,000.00	15,000.00	0.00
591-000-934.000	REPAIR & MAINT WATER SYSTEM	3,132.25	37,942.57	40,000.00	2,057.43	94.86
591-000-934.001	REPAIR & MAINT TOWER 1	815.00	1,625.98	5,500.00	3,874.02	29.56
591-000-934.002	REPAIR & MAINT TOWER 2	815.00	2,090.00	5,500.00	3,410.00	38.00
591-000-935.000	REPAIR METERS	0.00	28.96	1,200.00	1,171.04	2.41
<b>MAINTENANCE</b>						
		7,148.88	106,980.14	173,063.00	66,082.86	61.82
<b>UTILITIES</b>						

PERIOD ENDING 12/31/2024

Section 6, Item A.

GL NUMBER	DESCRIPTION	ACTIVITY FOR	YTD BALANCE	2024	AVAILABLE	% BDGT
		MONTH	12/31/2024	AMENDED BUDGET	BALANCE	USED
		12/31/2024	12/31/2024			
Fund 591 - WATER						
Expenditures						
591-000-921.000	ELECTRICITY TOWER	36.94	682.72	1,000.00	317.28	68.27
591-000-921.001	ELECTRICITY TL	922.20	12,224.92	16,000.00	3,775.08	76.41
591-000-921.002	ELECTRICITY HILLVIEW	464.48	16,318.42	18,000.00	1,681.58	90.66
591-000-921.004	ELECTRICITY VILLAGE ACRES	1,441.81	28,135.13	55,000.00	26,864.87	51.15
591-000-921.006	ELECTRICITY GRASS LAKE	5,062.58	36,844.82	52,000.00	15,155.18	70.86
591-000-921.007	ELECTRICITY TOWER #2	129.41	1,365.55	2,000.00	634.45	68.28
591-000-921.008	ELECTRICITY-HURONDALE	920.07	6,897.61	4,000.00	(2,897.61)	172.44
591-000-921.010	ELECTRICITY 933 WILLIAMS-HURONDALE	33.05	330.74	400.00	69.26	82.69
591-000-923.001	GAS TWIN LAKES	165.36	941.66	1,100.00	158.34	85.61
591-000-923.002	GAS HILLVIEW	140.19	710.51	1,000.00	289.49	71.05
591-000-923.004	GAS GRASS LAKE	305.45	874.31	1,200.00	325.69	72.86
591-000-923.005	GAS VILLAGE ACRES-SATELITE RD	440.19	2,166.55	5,800.00	3,633.45	37.35
UTILITIES		10,061.73	107,492.94	157,500.00	50,007.06	68.25
TOTAL EXPENDITURES		95,019.27	1,368,348.08	2,083,506.00	715,157.92	65.68
Fund 591 - WATER:						
TOTAL REVENUES		46,285.73	1,929,354.71	2,083,506.00	154,151.29	92.60
TOTAL EXPENDITURES		95,019.27	1,368,348.08	2,083,506.00	715,157.92	65.68
NET OF REVENUES & EXPENDITURES		(48,733.54)	561,006.63	0.00	(561,006.63)	100.00
TOTAL REVENUES - ALL FUNDS						
TOTAL EXPENDITURES - ALL FUNDS		914,567.44	25,043,002.10	25,257,640.00	214,637.90	99.15
NET OF REVENUES & EXPENDITURES		1,788,242.69	21,330,298.67	25,257,640.00	3,927,341.33	84.45
NET OF REVENUES & EXPENDITURES		(873,675.25)	3,712,703.43	0.00	(3,712,703.43)	100.00

Section 6, Item B.

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	CONST	9081	BECKETT & RAEDER	CIVIC CENTER SERVICES	806-900-973.006	CAPITAL OUTLAY - TOWNHIF	7,658.75
12/05/2024	CONST	9081	BECKETT & RAEDER	CIVIC CENTER SERVICES	806-900-973.007	CAPITAL OUTLAY - PUBLIC S	7,658.75
12/05/2024	CONST	9082	DLZ MICHIGAN, INC.	CIVIC CENTER UTILITY INSPECTION	806-900-973.006	CAPITAL OUTLAY - TOWNHIF	1,125.00
12/05/2024	CONST	9082	DLZ MICHIGAN, INC.	CIVIC CENTER UTILITY INSPECTION	806-900-973.007	CAPITAL OUTLAY - PUBLIC S	1,125.00
12/05/2024	CONST	9083	MCCARTHY & SMITH INC. -	CIVIC CENTER FACILITIES CONSTRUCTION MG1	806-900-973.006	CAPITAL OUTLAY - TOWNHIF	11,685.54
12/05/2024	CONST	9083	MCCARTHY & SMITH INC. -	CIVIC CENTER FACILITIES CONSTRUCTION MG1	806-900-973.007	CAPITAL OUTLAY - PUBLIC S	11,685.54
<b>CONST Total</b>							40,938.58
12/03/2024	FLEX	2781	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	178.56
12/04/2024	FLEX	2782	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	38.82
12/05/2024	FLEX	2783	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	274.43
12/06/2024	FLEX	2784	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	47.97
12/09/2024	FLEX	2785	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	414.39
12/10/2024	FLEX	2786	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	24.24
12/11/2024	FLEX	2787	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	13.77
12/12/2024	FLEX	2788	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	139.24
12/13/2024	FLEX	2789	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	434.09
12/16/2024	FLEX	2790	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	508.04
12/17/2024	FLEX	2791	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	84.40
12/18/2024	FLEX	2792	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	247.00
12/19/2024	FLEX	2793	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	74.20
12/20/2024	FLEX	2794	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	90.00
12/26/2024	FLEX	2795	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	710.68
12/26/2024	FLEX	2796	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	30.00
12/24/2024	FLEX	2797	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	19.99
12/30/2024	FLEX	2798	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	60.00
12/31/2024	FLEX	2799	FLEXIBLE SPENDING ACCT	FLEXIBLE SPENDING ACCOUNT	101-000-282.000	FLEXIBLE SPENDING ACCOI	169.91
<b>FLEX Total</b>							3,559.73
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-000-080.718	DUE FROM WATER PENSION	3,387.12
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-000-231.001	PAY DEDUCT PENSION	12,522.90
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-171-718.000	PENSION	15,311.46
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-192-718.000	PENSION	1,490.90
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-209-718.000	PENSION	3,280.54
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-215-718.000	PENSION	13,300.67
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-253-718.000	PENSION	11,172.60
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-265-718.000	PENSION	1,140.22
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-372-718.000	PENSION	1,110.61
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-402-718.000	PENSION	1,851.31
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	101-757-718.000	PENSION	96

24

1/13/2025

1/15

DEC 2024 CHECK DISBURSEMENTS

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	206-000-231.001	PAY DEDUCT PENSION	8,079.87
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	206-336-718.000	PENSION	33,911.43
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	207-000-231.001	PAY DEDUCT PENSION	10,950.82
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	207-301-718.000	PENSION	63,565.76
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	249-000-231.001	PAY DEDUCT PENSION	890.36
12/05/2024	GEN	1230123(E)	MERS	11/01/24-11/30/24 MERS CONTRIBUTIONS	249-000-718.000	PENSION	2,416.69
12/05/2024	GEN	1230124(E)	MERS	EMPLOYER CONTRIBUTION FOR DROP	207-301-718.000	PENSION	849.87
12/05/2024	GEN	95751	RIKKI AUSTIN	WITNESS FEES	207-301-861.000	WITNESS FEES	8.00
12/05/2024	GEN	95752	JEFFREY BARBER	WITNESS FEE	207-301-861.000	WITNESS FEES	8.00
12/05/2024	GEN	95753	ABC PRINTING	BUSINESS CARDS, LETTERHEAD	101-249-727.000	OFFICE SUPPLIES	971.50
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	101-000-080.720	DUE FROM WATER 457 EMP	81.32
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	101-000-231.001	PAY DEDUCT PENSION	4,527.56
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	101-171-718.002	457-EMPLOYER PORTION	46.01
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	101-209-718.002	457-EMPLOYER PORTION	147.20
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	101-265-718.002	457-EMPLOYER PORTION	42.59
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	206-000-231.001	PAY DEDUCT PENSION	3,416.45
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	206-336-718.004	457 - EMPLOYER PORTION	652.93
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	207-000-231.001	PAY DEDUCT PENSION	2,292.76
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	207-301-718.002	457-EMPLOYER PORTION	1,931.61
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	249-000-231.001	PAY DEDUCT PENSION	350.00
12/05/2024	GEN	95754	ALERUS FINANCIAL	12/04/24 MERS 457 CONTRIBUTIONS	249-000-718.003	457-EMPLOYER PORTION	47.93
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-000-080.962	DUE FROM WATER MISCELL	600.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-000-232.005	PAY DEDUCT HOSP	866.64
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-171-718.001	HEALTH CARE SAVINGS PRC	342.08
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-209-718.001	HEALTH CARE SAVINGS PRC	300.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-215-718.001	HEALTH CARE SAVINGS PRC	726.91
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-253-718.001	HEALTH CARE SAVINGS PRC	442.09
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-265-718.001	HEALTH CARE SAVINGS PRC	100.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-402-718.001	HEALTH CARE SAVINGS PRC	200.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	101-757-718.001	HEALTH CARE SAVINGS PRC	100.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	206-000-232.005	PAY DEDUCT HOSP	2,631.43
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	206-336-718.002	HEALTH CARE SAVINGS PLA	3,070.00
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	207-000-232.005	PAY DEDUCT HOSP	4,589.99
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	207-301-718.001	HEALTH CARE SAVINGS PRC	5,454.99
12/05/2024	GEN	95755	ALERUS FINANCIAL	11/01/24-11/30/24 EE & ER HCSP CONTRIBUTION	249-000-718.001	HEALTH CARE SAVINGS PRC	300.00
12/05/2024	GEN	95756	ALPHA PSYCHOLOGICAL SERVICES	PSYCH ASSESSMENT & EVALUATION PD CANDID	207-301-962.001	MISCELLANEOUS	795.00
12/05/2024	GEN	95757	AMAZON	WAL CALENDARS, STICK GEL PEN	101-249-727.000	OFFICE SUPPLIES	475.77
12/05/2024	GEN	95757	AMAZON	PLASTIC INSULATION FOR ACCTG WINDOW	101-265-931.001	BLDG MAINTENANCE & SUP	

WHITE LAKE TOWNSHIP  
 DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	95757	AMAZON	10 POCKET DESK ORG, XMAS BAGS, XMAS TISSI	101-757-751.000	SENIOR ACTIVITIES	134.07
12/05/2024	GEN	95757	AMAZON	OFFICE & MTCE SUPPLIES	206-336-727.000	OFFICE SUPPLIES	63.94
12/05/2024	GEN	95757	AMAZON	LUDWIG, JENSEN UNIFORMS, STRAP FOR PAC	206-336-744.000	UNIFORMS	1,296.69
12/05/2024	GEN	95757	AMAZON	LUDWIG, JENSEN UNIFORMS, STRAP FOR PAC	206-336-757.000	OPERATING SUPPLIES	126.00
12/05/2024	GEN	95757	AMAZON	FD, WINDSHIELD REPAIR KIT	206-336-863.001	VEHICLE MAINTENANCE	978.01
12/05/2024	GEN	95757	AMAZON	OFFICE & MTCE SUPPLIES	206-336-931.001	MAINTENANCE STATION 1	87.96
12/05/2024	GEN	95757	AMAZON	STICKY NOTES, LOCKING SECURITY BAG	207-301-727.000	OFFICE SUPPLIES	59.01
12/05/2024	GEN	95757	AMAZON	HARD HATS	249-000-757.000	OPERATING SUPPLIES	100.88
12/05/2024	GEN	95757	AMAZON	(4) SURFACE PROS	249-000-971.000	TECHNOLOGY EQUIPMENT	479.96
12/05/2024	GEN	95758	ANTHONY SORGE INSPECTIONS, LI	11/16/24-11/29/24 BUILDING INSPECTIONS	249-000-706.003	CONTRACT BLDG INSPECTC	2,360.00
12/05/2024	GEN	95758	ANTHONY SORGE INSPECTIONS, LI	11/16/24-11/29/24 BUILDING INSPECTIONS	249-000-801.002	RENTAL INSPECTIONS	160.00
12/05/2024	GEN	95759	AT & T	10/20/24-11/19/24 TWP CHARGES	101-265-853.000	TELEPHONE	146.85
12/05/2024	GEN	95760	AUDIO SENTRY CORPORATION	01/01/25-03/31/25 MONTHLY CHARGES	101-269-931.008	EQUIP MAINT FISK	164.85
12/05/2024	GEN	95761	AUTO-TECH COLLISION CENTER IN	PD 2021 DODGE DURANGO COLLISION REPAIR	207-301-863.001	VEHICLE MAINTENANCE	5,135.80
12/05/2024	GEN	95762	BOSTON ELECTRIC CO.	8264 CAPSTONE REFUND DUPLICATE PMT	249-000-478.000	ELECTRICAL PERMITS	100.00
12/05/2024	GEN	95763	BOUND TREE MEDICAL LLC.	NEEDLE KITS	206-336-767.000	MEDICAL SUPPLIES	2,828.96
12/05/2024	GEN	95764	BREEN'S LANDSCAPE & SUPPLY CE	(15) BAGS ROCK SALT (GREENEARTH)	101-265-931.002	GROUNDS MAINTENANCE	315.00
12/05/2024	GEN	95765	CARLISLE WORTMAN ASSOCIATES	9451 ELIZABETH LK REZONING	101-402-801.000	PROFESSIONAL FEES	767.50
12/05/2024	GEN	95766	CARTER'S PLUMBING	FINAL PUNCH LIST BOND REFUND	101-000-283.001	DEPOSITS - CASH BONDS	** VOIDED **
12/05/2024	GEN	95767	CDW GOVERNMENT	BROTHER MOBILE USB CBL	207-301-727.000	OFFICE SUPPLIES	14.10
12/05/2024	GEN	95768	CINTAS	UNIFORM CHARGES	101-000-080.962	DUE FROM WATER MISCELL	213.95
12/05/2024	GEN	95768	CINTAS	UNIFORM CHARGES	101-265-931.001	BLDG MAINTENANCE & SUP	59.70
12/05/2024	GEN	95769	COMCAST	11/18/24-12/17/24 FISK	101-269-922.004	UTILITIES FISK	147.85
12/05/2024	GEN	95770	COMCAST	12/01/24-12/31/24 DUBLIN	101-757-751.000	SENIOR ACTIVITIES	369.63
12/05/2024	GEN	95771	COMCAST	12/06/24-01/05/24 STA 2	206-336-757.000	OPERATING SUPPLIES	362.49
12/05/2024	GEN	95772	COMCAST	11/24/24-12/23/24 STA #1 MONTHLY CHARGES	206-336-757.000	OPERATING SUPPLIES	219.80
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/22/24-11/19/24 GEN TWP	101-265-923.000	HEAT TWP HALL	344.92
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/22/24-11/19/24 COMM HALL	101-269-923.001	HEAT COMM HALL	95.96
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/19/24-11/19/24 FISK	101-269-923.004	HEAT FISK	56.70
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/22/24-11/19/24 ANNEX	101-269-923.011	GAS-TWP ANNEX	288.08
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/19/24-11/20/24 DUBLIN	101-757-923.000	HEAT	85.62
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/22/24-11/19/24 STA 1	206-336-923.001	HEAT STATION 1	339.63
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/19/24-11/19/24 STA 2	206-336-923.002	HEAT STATION 2	62.55
12/05/2024	GEN	95773	CONSUMERS ENERGY	10/19/24-11/20/24 STA 3	206-336-923.003	HEAT STATION 3	60.95
12/05/2024	GEN	95774	DARWEL ENTERPRISES LLC	GENERAL TWP FLOOR MATS	101-265-931.001	BLDG MAINTENANCE & SUP	192.19
12/05/2024	GEN	95774	DARWEL ENTERPRISES LLC	PD, FLOOR MATS, BLANKETS	207-301-931.001	BLDG MAINTENANCE & SUP	115.78
12/05/2024	GEN	95775	DTE ENERGY	MONTHLY CHARGES	101-448-926.000	STREET LIGHTING	4,722.24
12/05/2024	GEN	95776	DTE ENERGY	10/19/24-11/18/24 STREET LIGHT	101-269-921.004	ELECTRIC FISK	



WHITE LAKE TOWNSHIP  
 DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	95776	DTE ENERGY	10/19/24-11/18/24 DUBLIN	101-757-921.000	ELECTRIC	474.24
12/05/2024	GEN	95776	DTE ENERGY	10/18/24-11/15/24 MOBILE OFC	206-336-921.001	ELECTRIC STATION 1	68.25
12/05/2024	GEN	95777	ELECTIONSOURCE	EQUIPMENT TESTING	101-191-934.000	EQUIPMENT MAINTENANCE	9,999.00
12/05/2024	GEN	95778	EMERGENCY VEHICLES PLUS	BRUSH TRUCK ANNUAL FEDERAL DOT SAFETY I	206-336-863.001	VEHICLE MAINTENANCE	2,524.51
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-000-080.716	DUE FROM WATER HOSPITA	94.60
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-171-716.000	HOSP & OPTICAL INSURANC	53.72
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-192-716.000	HOSP & OPTICAL INSURANC	14.14
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-209-716.000	HOSP & OPTICAL INSURANC	79.00
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-215-716.000	HOSP & OPTICAL INSURANC	60.02
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-253-716.000	HOSP & OPTICAL INSURANC	60.02
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-265-716.000	HOSP & OPTICAL INSURANC	13.45
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-372-716.000	HOSP & OPTICAL INSURANC	19.75
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-402-716.000	HOSP & OPTICAL INSURANC	46.57
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-757-716.000	HOSP & OPTICAL INSURANC	20.52
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	101-863-730.000	RETIREE HEALTH INSURANC	112.43
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	206-336-716.000	HOSP & OPTICAL INSURANC	367.27
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	206-336-716.002	RETIREE HEALTH CARE PREI	67.94
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	207-301-716.000	HOSP & OPTICAL INSURANC	610.49
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	207-301-716.001	RETIREE HOSP & OPTICAL IN	331.01
12/05/2024	GEN	95779	FIDELITY SECURITY LIFE INS/EYEME	12/01/24-12/31/24 PREMIUMS	249-000-716.000	HOSP & OPTICAL INSURANC	53.72
12/05/2024	GEN	95780	FIRST CHOICE COFFEE SERVICES	STA #1 & STA #2 MONTHLY CHARGES	206-336-931.001	MAINTENANCE STATION 1	39.00
12/05/2024	GEN	95780	FIRST CHOICE COFFEE SERVICES	STA #1 & STA #2 MONTHLY CHARGES	206-336-931.002	MAINTENANCE STATION 2	39.00
12/05/2024	GEN	95780	FIRST CHOICE COFFEE SERVICES	STA #3 MONTHLY CHARGES	206-336-931.003	MAINTENANCE STATION 3	39.00
12/05/2024	GEN	95781	GALLS, LLC	DOULETTE, BOOTS	206-336-744.000	UNIFORMS	172.99
12/05/2024	GEN	95782	HELEN SKAGLIN	SNC MEAL REIMBURSEMENT	207-301-960.002	SNC (STATE 911) TRAINING	24.26
12/05/2024	GEN	95783	HOME DEPOT CREDIT SERVICES	10/22/24-11/19/24 MONTHLY CHARGES	206-336-931.001	MAINTENANCE STATION 1	222.21
12/05/2024	GEN	95783	HOME DEPOT CREDIT SERVICES	10/22/24-11/19/24 MONTHLY CHARGES	206-336-931.002	MAINTENANCE STATION 2	46.99
12/05/2024	GEN	95783	HOME DEPOT CREDIT SERVICES	10/22/24-11/19/24 MONTHLY CHARGES	206-336-931.003	MAINTENANCE STATION 3	92.72
12/05/2024	GEN	95783	HOME DEPOT CREDIT SERVICES	10/22/24-11/19/24 MONTHLY CHARGES	208-000-720.000	EVENT EXPENSES	179.64
12/05/2024	GEN	95784	HURON VALLEY GUNS	HABERL, DRESS COAT, SHIRT	206-336-744.000	UNIFORMS	712.94
12/05/2024	GEN	95784	HURON VALLEY GUNS	FERGUSON, ADULEENA PANT, SHIRT, ALTERATI	207-301-744.000	UNIFORMS	76.84
12/05/2024	GEN	95785	HWLBA	2025 ANNUAL HWLBA BUSINESS MEMBERSHIP	101-171-958.000	MEMBERSHIPS & DUES	200.00
12/05/2024	GEN	95786	IMPERIAL DADE	CLEANING SUPPLIES, TRASH LINERS	101-265-931.001	BLDG MAINTENANCE & SUP	786.73
12/05/2024	GEN	95786	IMPERIAL DADE	CLEANING SUPPLIES, TRASH LINERS	101-269-931.001	BLDG MAINT COMM HALL	295.02
12/05/2024	GEN	95786	IMPERIAL DADE	CLEANING SUPPLIES, TRASH LINERS	101-269-931.013	BUILDING MAINTENANCE-T	491.71
12/05/2024	GEN	95786	IMPERIAL DADE	CLEANING SUPPLIES, TRASH LINERS	101-757-931.000	BUILDING MAINTENANCE	393.36
12/05/2024	GEN	95786	IMPERIAL DADE	STATION SUPPLIES	206-336-931.001	MAINTENANCE STATION 1	435.26
12/05/2024	GEN	95787	INSPECTION SERVICES BY SAH	11/16/24-11/29/24 MECHANICAL INSPECTION	249-000-706.003	CONTRACT BLDG INSPECTC	

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	95787	INSPECTION SERVICES BY SAH	11/16/24-11/29/24 MECHANICAL INSPECTIONS	249-000-707.001	PLUMBING/MECHANICAL IN	3,249.60
12/05/2024	GEN	95788	INTERNATIONAL MINUTE PRESS	12,500 WNTER NEWSLETTERS	101-249-727.000	OFFICE SUPPLIES	1,217.39
12/05/2024	GEN	95789	IVY STOGDILL	SNC MEAL REIMBURSEMENT	207-301-960.002	SNC (STATE 911) TRAINING	18.00
12/05/2024	GEN	95790	JOHN HANCOCK-70482-00-5	NOVEMBER 2024 CONTRIBUTIONS	101-000-080.718	DUE FROM WATER PENSION	774.63
12/05/2024	GEN	95790	JOHN HANCOCK-70482-00-5	NOVEMBER 2024 CONTRIBUTIONS	101-000-231.001	PAY DEDUCT PENSION	1,153.85
12/05/2024	GEN	95790	JOHN HANCOCK-70482-00-5	NOVEMBER 2024 CONTRIBUTIONS	101-209-718.000	PENSION	401.90
12/05/2024	GEN	95790	JOHN HANCOCK-70482-00-5	NOVEMBER 2024 CONTRIBUTIONS	206-336-718.000	PENSION	57.27
12/05/2024	GEN	95791	LARDNER ELEVATOR	ELEVATOR REPAIRS, ROLLERS	101-269-931.013	BUILDING MAINTENANCE-T	850.70
12/05/2024	GEN	95792	MARK CARLSON	11/16/24-11/29/24 ELECTRICAL INSPECTIONS	249-000-707.000	ELECTRICAL INSPECTOR	1,786.20
12/05/2024	GEN	95792	MARK CARLSON	11/16/24-11/29/24 ELECTRICAL INSPECTIONS	249-000-801.000	PROFESSIONAL FEES	17.50
12/05/2024	GEN	95792	MARK CARLSON	11/16/24-11/29/24 ELECTRICAL INSPECTIONS	249-000-801.002	RENTAL INSPECTIONS	200.00
12/05/2024	GEN	95793	MERGE LIVE	11/19/24 BOT MEETING	101-101-710.000	FEES & PER DIEM	265.00
12/05/2024	GEN	95794	MI ASSOC OF MUNICIPAL CLERKS	NOBLE, SANTIAGO, LONDON MAMC MEMBERSH	101-215-958.000	MEMBERSHIPS & DUES	300.00
12/05/2024	GEN	95795	MILLERS TIRE AND AUTO REPA	#196414 OIL CHGE, CHECK FOR LEAK	207-301-863.001	VEHICLE MAINTENANCE	65.23
12/05/2024	GEN	95796	MILLERS TIRE AND AUTO REPA	FD #25637 OIL CHANGE	206-336-863.001	VEHICLE MAINTENANCE	65.23
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	101-000-080.853	DUE FROM WATER PHONE E	88.93
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	101-000-080.962	DUE FROM WATER MISCELL	150.00
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	101-265-853.000	TELEPHONE	929.17
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	101-265-971.000	TECHNOLOGY EQUIPMENT	150.00
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	101-757-853.000	TELEPHONE	113.88
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	206-336-757.000	OPERATING SUPPLIES	150.00
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	206-336-853.001	TELEPHONE STATION 1	178.66
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	206-336-853.002	TELEPHONE STATION 2	67.34
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	206-336-853.003	TELEPHONE STATION 3	67.34
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	207-301-757.000	OPERATING SUPPLIES	150.00
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	207-301-853.000	TELEPHONE	144.75
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	249-000-853.000	CELLULAR PHONE	67.34
12/05/2024	GEN	95797	NET EXPRESS VOIP	12/01/24-12/31/24 MONTHLY CHARGES	249-000-971.000	TECHNOLOGY EQUIPMENT	150.00
12/05/2024	GEN	95798	NORTH OAKLAND COUNTY FIRE AL	HUSSAIN, STULBER NOCFA EMT ACADEMY	206-336-960.000	TRAINING	2,600.00
12/05/2024	GEN	95799	OAKLAND COMMERCIAL CLEANING	DECEMBER CLEANING	101-265-931.001	BLDG MAINTENANCE & SUP	3,300.00
12/05/2024	GEN	95800	OAKLAND COMMUNITY COLLEGE	SKAGLIN, DISPATCHERS ROLE IN AS	207-301-960.002	SNC (STATE 911) TRAINING	450.00
12/05/2024	GEN	95801	OAKLAND COUNTY LEGAL NEWS	12/05/24 PLANNING COMMISSION PUBLIC HEA	101-402-903.000	LEGAL NOTICES	230.00
12/05/2024	GEN	95802	OAKLAND COUNTY ROAD COMMIS	SIGNAL MAINTENANCE	101-448-926.000	STREET LIGHTING	5.02
12/05/2024	GEN	95803	OCCUPATIONAL HEALTH CENTERS	GREEN, PHYSICAL, AUDIOGRAM, HAIR SAMPLE	207-301-757.000	OPERATING SUPPLIES	486.00
12/05/2024	GEN	95804	ON DUTY GEAR LLC	(2) ARMOR EXPRESS FIRST RESPONDER CARRY	207-301-977.000	EQUIPMENT ACQUISITIONS	145.00
12/05/2024	GEN	95805	PARAMOUNT SIGNS & GRAPHIX LL	MORELLI, DOULETTE, BIRKHOLZ UNIFORM	206-336-744.000	UNIFORMS	339.50
12/05/2024	GEN	95806	PRIORITY ONE EMERGENCY	TACTICAL FLEECE, PATCH, EMBRODIARY	206-336-744.000	UNIFORMS	1,506.99
12/05/2024	GEN	95807	PROFESSIONAL MOVERS.COM	11/01/24-11/06/24 ELECTION SET UP & TEAR D	101-191-740.000	OPERATING SUPPLIES	3,1

**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	95808	R.A.D. SYSTEMS	2025 LICENSE RENEWAL	207-301-933.000	EQUIP LEASE/ MAINT CONTI	75.00
12/05/2024	GEN	95809	SHIFMAN FOURNIER, PLC	NOVEMBER SERVICES	101-210-826.000	LEGAL FEES	264.00
12/05/2024	GEN	95809	SHIFMAN FOURNIER, PLC	NOVEMBER SERVICES	206-336-826.000	LEGAL FEES	330.00
12/05/2024	GEN	95810	SMART BUSINESS SOURCE	GEN TWP BINDERS	101-249-727.000	OFFICE SUPPLIES	44.79
12/05/2024	GEN	95810	SMART BUSINESS SOURCE	DUBLIN COPY PAPER	101-757-757.000	OPERATING SUPPLIES	54.95
12/05/2024	GEN	95811	STANARD & ASSOCIATES INC.	PUBLIC SAFETY PROMOTIONAL TESTING	207-220-727.000	SUPPLIES-CIVIL SVC	1,000.00
12/05/2024	GEN	95812	STAR EMS	BEHLING,C BLOOD DRAW	207-301-962.003	EVIDENCE COLLECTION	100.00
12/05/2024	GEN	95813	STINE TURF & SNOW INC.	DUBLIN, LATE SUMMER APPLICATION	101-265-931.002	GROUNDS MAINTENANCE	273.00
12/05/2024	GEN	95814	SZOTT M59 CHRYSLER JEEP	21-55 OIL CHANGE, FILTER, INSPECT	207-301-863.001	VEHICLE MAINTENANCE	105.49
12/05/2024	GEN	95815	TRANSUNION RISK AND ALTERNATI	11/01/24-11/30/24 MONTHLY CHARGES	207-301-962.001	MISCELLANEOUS	75.00
12/05/2024	GEN	95816	TRI-COUNTY SUPPLY	TORK TOWELS	207-301-931.001	BLDG MAINTENANCE & SUP	225.50
12/05/2024	GEN	95817	TRUSTMARK VOLUNTARY BENEFIT	NOVEMBER CONTRIBUTIONS	101-000-232.002	PAY DEDUCT ACC/CRIT/STC	417.24
12/05/2024	GEN	95817	TRUSTMARK VOLUNTARY BENEFIT	NOVEMBER CONTRIBUTIONS	206-000-232.002	PAY DEDUCT ACC/CRIT/STC	438.86
12/05/2024	GEN	95817	TRUSTMARK VOLUNTARY BENEFIT	NOVEMBER CONTRIBUTIONS	207-000-232.002	PAY DEDUCT ACC/CRIT/STC	569.06
12/05/2024	GEN	95817	TRUSTMARK VOLUNTARY BENEFIT	NOVEMBER CONTRIBUTIONS	249-000-232.008	PAY DEDUCT VOL INS	114.88
12/05/2024	GEN	95818	U.S. BANK EQUIPMENT FINANCE	11/20/24-12/20/24 DUBLIN CHARGES	101-757-931.000	BUILDING MAINTENANCE	627.80
12/05/2024	GEN	95819	U.S. BANK EQUIPMENT FINANCE	MONTHLY CHARGES	101-265-971.000	TECHNOLOGY EQUIPMENT	1,838.22
12/05/2024	GEN	95819	U.S. BANK EQUIPMENT FINANCE	MONTHLY CHARGES	206-336-727.000	OFFICE SUPPLIES	63.07
12/05/2024	GEN	95819	U.S. BANK EQUIPMENT FINANCE	MONTHLY CHARGES	249-000-971.000	TECHNOLOGY EQUIPMENT	310.68
12/05/2024	GEN	95820	VC3 INC	AFVANCED EMAIL SECURITY BUNDLE	101-265-971.000	TECHNOLOGY EQUIPMENT	277.50
12/05/2024	GEN	95821	WALMART - CAPITAL ONE	MONTHLY CHARGES	206-336-931.001	MAINTENANCE STATION 1	467.64
12/05/2024	GEN	95822	WASH ME LLC	GEN, MONTHLY CAR WASHES	101-000-080.863	DUE FROM WATER VEHICLE	20.00
12/05/2024	GEN	95822	WASH ME LLC	GEN, MONTHLY CAR WASHES	101-265-863.000	VEHICLE MAINTENANCE	28.00
12/05/2024	GEN	95822	WASH ME LLC	GEN, MONTHLY CAR WASHES	101-372-863.000	VEHICLE MAINTENANCE	4.00
12/05/2024	GEN	95822	WASH ME LLC	GEN, MONTHLY CAR WASHES	249-000-863.000	VEHICLE MAINTENANCE	8.00
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	101-000-080.867	DUE FROM WATER GASOLIN	714.89
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	101-265-867.000	GASOLINE	865.84
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	101-372-867.000	GASOLINE	118.31
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	206-336-867.000	GASOLINE	1,979.64
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	207-301-867.000	GASOLINE	5,057.92
12/05/2024	GEN	95823	WEX BANK	11/01/24-11/30/24 FUEL CHARGES	249-000-867.000	GASOLINE	58.90
12/05/2024	GEN	95824	AMAZON	TREE LIGHTING SUPPLIES	208-000-720.000	EVENT EXPENSES	268.28
12/05/2024	GEN	95825	BECKETT & RAEDER	STANLEY PARK PHASE 1	208-000-974.000	PARK IMPROVEMENTS	1,782.50
12/05/2024	GEN	95826	DLZ MICHIGAN, INC.	LOOP PATHWAY CONSTRUCTION	208-000-972.000	PATHWAY PROJECTS	2,030.00
12/05/2024	GEN	95827	DONUT SPEED SHOP	P/R-DONUTS WHITE LAKE TREE LIGHTING	208-000-720.000	EVENT EXPENSES	1,500.00
12/05/2024	GEN	95828	KELLY O'BRIEN-LANG	P/R-REIMBURSE FOR CUPS	208-000-720.000	EVENT EXPENSES	110.97
12/05/2024	GEN	95829	RATLIFF RENTAL	TREE LIGHTING RENTALS	208-000-720.000	EVENT EXPENSES	120.00
12/05/2024	GEN	95830	A&M PLUMBING	REPAIR LEAK ON WATER LINE	101-757-931.000	BUILDING MAINTENANCE	11

**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	GEN	95831	MOTION PICTURE LICENSING COR	MPLC LICENSE 01/01/25-12/31/25	101-757-751.000	SENIOR ACTIVITIES	288.09
12/05/2024	GEN	95832	TUESDAY MUSICALE OF GREATER F	CHRISTMAS LUNCHEON ENTERTAINMENT	101-757-751.000	SENIOR ACTIVITIES	150.00
12/09/2024	GEN	95833	BILLS CATERING LLC	SENIOR CTR CHRISTMAS PARTY	101-757-751.000	SENIOR ACTIVITIES	1,142.00
12/09/2024	GEN	95834	KATHLEEN GORDINEAR	REIMBURSE PETTY CASH	101-757-751.000	SENIOR ACTIVITIES	126.84
12/09/2024	GEN	95834	KATHLEEN GORDINEAR	REIMBURSE PETTY CASH	101-757-757.000	OPERATING SUPPLIES	6.50
12/11/2024	GEN	95835	CAMQ PROPERTIES, LLC	FINAL REFUND OF CARTER LUMBER PUNCH LIS	101-000-283.001	DEPOSITS - CASH BONDS	24,375.00
12/12/2024	GEN	95836	1ST HEATING & COOLING CO	3688 SILVERLEAF LN - REPLACE WATER HEATEF	101-000-087.274	DUE FROM CDBG	1,885.00
12/12/2024	GEN	95836	1ST HEATING & COOLING CO	3688 SILVERLEAF LN - REPLACE WATER HEATEF	274-000-080.000	DUE FROM COUNTY	1,885.00
12/12/2024	GEN	95836	1ST HEATING & COOLING CO	3688 SILVERLEAF LN - REPLACE WATER HEATEF	274-000-214.101	DUE TO GENERAL FUND	(1,885.00)
12/12/2024	GEN	95836	1ST HEATING & COOLING CO	3688 SILVERLEAF LN - REPLACE WATER HEATEF	274-000-683.000	CDBG REVENUE	(1,885.00)
12/12/2024	GEN	95836	1ST HEATING & COOLING CO	3688 SILVERLEAF LN - REPLACE WATER HEATEF	274-000-801.002	MINOR HOME REPAIR	1,885.00
12/12/2024	GEN	95837	AMAZON	STREAMLIGHT, SURGE PROTECTOR, HOLSTER F	207-301-727.000	OFFICE SUPPLIES	31.98
12/12/2024	GEN	95837	AMAZON	STREAMLIGHT, SURGE PROTECTOR, HOLSTER F	207-301-757.000	OPERATING SUPPLIES	670.59
12/12/2024	GEN	95838	APPLIED INNOVATION	STA #1 MONTHLY SERVICES	206-336-727.000	OFFICE SUPPLIES	47.84
12/12/2024	GEN	95839	AUTOZONE	BATTERY 1948 FIRE TRUCK, HEADLIGHT	206-336-863.001	VEHICLE MAINTENANCE	252.97
12/12/2024	GEN	95840	BASIC	12/01/24-12/31/24-MONTHLY COBRA ADMIN	101-299-956.000	UNALLOCATED MISCELLAN	287.82
12/12/2024	GEN	95841	BREEN'S LANDSCAPE & SUPPLY CE	ROCK SALT	101-265-931.002	GROUNDS MAINTENANCE	270.00
12/12/2024	GEN	95842	BRIGHT GUY INC.	SURVIVOR BATTERY, E-1	206-336-863.001	VEHICLE MAINTENANCE	87.54
12/12/2024	GEN	95843	COMCAST	10/22/2411/21/24 MONTHLY CHARGES	101-000-080.962	DUE FROM WATER MISCELL	152.16
12/12/2024	GEN	95843	COMCAST	10/22/2411/21/24 MONTHLY CHARGES	101-265-971.000	TECHNOLOGY EQUIPMENT	233.32
12/12/2024	GEN	95843	COMCAST	10/22/2411/21/24 MONTHLY CHARGES	206-336-757.000	OPERATING SUPPLIES	294.50
12/12/2024	GEN	95843	COMCAST	10/22/2411/21/24 MONTHLY CHARGES	207-301-757.000	OPERATING SUPPLIES	199.60
12/12/2024	GEN	95843	COMCAST	10/22/2411/21/24 MONTHLY CHARGES	249-000-971.000	TECHNOLOGY EQUIPMENT	175.88
12/12/2024	GEN	95844	CUSTOM PLUS	KELLER, POLOS (6), JACKET	207-301-744.000	UNIFORMS	318.50
12/12/2024	GEN	95845	DARWEL ENTERPRISES LLC	PD, MONTHLY CHARGES	207-301-931.001	BLDG MAINTENANCE & SUP	115.78
12/12/2024	GEN	95846	EMERGENCY VEHICLES PLUS	BALANCE DUE ON INVOICE	206-336-863.001	VEHICLE MAINTENANCE	1,764.06
12/12/2024	GEN	95847	FLINT WELDING SUPPLY COMPANY	OXYGEN AND AIR	206-336-758.000	OXYGEN & AIR	131.25
12/12/2024	GEN	95848	JULIA KELLER	DECEMBER BOARD OF REVIEW/HALF DAY	101-247-710.000	FEES & PER DIEM	75.00
12/12/2024	GEN	95849	LAKESIDE TOWING	E240232 ORD VIOLATION-TOW VEHICLES	101-372-955.000	ORDINANCE ENFORCEMEN	1,025.00
12/12/2024	GEN	95849	LAKESIDE TOWING	TOW 14 FORD AMB TO SUBURBAN FORD	206-336-863.001	VEHICLE MAINTENANCE	210.00
12/12/2024	GEN	95850	KIM MCFADDEN	DECEMBER BOARD OF REVIEW/HALF DAY	101-247-710.000	FEES & PER DIEM	75.00
12/12/2024	GEN	95851	MEREDITH G TYACK	DECEMBER BOARD OF REVIEW/HALF DAY	101-247-710.000	FEES & PER DIEM	75.00
12/12/2024	GEN	95852	MI ASSN OF CHIEFS OF POLICE	CALEA - CONTINUATION FEE	207-301-977.003	ACCREDITATION, SOFTWARE	1,000.00
12/12/2024	GEN	95853	MICHIGAN FIRE INSPECTORS SOCI	HOLLAND MEMBERSHIP RENEWAL	206-336-958.000	MEMBERSHIPS & DUES	40.00
12/12/2024	GEN	95854	MILLERS HIGHLAND TIRE AND AUTI	2024 EXMARK MOWER-WELD TRAY IN PLACE	101-265-933.000	GROUNDS EQUIP MAINTEN,	128.34
12/12/2024	GEN	95855	OAKLAND COUNTY CLERKS ASSOC	CLERK'S WINTER MEETING (3)	101-215-864.000	CONFERENCES & MEETING:	135.00
12/12/2024	GEN	95856	ROSATI, SCHULTZ, JOPPICH	MI TAX TRIBUNAL, MONTHLY CHARGES	101-209-820.000	LEGAL FEES	288.00
12/12/2024	GEN	95856	ROSATI, SCHULTZ, JOPPICH	425 AGREEMENT WITH COMMERCE REGARDIN	101-210-826.000	LEGAL FEES	24

**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/12/2024	GEN	95856	ROSATI, SCHULTZ, JOPPICH	FD, MONTHLLY CHARGES	206-336-826.000	LEGAL FEES	46.50
12/12/2024	GEN	95856	ROSATI, SCHULTZ, JOPPICH	PROSECUTIONS, SERVICES ENDING 11/30/24	207-301-826.000	LEGAL FEES-PROSECUTION	8,333.33
12/12/2024	GEN	95857	SAFEGWAY SHREDDING	SHREDDING, MONTHLY CHARGES	101-249-727.000	OFFICE SUPPLIES	77.48
12/12/2024	GEN	95857	SAFEGWAY SHREDDING	SHREDDING, MONTHLY CHARGES	206-336-727.000	OFFICE SUPPLIES	22.47
12/12/2024	GEN	95857	SAFEGWAY SHREDDING	PD SHREDDING, MONTHLY CHARGES	207-301-727.000	OFFICE SUPPLIES	59.95
12/12/2024	GEN	95858	SMART BUSINESS SOURCE	NAME PLATE ANDERSON	101-249-727.000	OFFICE SUPPLIES	118.67
12/12/2024	GEN	95859	VC3 INC	MONTHLY BILLING FOR DEC	207-301-818.000	COMPUTER SERVICES	165.00
12/12/2024	GEN	95860	WASH ME LLC	(23) PD CAR WASHES	207-301-863.001	VEHICLE MAINTENANCE	92.00
12/12/2024	GEN	95861	BRENDEL'S SEPTIC TANK SERVICE	P/R-HIDDEN PINES DEC SERVICES	208-000-922.000	UTILITIES- PARKS	466.44
12/12/2024	GEN	95862	DONUT SPEED SHOP	P/R-DONUT SPEED SHOP PERMIT FEE	208-000-720.000	EVENT EXPENSES	94.00
12/12/2024	GEN	95863	SANTA JEFF MI, LLC	P/R-12/06/24-TREE LIGHTING	208-000-720.000	EVENT EXPENSES	150.00
12/12/2024	GEN	95864	WATERFORD SCHOOL DISTRICT	P/R-SHIRT LAUNCHER TREE LIGHTING	208-000-720.000	EVENT EXPENSES	1,000.00
12/12/2024	GEN	95865	ANYONE CAN PAINT LLC	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	160.00
12/12/2024	GEN	95866	JEANNE EAGEN	INSTRUCTOR FEES	101-757-751.000	SENIOR ACTIVITIES	29.00
12/12/2024	GEN	95867	LEISURE UNLIMITED LLC	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	163.00
12/12/2024	GEN	95868	MARLENE TURNER	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	105.00
12/12/2024	GEN	95869	NICOLE GRUBBS	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	180.00
12/12/2024	GEN	95870	PRIORITY WASTE LLC	RUBBISH - DECEMBER SERVICES	226-528-801.000	RUBBISH EXPENDITURE	169,900.50
12/18/2024	GEN	95871	NASHVILLE DETROI	HOLIDAY LUNCHEON	101-299-956.000	UNALLOCATED MISCELLAN	600.00
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	101-000-080.720	DUE FROM WATER 457 EMP	83.45
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	101-000-231.001	PAY DEDUCT PENSION	4,159.82
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	101-171-718.002	457-EMPLOYER PORTION	46.01
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	101-209-718.002	457-EMPLOYER PORTION	147.20
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	101-265-718.002	457-EMPLOYER PORTION	44.66
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	206-000-231.001	PAY DEDUCT PENSION	3,343.43
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	206-336-718.004	457 - EMPLOYER PORTION	654.24
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	207-000-231.001	PAY DEDUCT PENSION	2,243.81
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	207-301-718.002	457-EMPLOYER PORTION	1,942.41
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	249-000-231.001	PAY DEDUCT PENSION	350.00
12/19/2024	GEN	95872	ALERUS FINANCIAL	12/18/24 MERS 457 CONTRIBUTIONS	249-000-718.003	457-EMPLOYER PORTION	47.93
12/19/2024	GEN	95873	AMAZON	TAGS. WALL CLOCK	207-301-727.000	OFFICE SUPPLIES	38.94
12/19/2024	GEN	95874	ANTHONY SORGE INSPECTIONS, LI	11/29/24-12/13/24 BUILDING INSPECTIONS	249-000-706.003	CONTRACT BLDG INSPECTC	2,600.00
12/19/2024	GEN	95874	ANTHONY SORGE INSPECTIONS, LI	11/29/24-12/13/24 BUILDING INSPECTIONS	249-000-801.002	RENTAL INSPECTIONS	120.00
12/19/2024	GEN	95875	AUTO-TECH COLLISION CENTER IN	23 DODGE DURANGO-RPR RGT DOOR SHELL	207-301-863.001	VEHICLE MAINTENANCE	217.00
12/19/2024	GEN	95876	AUTOZONE	WIPER BLADES CERK/TREAS	101-265-863.000	VEHICLE MAINTENANCE	23.89
12/19/2024	GEN	95877	BCBS OF MICHIGAN	01/01/25-01/31/25 MEDICARE ADVANTAGE	101-000-080.716	DUE FROM WATER HOSPITA	815.26
12/19/2024	GEN	95877	BCBS OF MICHIGAN	01/01/25-01/31/25 MEDICARE ADVANTAGE	101-863-730.000	RETIREE HEALTH INSURANC	5,706.82
12/19/2024	GEN	95877	BCBS OF MICHIGAN	01/01/25-01/31/25 MEDICARE ADVANTAGE	206-336-716.002	RETIREE HEALTH CARE PREI	2,4

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/19/2024	GEN	95877	BCBS OF MICHIGAN	01/01/25-01/31/25 MEDICARE ADVANTAGE	207-301-716.001	RETIREE HOSP & OPTICAL IN	7,744.97
12/19/2024	GEN	95877	BCBS OF MICHIGAN	01/01/25-01/31/25 MEDICARE ADVANTAGE	249-000-716.001	RETIREE MEDICAL	407.63
12/19/2024	GEN	95878	BLUE CARE NETWORK	01/01/25-01/31/25 ACTIVE HMO PARTICIPANTS	101-000-080.716	DUE FROM WATER HOSPITA	1,652.78
12/19/2024	GEN	95878	BLUE CARE NETWORK	01/01/25-01/31/25 ACTIVE HMO PARTICIPANTS	101-215-716.000	HOSP & OPTICAL INSURANC	3,305.56
12/19/2024	GEN	95878	BLUE CARE NETWORK	01/01/25-01/31/25 ACTIVE HMO PARTICIPANTS	206-336-716.000	HOSP & OPTICAL INSURANC	18,841.70
12/19/2024	GEN	95878	BLUE CARE NETWORK	01/01/25-01/31/25 ACTIVE HMO PARTICIPANTS	207-301-716.000	HOSP & OPTICAL INSURANC	5,288.90
12/19/2024	GEN	95879	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 FIRE ACTIVE	206-336-716.000	HOSP & OPTICAL INSURANC	18,421.08
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-000-080.716	DUE FROM WATER HOSPITA	6,723.00
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-171-716.000	HOSP & OPTICAL INSURANC	5,916.26
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-192-716.000	HOSP & OPTICAL INSURANC	1,344.60
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-209-716.000	HOSP & OPTICAL INSURANC	8,067.60
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-215-716.000	HOSP & OPTICAL INSURANC	1,613.53
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-253-716.000	HOSP & OPTICAL INSURANC	6,319.63
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-265-716.000	HOSP & OPTICAL INSURANC	1,613.53
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-372-716.000	HOSP & OPTICAL INSURANC	2,016.90
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-402-716.000	HOSP & OPTICAL INSURANC	2,689.20
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	101-757-716.000	HOSP & OPTICAL INSURANC	2,285.83
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	206-336-716.000	HOSP & OPTICAL INSURANC	2,016.90
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	207-301-716.000	HOSP & OPTICAL INSURANC	6,050.70
12/19/2024	GEN	95880	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION ACTIVE	249-000-716.000	HOSP & OPTICAL INSURANC	3,630.43
12/19/2024	GEN	95881	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 FIRE RETIREE	206-336-716.002	RETIREE HEALTH CARE PREI	3,899.36
12/19/2024	GEN	95882	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION RETIRE	101-863-730.000	RETIREE HEALTH INSURANC	672.30
12/19/2024	GEN	95882	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 MAPE & NONUNION RETIRE	207-301-716.000	HOSP & OPTICAL INSURANC	2,016.90
12/19/2024	GEN	95883	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 CMD ACTIVE	207-301-716.000	HOSP & OPTICAL INSURANC	10,756.80
12/19/2024	GEN	95884	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 CMD RETIREES	207-301-716.001	RETIREE HOSP & OPTICAL IN	4,571.66
12/19/2024	GEN	95885	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 PATROL ACTIVE	207-301-716.000	HOSP & OPTICAL INSURANC	34,018.42
12/19/2024	GEN	95886	BLUE CROSS BLUE SHIELD OF MIC	01/01/25-01/31/25 PATROL RETIREE	207-301-716.001	RETIREE HOSP & OPTICAL IN	16,135.25
12/19/2024	GEN	95887	BOUND TREE MEDICAL LLC.	NEEDLE KITS, GLOVES, COLD PACKS	206-336-767.000	MEDICAL SUPPLIES	522.44
12/19/2024	GEN	95888	BREEN'S LANDSCAPE & SUPPLY CE	ROCK SALT	101-265-931.002	GROUNDS MAINTENANCE	540.00
12/19/2024	GEN	95889	CHRISTINE ATKINSON	1/2 DAY DECEMBER BOARD OF REVIEW	101-247-710.000	FEES & PER DIEM	75.00
12/19/2024	GEN	95890	COMCAST	12/15/24-01/14/25 STA #3 MONTHLY CHARGES	206-336-757.000	OPERATING SUPPLIES	289.60
12/19/2024	GEN	95891	CORRIGAN RECORD STORAGE	MONTHLY STORAGE	101-265-940.000	TOWNSHIP RECORD RETEN	249.98
12/19/2024	GEN	95892	CURTIS LAWSON	SEGEANT INTERVIEWS/ORAL BOARDS	207-220-710.000	FEES & PER DIEM-CIVIL SVC	300.00
12/19/2024	GEN	95893	DLZ MICHIGAN, INC.	9203 CAPSTONE DR PLOT PLAN REVIEW	249-000-801.000	PROFESSIONAL FEES	1,750.00
12/19/2024	GEN	95894	DTE ENERGY	11/08/24-12/09/24 TWP HALL	101-265-921.001	ELECTRIC TWP HALL	2,709.04
12/19/2024	GEN	95894	DTE ENERGY	11/08/24-12/10/24 FISK FARM	101-269-921.004	ELECTRIC FISK	175.88
12/19/2024	GEN	95894	DTE ENERGY	11/08/24-12/09/24 M59/BOGIE STREET LTE	101-269-921.006	M59/BOGIE PROP STREET LI	105.58
12/19/2024	GEN	95894	DTE ENERGY	11/08/24-12/10/24 ANNEX	101-269-921.011	ELECTRIC-TWP ANNEX	89

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/19/2024	GEN	95894	DTE ENERGY	11/08/24-12/10/24 OXBOW CEMETERY	101-276-921.000	ELECTRIC OXBOW	30.98
12/19/2024	GEN	95894	DTE ENERGY	11/07/24-12/08/24 STA 2	206-336-921.002	ELECTRIC STATION 2	414.28
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-000-080.716	DUE FROM WATER HOSPITA	149.81
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-171-716.000	HOSP & OPTICAL INSURANC	1,065.16
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-192-716.000	HOSP & OPTICAL INSURANC	111.01
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-209-716.000	HOSP & OPTICAL INSURANC	112.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-215-716.000	HOSP & OPTICAL INSURANC	18.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-253-716.000	HOSP & OPTICAL INSURANC	188.94
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-265-716.000	HOSP & OPTICAL INSURANC	18.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-372-716.000	HOSP & OPTICAL INSURANC	18.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-402-716.000	HOSP & OPTICAL INSURANC	347.20
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-757-716.000	HOSP & OPTICAL INSURANC	94.06
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		101-863-730.000	RETIREE HEALTH INSURANC	36.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		206-336-716.000	HOSP & OPTICAL INSURANC	463.72
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		206-336-716.002	RETIREE HEALTH CARE PREI	74.00
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		207-301-716.000	HOSP & OPTICAL INSURANC	3,247.37
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		207-301-716.001	RETIREE HOSP & OPTICAL IN	2,177.92
12/19/2024	GEN	95895	EMPLOYEE HEALTH INSURANCE M, MONTHLY ADMIN FEES		249-000-716.000	HOSP & OPTICAL INSURANC	36.00
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-000-080.716	DUE FROM WATER HOSPITA	404.86	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-000-080.717	DUE FROM WATER GROUP L	94.20	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-000-080.724	DUE FROM WATER DENTAL I	948.96	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-000-232.002	PAY DEDUCT ACC/CRIT/STD	1,505.12	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-101-717.000	GROUP LIFE INSURANCE	51.03	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-171-716.000	HOSP & OPTICAL INSURANC	340.18	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-171-717.000	GROUP LIFE INSURANCE	62.80	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-171-724.000	DENTAL INSURANCE	586.56	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-192-716.000	HOSP & OPTICAL INSURANC	182.68	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-192-717.000	GROUP LIFE INSURANCE	31.40	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-192-724.000	DENTAL INSURANCE	148.00	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-209-716.000	HOSP & OPTICAL INSURANC	290.32	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-209-717.000	GROUP LIFE INSURANCE	62.80	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-209-724.000	DENTAL INSURANCE	969.28	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-215-716.000	HOSP & OPTICAL INSURANC	322.62	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-215-717.000	GROUP LIFE INSURANCE	62.80	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-215-724.000	DENTAL INSURANCE	693.76	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-253-716.000	HOSP & OPTICAL INSURANC	329.30	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-253-717.000	GROUP LIFE INSURANCE	62.80	
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL	101-253-724.000	DENTAL INSURANCE	693.76	



WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-265-716.000		HOSP & OPTICAL INSURANC	63.26
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-265-717.000		GROUP LIFE INSURANCE	15.70
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-265-724.000		DENTAL INSURANCE	135.12
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-372-716.000		HOSP & OPTICAL INSURANC	71.84
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-372-717.000		GROUP LIFE INSURANCE	15.70
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-372-724.000		DENTAL INSURANCE	242.32
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-402-716.000		HOSP & OPTICAL INSURANC	250.62
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-402-717.000		GROUP LIFE INSURANCE	47.10
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-402-724.000		DENTAL INSURANCE	558.64
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-757-716.000		HOSP & OPTICAL INSURANC	142.66
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-757-717.000		GROUP LIFE INSURANCE	31.40
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 101-757-724.000		DENTAL INSURANCE	209.12
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 206-000-232.002		PAY DEDUCT ACC/CRIT/STC	488.52
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 206-336-716.000		HOSP & OPTICAL INSURANC	1,951.32
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 206-336-717.000		GROUP LIFE INSURANCE	408.20
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 206-336-724.000		DENTAL INSURANCE	4,284.80
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 207-000-232.002		PAY DEDUCT ACC/CRIT/STC	1,130.96
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 207-301-716.000		HOSP & OPTICAL INSURANC	2,753.98
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 207-301-717.000		GROUP LIFE INSURANCE	557.35
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 207-301-724.000		DENTAL INSURANCE	7,983.44
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 249-000-716.000		HOSP & OPTICAL INSURANC	326.92
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 249-000-717.000		GROUP LIFE INSURANCE	47.10
12/19/2024	GEN	95896	EQUITABLE FINANCIAL LIFE INS	CC 12/01/24-12/31/24 LIFE, ST/LT DISABILITY, VOL 249-000-724.000		DENTAL INSURANCE	619.76
12/19/2024	GEN	95897	F&M MECHANICAL SERVICES LLP	REPLACE EXHAUST FAN MOTOR STA #2	206-336-931.002	MAINTENANCE STATION 2	3,310.00
12/19/2024	GEN	95898	GALLAGHER FIRE EQUIPMENT CO.	ANNUAL FIRE EXTINGUISHER SERVICE	206-336-933.000	EQUIPMENT MAINTENANCE	1,350.00
12/19/2024	GEN	95899	HOUSTON'S LAWN SERVICE	NOVEMBER LAWN CARE	101-276-932.000	CEMETERY MAINT	2,139.00
12/19/2024	GEN	95900	INSPECTION SERVICES BY SAH	11/29/24-12/13/24 MECHANICAL INSPECTION:	249-000-707.001	PLUMBING/MECHANICAL IN	3,502.20
12/19/2024	GEN	95901	JOHN HALLERAN	REFUND (25) EXCESS CIRCUITS	249-000-478.000	ELECTRICAL PERMITS	250.00
12/19/2024	GEN	95902	MARK CARLSON	11/29/24-12/13/24 ELECTRICAL INSPECTIONS	249-000-707.000	ELECTRICAL INSPECTOR	1,885.50
12/19/2024	GEN	95902	MARK CARLSON	11/29/24-12/13/24 ELECTRICAL INSPECTIONS	249-000-801.002	RENTAL INSPECTIONS	120.00
12/19/2024	GEN	95903	MI ASSOC OF MUNICIPAL CLERKS	MAMC REGISTRATION NOBLE, SANTIAGO, LONI	101-215-864.000	CONFERENCES & MEETING:	1,575.00
12/19/2024	GEN	95904	MILLERS HIGHLAND TIRE AND AUTI	2002 GMC SIERRA, BRAKES	206-336-863.001	VEHICLE MAINTENANCE	638.62
12/19/2024	GEN	95905	OAKLAND COUNTY LEGAL NEWS	REGULAR BOARD MEETING SYNOPSIS 11/19/24	101-215-903.000	LEGAL NOTICES	127.00
12/19/2024	GEN	95905	OAKLAND COUNTY LEGAL NEWS	2025 DATES/PLANNING,ZBA,PARKS	101-402-903.000	LEGAL NOTICES	259.00
12/19/2024	GEN	95906	PETER'S TRUE VALUE HARDWARE	BACK PACK BLOWER	101-265-931.002	GROUNDS MAINTENANCE	499.98
12/19/2024	GEN	95907	PREMIER SAFETY HEADQUARTERS	REFLECTIVE VESTS	101-171-962.000	MISCELLANEOUS	42.72
12/19/2024	GEN	95907	PREMIER SAFETY HEADQUARTERS	REFLECTIVE VESTS	101-402-962.000	MISCELLANEOUS	64.08
12/19/2024	GEN	95907	PREMIER SAFETY HEADQUARTERS	REFLECTIVE VESTS	249-000-757.000	OPERATING SUPPLIES	11



**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/19/2024	GEN	95908	PRIORITY ONE EMERGENCY	PRINTER POWER CABLE	207-301-727.000	OFFICE SUPPLIES	39.99
12/19/2024	GEN	95908	PRIORITY ONE EMERGENCY	REPLACE PRINTER	207-301-863.001	VEHICLE MAINTENANCE	133.75
12/19/2024	GEN	95909	QUALITY REMODELING	BUILD WALL IN ASSESSORS OFFICE	101-265-974.000	IMPROVEMENTS & BETTERM	1,525.00
12/19/2024	GEN	95910	R & R FIRE TRUCK REPAIR INC.	E-1 REPLACE AIR SYSTEM	206-336-863.001	VEHICLE MAINTENANCE	2,785.54
12/19/2024	GEN	95911	ROSATI, SCHULTZ, JOPPICH	WLTWP VX RALPH & MARTHA BERG	101-210-826.000	LEGAL FEES	5,435.50
12/19/2024	GEN	95911	ROSATI, SCHULTZ, JOPPICH	ORDINANCE ENFORCEMENT SERVICES THRU 1	101-210-826.002	LEGAL FEES-ORDINANCE	852.50
12/19/2024	GEN	95912	SMART BUSINESS SOURCE	FOLDERS, PAPER	101-000-080.727	DUE FROM WATER OFFICE S	106.13
12/19/2024	GEN	95912	SMART BUSINESS SOURCE	FOLDERS, PAPER	101-249-727.000	OFFICE SUPPLIES	302.83
12/19/2024	GEN	95912	SMART BUSINESS SOURCE	FOLDERS, PAPER	206-336-727.000	OFFICE SUPPLIES	106.13
12/19/2024	GEN	95912	SMART BUSINESS SOURCE	FOLDERS, PAPER	207-301-727.000	OFFICE SUPPLIES	176.88
12/19/2024	GEN	95912	SMART BUSINESS SOURCE	FOLDERS, PAPER	249-000-727.000	OFFICE SUPPLIES	70.73
12/19/2024	GEN	95913	SOLBERG KNOWLES & ASSOCIATES	BARNES 24" VENTER	101-000-110.000	GRINDER PUMP INVENTORY	338.00
12/19/2024	GEN	95914	STATE OF MICHIGAN	10/01/24-12/31/24 AMBULANCE ASSESSMENT	206-336-757.000	OPERATING SUPPLIES	11.69
12/19/2024	GEN	95915	STEVEN ANDERSON	ADNERSON, REIMBURSE FOR MILEAGE (140) TR	101-101-860.000	CONFERENCES & MILEAGE	93.80
12/19/2024	GEN	95916	SZOTT M59 DODGE	21-6 OIL CHANGE, FILTER, INSPECT	207-301-863.001	VEHICLE MAINTENANCE	119.39
12/19/2024	GEN	95917	VC3 INC	MICROSOFT 365 LICENSES (12)	101-265-971.000	TECHNOLOGY EQUIPMENT	47,848.05
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-000-080.853	DUE FROM WATER PHONE E	394.30
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-171-853.000	CELLULAR PHONE	43.33
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-215-853.000	CELLULAR PHONE	82.22
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-265-853.000	TELEPHONE	46.66
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-372-853.000	CELLULAR PHONE	41.11
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	101-402-853.000	CELLULAR PHONE	81.61
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	206-336-853.000	CELL PHONES	314.58
12/19/2024	GEN	95918	VERIZON WIRELESS	11/02/24-12/01/24 MONTHLY CHARGES	249-000-853.000	CELLULAR PHONE	231.35
12/19/2024	GEN	95919	VIZOCOM ICT LLC	DIAMOND BLUE GLOVES	206-336-767.000	MEDICAL SUPPLIES	477.00
12/19/2024	GEN	95920	WATER DEPOT	GEN, MONTHLY CHARGES	101-265-931.001	BLDG MAINTENANCE & SUP	89.00
12/19/2024	GEN	95920	WATER DEPOT	PD MONTHLY CHARGES	207-301-931.001	BLDG MAINTENANCE & SUP	51.25
12/19/2024	GEN	95921	WEINGARTZ	BUSHING FLANGE	101-265-933.000	GROUNDS EQUIP MAINTEN/	17.98
12/19/2024	GEN	95922	JEANNE EAGEN	INSTRUCTOR FEES	101-757-751.000	SENIOR ACTIVITIES	113.00
12/19/2024	GEN	95923	FIRE SYSTEMS OF MICHIGAN	FIRE SYSTEM INSPECTIONS	101-757-931.000	BUILDING MAINTENANCE	291.60
12/19/2024	GEN	95924	KATHLEEN GORDINEAR	GORDINEAR, REIMBURSE FOR MILEAGE	101-757-860.000	MILEAGE	48.24
12/19/2024	GEN	95925	LAURA HOBBS	HOBBS, REIMBURSE FOR MILEAGE	101-757-860.000	MILEAGE	66.33
12/19/2024	GEN	95926	LEISURE UNLIMITED LLC	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	79.00
12/19/2024	GEN	95927	MARLENE TURNER	INSTRUCTOR'S FEE	101-757-751.000	SENIOR ACTIVITIES	70.00
12/19/2024	GEN	95928	WATER DEPOT	DUBLIN, MONTHLY WATER	101-757-931.000	BUILDING MAINTENANCE	31.00
12/19/2024	GEN	95929	DTE ENERGY	11/08/24-12/10/24 HAWLEY PARK	208-000-921.000	ELECTRIC JUDY HAWLEY PA	20.09
12/19/2024	GEN	95929	DTE ENERGY	11/08/24-12/10/24 VETTER PARK	208-000-921.001	ELECTRIC - VETTER PARK	99.19
12/26/2024	GEN	95931	FNBO	11/14/24-12/13/24 NOBLE CHARGES	101-000-036.000	DUE FROM OTHERS	4,41

**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/26/2024	GEN	95931	FNBO	11/14/24-12/13/24 CREAM CHARGES	206-000-067.005	DUE FROM OTHERS	2,534.62
12/26/2024	GEN	95931	FNBO	11/14/24-12/13/24 KELLER CHARGES	207-000-067.004	DUE FROM OTHERS	580.17
12/30/2024	GEN	95932	WHITE LAKE TOWNSHIP	TEST FORMAT OF CHECK	101-299-956.000	UNALLOCATED MISCELLAN	** VOIDED **
<b>GEN Total</b>							865279.21
12/05/2024	IMPR3	60095	DLZ MICHIGAN, INC.	ELIZABETH LK RD CONSTRUCTION	246-000-970.006	ELIZABETH LK RD RECONST	21,319.00
12/05/2024	IMPR3	60096	SPRINGLINE EXCAVATION, LLC	ELIZABETH LAKE RD CONSTRUCTION	246-000-970.006	ELIZABETH LK RD RECONST	296,375.67
12/12/2024	IMPR3	60097	ARIZENT	BONDING LEGAL ADVERTISING	246-000-970.005	CAPITAL OUTLAY-NEW TWP	1,705.00
12/12/2024	IMPR3	60098	STRAUB PETTITT YASTE	PROFESSIONAL SERVICES FOR NOVEMBER	246-000-970.005	CAPITAL OUTLAY-NEW TWP	36,705.49
12/26/2024	IMPR3	60099	OAKLAND COUNTY	MOVE FUNDS INTO O.C. INVESTMENT POOL	246-000-214.002	DUE TO OTHER FUNDS	3,000,000.00
<b>IMPR3 Total</b>							3,356,105.16
12/05/2024	PA-CK	2074	OAKLAND COUNTY	GRASS LK SAD BOND INTEREST	245-900-972.011	DEBT SERVICE GRASS LK AL	72.96
12/12/2024	PA-CK	2075	WHITE LAKE TOWNSHIP	197 SERRA DR ELECTRICAL PERMIT	245-900-972.006	SAD SEWER CONNECTS	100.00
12/12/2024	PA-CK	2076	WHITE LAKE TOWNSHIP	197 SERRA DR SEWER PERMIT	245-900-972.006	SAD SEWER CONNECTS	200.00
12/12/2024	PA-CK	2077	WHITE LAKE TOWNSHIP	197 SERRA DR WLT & COMMERCE SEWER CONI	245-900-972.006	SAD SEWER CONNECTS	6,996.00
<b>PA-CK Total</b>							7,368.96
12/05/2024	SEWFD	4146	COMMERCE TOWNSHIP	NOVEMBER SEWER CONNECTIONS	590-000-969.000	CONNECTION EXPENSE-CC	46,796.00
12/05/2024	SEWFD	4147	DLZ MICHIGAN, INC.	CWSRF SEWER RELINING	590-000-158.000	CONSTRUCTION IN PROGRI	10,305.00
12/05/2024	SEWFD	4147	DLZ MICHIGAN, INC.	ROUND LK SEWER EXT	590-000-158.001	CONSTRUCTION IN PROGRI	5,512.50
12/12/2024	SEWFD	4148	BETTER BUILT HOMES, LLC	1276 BLUE RIDGE PKWY LATERAL CONN FEE C	590-000-631.000	CONNECTION FEES	2,888.00
12/12/2024	SEWFD	4149	BETTER BUILT HOMES, LLC	1366 BLUE RIDGE PKWY LATERAL CONN FEE C	590-000-631.000	CONNECTION FEES	2,888.00
12/20/2024	SEWFD	4150	LANZO CONTRUCTION COMPANY	SANITARY SEWER RELINING & MANHOLE REPAI	590-000-158.000	CONSTRUCTION IN PROGRI	** VOIDED **
12/20/2024	SEWFD	4151	LANZO CONTRUCTION COMPANY	SANITARY SEWER RELINING & MANHOLE REPAI	590-000-158.000	CONSTRUCTION IN PROGRI	1,286,873.95
<b>SEWFD Total</b>							1,355,263.45
12/09/2024	TAX	6871	CORELOGIC TAX SERVICES	2024 SUMMER TAX REFUND 12-24-379-012 VET	703-000-385.005	DUE TO OTHERS (REFUNDS)	4,793.22
12/09/2024	TAX	6872	PATRICK STEMMLER	2024 SUMMER TAX REFUND 12-25-401-002 VET	703-000-385.005	DUE TO OTHERS (REFUNDS)	2,734.44
12/12/2024	TAX	6873	CORELOGIC TAX SERVICES	2024 SUMMER TAX REFUND DBOR12-06-377-0	703-000-385.005	DUE TO OTHERS (REFUNDS)	5,148.01
12/12/2024	TAX	6874	ROBERT GLOSSINGER	2024 SUMMER TAX REFUND DBOR12-24-104-0	703-000-385.005	DUE TO OTHERS (REFUNDS)	241.16
12/12/2024	TAX	6875	RAYETTA POLASEK	2024 SUMMER TAX REFUND DBOR12-36-326-0	703-000-385.005	DUE TO OTHERS (REFUNDS)	928.23
12/20/2024	TAX	6876	MICHAEL ULLOM	2024 SUMMER TAX REFUND 12-08-400-018 PRE	703-000-385.005	DUE TO OTHERS (REFUNDS)	592.00
12/20/2024	TAX	6877	ADNAN ELJAROUDI	2024 SUMMER TAX REFUND 12-25-102-002 VET	703-000-385.005	DUE TO OTHERS (REFUNDS)	2,971.67
<b>TAX Total</b>							17,408.73
12/05/2024	TNA	15665	CARLISLE WORTMAN ASSOCIATES	AVALOND REVIEWS	701-000-286.455	WHITE LAKE HILL/AVALON	3,487.50
12/05/2024	TNA	15665	CARLISLE WORTMAN ASSOCIATES	RIVER CADDIS, NOV SERVICES	701-000-286.475	RIVER CADDIS DEV	1,420.00
12/05/2024	TNA	15665	CARLISLE WORTMAN ASSOCIATES	9101 HIGHLAND - CALVARY CHURCH, NOV SEF	701-000-286.476	9101 HIGHLAND (CALVARY	300.00
12/05/2024	TNA	15666	DLZ MICHIGAN, INC.	1122 CLEARWATER INSPECTION	701-000-284.006	GRINDER PUMP INSTALLS	660.00
12/05/2024	TNA	15666	DLZ MICHIGAN, INC.	WHITE LAKE HILL SERVICES THRU 08/09/24	701-000-286.455	WHITE LAKE HILL/AVALON	2,862.50
12/05/2024	TNA	15666	DLZ MICHIGAN, INC.	CULVERS SITE PLAN REVIEW	701-000-286.473	CULVERS	876.25
12/05/2024	TNA	15667	O.C.W.R.C.	NOVEMBER SEWER PERMITS	701-000-287.005	DUE TO OAKLAND CO SEWE	1,4

WHITE LAKE TOWNSHIP

DECEMBER 2024 CHECK DISBURSEMENTS

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	TNA	15668	PROGRESSIVE AE	ROUND LK MAPPING 2023-2024 CONTRACT	701-000-250.006	ROUND LAKE IMPROVEMEN	2,000.00
12/05/2024	TNA	15669	ROBERT NEWSOM	REFUND REMAINING ESCROW BALANCE	701-000-284.006	GRINDER PUMP INSTALLS	3,552.50
12/05/2024	TNA	15670	VENKATA VELIVELA	REFUND HALL DEPOSIT	701-000-283.000	DEPOSITS FOR HALLS	200.00
12/05/2024	TNA	15671	WHITE LAKE TOWNSHIP	1310 CASTLEWOOD GRINDER STA & ADMIN FEE	701-000-284.006	GRINDER PUMP INSTALLS	4,536.03
12/05/2024	TNA	15672	WHITE LAKE TOWNSHIP	1366 BLUE RIDGE PKWY GRINDER STA & ADMIN	701-000-284.006	GRINDER PUMP INSTALLS	4,536.03
12/12/2024	TNA	15673	BETTER BUILT HOMES, LLC	1366 BLUE RIDGE PKWY ESCROW REFUND	701-000-284.006	GRINDER PUMP INSTALLS	3,280.91
12/12/2024	TNA	15674	BETTER BUILT HOMES, LLC	1276 BLUE RIDGE PKWY ESCROW REFUND	701-000-284.006	GRINDER PUMP INSTALLS	4,122.50
12/12/2024	TNA	15675	OAKLAND COUNTY TREASURER	NOVEMBER TRAILER TAX	701-000-287.003	DUE TO OAKLAND CO TR TA	4,235.00
12/12/2024	TNA	15676	ROSATI, SCHULTZ, JOPPICH	CREDIT DUE ON LAKE POINTE	701-000-070.000	DUE FROM OTHERS	(77.50)
12/12/2024	TNA	15676	ROSATI, SCHULTZ, JOPPICH	PRESERVE AT HIDDEN LK, SERVICES THRU 11/3	701-000-286.407	PRESERVE AT HIDDEN LAKE	108.50
12/12/2024	TNA	15676	ROSATI, SCHULTZ, JOPPICH	NEW HOPE, SERVICES THRU 11/30/24	701-000-286.442	NEW HOPE WHITE LAKE	62.00
12/12/2024	TNA	15676	ROSATI, SCHULTZ, JOPPICH	CULVERS, SERVICES THRU 11/30/24	701-000-286.473	CULVERS	112.50
12/12/2024	TNA	15677	WHITE LAKE TOWNSHIP	TRANS REFUND DUE TO PA188 POSTED TO T&A	701-000-284.006	GRINDER PUMP INSTALLS	700.00
12/12/2024	TNA	15678	WHITE LAKE TOWNSHIP TREASURE	NOVEMBER TRAILER TAX	701-000-285.013	DUE TO G/F TRAILER PARK F	847.00
12/19/2024	TNA	15679	CAMQ PROPERTIES, LLC	RELEASE BALANCE OF ESCROW/CARTER'S PLU	701-000-286.463	CARTER'S PLUMBING	3,086.15
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	LAKE POINTE	701-000-286.398	LAKE POINTE 17-006	255.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	WET VALLEY	701-000-286.410	WEST VALLEY	595.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	NEW HOPE WHITE LAKE	701-000-286.442	NEW HOPE WHITE LAKE	57.50
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	WHITE LAKE HILL	701-000-286.455	WHITE LAKE HILL/AVALON	240.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	GINKO SELF STORAGE	701-000-286.469	GINKO SELF STORAGE	666.25
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	PARK RIDGE PRIVATE ROAD	701-000-286.470	PARK RIDGE PRIVATE ROAD	500.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	CULVER SITE PLAN REVIEW	701-000-286.473	CULVERS	1,395.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	RIVER CADDIS DEVELOPMENT	701-000-286.475	RIVER CADDIS DEV	575.00
12/19/2024	TNA	15680	DLZ MICHIGAN, INC.	9101 HIGHLAND ROAD	701-000-286.476	9101 HIGHLAND (CALVARY	402.50
12/19/2024	TNA	15681	DTE ENERGY	11/08/24-12/10/24 LAKE ONA	701-000-250.010	LAKE ONA IMPROVEMENT	811.70
12/19/2024	TNA	15682	DTE ENERGY	11/08/24-12/11/24 ROUND LAKE	701-000-250.006	ROUND LAKE IMPROVEMEN	17.62
12/19/2024	TNA	15683	DTE ENERGY	11/08/24-12/09/24 LAKE NEVA	701-000-250.011	LAKE NEVA IMPROVEMENT	18.67
12/19/2024	TNA	15684	DTE ENERGY	11/08/24-12/10/24 GRASS LAKE WELL	701-000-250.005	GRASS LAKE SAD	17.62
12/19/2024	TNA	15685	OAKLAND COUNTY	10840 HILLWAY DRIVE GRINDER PUMP EASEME	701-000-284.006	GRINDER PUMP INSTALLS	30.00
12/19/2024	TNA	15686	OAKLAND COUNTY	9120 BUCKINGHAM GRINDER PUMP EASEMEN	701-000-284.006	GRINDER PUMP INSTALLS	30.00
12/26/2024	TNA	15687	41-B DISTRICT COURT	BOND FOR ALEXANDER PATRICK-JOHN KNOX	701-000-287.002	DUE TO COURTS	** VOIDED **
12/26/2024	TNA	15688	41-B DISTRICT COURT	BOND FOR ALEXANDER PATRICK-JOHN KNOX	701-000-287.002	DUE TO COURTS	352.00
<b>TNA Total</b>							<b>48,271.73</b>
12/05/2024	WAT	8415	CONSUMERS ENERGY	10/19/24-11/29/24 STEEPHOLLOW/TL	591-000-923.001	GAS TWIN LAKES	86.42
12/05/2024	WAT	8415	CONSUMERS ENERGY	10/19/24-11/20/24 FOX BAY/HILLVIEW	591-000-923.002	GAS HILLVIEW	25.16
12/05/2024	WAT	8415	CONSUMERS ENERGY	10/18/24-11/19/24 ASPEN MEADOWS	591-000-923.004	GAS GRASS LAKE	118.25
12/05/2024	WAT	8415	CONSUMERS ENERGY	10/18/24-11/19/24 SATELITE DR/VILLAGE ACRE	591-000-923.005	GAS VILLAGE ACRES-SATELI	115.06
12/05/2024	WAT	8416	DLZ MICHIGAN, INC.	GENERAL WATER SERVICES	591-000-802.000	ENG & ARCH FEES	21.00

**WHITE LAKE TOWNSHIP  
DECEMBER 2024 CHECK DISBURSEMENTS**

Section 6, Item B.

Check Date	Bank	Check #	Payee	Description	GL #	Account Name	Amount
12/05/2024	WAT	8417	DTE ENERGY	10/17/24-11/14/24 ASPEN MEADOWS	591-000-921.006	ELECTRICITY GRASS LAKE	3,013.39
12/05/2024	WAT	8418	HYDROCORP	CROSS CONNECTION CONTROL PROGRAM	591-000-818.000	CONTRACTED SERVICES	267.00
12/05/2024	WAT	8419	OAKLAND COUNTY	POSTAGE FOR WATER BILLS	591-000-818.000	CONTRACTED SERVICES	1,351.69
12/05/2024	WAT	8420	SPRINGLINE EXCAVATION, LLC	REFUND HYDRANT DEPOSIT	591-000-642.000	WATER	404.18
12/05/2024	WAT	8421	USA BLUEBOOK	HACH DPD FOR 10ML SAMPLE	591-000-748.000	TESTING WATER SYSTEMS	153.84
12/05/2024	WAT	8421	USA BLUEBOOK	BLUE WHITE TUBE ASSEMBLY	591-000-931.000	REPAIR & MAINT BLDG & EQ	224.07
12/12/2024	WAT	8422	JCI JONES CHEMICALS, INC.	CHLORINE	591-000-745.000	SYSTEM CHEMICALS	3,560.00
12/12/2024	WAT	8423	JENNY PARKER	REFUND DUPLICATE PAYMENT	591-000-035.000	A/R WATER	98.52
12/12/2024	WAT	8424	USIC LOCATING SERVICES, LLC	11/01/24-11/30/24 LOCATING SERVICES	591-000-818.000	CONTRACTED SERVICES	1,342.90
12/19/2024	WAT	8425	APPLIED INNOVATION	DPS, MONTHLY CHARGES	591-000-727.000	OFFICE SUPPLIES	35.84
12/19/2024	WAT	8426	CORRPRO	INSPECTION SERVICES	591-000-934.001	REPAIR & MAINT TOWER 1	815.00
12/19/2024	WAT	8426	CORRPRO	INSPECTION SERVICES	591-000-934.002	REPAIR & MAINT TOWER 2	815.00
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 TOWER 1	591-000-921.000	ELECTRICITY TOWER	36.94
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 TWIN LAKES	591-000-921.001	ELECTRICITY TL	922.20
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 HILLVIEW	591-000-921.002	ELECTRICITY HILLVIEW	464.48
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 VILLAGE ACRES	591-000-921.004	ELECTRICITY VILLAGE ACRE	1,441.81
12/19/2024	WAT	8427	DTE ENERGY	11/08/24-12/09/24 TOWER 2	591-000-921.007	ELECTRICITY TOWER #2	129.41
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 HURONDALE	591-000-921.008	ELECTRICITY-HURONDALE	920.07
12/19/2024	WAT	8427	DTE ENERGY	11/07/24-12/09/24 WILLIAMS/HURONDALE	591-000-921.010	ELECTRICITY 933 WILLIAMS	33.05
12/19/2024	WAT	8428	ELHORN ENGINEERING CO	CARUS, EL-CHLOR	591-000-745.000	SYSTEM CHEMICALS	3,924.00
12/19/2024	WAT	8429	FERGUSON WATERWORKS	1 STRT MTR COUP	591-000-750.000	OPERATING SUPPLIES METE	4,667.60
12/19/2024	WAT	8430	MISS DIG SYSTEM INC.	2025 ANNUAL MAINTENANCE FEES	591-000-958.000	DUES & MISC	3,299.59
12/19/2024	WAT	8431	RASIL ELIA	REFUND-SEWER PAYMENT-WRONG ENTITY	591-000-035.000	A/R WATER	215.12
12/19/2024	WAT	8432	STATE OF MICHIGAN	MONTHLY WATER TESTING	591-000-748.000	TESTING WATER SYSTEMS	828.00
12/19/2024	WAT	8433	USA BLUEBOOK	LIQ FILLED PRESSURE GUAGE	591-000-755.000	OPERATING SUPPLIES TOOL	922.73
12/19/2024	WAT	8434	WHITE LAKE TOWNSHIP	REIMBURSE FOR NOVEMBER SERVICES	591-000-214.101	DUE TO GENERAL FUND	53,224.28
<b>WAT Total</b>							83,670.60
<b>Grand Total</b>							5,777,866.15

# WHITE LAKE TOWNSHIP POLICE DEPARTMENT

## DECEMBER 2024

DETECTIVE BUREAU SUMMARY						
	Dec-24	Dec-23	% CHG.	YTD 24	YTD 23	% CHG
ARRESTS	0	5	-100.0%	37	71	-47.9%
WARRANTS ISSUED	32	24	33.3%	401	461	-13.0%
JUVENILE PETITIONS	0	1	-100.0%	15	33	-54.5%
COURT CASES	0	1	-100.0%	27	22	22.7%
PRISONERS ARRAIGNED	5	9	-44.4%	103	124	-16.9%
CASES ASSIGNED	57	42	35.7%	646	571	13.1%
CASES CLOSED BY ARREST	60	27	122.2%	651	640	1.7%
CASES CLOSED OTHER	39	30	30.0%	415	318	30.5%
UNIFORM DIVISION SUMMARY						
	Dec-24	Dec-23	% CHG.	YTD 24	YTD 23	% CHG
ARRESTS	100	47	112.8%	969	918	5.6%
TRAFFIC WARNINGS	354	202	75.2%	3,605	3,446	4.6%
TICKETS ISSUED	309	218	41.7%	3,888	3,958	-1.8%
ACCIDENT - PROPERTY DAMAGE	49	34	44.1%	443	356	24.4%
ACCIDENT - PERSONAL INJURY	4	14	-71.4%	85	105	-19.0%
ACCIDENT - FATAL	0	1	-100.0%	3	4	-25.0%
ACCIDENT - PRIVATE PROPERTY	10	12	-16.7%	137	129	6.2%
CALLS FOR SERVICE	1,990	1,604	24.1%	24,768	23,276	6.4%
DISPATCH RUNS	732	656	11.6%	9,470	8,616	9.9%

  
 Daniel T. Keller, Chief of Police

# Monthly Summary of Offenses

All Offenses that were Attempted or Completed

CLASS	Description	Dec-24	Dec-23	YTD 2024	YTD 2023	YTD % CHG	ARRESTS			
							ADULT		JUV	
							Dec-24	YTD	Dec-24	YTD
100	Murder / Manslaughter	0	0	0	1	-100.0%	0	0	0	0
200	Forcible Sexual Offenses	0	0	1	5	-80.0%	0	1	0	0
300	Robbery	0	0	0	2	-100.0%	0	0	0	0
400	Assault Offenses	5	7	86	112	-23.2%	3	59	0	4
500	Burglary / Home Invasion	0	0	6	6	0.0%	0	0	0	0
600	Larceny Violations	2	4	42	40	5.0%	1	3	0	0
700	Motor Vehicle Theft	0	1	10	11	-9.1%	0	4	0	0
800	Arson	0	0	1	1	0.0%	0	0	0	0
900	Kidnapping / Abduction	0	0	0	0	0.0%	0	0	0	0
<b>GROUP A TOTALS</b>		<b>7</b>	<b>12</b>	<b>146</b>	<b>178</b>	<b>-18.0%</b>	<b>4</b>	<b>67</b>	<b>0</b>	<b>4</b>





**Fire Department**  
Charter Township of White Lake

**December 2024 Incident / Activity Summary**

**Incident Response breakdown**

Medical/Rescue.....	229
Hostile Fires (Structure, Vehicle, Brush, and Other) .....	05
Hazardous Conditions .....	14
Public Service / Other .....	26
Uncategorized.....	01
Mutual Aid –	
• Given .....	01
• Received.....	04

**Activity Summary**

Key box / safe access program.....	01
(house / key checks)	
EMS –	
Hospital Transports by the Fire Department.	06
Public Service Events / Standby.....	08

**December Total Calls for Service: 275**

2024 Total: 3,445  
2023 Total: 3,124  
2022 Total: 3,030

  
John Holland  
Fire Chief

Rik Kowall, Supervisor  
Anthony L. Noble, Clerk  
Mike Roman, Treasurer



Section 6, Item E.

Scott Ruggles  
Steve Anderson  
Andrea C. Voorheis  
Liz Fessler Smith

## WHITE LAKE TOWNSHIP

7525 Highland Road • White Lake, Michigan 48383-2900 • (248) 698-3300 • www.whitelaketwp.com

### *Community Development Department Report*

*January 2025*

Dear Township Board Members,

Happy New Year! During the month of December, the department continued our work on several projects. The Civic Center site work continues, and good progress is being made. While Elizabeth Lake Road construction and streetlight installation are now complete, there is an electrical repair still needed due to a car striking a light pole near the roundabout. We expect that work to be completed this month.

There are several active projects in process. The Comfort Care development (Union Lake Rd & Carpathian) is working on a revised Final Site Plan and Development Agreement. The Panera Restaurant, which is a Multi-tenant Building (Meijer out lot, east of the gas station), will likely appear before both the Planning Commission and Township Board this month, seeking approval of their Final Site Plan and Development Agreement. The Avalon project (M-59 & Hill Rd) has submitted their Final Site Plan for review. The Lasting Impressions project (White Lake Rd. & Coastal Pkwy.) received Special Land Use and Preliminary Site Plan approval, as well as ZBA approval. They are now working on their Final Site Plan. River Caddis (M-59 & Elizabeth Lake Road) has submitted a site plan for a multiple-family project on their site and are currently working on revisions. Finally, the old Calvary Lutheran church site (M-59 & Sunnybeach), which is referred to as 9101 Highland, received Special Land Use approval in December. Plan revisions were required by the Planning Commission so their Preliminary Site Plan will be considered again at their January 16<sup>th</sup> meeting. Depending on that outcome, their project may advance to the Board for consideration in January as well.

As for approved projects, construction is continuing at the Preserve at Hidden Lake, Trailside Meadow, and Eagles Landing. The West Valley and Lakepointe projects (near Bocovina on either side of Union Lake Rd.) held their preconstruction meetings last month and will begin site clearing soon. Culver's (Meijer out lot, east of the gas station) also held their pre-construction meeting last month and is moving forward. The Oakland Harvesters (White Lake Rd. & Coastal Pkwy.) project held their preconstruction meeting and some minor site work is underway. Alpine Valley ski resort's small addition to their existing lodge was approved but construction is not yet underway. The Gateway Crossing (SW corner of M-59 & Bogie Lake Rd) and Ginko Storage (White Lake Rd. & Coastal Pkwy.) projects are planning their pre-construction in the coming weeks.

Please find included in this monthly report the permit and inspection activity report for the Building Division. Don't hesitate to contact our office if you have any questions or require any additional information.

Respectfully,

Sean O'Neil



Rik Kowall, Supervisor  
Anthony L. Noble, Clerk  
Mike Roman, Treasurer



Section 6, Item E.

Scott Huggles  
Liz Fessler Smith  
Andrea C. Voorheis  
Michael Powell

## WHITE LAKE TOWNSHIP

7525 Highland Road • White Lake, Michigan 48383-2900 • (248) 698-3300 • www.whitelaketwp.com

### *Parks and Recreation January 2025*

Dear Township Board,

I am pleased to report that eight different firms attended the pre-bid meeting for the Stanley Park Improvements project that was held on January 8<sup>th</sup>. Final bids for that project are due on January 16<sup>th</sup>, and post-bid interviews will take place from January 17<sup>th</sup> thru January 23<sup>rd</sup>. We anticipate that a contract will be awarded at the February Township Board meeting and that construction will commence in mid-April.

At its monthly January meeting, the Parks & Recreation Committee reviewed its finances and then considered a proposal from Beckett & Raeder (included in this Board packet) to assist with the preparation of a MDNR Land & Water Conservation Fund Grant application for a multi-purpose building (including restrooms) at Stanley Park. The Committee decided to recommend to accept the proposal and award a contract to Beckett & Raeder in an amount not to exceed \$5,000. The MDNR Land & Water Fund Grant Application is due on April 1, 2025.

If you have any questions, please contact me.

Sincerely,

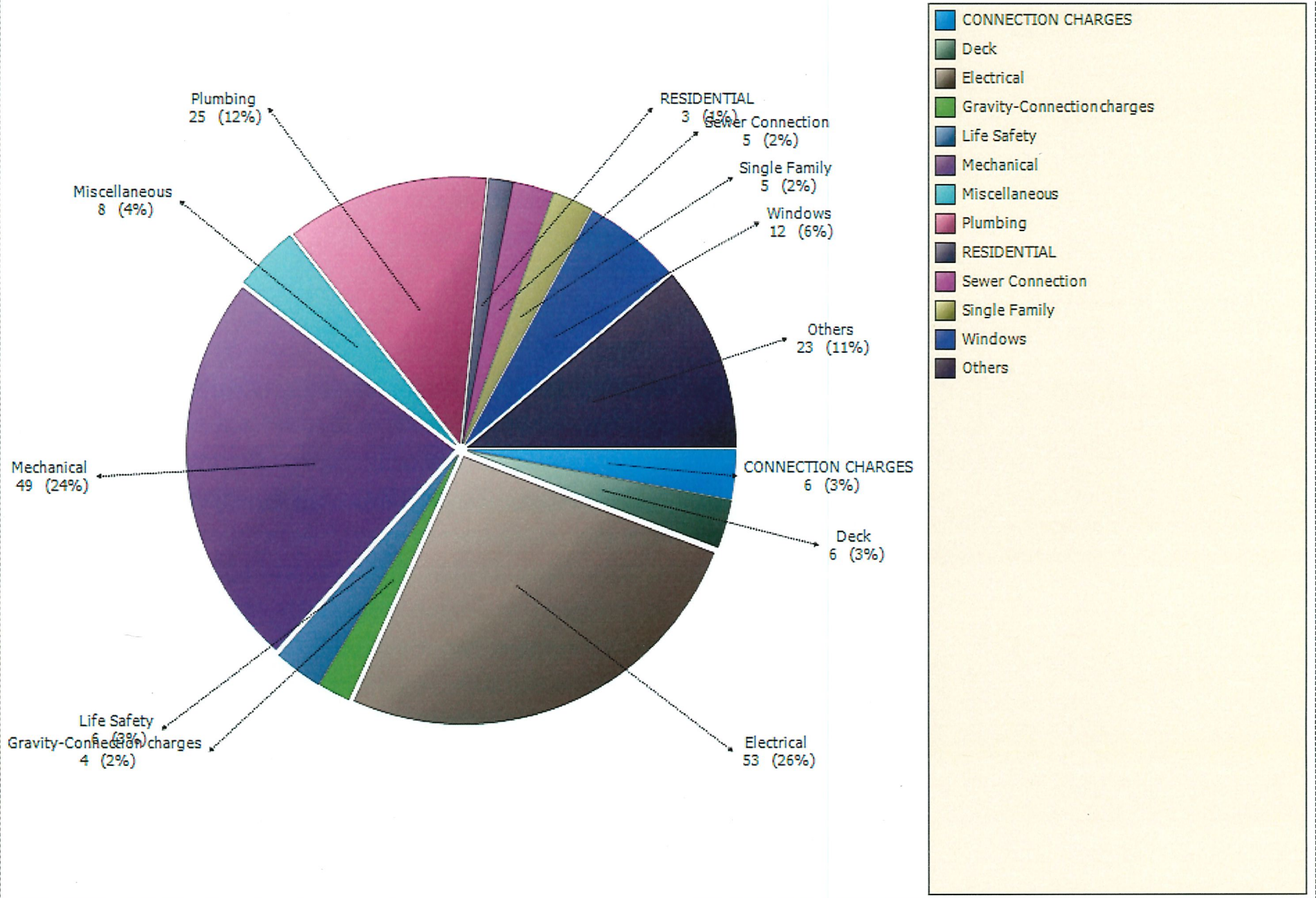
*Andrew Littman*

Andrew Littman  
Staff Planner

Breakdown of Permits by Category

Current Chart Filter: All Records, Permit.DateIssued Between 12/1/2024 12:00:00 AM AND 12/31/2024 11:59:59 PM

Permits by Category



**White Lake Township  
Accounting Dept.**

# Memo

To: White Lake Township Board of Trustees  
From: Elaine Homeister  
Date: 01/16/25  
Re: Other Post Employment Benefits (OPEB) Actuarial Report

---

Since 2018, GASB\* 74/75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB), requires a full actuarial report every two years and each off year, requires an interim actuarial report.

In addition, the State of Michigan PA 202 requires we report our OPEB and Pension information using their uniform assumptions, thus requiring additional actuarial data and cost.

For the last six years, we have used The Howard E. Nyhart Company, Inc. and requested a quote for the 2024 and 2025 reporting years.

The quoted costs are:

12/31/24	Full GASB 74/75 Actuarial Valuation	\$9,700
	PA 202 Uniform Assumptions Disclosure	\$1,800
12/31/25	Interim GASB 74/75 Actuarial Valuation	\$4,400
	PA 202 Uniform Assumptions Disclosure	\$1,900

The cost increase from 2022/2023 is minimal, \$1,100 and \$600 respectively.

As the requirement for these reports have been and will continue to be an ongoing expense, I request the Board grants the Supervisor the authority to enter into the agreement for the 2024/2025 reporting years.

\*Government Accounting Standards Board



THE HOWARD E. NYHART COMPANY, INC. ("NYHART")
SERVICE AGREEMENT ("AGREEMENT")

Agreement Between Nyhart, and:

Table with 2 columns: Field Name and Value. Fields include Client Name, Primary Contact Name, Primary Contact Address, Primary Contact Phone, Primary Contact Fax, and Primary Contact Email.

Services to be provided by Nyhart

All services to be provided by Nyhart are subject to your full cooperation and prompt submission of complete and accurate information. Nyhart will rely on any and all information that you provide pursuant to this Agreement and on file at our office as to accuracy and completeness.

For the fiscal year ending December 31, 2024, Nyhart will provide the following actuarial services:

- Data collection (including census data) and analysis
Preparation of a comprehensive actuarial valuation report
Disclosures as required by GASB 74/75
An appendix within the GASB 74/75 report, which will include required figures as calculated under the PA 202 uniform assumptions.

For the fiscal year ending December 31, 2025, Nyhart will provide the following actuarial services:

- Interim GASB 74/75 actuarial valuation report
An appendix within the GASB 74/75 report, which will include required figures as calculated under the PA 202 uniform assumptions.

Fees for services provided by Nyhart

Table with 3 columns: FYE, Valuation Types, Fees. Rows show fees for 12/31/2024 and 12/31/2025 for Full and Interim GASB 74/75 Actuarial Valuation and PA 202 Uniform Assumptions Disclosure.



If a GASB results breakdown by employee groups is required additional fees will apply. The additional cost will be a 10% of project fee increase for a two group breakdowns plus an additional 1% for each extra group breakdown requested. The additional fee will be limited to 1/3 of the current year's fees.

The fee for the interim GASB 74/75 report will be revised if there have been any significant events subsequent to our last full update. Examples of significant events include, but are not limited to, large premium rate and enrollment changes, material benefit design amendments, and participant contribution policy modification.

Client will be invoiced prior to the beginning of the project for 50% of the estimated fees for services outlined above. Once the labor accrued towards completion of the services exceeds 50% of the estimated fees, billing will occur monthly until the completion of the project. Each invoice is due upon receipt. If any invoice remains unpaid for longer than 90 days from the date of the invoice, Nyhart may either suspend the provision of the Services until payment is received, or terminate this Agreement with immediate effect. Failure of Nyhart to exercise any remedy set forth above shall not prevent Nyhart from doing so with respect to any future unpaid invoice or taking any other actions available to Nyhart under law.

Please select the method of delivery of your invoice:

- I would like my invoice sent electronically to the primary contact's email address.
- I would like my invoice sent via regular mail to the attention of the primary contact at the address shown on the first page.

For an alternative invoice recipient, please provide their information below. If this section is left blank, we will send the invoice to the primary contact's email address on file or address shown above.

Invoice recipient name \_\_\_\_\_

Invoice recipient email address \_\_\_\_\_

Invoice recipient address \_\_\_\_\_

There will be additional fees for revisions to preliminary or final results that are due to:

- Incorrect information provided to us, typical examples include material changes to census data, changes to eligibility requirements or employer subsidies. The additional fee will be limited to 1/3 of the current year's fee for this type of revision.
- Changes to actuarial assumptions requested by the client that are expected to need more than four hours of labor to update the results. The additional fee will be based on billed labor in excess of four hours at our current hourly rates.

**Additional services available if requested by Client**

In addition to GASB 74/75 services, Nyhart offers the following additional services. Fee estimates will be provided upon request. Please visit [www.nyhart.com](http://www.nyhart.com) or contact your Nyhart consultant for more information.

- Health Care Reform financial impact consulting
- Actuarial Value and Minimum Value determination
- Section 105(h) non-discrimination testing
- Calculation of self-funded and COBRA premium rates
- Incurred But Not Reported (IBNR) Reserve calculations
- Medicare Part D Attestation
- What-if Modeling for health plan design and carrier changes



- Defined Benefit & Pension consulting and administration
- Defined Contribution, 401(k) & 403(b)
- Flex Accounts – FSA, HRA, & HSA consulting and administration

### **Relationship of the Parties**

The legal relationship between Client and Nyhart shall be exclusively that of principal and agent. The parties hereto specifically agree and acknowledge that Nyhart shall not:

- Have discretionary authority over any aspect of the Plan;
- Be a fiduciary;
- Be responsible for ensuring that the Plan complies with any requirement to which the Plan is subject, or be liable to the Plan, Client, or any person if the Plan fails to comply with any such requirement;
- Have any duty or authority to enforce the payment of any contribution owed under the Plan;
- Be responsible for the adequacy of the trust established as part of the Plan, or be liable for any benefits owed under the Plan;
- Exercise discretion as to any Plan function; or
- Have any obligation to perform any service not specified in this Agreement or otherwise agreed to in writing by the parties (regardless of whether such service may be considered “customary” services to be provided by Nyhart).

Client agrees that Nyhart shall use all information and data supplied by or on behalf of the Client without having independently verified the accuracy or completeness of it except to the extent required by generally accepted professional standards and practices. If any documentation or information supplied to Nyhart at any time is incomplete, inaccurate or not up-to-date, or its provision is unreasonably delayed, Nyhart will not be responsible for any delays or liability arising therefrom, and will be entitled to charge the Client in respect of any resulting additional work actually carried out.

The Client further understands that the failure to provide, or cause to provide, complete, accurate, up-to-date, and timely documentation and information to Nyhart, whether intentional or by error, could result in an impairment of Nyhart’s services.

### **Client Responsibilities and Representations**

The Client has general responsibilities with respect to the Plan, including

- Providing all information required by Nyhart to perform its services under this Agreement on a timely basis;
- Serving as fiduciary for the Plan;
- Communicating Plan details to employees and answering employee questions;
- Ensuring adequate funding of the Plan; and
- Authorizing plan disbursements and ensuring accuracy of information provided.

### **Dispute Resolution**

Nyhart and Client agree that before commencing any action or proceeding with respect to any dispute between the parties arising out of or relating to this Agreement or the Services they first shall attempt to settle such dispute through consultation and negotiation in good faith and in a spirit of mutual cooperation. Any such dispute will be submitted in writing to a panel of one (1) senior executive or official of each of Nyhart and Client, who will promptly meet and confer in an effort to resolve such dispute. Each party’s representative will be identified by notice to the other, and may be changed at any time thereafter by notice to the other. Any mutually agreed decisions of the executives will be final and binding on the parties. In the event the executives are unable to resolve any dispute within thirty (30) days after



submission to them, either party may then refer such dispute to mediation by a mutually acceptable mediator to be chosen by Nyhart and Client within forty-five (45) days after written notice by either party demanding mediation. Neither party may unreasonably withhold consent to the selection of a mediator. All communications and discussions in furtherance of this paragraph shall be treated as confidential settlement negotiations, which are not subject to discovery. The costs of the mediator shall be shared equally, but each party shall pay its own attorneys' fees.

Any dispute which cannot be resolved between the parties through negotiation, mediation or other form of alternative dispute resolution within six months of the date of the initial demand for mediation by one of the parties may then be submitted to a court of competent jurisdiction. To facilitate an expeditious and economical judicial resolution of such dispute, Nyhart and Client agree to waive and not to demand a trial by jury, and not to include any employee, officer, director or trustee of either as a party, in any action, proceeding or counterclaim relating to such dispute. Nothing in this section will prevent either party from resorting to judicial proceedings if interim relief from a court is necessary to prevent serious and irreparable injury to that party or to others. Any claim, action or proceeding against Nyhart will be barred unless Client initiates the dispute resolution procedures outlined below within one year of first discovering the act, error or omission that is the basis for such claim.

### **Indemnification and Limitation of Liability**

The liability of Nyhart, in tort, contract or otherwise, to Client, a Plan and the officers, directors, trustees, employees or shareholders of any of them, and to any other third party, for all claims arising in connection with or contributed to by this Agreement and the Services (including without limitation multiple claims arising out of or based upon the same act, error or omission, or series of continuous, interrelated or repeated acts, errors or omissions) shall not include loss of profit or incidental, consequential, indirect, punitive or similar damages and shall be further limited to the amount of fees for Services received by Nyhart under this Agreement for the twelve (12) months immediately preceding the act, error or omission upon which such liability is based. Nothing in this paragraph shall apply to any liability which has been finally determined to have arisen from willful misconduct or fraud on the part of Nyhart or which cannot lawfully be limited, modified or excluded.

Client shall indemnify Nyhart from and against any and all claim, loss, liability or damage (including attorney's fees) which Nyhart may incur by reason of its good faith service delivery to Client.

Nyhart shall indemnify the Client from and against any and all claim, loss, liability or damage (including attorney's fees) which the Client may incur: (i) arising out of any material breach by Nyhart of any of its material obligations, representations or warranties contained in this Agreement; or (ii) arising out of Nyhart's negligence, gross negligence or willful, fraudulent, or criminal misconduct associated with its performance of services under this Agreement. The parties further recognize that clerical errors and variations may occur. When discovered, they will be corrected or adjusted by Nyhart, in accordance with its normal procedures, to the extent reasonable and possible.



**Acceptance**

The items and conditions of this Agreement are agreed to and accepted by Client on behalf of the Plan. This Agreement is effective only when signed by all parties.

**Charter Township of White Lake**

**By:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Nyhart**

**By:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_



**CHARTER TOWNSHIP OF WHITE LAKE**  
**DRAFT Minutes of the Regular Board of Trustees Meeting**  
**November 19, 2024**

**CALL TO ORDER**

Supervisor Kowall called the meeting to order at 6:30 P.M. He led the Pledge of Allegiance.

**ROLL CALL**

Clerk Noble called the Roll:

**Present:**

- Rik Kowall, Supervisor
- Anthony L. Noble, Clerk
- Mike Roman, Treasurer
- Scott Ruggles, Trustee
- Liz Smith, Trustee
- Andrea Voorheis, Trustee
- Michael Powell, Trustee

**Also Present:**

- Sean O'Neil, Community Development Director
- Nick Spencer, Building Official
- Daniel T. Keller, Chief of Police
- Jason Hudson, Ordinance Officer
- Lisa Hamameh, Township Attorney
- Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF AGENDA**

Supervisor Kowall asked for item 8A to be removed from the agenda.  
(Swearing In of Public Officials)

**It was MOVED by Clerk Noble, seconded by Trustee Ruggles, to approve the agenda as amended.  
The motion carried with a voice vote: (7 yes votes).**

**PUBLIC COMMENT**

Mary Earley, 5925 Pine Ridge Court, thanked the Board and those involved for their work on the Elizabeth Lake Road Project

Gary LaPorte, 1132 Castlewood, spoke regarding the need for walkability within the Township.

John Campbell, 1218 Castlewood Drive, spoke on walkability and the need for a sidewalk along Oxbow Lake Road.

**CONSENT AGENDA**

- A. REVENUE AND EXPENSES

- B. LIST OF BILLS
- C. BUDGET AMENDMENTS
- D. CHECK DISBURSEMENTS
- E. DEPARTMENT REPORT - POLICE
- F. DEPARTMENT REPORT - FIRE
- G. DEPARTMENT REPORT - COMMUNITY DEVELOPMENT
- H. DEPARTMENT REPORT - TREASURER
- I. COST PARTICIPATION AGREEMENT WITH OAKLAND COUNTY ROAD COMMISSIONERS TO RECEIVE FUNDS FOR ELIZABETH LAKE ROAD CONSTRUCTION PROJECT
- J. LIQUOR LICENSE ORMOND MARKET - NOTICE OF INVESTIGATION BY DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS FOR TRANSFER REQUEST
- K. CERTIFICATION OF SPECIAL ASSESSMENTS LEVIED ON 2024 TAX BILLS
- L. APPOINTMENTS - BOARD OF REVIEW 2025-2026

Trustee Powell wanted to remove item G from the consent agenda.

**It was MOVED by Trustee Voorheis, seconded by Clerk Noble to approve the consent agenda as amended. The motion carried with a voice vote: (7 yes votes).**

Member Powell stated that the ZBA approved a gravel parking surface for Lasting Impressions landscaping. He has concerns with the River Caddis preliminary site plan proposal, particularly the proposed density. He asked the Board to review the site plan carefully when it came before them. He added that the Board can modify the buffer between the parking and the residences at the 9101 Highland development.

#### **MINUTES**

- A. APPROVAL OF MINUTES - SPECIAL BOARD MEETING, OCTOBER 1, 2024

**It was MOVED by Clerk Noble, seconded by Trustee Powell to approve the minutes as presented. The motion carried with a voice vote: (7 yes votes).**

#### **NEW BUSINESS**

- A. FIRST READING; REZONING REQUEST - ELIZABETH LAKE ROAD AND HIGHLAND ROAD

Director O'Neil gave a summary of the applicant's request. The Planning Commission recommended the Township Board approve the rezoning request at their November 7, 2024 meeting.

Trustee Ruggles stated that the Planning Commission did not see an issue with the rezoning.

Trustee Powell said he read the Planning Commission minutes, and it was brought up why the applicant did not want to move forward with Planned Development rezoning. He asserted that he didn't know a developer around that likes the Planned Development zoning because it puts the Township and the community in control of how the property is developed. A General Business rezoning allows an applicant to do more with a site, as long as zoning compliance is met. He added that the Planned Development

zoning would give the Board more control over what will be developed at the site. The conceptual plan also showed two entrances off of M-59, and he did not favor it.

Dave Yaldo, 40306 Telegraph, was present to answer questions.

Supervisor Kowall reiterated due to the importance of the site, there needs to be a collaboration between the Township and the developer on what is ultimately put there.

**It was MOVED by Trustee Powell, seconded by Trustee Ruggles to move the rezoning requested by ELR Development for vacant parcel 12-21-426-007, to rezone from Agricultural (AG) to General Business (GB) to second reading. The motion carried with a voice vote: (7 yes votes)**

**B. REQUEST TO APPROVE BID FOR DEMOLITION OF DANGEROUS BUILDING - 9538 BUCKINGHAM**

Building Official Spencer said the structure is in non-compliance with a court order, and the homeowner of the property was ordered to demolish the house by October 11, 2024. The property has been issued numerous tickets from the Ordinance Officer not only for the building but for the property as well. The existing structure is caving in.

Trustee Voorheis asked staff if the structure had brick or siding. Building Official Spencer said it is sided.

Clerk Noble reviewed the items included in the demolition contract and asked Building Official Spencer if he had spoken to the contractor. Building Official Spencer said his secretary spoke with the contractor's secretary, and it was requested that the contractor update his contract to specify everything included in the contract price.

Trustee Ruggles stated that the last few times a demolition has been requested, it has been to the same low bidder. He felt it was in the Township's best interest to consider other bidders.

Building Official Spencer said he had spoken with two other contractors who did not bid since the same bidder was awarded the demolitions. He added that the contract did not include permit fees and that the permit for demolition would be an additional \$250. He stated that in the future, the Building Department will require a manifest for Township-initiated demolitions. This will ensure the debris is being properly disposed of.

**It was MOVED by Clerk Noble, seconded by Supervisor Kowall to approve the bid for demolition of the dangerous building at 9538 Buckingham not to exceed \$6,862.00, plus permit fees, subject to attorney review. The motion carried with a voice vote: (7 yes votes).**

**C. REQUEST TO APPROVE COMPENSATION INCREASE FOR BOARD OF REVIEW**

David Hieber, Township Assessor, said the Board of Review did not receive a wage increase several years back when the wage increases were approved for the Planning Commission and ZBA members. He

proposed to increase the Board of Review pay from \$50 for a half day to \$75, and from \$100 for a full eight-hour day to \$150. He presented comparables: West Bloomfield pays up to \$240 per day, Lyon Township pays \$130 per day, and Independence Township pays \$120 for over four hours.

Trustee Voorheis asked Assessor Hieber what a typical meeting was like. Assessor Hieber stated the Board of Review meets to hold an organizational meeting lasting a couple of hours in March, and then two meetings the following week are at least eight-hour meetings, and they meet again for a couple of hours in July and December. He estimated the increase would cost the Township an additional \$1,000-\$1,500.

Supervisor Kowall stated he has seen the work the Board of Review does, and for the amount of money they receive, they do a good service to the community. He is in support of the increase.

Treasurer Roman stated the pay raises are reasonable and he is in support.

**It was MOVED by Trustee Ruggles, seconded by Supervisor Kowall to approve the compensation increase for the Board of Review from \$50/half day to \$75/half day and from \$100/full day to \$150/full day. The motion carried with a voice vote: (7 yes votes).**

**D. RESOLUTION #24-058; CONFIRMING THE SPECIAL RE-ASSESSMENT ROLL FOR THE SPECIAL ASSESSMENT DISTRICT DESIGNATED 2021-2025 RESIDENTIAL REFUSE COLLECTION PROJECT**

Supervisor Kowall explained, this is for properties added and removed from the roll.

Assessor Heiber said this is an annual resolution that the board adopts. 77 homes will be added, and 9 parcels will be removed. This is within the 10% allowed so a public hearing is not required. He added this is the last year the Township is under contract with the garbage provider, and the Board will need to resubmit the garbage collection assessment when a new contract is approved.

**It was MOVED by Treasurer Roman, seconded by Trustee Powell to approve Resolution #24-058 Confirming the Special Re-Assessment Roll for The Special Assessment District Designated 2021-2025 Residential Refuse Collection Project. The motion carried with a voice vote: (7 yes votes).**

**E. RESOLUTION #24-060; APPROVING BOARD OF REVIEW POVERTY EXEMPTION GUIDELINES**

Assessor Hieber said some changes to the guidelines are due to changes in the state law. Prior guidelines included property tax credit as income, but it is no longer allowed and will be removed from the guidelines. There is also added clarification for producing income statements and related documents. Assessor Hieber added the State of Michigan made a change that allowed for 75% exemption, so that change was also made.

**It was MOVED by Trustee Ruggles, seconded by Trustee Powell, to approve Resolution #24-060; approving the Board of Review Poverty Exemption Guidelines. The motion carried with a voice vote: (7 yes votes)**

F. RESOLUTION #24-059; ESTABLISHING COMPOSITION OF THE WHITE LAKE PLANNING COMMISSION

Director O'Neil said the Planning Commission has had nine members since the nineties, and none of the surrounding communities have nine-member Planning Commissions. He said it makes sense from an efficiency standpoint to reduce the Planning Commission to seven members. Fees have also been considered before making this request.

Supervisor Kowall said this request may make having quorum easier.

Trustee Powell said he has seen Planning Commissions across the state and few are nine-member Boards.

Trustee Ruggles stated he supports the request.

**It was MOVED by Trustee Ruggles, seconded by Trustee Smith, to approve Resolution #24-059; Establishing Composition of the White Lake Planning Commission. The motion carried with a voice vote: (7 yes votes).**

G. RESOLUTION #24-061; IMPOSING PROPERTY TAX ADMINISTRATION FEE

Treasurer Roman stated years ago when the new buildings were first discussed, there were discussions on how to free up money to pay for the buildings. The 1% is an admin fee on taxes that are billed out, and it does not apply to SADs. The money collected would then be earmarked to help pay for the tax collection process as well as the assessing process. The money collected will free up other monies currently used to pay Treasury and Assessing needs. Other communities collect this fee. Assessor Hieber provided an example schedule of how much money this change would bring the Township.

Trustee Smith stated she researched and found around 30 local communities charge this fee.

Supervisor Kowall stated that this fee will allow costs to be recouped and put back into the General Fund. It is a fair and equitable solution without going overboard.

Trustee Voorheis stated she is surprised to add another fee to the residents.

**It was MOVED by Treasurer Roman, seconded by Clerk Noble to approve Resolution #24-061; Imposing Property Tax Administrative Fee. The motion carried with a roll call vote: (6 yes votes) (1 no vote) (Voorheis/no, Smith/yes, Ruggles/yes, Powell/yes, Noble/yes, Kowall/yes, Roman/yes)**

H. RESOLUTION #24-062; COMCAST FRANCHISE RENEWAL AGREEMENT

Supervisor Kowall said this request is for licensing and to allow Comcast to work within the community. Attorney Hamameh said there is no negotiation ability with the agreement, the franchise fee is the maximum.

**It was MOVED by Trustee Powell, seconded by Clerk Noble to approve Resolution #24-062; Comcast Franchise Renewal Agreement. The motion carried with a voice vote: (7 yes votes).**

I. REQUEST TO APPROVE RATE INCREASE FOR LABOR ATTORNEY SHIFMAN FOURNIER

Supervisor Kowall said the rate was proposed to be adjusted from \$150/hour to \$165/hour. He added that Shifman Fournier has not requested an increase in the past few years.

Clerk Noble said the labor attorney is not used as much as the in-house counsel.

**It was MOVED by Supervisor Kowall, seconded by Treasurer Roman to approve the rate increase for Shifman Fournier from \$150 an hour to \$165 an hour. The motion carried with a voice vote: (7 yes votes).**

**FYI - CIVIC CENTER UPDATE**

Treasurer Roman stated foundations will be poured soon, weather permitting.

Supervisor Kowall stated that Trustee Powell has been extremely helpful in this process and the development of the Civic Center project. He added that in conversations with the construction manager, Aaron Phillips, there have been recommendations made to the Board. Mr. Phillips said from time to time, there will be change orders. Anything under \$5,000 will be signed off on by one of the in-house elected officials. Change orders over \$5,000 - \$100,000 require two in-house elected official signatures. Change orders over \$100,000 and under \$250,000 require three in-house elected official signatures. Anything above \$250,000 will come before the Board.

Supervisor Kowall added when changes need to be made, this process will help not hold the project up.

Trustee Smith suggested making the rest of the Board aware of any change orders. Supervisor Kowall said yes.

Treasurer Roman added that three elected officials will sign off on all of the monetary draws to pay for construction and contractors when they are received.

**It was MOVED by Supervisor Kowall, seconded by Trustee Powell to approve the payment process on change orders: Change orders over \$5,000 - \$100,000 require two in-house elected official signatures. Change orders over \$100,000 and under \$250,000 require three in-house elected official signatures. Amounts above \$250,000 will come before the Board. This process is limited strictly to constructing**

**the Township Hall, Public Safety building, and Civic Center site work, subject to the limits of the contingency fund. The motion carried with a roll call vote: (7 yes votes).  
Voorheis/yes, Ruggles/yes, Smith/yes, Noble/yes, Powell/yes, Roman/yes, Kowall/yes).**

Supervisor Kowall said the site is sandy and there is good drainage.

#### TRUSTEE COMMENTS

Trustee Voorheis said a member of the Historical Society complimented the lawns at the Township Buildings and wanted to give kudos to the DPS Department. December 6, 2024, is the Tree Lighting at Fisk Farm, from 6-8 P.M. Santa will be back at Fisk Farm on December 8, 2024. She added kudos to Clerk Noble for rearranging the swear-in ceremony and being flexible. She said she would miss Trustee Powell.

Treasurer Roman congratulated Steve Anderson on his election to the Board. He complimented Trustee Powell's engineering knowledge. He asked Trustee Powell to keep his eyes out on the Township Board.

Clerk Noble thanked his staff and election workers, it has been a busy year. He recognized Ordinance Officer Hudson on his 20th anniversary with the Township. He said it was an incredible experience to serve with Trustee Powell and will miss his expertise.

Trustee Smith said the Friends of the Library will hold their book sale starting December 4, 2024. The groundbreaking ceremony was a lovely event. The Veteran's Day ceremony was lovely and the VFW participated as well. The VFW also hosted a Thanksgiving dinner on Monday, October 18, 2024. She said she will miss Trustee Powell, and not many realize how dedicated he is to the Board and the community. He is a wealth of information and wisdom.

Trustee Ruggles said the Planning Commission will meet on December 5, 2024. He gave Trustee Voorheis kudos for her work at the Veteran's ceremony. He appreciated Trustee Powell and added he will be missed.

Trustee Powell said he has lived in the Township since 1958. He thanked the resident for his 20 years on the Board and thanked the Board as well. He said the Board needs prayer, and they need guidance from the community and the Lord. He will miss the monthly Board meetings but will make himself available to the Board and the community. He wishes a Happy Thanksgiving and a Merry Christmas to all.

Supervisor Kowall commended Clerk Noble on his work on the election. He said Treasurer Roman treats the Township money very seriously and has come up with many good ideas for cost savings. The groundbreaking ceremony was for all residents, current and future. Trunk or Treat was amazing, there were around 2000 kids in attendance, and he thanked those who helped make the event come together. He congratulated all the elected officials. He wished everyone a Happy Thanksgiving.

**ADJOURNMENT**

**It was MOVED by Supervisor Kowall, seconded by Trustee Powell to adjourn at 7:39 P.M. The motion carried with a voice vote: (7 yes votes).**

---

Rik Kowall, Supervisor  
Charter Township of White Lake

---

Anthony L. Noble, Clerk, MiPMC  
Charter Township of White Lake

DRAFT



**CHARTER TOWNSHIP OF WHITE LAKE  
DRAFT Minutes of the Special Board of Trustees Meeting  
December 02, 2024**

**CALL TO ORDER**

Supervisor Kowall called the meeting to order at 5:30 P.M. He led the Pledge of Allegiance.

**ROLL CALL**

Clerk Noble called the Roll:

**Present:**

- Rik Kowall, Supervisor
- Mike Roman, Treasurer
- Anthony L. Noble, Clerk
- Scott Ruggles, Trustee
- Steve Anderson, Trustee
- Andrea Voorheis, Trustee
- Liz Smith, Trustee

**Absent:**

None

**APPROVAL OF AGENDA**

It was **MOVED** by Trustee Smith, seconded by Clerk Noble to approve the agenda. The motion carried with a voice vote: (7 yes votes).

**PUBLIC COMMENT**

None

**CLOSED SESSION**

It was **MOVED** by Supervisor Kowall, seconded by Clerk Noble, to recess into closed session, to consider attorney/client privileged communication in accordance with MCL 15.268 (1)(h). at 5:33 P.M.

*The motion carried with a roll call vote: (6 yes votes) (Smith/yes, Ruggles/yes, Kowall/yes, Roman/yes, Anderson/yes, Voorheis/yes)*

**OPEN SESSION**

It was **MOVED** by Supervisor Kowall, seconded by Clerk Noble, to return to open session at 7:05 p.m.

*The motion carried with a roll call vote: (6 yes votes) (Smith/yes, Ruggles/yes, Kowall/yes, Roman/yes, Anderson/yes, Voorheis/yes)*

**ADJOURNMENT**

It was **MOVED** by Supervisor Kowall, seconded by Treasurer Roman to adjourn at 7:07 P.M.

**The motion carried with a voice vote: (6 yes votes)**

---

Rik Kowall, Supervisor  
Charter Township of White Lake

---

Anthony L. Noble, Clerk, MiPMC  
Charter Township of White Lake

DRAFT

**CHARTER TOWNSHIP OF WHITE LAKE  
DRAFT Minutes of the Regular Board of Trustees Meeting  
December 17, 2024**

**CALL TO ORDER**

Supervisor Kowall called the meeting to order at 6:30 P.M. He led the Pledge of Allegiance.

**ROLL CALL**

Trustee Ruggles called the Roll:

**Present:**

Rik Kowall, Supervisor  
Mike Roman, Treasurer  
Scott Ruggles, Trustee  
Steve Anderson, Trustee  
Andrea Voorheis, Trustee  
Liz Smith, Trustee

**Absent:**

Anthony L. Noble, Clerk (excused by the Board)

**Also Present:**

Sean O'Neil, Community Development Director  
Aaron Potter, DPS Director  
Cathy Derocher, Human Resources Manager  
Daniel T. Keller, Chief of Police  
John Holland, Fire Chief  
Mike Leuffgen, DLZ  
Lisa Hamameh, Township Attorney  
Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF AGENDA**

Supervisor Kowall requested to move Trustee Comments before the Closed Session.

**It was MOVED by Treasurer Roman, seconded by Trustee Voorheis to approve the agenda as amended. The motion carried with a voice vote: (6 yes votes).**

**PUBLIC COMMENT**

Mike Skaglin, spoke of concerns for resident's information being compromised as a result of the Township's cyber incident.

**CONSENT AGENDA**

- A. REVENUE AND EXPENSES
- B. CHECK DISBURSEMENTS
- C. BUDGET AMENDMENTS

- D. DEPARTMENT REPORT - POLICE
- E. DEPARTMENT REPORT - FIRE
- F. DEPARTMENT REPORT - COMMUNITY DEVELOPMENT
- G. DEPARTMENT REPORT - TREASURER
- H. APPOINTMENTS - PLANNING COMMISSION, ZONING BOARD OF APPROVALS, PARKS & RECREATION, AND CORRIDOR IMPROVEMENT AUTHORITY
- I. PART-TIME HIRE OF CONSULTANT ENGINEER

It was **MOVED** by Trustee Anderson, seconded by Treasurer Roman, to approve the consent agenda as presented. The motion carried with a voice vote: (6 yes votes).

#### **MINUTES**

- A. APPROVAL OF MINUTES - REGULAR BOARD MEETING, OCTOBER 15, 2024

It was **MOVED** by Trustee Voorheis, seconded by Treasurer Roman to approve the minutes as presented. The motion carried with a voice vote: (6 yes votes).

#### **PRESENTATIONS**

- A. FIRE DEPARTMENT AWARDS AND RECOGNITIONS

Chief Holland recognized several firefighters for their outstanding service and for their lifesaving actions at a vehicle crash earlier this year.

The Exceptional Civilian Service Award was presented to:

Isaac Ogle, Danny Ogle and Erick Schmidt, Lakeside Towing.

The Fire Department Commendation Award was presented:

Priscilla Gonzalaz, White Lake Township Dispatcher.  
Ally Luedtke and Matthew Gingell, Star EMS.

The Meritorious Unit Citation was awarded to:

Jason Crean, David Mills, Joseph Settecerra, Scott Haberl, Dylan Bastionelli, Matthew Combs, Brendon Hanifen, Nathaniel Jenks, Mark Birkholz, and Sejad Al-Hussai, White Lake Fire Dept.

The grandmother (Kathy) of crash victim Sawyer Pierce praised the First Responders with saving Sawyer.

#### **NEW BUSINESS**

- A. FIRST READING; REZONING REQUEST - 9451 ELIZABETH LAKE ROAD

Director O'Neil summarized the applicant's request. He added that the Planning Commission agrees with the rezoning request. The staff supports the request as well.

**It was MOVED by Trustee Ruggles, seconded by Trustee Voorheis to move the rezoning request – 9451 Elizabeth Lake Road (parcel number 2-26-204-002) to second reading. The motion carried with a voice vote: (6 yes votes).**

**B. RESOLUTION NO. 24-066; TO OPT-OUT AS SET FORTH IN PA 152**

Cathy Derocher, H.R. Manager, said PA 152 has been modified over the years since its establishment in 2011. The act provides government entities with 3 options for employee insurance. The options are: the public employer may pay not less than 80% of the total annual employee healthcare costs, a hard cap, or a defined amount that the public employee must be willing to contribute toward employee healthcare or to opt out of the act itself. Historically, the Township has opted out of PA 152. The Township pays a greater amount than 80% of the total insurance premiums. The hard caps do not apply as the Township is more generous than what the State allows. The collective bargaining agreements have all been approved and established throughout 2026.

**It was MOVED by Supervisor Kowall, seconded by Trustee Anderson to approve Resolution #24-066; To Opt-Out as Set Forth In PA-152. The motion carried with a voice vote: (6 yes votes).**

**C. REQUEST TO APPROVE LICENSE AGREEMENT - CRANBERRY LAKE MOBILE HOME PARK**

Supervisor Kowall recognized Director Potter for his work to get water to the residents at the mobile home park.

Director Potter said all three of the wells at the park are inoperable. Two connection points are planned. There will be a redundant supply located on a dead-end street. The existing water main easement will have a meter enclosure for easier accessibility. 400 houses are impacted.

**It was MOVED by Treasurer Roman, seconded by Trustee Smith, for the Township attorney to draft a License Agreement to occupy and use the easement for the meter enclosure, and any other easements necessary to complete the connections, and for the Township Supervisor to be authorized to execute the agreement. The motion carried with a voice vote: (6 yes votes).**

**D. REQUEST TO APPROVE DLZ PROPOSAL - ENGINEERING SERVICES WATER SYSTEM RELIABILITY STUDY AND GENERAL PLAN UPDATE 2025**

Director Potter said the study and plan update is a requirement of PA 399. There will be a deep analysis of the Township's water supply versus the demand of the Township water system, as well as the anticipated demand of the system. A hydraulic analysis and a five-year look ahead of the general plan and asset management plan will also be completed. DLZ has been compiling these studies for the Township over the past 25 years and has been creating a hydraulic model of the water system as well. He added all the testing would be done in-house. The study will take six months to complete.

It was **MOVED** by Treasurer Roman, seconded by Trustee Ruggles to approve the DLZ proposal for The Water System Reliability Study and General Plan Update 2025, not to exceed \$25,000.00. The motion carried with a roll call vote: (6 yes votes) (Voorheis/yes, Anderson/yes, Roman/yes, Kowall/yes, Ruggles/yes, Smith/yes).

E. REQUEST TO APPROVE GRINDER STATION PURCHASE

Director Potter said grinder stations are expensive, and PA-188 emergency funding is used for them. In 2022, he secured a bulk order of the grinder stations at a discount. The regional supplier of the stations has changed, and the new supplier secured a price of \$4,731 per station. The price is \$500 more than the stations purchased in 2022.

It was **MOVED** by Trustee Ruggles, seconded by Trustee Voorheis, to approve the purchase of 47 stations from Solberg Knowles & Associates in an amount not to exceed \$222,500.00, and for the Supervisor to be authorized to execute the purchase order. The motion carried with a roll call vote: (6 yes votes) (Smith/yes, Ruggles/yes, Kowall/yes, Roman/yes, Anderson/yes, Voorheis/yes).

F. RESOLUTION NO. 24-063; FEE SCHEDULE UPDATE (DPS/FIRE/CEMETERY)

It was **MOVED** by Trustee Voorheis, seconded by Trustee Smith to approve Resolution #24-063; Fee Schedule Update (DPS/Fire/Cemetery). The motion carried with a voice vote: (6 yes votes).

F. RESOLUTION NO. 24-064; TO ESTABLISH MEETING DATES OF THE CHARTER TOWNSHIP OF WHITE LAKE BOARD OF TRUSTEES FOR THE YEAR 2025

It was **MOVED** by Trustee Voorheis, seconded by Trustee Smith to approve Resolution #24-064; to Establish Meeting Dates of the Charter Township of the White Lake Board of Trustees for the Year 2025. The motion carried with a voice vote: (6 yes votes).

G. REQUEST TO APPROVE ENGAGEMENT LETTER WITH MUNICIPAL BOND ADVISOR

Treasurer Roman said he met with three different companies, and Baker Tilly was the largest of the three and has the most bond experience. He recommended proceeding with Baker Tilly.

Trustee Smith asked what insurance Baker Tilly carries. Treasurer Roman said up to \$15 million. Trustee Smith asked if Baker Tilly carried secondary umbrella insurance. Treasurer Roman stated he would investigate.

Trustee Smith asked what kind of contract the Township would be entering.

Treasurer Roman said it is an engagement letter at this point.

Attorney Hamameh said the bond attorney would review the scope of services to ensure they are appropriate. Treasurer Roman added he spoke with a principal at Baker Tilly and was told they can be flexible regarding the engagement letter terms.

Trustee Anderson asked Treasurer Roman what set Baker Tilly apart from the other two firms. Treasurer Roman said the timeline Baker Tilly proposed set them apart. Funding could be received by February 2025.

**It was MOVED by Treasurer Roman, seconded by Supervisor Kowall to hire Baker Tilly as the municipal financial advisor and to allow Township Attorneys to review the engagement letter and for the Supervisor to sign the engagement letter. The motion carried with a roll call vote: (6 yes votes). (Voorheis/yes, Anderson/yes, Roman/yes, Kowall/yes, Ruggles/yes, Smith/yes).**

**I. REQUEST TO APPROVE PURCHASE OF BUILDERS RISK INSURANCE FOR NEW CIVIC CENTER BUILDINGS**

Supervisor Kowall stated that McCarthy & Smith has requested the Township have its builder's risk insurance policy in place as activities at the site begin. The projected cost from the Michigan Municipal Risk Management Authority is approximately \$69,700.

**It was MOVED by Supervisor Kowall, seconded by Trustee Anderson, to approve the additional Michigan Municipal Risk Management Authority coverage for the Township Civic Center, at the McCarthy & Smith construction site, for Builders Risk Insurance in the amount of \$69,700, subject to audit and review by the Township Supervisor, Clerk, and Treasurer for any changes. The motion carried with a voice vote: (6 yes votes).**

**OLD BUSINESS**

**A. SECOND READING; REZONING REQUEST - ELIZABETH LAKE ROAD AND HIGHLAND ROAD**

**It was MOVED by Trustee Ruggles, seconded by Trustee Anderson to adopt the rezoning request for parcel number 12-21-426-007. The motion carried with a voice vote: (6 yes votes)**

**TRUSTEE COMMENTS**

Trustee Voorheis wished everyone a safe and happy holiday season.

Trustee Anderson stated the December ZBA meeting was canceled, and there will be two cases to review at the January ZBA meeting. He attended the MTA conference in Lansing on December 11, 2024. He found it educational. He thanked the community for welcoming him to the Board and thanked the residents for their votes.

Treasurer Roman thanked Chief Holland and his staff for saving a life. He wished everyone a Merry Christmas and a Happy New Year.

Trustee Ruggles said the Planning Commission met earlier this month, and the development at 9101 Highland received a modified special land use approval with only one drive-through, and the preliminary site plan was not approved. The Planning Commission will meet again on January 25, 2024. He wished everyone a Merry Christmas.

Trustee Smith said the library had a very successful book sale. She thanked Gerry Harrington for her work as President of the Friends of the Library. She thanked Chief Holland and the Fire Department for their work on saving a life. She wished everyone a Merry Christmas and a Happy New Year.

Supervisor Kowall thanked everyone in attendance, and it was great to recognize the first responders this evening. He shouted out the White Lake Police Foundation for helping "Can the Halls" with food donations. He wished everyone a safe and happy holiday season.

#### **CLOSED SESSION**

- A. APPROVAL TO RECESS INTO CLOSED SESSION TO CONSIDER ATTORNEY/CLIENT PRIVILEGED COMMUNICATION IN ACCORDANCE WITH MCL 15.268(1)(h).

**MOTION by Supervisor Kowall, seconded by Treasurer to Recess into Closed Session To Consider Attorney/Client Privileged Communication In Accordance With MCL 15.268(1)(h) at 7:26 P.M. The motion carried with a roll call vote: (6 yes votes) (Smith/yes, Ruggles/yes, Kowall/yes, Roman/yes, Anderson/yes, Voorheis/yes).**

**It was MOVED by Supervisor Kowall, seconded by Trustee Ruggles to return to the open session at 9:15 P.M.**

**It was MOVED by Treasurer Roman, seconded by Trustee Voorheis to authorize a common interest and confidentiality sharing agreement with Baird in accordance with discussion in closed session. The motion carried with a voice vote: (6 yes votes)**

#### **ADJOURNMENT**

**It was MOVED by Supervisor Kowall, seconded by Treasurer Roman to adjourn at 9:16 P.M. The motion carried with a voice vote: (6 yes votes).**

---

Rik Kowall, Supervisor  
Charter Township of White Lake

---

Anthony L. Noble, Clerk, MiPMC  
Charter Township of White Lake



**WHITE LAKE TOWNSHIP  
INTER-OFFICE MEMORANDUM  
COMMUNITY DEVELOPMENT DEPARTMENT**

**DATE:** January 17, 2025

**TO:** Rik Kowall, Supervisor  
Township Board of Trustees

**FROM:** Sean O’Neil, AICP  
Community Development Director

**SUBJECT: 9101 Highland Rezoning Request**  
Location: Property described as 9101 Highland Road, identified as parcel number 12-23- 227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.  
Request: **Preliminary site plan approval**  
Applicant: Affinity 10 Investments, LLC

---

The rezoning request was considered by the Planning Commission at their regular meeting on January 16, 2025, at which time the **Planning Commission recommended approval of the preliminary site plan**. Please find enclosed the following related documents:

- ❑ Draft minutes of the January 16, 2025, Planning Commission meeting.
- ❑ Review letter prepared by Michael Leuffgen, Township Engineer, dated January 7, 2025.
- ❑ Review letter prepared by Matteo Passalacqua, Planning Consultant, dated January 6, 2025.
- ❑ Review letter prepared by Jason Hanifen, Fire Marshal, dated December 30, 2024.
- ❑ Preliminary site plan and elevations.
- ❑ Community Impact Statement.
- ❑ Traffic study.

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.

**WHITE LAKE TOWNSHIP  
PLANNING COMMISSION  
JANUARY 25, 2025**

**CALL TO ORDER**

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

**ROLL CALL**

**Present:**

T. Joseph Seward, Chairperson  
Merrie Carlock, Vice Chairperson  
Mona Sevic  
Robert Seeley  
Debby Dehart (late arrival)

**Absent:**

Scott Ruggles, Township Board Liaison  
Pete Meagher

**Others:**

Sean O'Neil, Community Development Director  
Matteo Passalacqua, Carlisle and Wortman  
Kyle Gall, DLZ  
Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF THE AGENDA**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock to approve the agenda as presented. The motion carried with a voice vote: (4 yes votes).**

**APPROVAL OF MINUTES**

A. December 5, 2024

**MOTION by Commissioner Carlock, seconded by Commissioner Seeley to approve the minutes as presented. The motion carried with a voice vote: (4 yes votes).**

**CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)**

None.

**PUBLIC HEARING**

**A. Caron Ridge Drive Rezoning**

Location: Property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive), located south of Jackson Boulevard, between Ormond Road and McKeachie Road, consisting of approximately 40.95 acres.

Request: **Applicant requests to rezone the property from R1-A (Single Family Residential) to SF (Suburban Farm) or any other appropriate zoning district.**

Director O'Neil summarized Staff Planner Littman's review.

Commissioner Carlock asked staff if the house on the property was accessed from Caron Ridge Drive. Director O'Neil confirmed; Caron Ridge Drive is stubbed off Marie Meadows Drive.

Jeremy Latozas, 4001 Caron Ridge, stated he would use the proposed pole barn to store vehicles for personal use.

Chairperson Seward opened the public hearing at 6:39 P.M.

Cody Anderson, 2980 Steeple Hill, wanted to keep the subject property undeveloped and was in favor of the applicant's proposal.

David Brown, 3551 Marie Meadows Drive, had no objections to the applicant's request.

Brandon Chambers, 3049 Steeple Hill Road, looked forward to the property staying in its current state.

James Allen, 3701 Apple Grove, favored the applicant's request.

Chairperson Seward closed the public hearing at 6:42 P.M.

Member Dehart stated that the applicant came before the ZBA, and the surrounding properties are zoned Suburban Farm. It made sense to her to rezone the property and build on it in compliance with the Suburban Farm zoning district.

**MOTION by Commission Seeley, seconded by Commissioner Sevic to recommend the Township board rezone the property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive) from R1-A Single Family Residential to Suburban Farm. The motion carried with a voice vote: (5 yes votes).**

**CONTINUING BUSINESS**

None.

**NEW BUSINESS**

**A. 9101 Highland Development**

Location: Property described as 9101 Highland Road, identified as parcel number 12-23-227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.

Request: **Revised preliminary site plan approval recommendation**

Mr. Passalacqua summarized his review memo.

Mr. Gall reviewed the DLZ letter.

Erin McMachen, Stonefield Engineering & Design, was present. She stated that the plans have been changed based on the comments at the last Planning Commission meeting. The fence line will be placed

on the 20' residential setback. There will be zero light spillover on the residential properties, and a good portion of the site will remain green space.

Commissioner Carlock asked if there would be a long-term maintenance plan for the landscaping plan. Director O'Neil said if the neighbors decide to move the fence between now and the final site plan, it could be discussed at that time. Ms. McMachen said she is welcome to receive feedback from the neighbors regarding fence material and location.

**MOTION by Commissioner Dehart, seconded by Commissioner Seeley, to recommend the Township Board approve the revised preliminary site plan for 9101 Highland Development, identified as parcel number 12-23-227-003, subject to consideration of landscaping and fencing comments, and subject to staff and consultant comments. The motion carried with a voice vote: (5 yes votes).**

**B. Panera**

Location: Located on the north side of Highland Road (M-59) and west of Bogie Lake Road and identified as parcel number 12-20-276-035. The project area on the parcel consists of approximately 1.63 acres. Currently zoned PB (Planned Business District).

Requests: **1) Final site plan approval**

**2) Planned development agreement approval recommendation**

Director O'Neil stated that Panera received preliminary site plan approval a year and a half ago. During that time, the plans have been revised slightly. The building was revised from a two-unit building to a four-unit building. He felt it made sense to move forward with the final site plan at this time due to the site remaining largely the same.

Mr. Gall summarized the DLZ letter. He added that the driveway alignment with Culver's has been moved to the east and it was recommended to align Panera's driveway location better with the Culver's driveway. The driveway realignment can be worked on before final engineering approval.

Mr. Passalacqua reviewed his letter. The building size was increased slightly. A landscaping waiver would be needed; however, the waiver could be eliminated by planting landscaping around the dumpster enclosure.

Mitchell Harvey, Stonefield Engineering, was present. He stated the previous preliminary site plan was similar to the plan shown tonight. The challenge with the site is the existing topography, especially the grade changes. The driveway was shifted further east to avoid the retaining wall and major fill to the site. The shift allowed a reduction in the retaining walls. Culver's has agreed to the cross-access easement. The sidewalk will be tied into the ring road to connect to further east and west developments. 46 new trees and 286 shrubs will be added across the site. The existing mature trees on the site will remain, and the brush and bushes will be removed. Additional trees will be supplemented to maintain the green strip along Highland Road. The façade will be largely masonry and glazed windows on the south side of the building, The orientation of the building has remained unchanged, Panera and the other tenants will face south. The signage will be visible along Highland Road. He wanted to maintain the

façade facing the same way as the property to the east. He said he was working with the Fire Marshal on the 20' drive aisle to the east.

**MOTION by Commissioner Seeley, seconded by Commissioner Sevic, to approve the final site plan for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to enhanced landscaping instead of spanning glass windows, and subject to addressing the remaining comments from staff and consultants, and giving staff the authority to approve recommended changes. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock, to recommend the Township Board approve the PBD for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to resolution of all of the outstanding PBD comments. The motion carried with a voice vote: (5 yes votes).**

#### **OTHER BUSINESS**

- A. Bryan Ede - Conceptual Presentation

Bryan Ede was present and shared his presentation with the Planning Commission.

- B. Election of Officers and Selection of Liaisons

**MOTION by Chairperson Seward, seconded by Commissioner Seeley to appoint Merrie Carlock to chair the Planning Commission. The motion carried with a voice vote : (5 yes votes)**

**MOTION by Commissioner Seward, seconded by Commissioner Sevic to appoint Robert Seeley as vice chair of the Planning Commission. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commission Seward, seconded by Commissioner Seeley to appoint Debby Dehart as secretary. The motion carried with a voice vote: (5 yes votes).**

**MOTION by Commissioner Seward, seconded by Commissioner Seward to maintain the liaisons as Merrie Carlock and Debby Dehart for Parks and Recreation and ZBA respectively. The motion carried with a voice vote: (5 yes votes).**

#### **LIAISON'S REPORT**

The bids were opened for the Stanley Park Phase 1 construction. There were five bidders. The two lowest bidders were Cortis Brothers and Eagle Excavating. Post-bid interviews will be conducted next week. Scott Rolando was appointed to the Parks and Recreation Committee. The Committee was looking at new grant projects. Hess Hathaway Park had to eliminate all their birds due to bird flu.

The ZBA will meet next week. Five cases are on the agenda.

#### **DIRECTOR'S REPORT**

The Board met on Monday to pass resolutions to move forward and redo the bond process for the Civic Center. The damaged light on Elizabeth Lake Road will be replaced. The foundations are being poured at the Public Safety site. The work is resuming at the Civic Center site.

**NEXT MEETING DATE: February 20, 2025**

**ADJOURNMENT**

**MOTION by Commissioner Dehart, seconded by Commissioner Sevic, to adjourn at 8:45 P.M. The motion carried with a voice vote (5 yes).**

DRAFT



INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

January 7, 2025

Sean O’ Neil, Director  
Community Development Department  
Charter Township of White Lake  
7525 Highland Road  
White Lake, Michigan 48383

**RE: 9101 Highland Road-Proposed Commercial Development- Preliminary Site Plan Review – 3<sup>rd</sup> Review**

Ref: DLZ No. 2445-7696-06 Design Professional: Stonefield Engineering & Design

Dear Mr. O’ Neil,

Our office has performed a Preliminary Site Plan review for the above-mentioned revised plan dated December 20, 2024. The plans were reviewed for feasibility based on general conformance with the Township Engineering Design Standards.

**General Site Information**

This 4.5 acre site is located south of M-59, east of Fisk Road, and west of Sunny Beach Boulevard.

**Site Improvement Information:**

- Construction of two (2) commercial retail/restaurant buildings. Building containing Suites 1-3 is proposed at 7,094 square feet and building containing Suites 4-6 is proposed at 7,865 square feet.
- Associated paved and curbed parking areas, including a total of six (6) ADA parking spaces.
- One (1) entrance off M-59/Highland Road.
- Water and sanitary sewer service.
- Storm water management facilities.

The following items should be noted with respect to Planning Commission review:

We note that comments from our November 6, 2024 review are in *italics*. Responses to those comments are in **bold**. New comments are in standard font.



INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

WLT-9101 Highland Road- PSP Review.03

January 7, 2025

Page 2 of 4

- a) *Cover sheet C-1- Provide ALTA/NSPS Land Title Survey with next submittal. **Comment addressed at the preliminary level and remains. The survey has now been provided. Please provide surveyor seal and signature on this sheet on the Final Site Plan/Final Engineering Plan.***
- b) *Any work within the existing two (2) watermain easements that run parallel to M-59 shall require permission from the Township. **Comment remains as a notation.***
- c) *ADA parking spaces will need to meet ADA standards in terms of slopes and dimensions; further details will be required at the time of Final Site Plan/Final Engineering Plan submittal/review. **Comment remains.***
- d) *Sheet C-3-The existing sidewalk along M-59 appears to be in disrepair. In addition, the sidewalk does not meet the requirements of the current Township Zoning Ordinance Sections 5.20 and 5.21 in terms of required clear zones. We defer to the Township as to whether a new sidewalk meeting the Zoning Ordinance shall be required. Comment partially addressed and remains. A new 8' wide asphalt pathway is now proposed. The proposed pathway location continues to not meet the required clear zone dimensions. We continue to defer to the Township regarding the inadequacy of the required clear zones. In addition, a portion of the proposed pathway is now shown in a proposed sidewalk easement. The sidewalk easement exhibit(s) will be required to be reviewed by our office prior to execution and recording of the easement. **The proposed pathway now appears to conform with the required clear zone dimensions as outlined in Township Zoning Ordinance 5.20. We consider the portion of the above comment regarding this to be addressed. The portion of the above comment referencing the sidewalk easement remains.***
- e) *Sheet C-3-There is a recorded temporary construction easement shown. Please indicate if this easement has been vacated. If the easement has not been vacated, it shall be required to be vacated prior to FSP/FEP approval. **Comment remains. Design engineer states that they will coordinate vacation of the easement with the Township prior to FSP/FEP submittal.***
- f) *There is a recorded 20' wide easement for ingress and egress that runs semi parallel to Highland Road; this will be required to be vacated prior to FSP/FEP approval. **Comment remains. Design engineer states that they will coordinate vacation of the easement with the Township prior to FSP/FEP submittal.***
- g) *Sheet C-4- What is the grading intent for the northeastern greenspace area of the site? We note that there is an existing storm sewer end section which connects to the existing 12" diameter storm sewer that crosses M-59. It is assumed that this end section is to collect the drainage at the low point of approximately 966' and route the drainage to the north under M-59; however, the existing CB to the north (#70140) shows a higher invert elevation than the existing ES elevation to the south. Please clarify. We also note that the site post- development runoff to this end section shall be < or = to the current runoff (Q) to this area. **Comment addressed at preliminary level and remains. The existing pipe shall be removed, and the area regraded such that the depression shall be filled. Per the design engineer, calculations are intended to be provided on the FSP/FEP to demonstrate post development runoff to the M-59 right of way be < or = to the current runoff.***
- h) *Preliminary grading of the site has been proposed and demonstrates general drainage patterns mainly within the confines of the proposed impervious areas; please provide on the revised*





INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

WLT-9101 Highland Road- PSP Review.03

January 7, 2025

Page 3 of 4

*preliminary site plan general proposed grading for all greenspace areas. A more detailed grading review will be provided at the time of Final Engineering Plan submittal/review. **Comment remains.***

- i) *Sheet C-5-Retention basin slope scales to 1:4, which would require a fence around basin. Is the intent to fence in the basin? Comment partially addressed and remains. A fence is now shown around the basin. A 10' wide basin access gate is now shown as well as 10 LF of mountable curbing at the parking space across from the gate. The parking space across from the basin access gate shall be designated as an 'Authorized Vehicles Only' space and /or striped so as to allow maintenance vehicle parking and access to the retention basin. **Comment addressed. The parking space adjacent to the basin access gate is now shown as striped/cross hatched.***
- j) *Sheet C-5- Provide/show retention basin spillway and pathway of overland flow. In addition, 1' of freeboard is required for the basin. **Comment addressed at the PSP level and remains. A spillway and a general pathway of the overland flow are now shown. 1' of freeboard for basin is now shown. It will be required to be shown/demonstrated on the Final Engineering Plan that an overflow event from the retention basin shall not impact adjacent properties.***
- k) *Sheet C-5- Based on basin capacity and storage elevation for a 2-100 year back to back storm event, there would be surcharging in upstream piping with what appears to be storage of stormwater above some of the upstream storm sewer rim elevations. It will be required to be demonstrated on the Final Engineering Plan that the HGL will be contained within or at 1' below storm rim elevations. **Comment addressed at the PSP level and remains. The basin has been reconfigured and the top of storage of basin has been lowered to match the proposed CB grate/rim elevations. We continue to note that the second half of our above comment regarding HGL will be required to be addressed on the FSP/FEP.***
- l) *We note that this property falls within a wellhead protection area. We defer to Township DPS regarding special requirements. **Comment remains as a notation.***
- m) *Sheet C-5- Provide SCS Soil Types. In addition, provide water table information to substantiate that water levels shall return to preexisting conditions at least one time per year. Comment addressed at PSP level and remains. SCS soil types are now shown. Design engineer notes that a geotechnical report will be provided prior to FSP/FEP submittal to confirm the water table level. **Comment addressed. A geotechnical report prepared by g2 Consulting Group and dated September 24, 2024 has been provided.***
- n) *Sheet C-6- Specify size of the proposed grease interceptor for the westernmost building. A minimum capacity of 1000 gallons is required. Comment outstanding. Although a detail for the GB-75 grease trap has now been provided on plan, it appears that the capacities (liquid-125 gal, grease-118 gal, and solids-31 gal) fall significantly short of the 1000 gallon minimum volume requirement. **Comment addressed. The capacity of the grease interceptor, as well as a schematic(showing acceptable volume) of the proposed grease trap for the westernmost building has now been provided; the interceptor size of 1,500 gallons is acceptable.***
- o) *We defer to the Township Fire Department regarding hydrant coverage. **Comment remains as a notation.***



INNOVATIVE IDEAS  
EXCEPTIONAL DESIGN  
UNMATCHED CLIENT SERVICE

WLT-9101 Highland Road- PSP Review.03

January 7, 2025

Page 4 of 4

- p) *Sheet C-8- There is an existing tree that is shown to remain in the area of the proposed retention basin. Tree will likely be required to be removed, or basin location revised so as to avoid tree In basin.*

**Comment partially addressed. Existing tree within the basin shall be removed per the design engineer; however, please cross out this tree on Sheet C-2.**

- q) *Sheet C-3-Proposed pedestrian access sidewalk from M-59 path to the eastern building-Show crosswalk hatching/stripping across internal traffic circulation lane. This item can be addressed on the FSP/FEP.*

**Recommendation**

The majority of our above comments have been addressed. Any remaining comments can be addressed on the Final Site Plan/ Final Engineering Plan. We recommend approval of the Preliminary Site Plan.

Please feel free to contact our office should you have any questions.

Sincerely,

DLZ Michigan

Michael Leuffgen, P.E.  
Department Manager

Victoria Loemker, P.E.  
Senior Engineer

- Cc: Andrew Littman, Community Development, *via email*  
 Hannah Kennedy-Galley, Community Development, *via email*  
 Matteo Passalacqua, Carlisle Wortman, *via email*  
 Aaron Potter, DPS Director, White Lake Township, *via email*  
 Jason Hanifen, Fire Marshall, White Lake Township, *via email*

X:\Projects\2024\2445\769606 WLT 9101 Highland Road\PSP- Review.03\Review.03-REVISED.docx



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

**TO:** White Lake Township Planning Commission

**FROM:** Matteo Passalacqua, Associate Planner

**DATE:** January 6, 2025

**RE:** 9101 Highland Road Special Land Use / PSP Revisions

At the December 5<sup>th</sup> Planning Commission meeting, the Planning Commission reviewed the preliminary site plan and special land use application for 9101 Highland Road. The commission was generally agreeable to use of the property for retail however cited concerns regarding site noise, traffic, and potential nuisance to neighboring residential areas. After reviewing consultant materials, hearing from the applicant, and receiving feedback from the community, the following motions regarding the proposed development passed/failed:

*MOTION by Commissioner, seconded by Commissioner Meagher, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and the drive through and pick up windows. The motion failed with a voice vote: (5 no votes).*

*MOTION by Commissioner Carlock, seconded by Commissioner Seward, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and one drive-thru. The motion carried with a roll call vote: (8 yes votes).*

*MOTION by Commissioner Meagher, seconded by Commissioner Seeley to recommend the Township Board approve the preliminary site plan for 9101 Highland, identified as parcel number 12-23-227-003 subject to the specifications outlined in the special land use approval. The motion failed with a roll call vote: (5 no votes).*

Via the motions, the Planning Commission conditionally approved the special land use but denied the preliminary site plan. This allowed the applicant to revise the site plan to better meet the criteria of the special land use and modify site layout and specifications to address the community and commission concerns.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President* Douglas J. Lewan, *Principal*  
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal* Craig Strong, *Principal*  
Paul Montagno, *Principal*, Megan Masson-Minock, *Principal*, Laura Kreps, *Principal*  
Richard K. Carlisle, *Past President/Senior Principal*



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

January 6, 2025

**Preliminary Site Plan / Special Land Use Review  
for  
White Lake Charter Township, Michigan**



<b>Applicant:</b>	Affinity 10 Investment, LLC
<b>Project Name:</b>	9101 Highland Road
<b>Plan Date:</b>	July 24, 2024
<b>First Revision Date:</b>	October 17, 2024
<b>Second Revision Date:</b>	December 20, 2024
<b>Location:</b>	South side of Highland Road (M-59), West of Sunny Beach Boulevard. Parcel ID: 12-23-227-003
<b>Action Requested:</b>	Preliminary site plan and special land use review

**PROJECT NARRATIVE**

The applicant is requesting to construct two (2) multi-tenant retail and restaurant buildings on a 4.5-acre parcel along Highland Road (M-59). The site was recently rezoned from R1-C, Single Family Residential to RB, Restricted Business. The special land use and preliminary site plan were reviewed by the Planning Commission during the December 5<sup>th</sup>, 2024, regular meeting. Several nearby residents voiced concerns regarding the proposal citing apprehensions about traffic generated from the dual drive thrus and general noise production. The applicant was amenable to working with the Township on hours of operation for tenants as well as site lighting being turned off within an hour of tenants closing for business.

The Planning Commission voiced concerns with traffic generated by the drive thrus as well as site layout and circulation. After discussion, the following motions were made:

*MOTION by Commissioner, seconded by Commissioner Meagher, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and the drive through and pick up windows. The motion failed with a voice vote: (5 no votes).*

Benjamin R. Carlisle, *President* John L. Enos, *Vice President* Douglas J. Lewan, *Principal*  
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal* Craig Strong, *Principal*  
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Senior Associate*  
Richard K. Carlisle, *Past President/Senior Principal*

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

*MOTION by Commissioner Carlock, seconded by Commissioner Seward, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and one drive-thru. The motion carried with a roll call vote: (8 yes votes).*

*MOTION by Commissioner Meagher, seconded by Commissioner Seeley to recommend the Township Board approve the preliminary site plan for 9101 Highland, identified as parcel number 12-23-227-003 subject to the specifications outlined in the special land use approval. The motion failed with a roll call vote: (5 no votes).*

Via the motions, the Planning Commission conditionally approved the special land use but denied the preliminary site plan. Per these actions, the applicant was given an opportunity to revise the site plan to better meet the criteria of the special land use and modify site layout and specifications to address the community and commission concerns.

Both structures will retain outdoor patios, however the drive-thru pickup window on the east building has been removed. The east building has been modified to accommodate up to four (4) tenants instead of the originally proposed three (3). Restaurants with drive-thru's and outdoor dining areas are a special land use and subject to the standards set forth in Sections 4.17, 4.18 and 6.10 of the zoning ordinance.

The site currently contains one principal building and one accessory structure as well as a parking lot and fenced-in side yard. The principal structure is the Calvary Lutheran Church of White Lake. The current plan calls for the razing of all existing structures and improvements to accommodate the new use and proposed buildings. All existing utilities as well as some periphery trees are to remain and be protected during construction.

The proposed retail buildings have been modified in size. The west building has been reduced from seven thousand two hundred twenty-seven (7,227) sqft to seven thousand ninety-four (7,094) sqft. The east building has been increased from six-thousand four-hundred eighteen (6,418) sqft to seven thousand eight hundred sixty five (7,865) sqft. The west building would continue to offer three (3) suites, one with drive thru facilities. The east building offers four (4) suites with no drive-thru amenities.

Sheet C-3 indicates the applicant is requesting a waiver for site access. We note later in this review that the Planning Commission may waive this requirement per certain criteria.

Preliminary site plans are reviewed by the Planning Commission with recommendations then provided to the Township Board for approval, approval with conditions or denial. Final site plan review and approval is conducted solely by the Planning Commission. The Planning Commission is the review and approval authority for special land uses.

***Items to be Address: None.***

**9101 Highland**  
 Preliminary Site Plan and Special Land Use Review (Revision 2)  
 January 6, 2025

**SITE DESCRIPTION**

<b>Lot Area:</b>	4.5 gross acres
<b>Frontage:</b>	Approx. 458 feet along Highland Road (M-59).
<b>Address:</b>	9101 Highland Road
<b>Current Use:</b>	Institutional (Place of Worship)

*Aerial image of the site*



Source: NearMap June 8, 2024

	North	East	South	West
<b>Surrounding Zoning</b>	<i>PD, Planned Business</i>	<i>R1-C, Single Family Residential</i>	<i>R1-C, Single Family Residential</i>	<i>LB, Local Business</i>
<b>Surrounding Land Uses</b>	<i>Big Box Retail</i>	<i>Single Family Homes</i>	<i>Single Family Homes</i>	<i>Child Daycare</i>
<b>Future Land-Use Map</b>	<i>Commercial Corridor</i>	<i>Neighborhood Residential</i>	<i>Neighborhood Residential</i>	<i>Commercial Corridor</i>



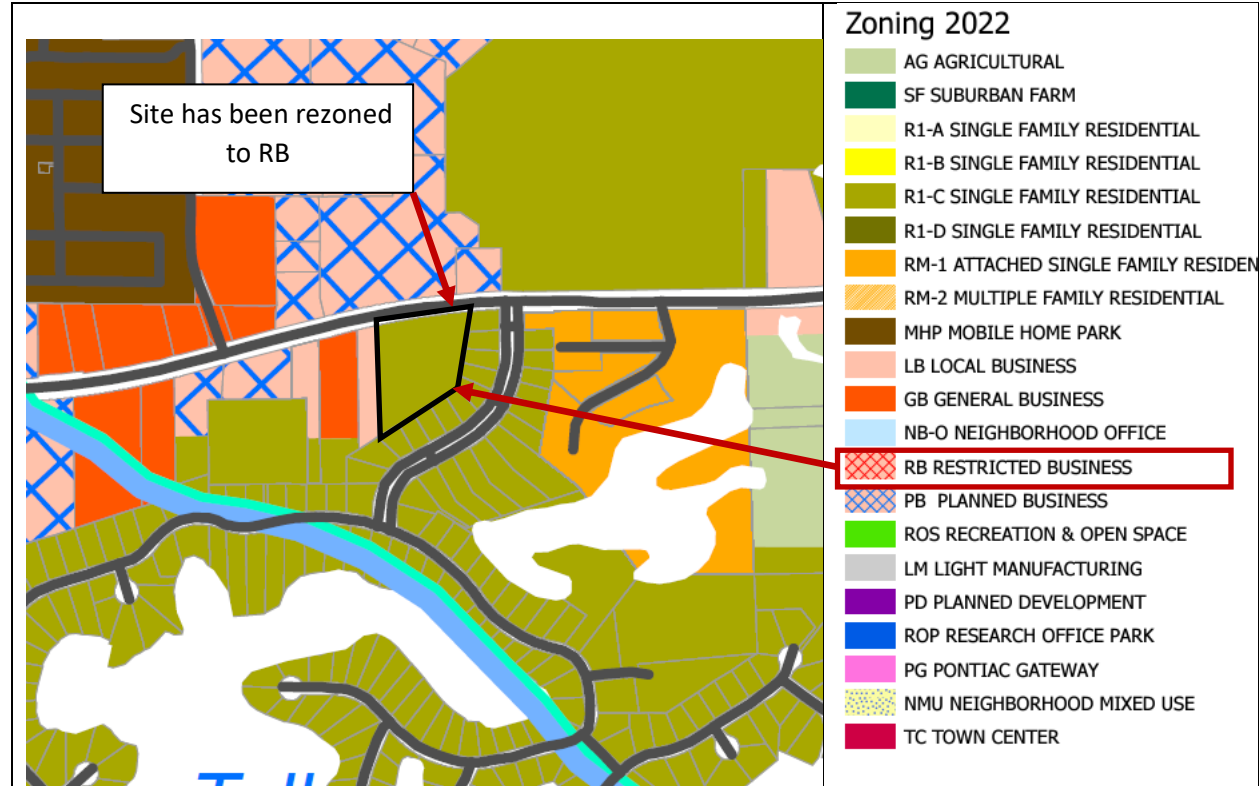
**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

<b>Current Zoning</b>	<p><b>RB, Restricted Business</b></p> <p><i>The intent of the Restricted Business District is to provide a uniform set of regulations that will provide for and encourage retail and office development in accordance with the unique character of White Lake Township, with emphasis on preservation and enhancement of landscaping and natural areas. The Restricted Business District should contain diverse types of retail and office business, but it is not intended that the district become an intensive, high-volume commercial strip.</i></p>
-----------------------	--

**Current Zoning Map**



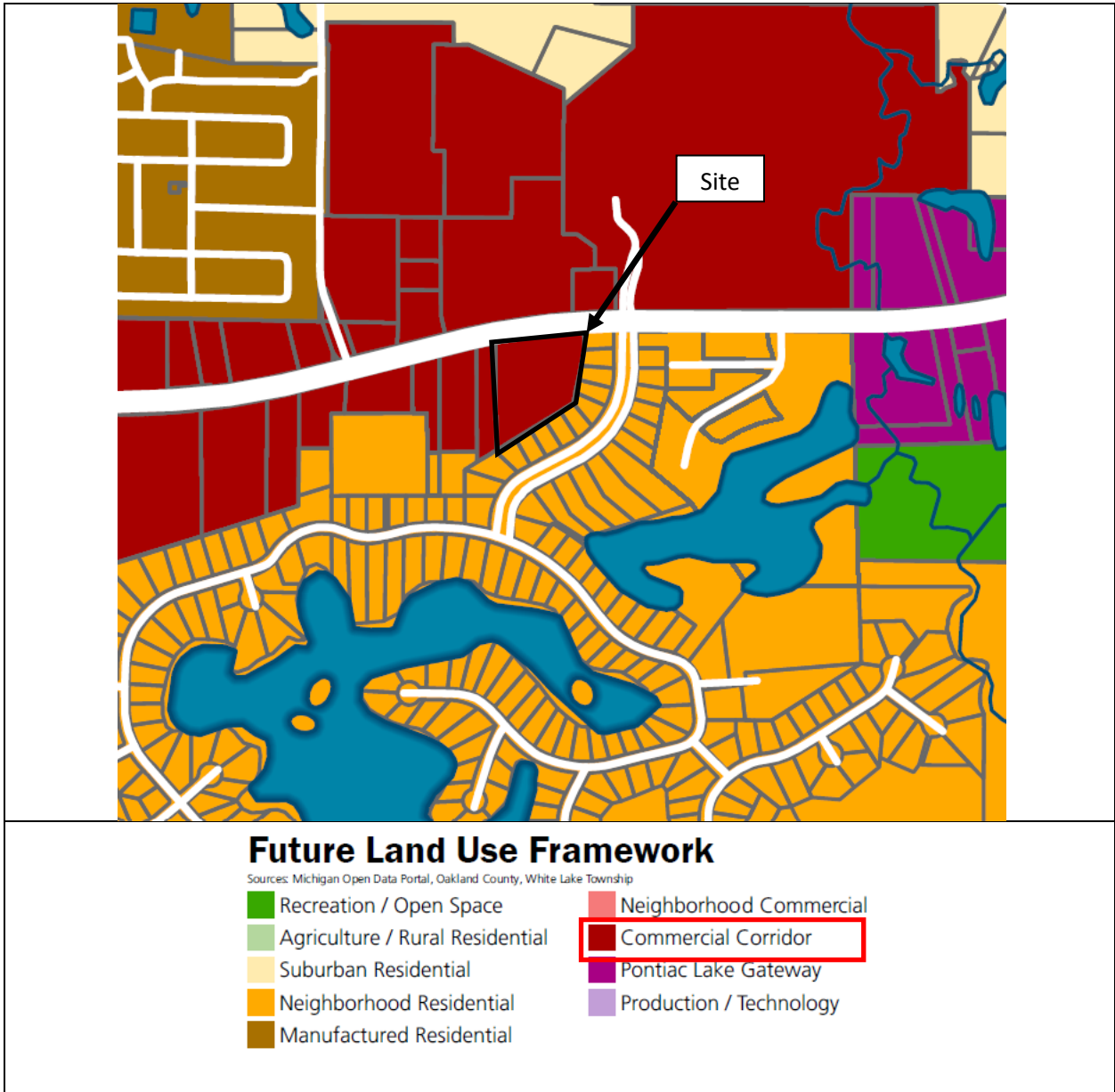
**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

<b>Future Land Use</b>	<b>Commercial Corridor</b> <i>Commercial Corridor: Provides regional goods and services to residents and non-residents. Includes large box stores and drive thrus.</i>
------------------------	---

**Future Land Use Map**



**Item to be Addressed: None**



**NATURAL RESOURCES**

**Topography:** Sheet C-4 show existing site topography as well as the proposed grading. With the exception of a natural depression along Highland Road (M-59) on the east side of the site, the lot is predominantly flat. Minor grading will be required to support proposed structures and site improvements with more extensive excavation required for the proposed detention pond south of the development.

We defer to Township Engineering for any concerns with the proposed grading plans as well as any issues cited regarding stormwater management and natural environment protection.

**Wetlands:** Per the Department of Environment, Great Lakes and Energy (EGLE), no wetlands are present onsite.

**Woodland:** The site is relatively clear of mature tree clusters. Individual mature trees are located along the periphery. It appears that approximately sixteen (16) of these trees are slated to be preserved and protected during construction.

**Soils:** Oshtemo, Boyer, Urban Land and Spinks soils are all present onsite and suitable for development.

**Water:** No waterbodies are present onsite.

**General Notes:** None.

**Items to be Addressed:** Any cited concerns from Township Engineering.

**AREA, WIDTH, HEIGHT, SETBACKS**

Proposed building envelopes and setback standards are shown on Sheet C-3 as well as district bulk and lot regulations. Standard bulk and lot regulations for the RB zoning district are set forth in Section 3.1.14.

**RB Restricted Business District Developmental Standards**

RB, Restricted Business	Required:	Proposed:	Complies
<b>Building Setbacks</b>			
Front (Sec. 4.17.A)	60 foot minimum	103.8 feet	Yes
Side	15 feet on one side / 30 foot total of two sides	81 feet to the west / 56 feet to the east / 137 feet combined	Yes
Rear	20 feet	154.6 feet	Yes
Wetland	25 feet	N/A	N/A

**9101 Highland**  
 Preliminary Site Plan and Special Land Use Review (Revision 2)  
 January 6, 2025

<b>Building Height</b>			
	35 feet or 2 stories (whichever is less)	20 feet / 1 story	Yes
<b>Lot Standards</b>			
Minimum Lot Area	1 acre	4.5 gross and net acres	Yes
Minimum Lot Width	120 feet	458.4 feet	Yes
Maximum Lot Coverage	TBD	6.75%	TBD
Depth to Width	4 to 1	Approx. 1 to 1	Yes

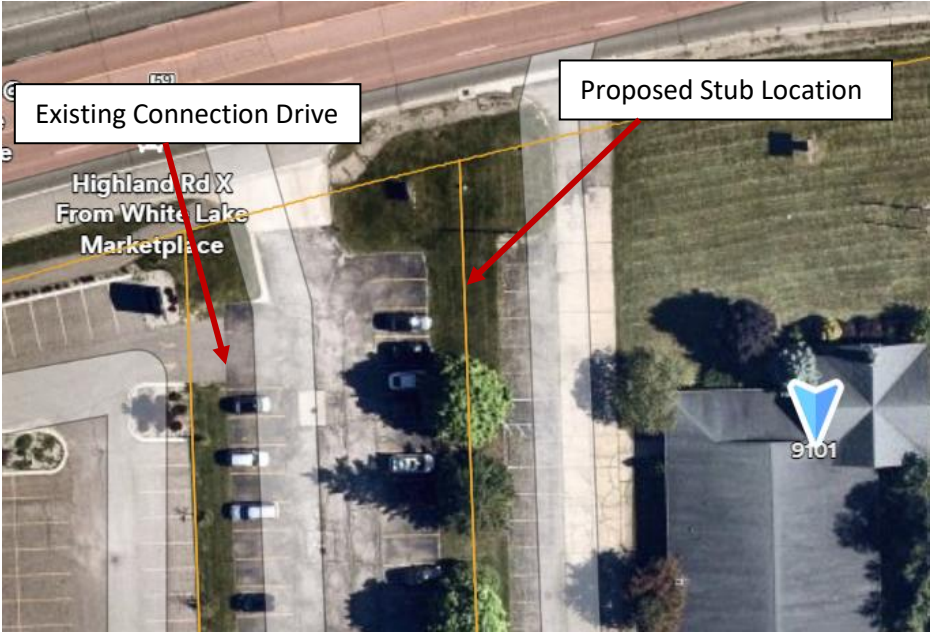
**Items to be Addressed:** None.

**ACCESS & CIRCULATION**

**Vehicle Access & Circulation**

Section 6.4 outlines site access requirements. However, the site’s sole access is from Highland Road (M-59) which is under jurisdiction of the Michigan Department of Transportation (MDOT).

Sheet C-3 shows a proposed stub access drive at the west end of the property. A note indicates the drive is a proposed twenty-four (24) foot access drive and easement to be stubbed at the property line. The aerial image below shows the neighboring site to the west does not currently have a stub to the subject property. The neighboring property does share an internal drive with the adjacent property to the west. The applicant indicates the stub road will be connected to the neighboring site when that site is redeveloped. Concrete parking blocks are shown to detour vehicles from entering the temporary stub.



Source: NearMap June 8, 2024

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

Page 7 of the traffic impact study (TIS) dated April 22<sup>nd</sup>, 2024 indicates the site's proposed driveway distance from existing driveways and/or intersections. The only distance requirement that is met relates to the Ross Drive entrance way to the shopping center opposite Highland Road (M-59). We defer to Engineering on their assessment of this deficiency but note the applicant has incorporated a dedicated left hand turn egress lane and deceleration lane to the site plan per MDOT requirements.

The west building drive thru remains in the same configuration as the original site plan. Circulation issues may present with traffic entering the site so close to the drive thru exit assuming traffic leaving the drive thru will be attempting to exit the site as well.

The east building has expanded in square footage but has not altered the width and location of the eastern drive aisle.

Sheet C-10 provides circulation for fire trucks. We defer to Township Public Safety on concerns with emergency vehicle maneuverability.

**Non-Motorized Access and Circulation**

Sections 5.20 and 5.21 provide requirements for site sidewalks and pathways. A sidewalk is present across the Highland Road (M-59) frontage of the site. The applicant is proposing to demolish the sidewalk and install an eight (8) foot wide asphalt pathway mostly within the ROW. Pathways along the corridor are required to be eight (8) feet wide with two (2) foot clear zones on each side and at least six (6) feet from the curb of the adjacent road. Dimensions on Sheet C-3 indicate the pathway will be no closer than eight (8) feet to Highland Road (M-59) which is compliant.

An easement will be provided for the portion of the pathway that occupies the applicant's property. Pedestrian access from the proposed pathway to the site is provided via a walkway in front of the east and west building however only the west building has a crosswalk. We recommend a crosswalk be added to the east pedestrian access to provide safe crossing of the drive aisle.

**Public Transit**

Public Transit access is available via the SMART Bus Highland Road Route 759. The line runs east/west between Oakland University and Bogie Lake Road along Highland Road (M-59). The accessible Westbound stop is located at the Highland Road (M-59) and Sunny Beach Boulevard intersection. The accessible eastbound stop is located along Highland Road (M-59) at the White Lake Marketplace development. The route operates from approximately 6:00am until 11:00pm on weekdays and 9:00am until 6:00pm on Saturdays.

White Lake Township is also served by the Western Oakland Transportation Authority which provides schedule transportation for Township residents with specific needs.

***Items to be Addressed:*** 1.) Any concerns cited by Public Safety 2.) Any concerns cited by Engineering. 3.) MDOT will need to approve the pathway along Highland Road (M-59). 4.) The east building pedestrian connection should contain a crosswalk so pedestrians can cross the drive aisle safely. 5.) An easement will be required to grant the Township access rights to the portions of the safety path that are outside of the ROW.

**PARKING & LOADING**

Section 5.11 outlines requirements for off-street parking. Sheet C-3 provides parking locations and calculations for the various retail and restaurant functions anticipated for the site. Parking is placed predominantly around the periphery of the two buildings with a limited number of spaces located between the structures. Parking lot and drive aisles will be constructed of asphalt. Concrete is proposed for limited portions of the drive thru and dumpster pads.

Only the west building offers drive thru facilities which wrap around the entire building. The stacking lane has two bailout drives. A loading zone is located behind the west building at the end of the central drive aisle. One loading zone is provided and meets the dimensional requirements of the ordinance. Refuse and Delivery truck circulation is provided on Sheet C-11. Two pedestrian crosswalks are shown with dashed markings to allow delivery personnel to access the rear of each building.

The site plan indicates there will be seven (7) total tenants between both buildings. Of the seven (7), two (2) are identified as retail totaling two thousand three hundred eighty seven (2,387) sqft. The remaining five (5) are identified as restaurants (one with drive thru amenities). Total restaurant square footage is twelve thousand five hundred seventy two (12,572). Based on these uses, one hundred forty six (146) parking spaces are required. One hundred twenty (120) parking spaces are proposed, which is within the 75% parking reduction allowance. Mobile order pickup spaces have been reduced from seven (7) to two (2) and now are only present across from the west building patio.

All spaces and dimensions for stacking lanes meet ordinance requirements.

Included in the provided parking are six (6) handicap accessible spaces. Count and dimension requirements for accessible spaces, as well as van accessibility space requirements, have been met.

We note that the site plan does not show dual white striped parking space paint however details on Sheet C-12 specify dual striped paint.

**Items to be Addressed:** None.

**ESSENTIAL SERVICES & UTILITIES**

Sheet C-5 and 6 provide information on existing and proposed utilities. Stormwater management is proposed to be directed into a ground infiltration detention pond. Gas, water, sewer and electric services are proposed underground. We defer to Township Engineering for any concerns with utility layouts and calculations.

We note underground electric routes along the eastern property line conflict with proposed landscaping. Over time, large tree roots can cause problems for underground utilities.

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)  
January 6, 2025

Fire lane locations are required for preliminary site plan review and should be shown on Sheet C-3 as well as proposed fire department building hookups and/or water sources to confirm corresponding locations. We defer to Township Public Safety for any utility capacity or locations concerns.

**Items to be Addressed:** 1.) Any cited concerns of Township Engineering. 2.) Any cited concerns of Township Public Safety.

**LANDSCAPING & SCREENING**

Landscape and screening information is required at final site plan review. The applicant has provided a detailed landscape plan on Sheet C-8. Per this information, we will provide a full review of the landscape plan. Any deficiencies noted should be addressed at final site plan review.

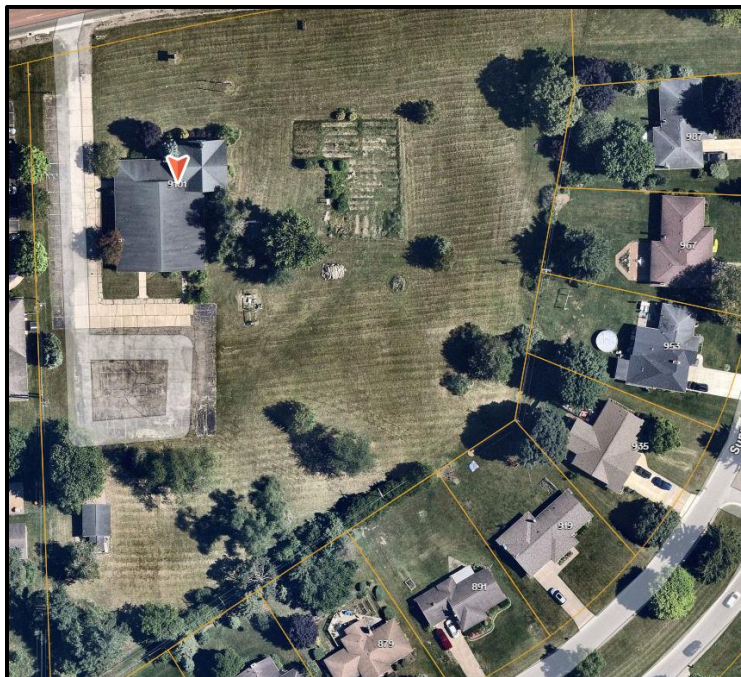
Landscaping originally proposed to line the east building drive thru has been relocated predominately along the southern end of the east building and rear parking area.

Section 5.19.B outlines general provisions for site landscaping. We note that no trees are to be planted closer than four (4) feet from any property line. While distance dimensions were not provided, it appears several trees along the southern and eastern property line may encroach this setback requirement.

Section 5.19.D provides requirements for screening along property lines as it relates to adjacent districts. Those standards are reviewed below:

Property Line	Required	Provided	Complaint
<b>North (ROW)</b>	Depth: 20 feet  14 large deciduous or evergreen trees  AND  110 shrubs	Depth: 25.4 feet  14 large deciduous trees  AND  110 shrubs	Yes
<b>East &amp; South (R1-C)</b>	Depth: 20 feet  56 large deciduous or evergreen trees  AND  223 shrubs  5 foot visual barrier	Depth: 30 feet  56 large deciduous trees (49 new / 7 existing)  AND  223 shrubs  8 foot obscuring fence	Yes
<b>West (LB)</b>	None	N/A	N/A

We note that several areas along the perimeter of the site show existing tree canopies and cite that they will remain. An aerial of the site is provided below for reference.



Source: NearMap June 8, 2024

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

**Interior Landscaping**

Interior landscaping areas are required to equal at least fifteen (15) percent of the total lot area. One (1) large deciduous, small ornamental deciduous, or evergreen tree and five (5) shrubs shall be planted for every three hundred (300) square feet of required interior landscaping area.

<b>Standard</b>	<b>Required</b>	<b>Provided</b>	<b>Complaint</b>
Lot Area	29,335 sqft (15%)	110,896 sqft (56%)	Yes
Deciduous Trees	97 trees	97 trees (81 new / 16 existing)	Yes
Shrubs	489 shrubs	489 shrubs	Yes

**Parking Lot Landscaping**

Any off-street parking areas containing ten (10) or more parking spaces shall have parking lot landscaping as prescribed in the table provided in Section 5.19.G. Additional standards require:

1. *One (1) large deciduous tree or small deciduous ornamental tree and three (3) shrubs for every one hundred (100) square feet of required parking lot landscaping area.*
2. *Parking lot landscaping areas shall be curbed with 6-inch concrete curbing. Planting islands containing trees shall not be less than fifty (50) square feet in area and not have any dimension across the island of less than five (5) feet.*

<b>Commercial Use</b>	<b>Required</b>	<b>Provided</b>	<b>Complaint</b>
Lot Area	2,340 sqft	7,199 sqft	Yes
Deciduous or Ornamental Trees	23 trees	23 trees	Yes
Shrubs	70 shrubs	70 shrubs	Yes
Curbs	6 inch concrete	2'	Yes
Lot Islands	50 sqft area minimum and at least 5 feet wide	4 Islands	Yes

**Minimum Plant Size**

All tree and plant material meet size requirements.

**Trash Receptacles**

Trash enclosures are to be constructed of similar materials as the principal structure on the site. Brickform concrete or stained, decorative CMU block may be permitted where the principal building is not masonry, however, plain CMU block is not allowed. Details on Sheet C-13 indicate enclosure walls are constructed of split face block CMU but do not indicate a staining or decorative treatment. Sheet A-302 provides enclosure details that reference enclosure walls as CMU and gates materials as stained wooded with a metal frame. The applicant should remove the trash enclosure detail from Sheet C-13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan.



**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

**Mechanical Equipment Screening**

Sheet A-400 provides an elevation showing the rooftop mechanical equipment and the parapet dimensions which provide screening. Other onsite mechanical equipment is screened via landscaping.

**Fencing**

Sheet C-3 shows a six (6) foot high vinyl fence around the detention basin. Per landscaping buffer requirements between specific zones, an eight (8) foot obscuring fence is proposed along the eastern and southern lot lines where the property abuts residential districts. Specification of screening materials are required for final site plan.

***Items to be Addressed:*** 1.) Dimensions between trees and property lines should be included on Sheet C-8 and conform to the four (4) foot setback requirement. 2.) The applicant should remove the trash enclosure detail from Sheet C-13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan. 3.) Specification of screening materials proposed for the eight (8) foot property line fence are required for final site plan.

**LIGHTING & NOISE**

**Lighting Requirements**

The applicant has provided site lighting information on Sheets C-7 and 14. Lighting standards are provided in Section 5.18.G and required at final site plan review however this review will note any deficiencies with the proposed lighting plan.

Given the site will have multiple tenants, Sheet C-7 should have a note stating that there shall be no flashing, oscillating, moving or intermittent type of lighting or illumination on the site.

All site lighting is provided via LED fixtures mounted to twenty (20) foot poles. Footcandle requirements at the property lines and fixture height requirements are met. No building wall pack lighting is proposed at this time. Section 5.18.G.viii outlines footcandle maximums for specific areas of the site. The site plan offers footcandle measurements for the overall site and property lines as well as driveway, parking, walkways, and loading areas. All areas are below or at maximum footcandle allowances.

**Noise Requirements**

Noise standards are provided in Section 5.18.A and required at final site plan review.

***Items to be Addressed:*** Sheet C-7 should have a note stating that there shall be no flashing, oscillating, moving or intermittent type of lighting or illumination on the site



**SIGNAGE**

Sheet C-3 provides the basic location of a proposed monument sign at the development’s entrance. Basic dimension parameters are provided in the “Signage Requirements” table. We note the sign should complement both the design and construction materials of the principal structures on-site. Signs are approved administratively but complete sign information outlined in Section 5.9 is required at final site plan review.

**Items to be Addressed:** None.

**ARCHITECTURE & LAYOUT**

Sheets A100 through A301 provide general floorplans and elevations of the buildings. As stated earlier, the east building has been modified to accommodate four (4) tenants instead of the originally proposed three (3). The east building also no longer provides drive thru facilities. We do note that sheets are not stamped and sealed by a licensed architect.

Elevations of all building sides is required at preliminary site plan. Architectural information required at final site plan review includes the types of facing materials to be used on structures. Interior layouts are open to allow flexibility for potential user interior design but will be required to meet building codes during the permitting process.

Section 6.8.E provides architectural requirements for developments along the Highland Road (M-59) corridor. Proposed exterior materials for the buildings are fiber cement planes, metal coping, EFIS, brick veneer, prefinished aluminum and metal awnings. We recommend color renderings showing exterior construction materials in place for final site plan review. Window coverage along front facades must be at least 30%. These calculations should be added to the final site plan.

Exterior construction material boards will be required for Planning Commission review during final site plan as well as samples of furniture, fixtures or equipment to be located on the proposed patios.

**Items to be Addressed:** 1.) Window coverage calculations should be added to exterior elevations facing Highland Road (M-59). 2.) Architectural drawings should be stamped and sealed by the professional that prepared them.

**SPECIAL LAND USE**

Restaurants with drive-thru’s and outdoor dining areas are a special land use and subject to the standards set forth in Sections 4.17, 4.18 and 6.10 of the zoning ordinance. Special land uses are reviewed and approved/denied by the Planning Commission.

General and special use requirements are provided in Section 6.10. Use standards specific to drive-in or drive-thru window services are outlined in Section 4.17. Use standards for eating establishments with

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

outdoor dining are provided in Section 4.18. The following information is a review of each requirement for this use as prescribed in the Zoning Ordinance.

**Section 4.17 / Drive-In or Drive-Thru Window Services**

*A. A front yard setback of at least sixty (60) feet shall be required.*

**CWA Comment:** Standard met.

*B. Entrance and exit drives shall be at least one hundred (100) feet from any street intersection and two hundred (200) feet from any residential district.*

**CWA Comment:** Standard met.

*C. An outdoor lighting plan shall specify the type of fixtures to be used, light intensity, and method of shielding the fixtures so that light does not project onto adjoining properties or on any public or private street or right-of-way. Dropped fixtures shall not be allowed. The site plan shall include a photometric plan and catalog details for all proposed fixtures. Outdoor lights must meet the performance standards of Section 5.18.*

**CWA Comment:** Standard met.

*D. An obscuring fence, screen wall, or land form buffer shall be provided in accordance with the provisions of Section 5.19 on all sides abutting a residential district.*

**CWA Comment:** Standard met.

*E. Adequate off-street waiting space shall be provided to prevent drive-through customers from waiting on a public or private street. A minimum of four (4) spaces per drive-up window, including order windows or per ATM machine, shall be required. The Planning Commission may increase this requirement up to seven (7) spaces per window based on the circumstances of individual uses and sites.*

**CWA Comment:** Standard met.

**Section 4.18 / Eating Establishments with Entertainment and/or Outdoor Dining**

These requirements are intended to regulate restaurants with large outdoor eating areas and possible entertainment that the applicant has stated no outdoor entertainment is to occur onsite for restaurant patrons. For this reason, we have only applied the standards applicable to casual outdoor eating within the patio areas specified for each building.

*i. The establishment may operate only during the following hours: Monday thru Thursday 8 am—12 midnight, Friday 8 am—2 am, Saturday 10 am—2 am, Sunday 10 am—10 pm.*

**CWA Comment:** The applicant has provided a list of anticipated tenants for the site as well as their possible hours of operation. Some operating times are beyond the window permitted for outdoor dining however we do not anticipate the patrons of these potential

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

tenants utilizing outdoor patios to a disruptive degree. The outdoor patio areas are modest in size and not meant for large amounts of customers.

*ii. The use of exterior loudspeakers is prohibited where the site abuts a residential district or use. The noise level at the lot line shall not exceed 70 dB.*

**CWA Comment:** No noise or speaker systems were included in the site plan. The applicant should be aware of this requirement when considering tenant types. The west building is the only building with drive thru facilities.

**Section 6.10 / General SLU Standards**

*i. The proposed special land use shall be of such location, size and character that it will be in harmony with the appropriate and orderly development of the surrounding neighborhood and/or vicinity and applicable regulations of the zoning district in which it is to be located.*

**CWA Comment:** The proposed use of the site is conducive with that found along the corridor and other major thoroughfares.

*ii. The proposed use shall be of a nature that will make vehicular and pedestrian traffic no more hazardous than is normal for the district involved, taking into consideration vehicular turning movements in relation to routes of traffic flow, proximity and relation to intersections, adequacy of sight distances, location and access of off-street parking and provisions for pedestrian traffic, with particular attention to minimizing child-vehicle interfacing.*

**CWA Comment:** Site access approval will be required from MDOT however the applicant has implemented a deceleration lane, dedicated left turn lanes, new roadside pathway and internal pedestrian paths to improve vehicle and pedestrian circulation.

*iii. The proposed use shall be designed as to the location, size, intensity, site layout and periods of operation of any such proposed use to eliminate any possible nuisance emanating therefrom which might be noxious to the occupants of any other nearby permitted uses, whether by reason of dust, noise, fumes, vibration, smoke or lights.*

**CWA Comment:** Per comments provided in the Special Land Use 4.18 requirements portion of this review, areas for outdoor dining are modest in size and the applicant should ensure tenants are aware of noise requirements. The applicant has eliminated the drive thru for the east building in response to nuisance concerns cited by the Planning Commission and community.

*iv. The proposed use shall be such that the proposed location and height of buildings or structures and location, nature and height of walls, fences and landscaping will not interfere with or discourage the appropriate development and use of adjacent land and buildings or unreasonably affect their value.*

**CWA Comment:** Standard met.

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

*v. The proposed use shall relate harmoniously with the physical and economic aspects of adjacent land uses as regards prevailing shopping habits, convenience of access by prospective patrons, continuity of development, and need for particular services and facilities in specific areas of the Township.*

**CWA Comment:** The proposed food service and retail uses are conducive to major thoroughfares and are similar or complementary to other commercial uses in the area.

*vi. The standards of density and required open spaces for the proposed special land use shall be at least equal to those required by this Ordinance in the Zoning District in which the proposed special land use is to be located.*

**CWA Comment:** Standard met.

*vii. The public services and facilities affected by a proposed special land use or activity shall be capable of accommodating increased service and facility loads caused by the land use or activity.*

**CWA Comment:** We defer to Township Engineering and Township Public Safety relating to public facilities and service concerns.

*viii. Protection of the natural environment and conservation of natural resources and energy.*

**CWA Comment:** No items of concern.

*ix. The proposed use is necessary for the public convenience at the proposed location.*

**CWA Comment:** The proposed use of the site is conducive with that found along the corridor and other major thoroughfares and will provide services to Township residents.

*x. The proposed use is so designed, located, planned and to be operated that the public health, safety and welfare will be protected.*

**CWA Comment:** No items of concern.

*xi. The proposed use shall not cause substantial injury to the value of other property in the neighborhood in which it is to be located and will not be detrimental to existing and/or other permitted land uses in the zoning district.*

**CWA Comment:** The proposed use is more intense than the current institutional use but not uncommon to major thoroughfares and/or proximity to residential uses. Appropriate landscaping and screening requirements have been met to ensure a buffer between the development and adjacent residential uses. Drive thru facilities have been reduced from two (2) to one (1) to accommodate concerns of the community.

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

**Community Impact Statement**

Section 3.1.14 and 6.6 of the zoning ordinance outline the need for a Community Impact Statement (CIS) for special land uses, planned developments and the like. Given the proposed use is an increase in intensity from the current use as well as the adjacency to residential districts, the applicant has provided a CIS for the proposed development.

The original CIS is dated November 12<sup>th</sup>, 2024 and was prepared by Stonefield Engineering and Design, LLC. The revised CIS provides updated information, however, is still dated November 12<sup>th</sup>, 2024. This should be amended to reflect the new date of the report. Chipotle is no longer listed as a potential tenant. The west building drive thru is proposed for Starbucks.

**General**

The CIS provides relevant information about the development regarding site layout, uses, and general hours of operation for tenants. Information provided is consistent with typical multi-tenant retail centers. As noted in the statement and this review, the use and zoning are consistent with the 2024 Master Plan. Surrounding uses are provided and are not uncommon when adjacent to retail along large thoroughfares (M-59).

**Community Facilities and Services**

The applicant states the site is anticipated to have a low to medium impact on police and fire services. No establishments are proposed to sell alcohol and fire department inspections are required to ensure the site is compliant with life safety standards. The fire department has provided preliminary approval of the site plan. No concerns are cited with the estimated demand on water and sewer systems.

Deliveries for tenants are expected to be once to twice per week. With the potential of up to seven(7) tenants, this could generate seven (7) to fourteen (14) deliveries per week. Single axle box trucks are anticipated to provide the majority of deliveries to the site. Given the loading zone is located in the rear of the development, we suggest a possible condition that trucks not be allowed to idle while loading, unloading or staging.

**Economics**

The site is anticipated to generate approximately fifty (50) to sixty (60) temporary jobs (construction) and approximately fifty (50) permanent service jobs. It is estimated that the proposed development will contribute roughly \$70,000 per year to White Lake Township and local schools from annual property taxes.

**Environment**

The site is relatively free of major natural features such as clustered woodlands or bodies of water. The primary source of pollution to the site would be particulate matter during construction and personal vehicle operation once built. No major hazardous materials are expected to be kept onsite. The CIS does acknowledge that some tenants will likely be food service business that will

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

generate kitchen odors from cooking operations. It should be discussed as to whether any mitigation is available to reduce the impact of odors generated from tenant activities.

**Noise**

The CIS still notes that drive thru facilities in the east building will be pickup window only thus eliminating noise from order kiosks that utilize loudspeakers to communicate with drivers. These facilities have been removed from the east building on the revised site plan. This section should be updated to reflect the change as well as clarify if the drive thru for west building will be a traditional drive thru or pickup window. This is a positive step to help reduce noise pollution. The stipulation that no order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment.

**Traffic**

Traffic information does indicate that levels of service are anticipated to remain relatively the same after the site is operating. The traffic impact study does indicate that vehicles attempting to make a left turn out of the site may find the maneuver difficult during peak PM hours.

**Mapping**

The overhead image provided in the CIS highlights the character of uses along the corridor. Retail uses are prevalent to the west of the site with varying densities of residential throughout the area.

**Items to be Addressed:** 1.) Condition that trucks not be allowed to idle during loading, unloading, or staging while onsite. 2.) Mitigation techniques to reduce the impact of kitchen odors should be implemented. 3.) No order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment. 4.) Date of revised CIS should be updated. 5.) The CIS noise section should be updated to reflect the revised site plan indicating no drive thru facilities will be offered on the east building. The drive thru facilities for the west building should be identified as either a traditional drive thru or pickup window.

**SUMMARY**

The revised preliminary site plan is substantially complete. We recommend a public hearing be noticed and the application be placed on the Planning Commission’s agenda.

Should the Planning Commission approve the preliminary site plan, special land use, and CIS, we recommend conditions listed below:

**Potential Conditions of Approval**

1. Any cited concerns from Township Engineering are addressed.
2. Any cited concerns from Township Public Safety are addressed.
3. MDOT will need to approve the pathway along Highland Road (M-59)

**9101 Highland**

Preliminary Site Plan and Special Land Use Review (Revision 2)

January 6, 2025

4. *The east building pedestrian connection should contain a crosswalk so pedestrians can cross the drive aisle safely.*
5. *An easement will be required to grant the Township access rights to the portions of the safety path that are outside of the ROW.*
6. *Trucks not be allowed to idle during loading, unloading, or staging while onsite.*
7. *Mitigation techniques to reduce the impact of kitchen odors should be implemented.*
8. *No order kiosk or loudspeaker system shall be constructed for the east building should be added to the site plan to avoid future tenants requesting installation of such equipment.*
9. *Date of revised CIS should be updated.*
10. *The CIS noise section should be updated to reflect the revised site plan indicating no drive thru facilities will be offered on the east building. The drive thru facilities for the west building should be identified as either a traditional drive thru or pickup window.*

**Waivers / Modifications / Determinations**

---

Below is a list of waivers, modifications or determinations necessary from the Planning Commission for the current proposal to be approved.

1. *Planning Commission may grant/deny waiver request for placement of access drive per lot and placement restrictions however site access is under the jurisdiction of MDOT.*

**Final Site Plan Items (Notations / Not Required for PSP Approval)**

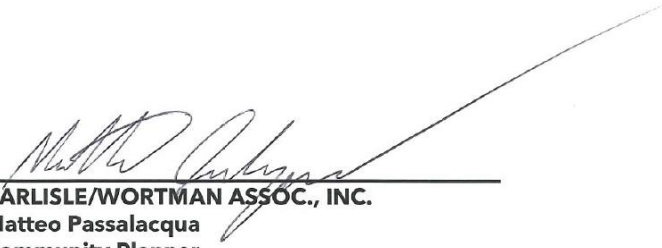
---

The items listed below are not required for preliminary site plan approval but will need to be addressed prior to final site plan consideration.

**PLEASE NOTE:** Should the Planning Commission grant approval or conditional approval of the preliminary site plan, these items should not be included in the motion.

1. *Sheet C-7 should have a note stating that there shall be no flashing, oscillating, moving or intermittent type of lighting or illumination on the site*
2. *Dimensions between trees and property lines should be included on Sheet C-8 and conform to the four (4) foot setback requirement.*
3. *The applicant should remove the trash enclosure detail from Sheet C-13 and clarify the CMU enclosure wall decorative feature on Sheet A-302 for final site plan. Exterior construction material boards will be required for Planning Commission review during final site plan as well as samples of furniture, fixtures or equipment to be located on the proposed patios.*
4. *Window coverage calculations should be added to exterior elevations facing Highland Road (M-59).*
5. *Architectural drawings should be stamped and sealed by the professional that prepared them.*
6. *Material specifications for the proposed eight (8) foot obscuring fence should be provided at final site plan review.*

**9101 Highland**  
Preliminary Site Plan and Special Land Use Review (Revision 2)  
January 6, 2025  
Respectfully,



---

**CARLISLE/WORTMAN ASSOC., INC.**  
**Matteo Passalacqua**  
**Community Planner**



Our full review is included in the Planning Commission's packet. To supplement the review, we have summarized the notable changes to the site plan below:

- Drive-thru facilities have been eliminated for the east building.
- The east building is now proposed to house four tenants instead of three.
- The west building has decreased in size from 7,227 sqft to 7,094 sqft.
- The east building has increased in size from 6,418 sqft to 7,865 sqft.
- The safety path along M59 has been moved away from the road and is in conformance with distance requirements from the curb.
- Parking spaces have increased to 120 from 116.
- Mobile order pickup spaces have been reduced from seven to two.
- Landscaping originally proposed to line the east building drive thru has been relocated predominantly along the southern end of the east building and rear parking area.
- Additional lighting information has been provided and meets ordinance standards.
- Chipotle is no longer listed as a potential tenant.

Thank you for your time.

Respectfully,



**CARLISLE/WORTMAN ASSOC., INC.**  
Matteo Passalacqua  
Community Planner



**Fire Department**  
Charter Township of White Lake

7420 Highland Road  
White Lake, MI 48383  
Office (248) 698-3993  
[www.whitelaketwp.com/fire](http://www.whitelaketwp.com/fire)

## Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 12-30-2024

Project: 9101 Highland Road

Job #: DET-230229

Date on Plans: 12-20-2024

---

The Fire Department has the following comments with regard to the 3<sup>rd</sup> review of preliminary site plans for the project known as 9101 Highland Road.

1. The access drive and parking lot shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced to provide all weather driving capabilities.
2. The required turning radius shall accommodate the largest Fire Department apparatus (40') and provide a turn radius profile showing apparatus movement on all future plans. **Needs to be shown throughout the entire site.** (Movement needs to be shown between the East and West buildings turning to the East and West in the front of the buildings as well as the rear of the buildings)
3. The angle of approach/Departure to and from White Lake roads shall not exceed 8 degrees.
4. Wall mounted KNOX Box required, location to be determined.
5. **One additional fire hydrant with bollard protection will be required on the south side of the buildings, centrally located, possibly on the island east of the proposed loading zone.**
6. Fire lanes must be posted and remain unobstructed at all times.

Jason Hanifen  
Fire Marshal  
Charter Township of White Lake  
(248)698-3993  
[jhanifen@whitelaketwp.com](mailto:jhanifen@whitelaketwp.com)

Plans are reviewed using the International Fire Code (IFC), 2015 Edition and Referenced NFPA Standards.





SOURCE: USGS MAPPING SYSTEM

**LOCATION MAP**

SCALE: 1" = 2,000'±

# SITE DEVELOPMENT PLANS FOR 9101 HIGHLAND ROAD PROPOSED COMMERCIAL DEVELOPMENT

PID: 12-23-227-003

9101 HIGHLAND ROAD (M-59)

WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

**APPLICANT / OWNER**

AFFINITY 10 INVESTMENT LLC  
44512 SOUTH SHORE STREET  
WATERFORD, MICHIGAN 48328  
248-702-0624  
THANNAWA@ENCOREIS.COM

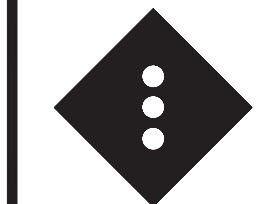
**ARCHITECT**

BOWERS + ASSOCIATES, INC  
2400 SOUTH HURON PARKWAY  
ANN ARBOR, MICHIGAN 48104  
734-975-2400  
SUSANB@BOWERSARCH.COM

ISSUE	DATE	BY	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION

**STONEFIELD**  
engineering & design



Birmingham, MI · Rutherford, NJ · New York, NY  
Boston, MA · Princeton, NJ · Tampa, FL  
www.stonefielddeng.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone 248.247.1115

**9101 HIGHLAND ROAD**

**PROPOSED COMMERCIAL DEVELOPMENT**

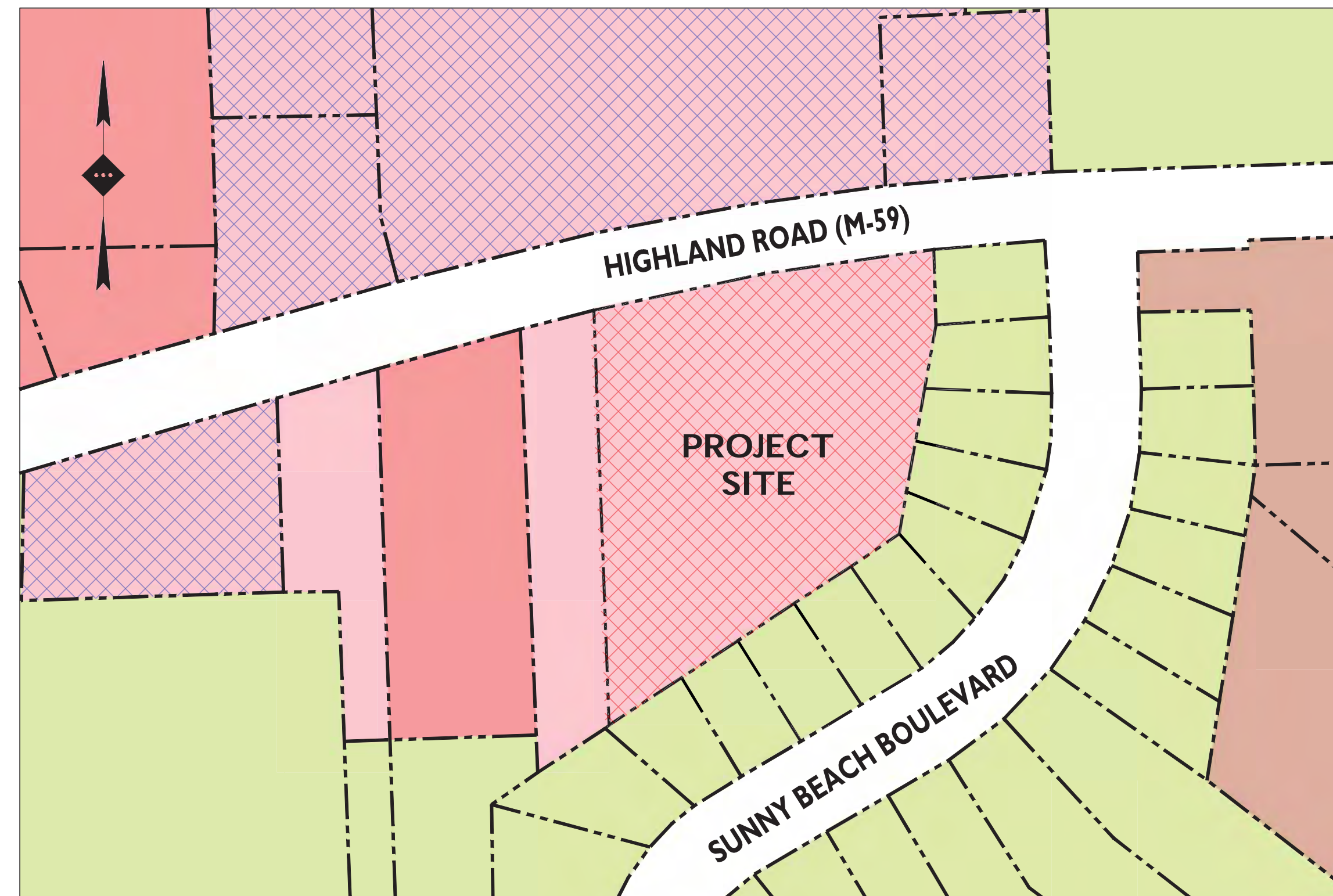
PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN



SOURCE: GOOGLE EARTH PRO. DATE RETRIEVED 12/11/2023

**AERIAL MAP**

SCALE: 1" = 150'±



SOURCE: TOWNSHIP OF WHITE LAKE OFFICIAL ZONING MAP, DATED 10/10/2022 & TOWNSHIP BOARD MEETING MINUTES FROM 9/17/2024 APPROVING THE REZONE TO RESTRICTED BUSINESS

**ZONING KEY**

R1-C SINGLE FAMILY RESIDENTIAL	RB RESTRICTED BUSINESS
RM-1 ATTACHED SINGLE FAMILY RESIDENTIAL	PB PLANNED BUSINESS
GB GENERAL BUSINESS	LB LOCAL BUSINESS

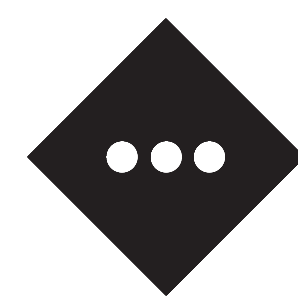
**ZONING MAP**

SCALE: 1" = 150'±

PLANS PREPARED BY:



Know what's below  
Call before you dig.



**STONEFIELD**  
engineering & design

Birmingham, MI · New York, NY · Boston, MA  
Princeton, NJ · Tampa, FL · Rutherford, NJ  
www.stonefielddeng.com

555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009  
Phone 248.247.1115

**PLAN REFERENCE MATERIALS:**

- THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
  - ALTA/NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC ASSOCIATES DATED 09/28/2023
  - ARCHITECTURAL PLANS OBTAINED FROM BOWER & ASSOCIATES, INC DATED 12/19/2024
  - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO 10/10/2022
  - LOCATION MAP OBTAINED FROM USGS ONLINE MAPPER 08/07/2023
  - TRAFFIC STUDY OBTAINED FROM FLEIS & VANDENBRINK DATED 04/22/2024
- ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

**SHEET INDEX**

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION PLAN	C-2
SITE PLAN	C-3
GRADING PLAN	C-4
STORMWATER MANAGEMENT PLAN	C-5
UTILITY PLAN	C-6
LIGHTING PLAN	C-7
LANDSCAPING PLAN	C-8 & C-9
FIRE TRUCK TURNING ANALYSIS	C-10
REFUSE TRUCK TURNING ANALYSIS	C-11
CONSTRUCTION DETAILS	C-12 TO C-14

**ADDITIONAL SHEETS**

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	1 OF 1
WHITE LAKE TWP WATERMAIN DETAILS	1 OF 1
WHITE LAKE TWP STORM SEWER DETAILS	1 OF 1
WHITE LAKE TWP SANITARY DETAILS	1 OF 1
OAKLAND COUNTY SOIL EROSION DETAILS	1 OF 1



SCALE: AS SHOWN PROJECT ID: DET-230229

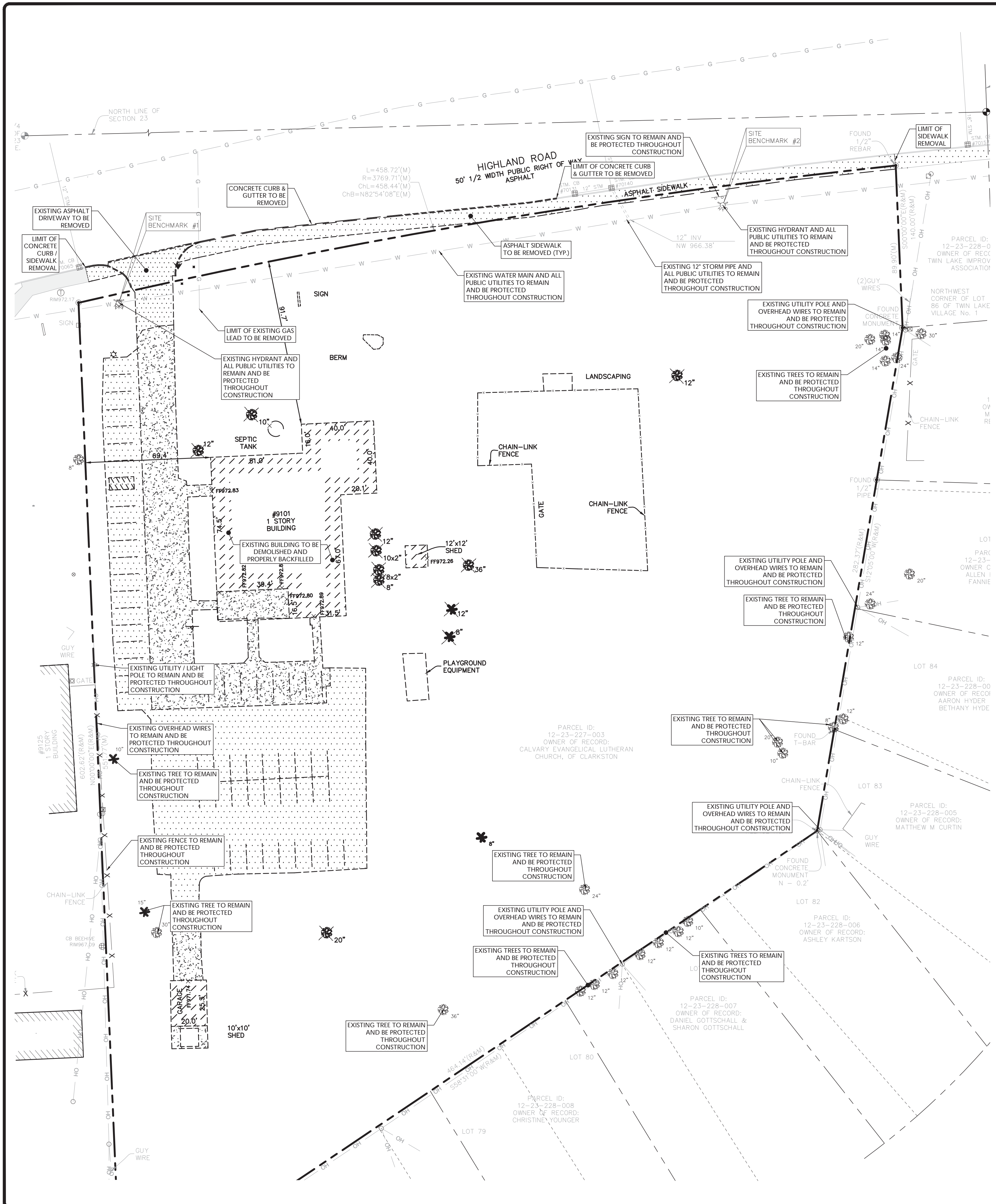
TITLE:

COVER SHEET

DRAWING:

C-1





SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	FEATURE TO BE REMOVED / DEMOLISHED

**BENCHMARK**

SITE BENCHMARK #1  
ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.  
ELEVATION = 975.36 (NAVD 88)

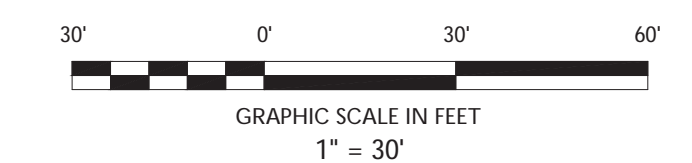
SITE BENCHMARK #2  
ARROW ON TRAFFIC SIGNAL POST, EAST SIDE OF PROPERTY.  
ELEVATION = 974.20 (NAVD 88)

**ALL SITE FEATURES WITHIN THE PROPERTY LINE INDICATED ON THIS PLAN ARE TO BE REMOVED / DEMOLISHED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IF SIGNIFICANT DISCREPANCIES ARE DISCERNED BETWEEN THIS PLAN AND FIELD CONDITIONS**



Know what's below  
Call before you dig.

- DEMOLITION NOTES**
1. THE WORK REFLECTED ON THE DEMOLITION PLAN IS TO PROVIDE GENERAL INFORMATION TOWARDS THE EXISTING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE ENTIRE PLAN SET AND ASSOCIATED REPORTS/REFERENCE DOCUMENTS INCLUDING ALL DEMOLITION ACTIVITIES AND INCIDENTAL TASKS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS.
  2. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF DEMOLITION ACTIVITIES.
  3. EXPLOSIVES SHALL NOT BE USED UNLESS WRITTEN CONSENT FROM BOTH THE OWNER AND ANY APPLICABLE GOVERNING AGENCY IS OBTAINED. BEFORE THE START OF ANY EXPLOSIVE PROGRAM, THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL LOCAL, STATE, AND FEDERAL PERMITS. ADDITIONALLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL SEISMIC TESTING AS REQUIRED AND ANY DAMAGES AS THE RESULT OF SAID DEMOLITION PRACTICES.
  4. ALL DEMOLITION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITIES ARE DISCONNECTED IN ACCORDANCE WITH THE UTILITY AUTHORITY'S REQUIREMENTS PRIOR TO STARTING THE DEMOLITION OF ANY STRUCTURE. ALL EXCAVATIONS ASSOCIATED WITH DEMOLISHED STRUCTURES OR REMOVED TANKS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO SUPPORT SITE AND BUILDING IMPROVEMENTS. A GEOTECHNICAL ENGINEER SHOULD BE PRESENT DURING BACKFILLING ACTIVITIES TO OBSERVE AND CERTIFY THAT BACKFILL MATERIAL WAS COMPACTED TO A SUITABLE CONDITION.
  5. DEMOLISHED DEBRIS SHALL NOT BE BURIED ON SITE. ALL WASTE/DEBRIS GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL RECORDS OF THE DISPOSAL TO DEMONSTRATE COMPLIANCE WITH THE ABOVE REGULATIONS.



REVISION	DATE	BY	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JEP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JEP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDT REVIEW
1	11/29/2023	JRC/JEP	SUBMISSION FOR REZONING

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
engineering & design

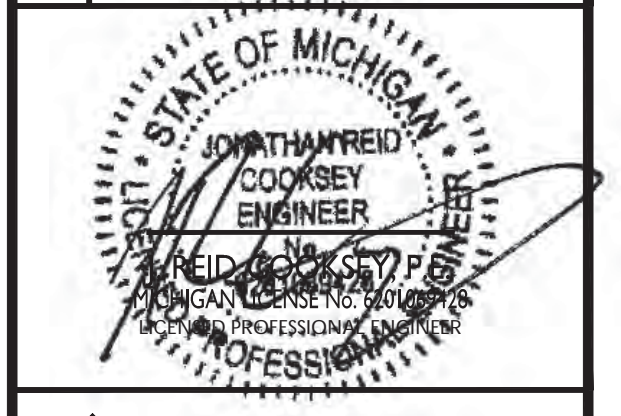
Birmingham, MI · Rutherford, NJ · New York, NY  
Boston, MA · Princeton, NJ · Tampa, FL  
www.stonefielddesign.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone 248.247.1115

**9101 HIGHLAND ROAD**  
PROPOSED COMMERCIAL DEVELOPMENT

**811**

Know what's below  
Call before you dig.



**STONEFIELD**  
engineering & design

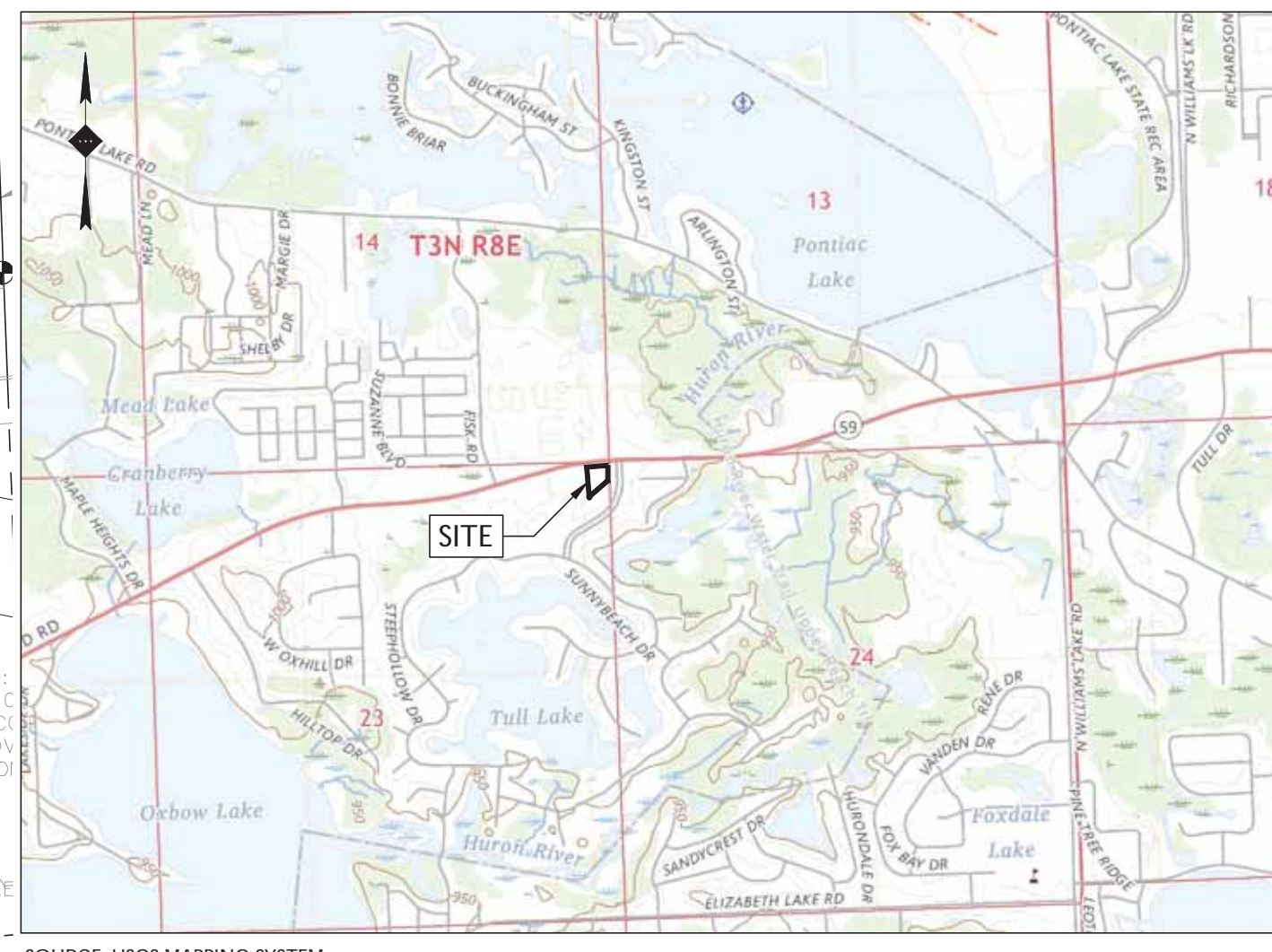
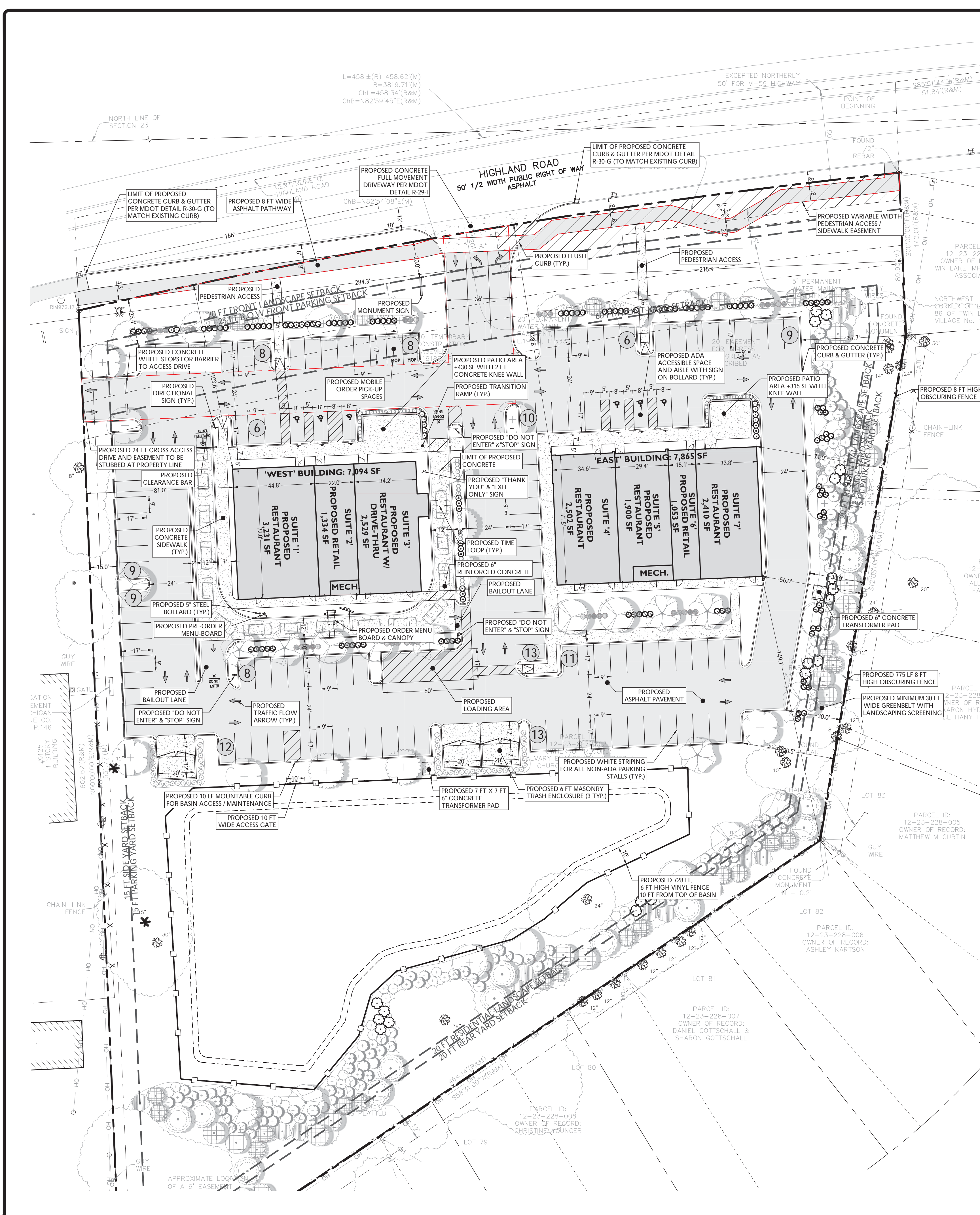
SCALE: 1" = 30' PROJECT ID: DET-230229

TITLE: DEMOLITION PLAN

DRAWING: C-2

NOT TO SCALE. 12-2024. ALL RIGHTS RESERVED. 9101 HIGHLAND ROAD, WHITE LAKE, MICHIGAN. DET-230229. DWG





**LOCATION MAP**  
SCALE: 1" = 2,000'±

**LAND USE AND ZONING**

PID: 12-23-227-003  
EXISTING ZONE: R1-C SINGLE FAMILY RESIDENTIAL  
2024 MASTER PLAN: COMMERCIAL CORRIDOR  
PROPOSED REZONE: RESTRICTED BUSINESS DISTRICT (RB)

ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	1 AC	195,568 SF (4.5 AC)
MINIMUM LOT WIDTH	200 FT	458.4 FT
MAXIMUM BUILDING HEIGHT	35 FT (2 STORIES)	20 FT (1 STORY)
MINIMUM FRONT YARD SETBACK	60 FT <sup>(1)</sup>	103.8 FT
MINIMUM SIDE YARD SETBACK (ONE)	15 FT	56.0 FT
MINIMUM SIDE YARD SETBACK (BOTH)	20 FT	137.0 FT
MINIMUM REAR YARD SETBACK	20 FT	149.1 FT
MINIMUM DRIVEWAY FROM RESIDENTIAL	200 FT <sup>(1)</sup>	215.8 FT
MINIMUM FRONT LANDSCAPE SETBACK	20 FT	25.4 FT
MINIMUM R.O.W LANDSCAPE SETBACK	25 FT <sup>(2)</sup>	25.4 FT
INTERIOR LANDSCAPING AREA	15% (29,335 SF)	>15%
MINIMUM DRIVEWAY SPACING (HIGHLAND ROAD)	455 FT	±284.3 FT TO WEST (W)
TRASH ENCLOSURE SETBACK	103.8 FT <sup>(3)</sup>	COMPLIES
MINIMUM SIDE PARKING SETBACK	15 FT	15.0 FT

(W) WAIVER  
(1) REQUIREMENT FOR RESTAURANT WITH DRIVE-THRU  
(2) NO PARKING SHALL BE LOCATED ADJACENT TO R.O.W LINE, STREET EASEMENT OR SIDEWALK WHICHEVER IS CLOSER  
(3) NO ENCLOSURES SHALL BE PERMITTED CLOSER TO THE FRONT LOT LINE THAN THE PRINCIPAL BUILDING  
(4) PLANNING COMMISSION APPROVED SPECIAL LAND USE FOR ONE (1) DRIVE-THRU TENANT DECEMBER 5, 2024

**OFF-STREET PARKING REQUIREMENTS**

CODE SECTION	REQUIRED	PROPOSED
§ 5.11M	<b>MAXIMUM REQUIRED PARKING:</b>	120 SPACES
	<b>FAST FOOD:</b> 1 SPACE PER 75 OF GFA (2,529 SF)(1 SPACE / 75 SF) = 34 SPACES	
	<b>RESTAURANT, NOT INCLUDING ALCOHOL:</b> 1 SPACE PER 100 SF OF GFA (10,043 SF)(1 SPACE / 100 SF) = 100 SPACES	
§ 5.11M	<b>RETAIL PARKING:</b> 1 SPACE PER 200 SF OF GFA (2,387 SF)(1 SPACE / 200 SF) = 12 SPACES	
	<b>TOTAL: 34 + 100 + 12 = 146 SPACES</b>	
§ 5.11M	<b>MINIMUM REQUIRED PARKING SPACES:</b> (146 SPACES)(0.75) = 110 SPACES <sup>(1)</sup>	120 SPACES
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN	<b>ADA ACCESSIBLE PARKING:</b> 101 TO 150 SPACES = 5 ACCESSIBLE SPACES	6 ACCESSIBLE SPACES
§ 5.11M	<b>STACKING (FAST FOOD W/ INDOOR SEATING):</b> 8 VEHICLES INCLUSIVE OF VEHICLE AT THE WINDOW (9 FT X 19 FT)	15 SPACES (12 FT X 19 FT)
§ 5.11Q	<b>90° PARKING:</b> 9 FT X 19 FT WITH 24 FT AISLE <sup>(1)</sup>	9 FT X 17 FT W/ 24 FT AISLE
§ 5.19	<b>LANDSCAPE REQUIREMENT:</b> 20 FT WIDTH ALONG RESIDENTIAL	30 FT WIDTH 8 FT FENCE
§ 5.11.P	<b>LOADING AREA:</b> 10 FT X 50 FT WITH 15 FT CLEARANCE	17 FT X 50 FT

(1) PARKING SPACE LENGTH MAY BE REDUCED TO 17 FT WHERE 7 FT SIDEWALK OR LANDSCAPE IS PROVIDED.  
(2) AT LEAST 75% OF THE MAXIMUM ALLOWABLE NUMBER OF PARKING SPACES SHALL BE PROVIDED.

**SYMBOL DESCRIPTION**

- PROPERTY LINE
- SETBACK LINE
- PROPOSED CURB & GUTTER
- PROPOSED SIGNS / BOLLARDS
- PROPOSED BUILDING
- PROPOSED CONCRETE
- X --- PROPOSED 8 FT OBSCURING FENCE

**ANTICIPATED TENANTS / HOURS OF OPERATION**

- NOTHING BUNDT THE CAKE: 9:30 AM TO 8 PM
- FIVE GUYS: 11 AM TO 10 PM
- STARBUCKS: 5 AM TO 8 PM
- JERSEY MIKE'S: 10 AM TO 9 PM

**SIGNAGE REQUIREMENTS**

CODE SECTION	REQUIRED	PROPOSED
§ 5.9.1.B	<b>MULTI-TENANT SIGN HEIGHT:</b> 15 FT <sup>(2)</sup>	<15 FT
§ 5.9.1.I	<b>SIGN AREA:</b> 4 SF PER 1 FT OF SETBACK	<150 SF
§ 5.9.1.I	<b>MAXIMUM SIGN AREA:</b> 150 SF <sup>(3)</sup>	<150 SF
§ 5.9.1.A	<b>SIGN SETBACK:</b> 10 FT	20.0 FT
§ 5.9.1.A	<b>RESIDENTIAL SETBACK:</b> 100 FT	>200 FT

(1) MAXIMUM SIGN AREA SHALL NOT INCLUDE DECORATIVE ELEMENTS SUCH AS BASES, COLUMNS OR CAPS  
(2) MINIMUM HEIGHT OF A SIGN BASE SHALL BE 2 FT IN HEIGHT  
(3) EACH INDIVIDUAL TENANT SIGN SHALL NOT EXCEED 4 FT IN HEIGHT

**GENERAL NOTES**

- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
- THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
- THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
- THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC, WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
- THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
- THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
- SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

**STONEFIELD engineering & design**

Birmingham, MI • Rutherford, NJ • New York, NY  
Boston, MA • Princeton, NJ • Tampa, FL  
www.stonefielddesign.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone 248.247.1115

**9101 HIGHLAND ROAD**  
PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN

**STATE OF MICHIGAN**  
JONATHAN REED  
COOKSEY  
ENGINEER  
PROFESSIONAL

**STONEFIELD engineering & design**

SCALE: 1" = 30' PROJECT ID: DET-230229  
TITLE: SITE PLAN  
DRAWING: C-3

NOT APPROVED FOR CONSTRUCTION

REVISIONS:

NO.	DATE	ISSUE	BY	DESCRIPTION
6	12/20/2024	EM		REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM		REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JR		FOR SITE PLAN REVIEW
3	04/22/2024	JR/CJP		SUBMISSION FOR REVISED ZONING REQUEST
2	04/15/2024	EM		FOR PRELIMINARY MDT REVIEW
1	1/19/2023	JR/CJP		SUBMISSION FOR ZONING

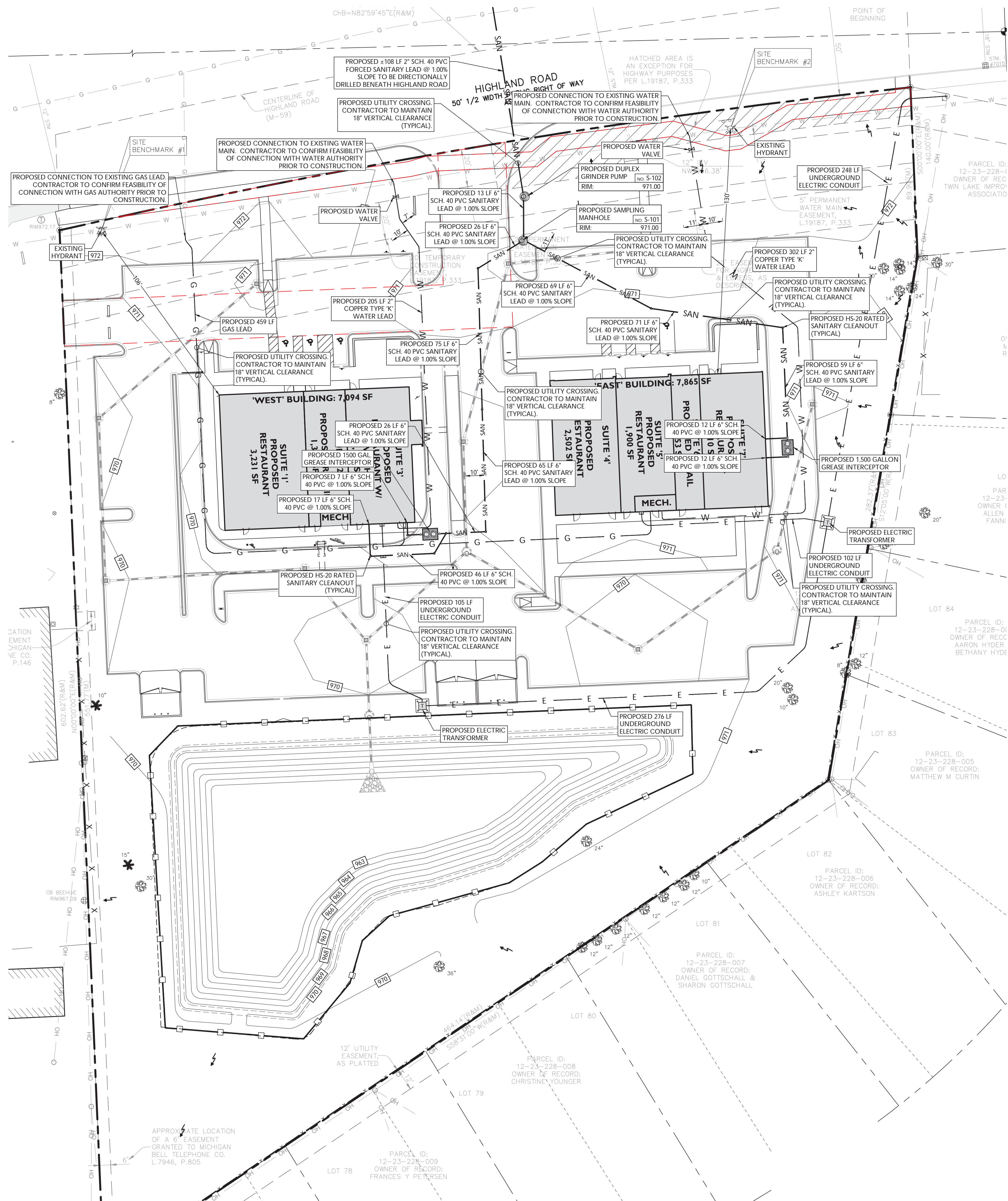












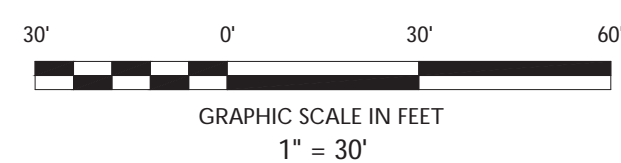
**SYMBOL DESCRIPTION**

---	PROPERTY LINE
— SAN —	PROPOSED SANITARY LATERAL
— W —	PROPOSED DOMESTIC WATER SERVICE
— E —	PROPOSED ELECTRIC CONDUITS
— G —	PROPOSED GAS LINE
⊗	PROPOSED VALVE
○	PROPOSED CLEANOUT
T	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

**MANHOLE SCHEDULE**

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
70065	CATCH BASIN	971.68	12	N	968.03
70131	CATCH BASIN	970.71	12	E	966.71
70140	CATCH BASIN	970.70	12	W	966.50
		970.70	12	N	966.45
		970.70	12	S	966.55
70157	CATCH BASIN	971.02	18	N	964.12

- DRAINAGE AND UTILITY NOTES**
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/CAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
  - THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
  - THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
  - A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
  - ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASUREMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
  - THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
  - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
  - CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
  - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
  - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



REVISION	DATE	ISSUE	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JEP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JEP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JEP	SUBMISSION FOR REZONING

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
engineering & design

Birmingham, MI · Rutherford, NJ · New York, NY  
Boston, MA · Princeton, NJ · Tampa, FL  
www.stonefielddesign.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone 248.247.1115

**9101 HIGHLAND ROAD**  
PROPOSED COMMERCIAL DEVELOPMENT

**STONEFIELD**  
engineering & design

SCALE: 1" = 30' PROJECT ID: DET-230229

TITLE: UTILITY PLAN

DRAWING: C-6



**STONEFIELD**  
engineering & design

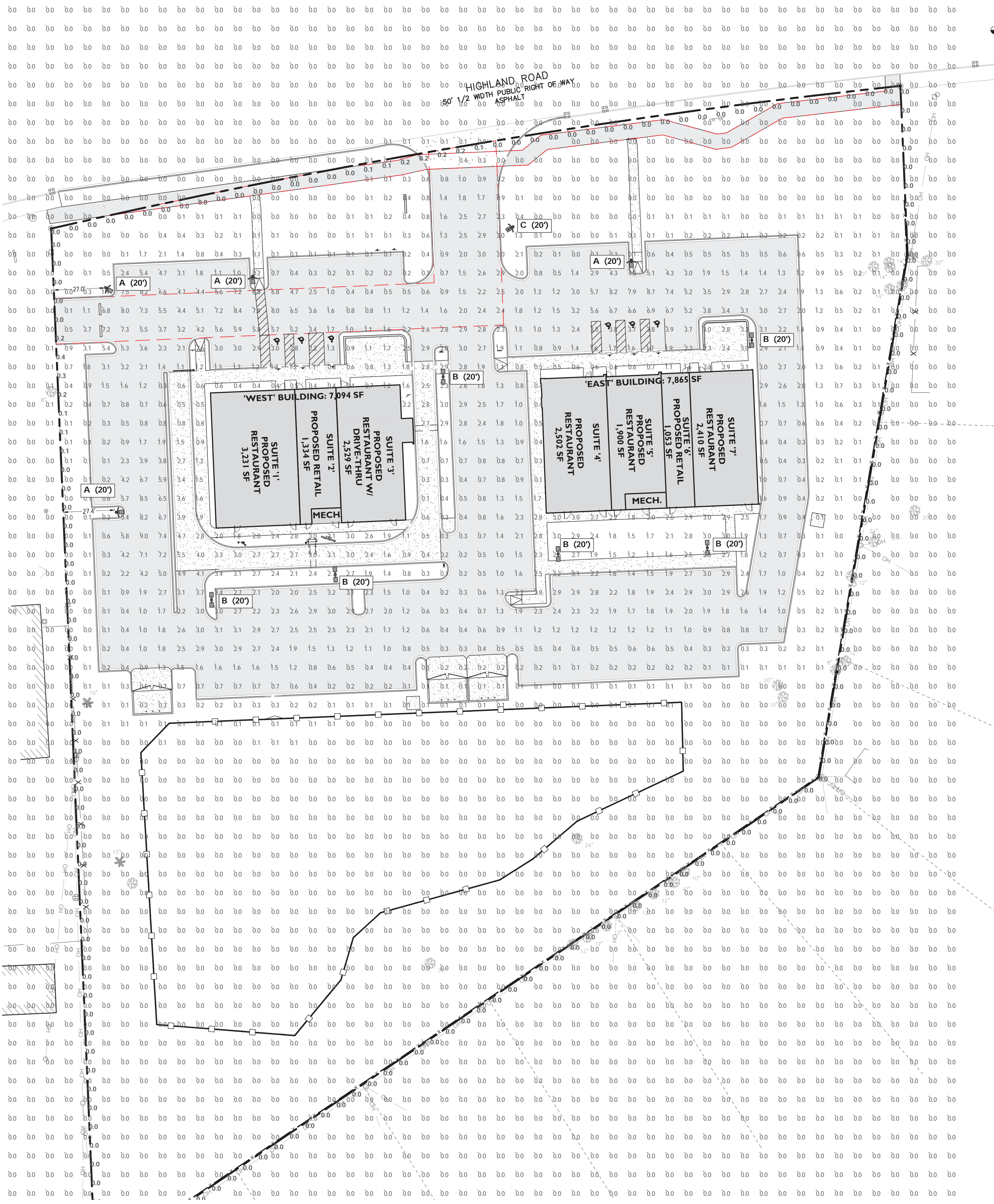
SCALE: 1" = 30' PROJECT ID: DET-230229

TITLE: UTILITY PLAN

DRAWING: C-6

NOT TO SCALE. SEE ATTACHED SURVEY FOR DIMENSIONS AND EASEMENTS. Hatched area is an exception for highway purposes per L19187, P.333.





SYMBOL	DESCRIPTION
A (XX)	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
XX	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)
	PROPOSED AREA LIGHT

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 5.18.G.3	MAXIMUM FC AT PROPERTY LINE (NON-RESIDENTIAL) 1 FC	0.5 FT
§ 5.18.G.3	MAXIMUM FC AT PROPERTY LINE (RESIDENTIAL) 0.2 FC	0.0 FC
§ 5.18.G.7	MAXIMUM HEIGHT WITHIN 26 FT TO 40 FT OF PROPERTY LINE 20 FT	
§ 5.18.G.3	MINIMUM FIXTURE LIGHT FROM PROPERTY LINE 5 FT	27.0 FT
§ 5.18.G.viii	FOOT CANDLE LIMITS FOR VARIOUS LAND USES AVERAGE FOR ENTIRE SITE:	
	GENERAL: 0.5	N/A
	DRIVEWAY: 2.0	1.66
	PARKING: 2.0	2.00
	WALKS: 1.0	0.79
	PROTECTIVE: 1.0	N/A
	BUILDING: 5.0	N/A
	LOADING AREAS: 1.0	0.97

LIGHTING STATISTICS			
DESCRIPTION	AVERAGE	MINIMUM	MAXIMUM
OVERALL PARCEL	1.06 FC	0.00 FC	9.0 FC
PROPERTY LINE (NON-RESIDENTIAL)	0.01 FC	0.00 FC	0.4 FC
PROPERTY LINE (RESIDENTIAL)	0.00 FC	0.00 FC	0.0 FC

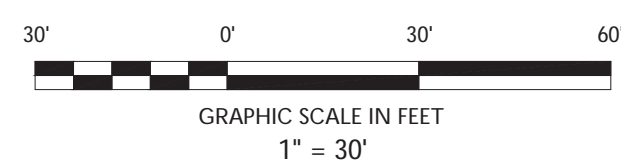
PROPOSED LUMINAIRE SCHEDULE								
SYMBOL	LABEL	QUANTITY	SECURITY LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	CONTROL	IES FILE
	A	4	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT SINGLE WITH HOUSE SIDE SHIELD	FT	0.9	LSI INDUSTRIES	-	MRM-LED-30L-SIL-FIT-40-70CRI-IES
	B	6	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT TWO @ 180°	FT	0.9	LSI INDUSTRIES	-	MRM-LED-12L-SIL-FIT-40-70CRI-IES
	C	1	MIRADA MEDIUM- MRM OUTDOOR LED AREA LIGHT SINGLE WITH HOUSE SIDE SHIELD	FT	0.9	LSI INDUSTRIES	-	MRM-LED-12L-SIL-FIT-40-70CRI-IES

(1) CUT OFF FIXTURES ARE REQUIRED



FIXTURES 'A', 'B', 'C'

- GENERAL LIGHTING NOTES**
- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER. ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
  - WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
  - UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
    - LIGHT EMITTING DIODES (LED): 0.90
    - HIGH PRESSURE SODIUM: 0.72
    - METAL HALIDE: 0.72
  - THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.



REVISION	DATE	ISSUE	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JIP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JIP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/19/2023	JRC/JIP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION

**STONEFIELD**  
engineering & design

Birmingham, MI · Rutherford, NJ · New York, NY  
Boston, MA · Princeton, NJ · Tampa, FL  
www.stonefielddesign.com

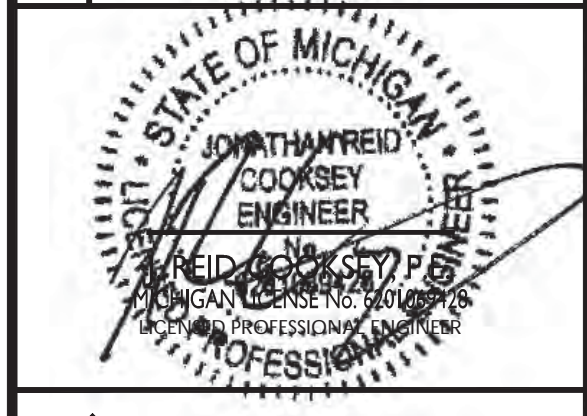
555 S Old Woodward Suite 121 Birmingham, MI 48009  
Phone 248.247.1115

SITE DEVELOPMENT PLANS

**9101 HIGHLAND ROAD**

PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN



**STONEFIELD**  
engineering & design

SCALE: 1" = 30' PROJECT ID: DET-230219

TITLE: LIGHTING PLAN

DRAWING: C-7

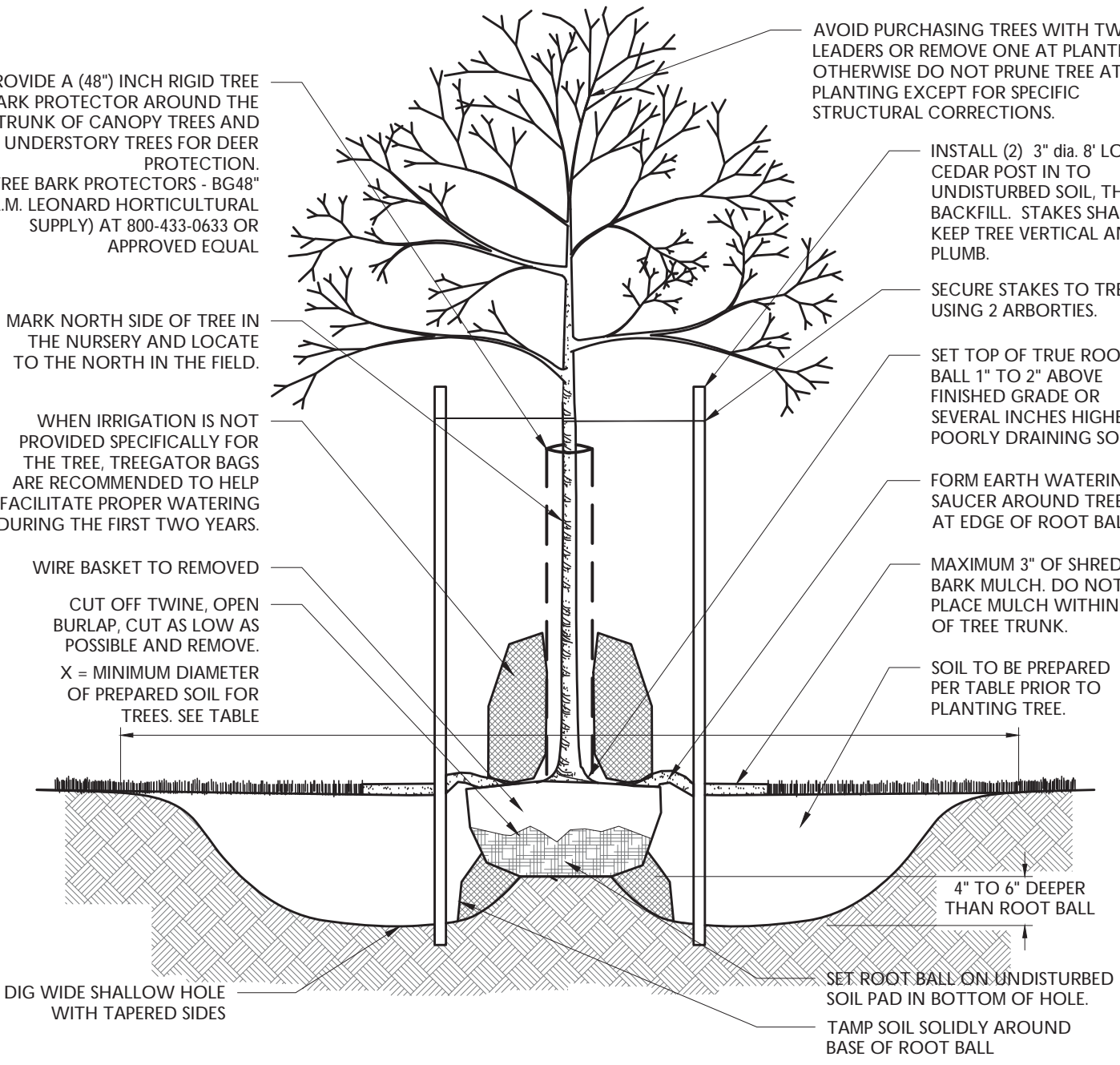






NOTES:

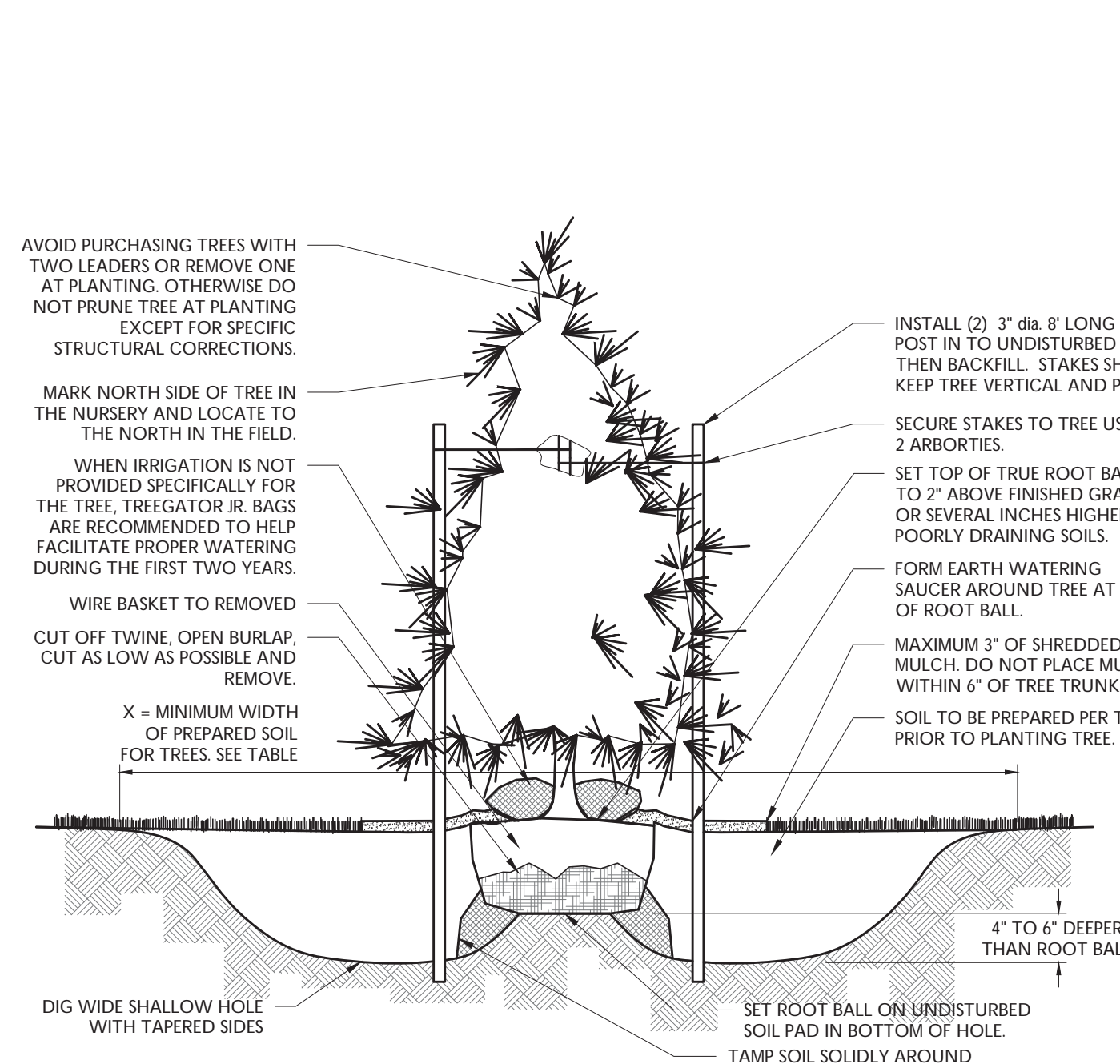
- 1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...



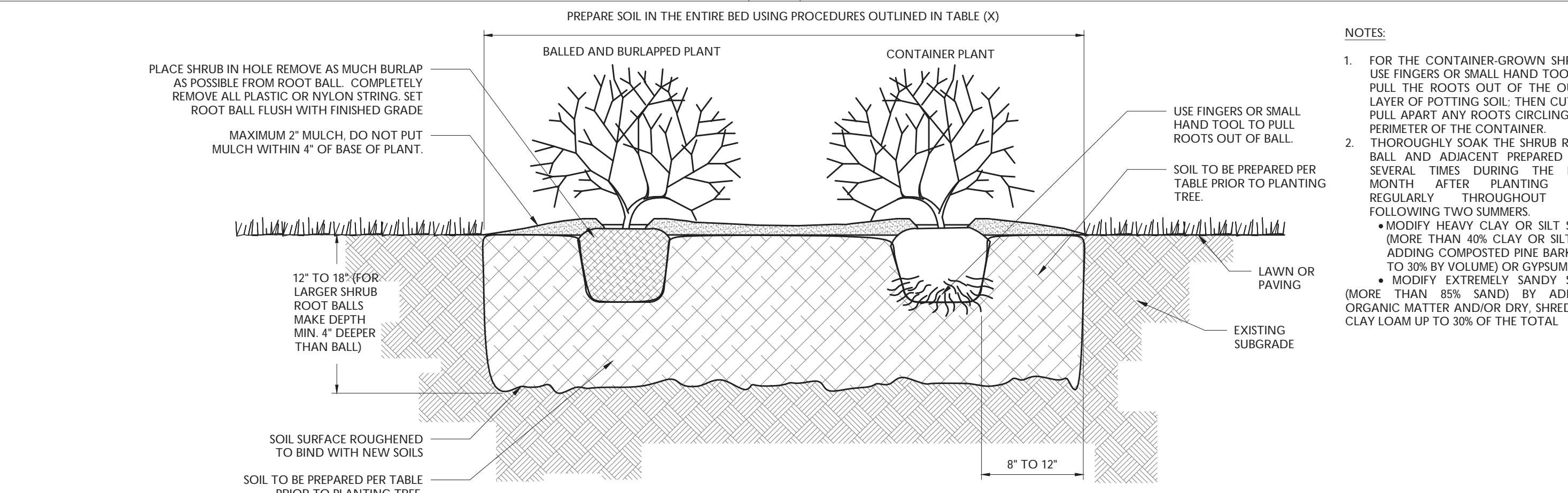
DECIDUOUS TREE PLANTING DETAIL

NOTES:

- 1. FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...



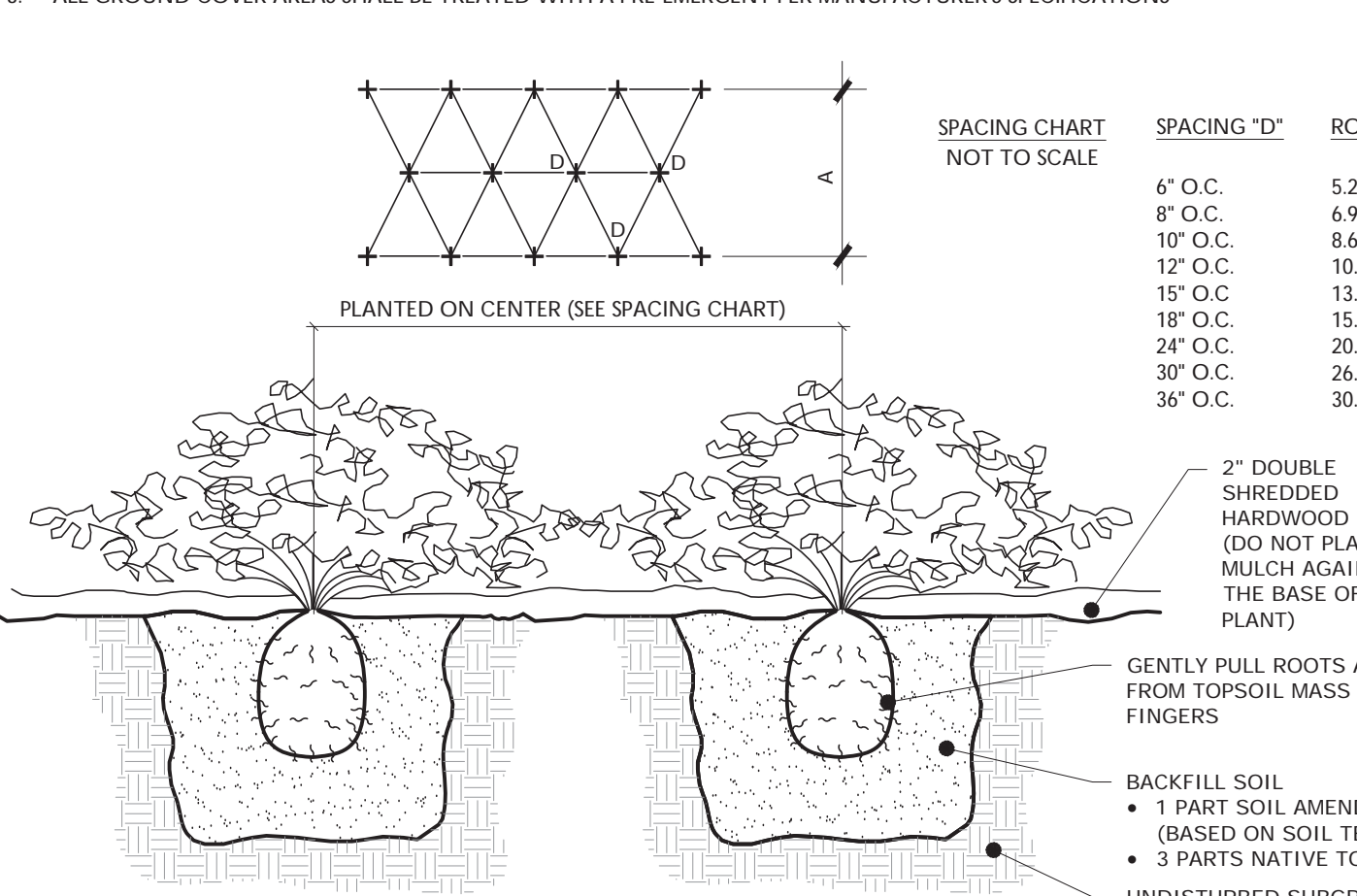
CONIFEROUS TREE PLANTING DETAIL



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOTES:

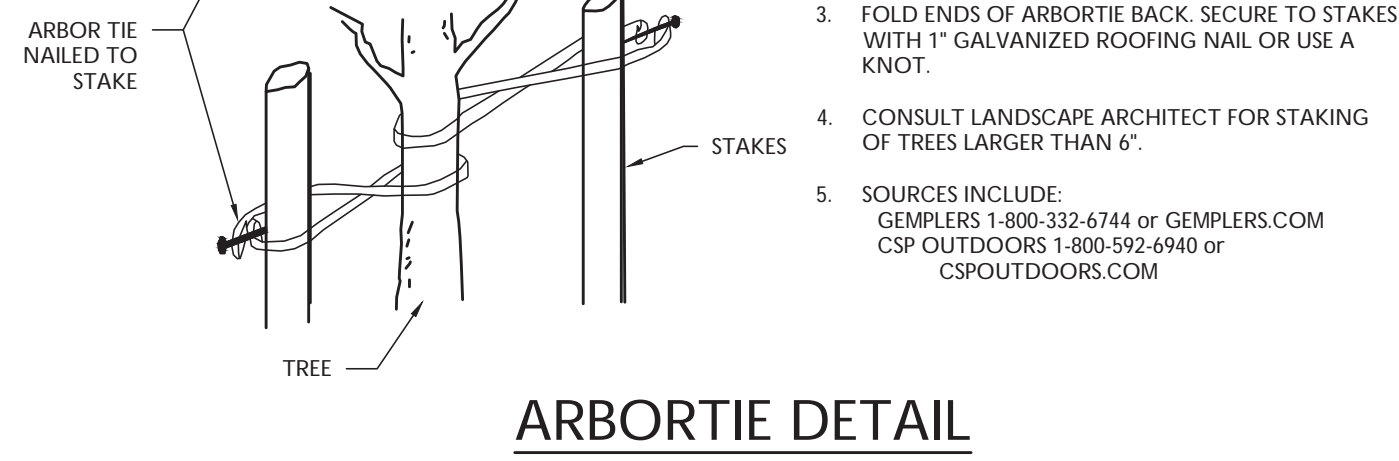
- 1. THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING...



GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

NOTES:

- 1. FOR THE CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL...



ARBORTIE DETAIL

GENERAL LANDSCAPING NOTES:

- 1. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER...

PROTECTION OF EXISTING VEGETATION NOTES:

- 1. BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING...

SOIL PREPARATION AND MULCH NOTES:

- 1. LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING...

PLANT QUALITY AND HANDLING NOTES:

- 1. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z601-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION...

PLANT MATERIAL GUARANTEE NOTES:

- 1. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR (1YR) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER...

LAWN (SEED OR SOD) NOTES:

- 1. SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS...

IRRIGATION DURING ESTABLISHMENT table with columns for size at planting, irrigation for vitality, and irrigation for survival.

- 1. AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER TO THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL...

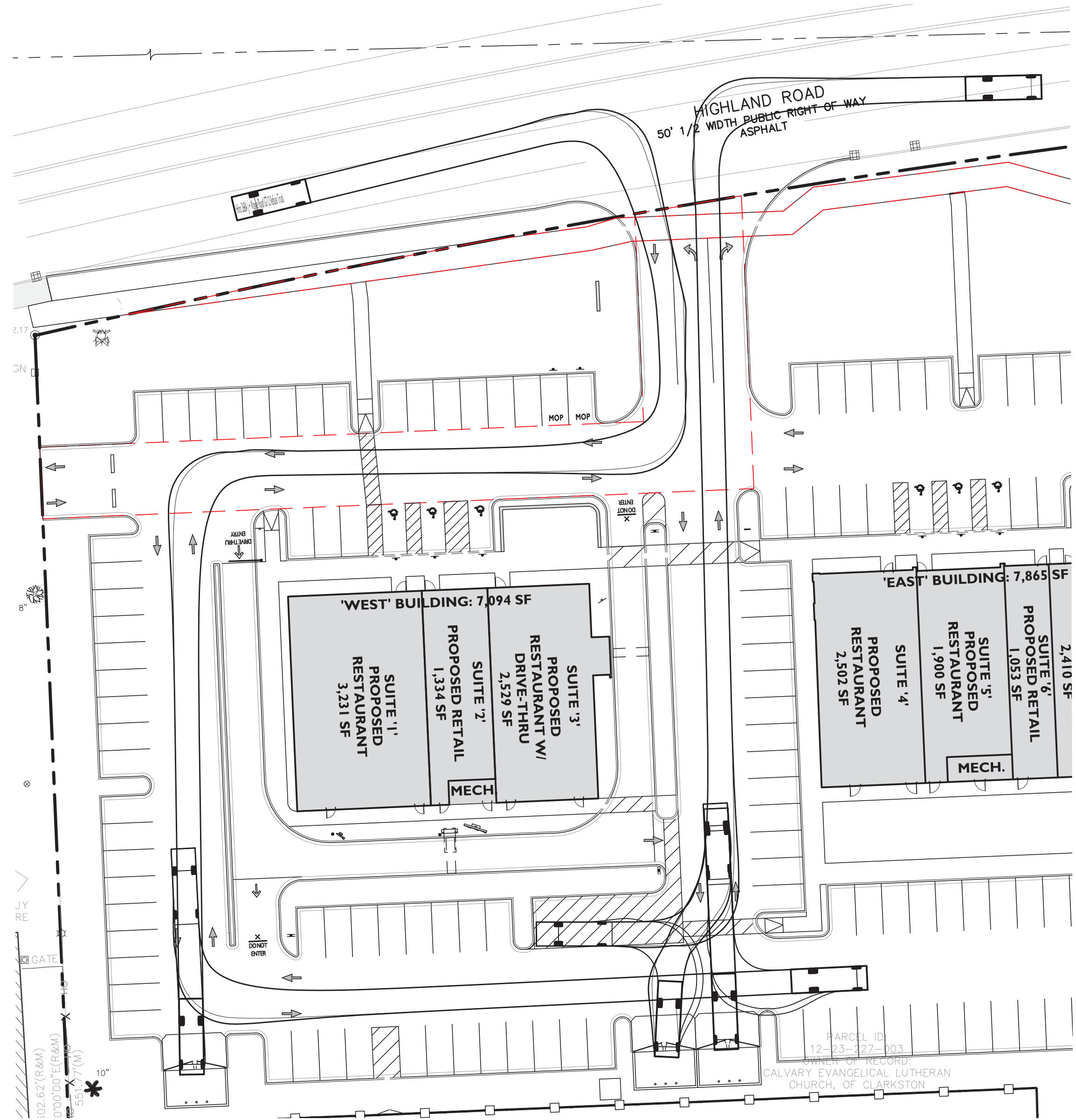
Revision table with columns for date, issue, and description. Includes 'NOT APPROVED FOR CONSTRUCTION' stamp.

Project information including Stonefield engineering & design logo, address (9101 Highland Road), project name (Proposed Commercial Development), and drawing title (Landscaping Details).

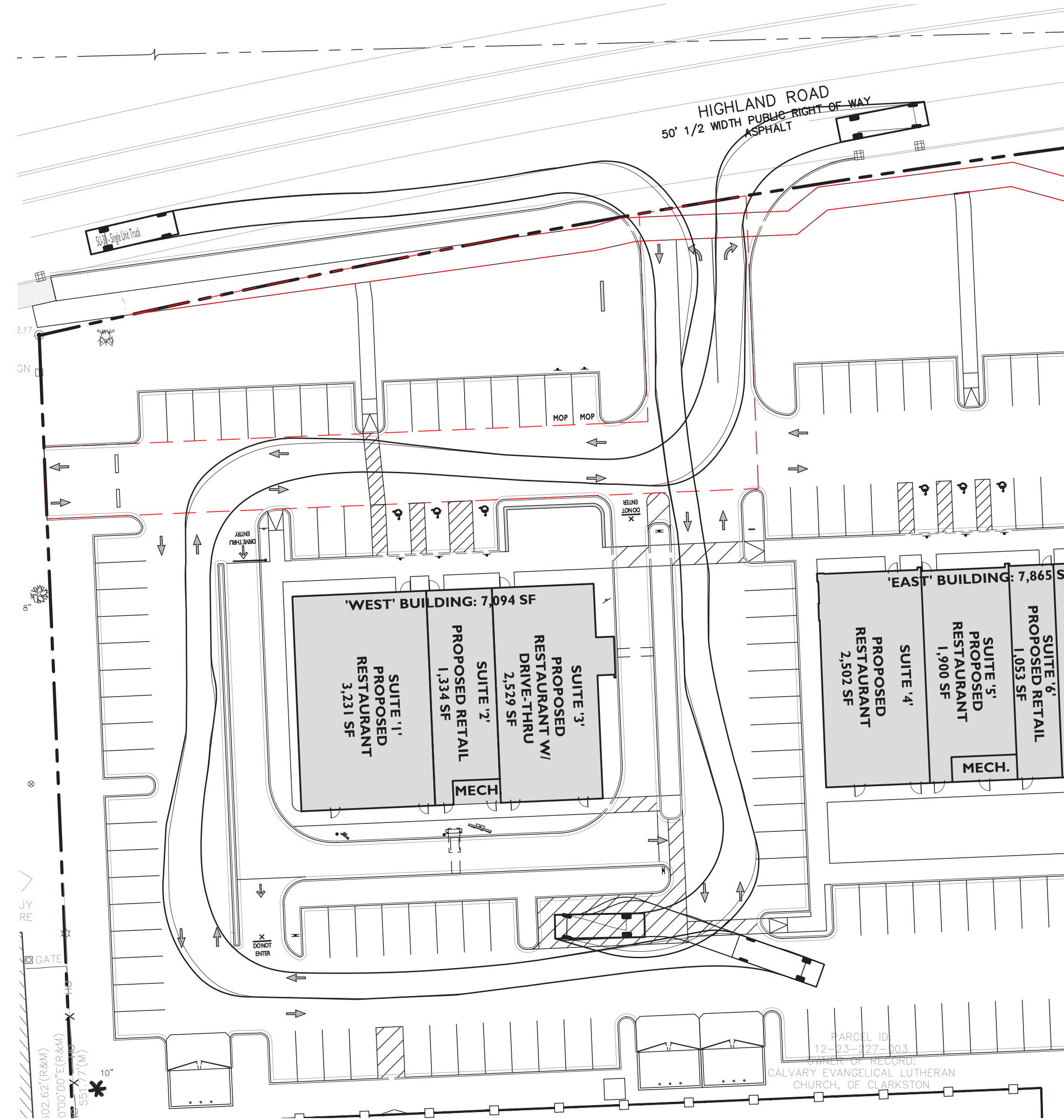




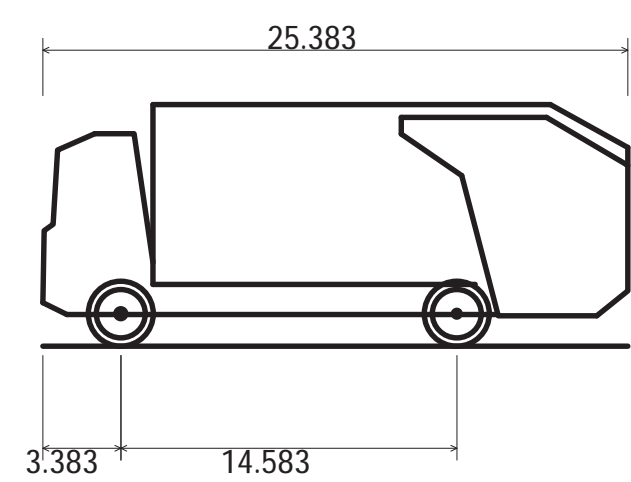




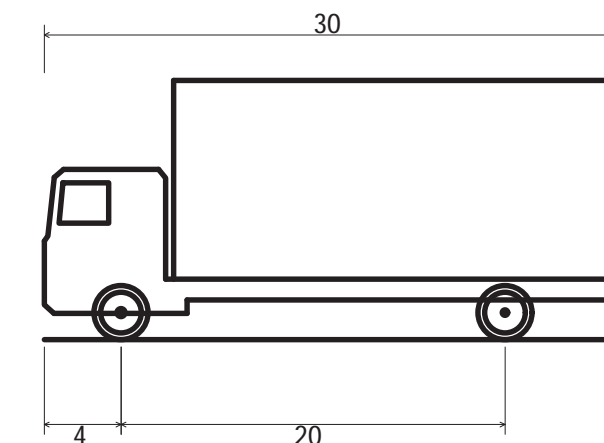
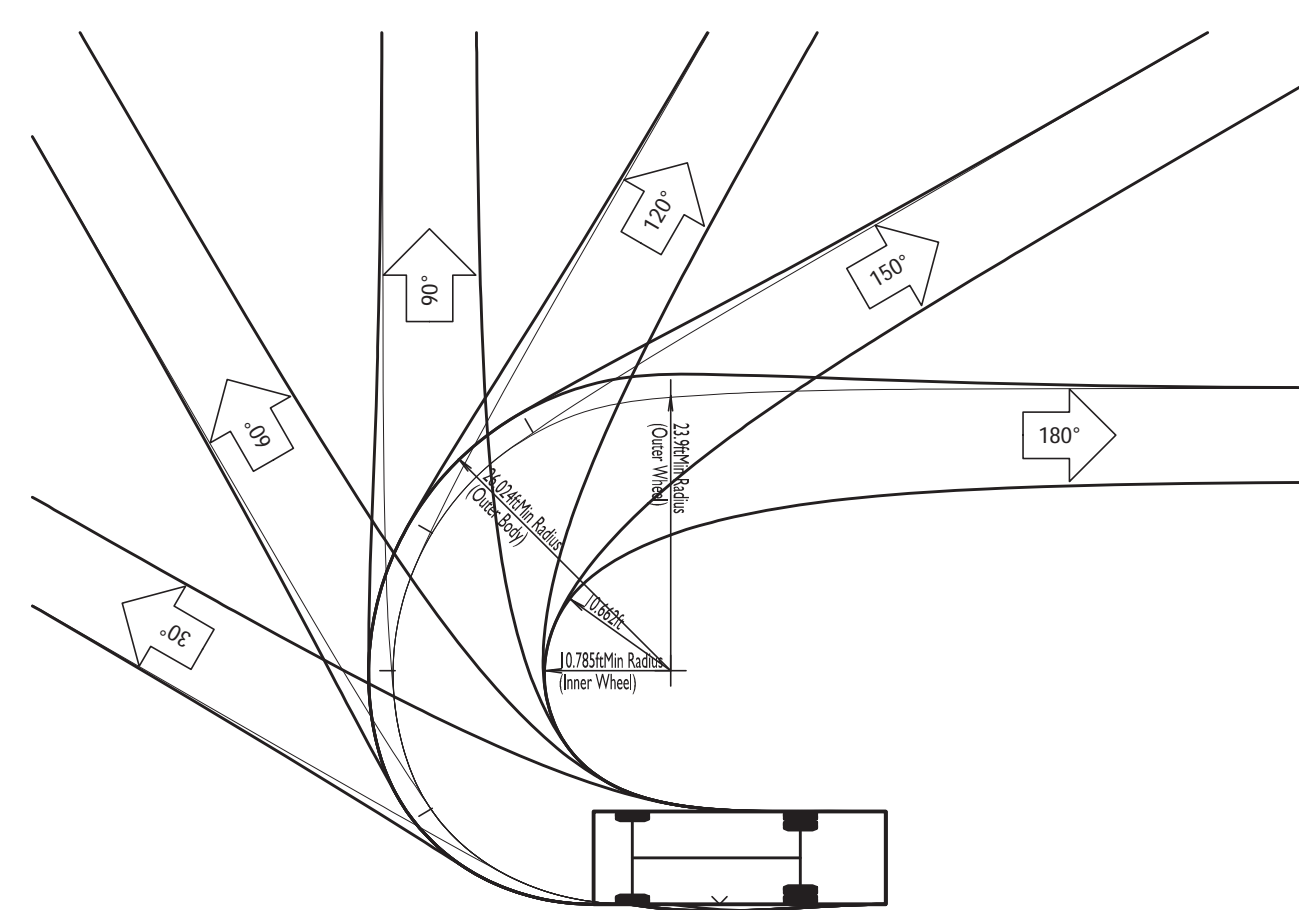
REFUSE VEHICLE TURN ANALYSIS



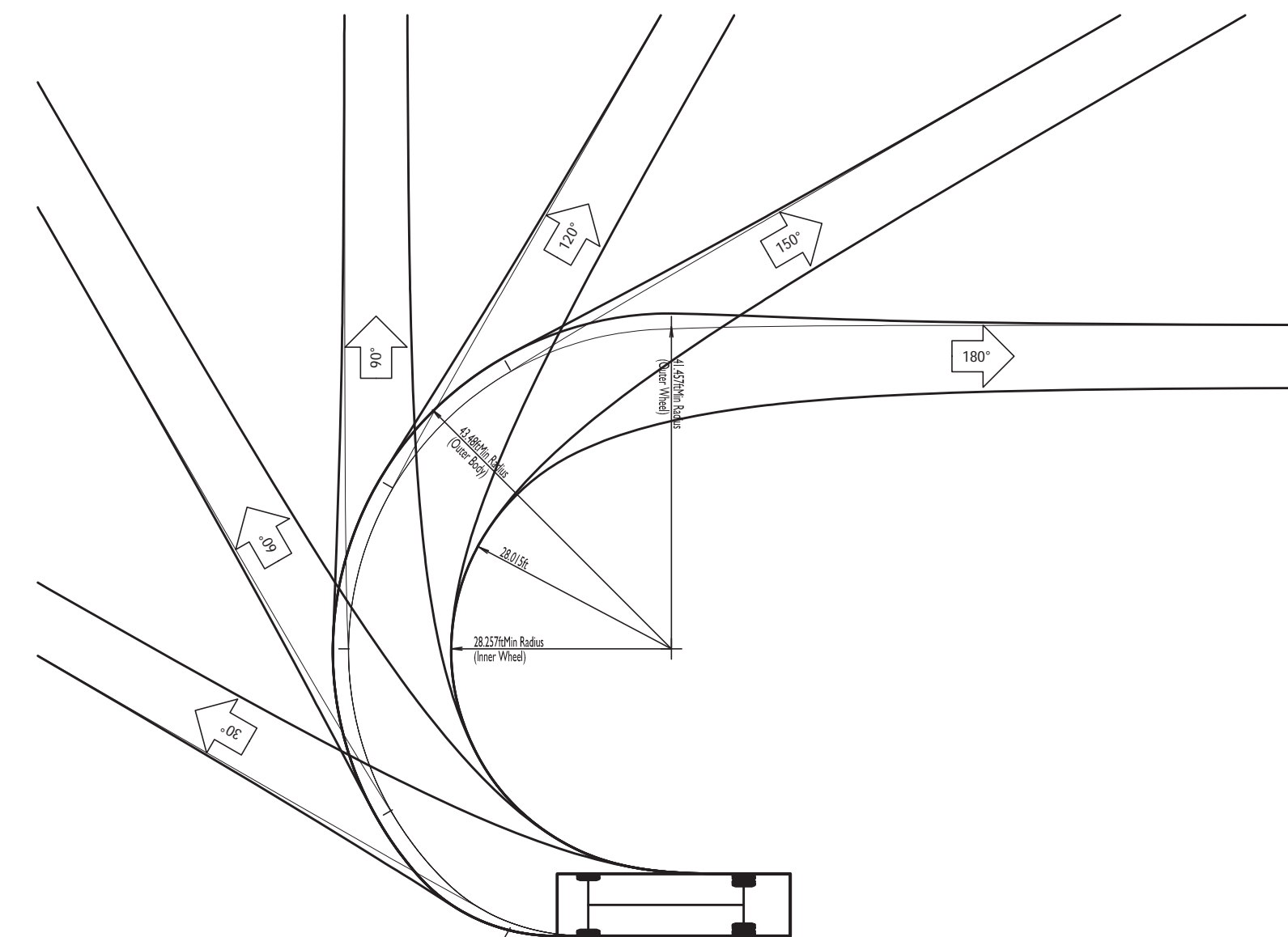
LOADING VEHICLE TURN ANALYSIS



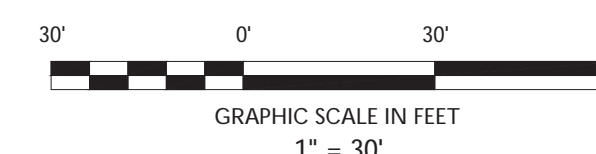
Hino 268A J + Wayne Royal GT12 Refuse Truck  
 Overall Length 25.383ft  
 Overall Width 8.042ft  
 Overall Body Height 10.488ft  
 Min Body Ground Clearance 1.318ft  
 Track Width 8.042ft  
 Lock-to-lock time 6.00s  
 Curb to Curb Turning Radius 23.900ft



SU-30 - Single Unit Truck  
 Overall Length 30.000ft  
 Overall Width 8.000ft  
 Overall Body Height 13.500ft  
 Min Body Ground Clearance 1.367ft  
 Track Width 8.000ft  
 Lock-to-lock time 5.00s  
 Max Steering Angle (Virtual) 31.80°



VEHICLE PROFILE AND TURN TEMPLATES  
 NOT TO SCALE



ISSUE	DATE	BY	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION



Birmingham, MI • Rutherford, NJ • New York, NY  
 Boston, MA • Princeton, NJ • Tampa, FL  
 www.stonefielddesign.com  
 555 S Old Woodward Suite 12L Birmingham, MI 48009  
 Phone 248.247.1115

SITE DEVELOPMENT PLANS  
**9101 HIGHLAND ROAD**  
 PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003  
 9101 HIGHLAND ROAD  
 WHITE LAKE TOWNSHIP  
 OAKLAND COUNTY, MICHIGAN



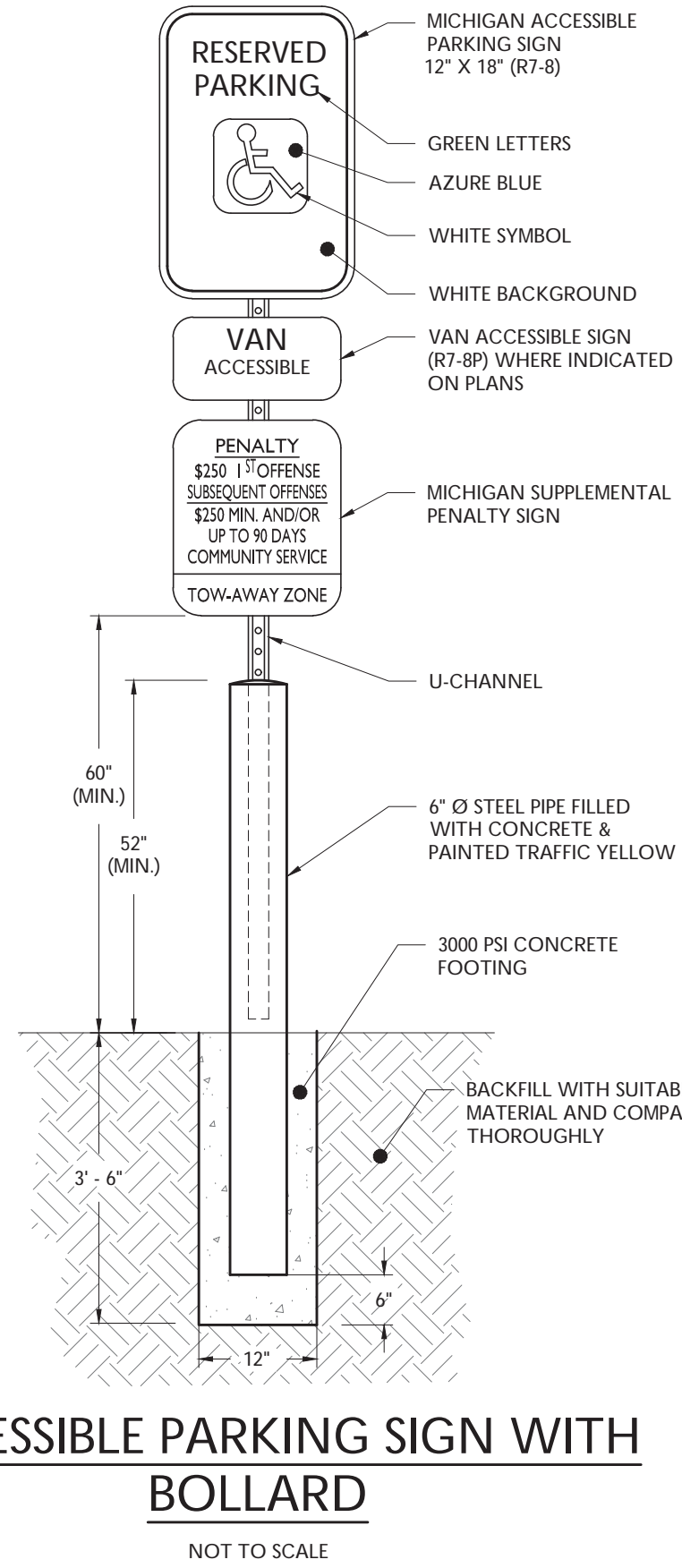
SCALE: 1" = 30' PROJECT ID: DET-230229

TITLE:  
**COMMERCIAL TRUCK TURNING ANALYSIS**

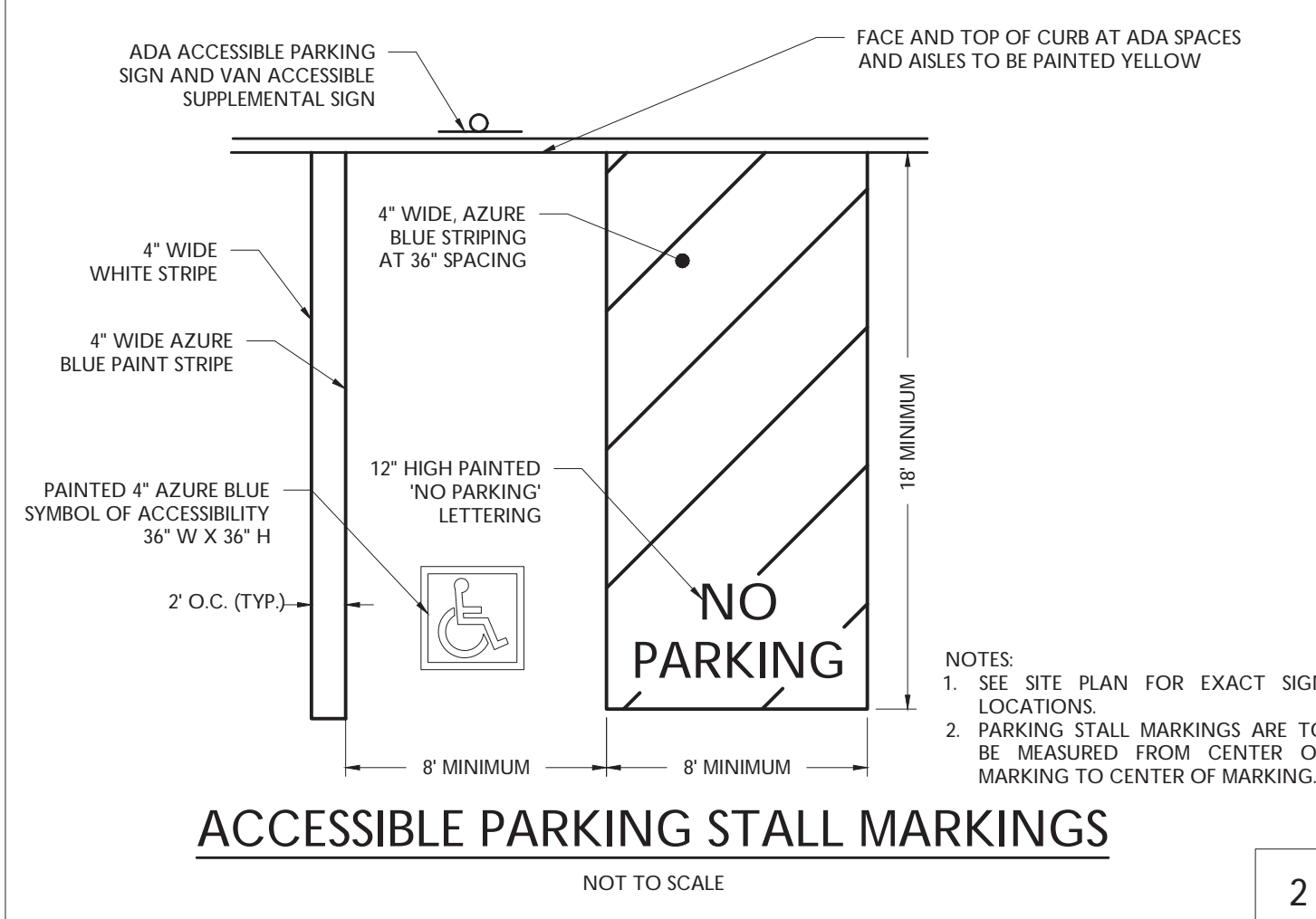
DRAWING:

**C-11**

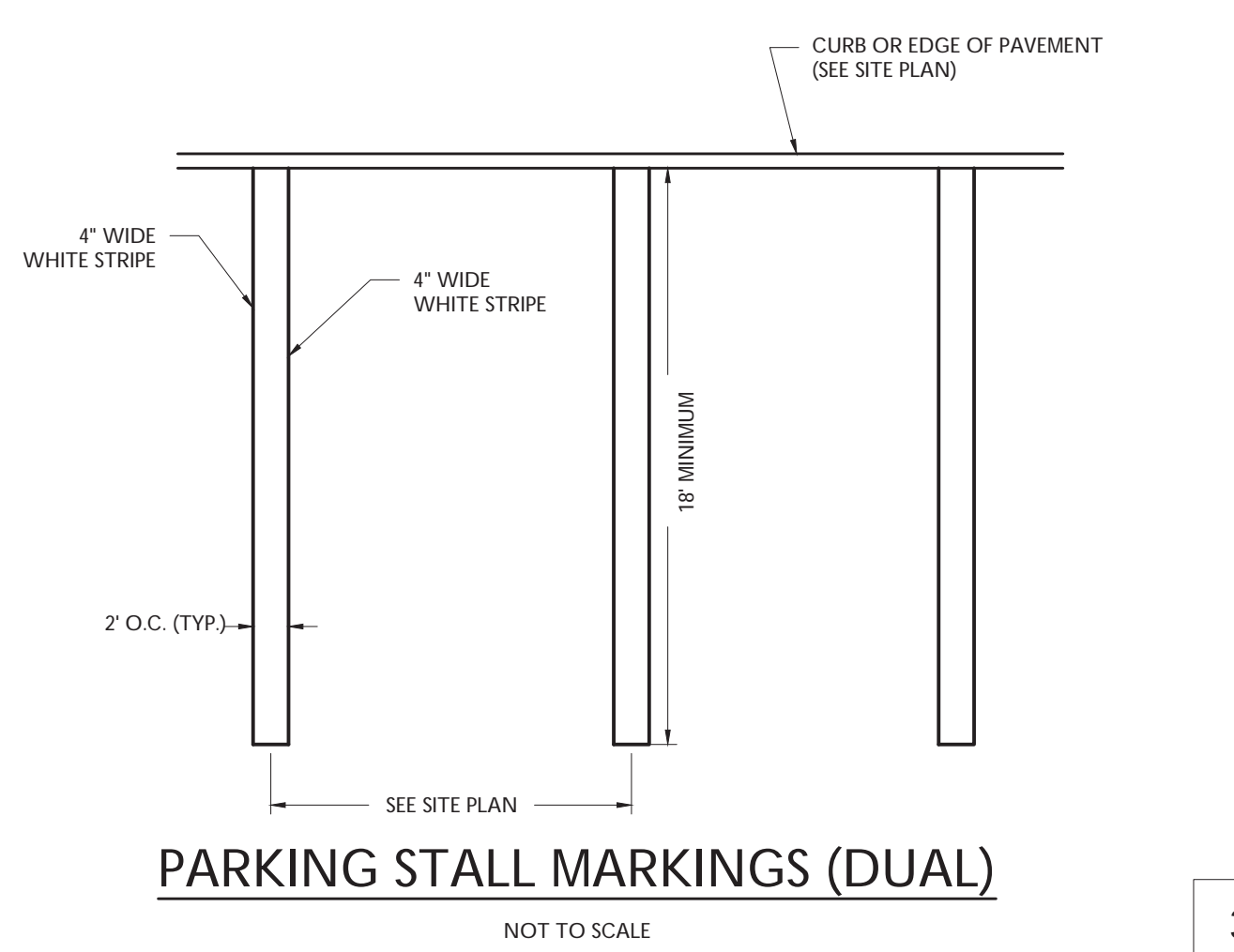




**ACCESSIBLE PARKING SIGN WITH BOLLARD**  
NOT TO SCALE

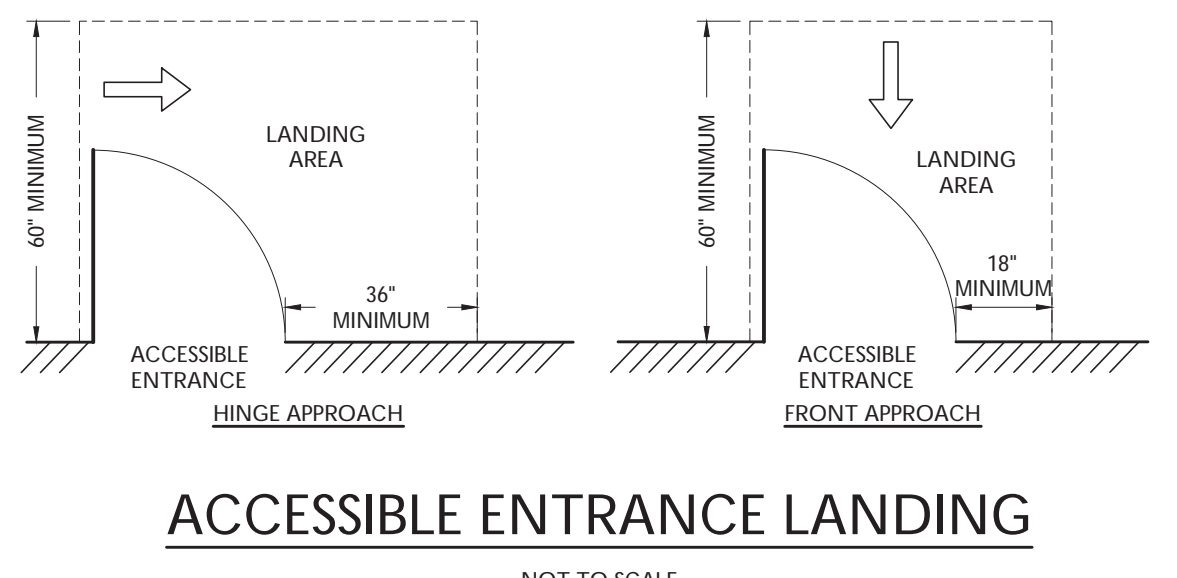


**ACCESSIBLE PARKING STALL MARKINGS**  
NOT TO SCALE



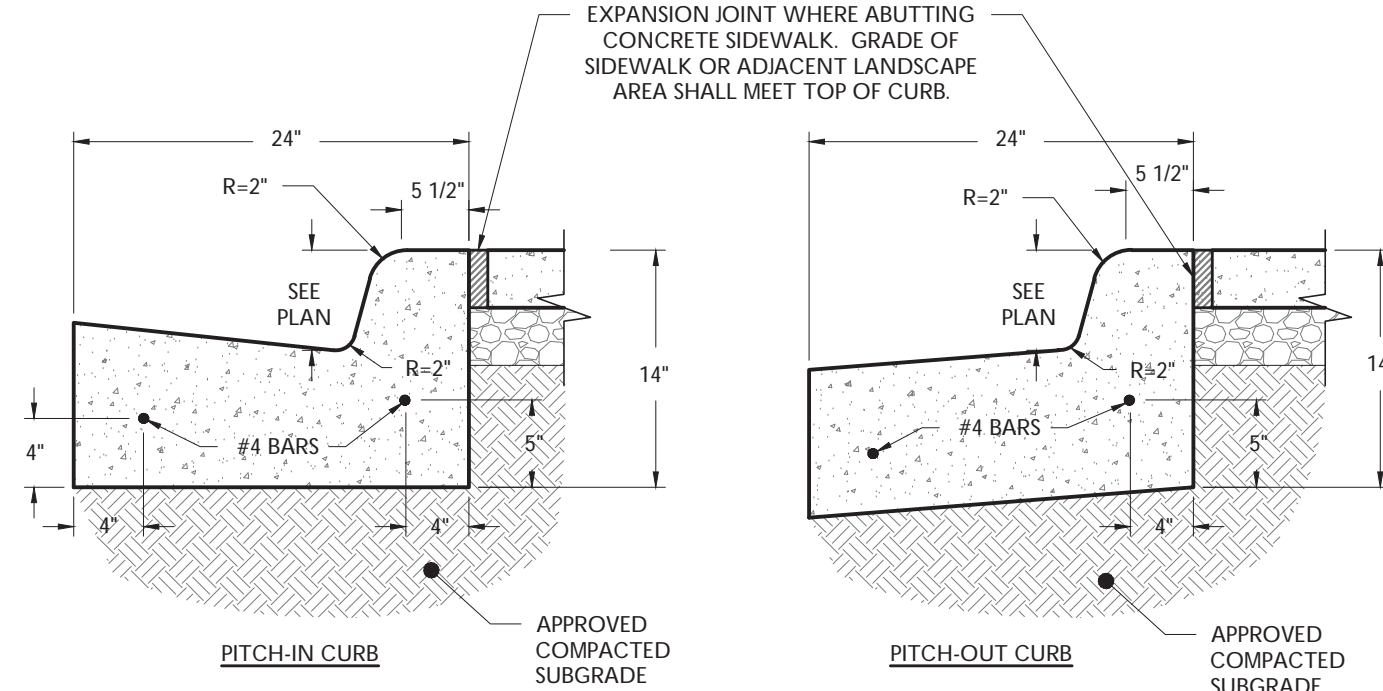
**PARKING STALL MARKINGS (DUAL)**  
NOT TO SCALE

- PAVEMENT STRIPING & MARKINGS NOTES:**
1. ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
  2. ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
  3. PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
  4. UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
  5. UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.



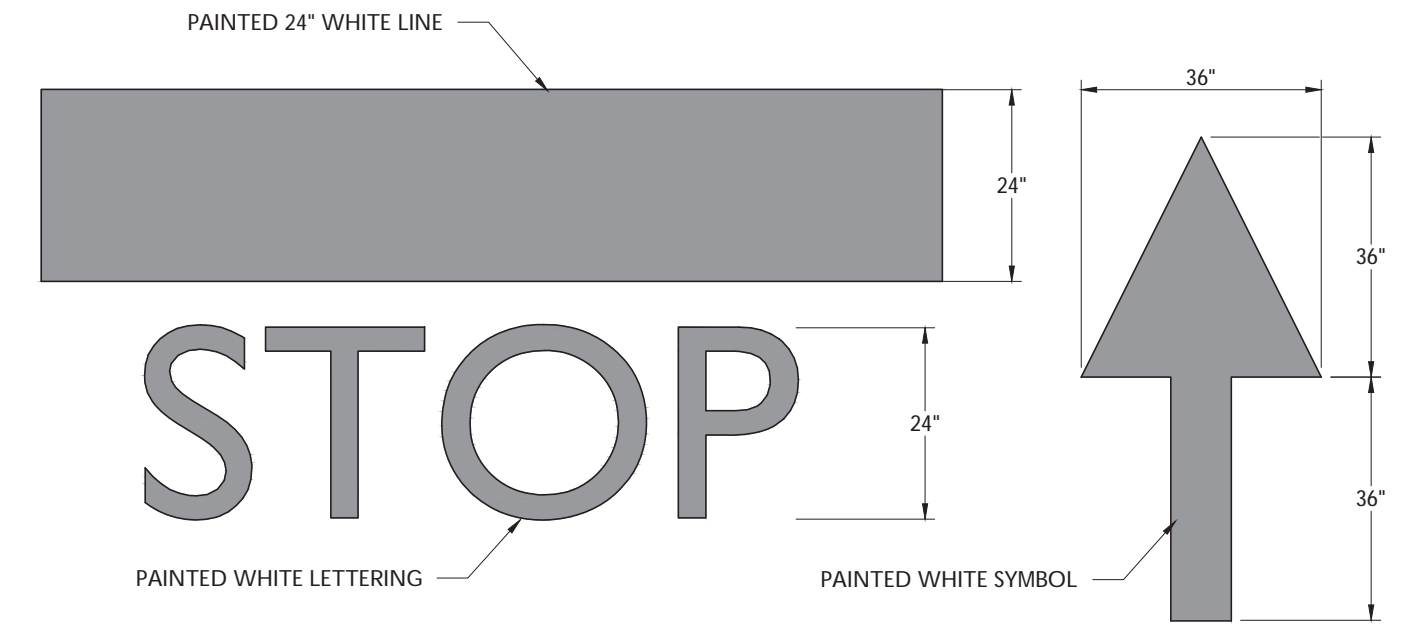
**ACCESSIBLE ENTRANCE LANDING**  
NOT TO SCALE

- NOTES:**
1. MAXIMUM SLOPE ON LANDING SHALL BE 1:50 IN ALL DIRECTIONS.
  2. DIMENSIONS SHOWN HERE ARE THE MINIMUM DIMENSIONS REQUIRED FOR AN ADA COMPLIANT LANDING AT THE ACCESSIBLE ENTRANCE. REFER TO SITE PLAN FOR SITE SPECIFIC DIMENSIONS THAT MAY SPECIFY A LARGER LANDING AREA.
  3. CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE CONSTRUCTION IF THE ACCESSIBLE ENTRANCE ON SITE DOES NOT MATCH THE SCENARIO SHOWN ABOVE.

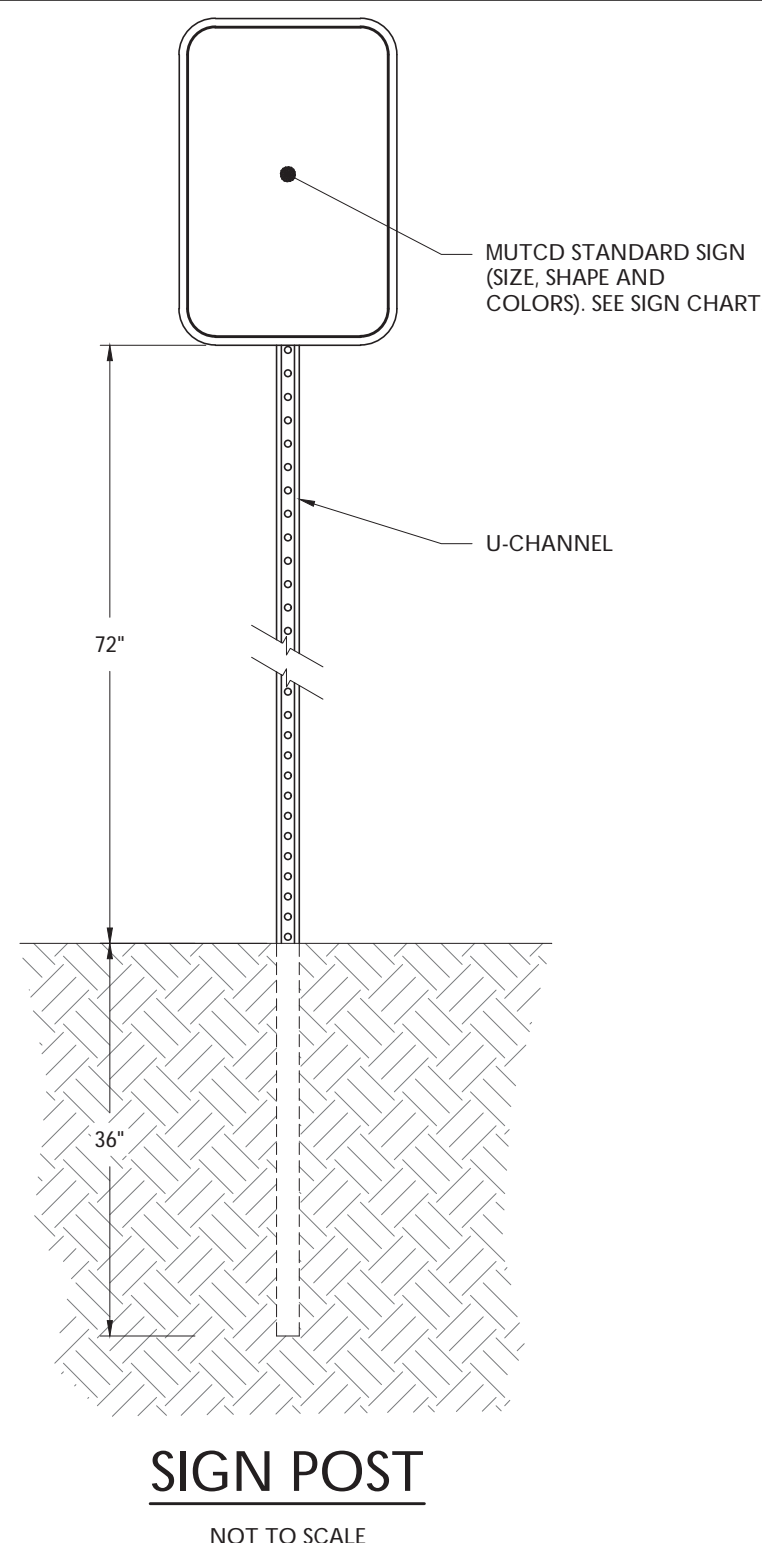


**CONCRETE CURB AND GUTTER DETAIL (ON-SITE)**  
NOT TO SCALE

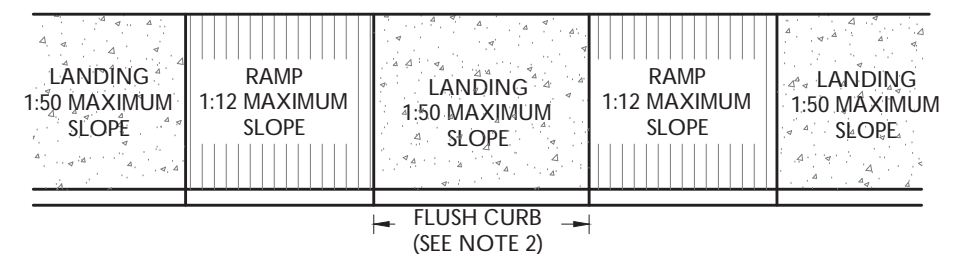
- NOTES:**
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
  2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED 1/2" FROM SURFACE.
  3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
  4. 14" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.



**STOP BAR & ARROW**  
NOT TO SCALE

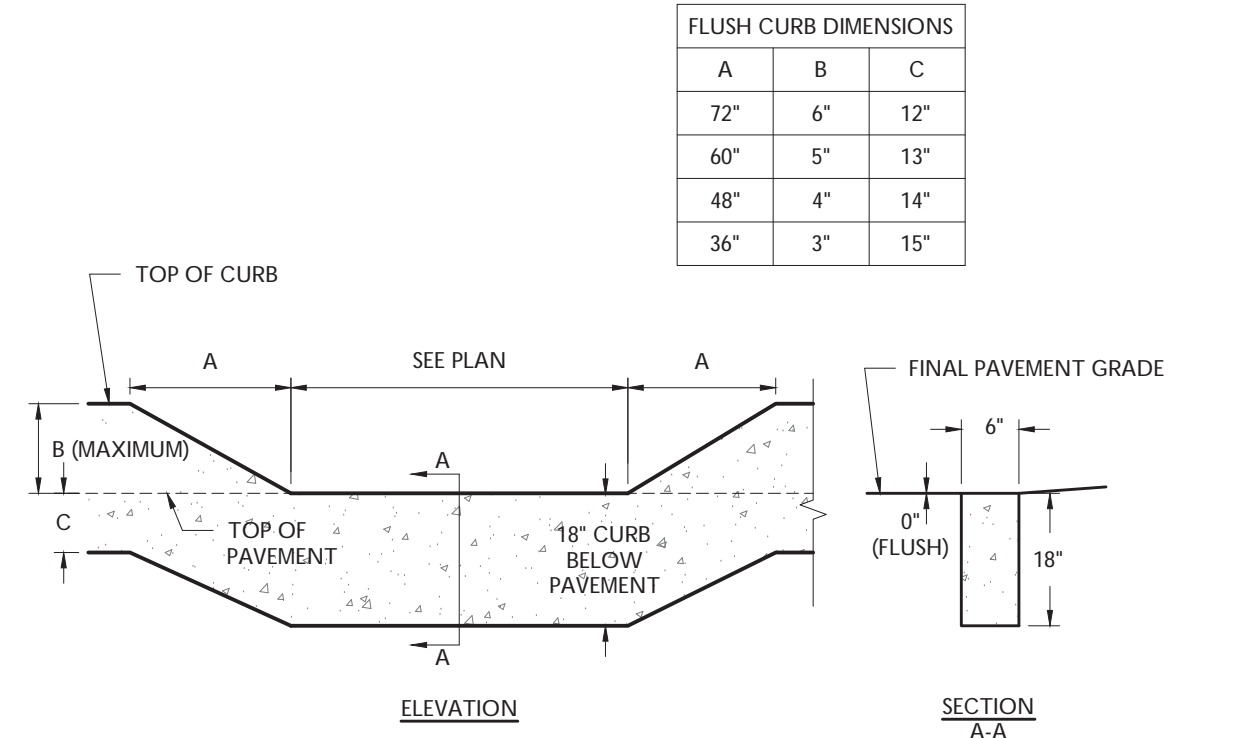


**SIGN POST**  
NOT TO SCALE

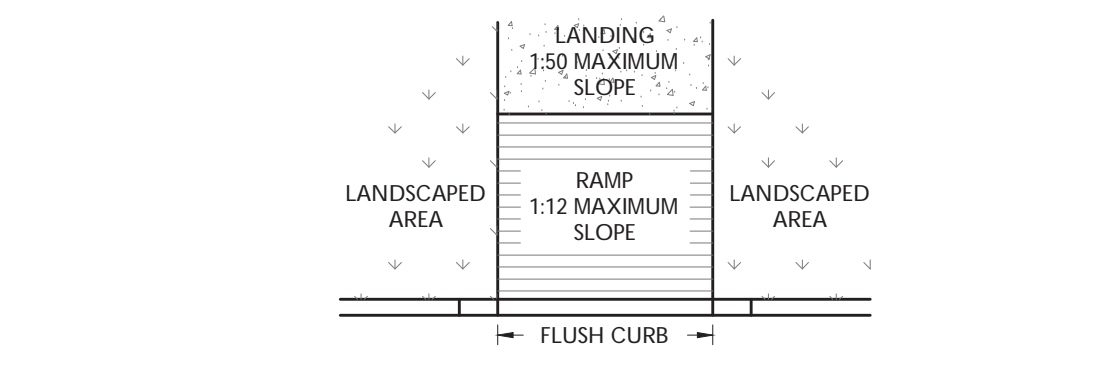


**TRANSITION RAMP DETAIL**  
NOT TO SCALE

- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
  2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
  3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.

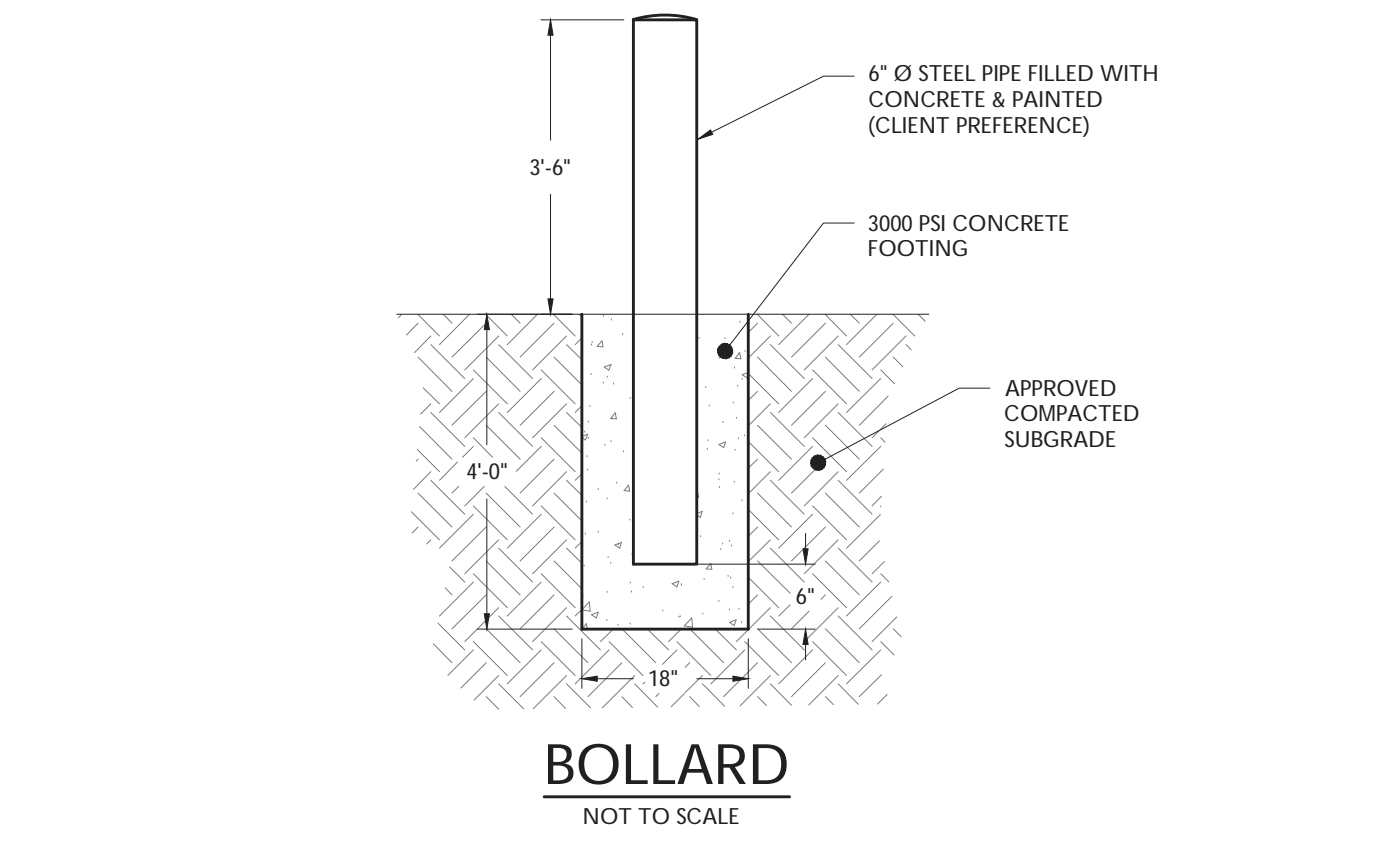


**FLUSH CURB**  
NOT TO SCALE

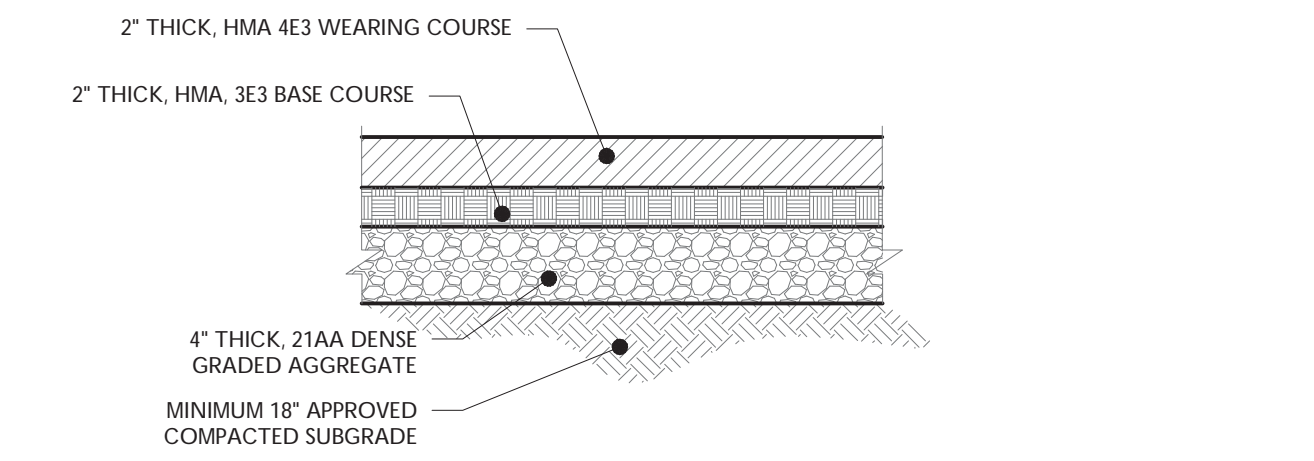


**CURB RAMP DETAIL**  
NOT TO SCALE

- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
  2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
  3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.



**BOLLARD**  
NOT TO SCALE



**ASPHALT WALKWAY DETAIL (FOR USE WITHIN MDOT ROW)**  
NOT TO SCALE

- NOTES:**
1. HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO THE MICHIGAN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

M.U.T.C.D. NUMBER	TEXT	COLOR LEGEND	BACKGROUND	SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
STOP SIGN (R1-1)		WHITE	RED	36"x36"	GROUND
DO NOT ENTER (R5-1)		RED	WHITE	30"x30"	GROUND

**SIGN DATA TABLE**  
NOT TO SCALE

- NOTE:**
1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) EXCEPT AS NOTED.
  2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.

REVISION	DATE	BY	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

NOT APPROVED FOR CONSTRUCTION

**STONEFIELD**  
engineering & design

Birmingham, MI • Rutherford, NJ • New York, NY  
Boston, MA • Princeton, NJ • Tampa, FL  
www.stonefielddesign.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone 248.247.1115

**9101 HIGHLAND ROAD**  
PROPOSED COMMERCIAL DEVELOPMENT

PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN

STATE OF MICHIGAN  
JONATHAN REID  
COOKSEY ENGINEER  
PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

SCALE: AS SHOWN PROJECT ID: DET-230229  
TITLE: CONSTRUCTION DETAILS  
DRAWING: C-12

NOT TO SCALE: 12/20/2024: JRP: 10 INVESTMENT: 9101 HIGHLAND ROAD, WHITE LAKE, MICHIGAN: 07/22/2024: 12:23:227-003







# Mirada Medium (MRM) Outdoor LED Area Light

## MRM-LED-30L-SIL-FT-30-70CRI-L-IES MRM-LED-18L-SIL-FT-30-70CRI-IES

OVERVIEW	
Lumen Package	7000 - 48,000
Wattage Range	55 - 401
Efficiency Range (LPW)	93 - 148
Weight (lbs)	30 (3.6)

**QUICK LINKS**

Ordering Guide Performance Photometrics Dimensions

**FEATURES & SPECIFICATIONS**

**Construction**

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 30 lbs in carton.

**Optical System**

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero glare.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak Intensity at 60nm.
- Minimum CRI of 70.
- Integral luminaire (L) and house-side shield (H) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

**Electrical**

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (0% - 100%) standard.
- Standard Universal Voltage (20-277 Vac) Input 50/60 Hz or optional High Voltage (247-480 Vac).
- L80 Calculated Life: >100K Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion <20%.
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor: >90.
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

**Controls**

- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 9 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (See page 9 for more details).

**Installation**

- A single fastener secures the electrical door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

**Warranty**

- LSI LED Fixtures carry a 5-year warranty.

**Listings**

- Listed to UL 1598 and UL 8750.
- Meets Bureau of Energy Efficiency (DOE) requirements.
- ICDA compliant, with 3000K color temperature selection.
- Suitable for wet Locations.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- UL listed for ANSI C136.3 high vibration applications are qualified.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi.com  
 (513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice. SHEET 1 OF 2

# Mirada Medium Outdoor LED Area Light

Back to Quick Links

Typical Order Example: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Item	Part Number	Description	Quantity	Unit Price	Total Price
MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL	MRM-LED-36L-SIL-FT-30-70CRI-L-IES	Mirada Medium LED Area Light	1	\$1,200.00	\$1,200.00

Color Temp	Color Rendering	Finish	Options
50-5000 KCT	TRCR-1000	BRZ - Bronze	Blank - None
40-4000 KCT	TRCR-1000	BLK - Black	HL - Integral House-side Shield
30-3000 KCT	TRCR-1000	GRY - Gray	IL - Integral Lower (Sharp Spot Light Control)

**Accessories**

Part Number	Description	Order Number
PC100	Universal Mounting Bracket	684103.0
PC100-071	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-072	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-073	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0

**Mounting Accessories**

Part Number	Description	Order Number
PC100-071	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-072	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-073	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0

**Fixing Accessories**

Part Number	Description	Order Number
PC100-071	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-072	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0
PC100-073	Universal Mounting Bracket (7' - 2.5" Truss)	684103.0

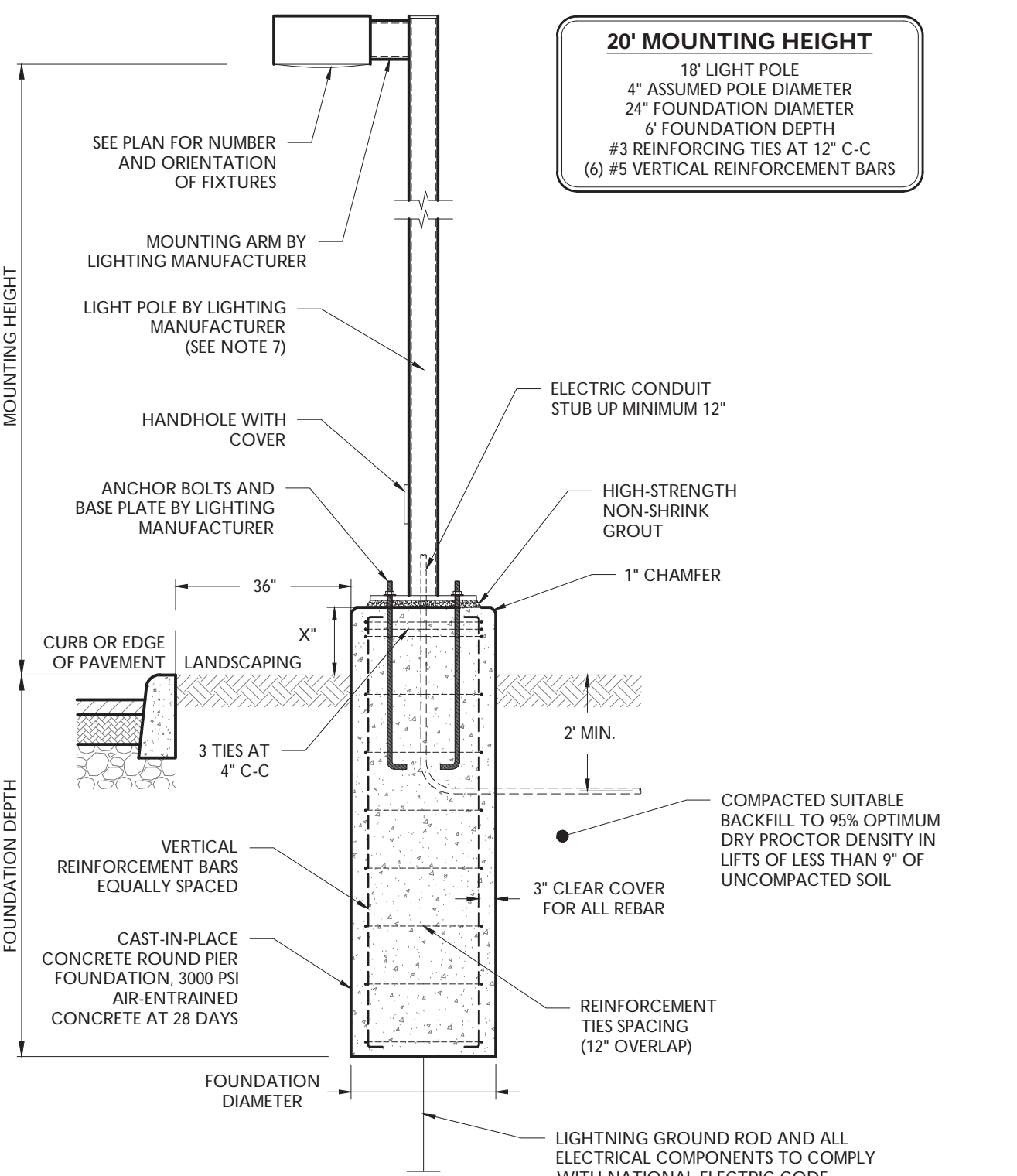
**Footnotes**

- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Not available with 50k distribution.
- Consult factory for availability.
- Not available in NY.
- IP66 is field configurable via the LSI app that can be downloaded from your smartphone's mobile app store.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • www.lsi.com  
 (513) 372-3200 • ©2020 LSI Industries Inc. All Rights Reserved. Specifications subject to change without notice. SHEET 1 OF 2

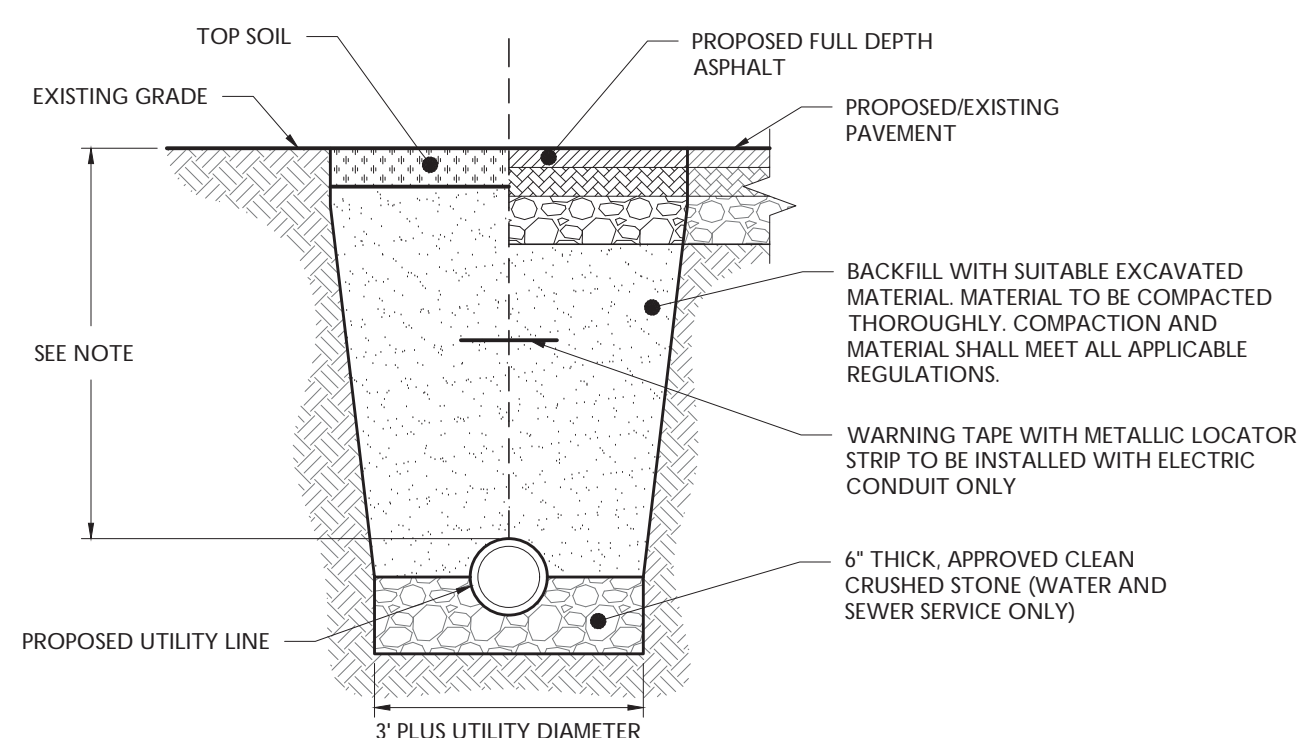
# SPECIFICATIONS FOR FIXTURES 'A' 'B' 'C'

NOT TO SCALE



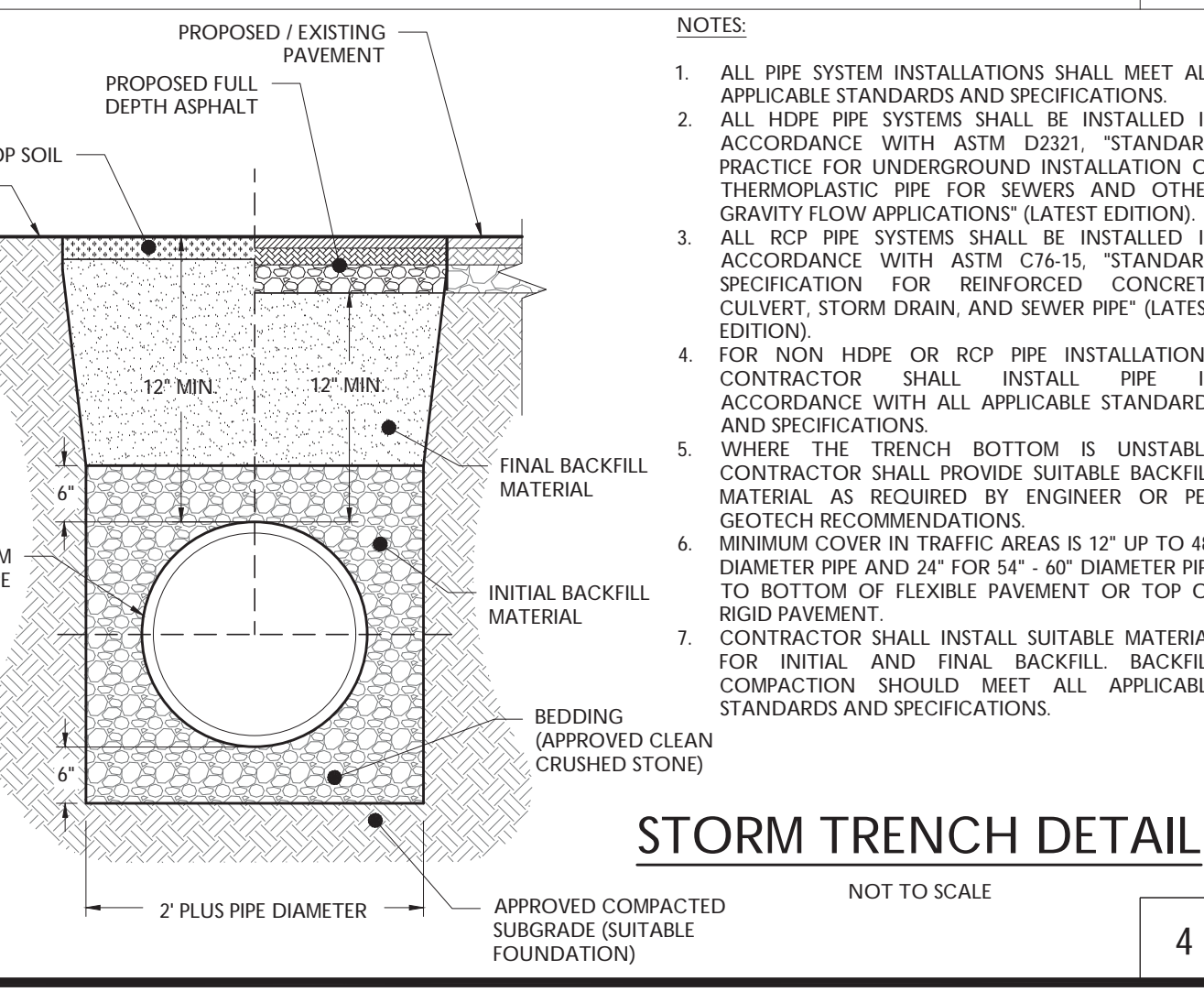
## LIGHT POLE INSTALLATION DETAIL

- NOT TO SCALE
- NOTES:
- MINIMUM SOIL BEARING PRESSURE OF 1500 PSF. SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
  - CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
  - ALL REBAR TO BE NEW GRADE 40 STEEL.
  - PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
  - CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
  - CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
  - POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSIS/A 7-9.3.
  - POUR TO BE TERMINATED AT A FORM.
  - WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
  - CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.



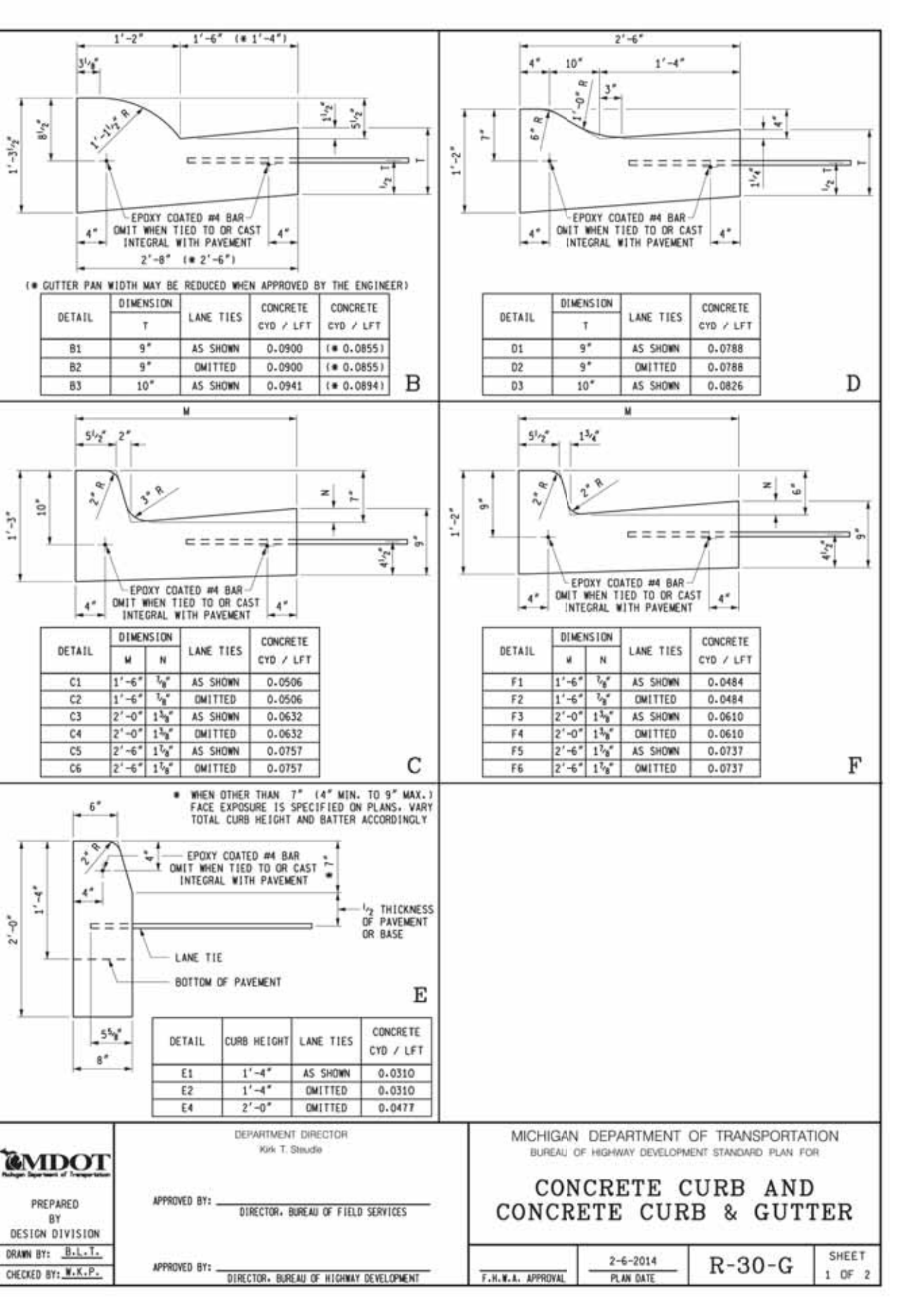
## UTILITY TRENCH

- NOT TO SCALE
- NOTES:
- MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
  - ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
  - GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
  - SEWER SERVICE - 36" MINIMUM
  - WATER SERVICE - 48" MINIMUM



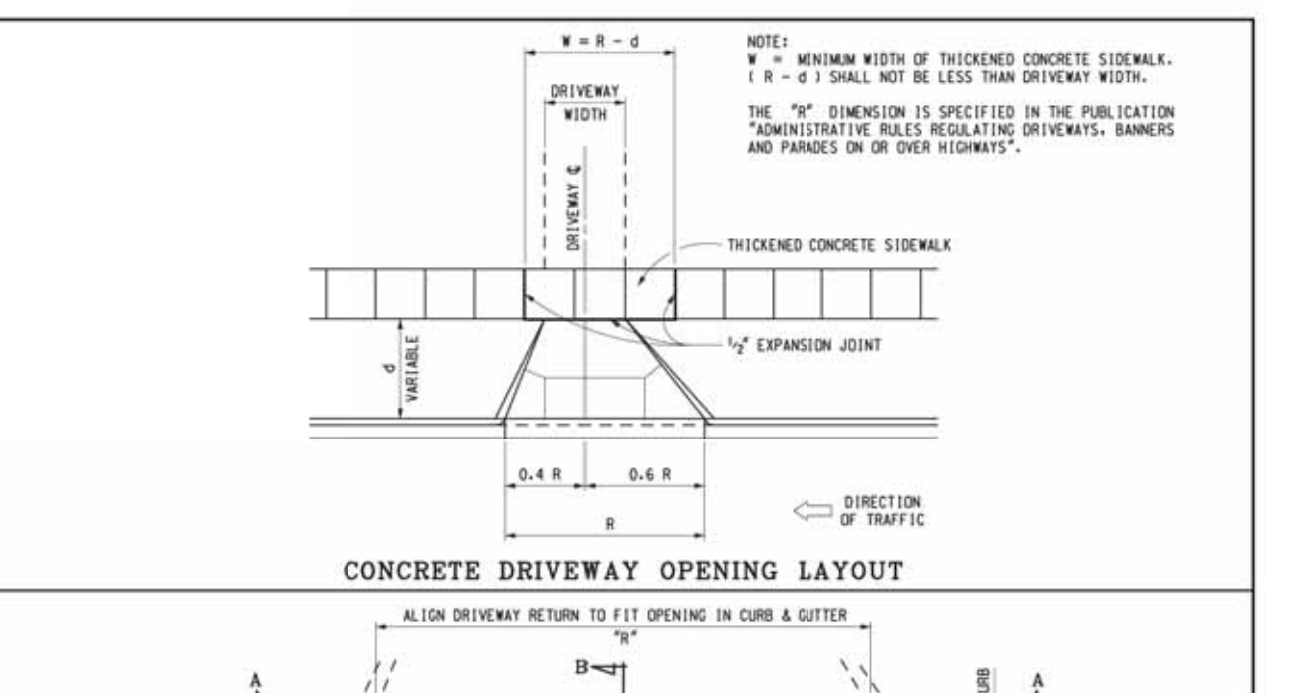
## STORM TRENCH DETAIL

NOT TO SCALE

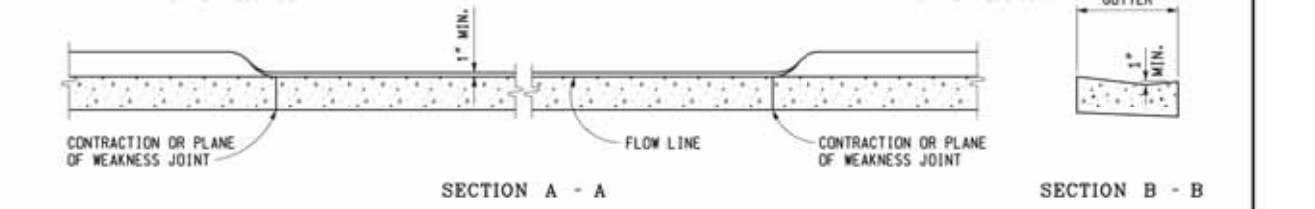


## MDOT CONCRETE CURB & GUTTER DETAILS

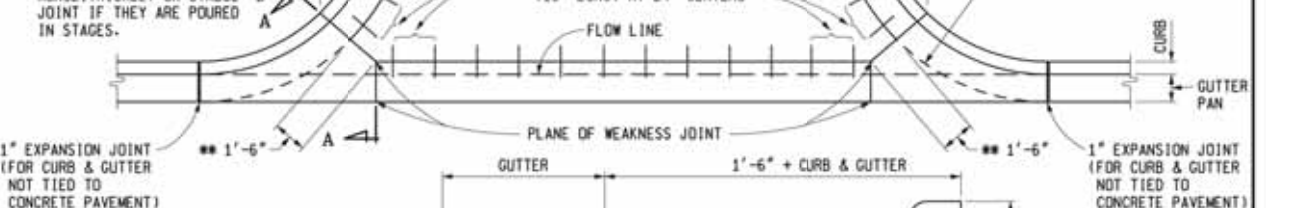
NOT TO SCALE



## CONCRETE DRIVEWAY OPENING LAYOUT



## CONCRETE DRIVEWAY OPENING, DETAIL L



## CONCRETE DRIVEWAY OPENING, DETAIL M

NOTES:

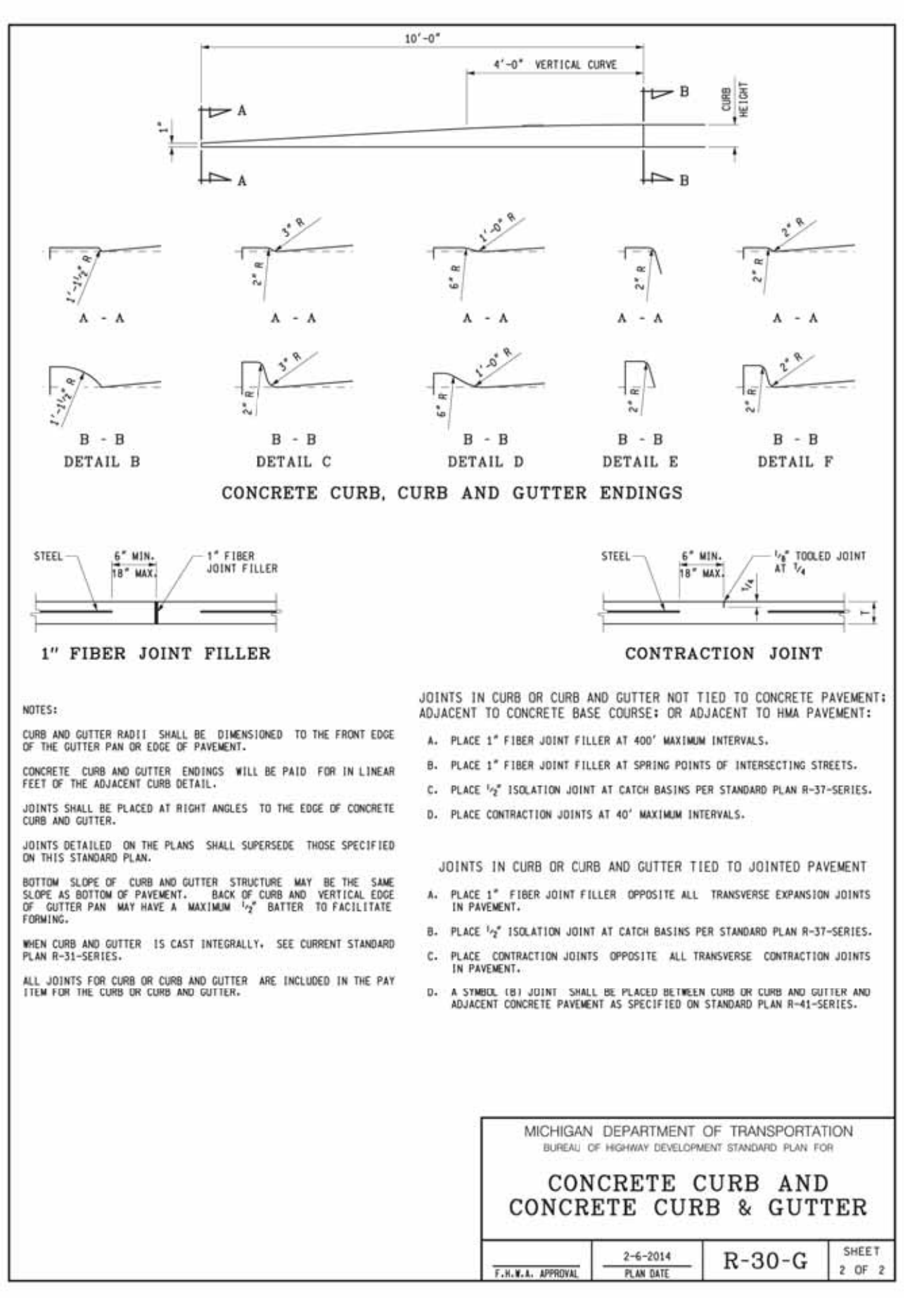
- TO FRONT EDGE OF GUTTER PAN.
- USE "M" JOINT IF THE DRIVEWAY AND CURB ARE POURED MONOLITHICALLY. USE "L" JOINT IF THEY ARE POURED IN STAGES.
- 1" EXPANSION JOINT FROM CURB & GUTTER NOT TIED TO CONCRETE PAVEMENT.
- REINFORCEMENT AS IN ADJACENT CURB & GUTTER.

MINIMUM COVER IN TRAFFIC AREAS IS 12" UP TO 48" DIAMETER PIPE AND 24" FOR 54" - 60" DIAMETER PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.

CONTRACTOR SHALL INSTALL SUITABLE MATERIAL FOR INITIAL AND FINAL BACKFILL. BACKFILL COMPACTED SHOULD MEET ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

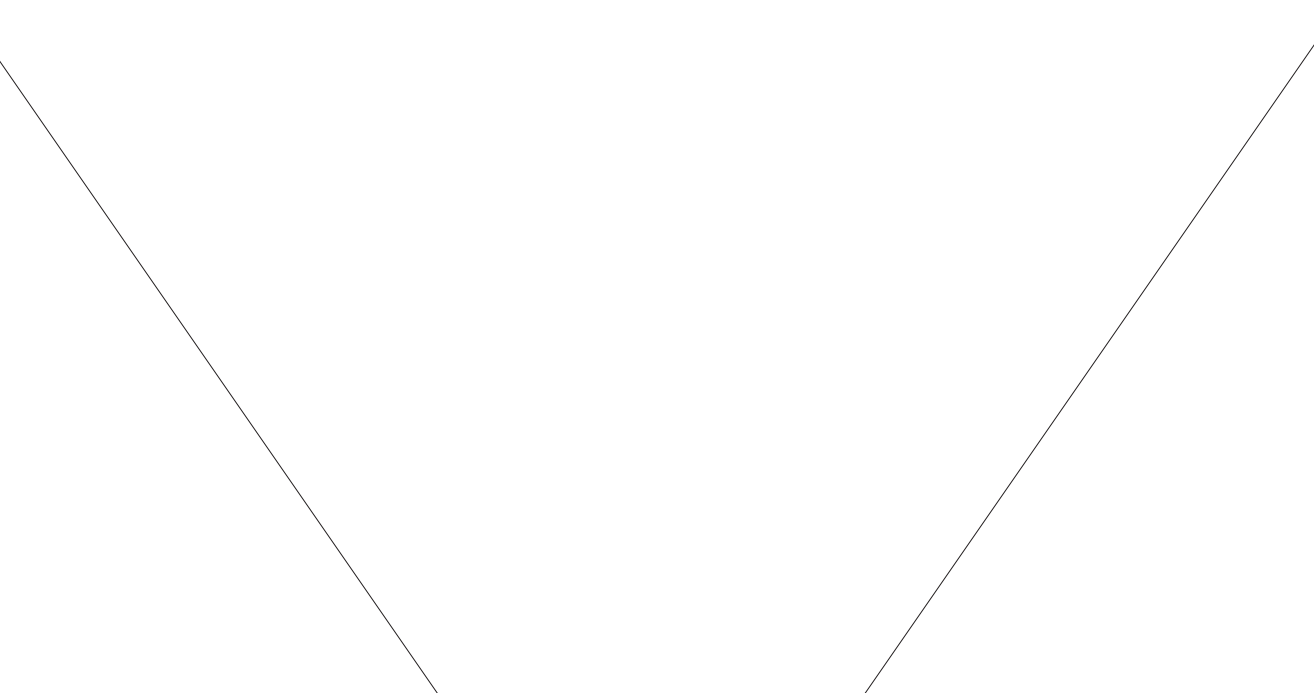
MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR  
**DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK**

3-30-2014 1-1-2014 R-29-1 SHEET 2 OF 4  
 T.J.K.K. APPROVAL PLAN DATE

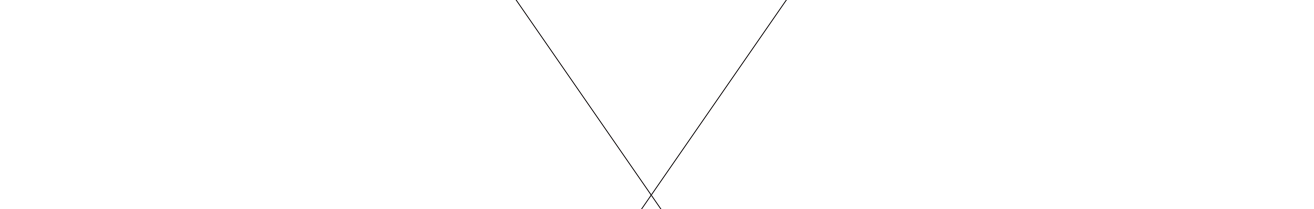


## MDOT CONCRETE CURB & GUTTER DETAILS

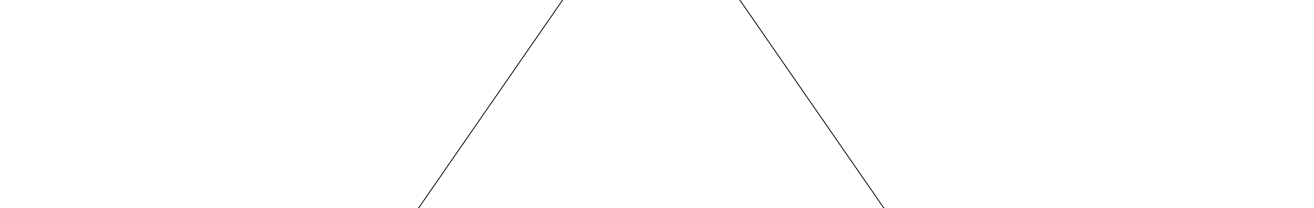
NOT TO SCALE



## CONCRETE DRIVEWAY OPENING LAYOUT



## CONCRETE DRIVEWAY OPENING, DETAIL L



## CONCRETE DRIVEWAY OPENING, DETAIL M

NOTES:

- TO FRONT EDGE OF GUTTER PAN.
- USE "M" JOINT IF THE DRIVEWAY AND CURB ARE POURED MONOLITHICALLY. USE "L" JOINT IF THEY ARE POURED IN STAGES.
- 1" EXPANSION JOINT FROM CURB & GUTTER NOT TIED TO CONCRETE PAVEMENT.
- REINFORCEMENT AS IN ADJACENT CURB & GUTTER.

MINIMUM COVER IN TRAFFIC AREAS IS 12" UP TO 48" DIAMETER PIPE AND 24" FOR 54" - 60" DIAMETER PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.

CONTRACTOR SHALL INSTALL SUITABLE MATERIAL FOR INITIAL AND FINAL BACKFILL. BACKFILL COMPACTED SHOULD MEET ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR  
**DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK**

3-30-2014 1-1-2014 R-29-1 SHEET 2 OF 4  
 T.J.K.K. APPROVAL PLAN DATE

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
 engineering & design

Birmingham, MI • Rutherford, NJ • New York, NY  
 Boston, MA • Princeton, NJ • Tampa, FL  
 www.stonefielddesign.com

555 S Old Woodward Suite 12L Birmingham, MI 48009  
 Phone 248.247.1115

REVISIONS:

NO.	DATE	DESCRIPTION
6	12/20/2024	EM REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JR FOR SITE PLAN REVIEW
3	04/22/2024	JR/CJP SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM FOR PRELIMINARY PDOT REVIEW
1	1/19/2023	JR/CJP SUBMISSION FOR REZONING

**9101 HIGHLAND ROAD**

**PROPOSED COMMERCIAL DEVELOPMENT**

STATE OF MICHIGAN  
 JONATHAN REID  
 COOKSEY  
 ENGINEER  
 PROFESSIONAL ENGINEER  
 LICENSE NO. 94000

PARCEL ID: 12-23-227-003  
 9101 HIGHLAND ROAD  
 WHITE LAKE TOWNSHIP  
 OAKLAND COUNTY, MICHIGAN

**STONEFIELD**  
 engineering & design

SCALE: AS SHOWN PROJECT ID: DET-230219

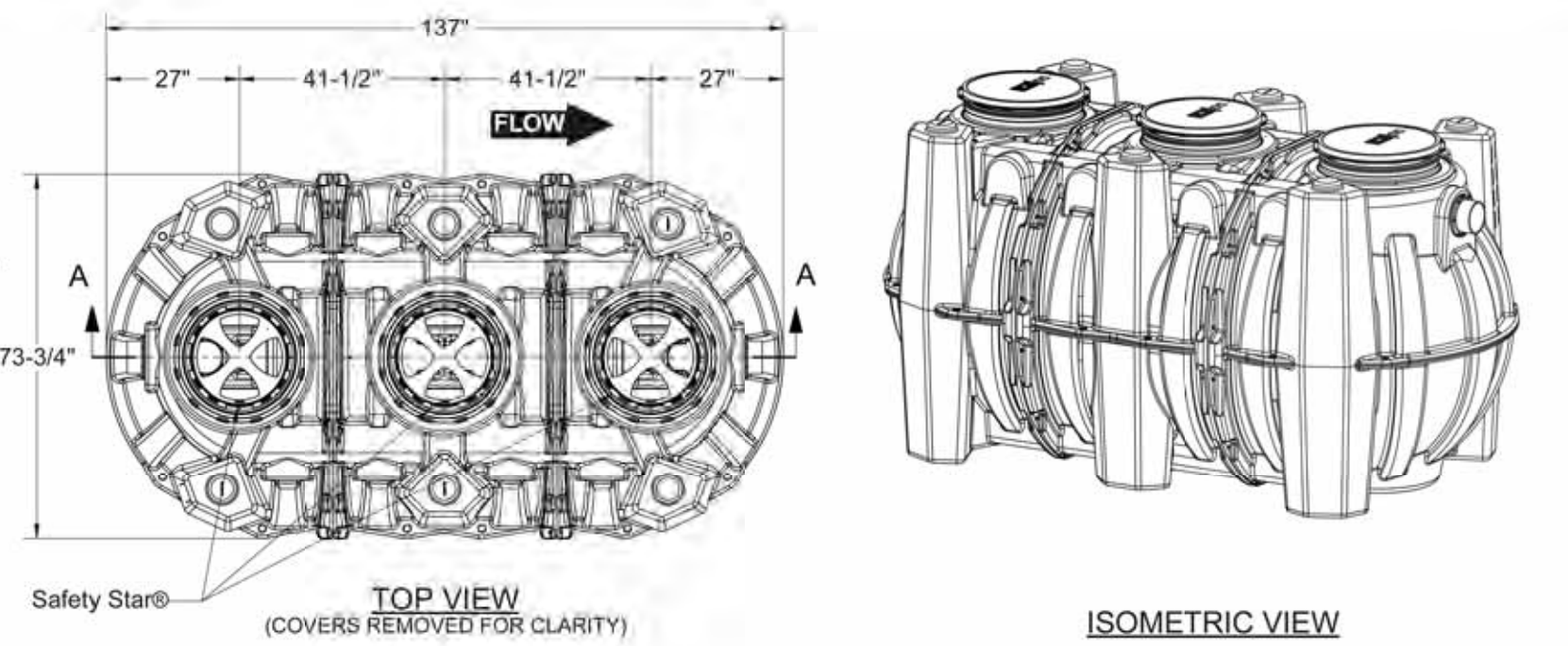
TITLE: CONSTRUCTION DETAILS

DRAWING: C-14



**SPECIFICATIONS**

- Notes:
- 6" plain end inlet/outlet
  - Unit weight - w/ cast iron covers: 1,290 lbs. (for wet weight add 12,525 lbs.)
  - Maximum operating temperature: 150° F continuous
  - Capacities - Liquid: 1,500 gal.  
Grease: 10,061 lbs. (1,379 gal.) @ 100GPM  
Grease: 9,446 lbs. (1,234 gal.) @ 200GPM  
Solids: 318 gal.
  - Satisfies Miami DERM 99% efficiency requirements; retaining the following capacities at 99% efficiency:  
9,897 lbs. (1,356 gal.) @ 100GPM  
8,053 lbs. (1,109 gal.) @ 200GPM
  - For gravity drainage applications only.
  - Do not use for pressure applications.
  - Cover placement allows full access to tank for proper maintenance.
  - Vent not required unless per local code.
  - Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping.
  - Integral air relief / Anti-siphon / Sampling access.
  - Adjustable cover adapters provide up to 4" of additional height.
  - Designed for below-grade, above-grade, indoor or outdoor installations.
  - Safety Star® access restrictor built into each cover adapter, prevents accidental entry to tanks (450 lb rating).

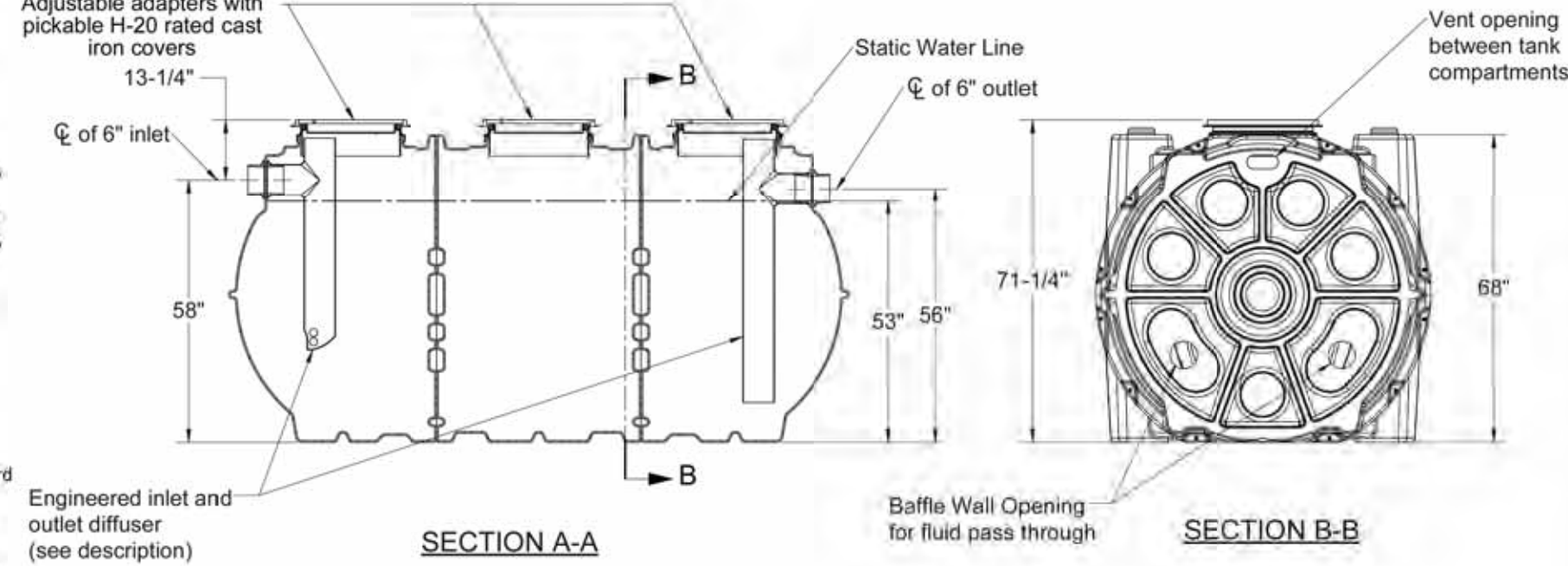


**ENGINEER SPECIFICATION GUIDE**

Schier Great Basin™ grease interceptor model # GB-1500 shall be lifetime guaranteed and made in USA of seamless, molded polyethylene with minimum 7/16" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapter and Safety Star® access restrictor built into each cover adapter. This unit is certified for hydromechanical performance to ASME A112.14.3/CSA B481.1-2022 (Type D) as well as certified to ANSI/CAN/APMO Z1001-2021 for gravity grease interceptors. Flow control not required. Interceptor flow rate shall be 100 GPM or 200 GPM. Interceptor grease capacity shall be 10,061 lbs. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.

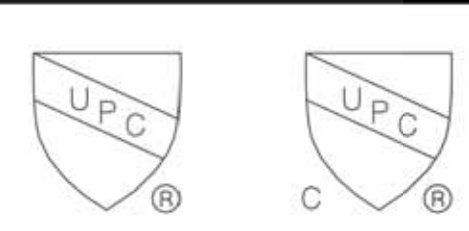
**CERTIFIED PERFORMANCE**  
Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME A112.14.3/CSA B481.1-2022 (Type D) grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.

Satisfies Miami DERM 99% efficiency requirements. Product labels are permanently attached to inside and outside of unit for easy viewing.



**SPECIFICATION SHEET**

<b>MODEL NUMBER:</b> <b>GB-1500</b>	<b>PART NUMBER:</b> 4085-001-01
<b>DESCRIPTION:</b> GREASE INTERCEPTOR 100 GPM / 200 GPM, 6" PLAIN INLET/OUTLET, H-20 RATED PICKABLE CAST IRON COVERS	
<small>PROPRIETARY AND CONFIDENTIAL</small> <small>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SCHIER PRODUCTS. NO REPRODUCTION OR TRANSMISSION IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, IS PERMITTED WITHOUT THE WRITTEN PERMISSION OF SCHIER PRODUCTS.</small>	
<b>DWG BY:</b> T.ASAY	<b>DATE:</b> 12/13/2022
<b>REV:</b> C	<b>ECO:</b> 121423CS



**SCHIER**  
6455 Woodland Dr  
Shawnee, KS 66218  
Tel: 913-951-3300  
Fax: 913-951-3399  
schierproducts.com

**GREASE TRAP SPECIFICATIONS**

1

ISSUE	DATE	BY	DESCRIPTION
6	12/20/2024	EM	REVISED FOR PRELIMINARY SITE PLAN APPROVAL
5	10/17/2024	EM	REVISED PER PRELIMINARY SITE PLAN REVIEW #1
4	07/22/2024	EM/JJP	FOR SITE PLAN REVIEW
3	04/22/2024	JRC/JJP	SUBMISSION FOR REVISED REZONING REQUEST
2	04/15/2024	EM	FOR PRELIMINARY MDOT REVIEW
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
engineering & design

Birmingham, MI • Rutherford, NJ • New York, NY  
Boston, MA • Princeton, NJ • Tampa, FL  
www.stonefielddesign.com

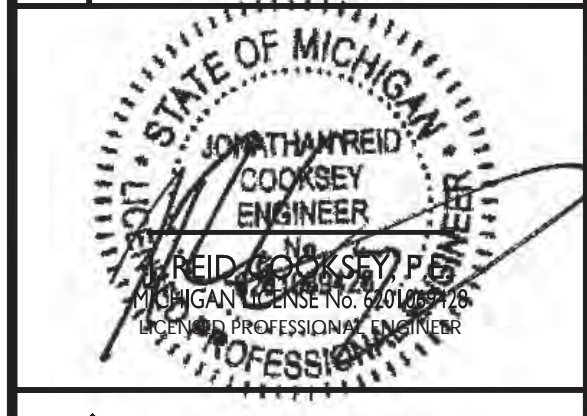
555 S Old Woodward Suite 12L Birmingham, MI 48009  
Phone: 248.247.1115

**SITE DEVELOPMENT PLANS**

**9101 HIGHLAND ROAD**

**PROPOSED COMMERCIAL DEVELOPMENT**

PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN



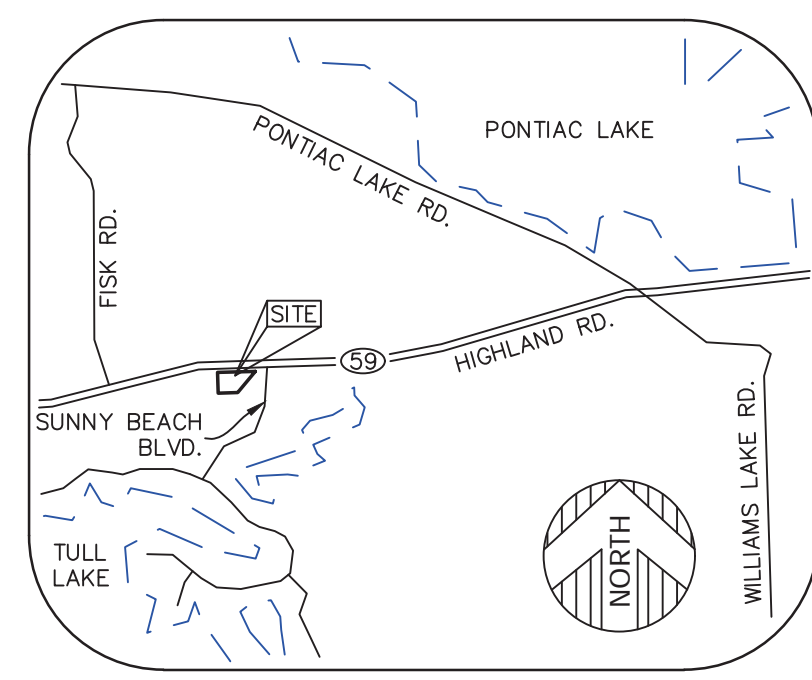
**STONEFIELD**  
engineering & design

SCALE: AS SHOWN PROJECT ID: DET-230229

TITLE:  
**CONSTRUCTION DETAILS**

DRAWING:  
**C-15**





**PARKING**  
HANDICAP PARKING = 2 STALLS  
STANDARD PARKING = 50 STALLS

**PARCEL AREA**  
195,568± SQUARE FEET = 4.49± ACRES

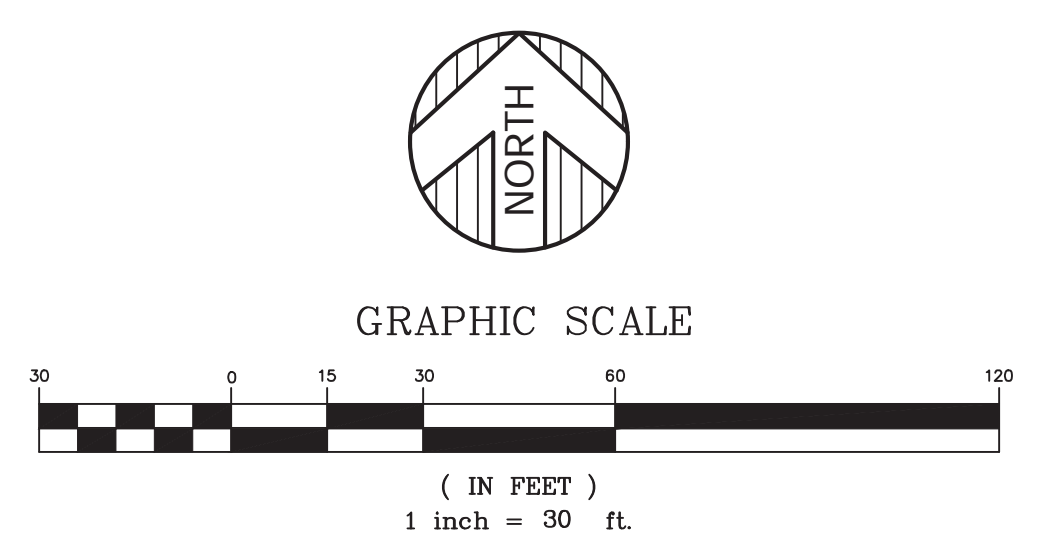
**BASIS OF BEARING**  
SOUTH 85°51'44" WEST, BEING THE CENTERLINE OF HIGHLAND ROAD (M-59), AS DESCRIBED.

**BENCHMARK**  
**SITE BENCHMARK #1**  
ARROW ON HYDRANT, WEST SIDE OF ASPHALT ENTRANCE.  
ELEVATION = 975.36' (NAVD 88)  
**SITE BENCHMARK #2**  
ARROW ON TRAFFIC SIGNAL POST, EAST SIDE OF PROPERTY.  
ELEVATION = 974.20' (NAVD 88)

**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.

**LEGEND**

●	FOUND MONUMENT (AS NOTED)
⊕	FOUND SECTION CORNER (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
X 0.00	GROUND ELEVATION
⊗	ELECTRIC METER
⊗	ELECTRIC RISER
⊗	UTILITY POLE
⊗	TELEPHONE MANHOLE
⊗	TELEPHONE RISER
⊗	CABLE TV RISER
⊗	CLEANOUT
⊗	ROUND CATCH BASIN
⊗	SQUARE CATCH BASIN
⊗	FIRE HYDRANT
⊗	WATER GATE MANHOLE
⊗	WATER VALVE
⊗	FENCE POST
⊗	FLOOD LIGHT
⊗	SINGLE POST SIGN
⊗	DOUBLE POST SIGN
⊗	HANDICAP PARKING
⊗	DECIDUOUS TREE (AS NOTED)
⊗	CONIFEROUS TREE (AS NOTED)
---	PARCEL BOUNDARY LINE
---	PLATTED LOT LINE
---	ADJOINER PARCEL LINE
---	SECTION LINE
---	EASEMENT (AS NOTED)
---	BUILDING
---	BUILDING OVERHANG
---	CONCRETE CURB
---	RAISED CONCRETE
---	PARKING
---	EDGE OF CONCRETE (CONC.)
---	EDGE OF ASPHALT (ASPH.)
---	FENCE (AS NOTED)
---	OVERHEAD UTILITY LINE
---	GAS LINE
---	STORM LINE
---	WATER LINE
---	MINOR CONTOUR LINE
---	MAJOR CONTOUR LINE
---	BUILDING AREA
---	ASPHALT
---	CONCRETE



**PROPERTY DESCRIPTION**  
THE LAND SITUATED IN THE TOWNSHIP OF WHITE LAKE, COUNTY OF OAKLAND, STATE OF MICHIGAN, IS DESCRIBED AS FOLLOWS:  
PART OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 14; AND EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 23, TOWN 3 NORTH, RANGE 8 EAST, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 23, WHICH IS ALSO A COMMON CORNER TO SECTIONS 13, 14 AND 24, TOWN 3 NORTH, RANGE 8 EAST, AND RUNNING THENCE NORTH 00 DEGREES 19 MINUTES 10 SECONDS EAST 26.40 FEET TO THE CENTERLINE OF HIGHLAND ROAD (M-59); THENCE SOUTH 85 DEGREES 51 MINUTES 44 SECONDS WEST 51.84 FEET ALONG SAID CENTERLINE TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 140.00 FEET TO A MONUMENT, WHICH IS THE NORTHWEST CORNER OF LOT 86 OF TWIN LAKES VILLAGE NO. 1; THENCE SOUTH 12 DEGREES 05 MINUTES 00 SECONDS WEST 282.37 FEET TO A MONUMENT WHICH IS THE SOUTHWEST CORNER OF LOT 83 OF SAID TWIN LAKES VILLAGE NO. 1; THENCE SOUTH 58 DEGREES 31 MINUTES 00 SECONDS WEST 484.14 FEET; THENCE NORTH 602.62 FEET TO THE CENTERLINE OF HIGHLAND ROAD (M-59); THENCE EASTERLY ALONG SAID CENTERLINE WHICH IS ON A CURVE TO THE RIGHT, WHOSE CHORD BEARS NORTH 82 DEGREES 59 MINUTES 45 SECONDS EAST 458.34 FEET, A DISTANCE ALONG THE CURVE OF 458.00 FEET MORE OR LESS TO THE POINT OF BEGINNING OF THIS DESCRIPTION, EXCEPTING THE NORTHERLY 50 FEET THEREOF SITUATED WITHIN M-59 HIGHWAY.

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS OVER A 20 FOOT PRIVATE ROAD WHOSE CENTERLINE IS DESCRIBED AS FOLLOWS: COMMENCING AT A POINT AT THE INTERSECTION OF THE CENTERLINE OF HIGHLAND ROAD (M-59) AND THE WEST RIGHT OF WAY LINE OF SUNNYBEACH BOULEVARD IN SECTION 13, TOWN 3 NORTH, RANGE 8 EAST, AND RUNNING THENCE SOUTH 00 DEGREES 00 MINUTES 54 SECONDS EAST 29.01 FEET TO THE SOUTH LINE OF SAID SECTION 13; SAID SECTION 13; THENCE CONTINUING SOUTH 00 DEGREES 00 MINUTES 54 SECONDS EAST 73.99 FEET OVER AND ACROSS SAID SOUTH SECTION LINE TO A POINT LOCATED IN SECTION 24 WHERE THE CENTERLINE OF THE PRIVATE ROAD RIGHT OF WAY INTERSECTS THE WEST RIGHT OF WAY LINE OF SUNNYBEACH BOULEVARD, WHICH IS THE POINT OF BEGINNING OF SAID PRIVATE ROAD RIGHT OF WAY; THENCE NORTH 76 DEGREES 27 MINUTES 33 SECONDS WEST 154.31 FEET TO THE EAST LINE OF SAID 5 ACRES DESCRIBED AS THE CAPTIONED LAND ABOVE.

SUBJECT TO A 20 FEET EASEMENT FOR INGRESS AND EGRESS OVER THAT PART OF SAID DESCRIBED 5 ACRES OF LAND, THE CENTERLINE OF SAID EASEMENT IS DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE EAST LINE OF SAID 5 ACRE PARCEL OF LAND DISTANT SOUTH 60.00 FEET FROM THE NORTHEAST CORNER THEREOF, THENCE RUNNING ALONG A CURVE TO THE LEFT PARALLEL TO THE STATE HIGHWAY M-59 RIGHT OF WAY TO THE WEST LINE OF SAID 5 ACRES DESCRIBED AS THE CAPTIONED LAND ABOVE.

**TITLE REPORT NOTE**  
ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY FILE NO. 63-18598786-SQM, REVISION 3, DATED AUGUST 21, 2023, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

- 8. RIGHT OF WAY GRANTED TO MICHIGAN BELL TELEPHONE COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF LINES OF COMMUNICATION RECORDED IN LIBER 7946, PAGE 805, OAKLAND COUNTY RECORDS. (AS SHOWN)
- 9. EASEMENT GRANTED TO MICHIGAN BELL TELEPHONE COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF COMMUNICATION FACILITIES RECORDED IN LIBER 11604, PAGE 146, OAKLAND COUNTY RECORDS. (AS SHOWN)
- 10. EASEMENT GRANTED TO THE CHARTER TOWNSHIP OF WHITE LAKE FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF WATER MAIN RECORDED IN LIBER 19187, PAGE 333, OAKLAND COUNTY RECORDS. (AS SHOWN)

**MANHOLE SCHEDULE**

NUM	TYPE	RIM (FT)	SIZE (IN)	DIR	INV ELEV (FT)
70065	CATCH BASIN	971.68	12	N	968.03
70131	CATCH BASIN	970.71	12	E	966.71
70140	CATCH BASIN	970.70	12	W	966.50
		970.70	12	N	966.45
		970.70	12	S	966.55
70157	CATCH BASIN	971.02	18	N	964.12

**SURVEYOR'S CERTIFICATION**  
TO AFFINITY 10 INVESTMENTS, LLC, A MICHIGAN LIMITED LIABILITY COMPANY;  
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; ATA NATIONAL TITLE GROUP, LLC; AND STONEFIELD ENGINEERING AND DESIGN:  
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 4, 5, 7A, 8, 9, 11A, AND 11B OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 09/14/23.  
DATE OF PLAT OR MAP: 09/28/23

**DRAFT**

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

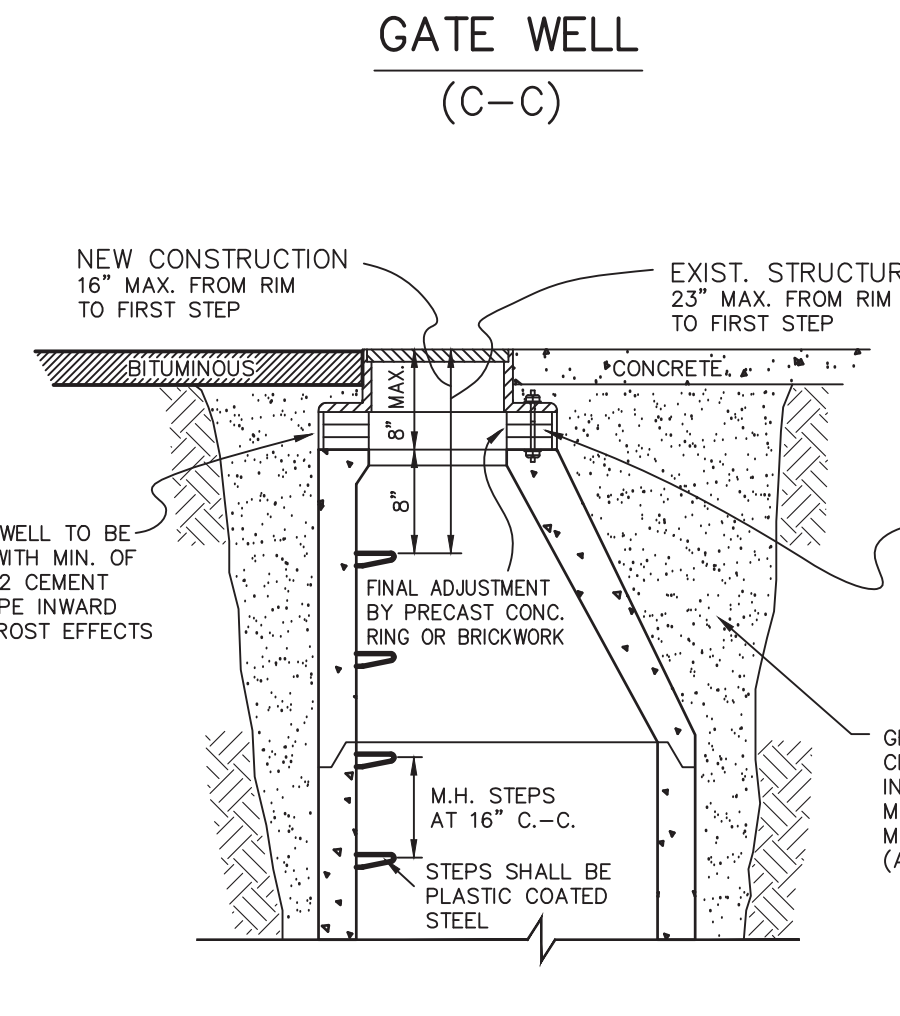
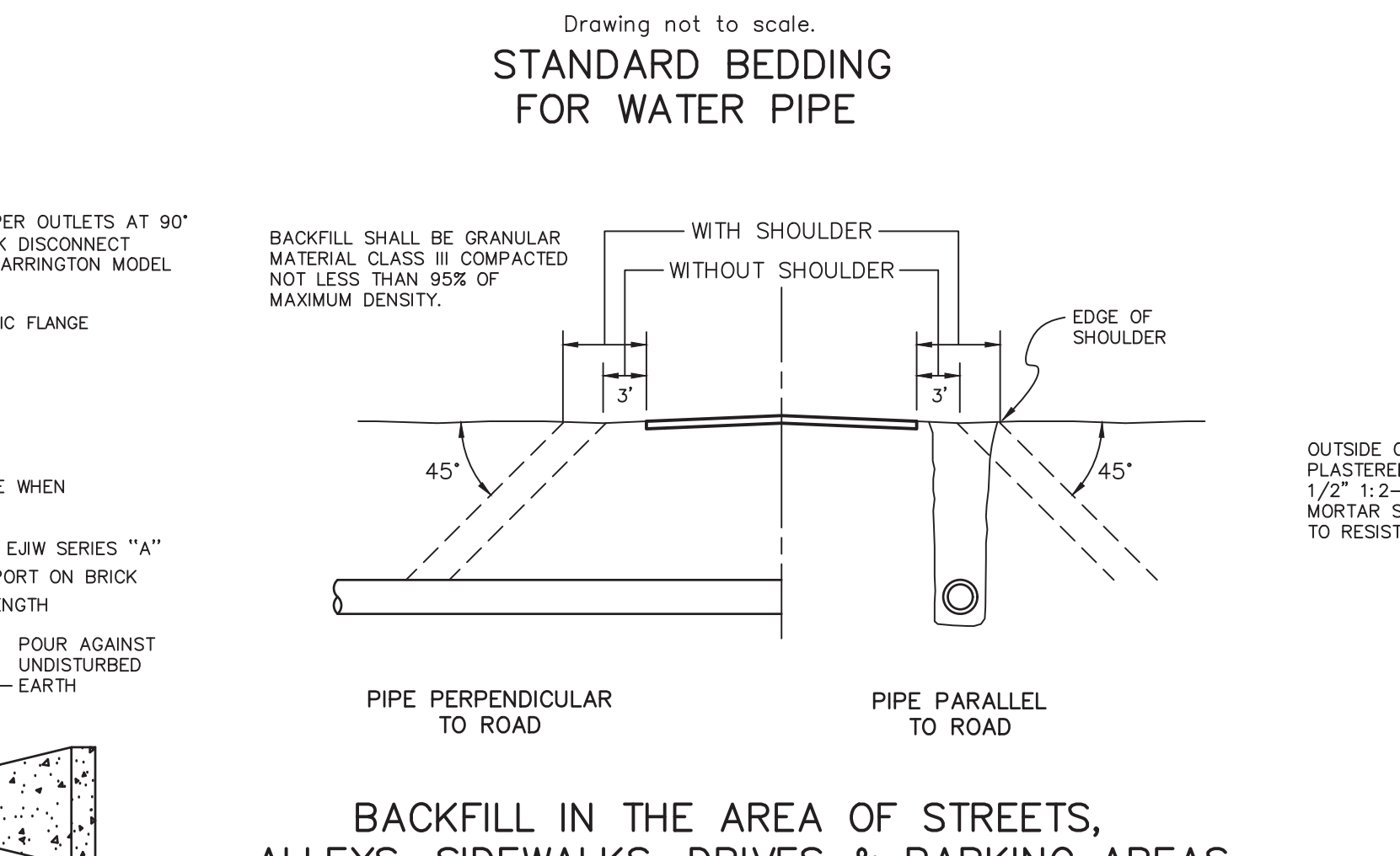
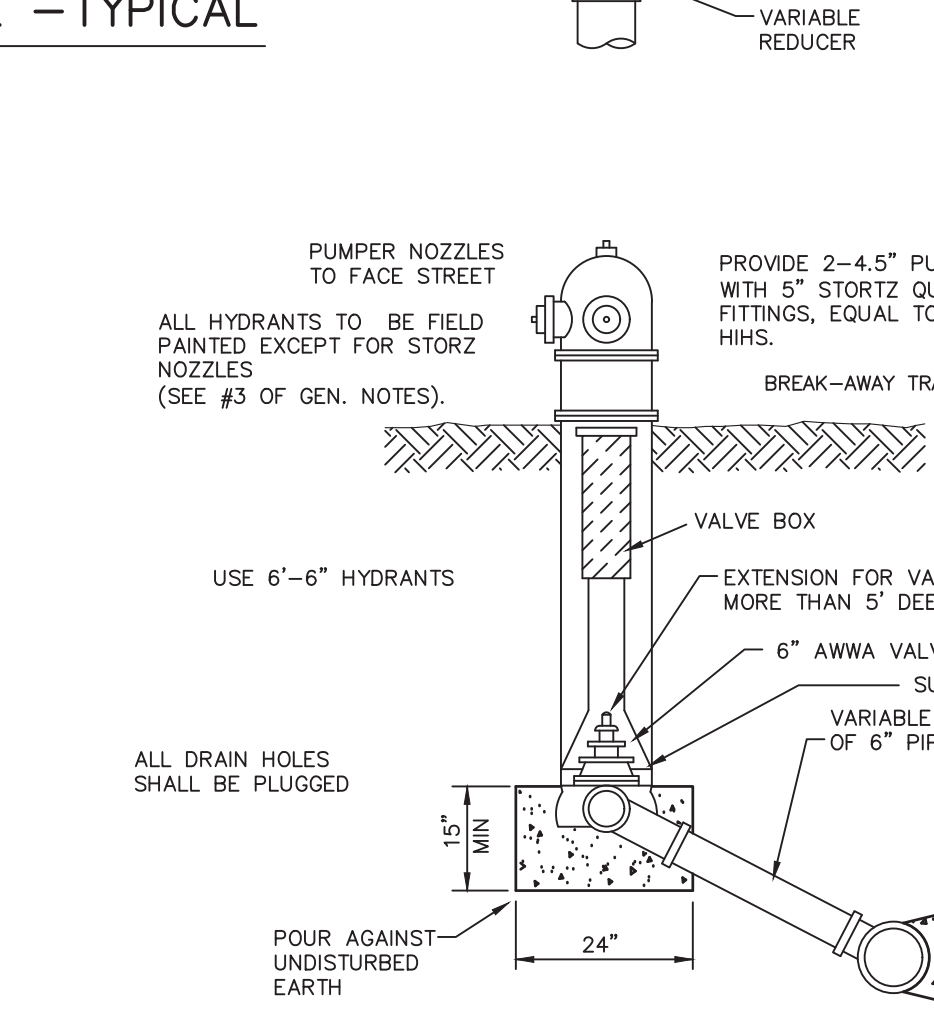
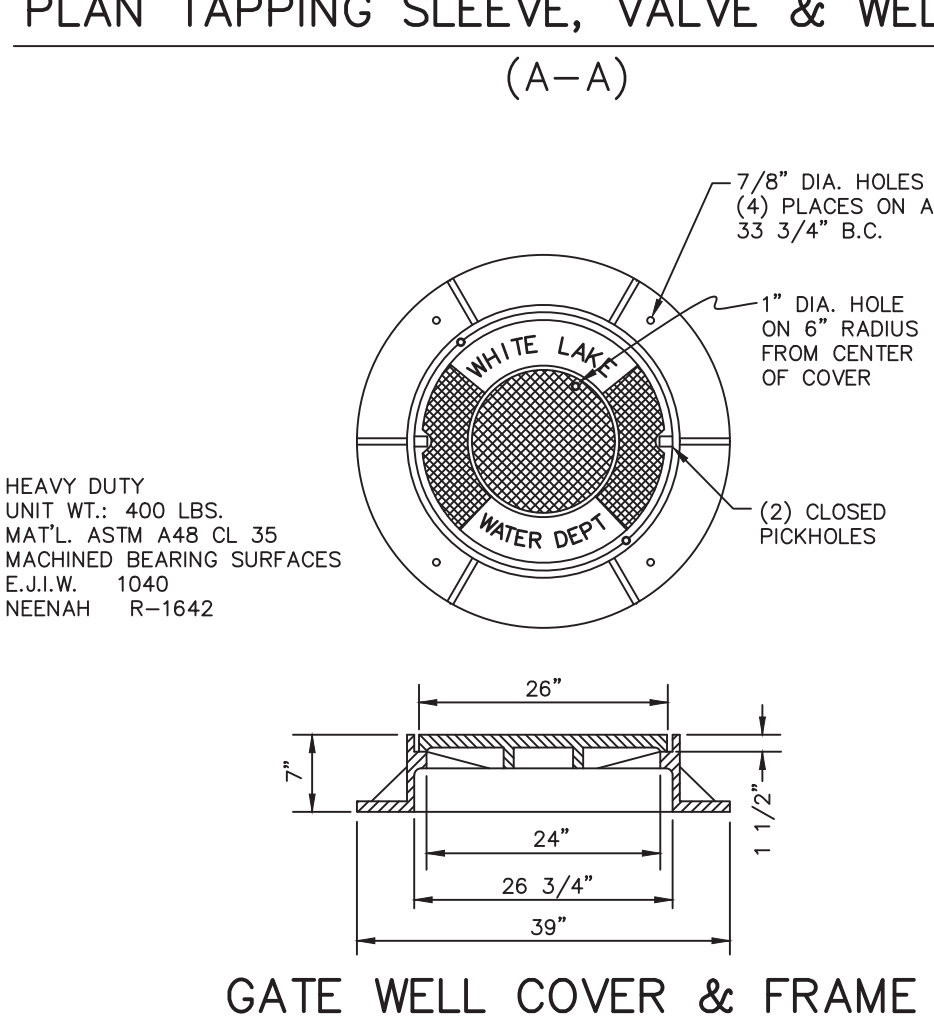
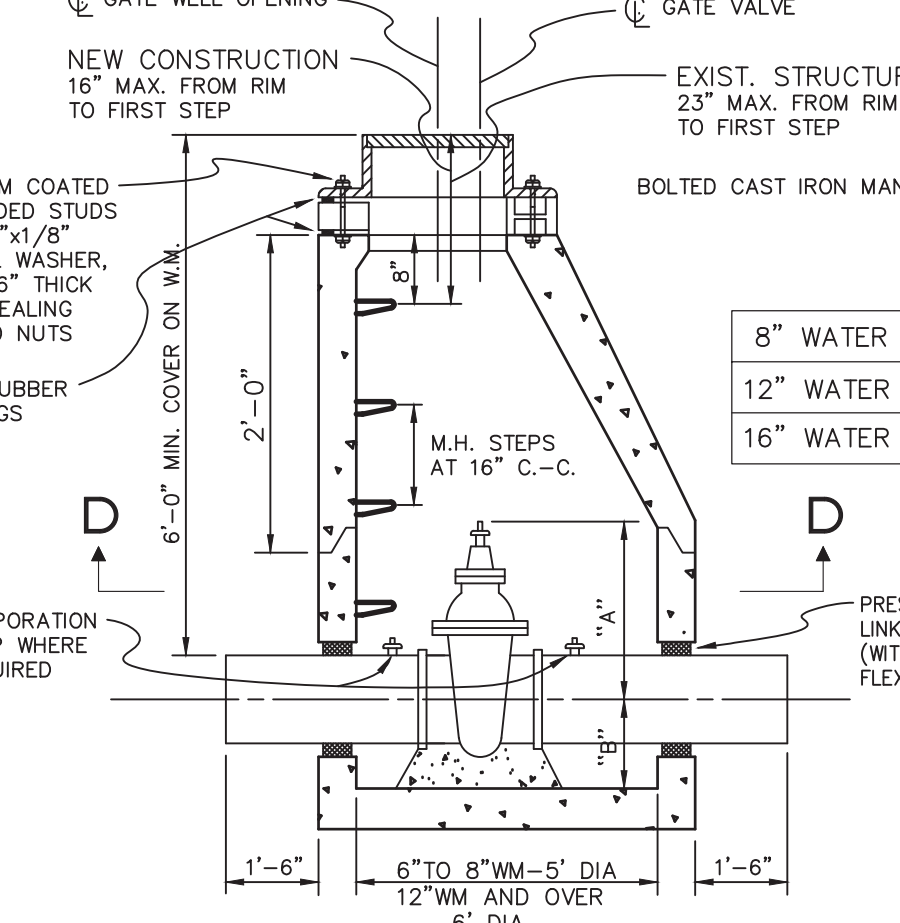
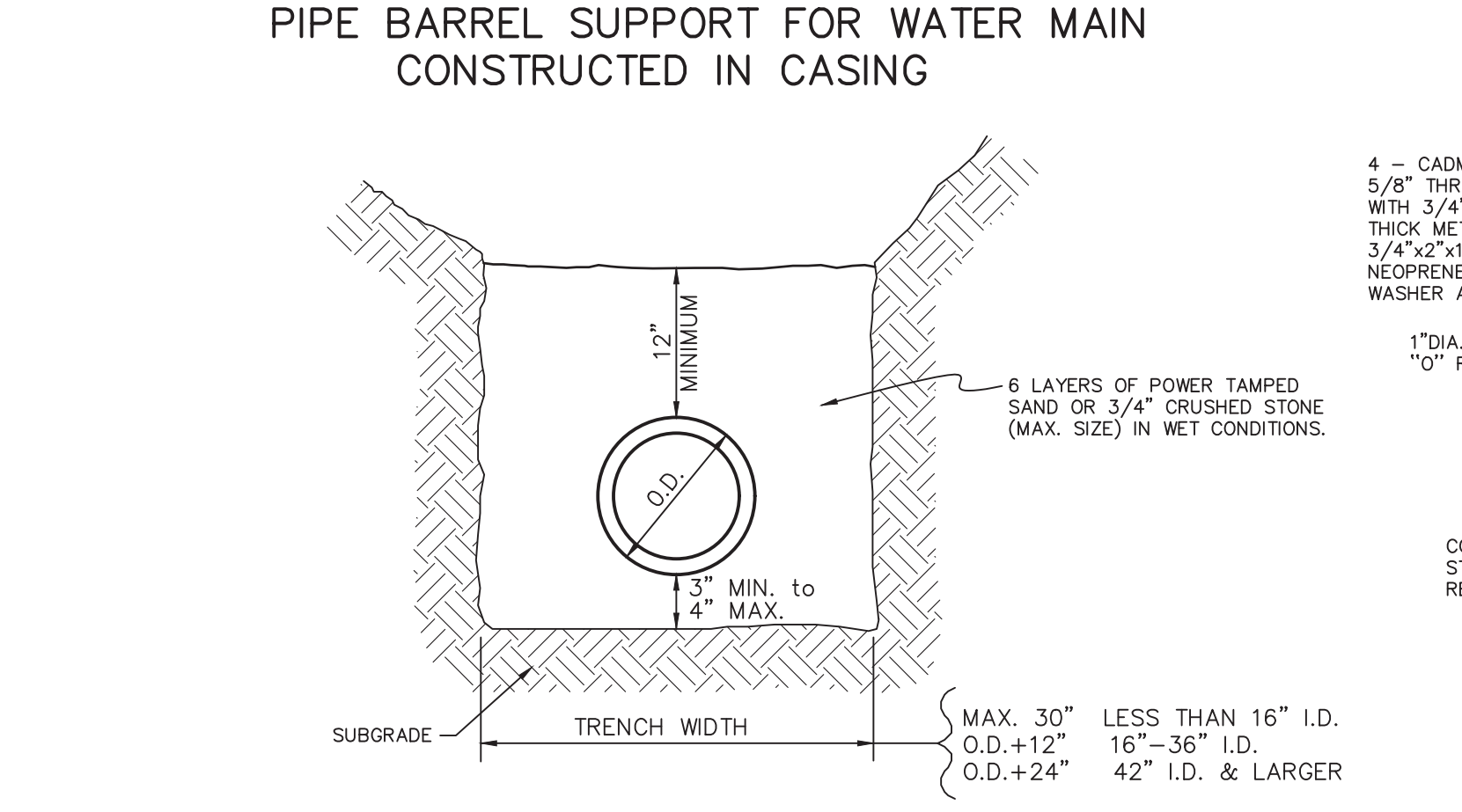
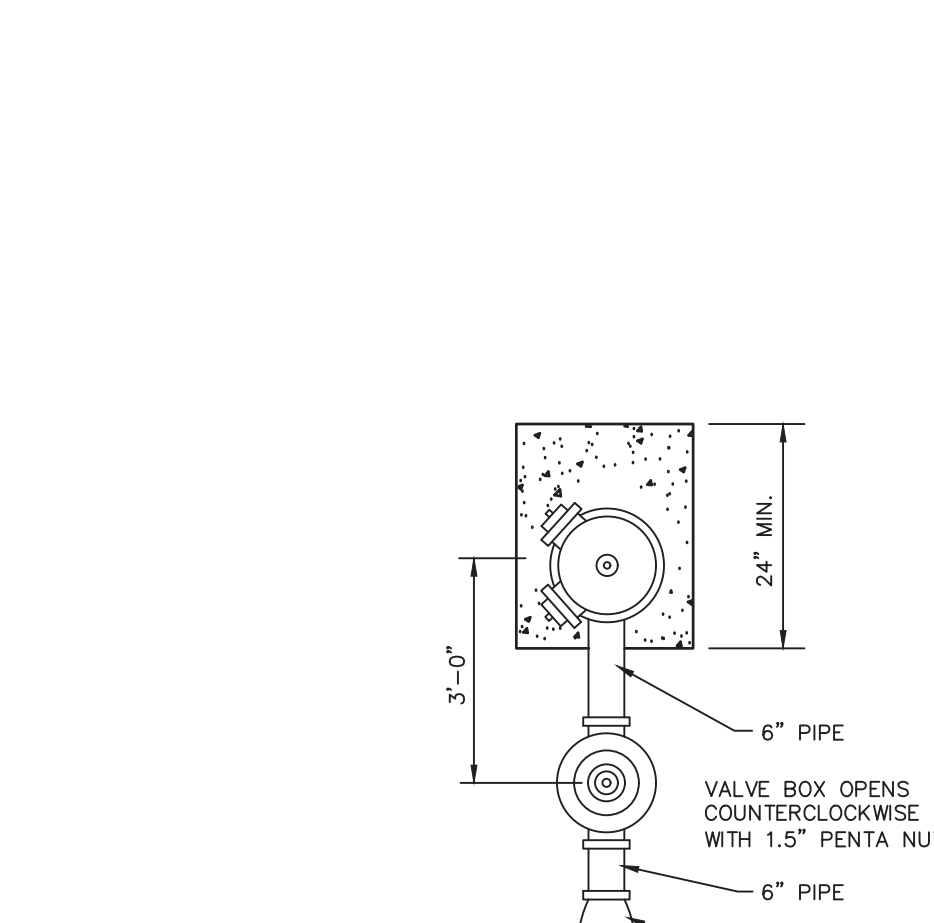
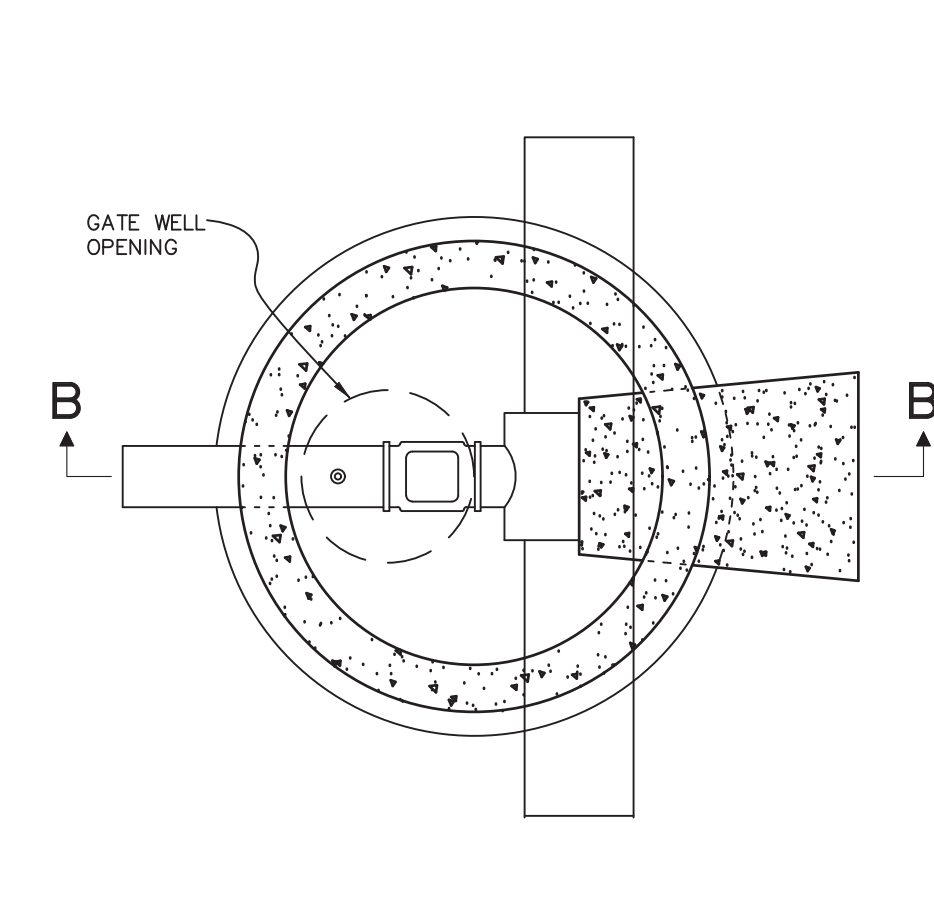
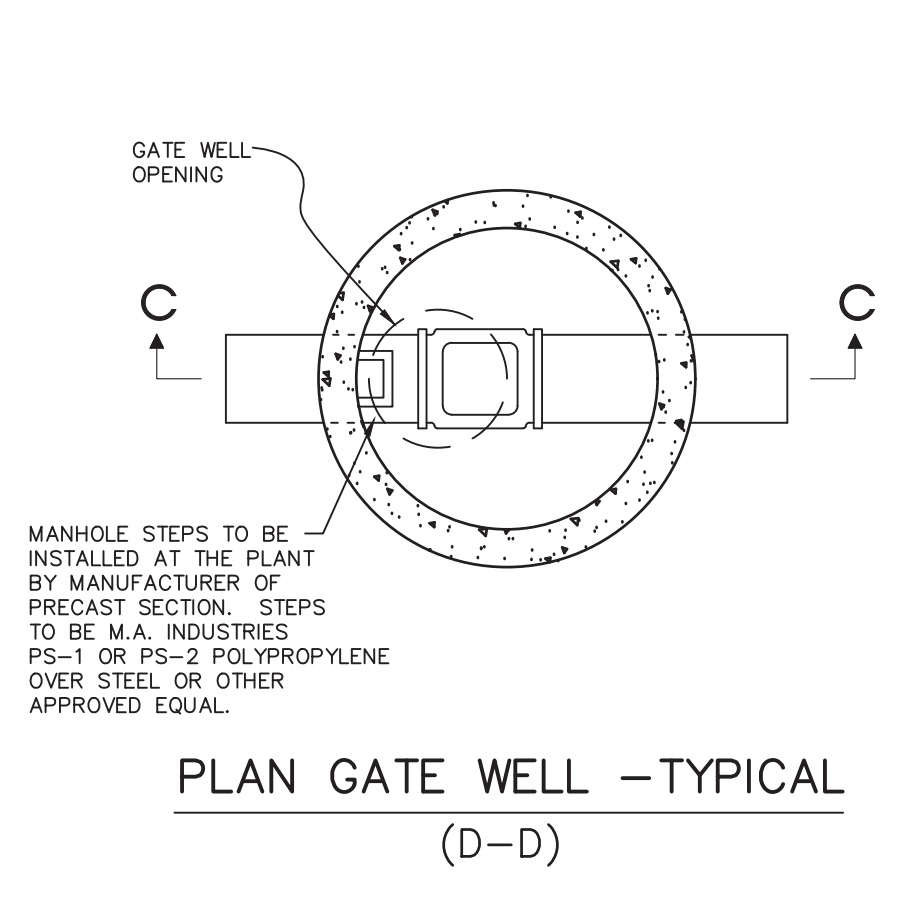
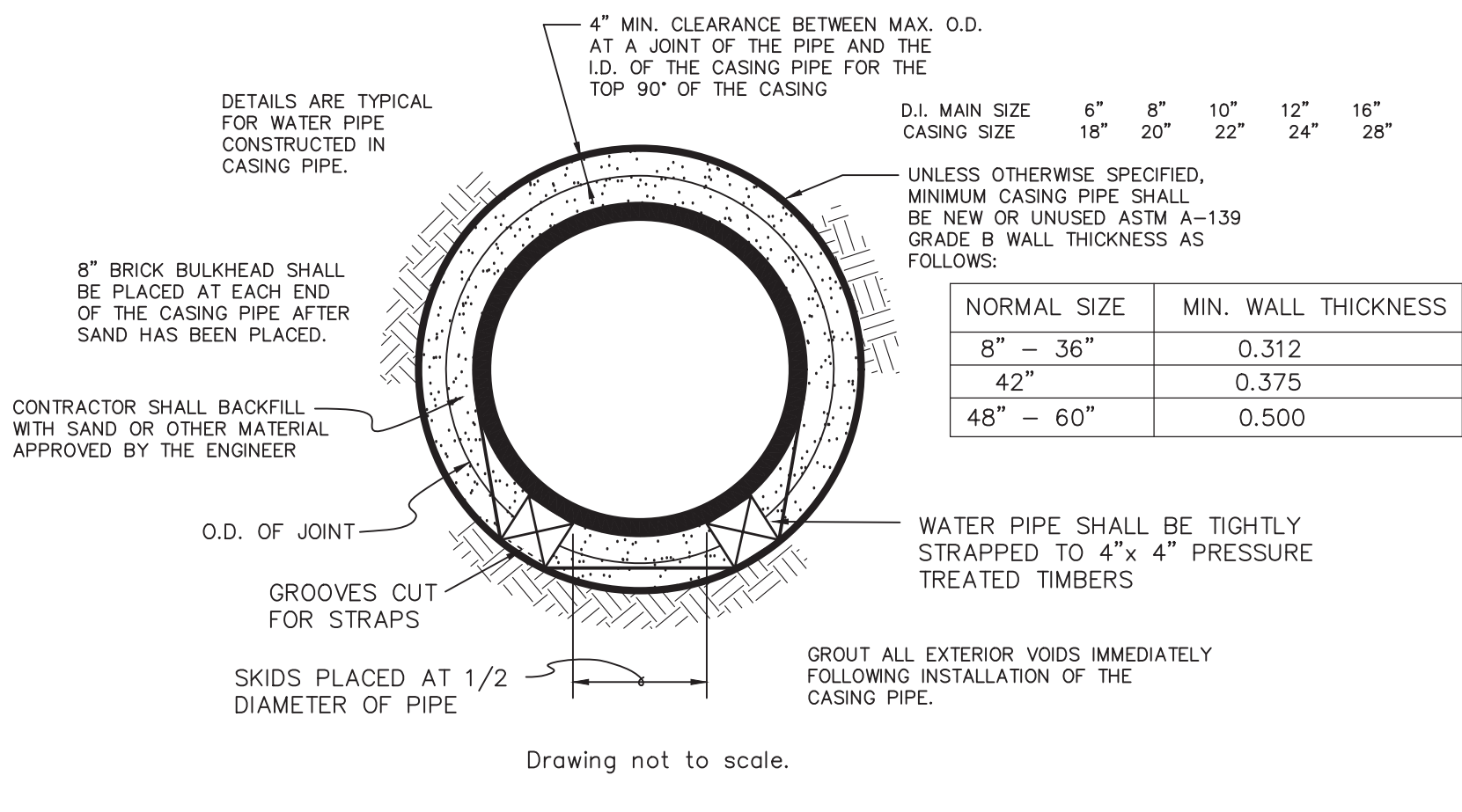
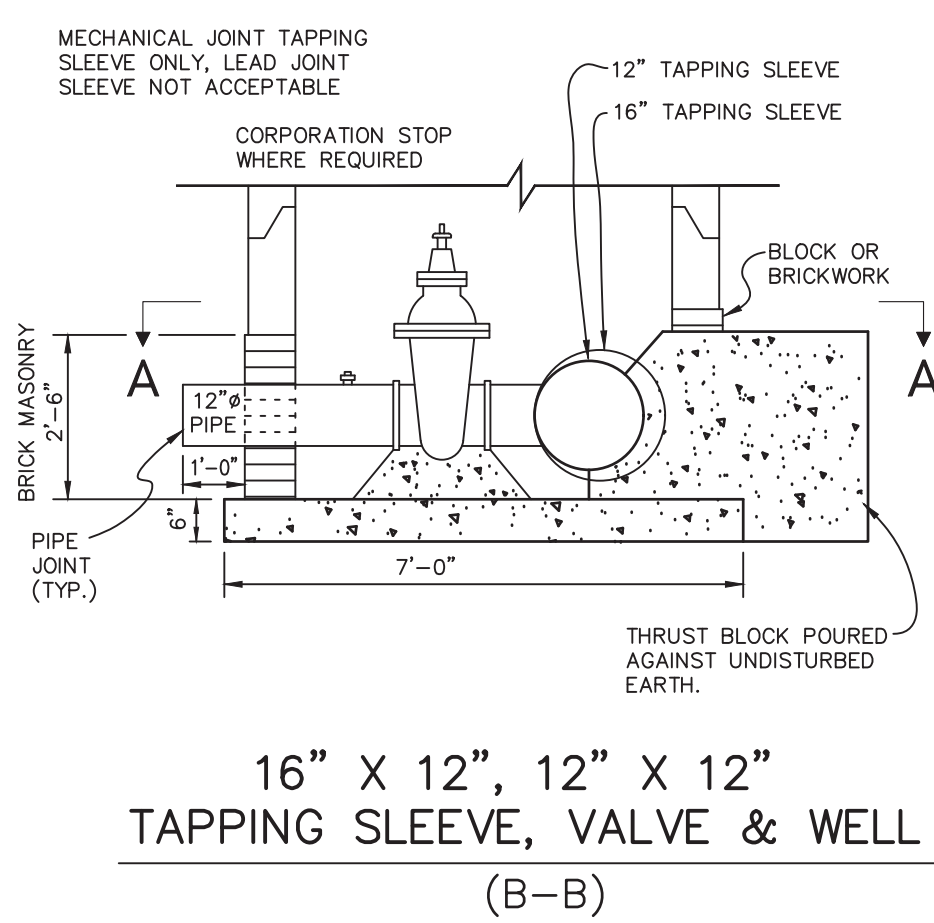
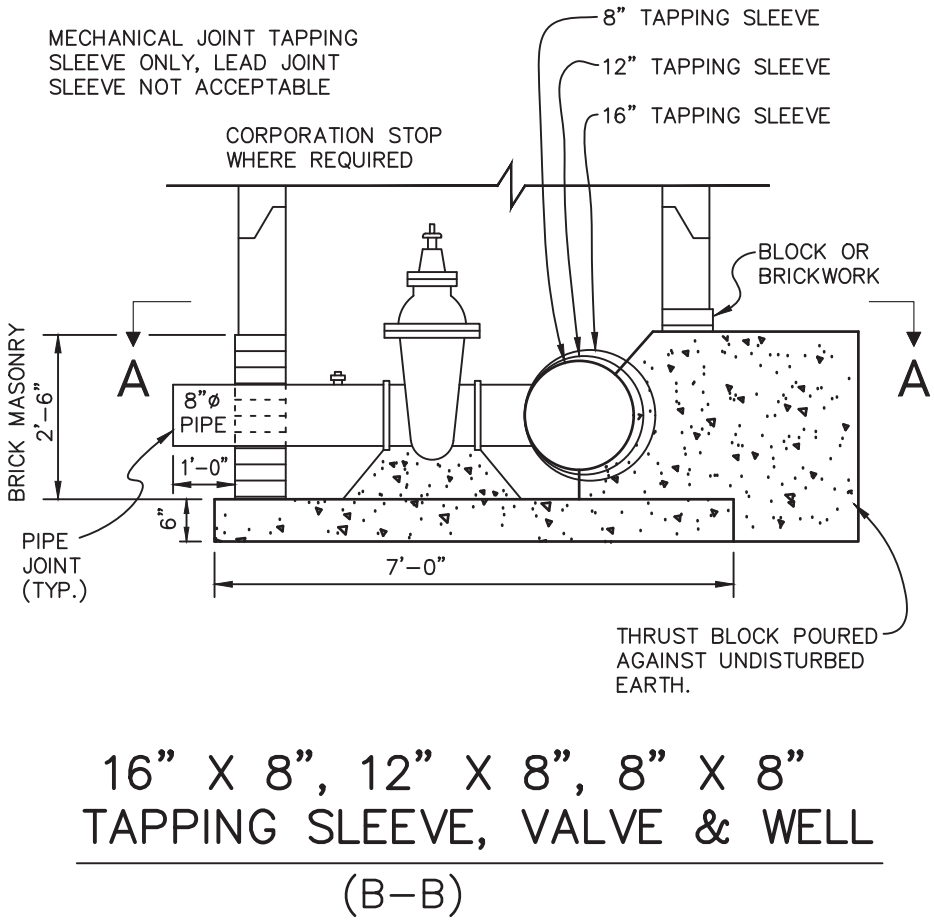
**ALTA / NSPS LAND TITLE SURVEY**  
PREPARED FOR: STONEFIELD ENGINEERING AND DESIGN  
9101 HIGHLAND ROAD, WHITE LAKE, MICHIGAN,  
PART OF SECTION 23,  
TOWN 3 NORTH, RANGE 8 EAST

PROFESSIONAL ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES  
**KEM-TEC**  
A GROUP OF COMPANIES  
Eastpointe, Michigan  
Ann Arbor, Michigan  
Detroit, Michigan  
www.kemtecgroupofcompanies.com

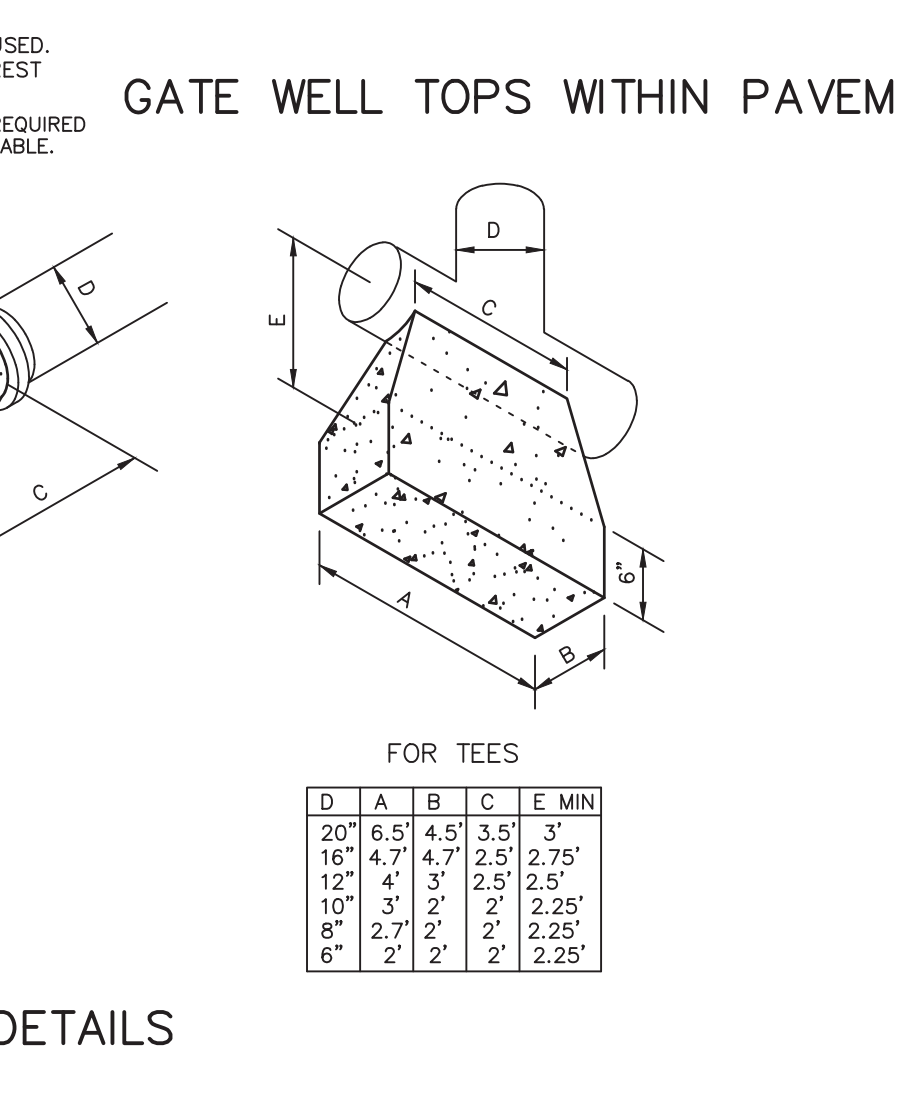
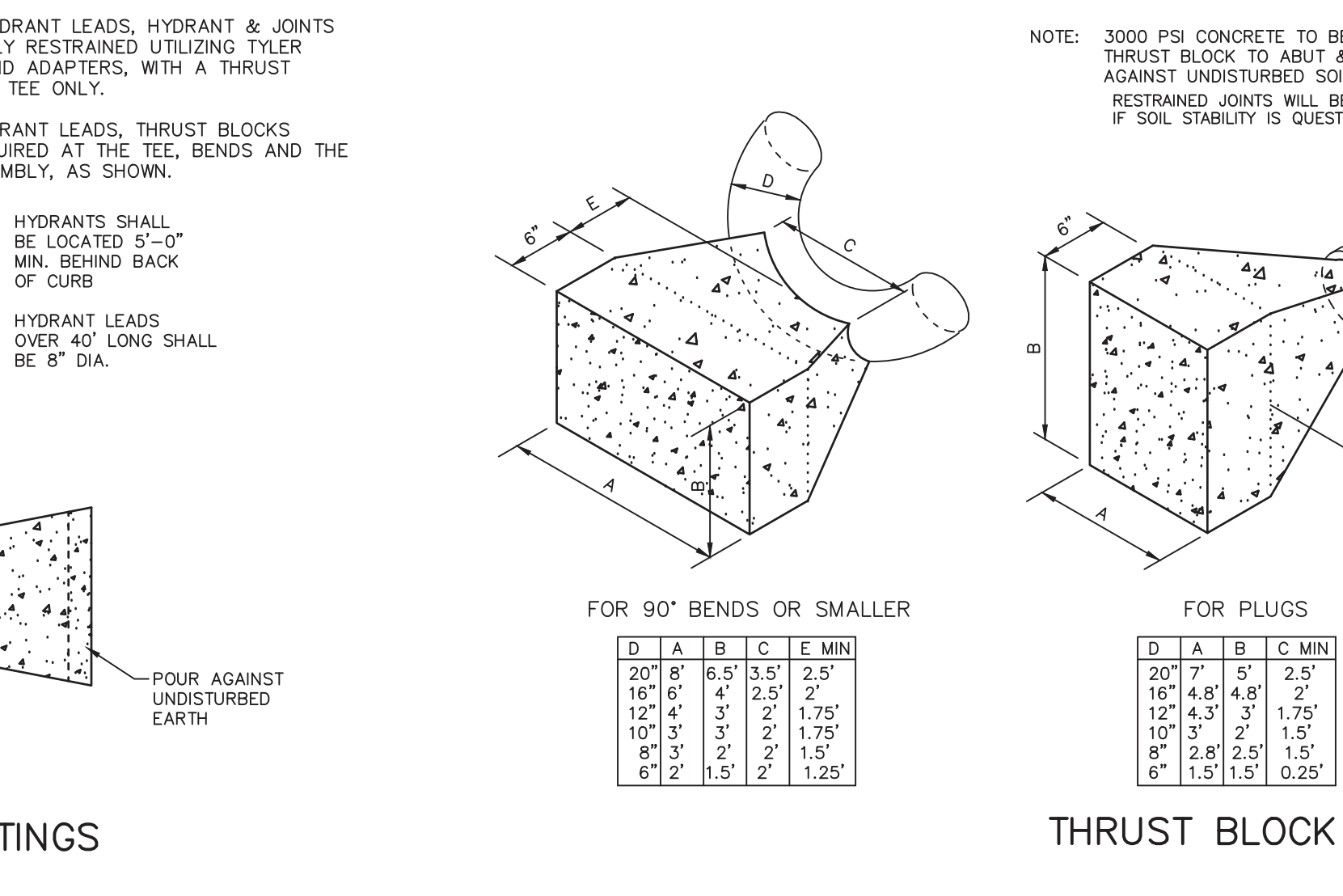
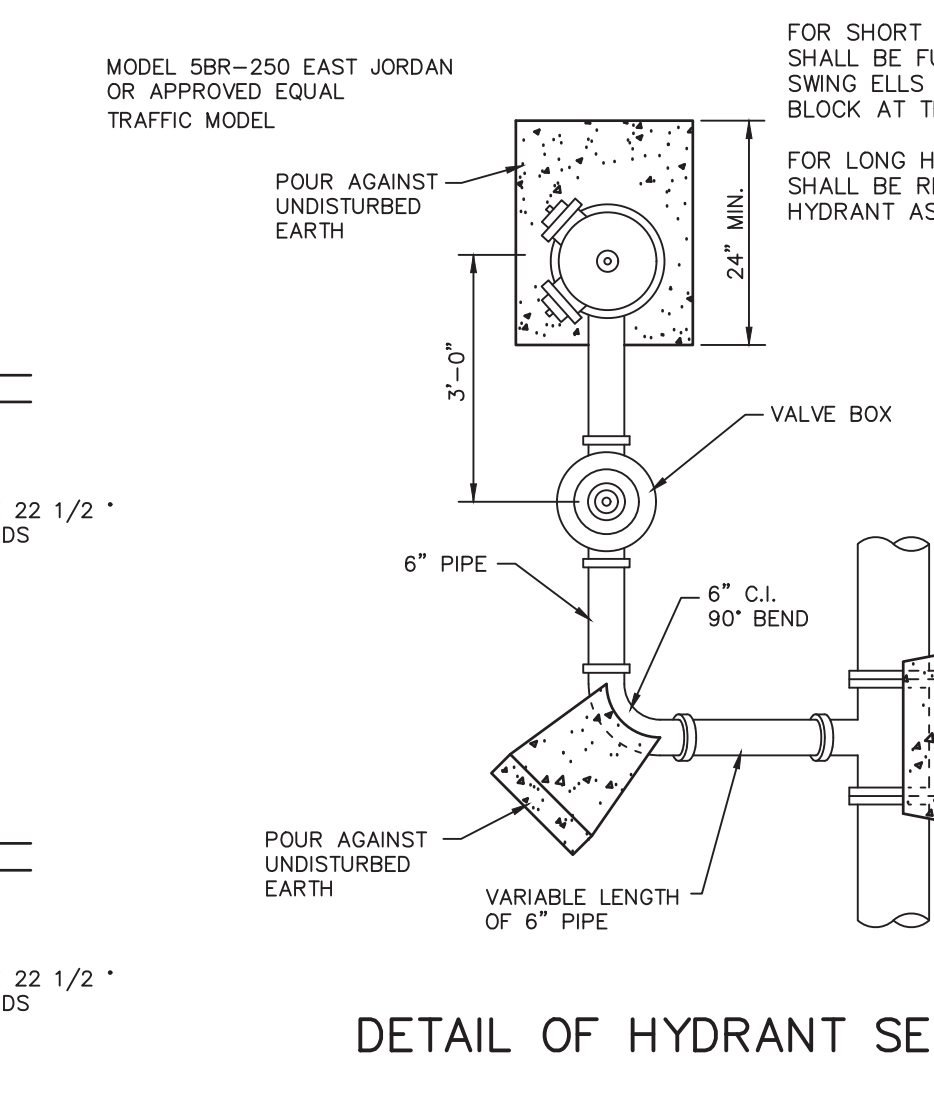
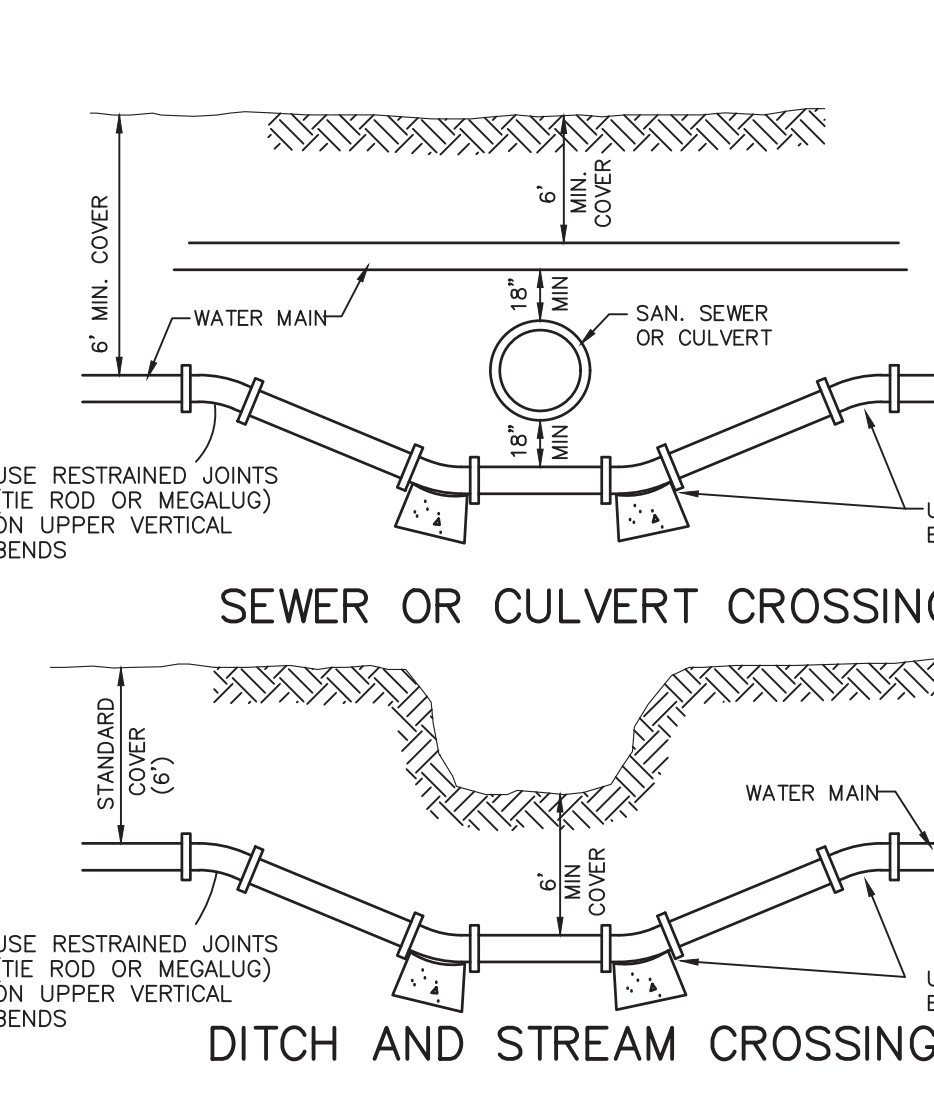
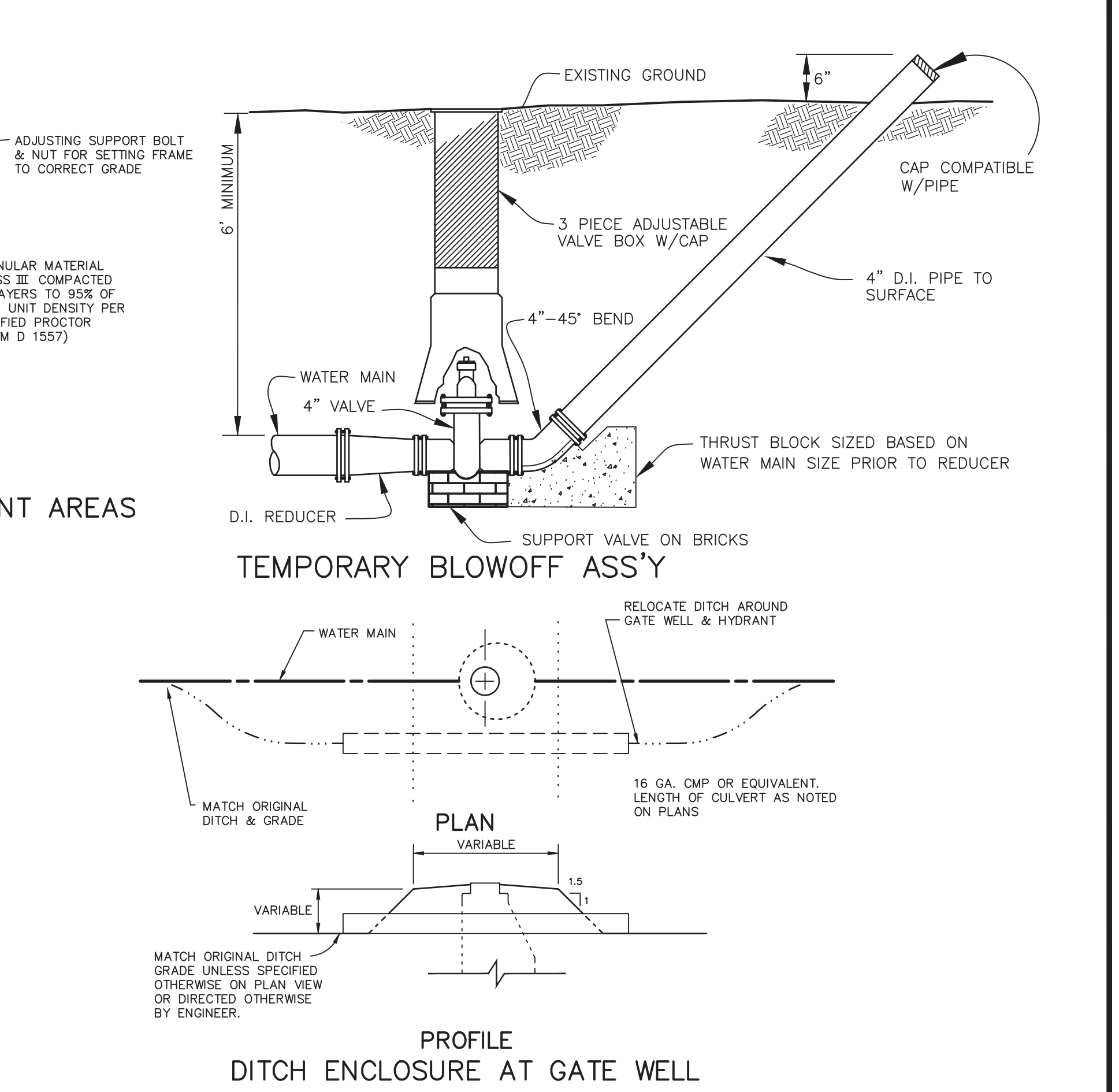
DATE	BY	REVISION	DESCRIPTION
09/28/23	LJ/JV		
09/28/23	ATS		
SEPTEMBER 28, 2023			
23-01922			

SCALE: 1" = 30'  
1 OF 1 SHEETS





- WATER MAIN NOTES**
- All construction procedures and materials used on this project shall conform to White Lake Township current standards and specifications.
  - All hydrants shall be East Jordan Iron Works 5BR-250 traffic model. Self-draining hydrants shall not be used. Valve shall have 1-1/2" pentagon nut and shall open counter-clockwise. Provide two 4.5" Storz quick connect nozzles (Harrington Integral Hydrant Storz, Model HHS) as manufactured by Harrington, Inc. of Erie, PA.
  - All hydrants shall be field painted with a heavy coat of bright safety red polyurethane or alkyd glass enamel, except for the Storz fittings and caps, which shall be left unpainted.
  - Johnson and Anderson, Inc. field personnel will affix to the fixed collar of each Storz connection 1" wide 3M Scotch reflective tape, color coded per NFPA 291 guidelines flow capacity.
  - All water mains shall be ductile iron pipe Class 54, cement lined with push on joints. Mechanical joints allowed only for tapping sleeves, hydrants & hydrant valves. Only Cor-Blue bolts shall be used for assembling mechanical joints. All bands, tees, valves and hydrant tees shall have a poured concrete thrust block as detailed on this sheet. Joints which have thrust blocks bearing on soil of questionable stability shall be fully restrained utilizing Tyler swivel ells and adapters or a system approved by the Township Engineer. HDPE pipe for directional boring, if approved by the Township Engineer, shall meet all of the requirements of the MDEQ and shall be DR9 (200 psi), and shall have two #8 tracer wires, terminated in the nearest gate well at the highest step.
  - Tapping sleeve shall be mechanical joint or approved equal. Ductile iron or Stainless steel are allowed.
  - Specifications shall include direction of operation of all valves. All valves shall be counter clockwise open.
  - All necessary easements shall be provided in the name of White Lake Township before acceptance of the water distribution system.
  - The design engineer shall furnish White Lake Township with one reproducible sets of "As-Built" water main plans or an AutoCAD file upon completion of the job.
  - All required cross-connection devices shall be installed as required by the local plumbing inspector and in accordance with the standards of the Michigan Department of Public Health.
  - Gate well frame and cover shall be as follows: East Jordan heavy manhole cover, base flange type #1040 or Neenah Foundry heavy duty #1642 Manhole frame, solid lid cover shall be non-rocking and marked "White Lake Water Department"
  - Gate valves shall be AWWA approved and of a double disc or resilient wedge design with push on joints, 16" gate valves may be mechanical joint provided Cor-Blue bolts are used. All gate valves with operating nuts greater than 5' below ground surface shall be provided with an extension stem. The length of the extension shall be such that it will be within 5' of the ground surface when an extension is used it shall be held in place by an extension stem guide suitably fastened to the wall of the gate well.
  - 1" corporation stops are to be placed on the main at each side of each main line gate valve and at such other locations as may be required by the engineer.
  - All pipe and fittings shall be subjected to a hydro-static pressure test of 150 PSI for a 2 hour duration; Township Engineer must be present. Maximum segment 2000 feet except that longer segments may be tested with allowable leakage based on 2000 feet.
  - 2 consecutive safe bacteria samples shall be taken from the water system approx. 24 hours apart at points established by the Township Engineer. Samples shall be taken by the Township Engineer.
  - Filling, flushing and sampling of water main can only be performed with a "Jumper" Line, the jumper shall be equipped with an approved RPZ type of backflow preventer.
  - Adjustments on gate wells shall be limited to 23" maximum from top of rim to first step in accordance with MIOSHA Rule 341.
  - All new water service lines shall have a minimum nominal size of 1". Services from 1" to 2" may be type K copper tubing or plastic DR-9 (200 PSI rated) meeting ASTM D2277-03 (Standard Specification for Polyethylene (PE) plastic tubing). ASTM Designation and pressure rating shall be stamped on the pipe by the manufacturer. Plastic pipe shall also meet AWWA C-301 Specifications. All sizes shall relate to the copper tubing outside diameter standard size (CTS). Copper pipe joints shall be flared. Fittings shall adapt to the plastic pipe with compression to iron pipe thread adapter. Plastic pipes shall be either compression style with a steel insert or may be fusion welded in the larger sizes.
- Plastic water service pipes shall be traced with two #10 copper tracer wires or two #12 copper coated steel or stainless steel wires insulated with a minimum of 30 mils of polyethylene insulation. The tracer wires shall be terminated to supply line so as to be locatable at the building and the curb box without digging.
- Water services sizes 3" and greater shall be Class 54 cement lined ductile iron with push on joints or HDPE DR-9 (200 PSI rated) with fusion welded joints and fittings, DIPS (Ductile Iron Pipe Size).
- A stop box shall be installed at the property or easement line and shall be equivalent to an A.Y. McDonald Mfg. 6100 flare regular pattern ball valve. The curb box shall have a 1" riser pipe with an Erie 2-hole pattern cover equivalent to A.Y. McDonald Mfg. 5601L. Stop box shall be protected with a 2'x4' painted blue extending 4 feet above ground.
- Standard pipe cover shall be 6'-0".
  - Air release manholes shall consist of a standard 5' diameter gate well style structure with a ValMatic Model 25C air release valve mounted on a 1" corporation stop. Air release shall be equipped with the vacuum check option. A 1/2" diameter galvanized pipe or discharge shall be extended to within 12" of the top of the structure. A gooseneck trap shall be installed at the top of the riser to prevent debris & water from entering the valve.



DRAWN: CAD  
DESIGN: OA  
CHECKED: -

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE
		GENERAL REVISION TO CAD	12/29/95		GW & NUT SIZE	07/23/98		CLARIFY HYD. SPEC	02/07/01
		ADD NOTE 17	11/04/97		PIPE COVER & FLANGE TAPE	05/12/99		5-BR HYD, WS STAKE	02/27/02
		REVISE HYD. & THRUSTING	05/18/98		ADD BLOWOFF	07/06/99		ADD NOTE 19	07/23/03
								REV. HYD, THRUST, AIR REL	03/29/04
								HDPE, HYD, VALVES	07/18/05
								UPDATED TITLE BLOCK	04/30/13

**Johnson & Anderson**  
4494 Elizabeth Lake Road  
Waterford, Michigan 48328  
tel (248) 881-7800 fax (248) 881-2660

1060 W. Norton Avenue, Suite 7  
Muskegon, Michigan 49441  
tel (231) 780-3100 fax (231) 780-3115

2291 Water Street, Suite 6  
Port Huron, Michigan 48060  
tel (810) 987-7620 fax (810) 987-7895

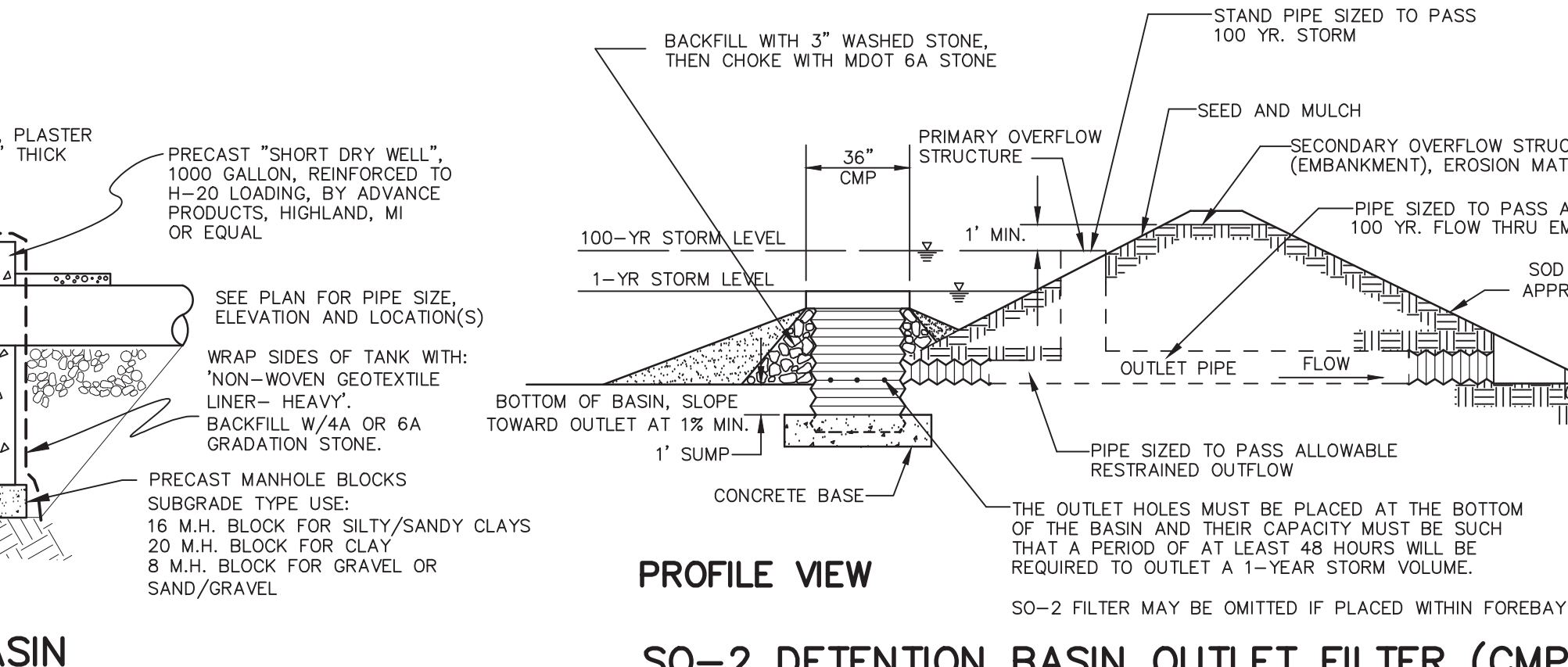
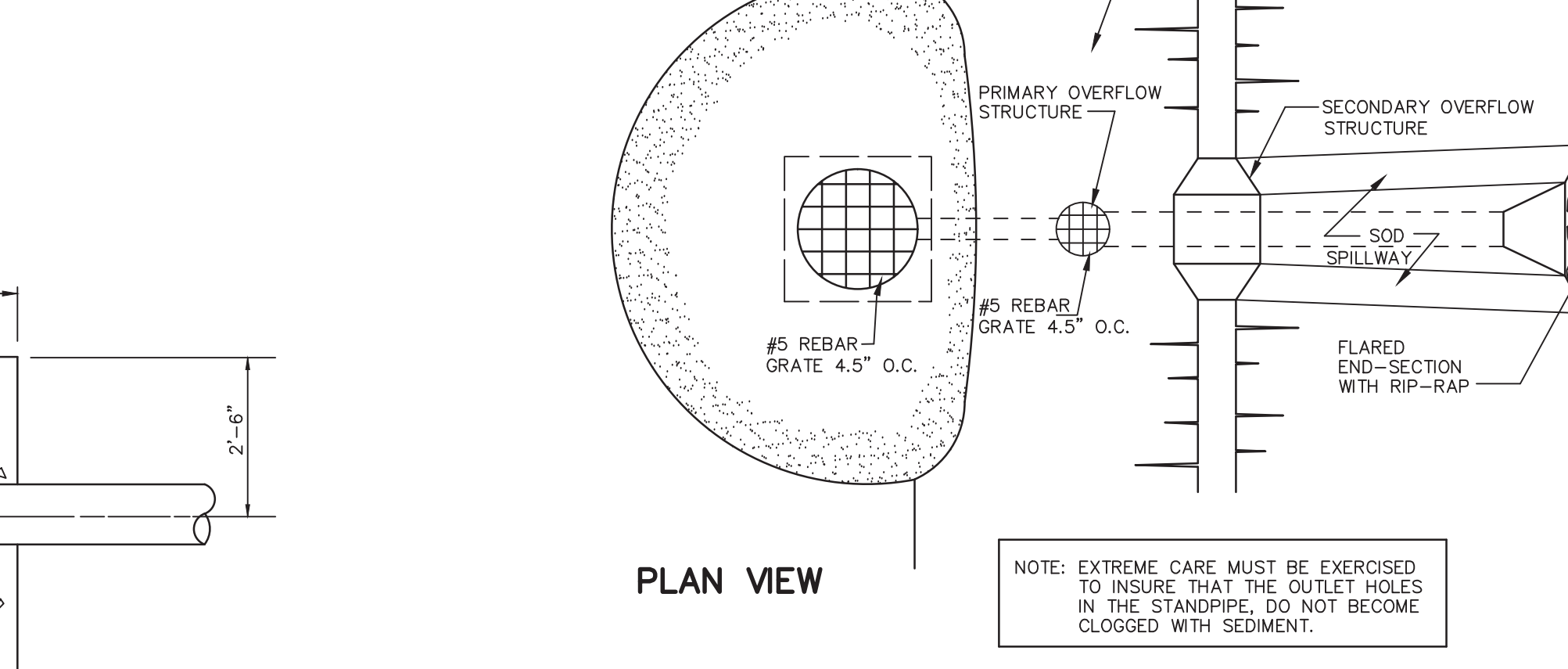
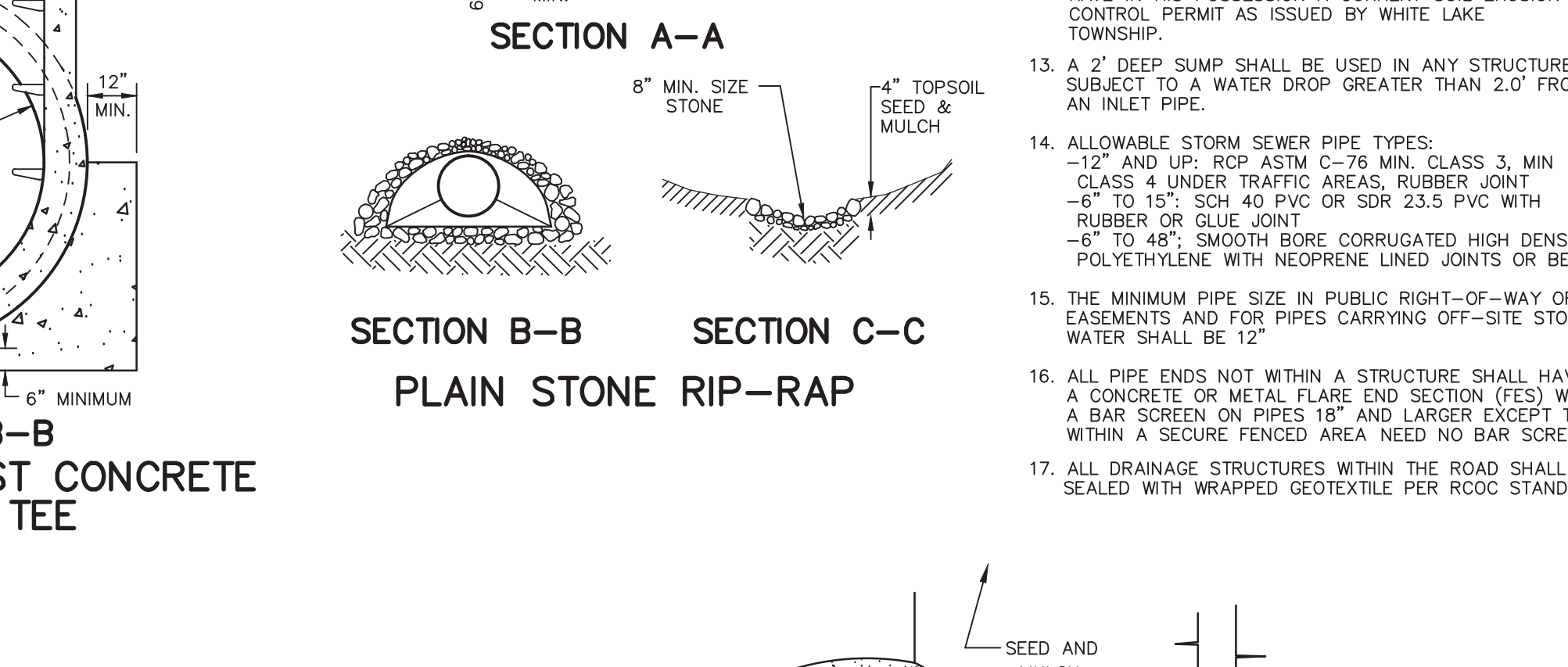
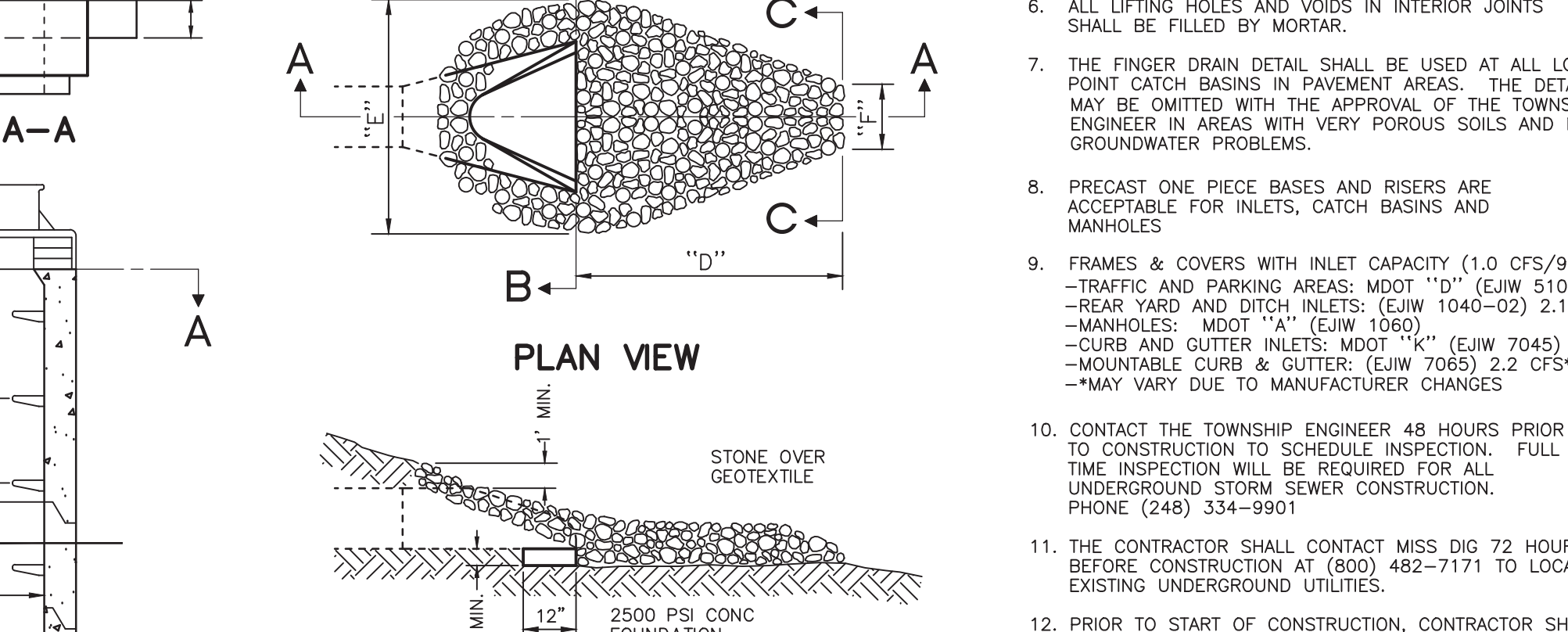
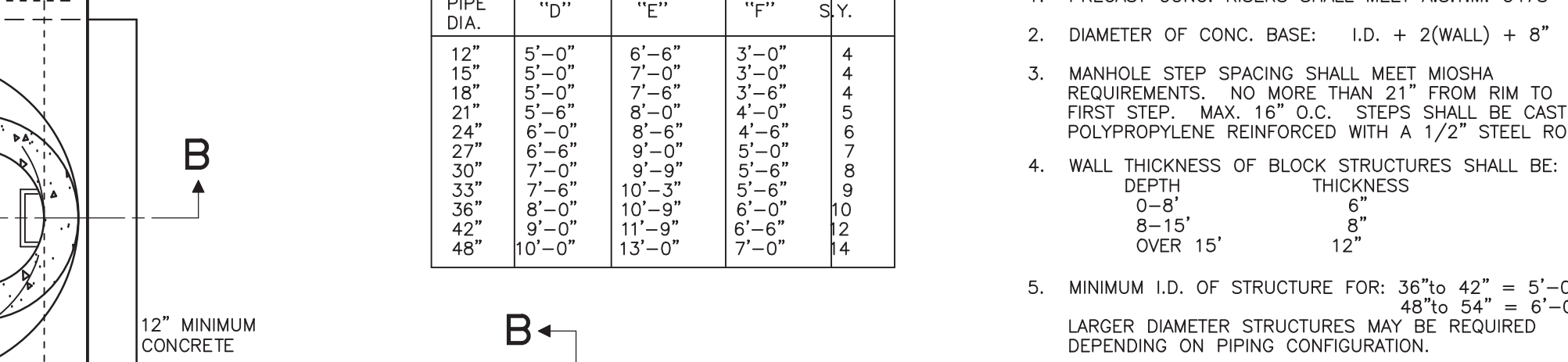
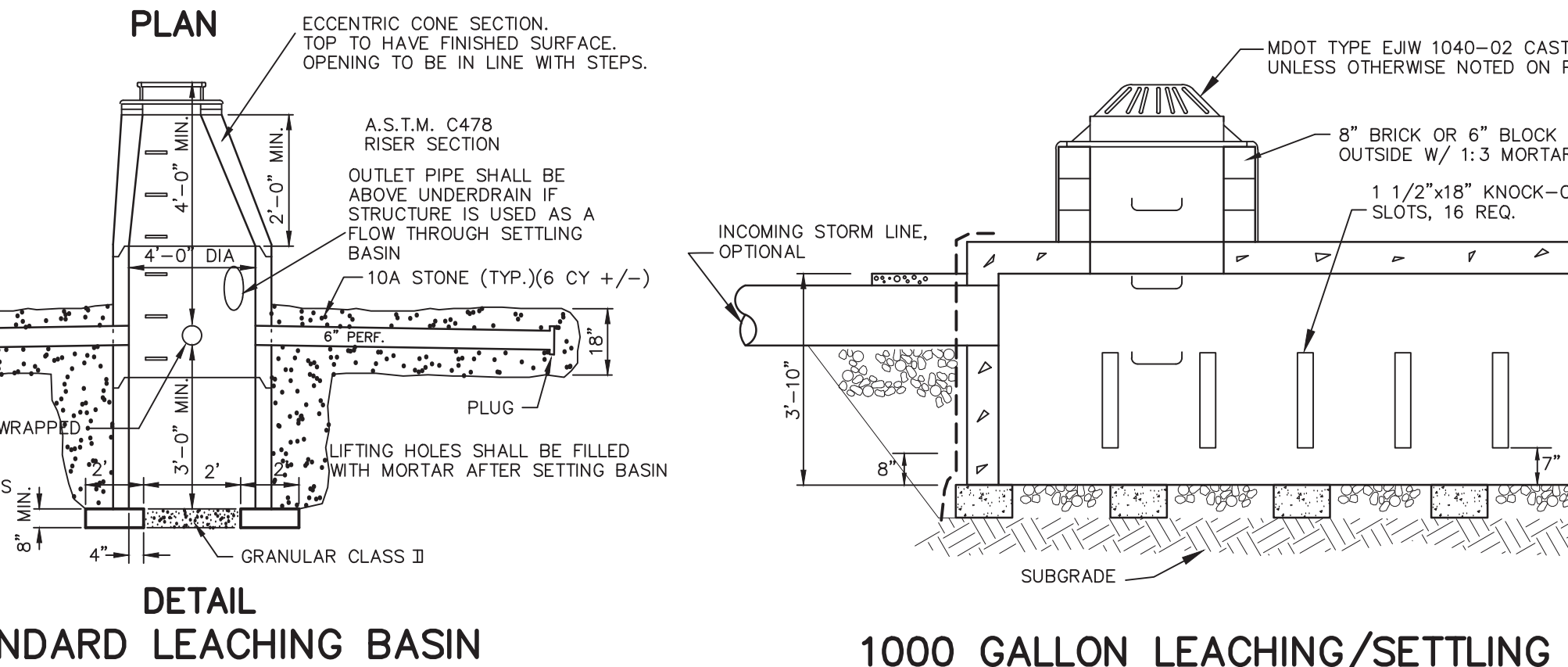
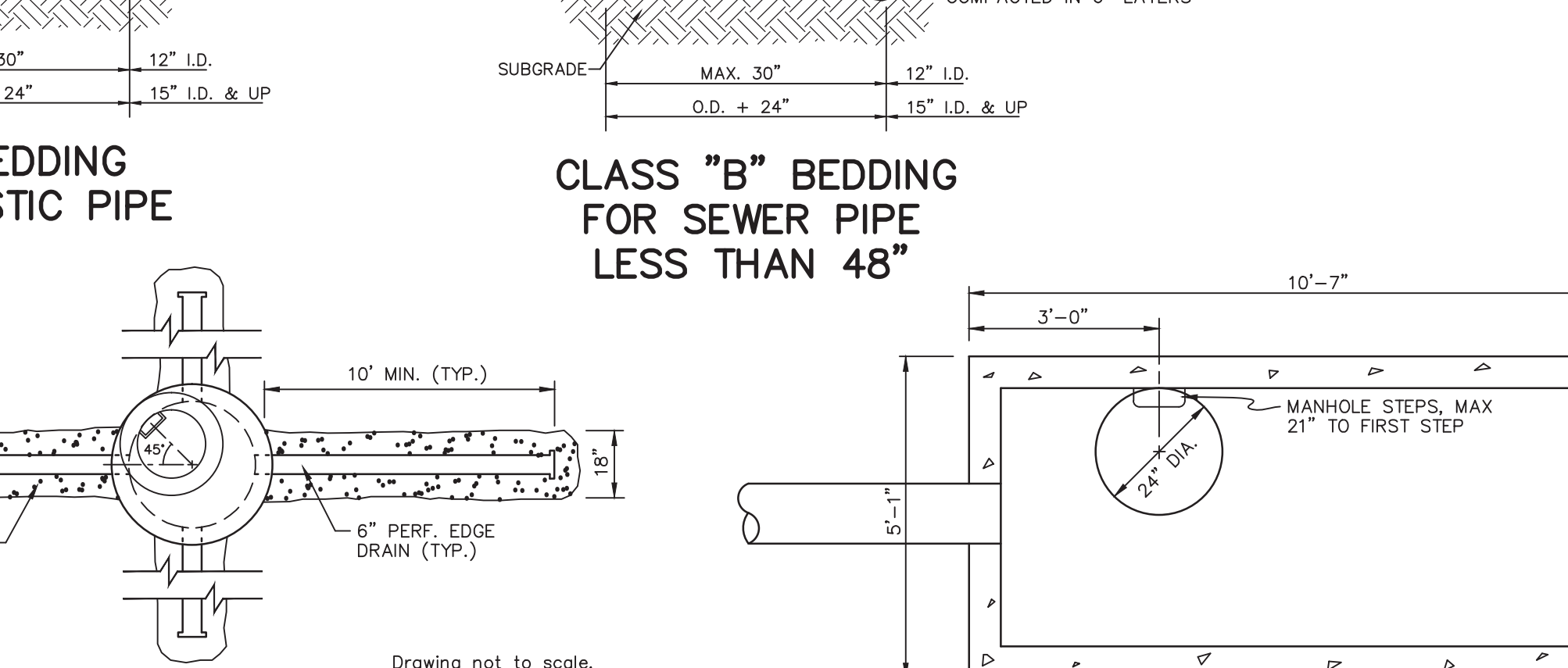
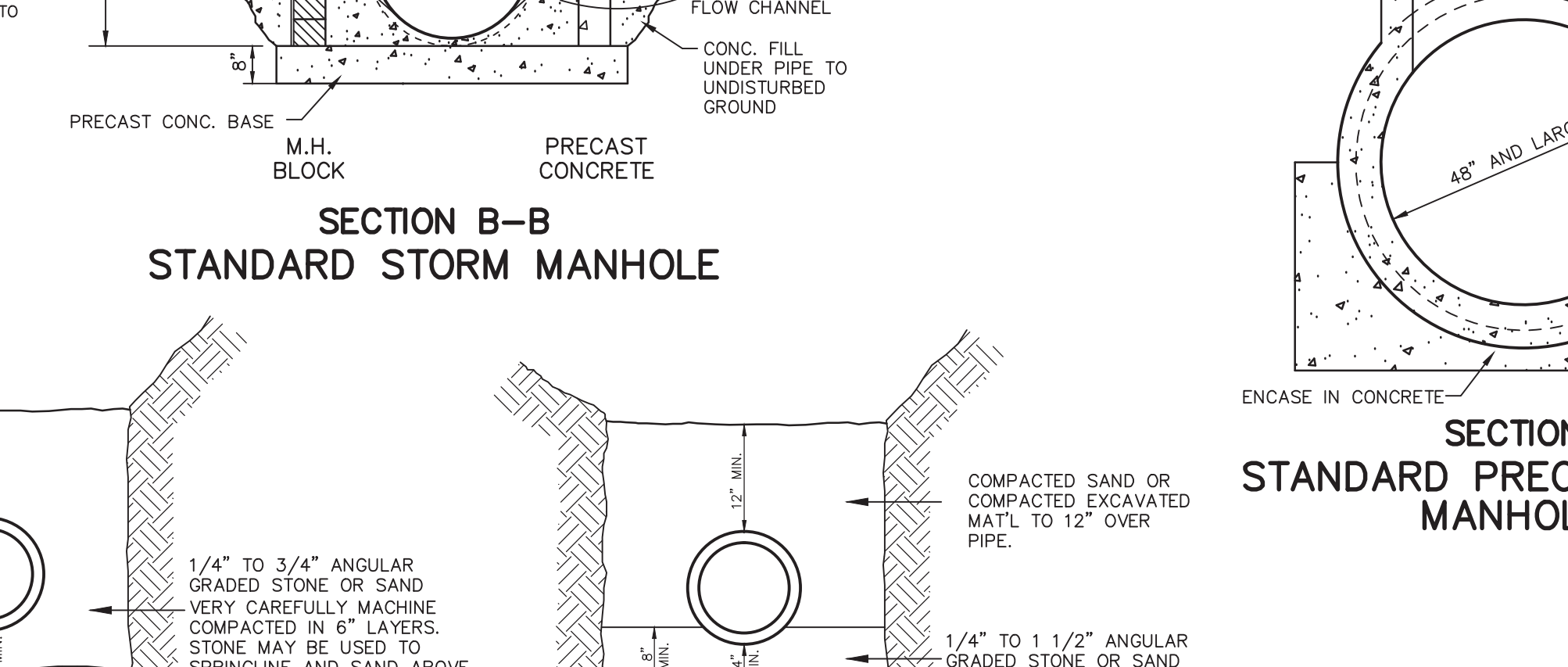
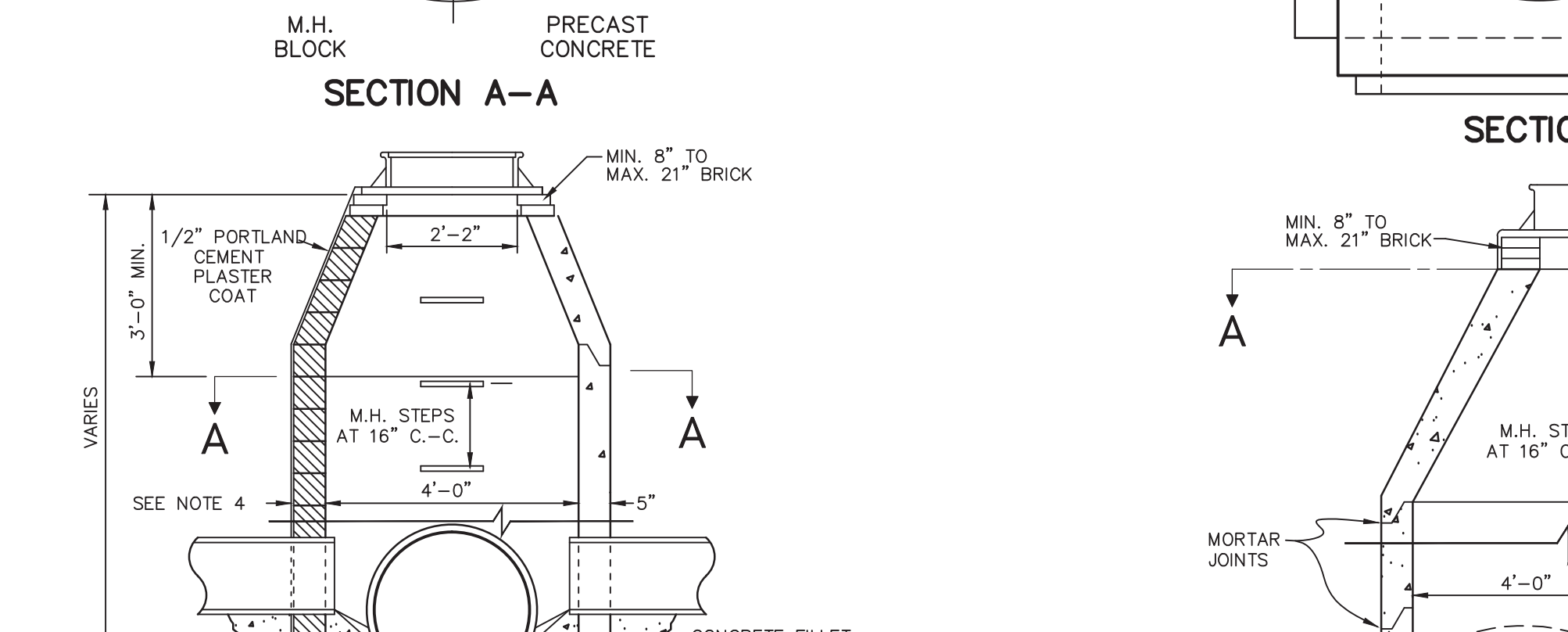
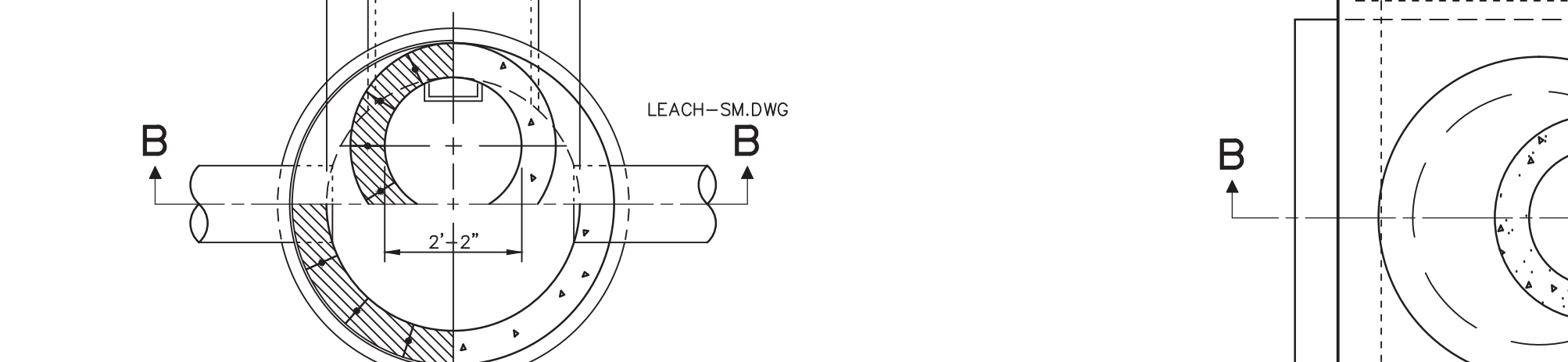
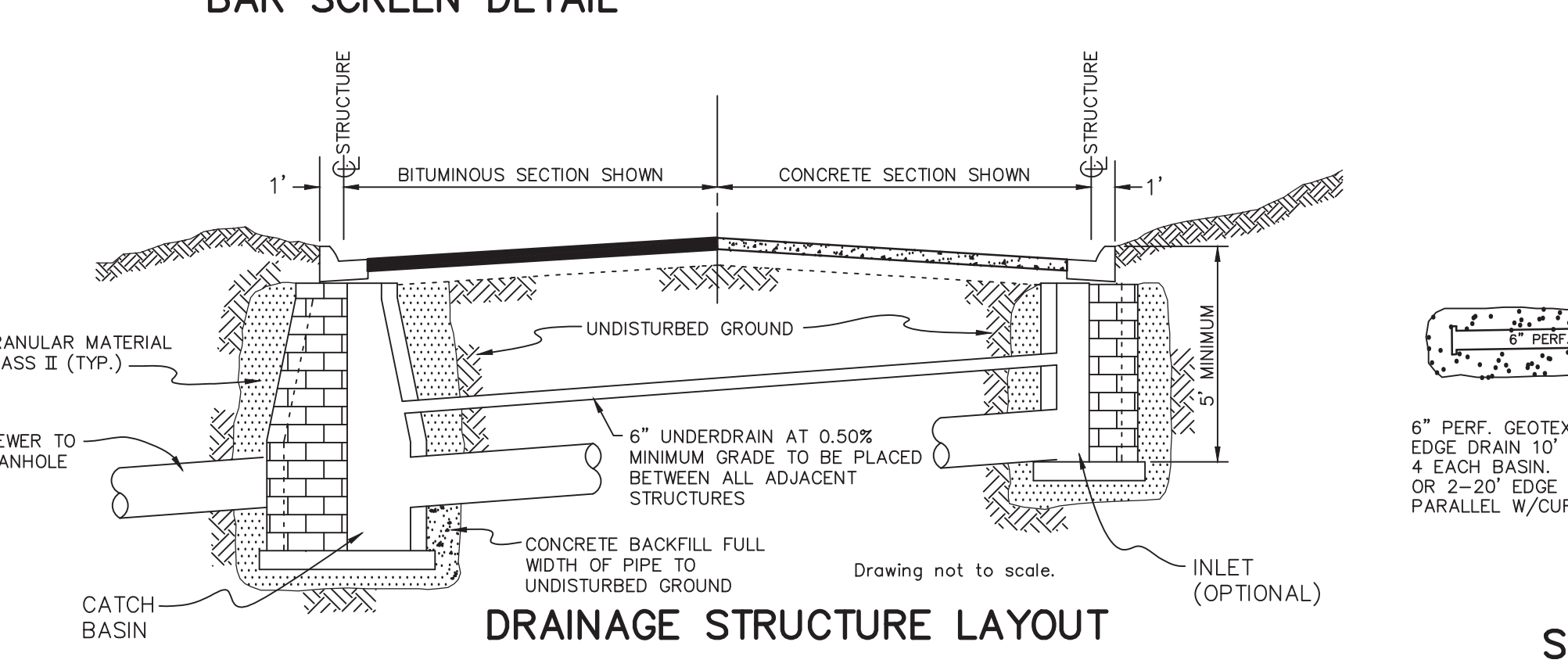
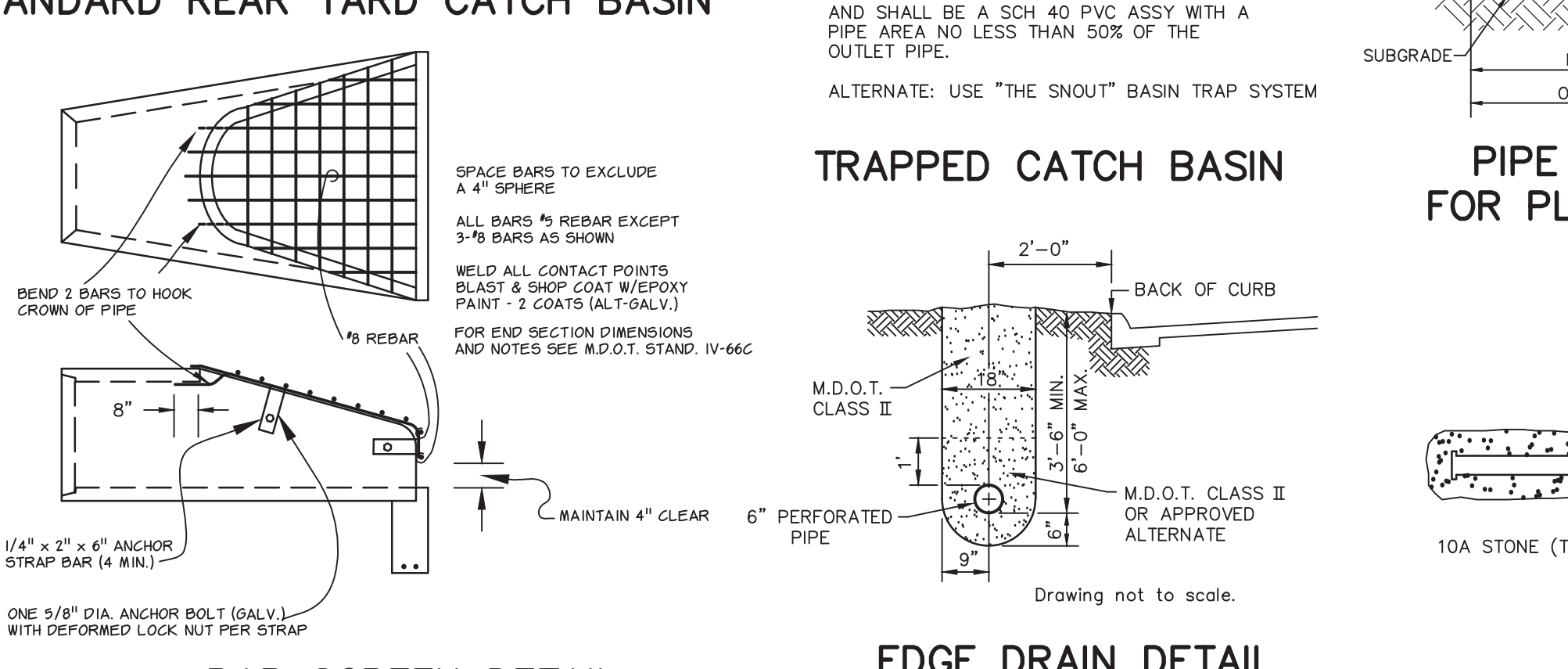
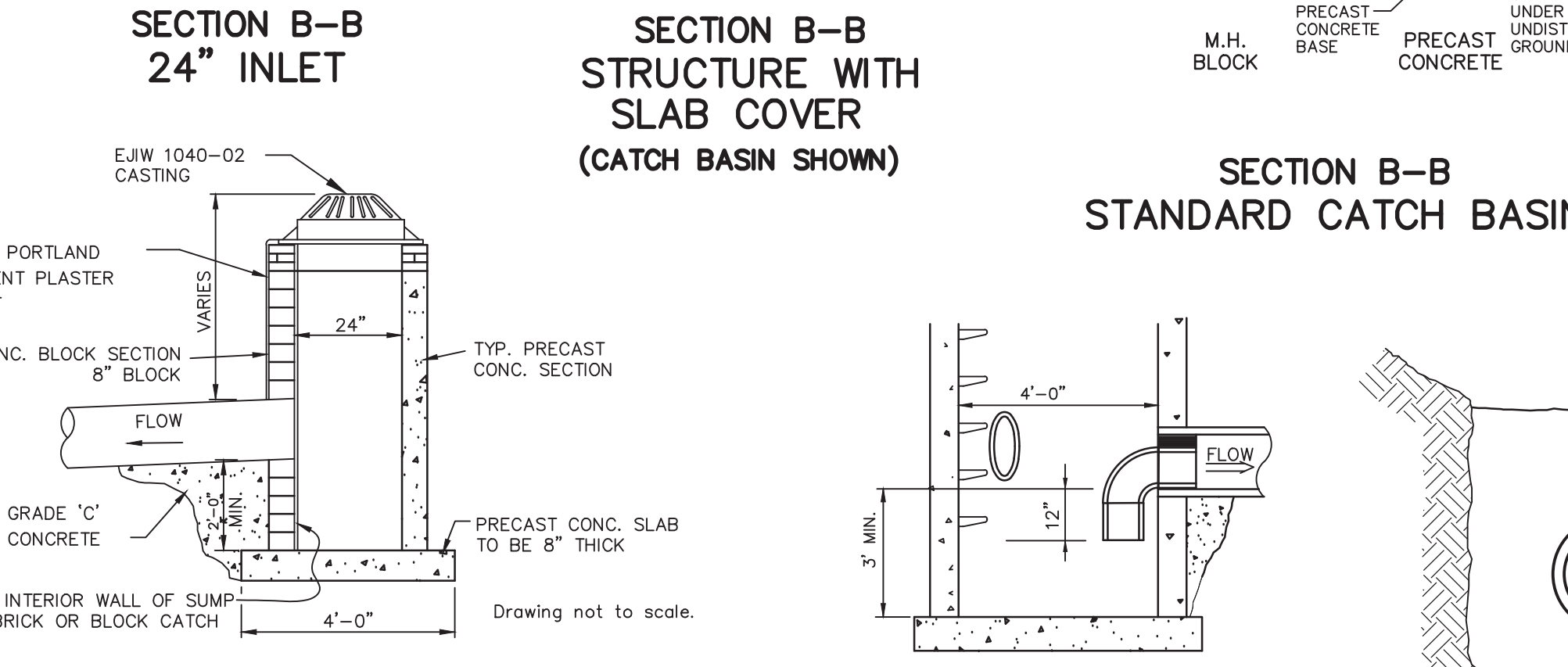
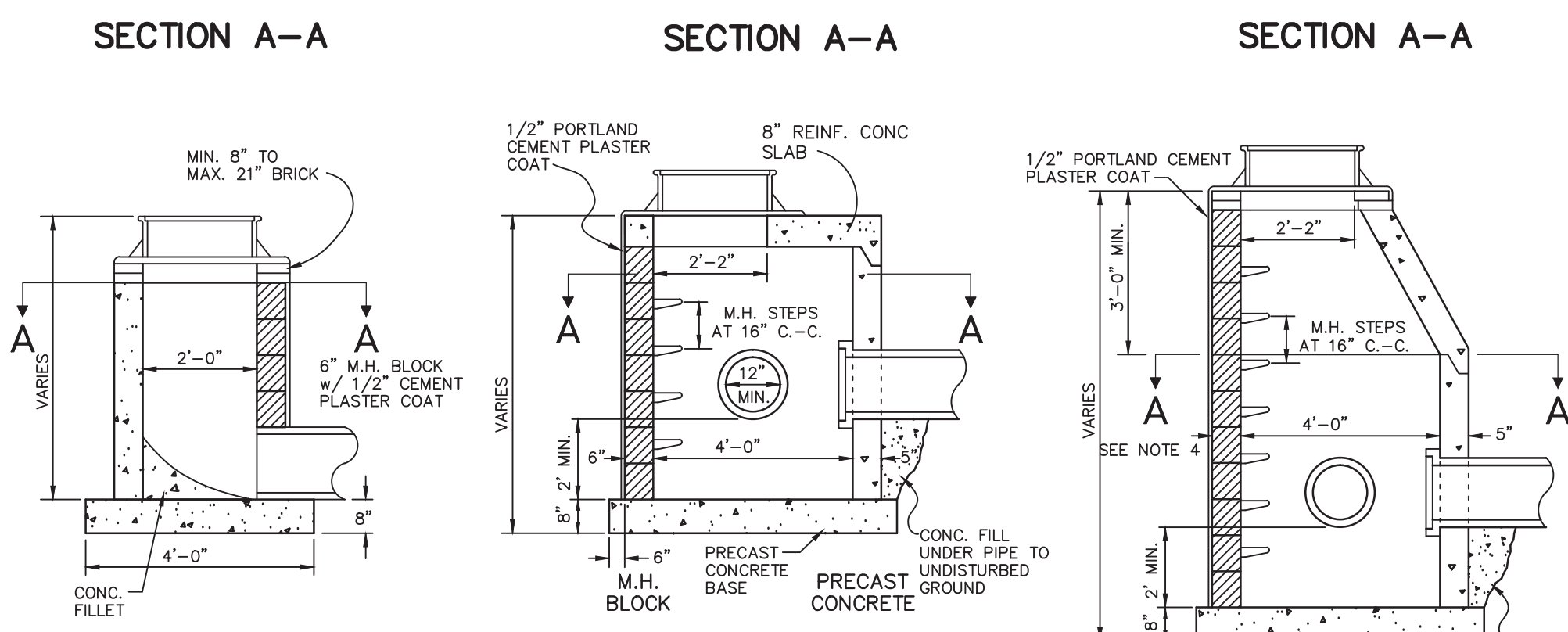
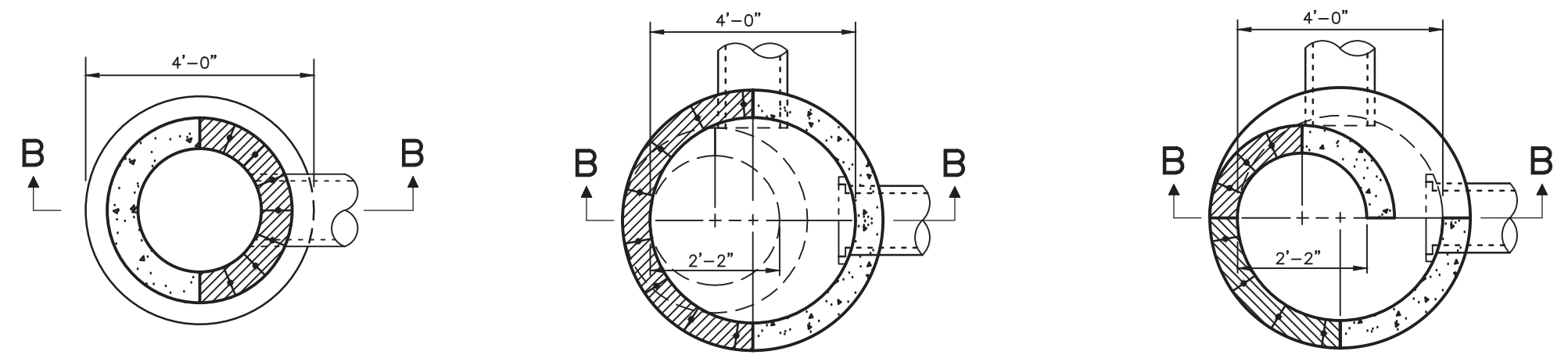
**White Lake Township**  
7525 Highland Road (M-59)  
White Lake, Michigan 48383  
248-698-3300

**WATER MAIN  
STANDARD DETAILS**

VERT. -  
SCALE: HORIZ. AS NOTED

JOB NO.  
DATE ISSUED  
SHEET NO.





PIPE DIA.	"D"	"E"	"F"	S.Y.
12"	5'-0"	6'-6"	3'-0"	4
15"	5'-0"	7'-0"	3'-0"	4
18"	5'-0"	7'-6"	3'-0"	4
21"	5'-6"	8'-0"	4'-0"	5
24"	6'-0"	8'-6"	4'-6"	6
27"	6'-6"	9'-0"	5'-0"	7
30"	7'-0"	9'-6"	5'-6"	8
33"	7'-6"	10'-3"	5'-6"	9
36"	8'-0"	10'-9"	6'-0"	10
42"	9'-0"	11'-9"	6'-6"	12
48"	10'-0"	13'-0"	7'-0"	14

- STORM SEWER NOTES**
- PRECAST CONC. RISERS SHALL MEET A.S.T.M. C478
  - DIAMETER OF CONC. BASE: I.D. + 2(WALL) + 8"
  - MANHOLE STEP SPACING SHALL MEET MIOSHA REQUIREMENTS. NO MORE THAN 21" FROM RIM TO FIRST STEP. MAX. 16" O.C. STEPS SHALL BE CAST POLYPROPYLENE REINFORCED WITH A 1/2" STEEL ROD.
  - WALL THICKNESS OF BLOCK STRUCTURES SHALL BE:  
DEPTH THICKNESS  
0-8' 8"  
8-15' 8"  
OVER 15' 12"
  - MINIMUM I.D. OF STRUCTURE FOR: 36" to 42" = 5'-0"  
48" to 54" = 6'-0"  
LARGER DIAMETER STRUCTURES MAY BE REQUIRED DEPENDING ON PIPING CONFIGURATION.
  - ALL LIFTING HOLES AND VOIDS IN INTERIOR JOINTS SHALL BE FILLED BY MORTAR.
  - THE FINGER DRAIN DETAIL SHALL BE USED AT ALL LOW POINT CATCH BASINS IN PAVEMENT AREAS. THE DETAIL MAY BE OMITTED WITH THE APPROVAL OF THE TOWNSHIP ENGINEER IN AREAS WITH VERY POROUS SOILS AND NO GROUNDWATER PROBLEMS.
  - PRECAST ONE PIECE BASES AND RISERS ARE ACCEPTABLE FOR INLETS, CATCH BASINS AND MANHOLES
  - FRAMES & COVERS WITH INLET CAPACITY (1.0 CFS/90 SQ IN) -TRAFFIC AND PARKING AREAS: MDOT "D" (EJW 5105) 1.9 CFS\* -REAR YARD AND DITCH INLETS: (EJW 1040-02) 2.1 CFS\* -MANHOLES: MDOT "A" (EJW 1060) -CURB AND GUTTER INLETS: MDOT "K" (EJW 7045) 1.8 CFS\* -MOUNTABLE CURB & GUTTER: (EJW 7065) 2.2 CFS\* \*MAY VARY DUE TO MANUFACTURER CHANGES
  - CONTACT THE TOWNSHIP ENGINEER 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE INSPECTION. FULL TIME INSPECTION WILL BE REQUIRED FOR ALL UNDERGROUND STORM SEWER CONSTRUCTION. PHONE: (248) 334-9901
  - THE CONTRACTOR SHALL CONTACT MISS DIG 72 HOURS BEFORE CONSTRUCTION AT (800) 482-7171 TO LOCATE EXISTING UNDERGROUND UTILITIES.
  - PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL HAVE IN HIS POSSESSION A CURRENT SOIL EROSION CONTROL PERMIT AS ISSUED BY WHITE LAKE TOWNSHIP.
  - A 2' DEEP SUMP SHALL BE USED IN ANY STRUCTURE SUBJECT TO A WATER DROP GREATER THAN 2.0' FROM AN INLET PIPE.
  - ALLOWABLE STORM SEWER PIPE TYPES:  
-12" AND UP: RCP ASTM C-76 MIN CLASS 3, MIN CLASS 4 UNDER TRAFFIC AREAS, RUBBER JOINT  
-6" TO 15": SCH 40 PVC OR SDR 23.5 PVC WITH RUBBER OR GLUE JOINT  
-6" TO 48": SMOOTH BORE CORRUGATED HIGH DENSITY POLYETHYLENE WITH NEOPRENE LINED JOINTS OR BETTER
  - THE MINIMUM PIPE SIZE IN PUBLIC RIGHT-OF-WAY OR EASEMENTS AND FOR PIPES CARRYING OFF-SITE STORM WATER SHALL BE 12"
  - ALL PIPE ENDS NOT WITHIN A STRUCTURE SHALL HAVE A CONCRETE OR METAL FLARE END SECTION (FES) WITH A BAR SCREEN ON PIPES 18" AND LARGER EXCEPT THOSE WITHIN A SECURE FENCED AREA NEED NO BAR SCREEN.
  - ALL DRAINAGE STRUCTURES WITHIN THE ROAD SHALL BE SEALED WITH WRAPPED GEOTEXTILE PER ROC STANDARD

DRAWN: CAD  
DESIGN: OA  
CHECKED: -

REVISIONS	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE	MARK	ADDENDUM/CHANGE ORDER	DATE
	FIRST ISSUE		08/16/95	REVISE		10-03-02	REVISE		06-01-07
	ADD SO-1		06-17-96	REVISE		12-17-03	REVISE		04/30/13
	NEW BAR GRATE		11-03-97	SEC REFERENCE		05-17-05			

**Johnson & Anderson**  
 4494 Elizabeth Lake Road Waterford, Michigan 48328 tel (248) 681-7800 fax (248) 681-2660  
 1060 W. Norton Avenue, Suite 7 Muskegon, Michigan 49441 tel (231) 780-3100 fax (231) 780-3115  
 3910 Lapeer Road Port Huron, Michigan 48060 tel (810) 987-7820 fax (810) 987-7895

White Lake Township  
 7525 Highland Road (M-59)  
 White Lake, Michigan 48383  
 248-698-3300

**STORM SEWER STANDARD DETAILS**  
 JOB NO. \_\_\_\_\_  
 DATE ISSUED 08/16/95  
 SHEET NO. \_\_\_\_\_













**BOWERS+ASSOCIATES, INC.**  
2400 SOUTH HURON PARKWAY  
ANN ARBOR, MI 48104  
P: 734.975.2400  
WWW.BOWERSARCH.COM

CONSULTANT + NAME

PROJECT + INFORMATION  
**WHITE LAKE  
RETAIL**  
9109 HIGHLAND RD

PROJECT + NUMBER

23-306

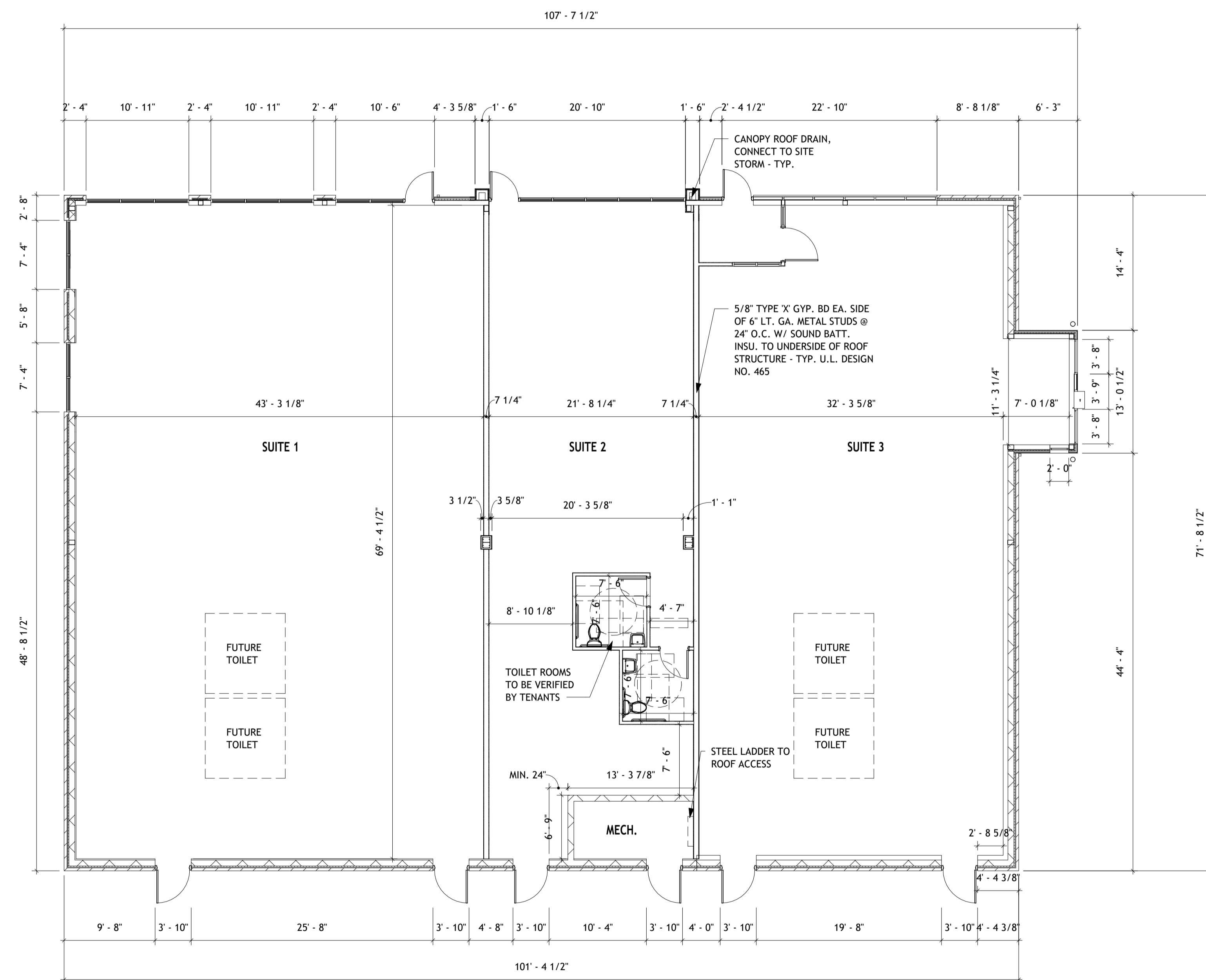
ISSUE + DATE

21 FEB 2024	
23 APR 2024	REV
13 MAY 2024	REV
12 JULY 2024	REV
17 JULY 2024	
24 JULY 2024	REV
21 AUG 2024	REV
17 OCT 2024	SPLAN
14 NOV 2024	BID
19 DEC 2024	SPLAN

SHEET + TITLE  
FLOOR PLANS - WEST  
BUILDING

SHEET + NUMBER

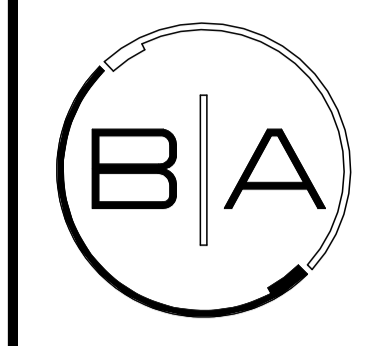
A-100



**FLOOR PLAN - WEST BUILDING**  
SCALE: 1/8" = 1'-0"







**BOWERS+ASSOCIATES, INC.**  
 2400 SOUTH HURON PARKWAY  
 ANN ARBOR, MI 48104  
 P: 734.975.2400  
 WWW.BOWERSARCH.COM

CONSULTANT + NAME

PROJECT + INFORMATION  
**WHITE LAKE  
 RETAIL**  
 9109 HIGHLAND RD

PROJECT + NUMBER

23-306

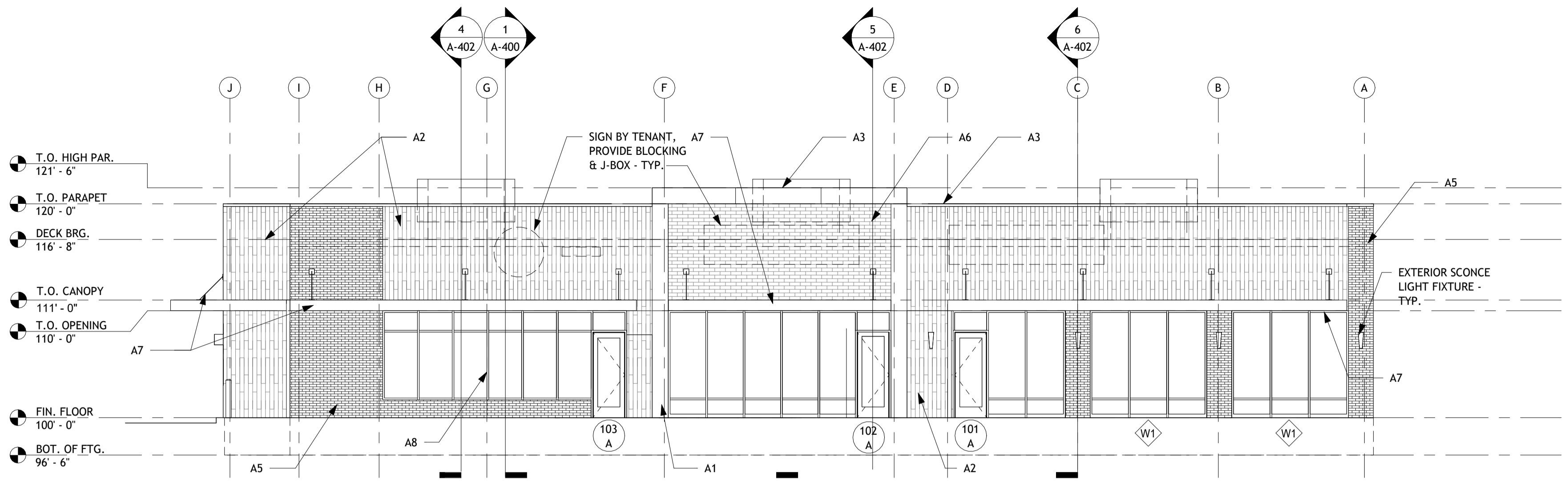
ISSUE + DATE

21 FEB 2024	
23 APR 2024	REV
13 MAY 2024	REV
12 JULY 2024	REV
17 JULY 2024	
24 JULY 2024	REV
21 AUG 2024	REV
17 OCT 2024	SPLAN
14 NOV 2024	BID
19 DEC 2024	SPLAN

SHEET + TITLE  
 ELEVATIONS - WEST  
 BUILDING

SHEET + NUMBER

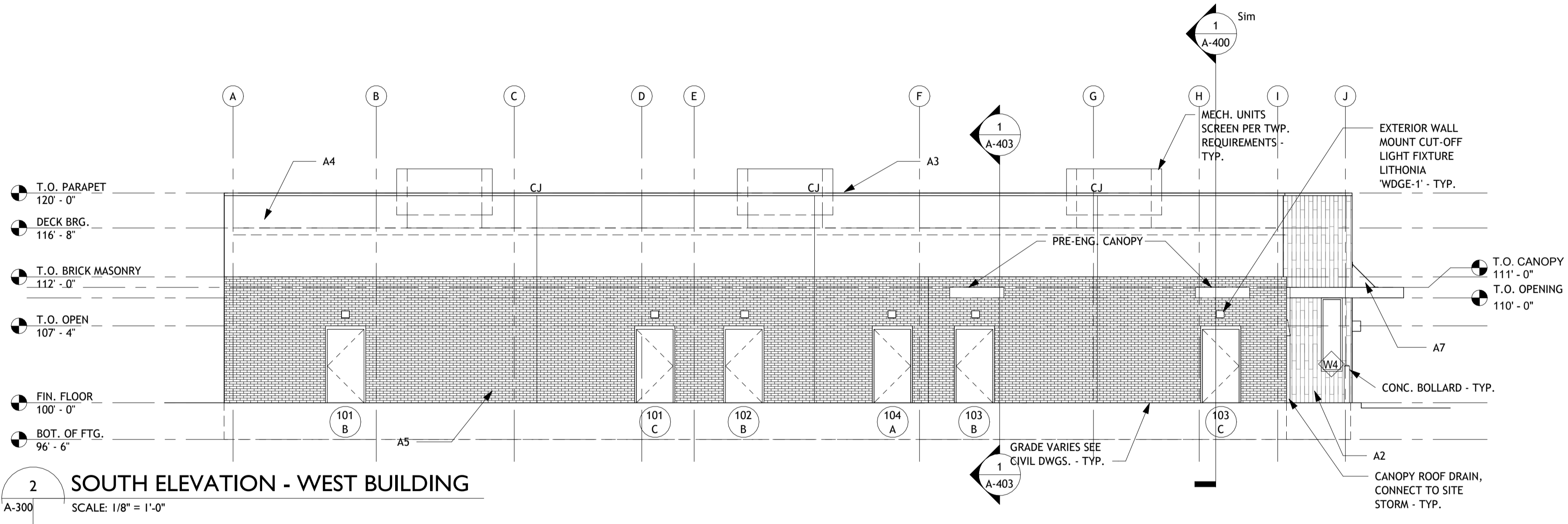
A-300



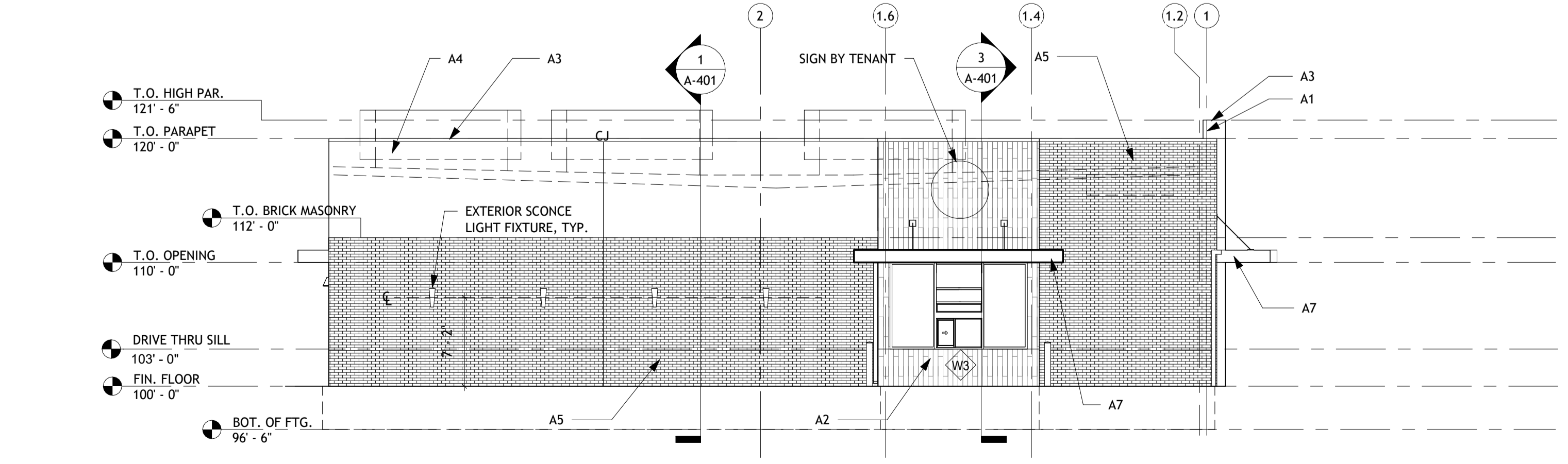
EXTERIOR FINISHES LEGEND					
TAG	MATERIAL	MANUF/STYLE	COLOR	FINISH / STYLE	FASTENER TYPE
A1	FIBER CEMENT PANELS	NICHIHA	DARK METAL		
A2	FIBER CEMENT PANELS	NICHIHA			
A3	PREFIN. METAL COPING	PAC-CLAD OR EQUAL TO MATCH	TO MATCH RAL #7021 MATTE BLACK STEEL - MTO028 - FLAT ROCK COLOR TO MATCH SW 7030 ANEW GRAY	ANODIZED	
A4	EXTERIOR INSULATION FINISH SYSTEM (EIFS)	DRYVIT		SANDBLAST TEXTURE	
A5	BRICK VENEER	BELDEN BRICK			
A6	BRICK VENEER	GLEN-GERY	ASPEN WHITE		
A7	PREFIN. METAL CANOPY	TBD	TO MATCH RAL #7021	PRE-FINISHED	
A8	PREFIN. ALUM.	TBD	TO MATCH RAL #7021	PRE-FINISHED	

WINDOW COVERAGE: 32.9% OF FACADE

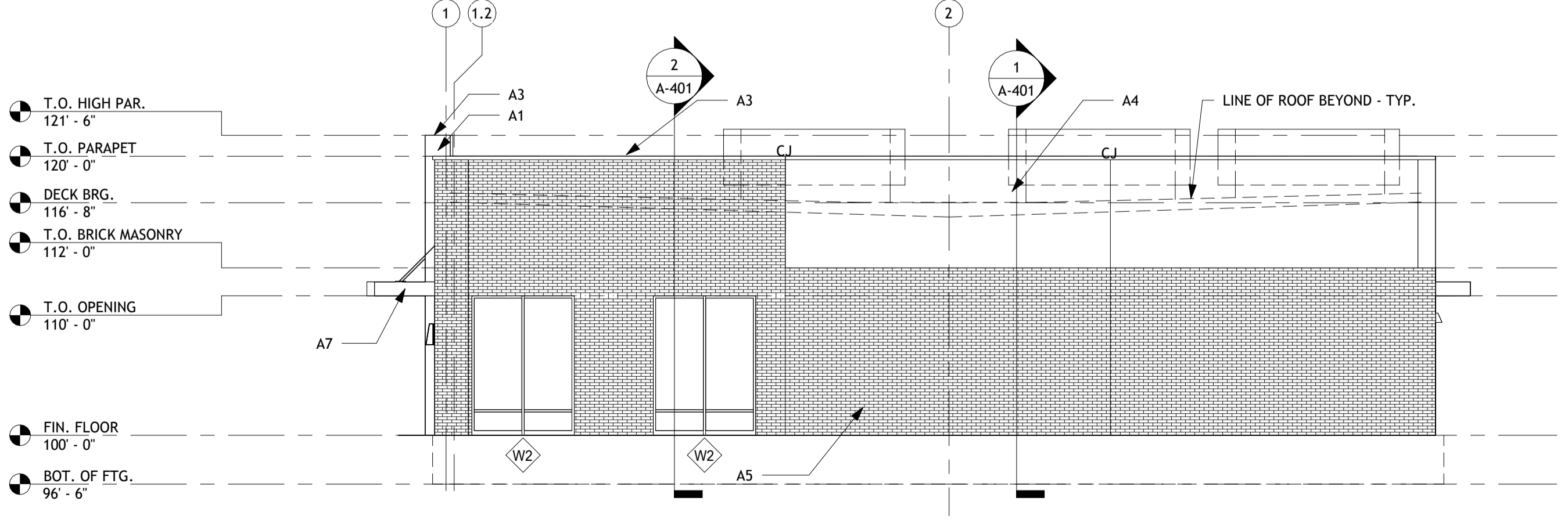
**1 NORTH ELEVATION - WEST BUILDING**  
 SCALE: 1/8" = 1'-0"



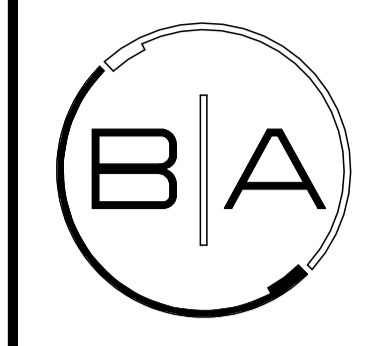
**2 SOUTH ELEVATION - WEST BUILDING**  
 SCALE: 1/8" = 1'-0"



**3 EAST ELEVATION - WEST BUILDING**  
 SCALE: 1/8" = 1'-0"



**4 WEST ELEVATION - WEST BUILDING**  
 SCALE: 1/8" = 1'-0"



**BOWERS+ASSOCIATES, INC.**  
 2400 SOUTH HURON PARKWAY  
 ANN ARBOR, MI 48104  
 P: 734.975.2400  
 WWW.BOWERSARCH.COM

CONSULTANT + NAME

PROJECT + INFORMATION  
**WHITE LAKE  
 RETAIL**  
 9109 HIGHLAND RD

PROJECT + NUMBER

**23-306**

ISSUE + DATE

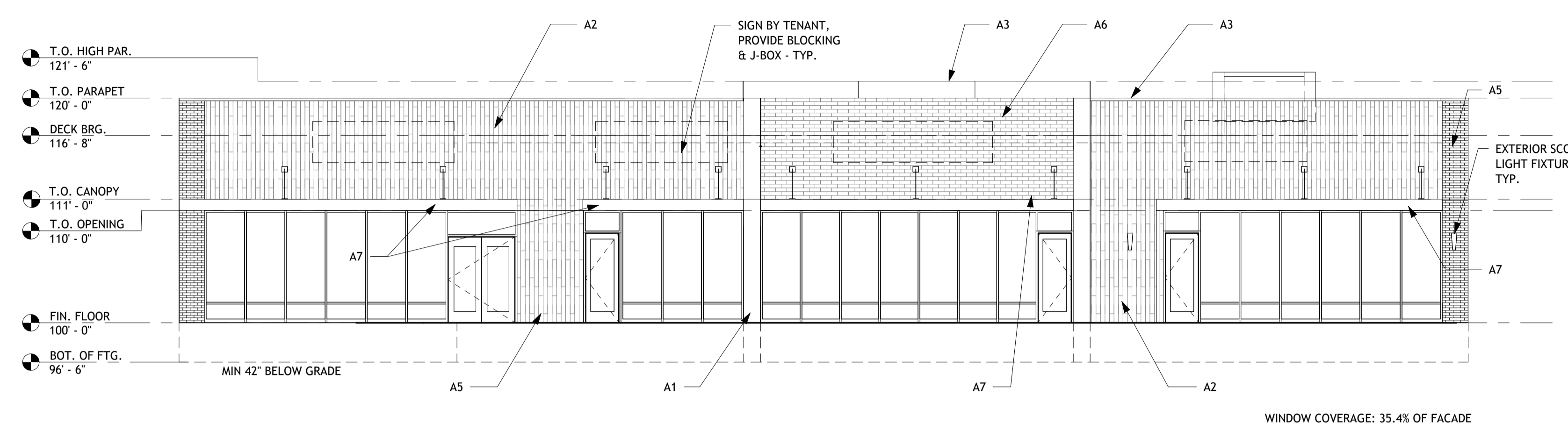
21 FEB 2024	
23 APR 2024	REV
13 MAY 2024	REV
12 JULY 2024	REV
17 JULY 2024	
24 JULY 2024	REV
21 AUG 2024	REV
17 OCT 2024	SPLAN
14 NOV 2024	BID
19 DEC 2024	SPLAN

SHEET + TITLE  
 ELEVATIONS - EAST BUILDING

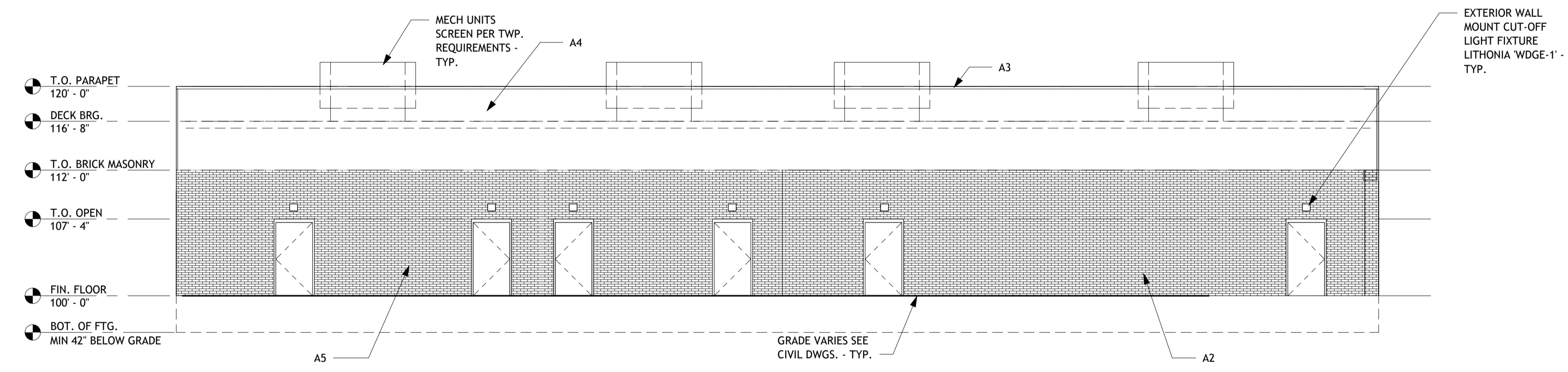
SHEET + NUMBER

**A-301**

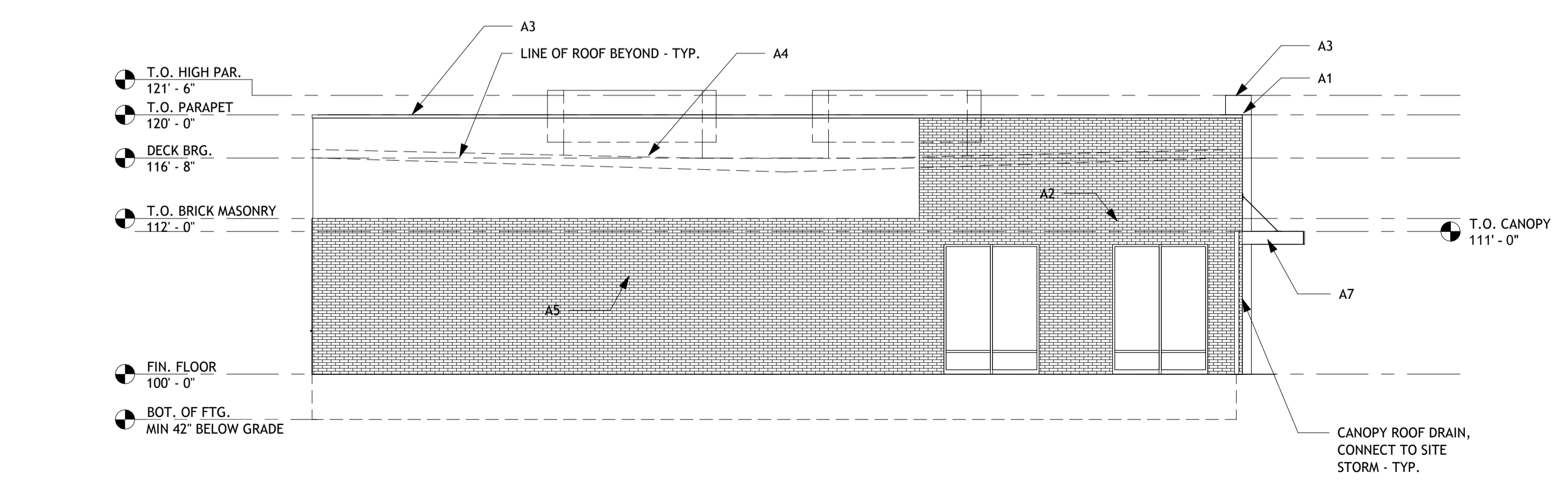
BOWERS+ASSOCIATES, INC.  
 © COPYRIGHT



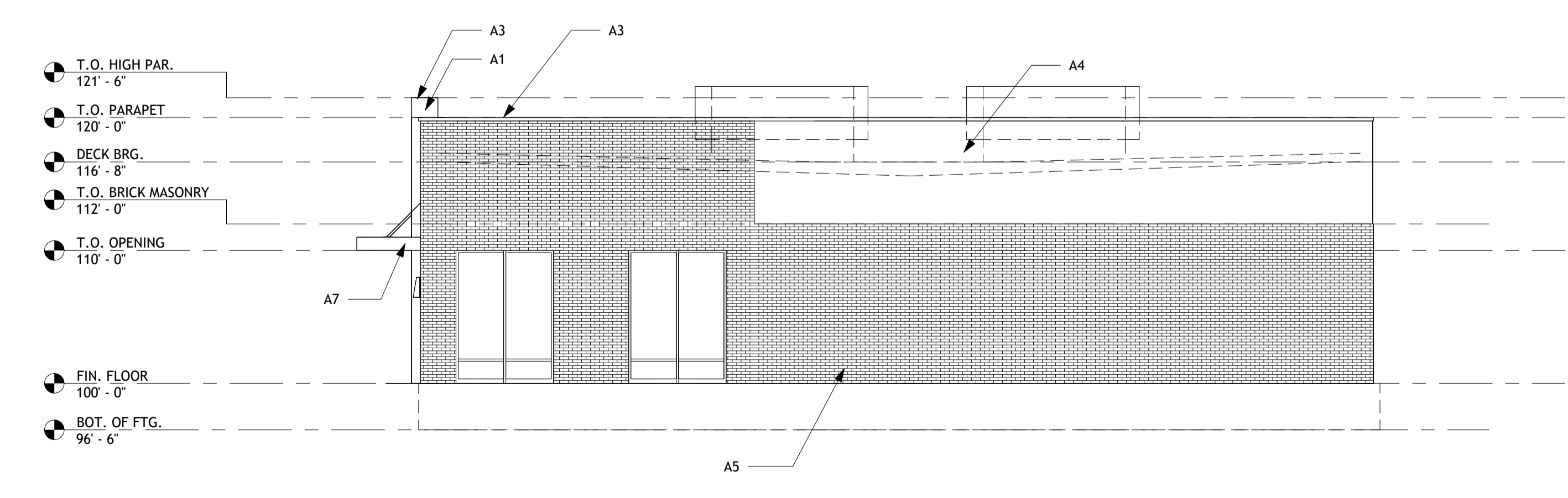
**1 NORTH ELEVATION - EAST BUILDING**  
 SCALE: 1/8" = 1'-0"



**2 SOUTH ELEVATION - EAST BUILDING**  
 SCALE: 1/8" = 1'-0"

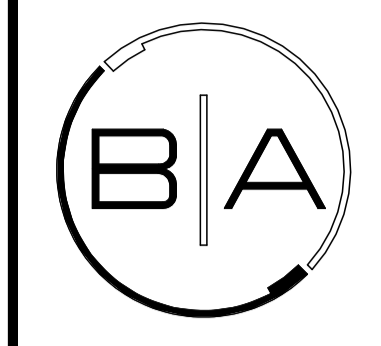


**3 EAST ELEVATION - EAST BUILDING**  
 SCALE: 1/8" = 1'-0"



**4 WEST ELEVATION - EAST BUILDING**  
 SCALE: 1/8" = 1'-0"

EXTERIOR FINISHES LEGEND					
TAG	MATERIAL	MANUF/STYLE	COLOR	FINISH / STYLE	FASTENER TYPE
A1	FIBER CEMENT PANELS	NICHIHA	DARK METAL		
A2	FIBER CEMENT PANELS	NICHIHA			
A3	PREFIN. METAL COPING	PAC-GLAD OR EQUAL TO MATCH	TO MATCH RAL #7021 MATTE BLACK STEEL - MT0028 - FLAT ROCK COLOR TO MATCH SW 7030 ANEW GRAY	ANODIZED	
A4	EXTERIOR INSULATION FINISH SYSTEM (EIFS)	DRYVIT		SANDBLAST TEXTURE	
A5	BRICK VENEER	BELDEN BRICK			
A6	BRICK VENEER	GLEN-GERY	ASPEN WHITE		
A7	PREFIN. METAL CANOPY	TBD	TO MATCH RAL #7021	PRE-FINISHED	
A8	PREFIN. ALUM	TBD	TO MATCH RAL #7021	PRE-FINISHED	



**BOWERS+ASSOCIATES, INC.**  
 2400 SOUTH HURON PARKWAY  
 ANN ARBOR, MI 48104  
 P: 734.975.2400  
 WWW.BOWERSARCH.COM

CONSULTANT + NAME

PROJECT + INFORMATION  
**WHITE LAKE  
 RETAIL**  
 9109 HIGHLAND RD

PROJECT + NUMBER

**23-306**

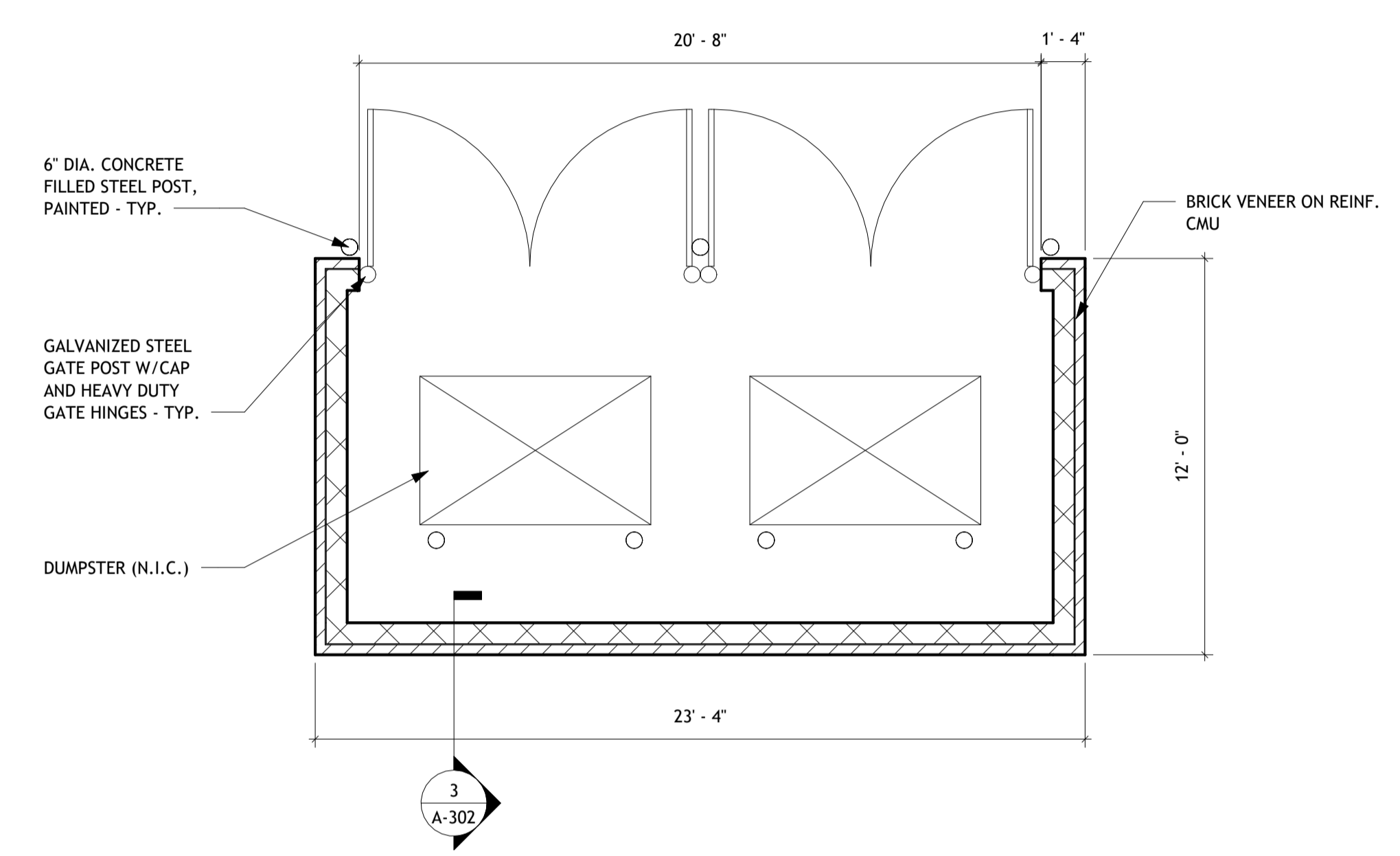
ISSUE + DATE

3 MAR 2024	
29 APR 2024	REV
13 MAY 2024	REV
24 JULY 2024	REV
17 OCT 2024	SPLAN
14 NOV 2024	BID
19 DEC 2024	SPLAN

SHEET + TITLE  
 DUMPSTER ENCLOSURE  
 ELEVATIONS

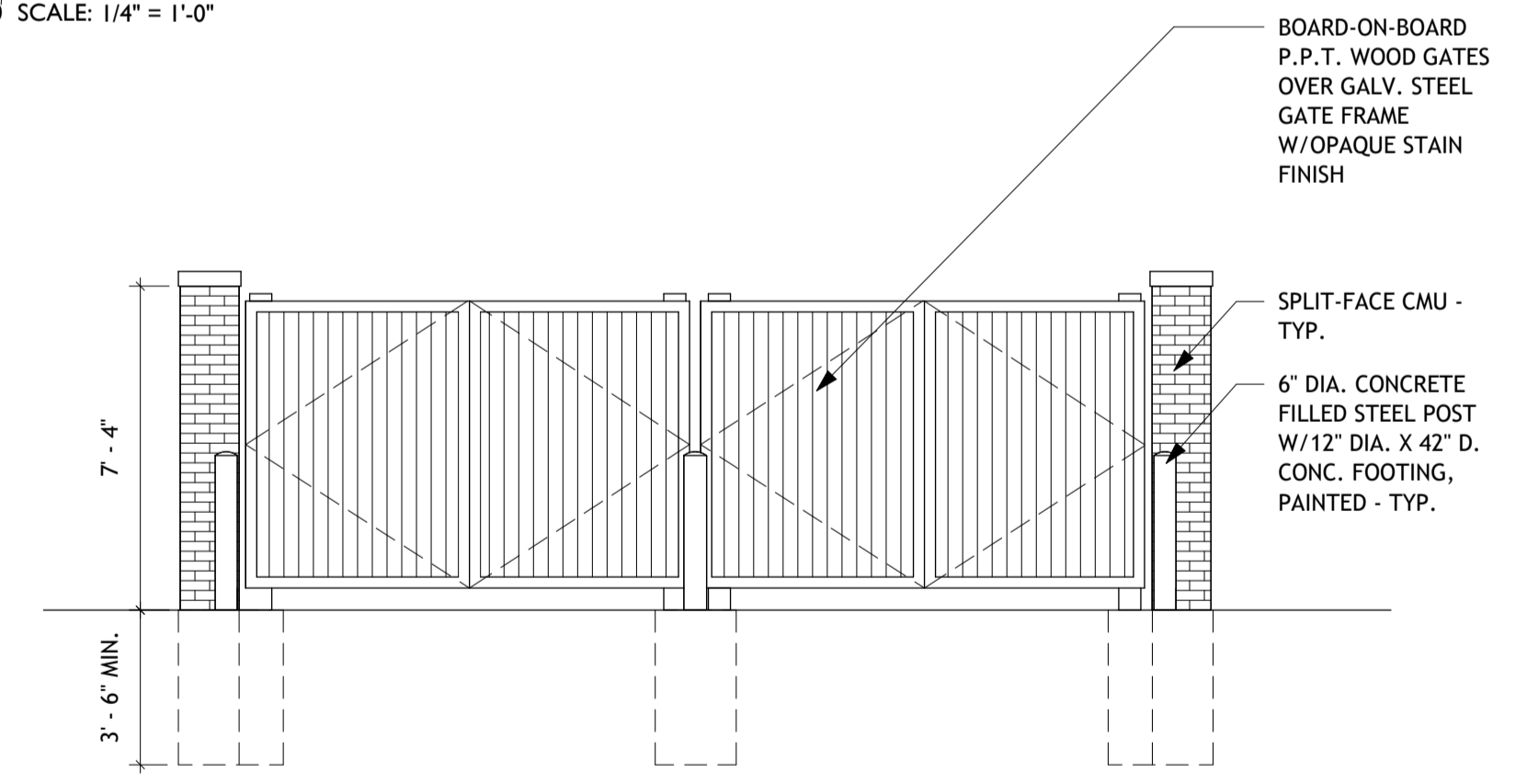
SHEET + NUMBER

**A-302**



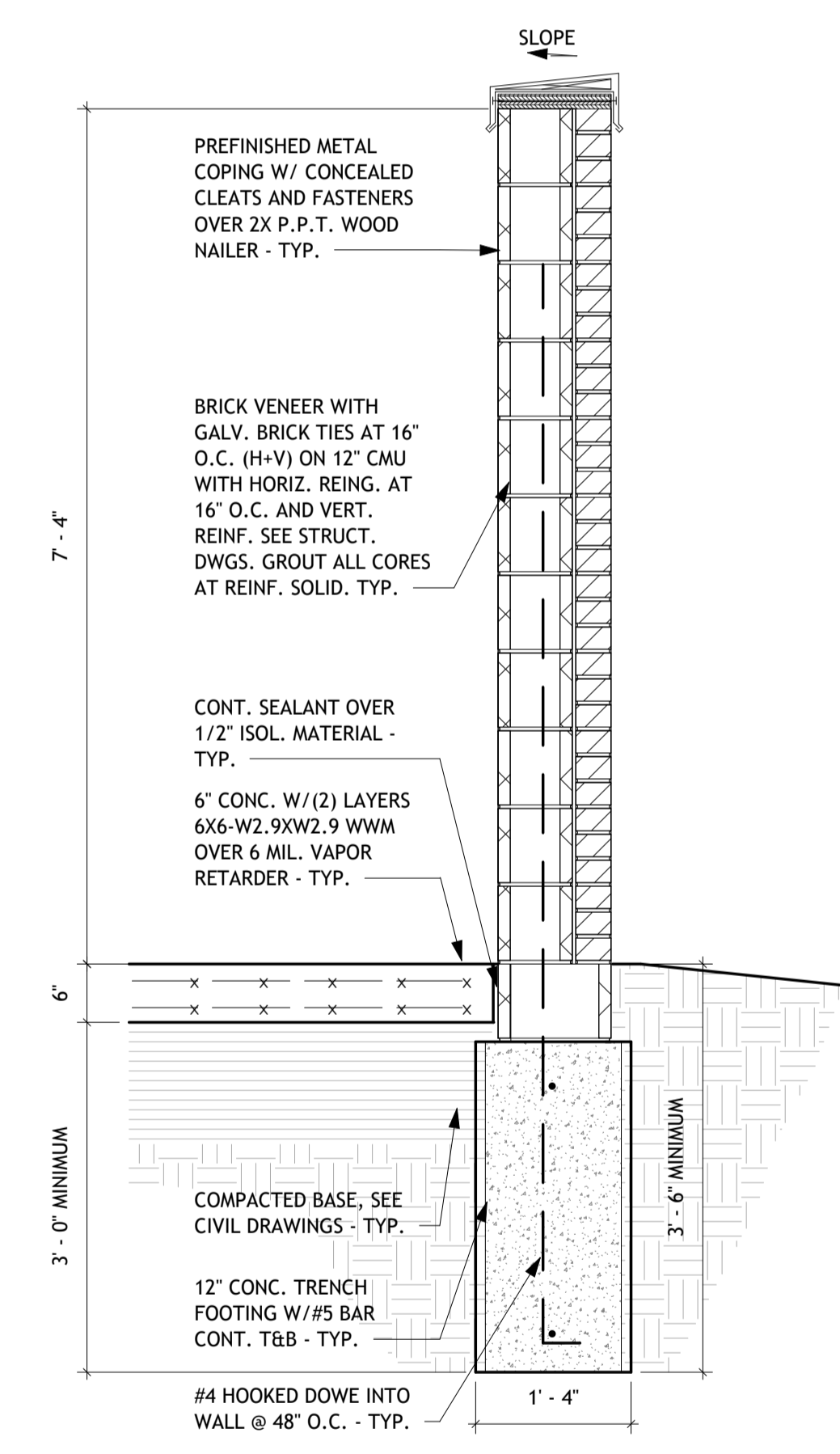
**1 DUMPSTER ENCLOSURE PLAN**

A-302/A-300 SCALE: 1/4" = 1'-0"



**2 DUMPSTER ENCLOSURE ELEV**

A-302 SCALE: 1/4" = 1'-0"



**3 TYPICAL DUMPSTER SCREEN WALL DETAIL**

A-302/A-302 SCALE: 3/4" = 1'-0"





**CONCEPT RENDERING**  
WHITE LAKE TWP, MICHIGAN

**BOWERS+ASSOCIATES**  
ARCHITECTURE DESIGN





# COMMUNITY IMPACT STATEMENT

**9101 HIGHLAND ROAD – COMMERCIAL DEVELOPMENT  
12-23-227-003**

**9101 HIGHLAND ROAD (M-59)  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN 48386**



**PREPARED FOR:  
AFFINITY 10 INVESTMENT LLC  
44512 SOUTH SHORE STREET  
WATERFORD, MI 48328**

**PREPARED BY:  
STONEFIELD ENGINEERING & DESIGN, LLC  
555 S OLD WOODWARD AVENUE SUITE 12L  
BIRMINGHAM, MICHIGAN 48009**

**REPORT DATE  
NOVEMBER 12, 2024**





**REPORT CONTENTS**

**1.0 GENERAL ..... 1**

*1.1 SITE DESCRIPTION..... 1*

*1.2 HOURS OF OPERATION ..... 1*

*1.3 MASTER PLAN ANALYSIS..... 2*

**2.0 COMMUNITY FACILITIES AND SERVICES .....2**

    2.1 ESTIMATED DEMAND ON POLICE & FIRE SERVICES..... 2

    2.2 ESTIMATED SEWER & WATER DEMAND..... 2

    2.3 ESTIMATED TRUCK DELIVERIES..... 3

**3.0 ECONOMICS.....3**

    3.1 ANTICIPATED JOBS CREATED..... 3

    3.2 ANTICIPATED TAX REVENUE..... 3

**4.0 ENVIRONMENT.....4**

    4.1 EXISTING NATURAL FEATURES..... 4

    4.2 HAZARDOUS MATERIALS ..... 5

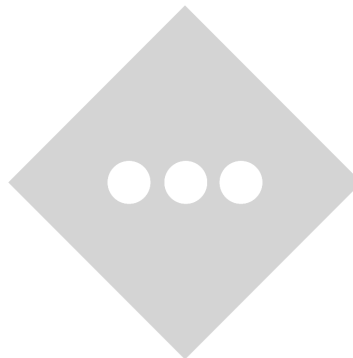
    4.3 AIR POLLUTANTS..... 5

    4.4 GROUNDWATER QUALITY & QUANTITY ..... 5

**5.0 NOISE .....5**

**6.0 TRAFFIC.....6**

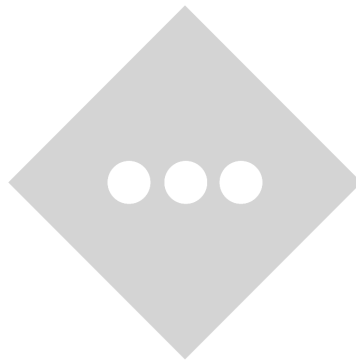
**7.0 AERIAL MAP .....7**





**APPENDICES**

**TRAFFIC IMPACT STUDY .....A**



## **I.0 GENERAL**

### ***I.1 SITE DESCRIPTION***

Affinity 10 Investment LLC proposes the construction of two (2) multi-tenant buildings including retail, restaurant, and drive-thru uses. The subject property, Parcel ID: 12-23-227-003, commonly known as 9101 Highland Road (M-59) is located along the south side of Highland Road (M-59) approximately 180 feet from the intersection with Sunny Beach Boulevard. The subject property is located within the White Lake Township Zoning District: RB - Restricted Business and is bounded by Highland Road (M-59) to the north, PD Planned Business Big Box Retail to north across Highland Road, RI-C - Single Family Residential to the east and south, and LB - Local Business, White Lake KinderCare to the west. The total project area is 195,568 SF (4.49 AC).

The existing site is a vacant church consisting of a 1-story building, commercial driveway on Highland Road (M-59), parking facilities, shed, playground and garden. The existing site is to be entirely demolished apart from the protection of 14 existing mature trees and on-site public utility mains. The proposed development includes the construction of two (2) multi-tenant buildings including retail, restaurant, and drive-thru uses and supporting improvements inclusive of parking facilities, landscape, utilities, site lighting, stormwater management facilities and right-of-way streetscape improvements. The West Building totals 7,227 SF including three tenants; Suite #1: 3,283 SF Retail, Suite #2: 1,405 SF Retail, Suite #3: 2,539 SF Restaurant with Drive-Thru (Starbucks). The East Building totals 7,865 SF including four tenants; Suite #4: 2,502 SF Restaurant, Suite #5: 1,900 SF Restaurant (Nothing Bundt the Cake), Suite #6 1,053 SF Retail, Suite #7 2,410 SF Restaurant.

This Community Impact Statement has been prepared per the White Lake Township Zoning Ordinance Section 6.6 requirements to provide a format for applicants to document the anticipated impacts of intensive development projects proposed as Special Land Uses.

### ***I.2 HOURS OF OPERATION***

At this time, prospective tenants and hours of operation are as follows:

- Nothing Bundt the Cake: 9:30 am to 8:00 pm
- Five Guys: 11:00 am to 10:00 pm
- Starbucks: 5:00 am to 8:00 pm
- Jersey Mike's: 10:00 am to 9:00 pm



### **1.3 MASTER PLAN ANALYSIS**

Per White Lake Townships “2024 Master Plan” the subject site is designated as “Commercial Corridor”. The Commercial Corridor Zones intent is to provide regional goods and services to residents and non-residents. Includes large box stores and drive-thrus.

The proposed development proposes commercial uses including retail, restaurant, and drive-thru which is directly consistent with the Township Master Plan “Commercial Corridor” land use.

Per the Future Land-Use Map, the existing surrounding land uses are designated as follows:

- **North:** Existing Planned Business  
Big-Box Retail  
Future Land Use Map: Commercial Corridor
- **East & South:** Existing RI-C Single Family Residential  
Single Family Homes  
Future Land Use Map: Neighborhood Residential
- **West:** Existing Local Business  
Child Daycare  
Future Land Use Map: Commercial Corridor

## **2.0 COMMUNITY FACILITIES AND SERVICES**

### **2.1 ESTIMATED DEMAND ON POLICE & FIRE SERVICES**

For a commercial development including retail and restaurant uses, a low/moderate demand on police and fire services is expected. Potential increased foot traffic, especially during peak hours, may necessitate occasional police patrols to manage incidents like theft, vandalism, or disturbances. No proposed use is to include the sale of alcohol, which will help keep demand low. Similarly, fire services may be required to conduct safety inspections for code compliance, especially in kitchens and food preparation areas, and respond to potential fire hazards linked to cooking equipment. Overall, the proposed establishments are generally low risk. Approval from the Township of White Lake Fire Marshal shall be obtained prior to construction.

### **2.2 ESTIMATED SEWER & WATER DEMAND**

Department of Public Services (DPS) issued their Site Plan Review on September 25, 2024. The anticipated Residential Equivalent Units (REUs) for the development is about 27 REUs. DPS did not express any concerns at

this time over utility demands. DLZ (Township Engineer) and DPS approvals shall be obtained prior to construction.

### **2.3 ESTIMATED TRUCK DELIVERIES**

The anticipated tenants typically receive deliveries one to two times per week, dependent on the customer demand. Delivery trucks are generally mid-sized refrigerated box trucks (around 18-26 feet), which are small enough to navigate the site as well as be supported by the existing roadways.

## **3.0 ECONOMICS**

### **3.1 ANTICIPATED JOBS CREATED**

Jobs created during the construction phase based on project size and specifications:

- 56 new temporary jobs during construction phase
- 4-5 additional service-related jobs (landscape, snow removal etc...)

Full-Time Equivalent Job

- While not all tenant spaces have signed leases, it would be expected that a commercial development of this size would generate the equivalent of over 50 new full-time jobs.

### **3.2 ANTICIPATED TAX REVENUE**

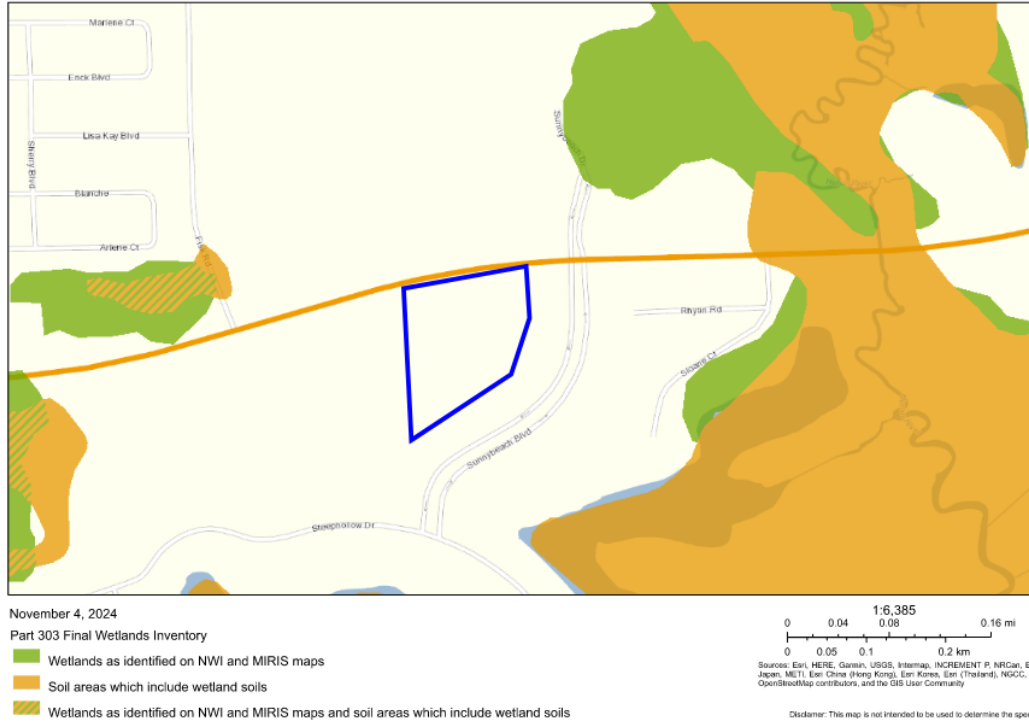
The proposed commercial development will generate substantial new revenue for the Township, replacing the current tax-exempt church property with a taxable asset. It is estimated that the proposed development will contribute around \$70,000 per year to White Lake Township and local Schools from annual property taxes. The proposed development will also bring in sales tax on goods or food sales which generate revenue for the state, and the township may benefit indirectly through state-shared revenues. Annual sales tax revenue is estimated to be around \$540,000. While not directly benefiting the township, some of this may flow back through state funding allocations.

# 4.0 ENVIRONMENT

## 4.1 EXISTING NATURAL FEATURES

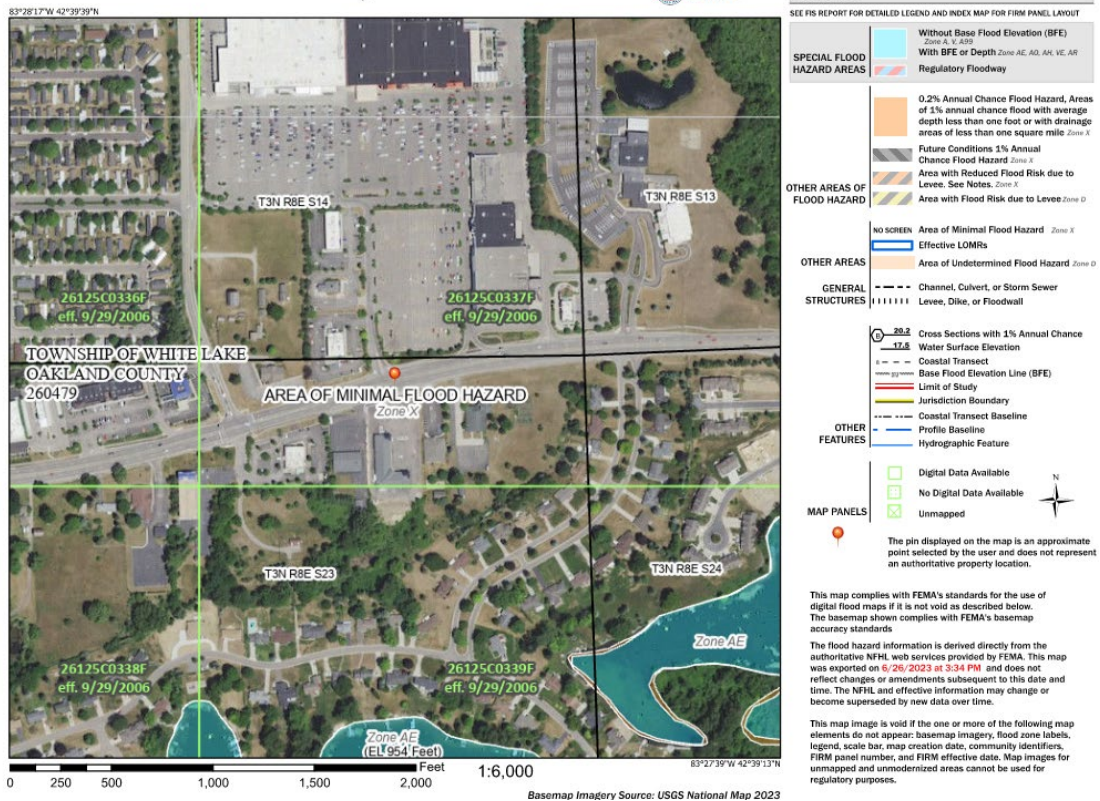
There are no wetlands on-site per EGLE Wetlands Map Viewer.

Wetlands Map Viewer



Per FEMA flood mapping, the site does not lie within a flood plain / floodway. The site lies within Zone X: Area of Minimal Flood Hazard.

### National Flood Hazard Layer FIRMette





## 4.2 HAZARDOUS MATERIALS

Hazardous materials in retail and restaurant uses are limited to cleaning supplies, oils, and potentially combustible supplies, all of which require careful handling and storage to prevent spills or accidents. Containment measures include proper labeling, secure storage in designated areas, spill kits on hand for emergencies, and regular training for staff on safe handling procedures.

## 4.3 AIR POLLUTANTS

Expected air pollutants would be primarily from construction, cooking operations, and vehicle traffic. During construction, dust (particulate matter) is a common pollutant due to site demolition, preparation and excavation. Post-construction, restaurant operations may emit additional particulates, grease, and odors from cooking, particularly if there is grilling or frying involved. Vehicles accessing the development will add to localized air pollution, releasing nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOCs) that contribute to ground-level ozone and smog. Proper mitigation measures, like dust suppression, high-efficiency exhaust systems, and adequate landscaping, can help minimize these emissions and their impact on surrounding areas.

## 4.4 GROUNDWATER QUALITY & QUANTITY

The proposed development results in an increase in impervious are, therefore stormwater management measures per Oakland County Standards are required. The development includes an aboveground infiltration basin with a mechanical water quality unit will help mitigate potential runoff pollutants, such as oils, grease, and sediments, from entering the groundwater by capturing and treating stormwater before it infiltrates, in line with county standards.

This system should be effective at managing both the volume and quality of stormwater by allowing for infiltration and treating contaminants, reducing the likelihood of groundwater contamination. While overall groundwater recharge may decrease slightly due to paved surfaces, these measures are expected to minimize adverse impacts, helping maintain regional groundwater quality and quantity.

## 5.0 NOISE

Noise pollution impacts on nearby residential areas are expected to be minimal, especially with the mitigation strategies in place. Since the drive-thru closest to residences is limited to a pick-up window, it will not generate noise from speakers or menu boards, which are typically the primary sources of drive-thru noise. Additionally, the extensive landscaping and 8-foot-high fence will serve as natural and structural sound barriers,

helping to further buffer residential areas from vehicle noise, conversations, and general activity associated with the site. These design elements should effectively reduce noise levels, preserving the tranquility of the surrounding neighborhood.

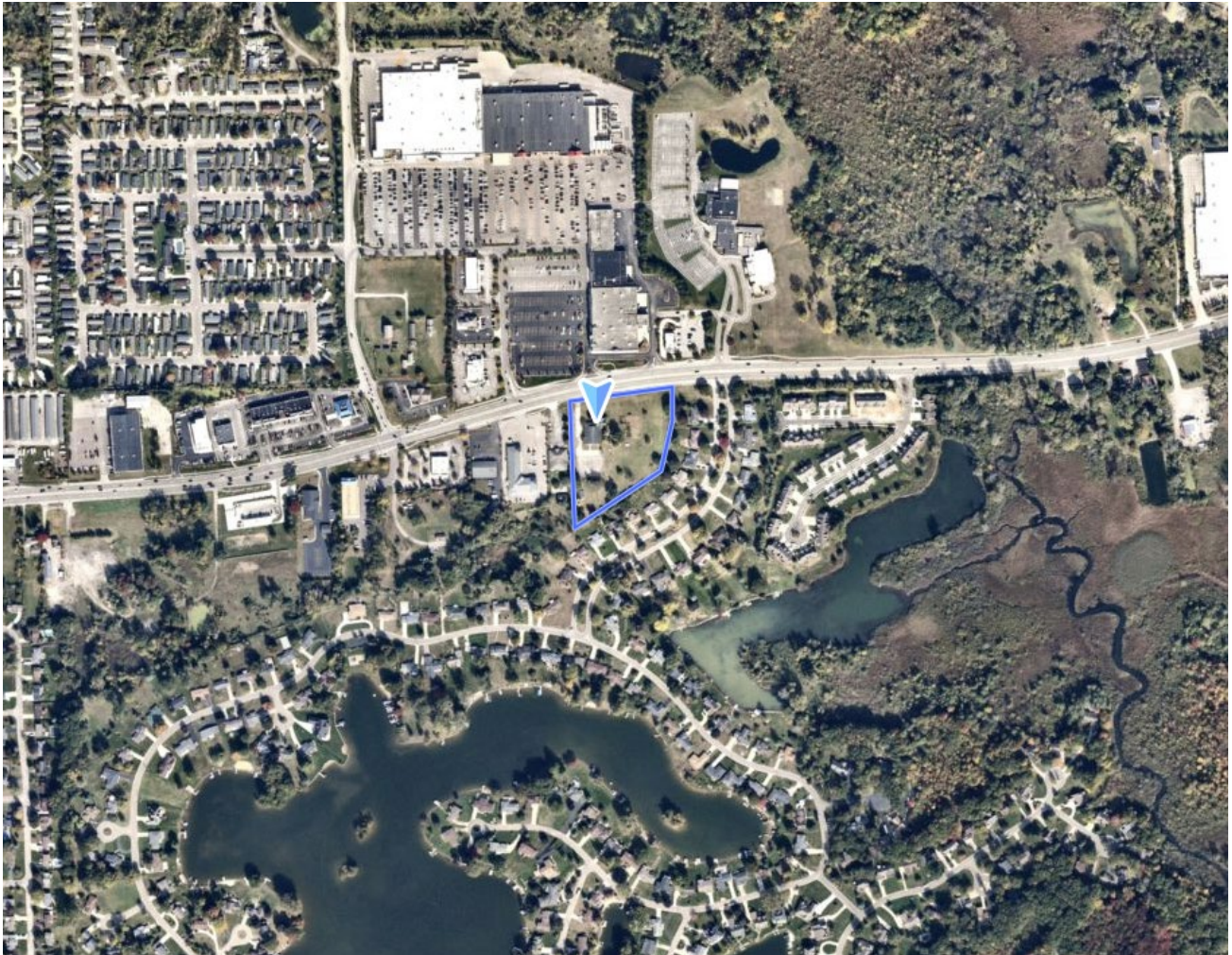
## **6.0 TRAFFIC**

With the addition of the site-generated trips, the study intersections are expected to continue operating in a manner similar to the background conditions analysis, with no additional impacts to LOS. All approaches and movements at the proposed site driveway intersection with Highland Road (M-59) are expected to operate acceptably, at LOS D or better, during both the AM and PM peak hours, with the following exception:

- Highland Road (M-59) & Site Drive: The NB approach is expected to operate at LOS E during the PM peak hour. Review of SimTraffic network simulations indicates that egress vehicles were unable to find adequate gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.

Therefore, the results of the future conditions analysis indicates that the site-generated traffic volumes from the proposed development are expected to have a negligible impact to the delay (LOS) and vehicle queueing observed at the off-site study intersections of Highland Road (M-59) with Fisk Road, JOANN Fabric Drive, and Sunny Beach Boulevard. See **Appendix A** for Traffic Impact Study prepared by Fleis & Vandenbrink.

## 7.0 AERIAL MAP



*\*Aerial Map obtained from Nearmap November 11, 2024*





# **APPENDIX A**

## **TRAFFIC IMPACT STUDY**

# MEMO

VIA EMAIL: ewilliams@stonefieldeng.com

To: Stonefield Engineering

From: Jacob Swanson, PE, PTOE  
Paul Bonner, EIT  
Fleis & VandenBrink

Date: April 22, 2024

Re: 9101 Highland Road (M-59) – Commercial Development  
White Lake Township, Michigan  
Traffic Impact Study

## 1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Study (TIS) for the proposed commercial development in White Lake Township, Michigan. The project site is generally located on the south side of Highland Road (M-59), approximately 1,000-feet east of Fisk Road, as shown on the attached **Figure 1**. The proposed commercial development includes the construction of retail and restaurant land uses. The project site is currently vacant and was previously occupied by the Calvary Lutheran Church, which will be razed with the construction of the proposed development. Site access is proposed via one (1) full access driveway on Highland Road (M-59). The study section of Highland Road (M-59) is under the jurisdiction of the Michigan Department of Transportation (MDOT). The purpose of this TIS is to evaluate the impact of the proposed development on the adjacent roadway network, as part of the site plan approval and driveway permitting processes.

Scope of work for this study was developed based on Fleis & VandenBrink's (F&V) knowledge of the study area, understanding of the development program, accepted traffic engineering practices, and information published by the Institute of Transportation Engineers (ITE). Study analyses were completed using Synchro/SimTraffic (Version 11) traffic analysis software. Sources of data for this study include F&V subconsultant Quality Counts (QC), MDOT, the Road Commission for Oakland County (RCOC), White Lake Township, the Southeast Michigan Council of Governments (SEMCOG), and ITE.

## 2 BACKGROUND

### 2.1 EXISTING ROAD NETWORK

Lane use and traffic control at the study intersections are shown on the attached **Figure 2** and study roadways are further described below. For purposes of this study, all minor streets and driveways were assumed to have an operating speed of 25 miles per hour (mph), unless otherwise noted.

**Highland Road (M-59)** generally runs in the east / west directions, adjacent to the north side of the project site. The study section of roadway is classified as an *Other Principal Arterial*, is under the jurisdiction of MDOT, has a posted speed limit of 50-mph, and has an Average Annual Daily Traffic (AADT) volume of approximately 33,400 (MDOT 2022) vehicles per day (vpd). The study section of roadway provides a typical five-lane cross-section, with two (2) lanes of travel in each direction and a center two-way left-turn lane (TWLTL). At the signalized intersection with Fisk Road, Highland Road (M-59) widens to provide an exclusive eastbound right-turn lane. Additionally, Highland Road (M-59) widens to provide an exclusive westbound right-turn lane at the intersection with the JOANN Fabric driveway.

**Fisk Road** generally runs in the north / south directions, west of the project site, terminating at Highland Road (M-59). The study section of roadway is classified as a *Local Road*, is under the jurisdiction of RCOC, has an assumed prima facie speed limit of 55-mph, and has an AADT volume of approximately 1,256 vpd (MDOT 2022). The study section of Fisk Road provides typical three-lane cross-section, with one (1) lane of travel in each direction and a center TWLTL.

27725 Stansbury Boulevard, Suite 195  
Farmington Hills, MI 48334

P: 248.5

F: 248.5

www.fve

138

**Sunny Beach Boulevard** generally runs in the north / south directions, east of the project site. The study section of roadway is classified as a *Local Road*, is under the jurisdiction of RCOC, has an assumed residential prima facie speed limit of 25-mph, and has an AADT volume of approximately 1,840 vpd (MDOT 2012). The study section of Sunny Beach Boulevard services a residential neighborhood to the south of Highland Road (M-59) and services commercial uses to the north of Highland Road (M-59).

**2.2 EXISTING TRAFFIC VOLUMES**

F&V subconsultant QC collected existing Turning Movement Count (TMC) data on Wednesday, December 13, 2023, during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods at the following study intersections:

- Highland Road (M-59) & Fisk Road
- Highland Road (M-59) & JOANN Fabric Driveway

Additional TMC data was collected on Wednesday, March 13, 2024, at the following study intersection:

- Highland Road (M-59) & Sunny Beach Boulevard

During collection of the turning movement counts, Peak Hour Factors (PHFs), pedestrian and bicycle volumes, and commercial truck percentages were recorded and used in the traffic analysis. The peak hours of each of the study intersections were utilized and the through volumes were carried through the roadway network and balanced upwards at the proposed site driveways. Therefore, traffic volumes used in the analysis and shown on the attached traffic volume figures may not match the raw traffic volumes shown in the data collection.

The weekday AM and PM peak hours for the adjacent roadway network were observed to generally occur between 7:30 AM to 8:30 AM and 4:15 PM to 5:15 PM, respectively. F&V collected an inventory of existing lane use and traffic controls, as shown on the attached **Figure 2**. F&V also obtained the current signal timing permit for the study intersection of Highland Road (M-59) & Fisk Road from MDOT. The existing 2023 peak hour traffic volumes used in the analysis are shown on the attached **Figure 3**. All applicable background data referenced in this memorandum are attached.

**3 EXISTING CONDITIONS**

Existing peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersections using Synchro/SimTraffic (Version 11) traffic analysis software. This analysis was based on the existing lane use and traffic control shown on the attached **Figure 2**, the exiting peak hour traffic volumes shown on the attached **Figure 3**, and methodologies presented in the *Highway Capacity Manual, 6<sup>th</sup> Edition* (HCM6).

Descriptions of LOS “A” through “F” as defined in the HCM6, are attached. Typically, LOS D is considered acceptable, with LOS A representing minimal delay, and LOS F indicating failing conditions. Additionally, SimTraffic network simulations were reviewed to evaluate network operations and vehicle queues. The results for the exiting conditions analysis are attached and shown in **Table 1**.

**Table 1: Existing Intersection Operations**

Intersection	Control	Approach	Existing Conditions			
			AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
1 Highland Road (M-59) & Fisk Road	Signalized	EBL	14.0	B	53.1	D
		EBT	27.7	C	18.2	B
		EBR	14.7	B	11.0	B
		WBL	15.9	C	11.6	B
		WBTR	22.7	C	25.3	C
		NBL	25.1	C	47.9	D
		NBTR	22.3	C	38.0	D
		SBL	27.3	C	67.0	E
		SBTR	24.7	C	47.1	D
		<b>Overall</b>	<b>25.3</b>	<b>C</b>	<b>28.6</b>	<b>C</b>



	Intersection	Control	Approach	Existing Conditions			
				AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS
2	Highland Road (M-59) & JOANN Fabric Drive	Stop (Minor)	EBL	11.1	B	17.2	C
			WB	Free			
			SB	12.2	B	40.6	E
3	Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.8	B	17.0	C
			WBL	9.5	A	15.8	C
			NBL	75.9	F	\$	F
			NBTR	12.1	B	17.6	C
			SB	50.3	F	\$	F

Note: \$ Indicates delays exceeding 1,000 seconds / vehicle.

The results of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better during both the AM and PM peak hours, with the following exceptions:

**Highland Road (M-59) & Fisk Road**

- During the PM peak hour: the southbound left-turn movement currently operates at LOS E.

Review of SimTraffic network simulations indicates generally acceptable operations. Occasional periods of vehicle queues were observed for this movement; however, the majority of vehicle queues were observed to be processed within each cycle length, leaving minimal residual vehicle queueing. Additionally, any remaining vehicle queues were observed to dissipate and were not present throughout the PM peak hour.

**Highland Road (M-59) & JOANN Fabric Drive**

- During the PM peak hour: the southbound approach currently operates at LOS E.

The southbound approach was designed to prohibit egress left-turns; however, the left-turn traffic from this approach is causing the reported delay. The total volume of southbound egress traffic during the PM peak hour is very low (3 vehicles), which includes two (2) vehicles making an egress left-turn movement. Additionally, although the delay experienced by these vehicles causes the approach to operate at LOS E, review of SimTraffic microsimulations indicates acceptable operations; the 95<sup>th</sup> percentile queue length reported for this approach was approximately 11-feet (~1 vehicle), which is not significant.

**Highland Road (M-59) & Sunny Beach Boulevard**

- During both the AM and PM peak periods: The northbound left-turn movement and the southbound approach are both currently operate at LOS F.

Review of SimTraffic network simulations indicates generally acceptable operations during the AM peak hour. Occasional periods of vehicle queues were observed along the stop-controlled minor-street approaches; however, these queues were able to find adequate gaps within the through traffic along Highland Road (M-59), without experiencing significant delays or excessive queueing. Review of SimTraffic microsimulations during the PM peak hour indicates that vehicles along Sunny Beach Boulevard experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues along the minor street; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.

**4 BACKGROUND CONDITIONS (2025)**

Historical population and economic profile data was obtained for White Lake Township from the Southeast Michigan Council of Governments (SEMCOG) database, in order to calculate a background growth rate to project the existing 2023 peak hour traffic volumes to the site buildout year of 2025. Population and employment projections from 2020 to 2050 were reviewed and show average annual growth rates of 0.41% and 0.28%, respectively. Therefore, a conservative background growth rate of **0.5%** per year was applied to the existing peak hour traffic volumes to forecast the background 2025 peak hour traffic volume **without the proposed development**, as shown on the attached **Figure 4**.

In addition to background growth, it is important to account for traffic that will be generated by approved developments within the study area that have yet to be constructed or are currently under construction. At the time of this study, no background developments were identified within the vicinity of the project site.

Background peak hour vehicle delays and LOS **without the proposed development** were calculated at the study intersections based on the existing lane use and traffic control shown on the attached **Figure 2**, the background peak hour traffic volumes shown on the attached **Figure 4**, and methodologies presented in the HCM6. The results of the background conditions analysis are attached and summarized in **Table 2**.

**Table 2: Background Intersection Operations**

Intersection	Control	Approach	Existing Conditions				Background Conditions				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1 Highland Road (M-59) & Fisk Road	Signal	EBL	14.0	B	53.1	D	14.1	B	56.4	E	0.1	-	3.3	D→E
		EBT	27.7	C	18.2	B	28.1	C	18.3	B	0.4	-	0.1	-
		EBR	14.7	B	11.0	B	14.7	B	11.0	B	0.0	-	0.0	-
		WBL	15.9	C	11.6	B	16.0	C	11.8	B	0.1	-	0.2	-
		WBTR	22.7	C	25.3	C	22.9	C	25.6	C	0.2	-	0.3	-
		NBL	25.1	C	47.9	D	25.2	C	48.1	D	0.1	-	0.2	-
		NBTR	22.3	C	38.0	D	23.3	C	38.0	D	0.0	-	0.0	-
		SBL	27.3	C	67.0	E	27.3	C	67.6	E	0.0	-	0.6	-
		SBTR	24.7	C	47.1	D	24.7	C	47.4	D	0.0	-	0.3	-
		<b>Overall</b>	<b>25.3</b>	<b>C</b>	<b>28.6</b>	<b>C</b>	<b>25.6</b>	<b>C</b>	<b>29.0</b>	<b>C</b>	<b>0.3</b>	-	<b>0.4</b>	-
2 Highland Road (M-59) & JOANN Fabric Dr.	Stop (Minor)	EBL	11.1	B	17.2	C	11.2	B	17.4	C	0.1	-	0.2	-
		WB	Free				Free				N/A			
		SB	12.5	B	40.6	E	12.6	B	41.7	E	0.1	-	1.1	-
3 Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.8	B	17.0	C	10.9	B	17.2	C	0.1	-	0.2	-
		WBL	9.5	A	15.8	C	9.5	A	16.0	C	0.0	-	0.2	-
		NBL	75.9	F	\$	F	84.6	F	\$	F	8.7	-	-	-
		NBTR	12.1	B	17.6	C	12.2	B	17.8	C	0.1	-	0.2	-
		SB	50.3	F	\$	F	52.7	F	\$	F	2.4	-	-	-

Note: \$ Indicates delays exceeding 1,000 seconds / vehicle.

The results of the background conditions analysis indicates that all approaches and movements at the study intersections are expected to continue operating in a manner similar to the existing conditions analysis, with minor increases in delays and the following additional impacts to LOS:

**Highland Road (M-59) & Fisk Road**

- During the PM peak hour: The eastbound left-turn movement is expected to operate at LOS E.

Review of SimTraffic network simulations indicates generally acceptable operations. Occasional periods of vehicle queues were observed for the eastbound and southbound left-turn movements during the PM peak hour; however, the majority of vehicle queues were observed to be processed within 1-2 cycle length, leaving minimal residual vehicle queueing. Additionally, any remaining vehicle queues were observed to dissipate and were not present throughout the peak hour.

**5 SITE TRIP GENERATION**

The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed development were calculated using the rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 11<sup>th</sup> Edition*. For purposes of this study the following land uses were assumed in the analysis: a coffee shop with drive-through, a fast-casual restaurant, a fast-food restaurant with drive-through, and retail space. Additionally, the proposed restaurants will not have breakfast service; however, in order to provide a conservative analysis, the AM peak hour trip generation was included for these land uses. The site trip generation forecast utilized for this study is summarized in **Table 3**.

**Table 3: Site Trip Generation Summary**

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Strip Retail Plaza (<40k SF)	822	6,184	SF	491	9	6	15	28	27	55
<i>Pass-By (0% AM, 40% PM)</i>				98	0	0	0	11	11	22
New Trips				393	9	6	15	17	15	33
Fast Casual Restaurant	930	2,502	SF	243	9	5	14	17	14	31
<i>Pass-By (0% AM, 43% PM)</i>				104	0	0	0	6	6	12
New Trips				139	9	5	14	11	8	19
Fast Food Restaurant w/ Drive Through	934	2,402	SF	1,123	55	52	107	41	38	79
<i>Pass-By (50%AM, 55% PM)</i>				590	27	27	54	21	21	42
New Trips				533	28	25	53	20	17	37
Coffee Shop with Drive-Through	937	2,522	SF	1,346	111	106	217	49	49	98
<i>Pass-By (50% AM, 55% PM)</i>				707	54	54	108	27	27	54
New Trips				639	57	52	109	22	22	44
<b>Total Trips</b>				<b>3,203</b>	<b>184</b>	<b>169</b>	<b>353</b>	<b>135</b>	<b>128</b>	<b>263</b>
<i>Total Pass-By</i>				1,499	81	81	162	65	65	130
<b>Total New Trips</b>				<b>1,704</b>	<b>103</b>	<b>88</b>	<b>191</b>	<b>70</b>	<b>63</b>	<b>133</b>

As is typical of commercial developments, a portion of the trips generated by the proposed development are from vehicles already on the adjacent roadway network that will pass the site on their way from an origin to their ultimate destination. Therefore, not all traffic at the site driveway is necessarily new traffic added to the street system. These trips are therefore reduced from the total external trips generated by a study site. This percentage of the trips generated by the development are considered “pass-by”, which are already present of the adjacent roadway network. The percentage of pass-by used in this analysis was determined based on the rates published by ITE in the *Trip Generation Manual, 11<sup>th</sup> Edition*.

**6 SITE TRIP DISTRIBUTION**

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed stie access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and methodologies published by ITE. The ITE trip distribution methodology assumes that new trips will enter the network and access the development, then leave the development and return to their direction of origin, whereas pass-by trips will enter and exit the development in their original direction of travel. The stie trip distributions utilized in the analysis are summarized in **Table 4**.

**Table 4: Site Trip Distribution**

New Trips				Pass-By Trips		
AM	PM	To/From	Via	Direction	AM	PM
7%	12%	North	Fisk Road			
40%	52%	East	Highland Road (M-59)	Westbound	42%	56%
53%	36%	West	Highland Road (M-59)	Eastbound	58%	44%
<b>100%</b>	<b>100%</b>	<b>Total</b>			<b>100%</b>	<b>100%</b>

The vehicular traffic volumes shown in **Table 3** were distributed to the study roadway network according to the distribution shown in **Table 4**. Therefore, the site generated trips shown on the attached **Figure 5** were added to the background peak hour traffic volumes shown on the attached **Figure 4**, in order to calculate the future peak hour traffic volumes, with the addition of the proposed development. Future peak hour traffic volumes are shown on the attached **Figure 6**.



### 7 FUTURE CONDITIONS (2025)

Future peak hour vehicle delays and LOS **with the addition of the site-generated trips from the proposed development**, were calculated based on the proposed lane use and traffic controls shown on the attached **Figure 2**, the future peak hour traffic volumes shown on the attached **Figure 6**, and the methodologies presented in the HCM6. Results of the future conditions analysis are attached and summarized in **Table 5**.

**Table 5: Future Intersection Operations**

Intersection	Control	Approach	Background Conditions				Future Conditions				Difference				
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	
1	Highland Road (M-59) & Fisk Road	Signal	EBL	14.1	B	56.4	E	14.5	B	60.8	E	0.4	-	4.4	-
			EBT	28.1	C	18.3	B	30.2	C	18.6	B	2.1	-	0.3	-
			EBR	14.7	B	11.0	B	14.7	B	11.0	B	0.0	-	0.0	-
			WBL	16.0	C	11.8	B	16.8	B	12.0	B	0.8	C→B	0.2	-
			WBTR	22.9	C	25.6	C	23.9	C	26.6	C	0.0	-	0.0	-
			NBL	25.2	C	48.1	D	25.2	C	48.1	D	0.0	-	0.0	-
			NBTR	23.3	C	38.0	D	22.3	C	38.0	D	0.0	-	0.0	-
			SBL	27.3	C	67.6	E	27.6	C	70.7	E	0.3	-	3.1	-
			SBTR	24.7	C	47.4	D	24.7	C	47.4	D	0.0	-	0.0	-
	<b>Overall</b>		<b>25.6</b>	<b>C</b>	<b>29.0</b>	<b>C</b>	<b>27.1</b>	<b>C</b>	<b>29.9</b>	<b>C</b>	<b>1.5</b>	-	<b>0.9</b>	-	
2	Highland Road (M-59) & JOANN Fabric Dr.	Stop (Minor)	EBL	11.2	B	17.4	C	11.4	B	17.9	C	0.2	-	0.5	-
			WB	Free				Free				N/A			
			SB	12.6	B	41.7	E	12.9	B	43.7	E	0.3	-	2.0	-
3	Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.9	B	17.2	C	11.1	B	17.7	C	0.2	-	0.5	-
			WBL	9.5	A	16.0	C	9.8	A	16.4	C	0.3	-	0.4	-
			NBL	84.6	F	\$	F	95.4	F	\$	F	10.8	-	-	-
			NBTR	12.2	B	17.8	C	12.7	B	18.2	C	0.5	-	0.4	-
			SB	52.7	F	\$	F	63.5	F	\$	F	10.8	-	-	-
4	Highland Road (M-59) & Site Drive	Stop (Minor)	EB	N/A				Free				N/A			
			WBL	N/A				11.1	B	10.5	B	N/A			
			NB	N/A				32.0	D	42.0	E	N/A			

Note: \$ Indicates delays exceeding 1,000 seconds / vehicle.

Results of the future conditions analysis indicate that all approaches and movements at the study intersections are expected to continue operating in a manner similar to the background conditions analysis, with minor increases in delays and no additional impacts to LOS. Additionally, the proposed site driveway is expected to operate acceptably, at LOS D or better, during both peak periods, with the exception of the following:

#### Highland Road (M-59) & Site Drive

- During the PM peak hour: The northbound approach is expected to operate at LOS E.

Review of SimTraffic network simulations indicates that egress vehicles were unable to find adequate gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.

Therefore, the results of the future conditions analysis indicates that the site-generated traffic volumes from the proposed development are expected to have a negligible impact to the delay (LOS) and vehicle queueing observed at the off-site study intersections of Highland Road (M-59) with Fisk Road, JOANN Fabric Drive, and Sunny Beach Boulevard.

**8 ACCESS MANAGEMENT**

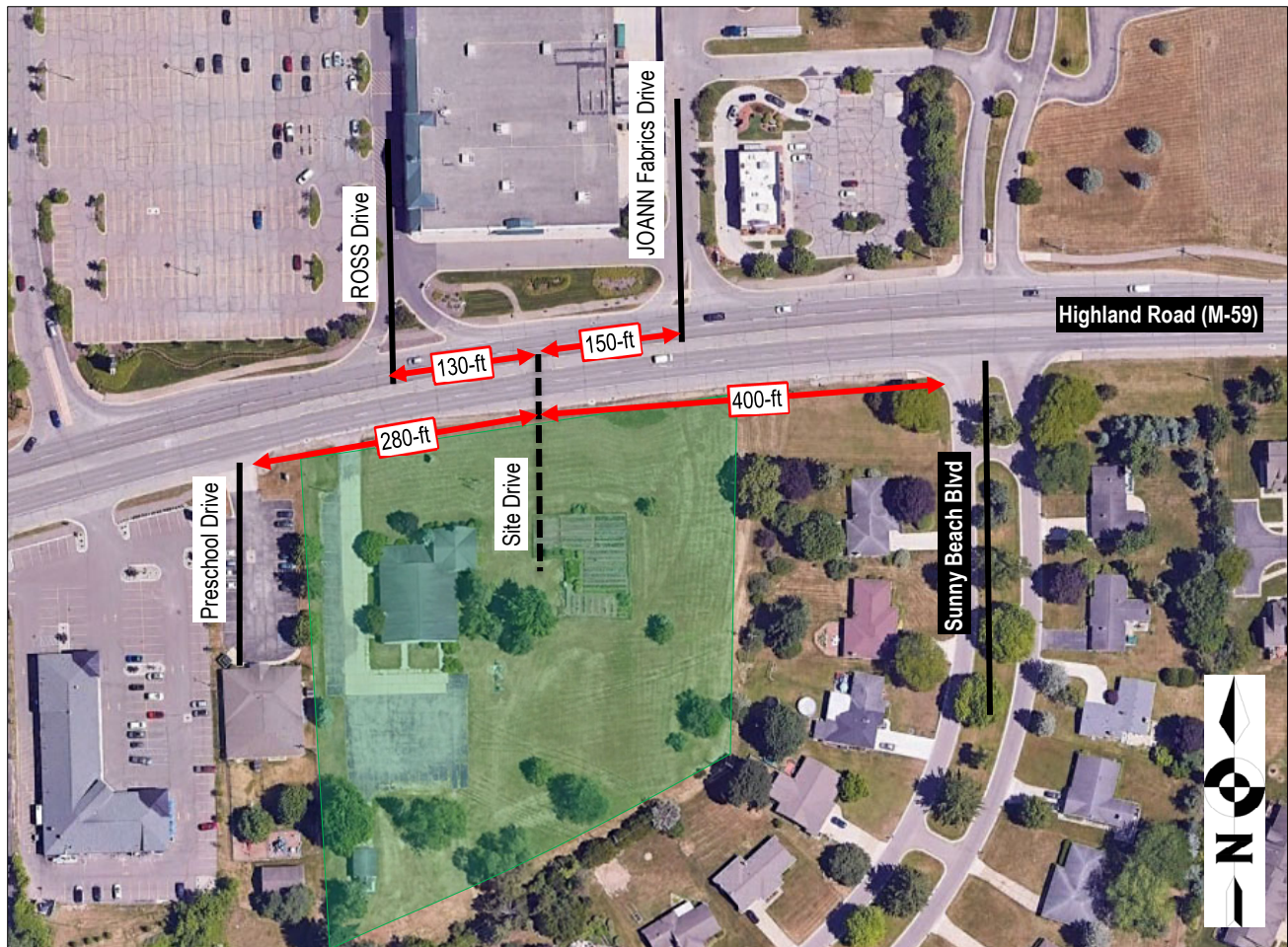
**8.1 DRIVEWAY SPACING EVALUATION**

The MDOT *Geometric Design Guidance* (Section 1.2.2) criteria were utilized to evaluate the location of the proposed site driveway, in relation to nearby intersections and access points within close proximity to the project site. The intersection corner clearance criteria were evaluated for the 50-mph section of Highland Road (M-59), adjacent to the project site. The distance of the proposed site driveway from nearby intersections and access points, and the warranting criteria are summarized in **Table 6** and displayed in **Exhibit 1**.

**Table 6: Desirable Corner Clearance Summary**

Adjacent Driveways & Intersections			Distance	Criteria	Meets
Site Drive	to	Preschool Drive	280 feet	455 feet	<b>NO</b>
Site Drive	to	Sunny Beach Boulevard	400 feet	170 feet	<b>YES</b>
Site Drive	to	JOANN Fabrics Drive	150 feet	750 feet	<b>NO</b>
Site Drive	to	ROSS Drive	130 feet	750 feet	<b>NO</b>

**Exhibit 1: Proposed Driveway Spacing**



The results of the driveway spacing analysis indicate that the location of the proposed site driveway on Highland Road (M-59) is not expected to meet the desirable MDOT spacing criteria, in relation to the nearby intersection and driveways. However, there is not sufficient property frontage to meet the recommended spacing criteria. Additionally, the site plan includes proposed future cross access, stubbed at the property line to the west; this would provide improved site access, permitting this cross access between the nearby developments on the south side of Highland Road (M-59), should the adjacent property ever be redeveloped. Furthermore, shared access is not available with the Sunny Beach Boulevard neighborhood to the east.





Intersection	Control	Approach	Future Conditions				Future w/ IMP				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
4 Highland Road (M-59) & Site Drive	Stop (Minor)	EB	Free				Free				N/A			
		WBL	11.1	B	10.5	B	11.1	B	10.5	B	0.0	-	0.0	-
		NBL	32.0	D	42.0	E	30.4	D	46.8	E	-1.6	-	4.8	-
		NBR					12.6	B	13.6	B	-19.4	D→B	-28.4	E→B

The results of the future conditions with improvements analysis indicate that, with the implementation of the recommended improvements, all study intersection approaches and movements are expected to continue to operate acceptably, at LOS D or better during both peak periods, with the following exception:

**Highland Road (M-59) & Site Drive**

- During the PM peak hour: The northbound left-turn movement is expected to operate at LOS E.

Review of SimTraffic microsimulations indicates improved operations and reduced vehicle queueing at the signalized study intersection of Highland Road (M-59) & Fisk Road and the stop-controlled intersection of Highland Road (M-59) & Site Drive during the PM peak hour.

**10 QUEUEING ANALYSIS**

The drive-through vehicle queueing was reviewed to determine if the proposed on-site queue lengths provide adequate storage to accommodate the projected operations. The development plan includes two (2) drive-through windows.

The coffee-shop is expected to have a peak trip generation of 111 trips during the AM peak hour. Coffee-shops with drive-through typically have an average service rate of approximately 80 vehicles per hour, with 80% of customers utilizing the drive-through. Therefore, of the total vehicles generated by the proposed coffee-shop during the peak period, it is estimated that approximately 89 vehicles will utilize the drive-through; the remaining vehicles will park and walk-in. The evaluation of the queue length included two criteria:

1. A queueing analysis was performed to determine if the projected demand of the site exceeds the service rate and calculate the projected queueing. The projected demand (89 veh/hr) is greater than the service rate (80 veh/hr) of the site; therefore, there is a potential for vehicles to queue past the pickup window, as the demand exceeds the capacity.
2. A Poisson Distribution was performed to determine the probability of random arrivals. The results indicate a maximum potential of five (5) vehicles arriving at any given time.

The results of the queueing analysis for the coffee shop are summarized in **Table 9**.

**Table 9: Coffee Shop Vehicle Queuing Analysis**

DRIVE-THROUGH STACKING SPACE CALCULATOR	
Number of Arrivals	86
Time per Vehicle (s)	45
Service Rate (veh/hr)	80
Drive-Through Queue (veh)	9
Peak Arrival (veh)	5
Vehicle Length	25
<b>TOTAL QUEUE (ft)</b>	<b>350</b>

The fast-food restaurant is expected to have a peak trip generation of 55 trips during the AM peak hour. Fast-food restaurants with drive-through typically have an average service rate of approximately 90 vehicles per hour and 70% of customers utilizing the drive-through. Therefore, of the total vehicles generated by the proposed fast-food restaurant during the peak period, it is estimated that approximately 39 vehicles will utilize the drive-through; the remaining vehicles will park and walk-in. The evaluation of the queue length included two criteria:

1. A queueing analysis was performed to determine if the projected demand of the site exceeds the service rate and calculate the projected queueing. The projected demand (39 veh/hr) is less than the service rate (90 veh/hr) of the site; therefore, the required queueing for the fast-food restaurant is based on the maximum potential for random arrivals.
2. A Poisson Distribution was performed to determine the probability of random arrivals. The results indicate a maximum potential of four (4) vehicles arriving at any given time.

The results of the queueing analysis for the fast-food restaurant are summarized in **Table 10**.

**Table 10: Fast-Food Restaurant Vehicle Queuing Analysis**

DRIVE-THROUGH STACKING SPACE CALCULATOR	
Number of Arrivals	39
Time per Vehicle (s)	40
Service Rate (veh/hr)	90
Peak Arrival (veh)	4
Vehicle Length	25
<b>TOTAL QUEUE (ft)</b>	<b>100</b>

The results of the projected vehicle queuing analysis indicates that the maximum anticipated arrivals generated by the proposed coffee-shop with drive-through can be adequately accommodated within the available queue length, without impacting internal site circulation or the operations along Highland Road (M-59).

## 11 CONCLUSIONS

The conclusions of this TIS are as follows:

### 1. Existing Conditions (2023)

- The results of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better, during both the AM and PM peak hours, with the following exceptions:
  - Highland Road (M-59) & Fisk Road: The SB left-turn movement is currently operating at LOS E, during the PM peak hour. Review of SimTraffic network simulations indicates generally acceptable operations. Occasional periods of vehicle queues were observed; however, the majority were observed to be processed within each cycle length, leaving minimal residual vehicle queueing.
  - Highland Road (M-59) & JOANN Fabric Drive: The SB approach is currently operating at LOS E during the PM peak hour. This approach was designed to prohibit egress left-turns; however, this traffic is causing the reported delay. The total volume of southbound egress traffic is very low (3 vehicles), which includes two (2) vehicles making an egress left-turn movement.
  - Highland Road (M-59) & Sunny Beach Boulevard: The NB left-turn movement and the SB approach are both currently operating at LOS F during both peak hours. Review of SimTraffic network simulations indicates generally acceptable operations during the AM peak hour. Occasional periods of vehicle queues were observed along the minor-street approaches; however, these queues were able to find adequate gaps in the through traffic along Highland Road (M-59).

Review of SimTraffic microsimulations during the PM peak hour indicates that vehicles along Sunny Beach Boulevard experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues along the minor street; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.

## 2. Background Conditions (2025 No Build)

- A conservative annual background growth rate of **0.5%** per year was utilized to project the existing peak hour traffic volumes to the buildout year of 2025.
- The results of the background conditions analysis indicates that the study intersections are expected to continue operating in a manner similar to the existing conditions analysis, with minor increases in delays due increases in background traffic volumes and the following additional impacts to LOS:
  - Highland Road (M-59) & Fisk Road: The EB left-turn movement is expected to operate at LOS E, during the PM peak hour.

## 3. Future Conditions (2025 Build)

- With the addition of the site-generated trips, the study intersections are expected to continue operating in a manner similar to the background conditions analysis, with no additional impacts to LOS.
- All approaches and movements at the proposed site driveway intersection with Highland Road (M-59) are expected to operate acceptably, at LOS D or better, during both the AM and PM peak hours, with the following exception:
  - Highland Road (M-59) & Site Drive: The NB approach is expected to operate at LOS E during the PM peak hour. Review of SimTraffic network simulations indicates that egress vehicles were unable to find adequate gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.
- Therefore, the results of the future conditions analysis indicates that the site-generated traffic volumes from the proposed development are expected to have a negligible impact to the delay (LOS) and vehicle queueing observed at the off-site study intersections of Highland Road (M-59) with Fisk Road, JOANN Fabric Drive, and Sunny Beach Boulevard.

## 4. Access Management

- The results of the driveway spacing analysis indicates that the location of the proposed site driveway on Highland Road (M-59) is not expected to meet the desirable MDOT spacing criteria, in relation to the nearby intersection and driveway.
  - However, there is not sufficient property frontage to meet the recommended spacing criteria. Additionally, the site plan includes proposed future cross access, stubbed at the property line to the west; this would provide improved site access, permitting this cross access between the nearby developments on the south side of Highland Road (M-59), should the adjacent property ever be redeveloped. Furthermore, shared access is not available with the Sunny Beach Boulevard neighborhood to the east.
- The MDOT auxiliary right-turn treatment criteria were evaluated at the proposed site driveway; the result of the analysis indicates that a right-turn lane is recommended along eastbound Highland Road (M-59) at the proposed Site Drive.

## 5. Future Conditions with Improvements

- Signal timing optimizations were reviewed and were determined to adequately improve the signalized study intersection of Highland Road (M-59) & Fisk Road to LOS D or better during the PM peak hour. Additionally, the vehicle queues at the signalized study intersection were observed to be reduced, with the implementation of the recommended mitigation measures.
- Mitigation measures were investigated at the intersection of Highland Road (M-59) & Site Drive. The results of the improvements evaluation indicates that providing exclusive egress left-turn and right-turn lanes would improve the projected operations. Additionally, the warranted eastbound right-turn lane along Highland Road (M-59) was included in the improvements analysis. The results indicate that the northbound left-turn movement is still expected to operate at LOS E during the PM peak hour; however, review of SimTraffic network simulations indicates improved operations.



## 6. Drive-Through Queueing Evaluation

- The results of the drive-through queueing evaluation indicates that the proposed site plan can adequately accommodate the projected vehicle queueing associated with the proposed coffee-shop and fast-food restaurants, without impacting internal site circulation or the operations along Highland Road (M-59).

## 12 RECOMMENDATIONS

*The recommendation of this TIS are as follows:*

- Provide exclusive egress left-turn and right-turn lanes at the proposed Site Drive.
- Provide an eastbound right-turn lane along Highland Road (M-59) at the proposed Site Drive.
- Optimize the PM peak hour signal timing at the Highland Road (M-59) & Fisk Road intersection.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

**Attachments:** Figures 1 – 6  
Proposed Site Plan  
Traffic Volume Data  
Signal Timing Permits  
Synchro / SimTraffic Results  
Auxiliary Lane Warrants





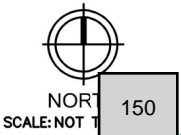
**FIGURE 1**  
**SITE LOCATION**



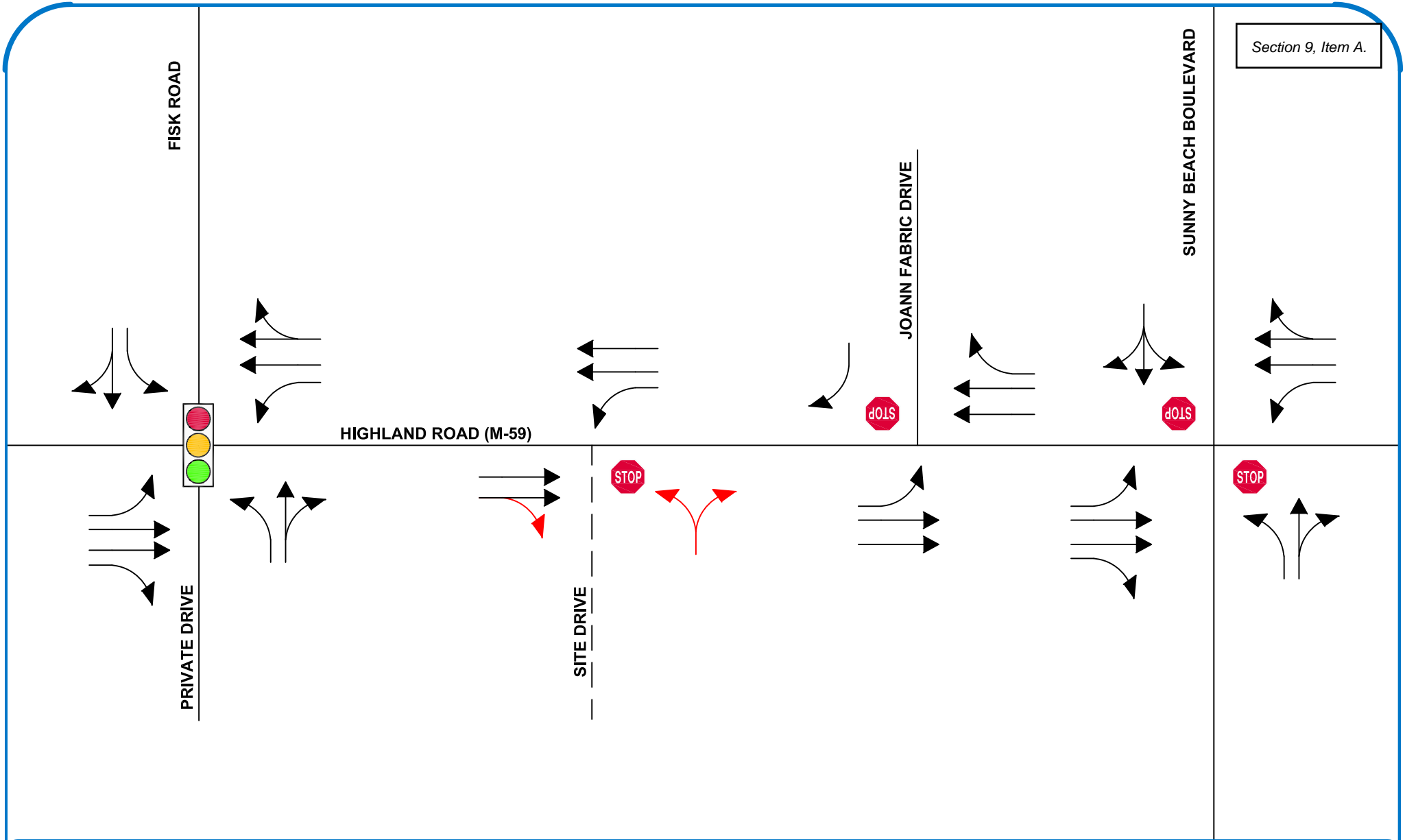
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

LEGEND

 SITE LOCATION







**FIGURE 2**

**LANE USE AND TRAFFIC CONTROL**

9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

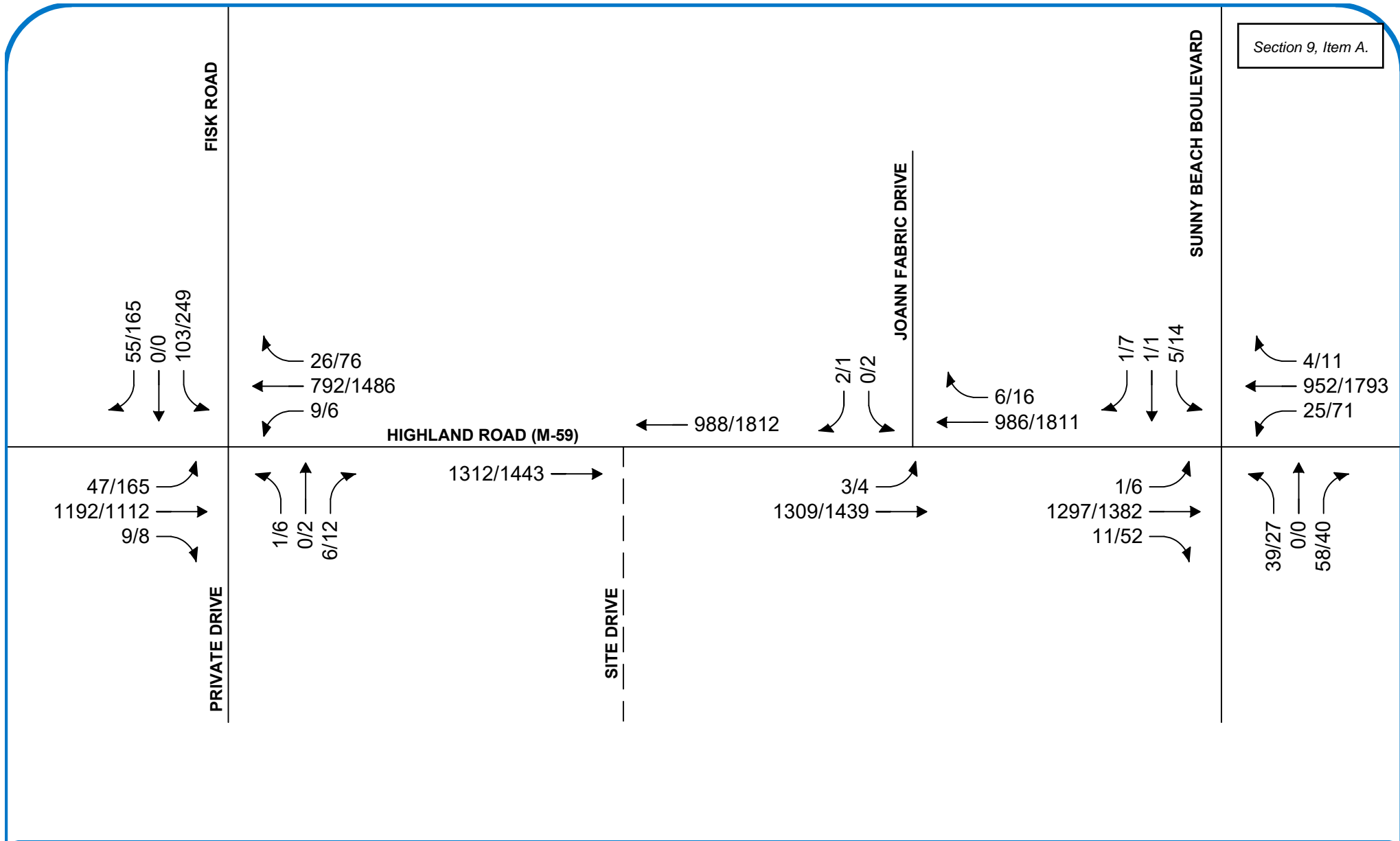
**LEGEND**

- ROADS
- PROPOSED ROADS
- LANE USE
- PROPOSED LANE USE
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION



NOR  
SCALE: NOT 151





**FIGURE 3**

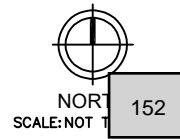
**EXISTING TRAFFIC VOLUMES**

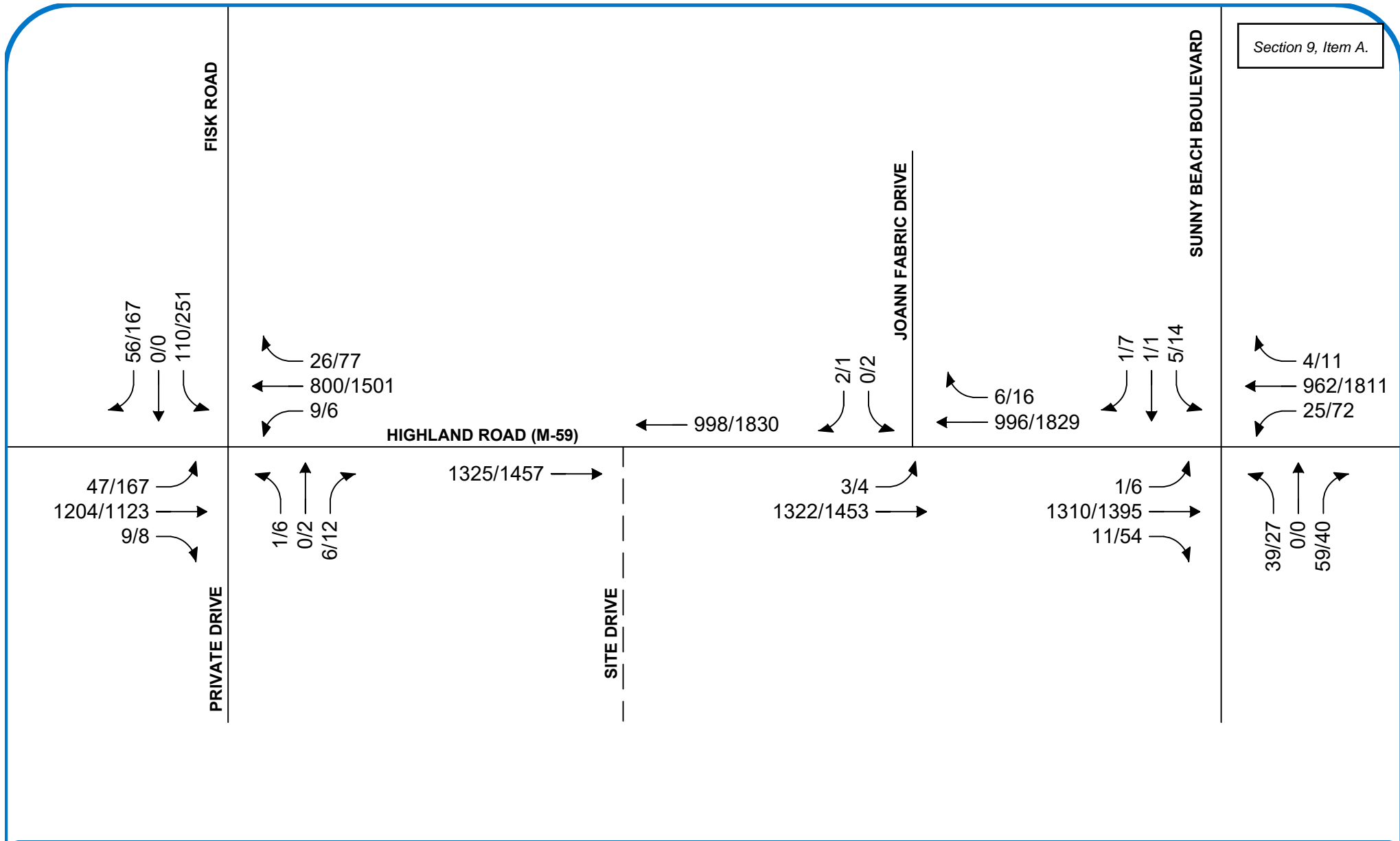
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI



**LEGEND**

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)





**FIGURE 4**

**BACKGROUND TRAFFIC VOLUMES**

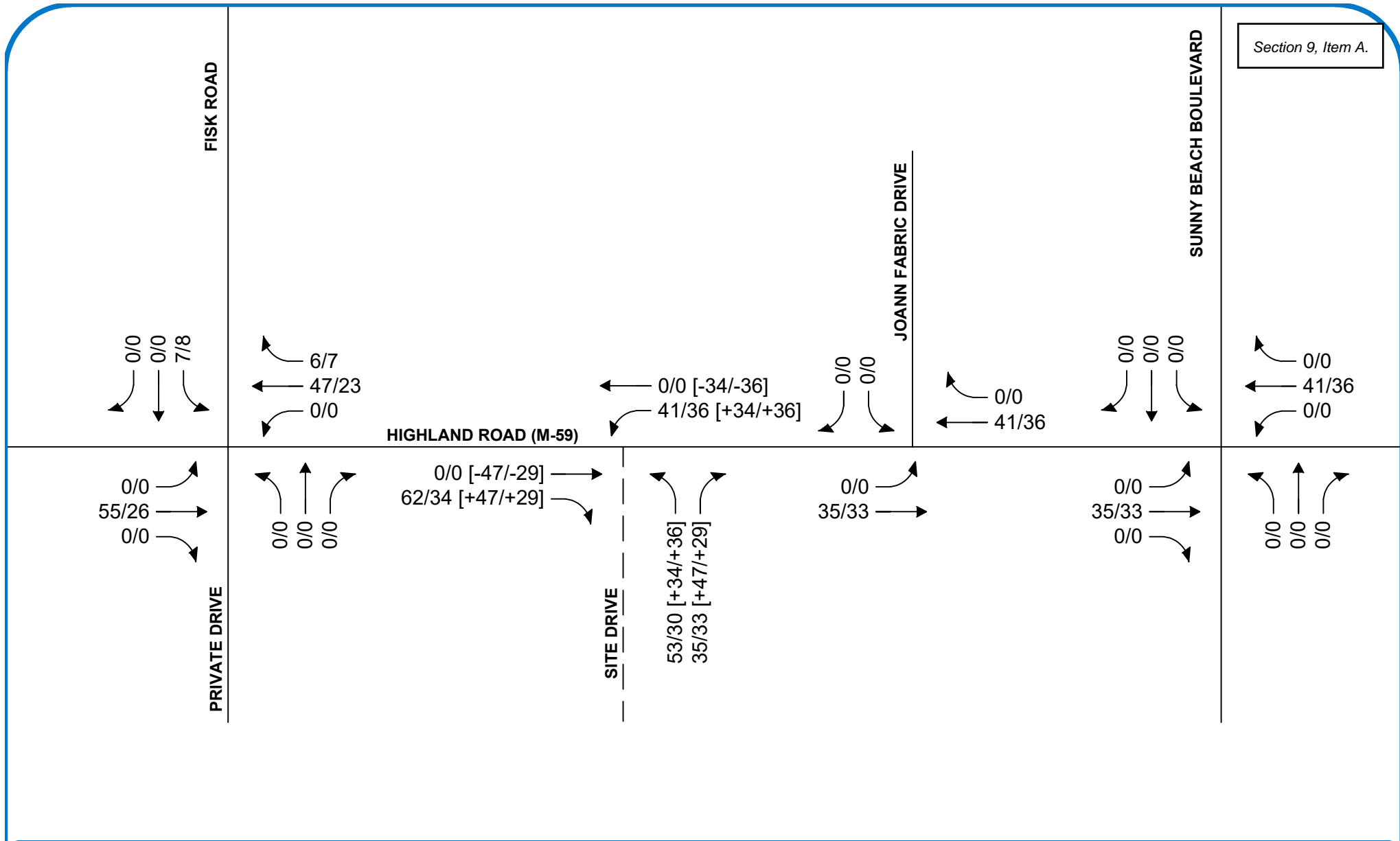
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

**LEGEND**

- ROADS
- - - PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)



NORTH  
SCALE: NOT TO



### FIGURE 5 SITE-GENERATED TRAFFIC VOLUMES

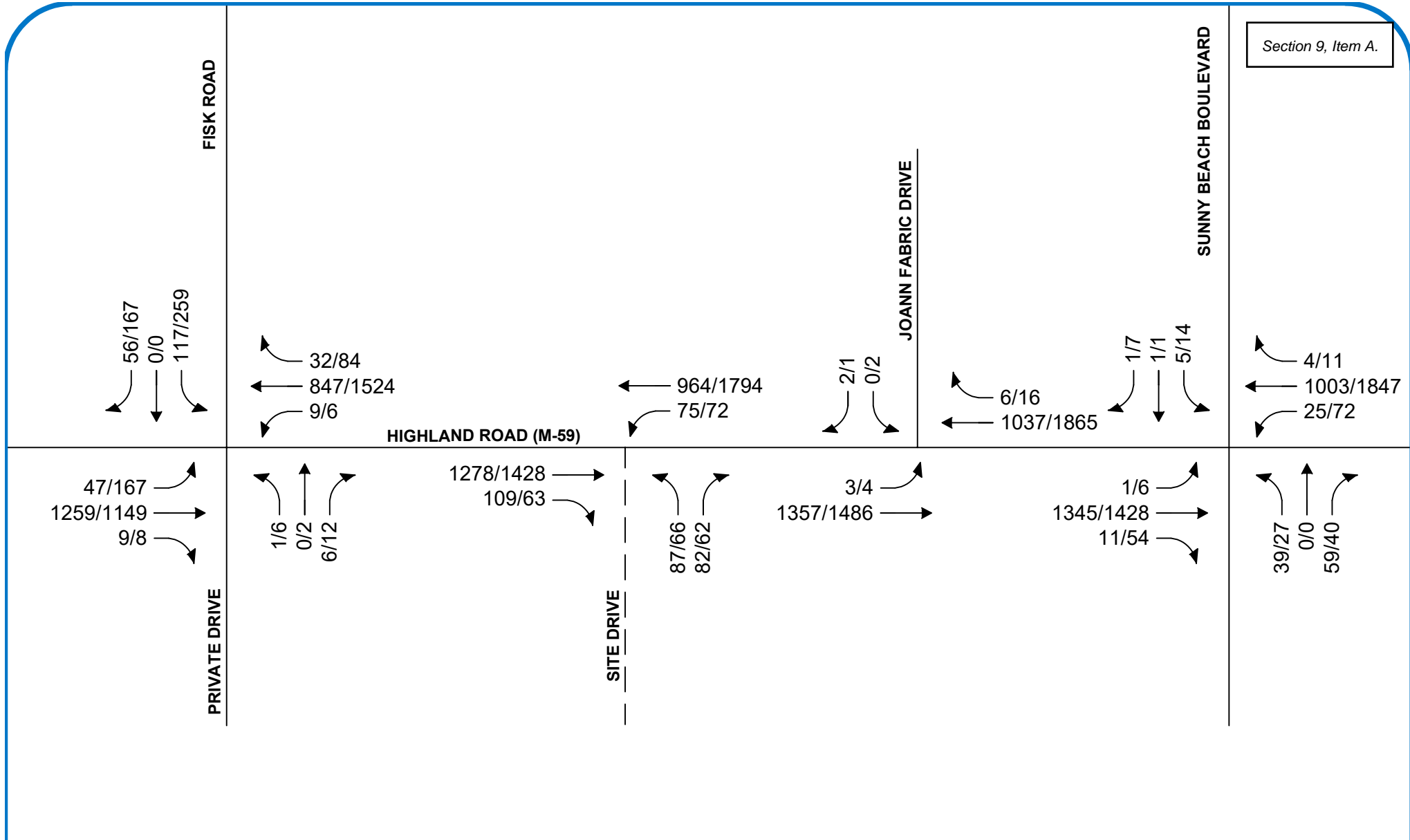
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

#### LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- +/-[000/000] PASS-BY [AM/PM]







**FIGURE 6**

**FUTURE TRAFFIC VOLUMES**

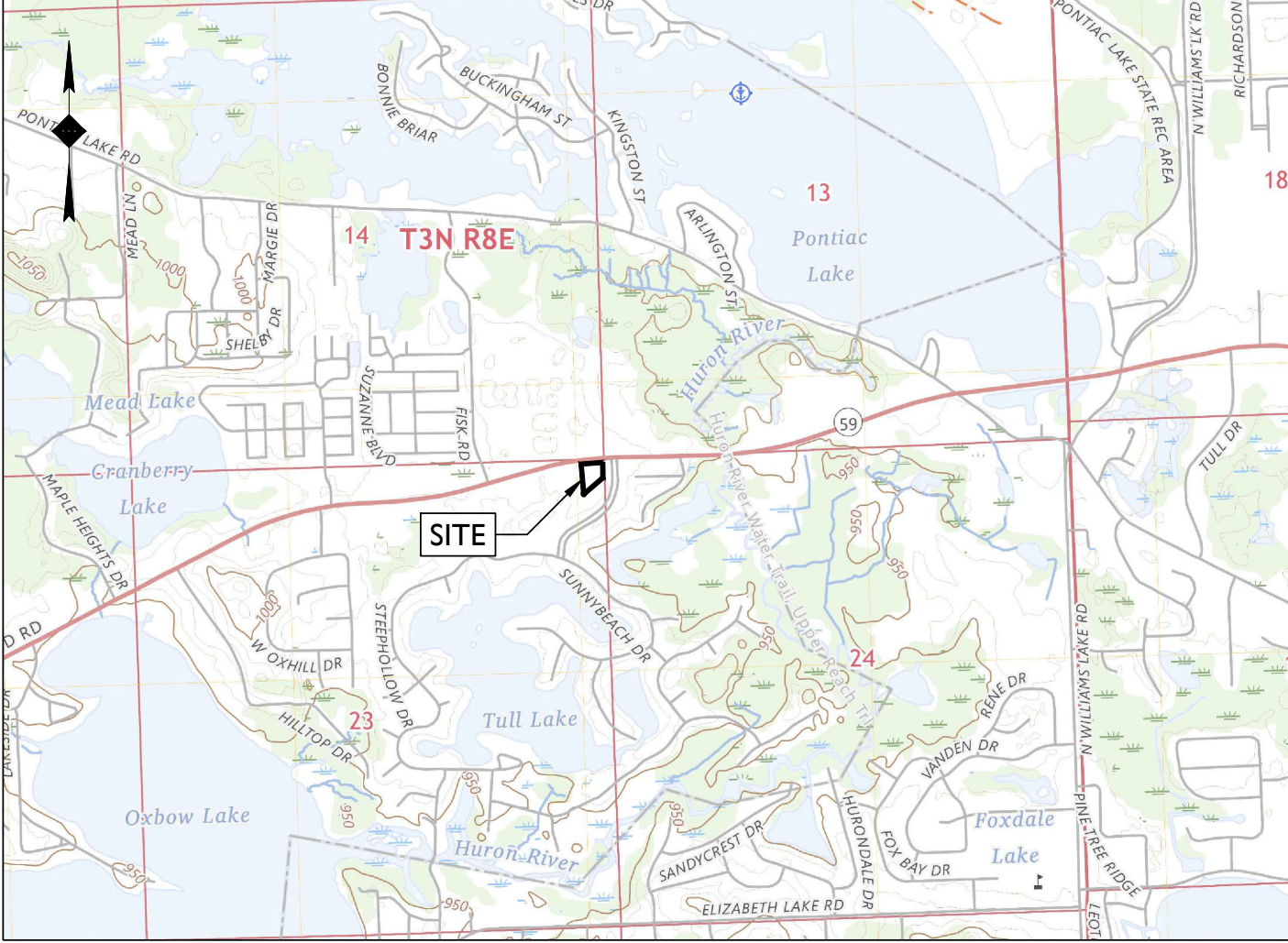
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

**LEGEND**

- ROADS
- - - PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)







**LOCATION MAP**  
SCALE: 1" = 2,000'±

SYMBOL	DESCRIPTION
---	PROPERTY LINE
---	SETBACK LINE
---	PROPOSED CURB
○	PROPOSED SIGNS / BOLLARDS
▭	PROPOSED BUILDING
▭	PROPOSED CONCRETE
▭	PROPOSED RETAINING WALL
X-X	PROPOSED OBSCURING FENCE

LAND USE AND ZONING		
PID:12-23-227-003		
EXISTING ZONE: R1-C SINGLE FAMILY RESIDENTIAL		
REZONED TO GENERAL BUSINESS DISTRICT (GB)		
<b>PROPOSED USE</b>	RESTAURANT OR FAST FOOD	PERMITTED USE
	DRIVE-THRU WINDOW	SPECIAL LAND USE
	RETAIL STORE	PERMITTED USE
<b>ZONING REQUIREMENT</b>	<b>REQUIRED</b>	<b>PROPOSED</b>
MINIMUM LOT AREA	1 AC	195,568 SF (4.5 AC)
MINIMUM LOT WIDTH	200 FT	458.4 FT
MAXIMUM BUILDING HEIGHT	35 FT (2 STORIES)	<35 FT (1 STORY)
MINIMUM FRONT YARD SETBACK	60 FT <sup>(1)</sup>	103.8 FT
MINIMUM SIDE YARD SETBACK (ONE)	15 FT	81.0 FT
MINIMUM SIDE YARD SETBACK (BOTH)	20 FT	163.8 FT
MINIMUM REAR YARD SETBACK	20 FT	154.3 FT
MINIMUM DRIVEWAY FROM RESIDENTIAL	200 FT <sup>(1)</sup>	218.3 FT
MINIMUM FRONT LANDSCAPE SETBACK	20 FT	25.4 FT
MINIMUM R.O.W PARKING SETBACK	25 FT <sup>(2)</sup>	25.4 FT
INTERIOR LANDSCAPING AREA	15% (29,335 SF)	>15%
MINIMUM DRIVEWAY SPACING (HIGHLAND ROAD)	455 FT	±284.3 FT TO WEST (V)
TRASH ENCLOSURE SETBACK	FRONT LOT LINE <sup>(1)</sup>	REAR YARD
MINIMUM SIDE PARKING SETBACK	15 FT	15.0 FT

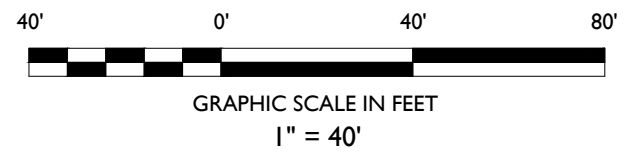
SIGNAGE REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§5.9.1.B	MULTI-TENANT SIGN HEIGHT: 15 FT <sup>(1)</sup>	<15 FT
§5.9.1	SIGN AREA: 6 SF PER 1 FT OF SETBACK	<150 SF
§5.9.1	MAXIMUM SIGN AREA: 150 SF <sup>(1)</sup>	<150 SF
§5.9.1.A	SIGN SETBACK: 10 FT	25.2 FT
§5.9.1.A	RESIDENTIAL SETBACK: 100 FT	200.6 FT

- MAXIMUM SIGN AREA SHALL NOT INCLUDE DECORATIVE ELEMENTS SUCH AS BASES, COLUMNS OR CAPS
- MINIMUM HEIGHT OF A SIGN BASE SHALL BE 2 FT IN HEIGHT
- EACH INDIVIDUAL TENANT SIGN SHALL NOT EXCEED 4 FT IN HEIGHT

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 5.11.M	<b>FAST FOOD PARKING:</b> 1 SPACE PER 75 OF GFA (2,522 SF + 2,402 SF) = 4,924 SF (4,924 SF) / (75 SF) = 66 SPACES	<b>125 SPACES</b>
	<b>RESTAURANT PARKING:</b> 1 SPACE PER 100 SF OF GFA (2,502 SF) / (100 SF) = 25 SPACES	
	<b>RETAIL PARKING:</b> 1 SPACE PER 200 SF OF GFA (3,228 SF + 1,451 SF + 1,505 SF) = 6,184 SF (6,184 SF) / (200 SF) = 31 SPACES	
	<b>TOTAL: 66 + 25 + 31 = 122 SPACES</b>	
§ 5.11.M	<b>STACKING SPACES (WEST FAST FOOD):</b> 8 STACKING CARS (9 FT X 18 FT)	15 SPACES
§ 5.11.M	<b>STACKING SPACES (EAST FAST FOOD):</b> 8 STACKING CARS (9 FT X 18 FT)	10 SPACES
§ 5.11.Q	<b>90° PARKING:</b> 9 FT X 18 FT WITH 24 FT AISLE <sup>(1)</sup>	9 FT X 17 FT W/ 24 FT AISLE
§ 5.19	<b>LANDSCAPE REQUIREMENT:</b> 20 FT WIDTH ALONG RESIDENTIAL 3 FT HIGH BERM WITH A 2 FT CROWN	PROVIDED
§ 5.11.P.I	<b>LOADING AREA:</b> 10 FT X 50 FT WITH 15 FT CLEARANCE	17 FT X 50 FT

(1) PARKING SPACE LENGTH MAY BE REDUCED TO 17 FT WHERE 7 FT SIDEWALK OR LANDSCAPE IS PROVIDED

- GENERAL NOTES**
- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
  - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
  - ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
  - THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
  - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
  - THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
  - THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
  - CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW BY STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
  - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
  - THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
  - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
  - SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



ISSUE	DATE	BY	DESCRIPTION
1	11/29/2023	JRC/JJP	SUBMISSION FOR REZONING

**NOT APPROVED FOR CONSTRUCTION**

**STONEFIELD**  
engineering & design

Detroit, MI · Rutherford, NJ · New York, NY  
Boston, MA · Princeton, NJ · Tampa, FL  
www.stonefielddesign.com

607 Shelby Suite 200, Detroit, MI 48226  
Phone 248.247.1115

**9101 HIGHLAND ROAD**  
PROPOSED MULTI-TENANT BUILDING

PARCEL ID: 12-23-227-003  
9101 HIGHLAND ROAD  
WHITE LAKE TOWNSHIP  
OAKLAND COUNTY, MICHIGAN

J. REID COOKSEY, P.E.  
MICHIGAN LICENSE No. 6201069428  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design

SCALE: 1" = 40' PROJECT ID: DET-230229

TITLE: **SITE PLAN**

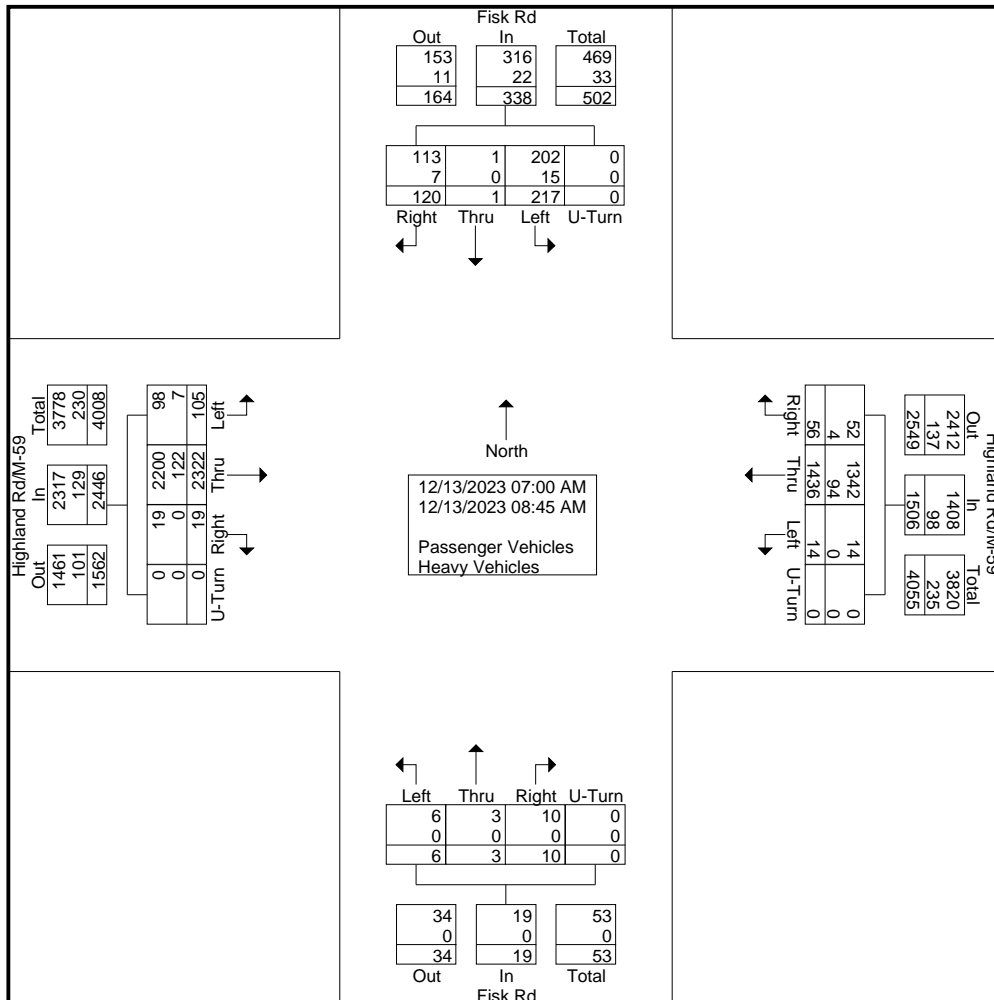
DRAWING: **C-3**





Groups Printed- Passenger Vehicles - Heavy Vehicles

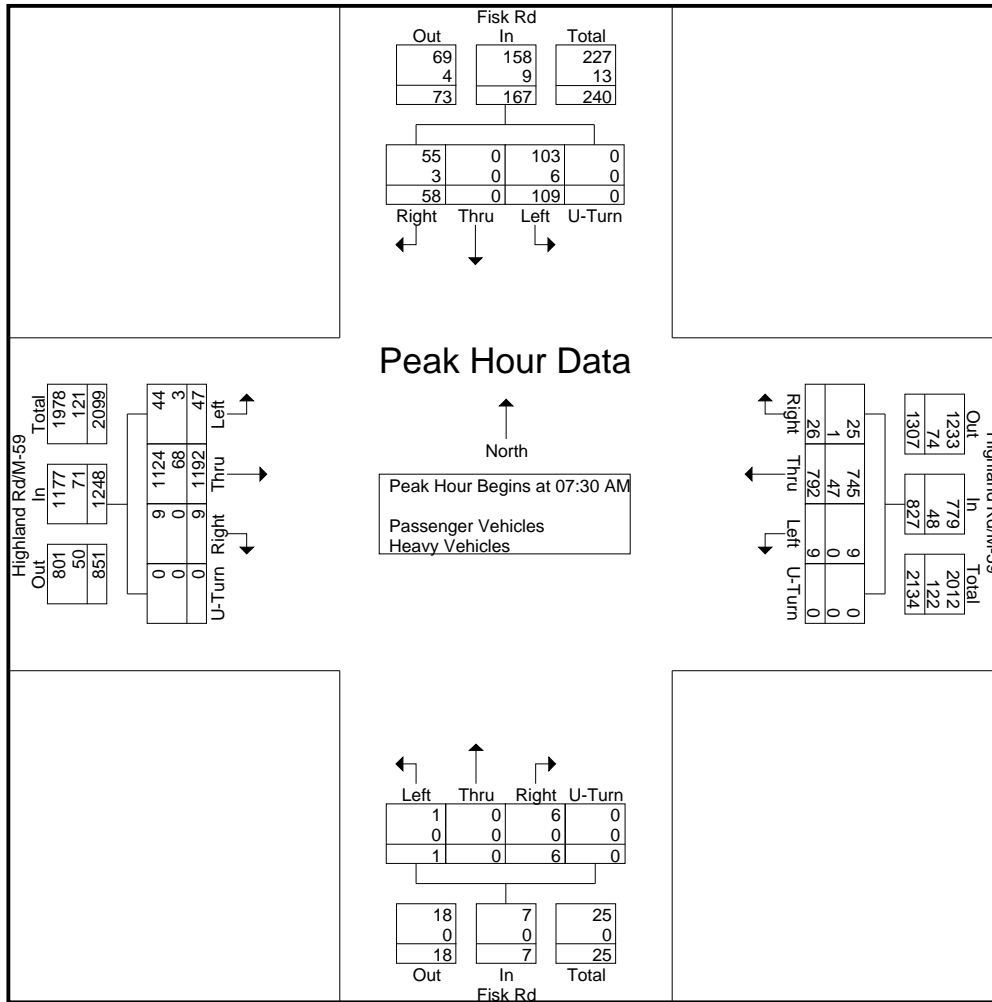
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
07:00 AM	9	298	2	0	309	0	126	6	0	132	0	0	0	0	0	27	0	8	0	35	476
07:15 AM	12	314	2	0	328	0	151	2	0	153	0	0	2	0	2	25	0	15	0	40	523
07:30 AM	12	300	2	0	314	1	193	2	0	196	0	0	1	0	1	25	0	11	0	36	547
07:45 AM	12	319	3	0	334	2	195	6	0	203	0	0	1	0	1	29	0	13	0	42	580
<b>Total</b>	<b>45</b>	<b>1231</b>	<b>9</b>	<b>0</b>	<b>1285</b>	<b>3</b>	<b>665</b>	<b>16</b>	<b>0</b>	<b>684</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>106</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>153</b>	<b>2126</b>
08:00 AM	9	293	2	0	304	5	219	11	0	235	1	0	2	0	3	23	0	17	0	40	582
08:15 AM	14	280	2	0	296	1	185	7	0	193	0	0	2	0	2	32	0	17	0	49	540
08:30 AM	20	264	3	0	287	2	177	11	0	190	4	1	0	0	5	23	0	16	0	39	521
08:45 AM	17	254	3	0	274	3	190	11	0	204	1	2	2	0	5	33	1	23	0	57	540
<b>Total</b>	<b>60</b>	<b>1091</b>	<b>10</b>	<b>0</b>	<b>1161</b>	<b>11</b>	<b>771</b>	<b>40</b>	<b>0</b>	<b>822</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>15</b>	<b>111</b>	<b>1</b>	<b>73</b>	<b>0</b>	<b>185</b>	<b>2183</b>
Grand Total	105	2322	19	0	2446	14	1436	56	0	1506	6	3	10	0	19	217	1	120	0	338	4309
Apprch %	4.3	94.9	0.8	0		0.9	95.4	3.7	0		31.6	15.8	52.6	0		64.2	0.3	35.5	0		
Total %	2.4	53.9	0.4	0	56.8	0.3	33.3	1.3	0	35	0.1	0.1	0.2	0	0.4	5	0	2.8	0	7.8	
Passenger Vehicles	98	2200	19	0	2317	14	1342	52	0	1408	6	3	10	0	19	202	1	113	0	316	4060
% Passenger Vehicles	93.3	94.7	100	0	94.7	100	93.5	92.9	0	93.5	100	100	100	0	100	93.1	100	94.2	0	93.5	94.2
Heavy Vehicles	7	122	0	0	129	0	94	4	0	98	0	0	0	0	0	15	0	7	0	22	249
% Heavy Vehicles	6.7	5.3	0	0	5.3	0	6.5	7.1	0	6.5	0	0	0	0	0	6.9	0	5.8	0	6.5	5.8







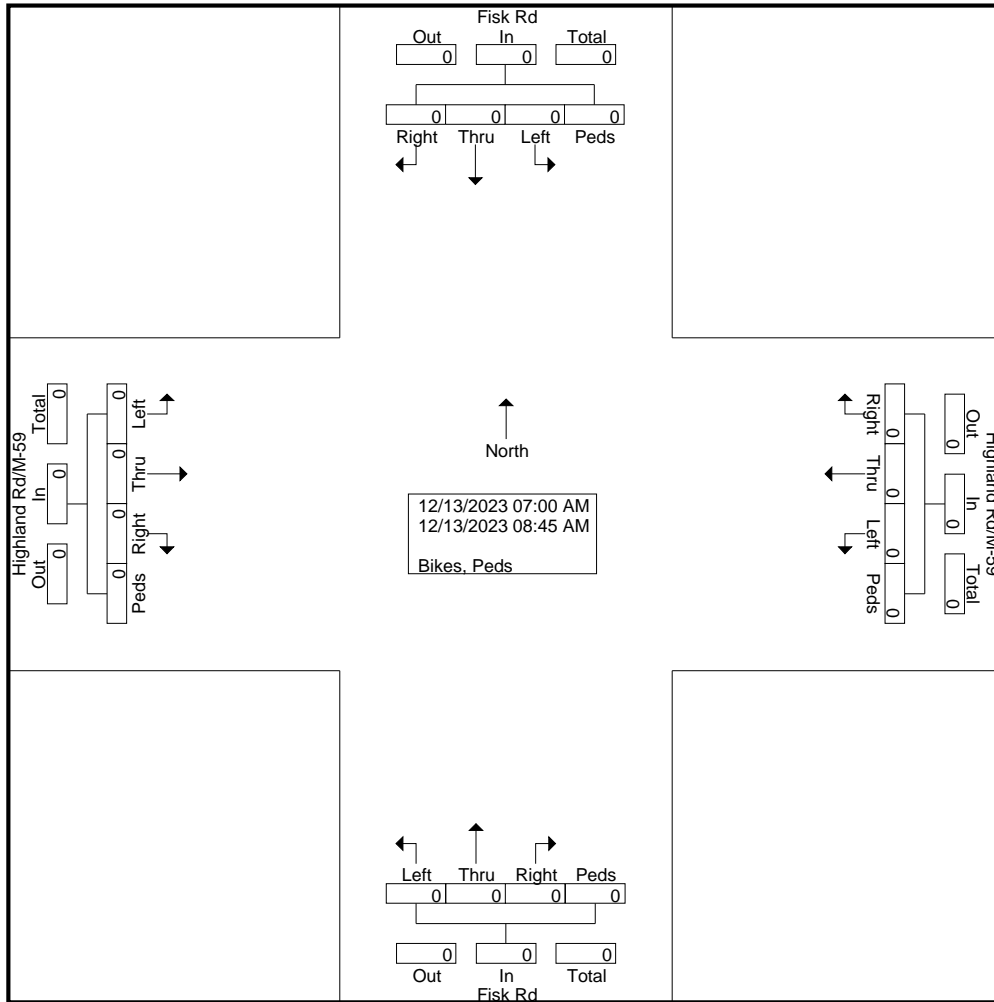
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	12	300	2	0	314	1	193	2	0	196	0	0	1	0	1	25	0	11	0	36	547
07:45 AM	12	<b>319</b>	<b>3</b>	0	<b>334</b>	2	195	6	0	203	0	0	1	0	1	29	0	13	0	42	580
08:00 AM	9	293	2	0	304	<b>5</b>	<b>219</b>	<b>11</b>	0	<b>235</b>	<b>1</b>	0	<b>2</b>	0	<b>3</b>	23	0	<b>17</b>	0	40	<b>582</b>
08:15 AM	<b>14</b>	280	2	0	296	1	185	7	0	193	0	0	2	0	2	<b>32</b>	0	17	0	<b>49</b>	540
Total Volume	47	1192	9	0	1248	9	792	26	0	827	1	0	6	0	7	109	0	58	0	167	2249
% App. Total	3.8	95.5	0.7	0		1.1	95.8	3.1	0		14.3	0	85.7	0		65.3	0	34.7	0		
PHF	.839	.934	.750	.000	.934	.450	.904	.591	.000	.880	.250	.000	.750	.000	.583	.852	.000	.853	.000	.852	.966
Passenger Vehicles	44	1124	9	0	1177	9	745	25	0	779	1	0	6	0	7	103	0	55	0	158	2121
% Passenger Vehicles	93.6	94.3	100	0	94.3	100	94.1	96.2	0	94.2	100	0	100	0	100	94.5	0	94.8	0	94.6	94.3
Heavy Vehicles	3	68	0	0	71	0	47	1	0	48	0	0	0	0	0	6	0	3	0	9	128
% Heavy Vehicles	6.4	5.7	0	0	5.7	0	5.9	3.8	0	5.8	0	0	0	0	0	5.5	0	5.2	0	5.4	5.7





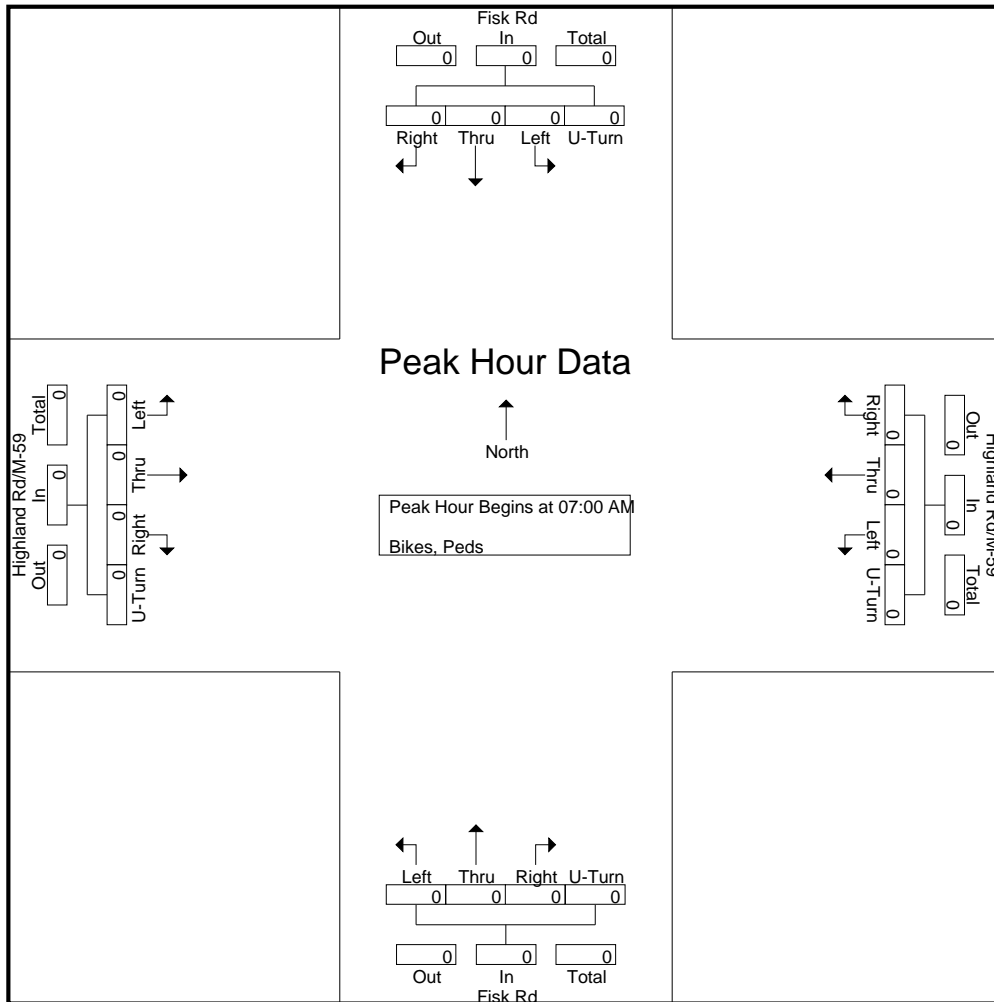
Groups Printed- Bikes, Peds

Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total						
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																										





Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:00 AM																						
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

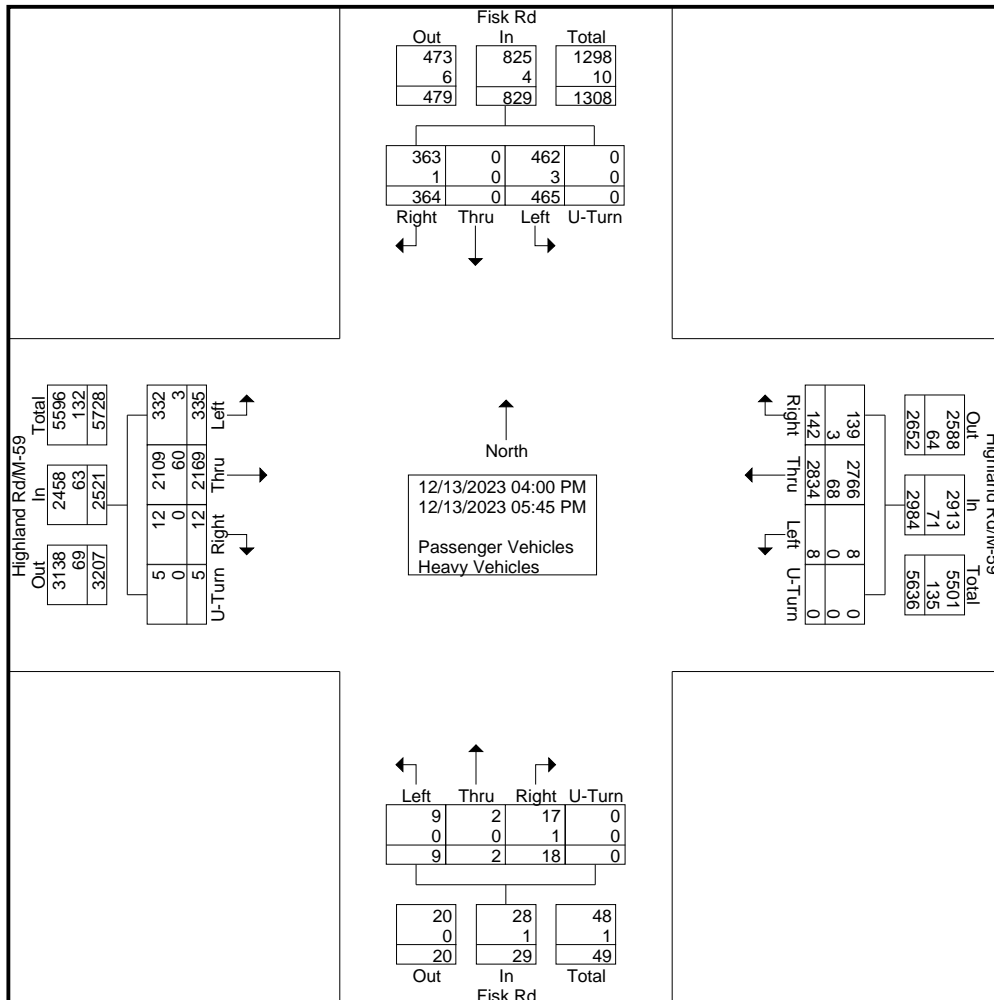






Groups Printed- Passenger Vehicles - Heavy Vehicles

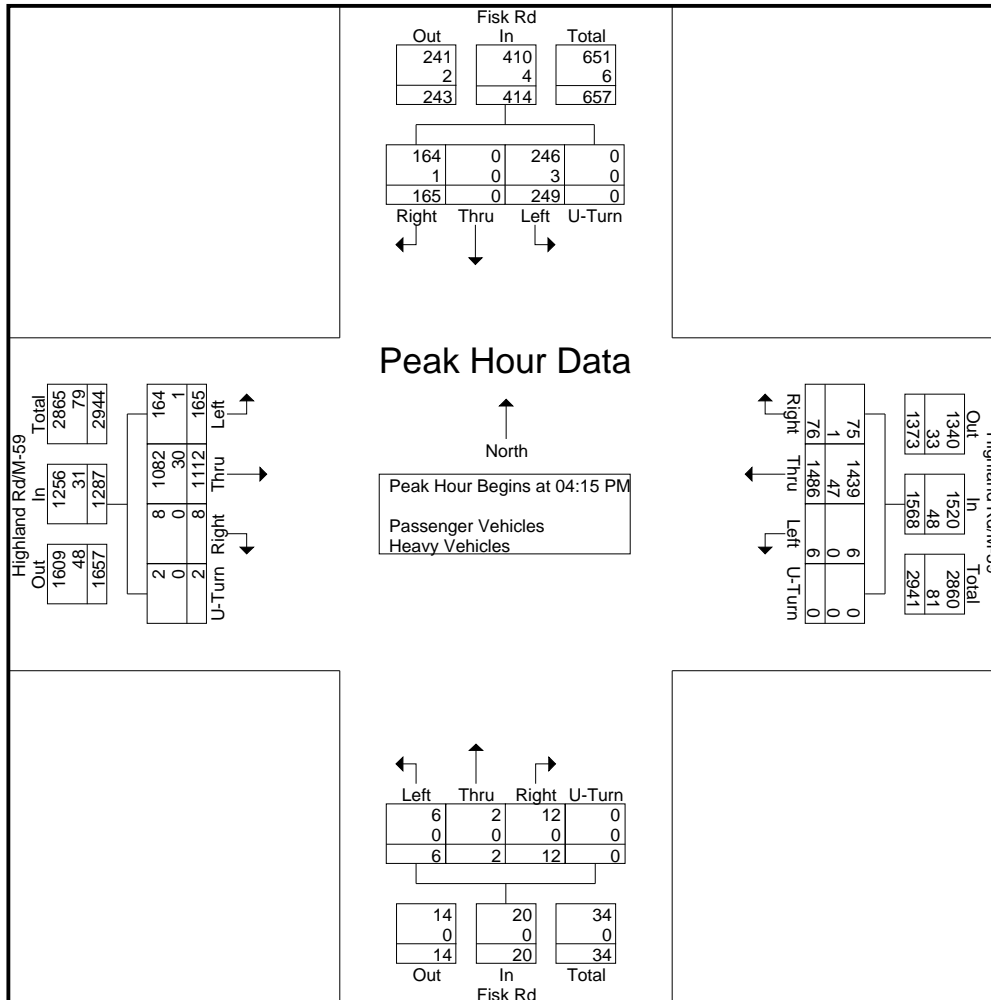
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
04:00 PM	44	269	2	1	316	1	327	22	0	350	1	0	3	0	4	63	0	46	0	109	779
04:15 PM	45	329	3	0	377	2	365	21	0	388	3	0	3	0	6	55	0	44	0	99	870
04:30 PM	32	222	4	1	259	1	363	21	0	385	1	1	2	0	4	64	0	52	0	116	764
04:45 PM	36	268	1	1	306	2	394	24	0	420	2	0	7	0	9	68	0	34	0	102	837
Total	157	1088	10	3	1258	6	1449	88	0	1543	7	1	15	0	23	250	0	176	0	426	3250
05:00 PM	52	293	0	0	345	1	364	10	0	375	0	1	0	0	1	62	0	35	0	97	818
05:15 PM	42	280	1	1	324	0	363	14	0	377	1	0	0	0	1	48	0	55	0	103	805
05:30 PM	39	261	0	0	300	0	339	18	0	357	0	0	1	0	1	58	0	53	0	111	769
05:45 PM	45	247	1	1	294	1	319	12	0	332	1	0	2	0	3	47	0	45	0	92	721
Total	178	1081	2	2	1263	2	1385	54	0	1441	2	1	3	0	6	215	0	188	0	403	3113
Grand Total	335	2169	12	5	2521	8	2834	142	0	2984	9	2	18	0	29	465	0	364	0	829	6363
Apprch %	13.3	86	0.5	0.2		0.3	95	4.8	0		31	6.9	62.1	0		56.1	0	43.9	0		
Total %	5.3	34.1	0.2	0.1	39.6	0.1	44.5	2.2	0	46.9	0.1	0	0.3	0	0.5	7.3	0	5.7	0	13	
Passenger Vehicles	332	2109	12	5	2458	8	2766	139	0	2913	9	2	17	0	28	462	0	363	0	825	6224
% Passenger Vehicles	99.1	97.2	100	100	97.5	100	97.6	97.9	0	97.6	100	100	94.4	0	96.6	99.4	0	99.7	0	99.5	97.8
Heavy Vehicles	3	60	0	0	63	0	68	3	0	71	0	0	1	0	1	3	0	1	0	4	139
% Heavy Vehicles	0.9	2.8	0	0	2.5	0	2.4	2.1	0	2.4	0	0	5.6	0	3.4	0.6	0	0.3	0	0.5	2.2





TRUE DATA TO IMPROVE MOBILITY

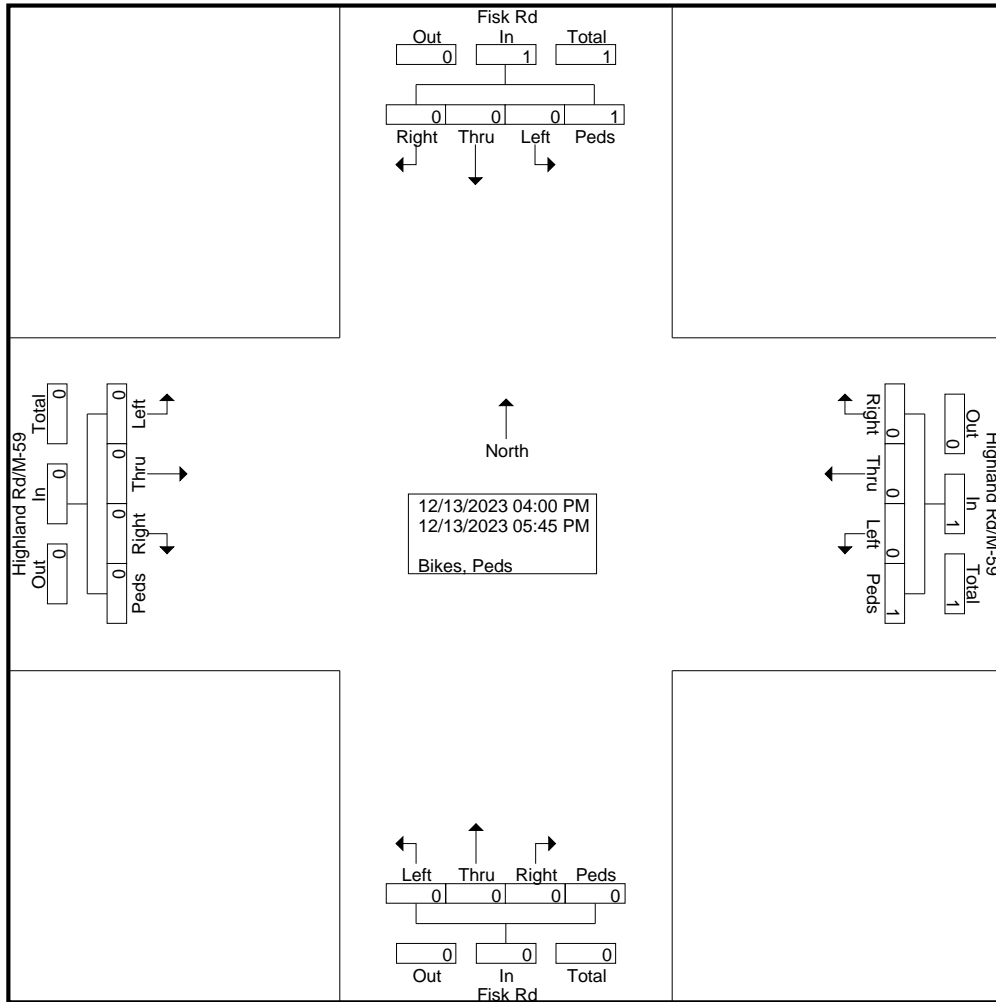
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	45	329	3	0	377	2	365	21	0	388	3	0	3	0	6	55	0	44	0	99	870
04:30 PM	32	222	4	1	259	1	363	21	0	385	1	1	2	0	4	64	0	52	0	116	764
04:45 PM	36	268	1	1	306	2	394	24	0	420	2	0	7	0	9	68	0	34	0	102	837
05:00 PM	52	293	0	0	345	1	364	10	0	375	0	1	0	0	1	62	0	35	0	97	818
Total Volume	165	1112	8	2	1287	6	1486	76	0	1568	6	2	12	0	20	249	0	165	0	414	3289
% App. Total	12.8	86.4	0.6	0.2		0.4	94.8	4.8	0		30	10	60	0		60.1	0	39.9	0		
PHF	.793	.845	.500	.500	.853	.750	.943	.792	.000	.933	.500	.500	.429	.000	.556	.915	.000	.793	.000	.892	.945
Passenger Vehicles	164	1082	8	2	1256	6	1439	75	0	1520	6	2	12	0	20	246	0	164	0	410	3206
% Passenger Vehicles	99.4	97.3	100	100	97.6	100	96.8	98.7	0	96.9	100	100	100	0	100	98.8	0	99.4	0	99.0	97.5
Heavy Vehicles	1	30	0	0	31	0	47	1	0	48	0	0	0	0	0	3	0	1	0	4	83
% Heavy Vehicles	0.6	2.7	0	0	2.4	0	3.2	1.3	0	3.1	0	0	0	0	0	1.2	0	0.6	0	1.0	2.5





Groups Printed- Bikes, Peds

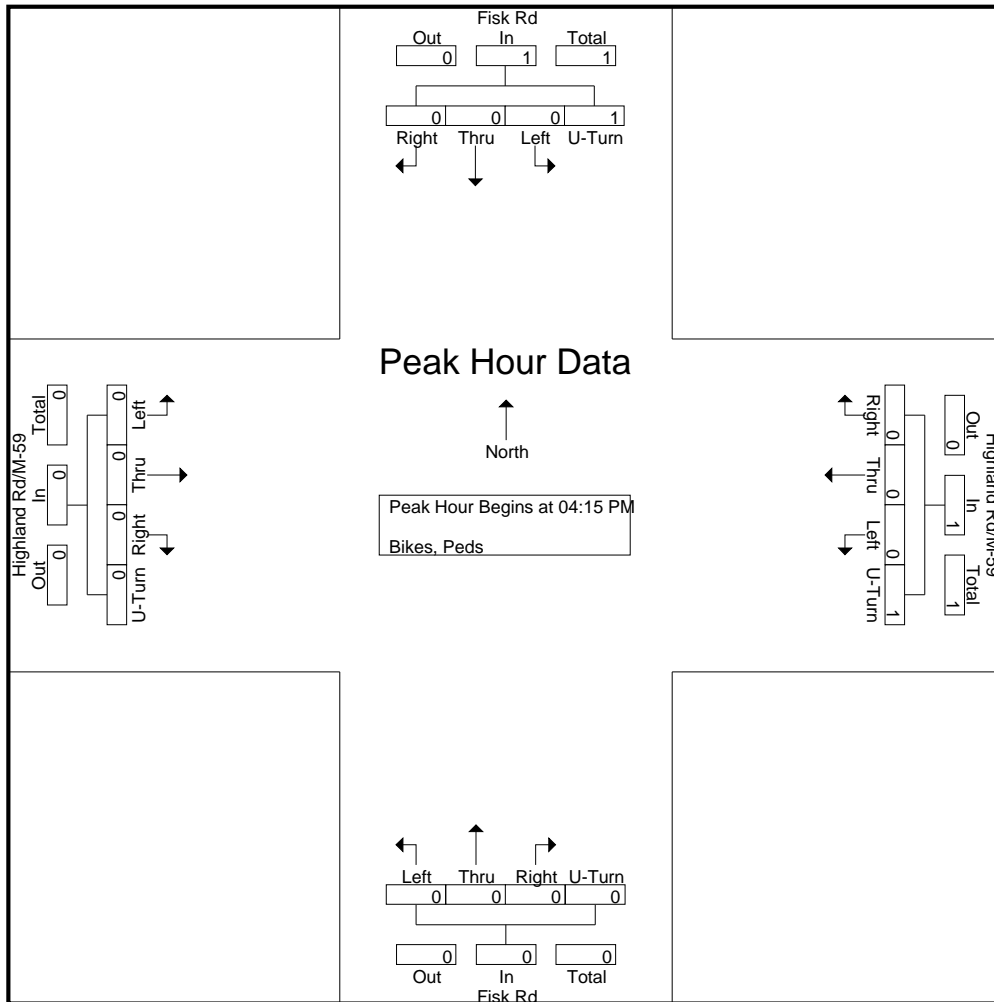
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
Grand Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
Apprch %	0	0	0	0	0	0	0	0	100	50	0	0	0	0	0	0	0	0	100	50	
Total %	0	0	0	0	0	0	0	0	50	50	0	0	0	0	0	0	0	0	50	50	







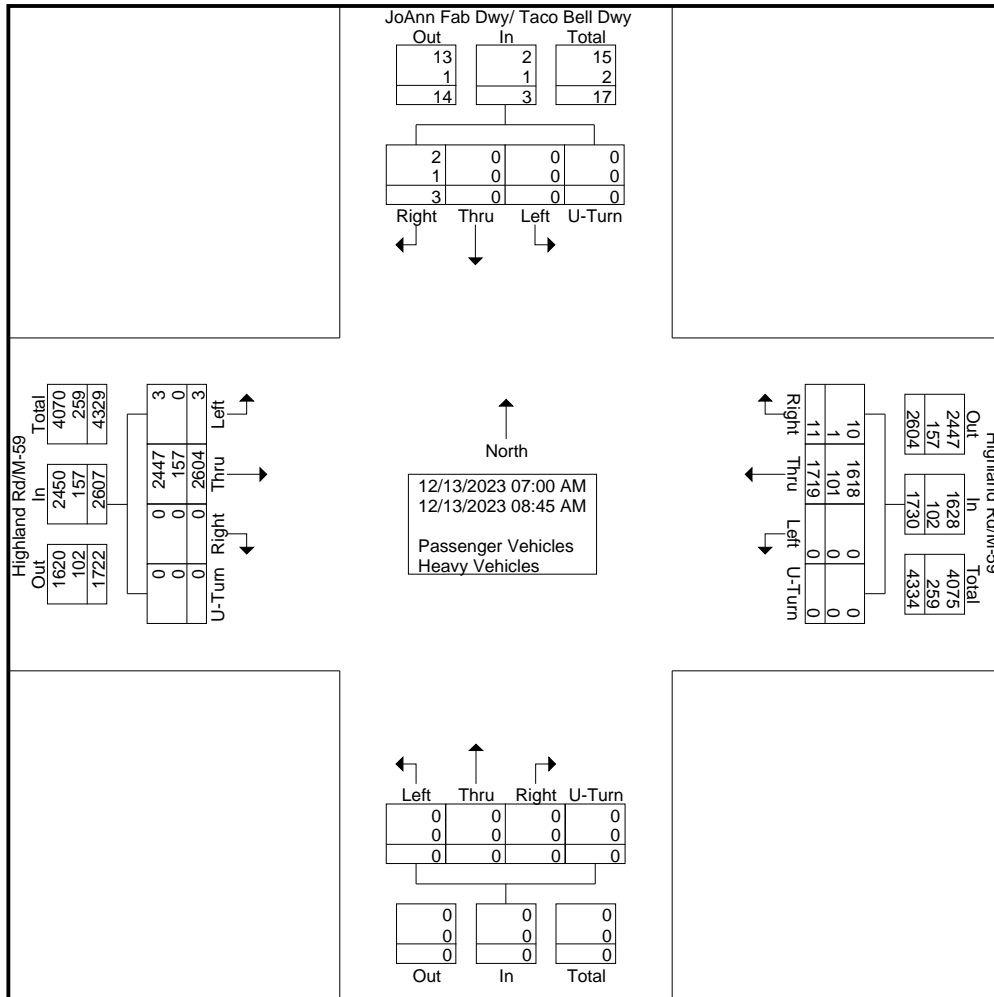
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Fisk Rd Northbound					Fisk Rd Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 04:15 PM																						
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	2
Total Volume	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	2
% App. Total	0	0	0	0	0	0	0	0	100		0	0	0	0		0	0	0	100			
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250	





Groups Printed- Passenger Vehicles - Heavy Vehicles

Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
07:00 AM	0	328	0	0	328	0	141	0	0	141	0	0	0	0	0	0	0	0	0	0	469
07:15 AM	0	355	0	0	355	0	172	3	0	175	0	0	0	0	0	0	0	1	0	1	531
07:30 AM	0	327	0	0	327	0	214	1	0	215	0	0	0	0	0	0	0	0	0	0	542
07:45 AM	0	367	0	0	367	0	232	2	0	234	0	0	0	0	0	0	0	0	0	0	601
<b>Total</b>	<b>0</b>	<b>1377</b>	<b>0</b>	<b>0</b>	<b>1377</b>	<b>0</b>	<b>759</b>	<b>6</b>	<b>0</b>	<b>765</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2143</b>
08:00 AM	0	307	0	0	307	0	265	0	0	265	0	0	0	0	0	0	0	0	0	0	572
08:15 AM	1	320	0	0	321	0	220	1	0	221	0	0	0	0	0	0	0	0	0	0	542
08:30 AM	2	315	0	0	317	0	222	3	0	225	0	0	0	0	0	0	0	2	0	2	544
08:45 AM	0	285	0	0	285	0	253	1	0	254	0	0	0	0	0	0	0	0	0	0	539
<b>Total</b>	<b>3</b>	<b>1227</b>	<b>0</b>	<b>0</b>	<b>1230</b>	<b>0</b>	<b>960</b>	<b>5</b>	<b>0</b>	<b>965</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2197</b>
<b>Grand Total</b>	<b>3</b>	<b>2604</b>	<b>0</b>	<b>0</b>	<b>2607</b>	<b>0</b>	<b>1719</b>	<b>11</b>	<b>0</b>	<b>1730</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>4340</b>
Apprch %	0.1	99.9	0	0		0	99.4	0.6	0		0	0	0	0		0	0	100	0		
Total %	0.1	60	0	0	60.1	0	39.6	0.3	0	39.9	0	0	0	0	0	0	0	0.1	0	0.1	
Passenger Vehicles	3	2447	0	0	2450	0	1618	10	0	1628	0	0	0	0	0	0	0	2	0	2	4080
% Passenger Vehicles	100	94	0	0	94	0	94.1	90.9	0	94.1	0	0	0	0	0	0	0	66.7	0	66.7	94
Heavy Vehicles	0	157	0	0	157	0	101	1	0	102	0	0	0	0	0	0	0	1	0	1	260
% Heavy Vehicles	0	6	0	0	6	0	5.9	9.1	0	5.9	0	0	0	0	0	0	0	33.3	0	33.3	6



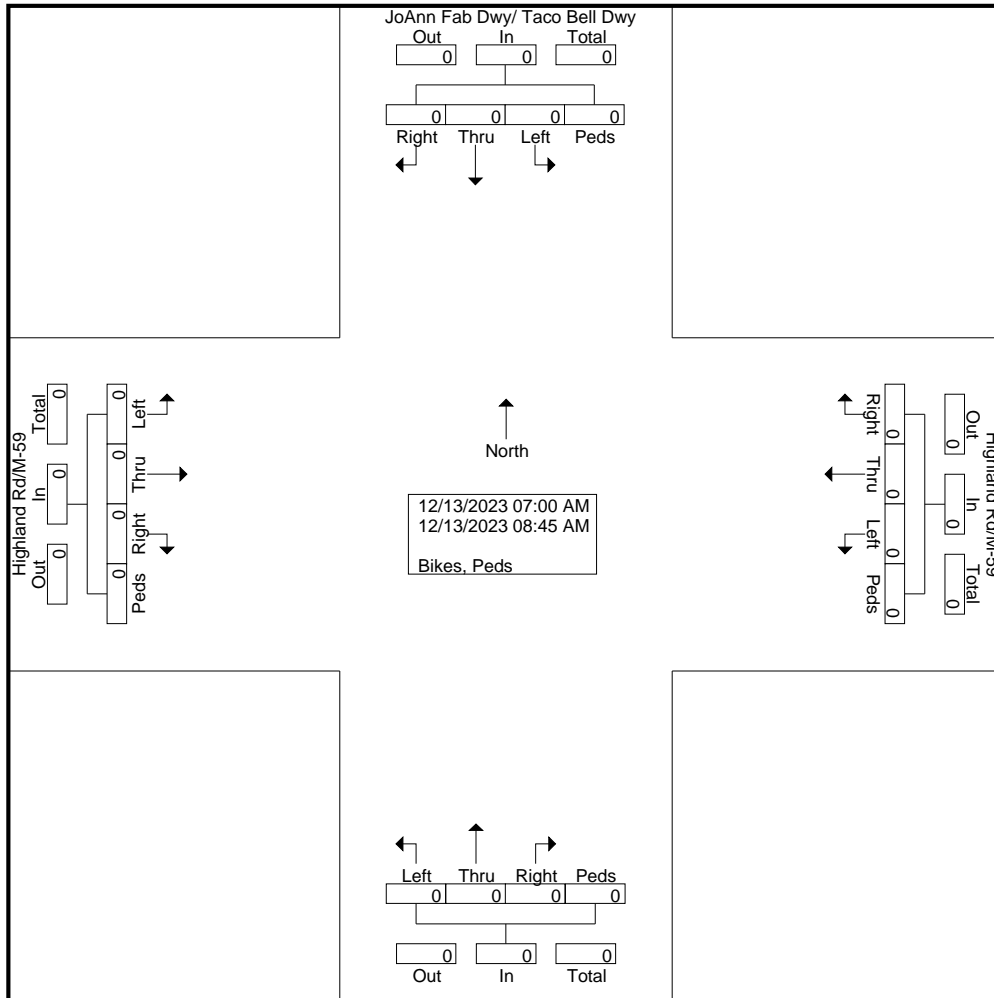






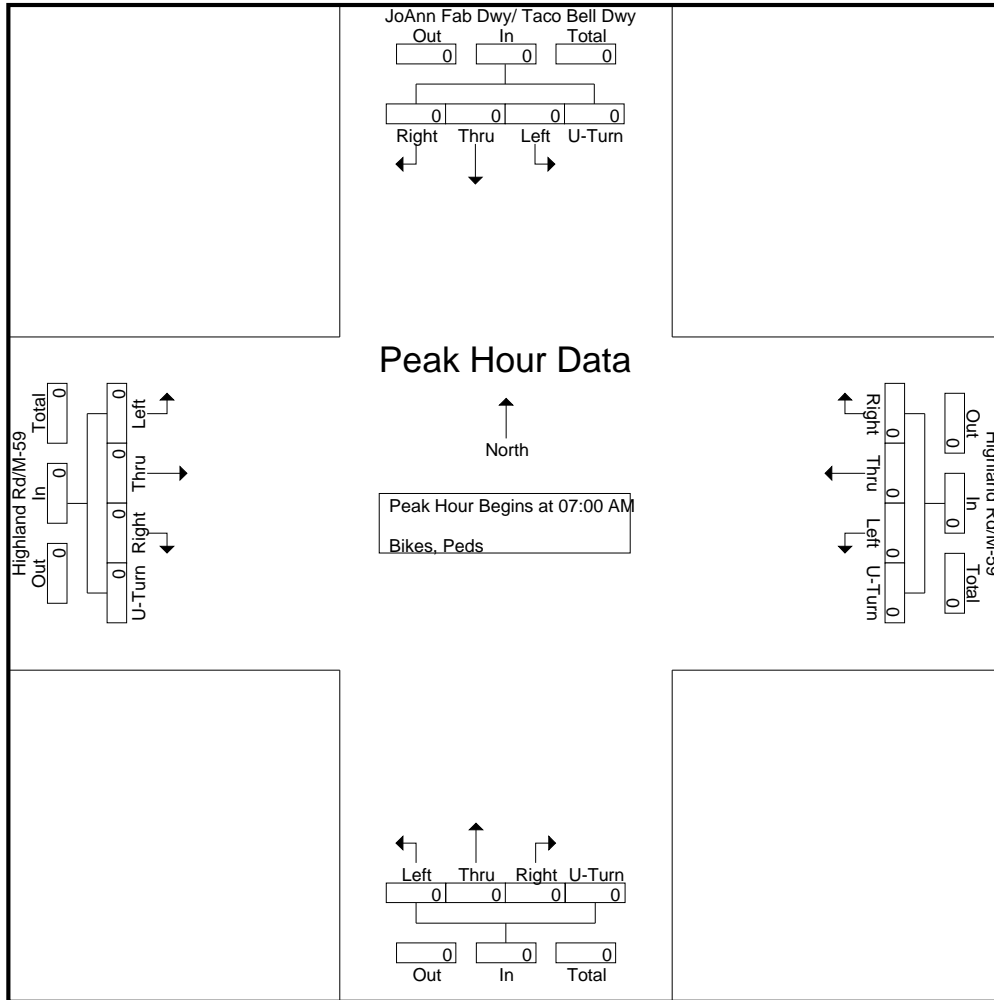
Groups Printed- Bikes, Peds

Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					





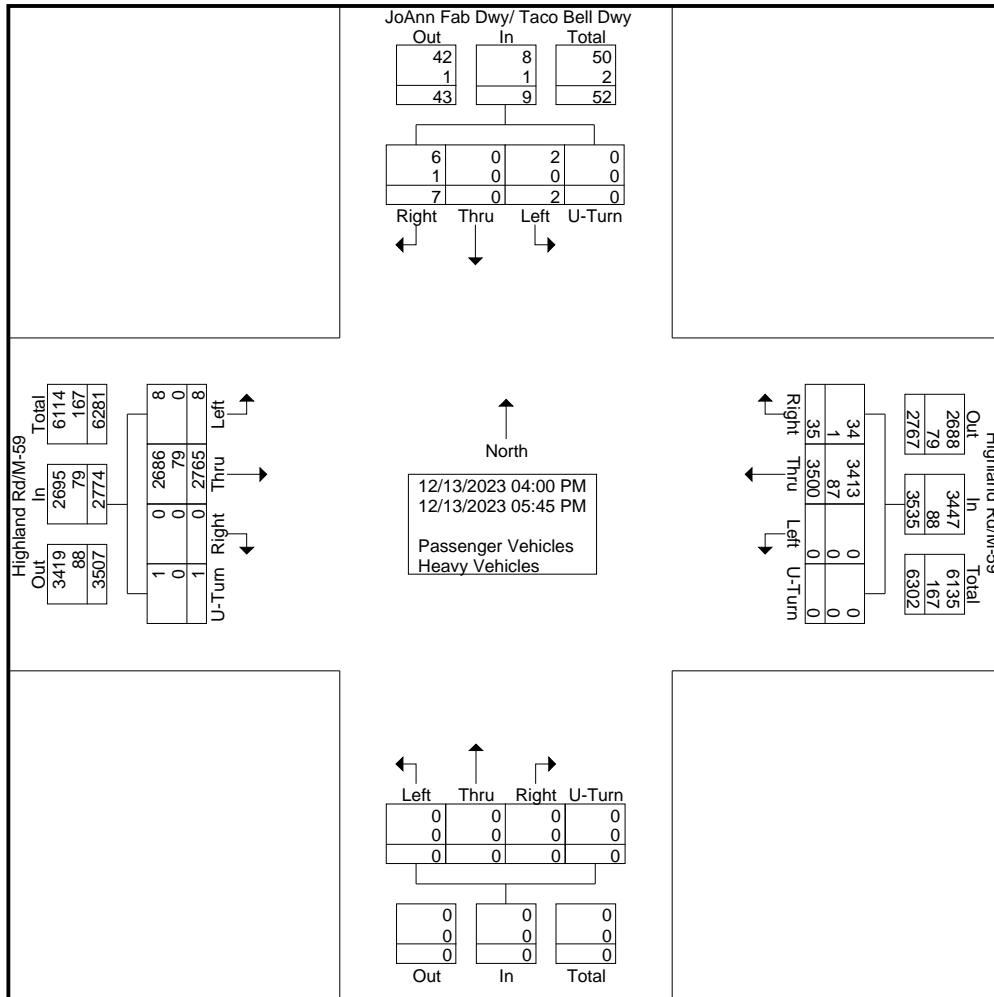
	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound						
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:00 AM																						
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000





Groups Printed- Passenger Vehicles - Heavy Vehicles

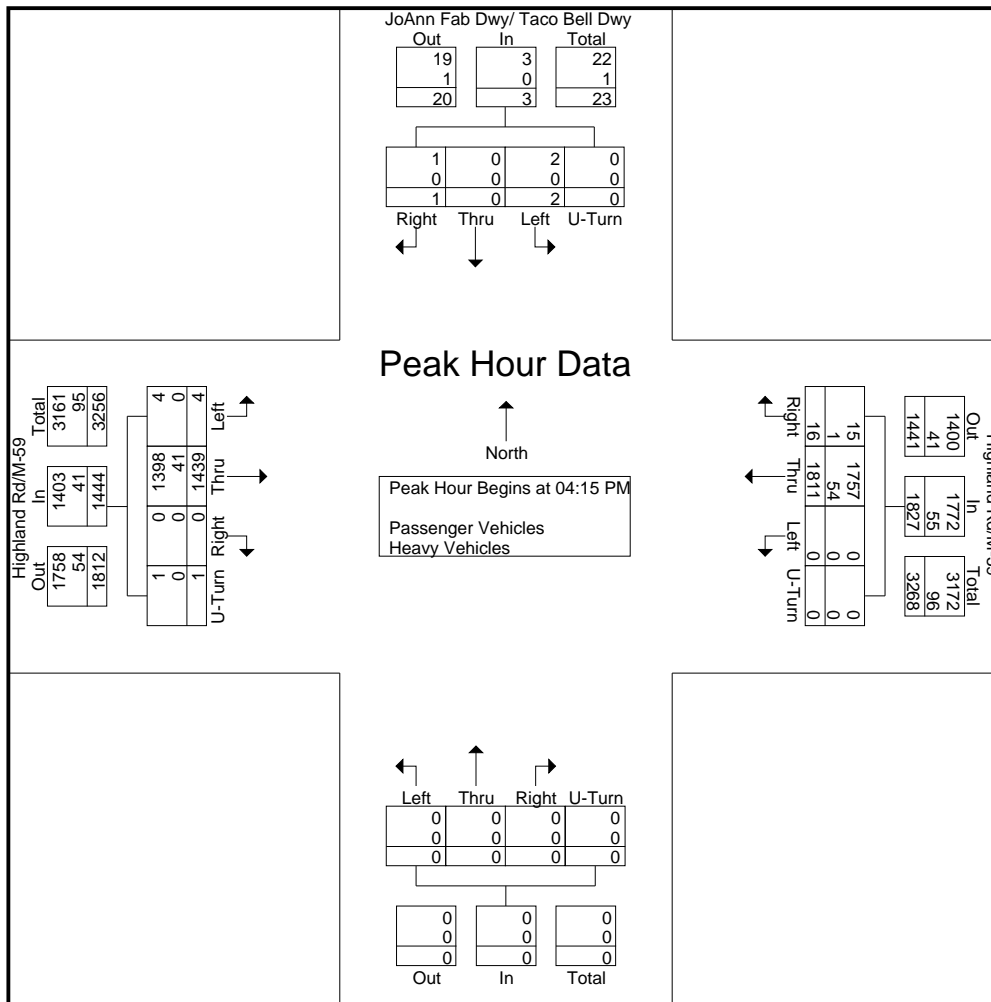
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
04:00 PM	0	337	0	0	337	0	423	7	0	430	0	0	0	0	0	0	0	0	0	0	767
04:15 PM	3	390	0	0	393	0	442	1	0	443	0	0	0	0	0	1	0	0	0	1	837
04:30 PM	0	326	0	0	326	0	447	5	0	452	0	0	0	0	0	0	0	1	0	1	779
04:45 PM	1	355	0	1	357	0	473	5	0	478	0	0	0	0	0	1	0	0	0	1	836
<b>Total</b>	<b>4</b>	<b>1408</b>	<b>0</b>	<b>1</b>	<b>1413</b>	<b>0</b>	<b>1785</b>	<b>18</b>	<b>0</b>	<b>1803</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>3219</b>
05:00 PM	0	368	0	0	368	0	449	5	0	454	0	0	0	0	0	0	0	0	0	0	822
05:15 PM	1	331	0	0	332	0	442	8	0	450	0	0	0	0	0	0	0	5	0	5	787
05:30 PM	1	350	0	0	351	0	426	0	0	426	0	0	0	0	0	0	0	1	0	1	778
05:45 PM	2	308	0	0	310	0	398	4	0	402	0	0	0	0	0	0	0	0	0	0	712
<b>Total</b>	<b>4</b>	<b>1357</b>	<b>0</b>	<b>0</b>	<b>1361</b>	<b>0</b>	<b>1715</b>	<b>17</b>	<b>0</b>	<b>1732</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>3099</b>
<b>Grand Total</b>	<b>8</b>	<b>2765</b>	<b>0</b>	<b>1</b>	<b>2774</b>	<b>0</b>	<b>3500</b>	<b>35</b>	<b>0</b>	<b>3535</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>9</b>	<b>6318</b>
Apprch %	0.3	99.7	0	0		0	99	1	0		0	0	0	0		22.2	0	77.8	0		
Total %	0.1	43.8	0	0	43.9	0	55.4	0.6	0	56	0	0	0	0	0	0	0	0.1	0	0.1	
Passenger Vehicles	8	2686	0	1	2695	0	3413	34	0	3447	0	0	0	0	0	2	0	6	0	8	6150
% Passenger Vehicles	100	97.1	0	100	97.2	0	97.5	97.1	0	97.5	0	0	0	0	0	100	0	85.7	0	88.9	97.3
Heavy Vehicles	0	79	0	0	79	0	87	1	0	88	0	0	0	0	0	0	0	1	0	1	168
% Heavy Vehicles	0	2.9	0	0	2.8	0	2.5	2.9	0	2.5	0	0	0	0	0	0	0	14.3	0	11.1	2.7







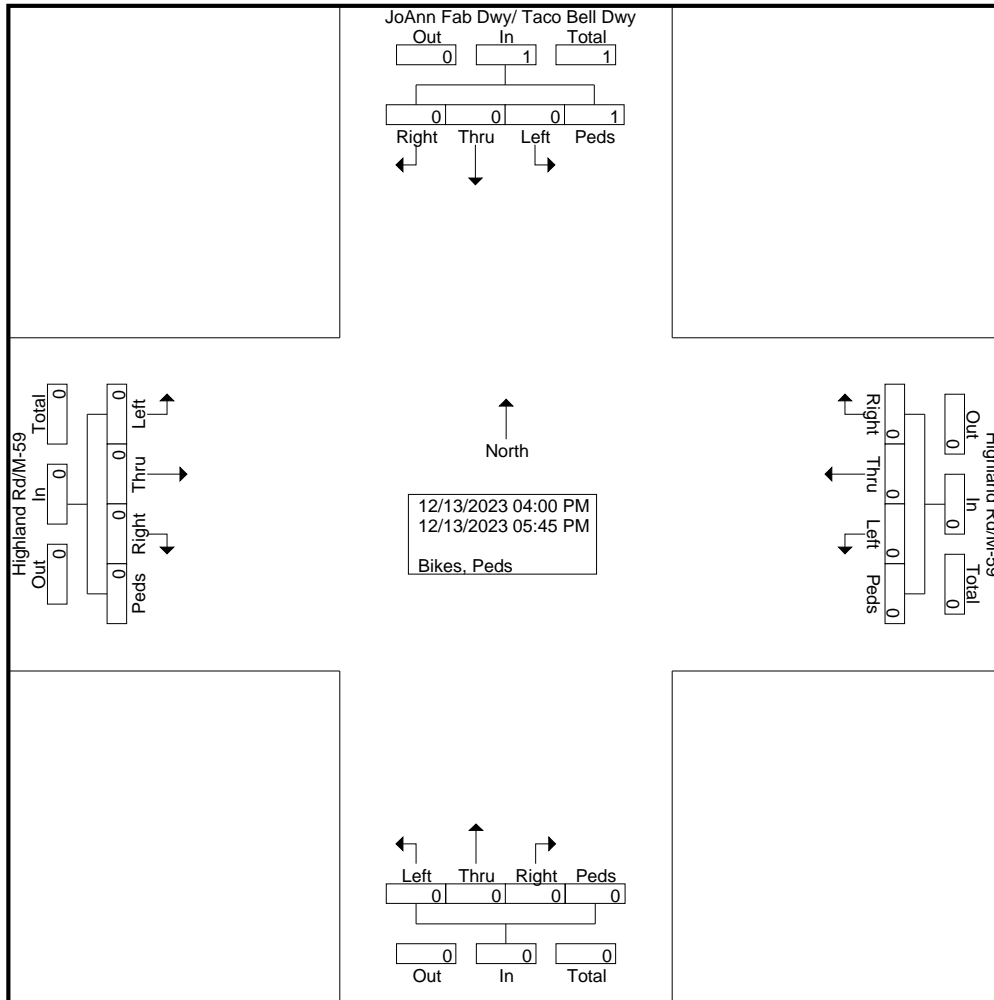
Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total
	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	3	390	0	0	393	0	442	1	0	443	0	0	0	0	0	1	0	0	0	1	837
04:30 PM	0	326	0	0	326	0	447	5	0	452	0	0	0	0	0	0	0	1	0	1	779
04:45 PM	1	355	0	1	357	0	473	5	0	478	0	0	0	0	0	1	0	0	0	1	836
05:00 PM	0	368	0	0	368	0	449	5	0	454	0	0	0	0	0	0	0	0	0	0	822
Total Volume	4	1439	0	1	1444	0	1811	16	0	1827	0	0	0	0	0	2	0	1	0	3	3274
% App. Total	0.3	99.7	0	0.1		0	99.1	0.9	0		0	0	0	0		66.7	0	33.3	0		
PHF	.333	.922	.000	.250	.919	.000	.957	.800	.000	.956	.000	.000	.000	.000	.000	.500	.000	.250	.000	.750	.978
Passenger Vehicles	4	1398	0	1	1403	0	1757	15	0	1772	0	0	0	0	0	2	0	1	0	3	3178
% Passenger Vehicles	100	97.2	0	100	97.2	0	97.0	93.8	0	97.0	0	0	0	0	0	100	0	100	0	100	97.1
Heavy Vehicles	0	41	0	0	41	0	54	1	0	55	0	0	0	0	0	0	0	0	0	0	96
% Heavy Vehicles	0	2.8	0	0	2.8	0	3.0	6.3	0	3.0	0	0	0	0	0	0	0	0	0	0	2.9





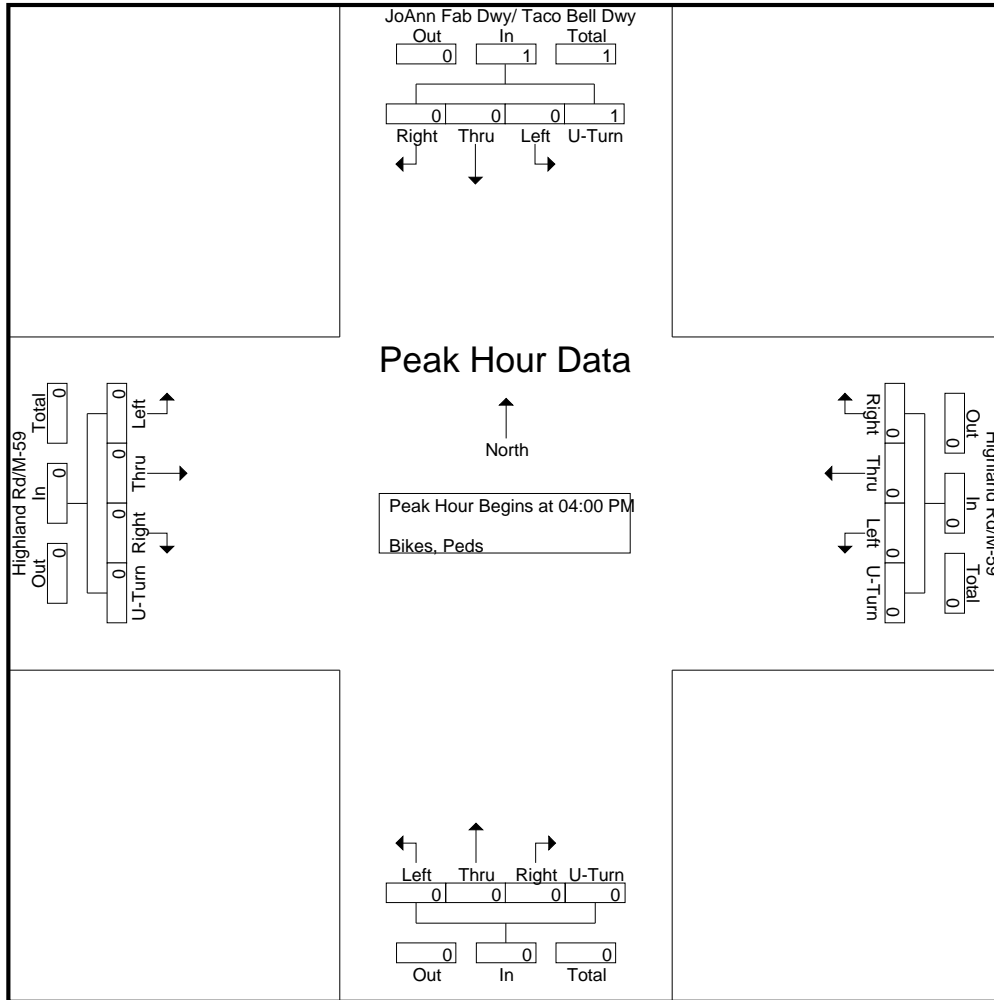
Groups Printed- Bikes, Peds

Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	





Start Time	Highland Rd/M-59 Eastbound					Highland Rd/M-59 Westbound					Northbound					JoAnn Fab Dwy/ Taco Bell Dwy Southbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 04:00 PM																						
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250		.250







Transportation Data Management System

Disclaimer: The Michigan Department of Transportation (MDOT) works with individual agencies (cities/villages, counties, metropolitan planning organizations (MPOs), regional planning organizations (RPOs), and other areas of MDOT) to identify existing traffic count programs and/or traffic data. [... more](#)

List View All DIRs Report Center

Record		1	of 1		Goto Record	<input type="text"/>	go
Location ID	63-0739			MPO ID	2717		
Type	SPOT			HPMS ID			
On NHS	No			On HPMS	No		
LRS ID	0704601			LRS Loc Pt.	0.3140493		
SF Group	Local Road			Route Type			
AF Group	NoFactor			Route			
GF Group	Local Road			Active	Yes		
Class Dist Grp	NTL_7			Category			
Seas Class Grp							
WIM Group							
QC Group	Default						
Funct'l Class	(7) Local Road or Street			Milepost			
Located On	Fisk Rd						
Loc On Alias							
SOUTH OF	Pontiac Lake Rd						
More Detail							

STATION DATA

Directions: 2-WAY NB SB ?

AADT ?								
	Year	AADT	DHV-30	K %	D %	PA	BC	Src
	2022	1,256	130	10		1,194 (95%)	62 (5%)	

VOLUME COUNT			
	Date	Int	Total
	Mon 8/22/2022	60	1,274

VOLUME TREND ?	
Year	Annual Growth

CLASSIFICATION			
	Date	Int	Total
No Data			

NOTES/FILES			
	Note	Date	

Search... 

# Crash and Road Data

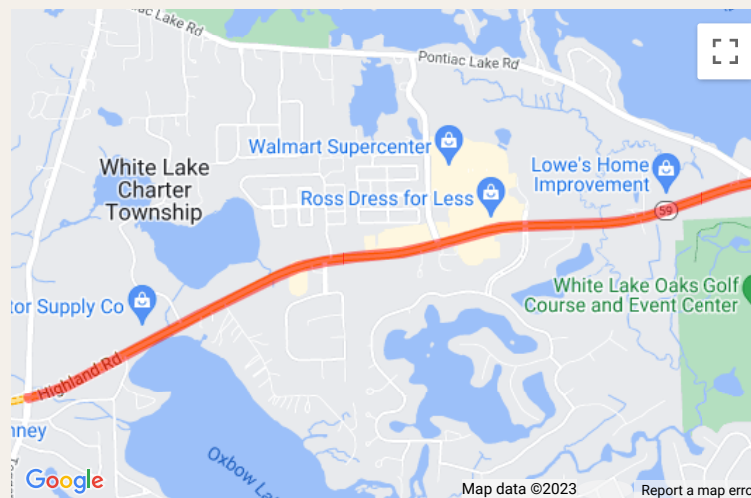
## Road Segment Report

### Highland Rd, (PR Number 648906)

<b>From:</b>	Teggerdine Rd 9.938 BMP
<b>To:</b>	Pontiac Lake Rd 12.354 EMP
<b>Jurisdiction:</b>	State
<b>FALINK ID:</b>	1797
<b>Community:</b>	White Lake Township
<b>County:</b>	Oakland
<b>Functional Class:</b>	3 - Other Principal Arterial
<b>Direction:</b>	2 Way
<b>Length:</b>	2.416 miles
<b>Number of Lanes:</b>	5
<b>Posted Speed:</b>	50 (source: TCO)
<b>Route Classification:</b>	M-59
<b>Annual Crash Average 2018-2022:</b>	<u>82</u>
<b>Traffic Volume (2022)*:</b>	33,400 (Observed AADT)
<b>Pavement Type (2022):</b>	Asphalt
<b>Pavement Rating (2022):</b>	Fair

\* AADT values are derived from **Traffic Counts**

Street View



OAKLAND COUNTY ROAD COMMISSION  
TRAFFIC - SAFETY DEPARTMENT  
SIGNAL WORK ORDER

JAN 23 2017

LOCATION: M-59 & Fisk DATE: 1-17-17

CITY/TOWNSHIP: White Lake BY: ELA

COUNTY#: 4135 STATE#: 63041-01-026 CHARGES: WO 168612

PLEASE PERFORM THE FOLLOWING:

ELECTRICAL DEVICE:  INSTALL  MODERNIZE  MAINTENANCE

UNDERGROUND: \_\_\_\_\_

EDISON OK:  YES  NO JOB#: \_\_\_\_\_

COORDINATE W/DISTRICT 7: \_\_\_\_\_

	DIAL..				SPLIT.											
	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<input checked="" type="checkbox"/> CHANGE TIMING.../MODE.....	X				X				X							
<input checked="" type="checkbox"/> CHANGE OFFSET.....									X							
<input type="checkbox"/> CHANGE CYCLE LENGTH.....																
<input type="checkbox"/> ADD DIAL/SPLIT.....																

CHANGE BREAKOUT OR EPROM: \_\_\_\_\_

CHANGE HOURS OF OPERATION:

OLD: 6am - 11pm

NEW: 6am - 10pm

REPROGRAM TBC (Traffic Events)

INSTALL INTERCONNECT:  TBC  MINITROL  TONE

MBT OK:  YES  NO

NO CHANGE - RECORD CORRECTION

OTHER: Rev 4

**\* MDOT RETIMING - FINAL \***

APPROVED BY: \_\_\_\_\_ DATE: 1/17/17

DATE INSTALLED: 1/21/17

INSTALLED BY: RICHARDSON CASWY



**ROAD COMMISSION FOR OAKLAND COUNTY, WATERFORD, MICHIGAN**  
**PROGRAM LOG FOR EAGLE SIGNAL CONTROLLER Epac300, Mod 52 and 2070**

Section 9, Item A.

INTERSECTION: M-59 (HIGHLAND) & FISK

CITY/VILLAGE/TOWNSHIP: WHITE LAKE

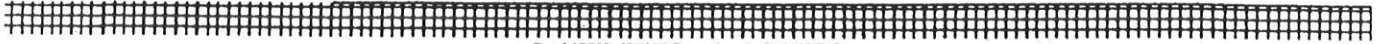
COUNTY#: 4135 MDOT#: 63041-01-026 REV#: 3 DETROIT EDISON#: \_\_\_\_\_

DRAWN BY: E Labiano APPROVED BY: [Signature] DATE DRAWN: 1/17/17

INSTALLED BY: \_\_\_\_\_ DATE INSTLD: 1/1

HOURS OF OPERATION: 7 DAYS: 6AM - 10PM

HOURS OF FLASHING: 7 DAYS: 10PM - 6AM



**2. UTILITIES - 1. ACCESS**

CODE.....: 1642 CODE: Four digits (0000 - 9999)



**4. UNIT DATA - 5. RING STRUCTURE**

\*\*\*\*\*  
 \*\*\*\*\*  
**NOTE: INSERT ALL RING #'S FIRST, THEN NXT & CONCUR \*\*\*\*\***  
 \*\*\*\*\*  
 \*\*\*\*\*

CHANNEL:	RING	PHNXT	CONCURRENT PHASES																CHANNEL		
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	VEH	PED	
PHASE 1:	1	2	1					1	1											1	
PHASE 2:	1	4		1				1	1											2	9
PHASE 3:					1																
PHASE 4:	1	1				1				1										4	10
PHASE 5:	2	6	1	1				1												5	
PHASE 6:	2	8	1	1					1											6	11
PHASE 7:										1											
PHASE 8:	2	5				1					1									8	12
PHASE 9:											1										
PHASE 10:												1									
PHASE 11:													1								
PHASE 12:														1							
PHASE 13:															1						
PHASE 14:																1					
PHASE 15:																	1				
PHASE 16:																		1			

CODES:  
 RING ..... Ring Number for Phase (1-4)  
 PHNXT ..... Phase Next in Ring (1-16)  
 CONCUR PH ..... Phases To Be Concurrent (0=NO, 1=YES)

For vehicle channel & ped channel, enter "1" under channel# shown.



**3. PHASE DATA - 1. BASIC TIMINGS**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	RANGE
Minimum Green	5	10		7	5	10		7									00-99
Passage	3.0			3.0	3.0			3.0									0.0-9.9
Maximum #1	17	80		32	17	80		32									000-999
Maximum #2																	000-999
Yellow Clearance	4.7	4.7		3.0	4.7	4.7		3.0									3.0-9.9
Red Clearance	1.6	1.6		3.5	1.6	1.6		3.5									0.0-9.9

ROAD COMMISSION FOR OAKLAND COUNTY, WATERFORD, MICHIGAN  
 PROGRAM LOG FOR EAGLE SIGNAL CONTROLLER Epac300, Mod 52 and 2070

Section 9, Item A.

3. PHASE DATA - 3. PEDESTRIAN TIMINGS

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	RANGE (SEC)
Walk		7		7		7		7									00-99
Pedest Clearance		14		18		14		18									00-99
Flashing Walk																	
Extend Ped Clear		0		0		0		0									
Act Rest in Walk																	

3. PHASE DATA - 4. INITIALIZE & NON ACTUATED RESPONSE

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1	4		1	1	4		1								
NA Response																

CODES: 0 1 2 3 4  
 Initial none inactive red yellow green  
 NA Response none to 1 to 2 both -----

3. PHASE DATA - 5. VEHICLE & PEDESTRIAN RECALLS

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vehicle Recall		3		2		3		2								
Pedestrian Recall		2				2										

CODES: 0 1 2 3 4  
 Vehicle none 1 call min max soft  
 Pedestrian none 1 call ped bot N. A. -----

3. PHASE DATA - 6. NONLOCK & MISC CONTROLS

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Nonlock Memory	1				1											
Dual Entry				1				1								
Last Car Passage																
Conditional Service																

CODES: 0 = NO 1 = YES

3. PHASE DATA - 8. SPECIAL DETECTOR - 0. SPC 1-8 (Epac 300/M52)

Detector # on Print	1	2	5,3	6,4	7,5	8,6	11,7	12,8
EPAC/M52 "D" Connector	1	6	7	8	4	5	2	3
Assigned Phase	1	1	8	8	5	5	4	4

See attached detection sheet  
 for D-connector pin  
 assignments

CODES: 0 1 2 3 4  
 Operation Mode: Norm Veh Norm Ped 1 call St Bar A St Bar B

A. CONTROLS

	RANGE (SEC)
Extend Time	00-99
Delay Time	00-999

3. PHASE DATA - 8. SPECIAL DETECTOR - 2. VEH 9-16 (2070)

Detector # on Print	1	2	3	4	5	6	7	8
2070 "D" Connector	9	10	11	12	13	14	15	16
Assigned Phase								

See attached detection sheet  
 for D-connector pin  
 assignments

CODES: 0 1 2 3 4  
 Operation Mode: Norm Veh Norm Ped 1 call St Bar A St Bar B

A. CONTROLS

	RANGE (SEC)
Extend Time	00-99
Delay Time	00-999

4. UNIT DATA - 1. STARTUP & MISCELLANEOUS

Start up time : 10 (00-99) State : 0 (0 = fl, 1 = red)  
 Auto ped clear : 0 Red revert : 1-0 (2.0 - 9.9)  
 Stop time reset : 0 (0 = No, 1 = Yes)

4. UNIT DATA - 2. REMOTE FLASH

Phase	1	2	3	4	5	6	7	8	A	B	C	D	E	F	G	H
FLASH																
YEL																
ALT																
ENTER				1				1								
EXIT		1				1										

Test A = Remote Flash: 0 (0 = no & 1 = yes)

6. TIME BASE - 0. SPC FUNCTION MAPPING

FUNCTION NAME  
 AS 8-15 = OLI - P FL G PHS  
 AS 8-15 = OLI - P FL R PHS

SPC FUNC							
1	2	3	4	5	6	7	8

NOTE: Go up after entering to get this screen.

4. UNIT DATA - 6. ALT SEQ. 08-15

EPAC ALT SEQ (PHASE PAIR TO REVERSE)

SEQ	.PP1.	.PP2.	.PP3.	.PP4.	.PP5.	.PP6.
08						
09						
10						
11						

SEQ	.PP1.	.PP2.	.PP3.	.PP4.	.PP5.	.PP6.
12						
13						
14						
15						

4. UNIT DATA - 3. OVERLAP STANDARD

Phase	1	2	3	4	5	6	7	8	CH#
OVL A Phses									13
+GRN Phses		1				1			
OVL B Phses									
+GRN Phses									
OVL C Phses									15
+GRN Phses		1				1			
OVL D Phses									
+GRN Phses									

Phase	1	2	3	4	5	6	7	8	CH#
Overlap I									
Overlap J									
Overlap K									
Overlap L									
Overlap M									
Overlap N									
Overlap O									
Overlap P									

Enter a "1" in the channel # shown.

0 = Phase not part of overlap; 1 = Phase part of overlap.

4. UNIT DATA - 4. OVERLAP SPECIAL

Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail green																
Trail yellow																
Trail red																
-Green / -yellow (-G/Y)	1		5													
+Green (+GRN)																

- \* Overlap green omitted by # - phase green; Overlap yellow omitted by # - phase yellow
- \* For FYA operation, '-G/Y' entry defines the phase that is the green arrow
- \* For FYA operation, '+GRN' entry is the thru phase opposing the FYA phase



4. UNIT DATA - 8. I/O MISCELLANEOUS

Ring#	1	2	3	4	CONN	MODE
Input Response	1	2			"D"	
Output Select	1	2			"D"	

Connector "D" : 0 = Standard & 1 = Alternate

I/O Modes	INPUT	OUTPUT
"ABC" Connector		
"D" Connector	1	

Controller with Solo Detection:  
 EPAC300/M52 enter "1" under D Conn Input  
 2070 enter "0" under D Conn Input

5. COORDINATION DATA - 1. COORD SETUP

	0	1	2	3	4	5
OPER: <u>1</u>	FRE	AUT	MAN	-----	-----	-----
MODE: <u>0</u>	PRM	YLD	PYL	POM	SOM	FAC
MAX : <u>0</u>	INH	MX1	MX2	-----	-----	-----
CORR: <u>2</u>	DWL	MDW	SWY	SW+	-----	-----
OFST: _____	BEG END OF GREEN					
FRCE: _____	PLN CYC LE TIME					
MX DWELL: _____	YIELD PERIOD:					

5. COORDINATION DATA - 2. MANUAL CONTROL

DIAL: \_\_\_\_\_ SPLIT: \_\_\_\_\_ OFFSET: \_\_\_\_\_ SYNC: \_\_\_\_\_

To set cycle zero in manual control enter "1" for sync then press "E".

5. COORDINATION DATA - 3. DIAL/SPLIT DATA

Mode: 0 = actuated, 1 = coord phase, 2 = minimum recall, 3 = maximum recall,  
 4 = pedestrian recall, 5 = maximum + pedestrian recall, 6 = phase omit,  
 7 = dual coord phase.

Sequence: 00 - 15 (Unit data has definition)

Ring Lag: Ring offset from local cycle zero when not barrier locked to Ring #1.

Time: 00 - 99 seconds.

5. COORDINATION DATA - 3. DIAL/SPLIT DATA

LEVEL 2

DIAL 1 / SPLIT 1 CYCLE LENGTH: 110 secs

PHASE	1	2	3	4	5	6	7	8
TIME	17	61		32	17	61		32
MODE	2	1		2	2	1		2

DIAL 1 / SPLIT 2 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 1 / SPLIT 3 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 1 / SPLIT 4 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 2 / SPLIT 1 CYCLE LENGTH: 90 secs *Program Cycle length*

PHASE	1	2	3	4	5	6	7	8
TIME	13	45		20	13	45		20
MODE	2	1		2	2	1		2

DIAL 2 / SPLIT 2 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 2 / SPLIT 3 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 2 / SPLIT 4 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

LEVEL 1

OFFSET	1	2	3
TIME	42		
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			

OFFSET	1	2	3
TIME	22		
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			

5. COORDINATION DATA - 3. DIAL/SPLIT DATA

LEVEL 2

DIAL 3 / SPLIT 1 CYCLE LENGTH: 120 secs *Program cycle length*

PHASE	1	2	3	4	5	6	7	8
TIME	13	75		27	13	75		27
MODE	2	1		2	2	1		2

DIAL 3 / SPLIT 2 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 3 / SPLIT 3 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 3 / SPLIT 4 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 4 / SPLIT 1 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 4 / SPLIT 2 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 4 / SPLIT 3 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

DIAL 4 / SPLIT 4 CYCLE LENGTH:

PHASE	1	2	3	4	5	6	7	8
TIME								
MODE								

LEVEL 1

OFFSET	1	2	3
TIME	115		
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			

OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			
OFFSET	1	2	3
TIME			
SEQUENCE			
RING 2 LAG			
RING 3 LAG			
RING 4 LAG			







ROAD COMMISSION FOR OAKLAND COUNTY, WATERFORD, MICHIGAN  
 PROGRAM LOG FOR EAGLE SIGNAL CONTROLLER Epac300, Mod 52 and 2070

Section 9, Item A.

7. PREEMPT DATA - 1. ALL PREEMPTS

RING TIMES	1	2	3	4	
MIN GREEN/WALK					
VERRIDE	FL	1/2	2/3	3/4	4/5
STATUS					
CODES	0 = NO, 1 = YES				

7. PREEMPT DATA - PREEMPT 1

1. MISC DATA: (0 = no, 1 = yes)

TEST...: N-LOCK.: LINK PR#.:  
 DELAY: EXTEND: DURATION:  
 MXCALL: LOCK OUT:

RING	1	2	3	4	5	6	7	8
EXIT								
CALLS								

2. INTERVAL TIMES:

SEL PED CLR: TRK YEL CHG :  
 SEL YEL CHG : TRK RED CLR :  
 SEL RED CLR : DWELL GREEN:  
 TRACK GREEN: RET PED CLR :  
 TRK PED CLR : RET YEL CHG :  
 RET YEL CLR : . . .

3. VEHICLE STATUS:

PHASE	1	2	3	4	5	6	7	8
TRK GRN								
DWELL								
(0=red, 1=grn, 2=flr, 3=fly, 4=dark)								
CYCLE								
(0=no, 1=act, 2=min recall, 3=max recall)								

4. PEDESTRIAN STATUS:

PHASE	1	2	3	4	5	6	7	8
TRK GRN								
DWELL								
(0=dont wlk, 1=wlk, 2=flwlk, 3=dark)								
CYCLE								
(0 = no, 1 = act, 2 = recall)								

5. OVERLAP STATUS:

OVERLAP	A	B	C	D
TRK GRN				
DWELL				
(0=red, 1=grn, 2=flr, 3=fly, 4=dark)				
CYCLE				
(0 = no, 1 = act)				

6. LOW PRIORITY: (0=no, 1=yes)

TEST...:	N-LOCK.:	SKIP.....:						
DELAY:	EXTEND:	DURATION:						
DWELL:	MXCALL:	LOCK OUT:						
RING	1	2	3	4	5	6	7	8
DWELL								
CALLS								

SIGNAL PHASING

PHASE#	ROAD	PHASE	LOAD SW	FLASH
1	EB M59 LT (GREEN ARROW)	CL	1	-
2	WB M59	A	2	FLA
3				
4	SB FISK	B	4	FLR
5	WB M59 LT (GREEN ARROW)	AL	5	-
6	EB M59	C	6	FLA
7				
8	NB FISK	D	8	FLR
OLA	EB M59 LT (FLASHING YELLOW ARROW, YELLOW ARROW, RED ARROW)	CL	9	FLA
OLB				
OLC	WB M59 LT (FLASHING YELLOW ARROW, YELLOW ARROW, RED ARROW)	AL	11	FLA
OLD				
1PED				
2PED	WB M59 PED (NORTH LEG)	WA	13	
3PED				
4PED	SB FISK PED (WEST LEG)	WB	14	
5PED				
6PED	EB M59 PED (SOUTH LEG)	WC	15	
7PED				
8PED	NB FISK PED (EAST LEG)	WD	16	



CONTROLLER INFORMATION SHEET  
Size P44-16 Cabinet with MOD 52 EPAC w/ FYA

INTERSECTION: M-59 (Highland) & Fisk  
COUNTY NO: 4135  
STATE NO: 63041-01-026  
PREPARED BY: Rachel Jones  
DATE: 10/10/11

Backpanel :-

Load Switch 1:	EB M59 LT (G: green arrow)	CL	-
Load Switch 2:	WB M-59	A	FLA
Load Switch 4:	SB Fisk	B	FLR
Load Switch 5:	WB M59 LT (G: green arrow)	AL	-
Load Switch 6:	EB M59	C	FLA
Load Switch 8:	NB Fisk	D	FLR
Load Switch 9:	(OLA) EB M59 LT	CL	FLA
	(G: flashing yellow arrow; Y: yellow arrow; R: red arrow)		
Load Switch 11:	(OLC) WB M59 LT	AL	FLA
	(G: flashing yellow arrow; Y: yellow arrow; R: red arrow)		
Load Switch 13:	WB M59 Ped (North Leg)	WA	
Load Switch 14:	SB Fisk Ped (West Leg)	WB	
Load Switch 15:	EB M59 Ped (South Leg)	WC	
Load Switch 16:	NB Fisk Ped (East Leg)	WD	

Jumpers :-

A28-A29,A34-A35,A37-A38,A43-A44,B28-B29,B34-B35,B37-B38,B43-B44,B52-B53,  
B55-B56,B58-B59,B61-B62,D22-D26, C56-PB10, D56-PB10, 10R-PB9, 12R-PB9.

Signal Monitor :-

1-5, 1-6, 1-9, 1-11, 2-5, 2-6, 2-9, 2-11, 4-8, 5-9, 5-11,  
6-9, 6-11, 9-11.  
All switches OFF EXCEPT: Dual Select A&B; G&Y Enable;  
FYA 1-9, 5-11; SSM 2,4,6,8,9,11.  
Minimum Flash = 4+2+1

Autoscope SOLO

Mod 50

Co #4135

Mini-Hub II Detector Port Master  
Front Panel Input/Output Pin Assignment

The Mini-Hub II has inputs and outputs available through the front panel Input/ Output connector and through the back edge connector. The pin assignments for the Mini-Hub II front connector are listed in the following table. Edge connector pins are identified by NUMBER on the component (front) side of the board. Edge connector pins are identified by LETTER on the backside of board.

#	Mini-Hub II conn.	Edge conn.	Front Harness	Description	D-Conn. Term #	D-Conn. Detector Descript.	On Print Detector number	Phase
1	Output 1 LED	F	1	EB M59 LT	1	Det 9	1	1
1	Output 2 LED	W	14	EB M59 LT ADV	6	Det 14	2	1
1	Output 3 LED	S	2	EB M59 THRU L				
1	Output 4 LED	Y	15	EB M59 THRU R				
2	Output 5 LED	(JP1)4	3	NB FISK LT	7	Det 15	5	8
2	Output 6 LED	(JP7)5	16	NB FISK THRU & RT	8	Det 16	6	8
3	Output 7 LED	(JP2)8	4	WB M59 LT	4	Det 12	7	5
3	Output 8 LED	(JP8)9	17	WB M59 LT ADV	5	Det 13	8	5
3	Output 9 LED	(JP3)13	5					
3	Output 10 LED	(JP9)14	18					
4	Output 11 LED	(JP4)17	6	SB FISK LT	2	Det 10	11	4
4	Output 12 LED	(JP10)18	19	SB FISK RT	3	Det 11	12	4
	Output 13 LED		7					
	Output 14 LED		20					
	Output 15 LED		8					
	Output 16 LED		21					
	Input 1 LED	(JP5)1	9	LS1-9 RED (C-39)				
	Input 2 LED	(JP11)2	22	LS2 RED (C-30)				
	Input 3 LED	(JP6)3	10					
	Input 4 LED	(JP12)10	23	LS4 RED (C-36)				
	Input 5 LED		11	LS5-11 RED (D-39)				
	Input 6 LED		24	LS6 RED (D-30)				
	Input 7 LED		12					
	Input 8 LED	(with JP14*)	25	LS8 RED (D-36)				

\*Input 8 with JP14 inserted becomes 24VDC through Input/ Output Connector on front panel. Logic Ground is the GREY (pin 13) wire form Input/ Output connector on front panel.

# Chapter 5 Connecting Solo MVP Power and Communications Cables

Usually, the Solo cable (the "pigtail" cable from the Solo MVP) is spliced to a Branch Cable, either in a junction box or in the hand-hole at the pole base. The Branch cable runs from the splice point to the cabinet, and terminates to the ACIP. Use the chart below (copy the blank table provided in Appendix A) to record which pairs of the Solo cable are spliced to the Branch cable pairs. For Branch cable lengths of 300 ft or less, a separate cable to power the Solo Pro is not normally necessary.

Be sure to use splicing methods and materials appropriate for low voltage communications splicing. When splicing is completed, properly seal the splice.

When the branch cables are brought into the cabinet, label each cable, starting with cable 1 from the Solo MVP viewing Phases 2 and 5, and working clockwise around the intersection, labeling cables 2, 3, and 4.

Terminate the cables to the ACIP in the same order. Taking care to assign the Sensor numbers (in the Autoscope Properties Editor) in the same order as the cables are terminated will facilitate easier maintenance and troubleshooting.

An example is shown in the table below. In this example, a separate power cable is shown. In installations where a 6-pair branch cable is used, power and communications are usually combined in one cable.

A blank copy of this table is provided for duplication in Appendix A.



*DRAIN WIRE of Solo MVP to WHT of BRN/WHI pair  
then at CABINET WHI to shield of BRANCH CABLE*

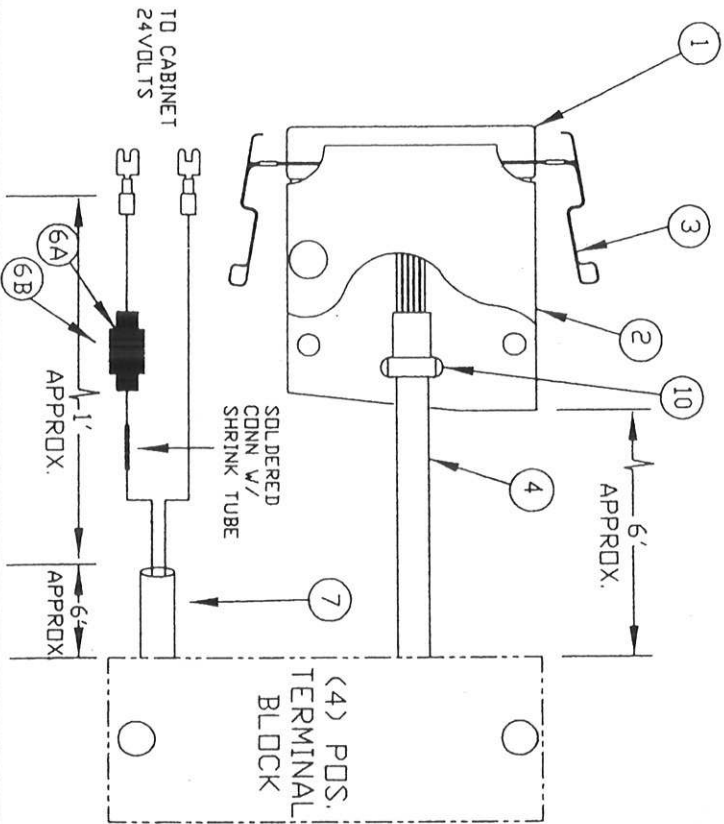
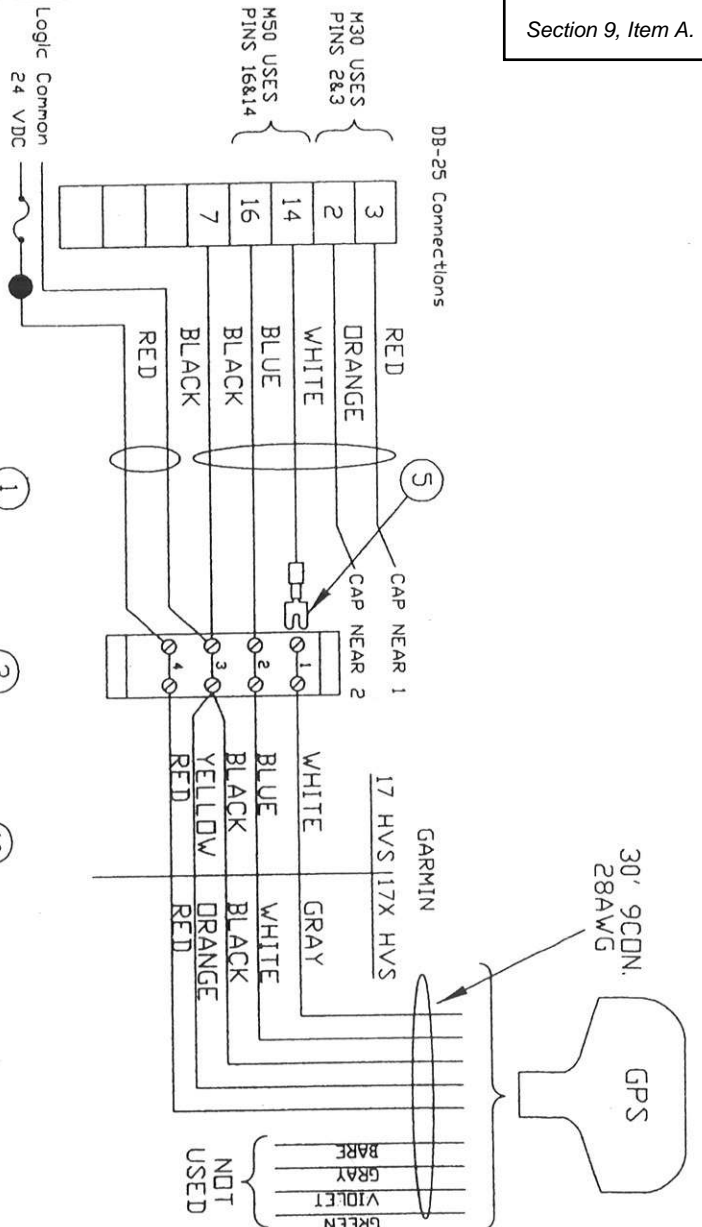
## Solo System-Wide Interconnections

Duplicate the following table to keep track of all Solo MVP connections:

Solo MVP _____ <small>(write in sensor number)</small>			Branch Power Cable <small>(write in wire color)</small>	Branch Communications Cable <small>(write in wire color)</small>			Communications Interface Panel	
PIN	PAIR COLOR	WIRE COLOR	WIRE COLOR	PAIR	PAIR COLOR	WIRE COLOR	SIGNAL	TERMINAL
A	BRN/BLK	* BRN *	BRN		BRN/WHI	BRN	24V PWR	1
B	BRN/BLK	* BLK *	WHI		BRN/WHI	WHI	24V RTN	2
N	----	*GRN/YEL*	GRN		GRN/WHI	GRN	EARTH GND	3
P	BLU/BLK	BLU	BLU	1	BLU/WHI	BLU	SUP RX+	4
U	BLU/BLK	BLK	WHI	1	BLU/WHI	WHI	SUP RX-	5
D	RED/BLK	RED	RED	2	RED/BLU	RED	SUP TX+	6
R	RED/BLK	BLK	BLU	2	RED/BLU	BLU	SUP TX-	7
F	YEL/BLK	YEL	ORG	3	ORG/WHI	ORG	DET+	8
E	YEL/BLK	BLK	WHI	3	ORG/WHI	WHI	DET-	9
J	WHI/BLK	WHI	GREY	4	GREY/WHI	GREY	VIDEO+	10
H	WHI/BLK	BLK	WHI	4	GREY/WHI	WHI	VIDEO-	11

\* IS SEPERATE POWER FEED BRN - BLK  
WHI - WHI

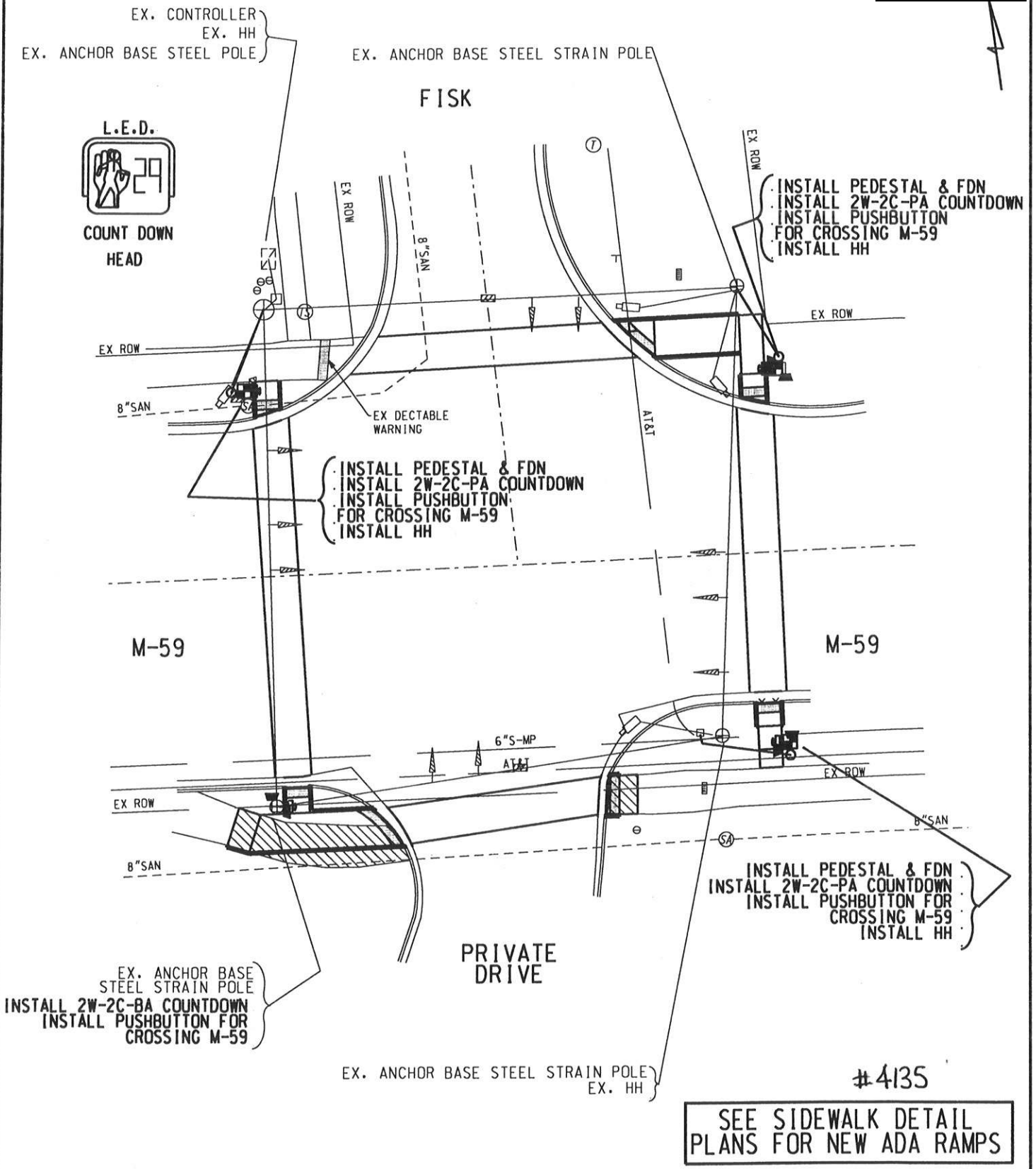




DET. NO.	DESCRIPTION	VENDOR	PART NO.	QTY.
1	DB-25 MALE	AMP	747912-4	1
2	HOUSING KIT	AMP	207345-1	1
3	SPRING LATCH DB CONNECTOR	NEWARK	44F8751	2
4	6 CONDUCTOR 22AWG	Alpha	1176C	6 FT
5	TERMINAL	3M	HVUB-1073X	7
6A	FUSE HOLDER NEWARK #67K1434			
6B	FUSE (1/2A), NEWARK #27F654			
7	2 CONDUCTOR BELDEN CABLE # 8205-060			
8	2 CHANNEL NUTS UNISTRUT TEAL #A4006-1032EG			
8A	2 Screw 10-32 x 1" pan head philips SS			
8B	2 lock washer/flat washer/fender washer			
9	4 POSITION TERMINAL BLOCK NEWARK #28F724			
10	TIE-RAP			

REVISED 11/10/09 DG (17X HVS)

CARRIER AND GABLE INC.  
TECH SERVICES  
5020  
GPS TD SEPAC



SEE SIDEWALK DETAIL PLANS FOR NEW ADA RAMPS



AUTH. NO.	DRAWN DJP
CONT. SEC. 63041	DATE 03-08-11
REF. 110761	SCALE N.T.S.
PLAN 63041-01-026	SHEET 363 1 OF 2

M-59 (HIGHLAND) AT FISK RD  
 WHITE LAKE TOWNSHIP  
 OAKLAND COUNTY





Search... 

# Community Profiles

YOU ARE VIEWING DATA FOR:

## White Lake Township

7525 Highland Rd  
White Lake, MI 48383-2938  
<http://www.whitelaketwp.com/>



Census 2020 Population: 30,950  
Area: 37.1 square miles

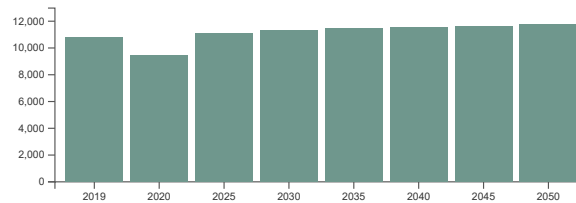
[VIEW COMMUNITY EXPLORER MAP](#)

[VIEW 2020 CENSUS MAP](#)

### Economy & Jobs

Link to American Community Survey (ACS) Profiles: **Select a Year**  **Economic**

#### Forecasted Jobs



Note: The base year for the employment forecast is 2019, as 2020 employment was artificially low due to the COVID recession.

Source: SEMCOG 2050 Regional Development Forecast

### Forecasted Jobs by Industry Sector

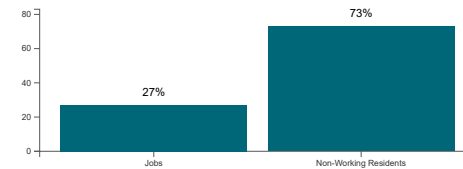
Forecasted Jobs By Industry Sector	2019	2020	2025	2030	2035	2040	2045	2050	Change 2019-2050	Pct Change 2019-2050
<b>Natural Resources, Mining, &amp; Construction</b>	1,022	1,006	1,229	1,253	1,269	1,253	1,236	1,219	197	19.3%
<b>Manufacturing</b>	208	194	223	216	210	195	188	182	-26	-12.5%
<b>Wholesale Trade</b>	293	265	282	297	307	308	307	308	15	5.1%
<b>Retail Trade</b>	2,227	1,940	2,106	2,046	1,930	1,851	1,814	1,768	-459	-20.6%
<b>Transportation, Warehousing, &amp; Utilities</b>	327	319	390	404	415	420	429	434	107	32.7%
<b>Information &amp; Financial Activities</b>	1,716	1,477	1,774	1,793	1,819	1,835	1,846	1,910	194	11.3%
<b>Professional and Technical Services &amp; Corporate HQ</b>	855	813	968	1,023	1,080	1,116	1,168	1,246	391	45.7%
<b>Administrative, Support, &amp; Waste Services</b>	1,132	868	1,051	1,123	1,175	1,207	1,263	1,303	171	15.1%
<b>Education Services</b>	970	897	972	1,016	1,017	1,027	1,033	1,038	68	7%
<b>Healthcare Services</b>	322	284	377	407	433	465	498	532	210	65.2%
<b>Leisure &amp; Hospitality</b>	1,030	762	960	1,004	1,030	1,040	1,045	1,065	35	3.4%
<b>Other Services</b>	557	491	560	587	603	617	621	624	67	12%
<b>Public Administration</b>	158	152	166	172	174	173	173	172	14	8.9%
<b>Total Employment Numbers</b>	10,817	9,468	11,058	11,341	11,462	11,507	11,621	11,801	984	9.1%

Note: The base year for the employment forecast is 2019, as 2020 employment was artificially low due to the COVID recession.

Source: SEMCOG 2050 Regional Development Forecast

### Daytime Population

Daytime Population	ACS 2016
Jobs	5,496
Non-Working Residents	14,870
Age 15 and under	6,198
Not in labor force	7,856
Unemployed	816
Daytime Population	20,366



Source: 2012-2016 American Community Survey 5-Year Estimates and 2012-2016 Census Transportation Planning Products Program (CTPP). For additional information, visit SEMCOG's [Interactive Commuting Patterns Map](#)

Note: The number of residents attending school outside Southeast Michigan is not available. Likewise, the number of students commuting into Southeast Michigan to attend school is also not known.

Search... 

# Community Profiles

YOU ARE VIEWING DATA FOR:

## White Lake Township

7525 Highland Rd  
White Lake, MI 48383-2938  
<http://www.whitelaketwp.com/>



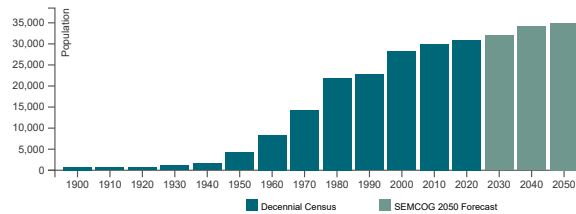
Census 2020 Population: 30,950  
Area: 37.1 square miles

- [VIEW COMMUNITY EXPLORER MAP](#)
- [VIEW 2020 CENSUS MAP](#)

### Population and Households

Link to American Community Survey (ACS) Profiles: [Select a Year](#)  [Social | Demographic](#)  
**Population and Household Estimates for Southeast Michigan, 2022**

### Population Forecast





## Population and Households

Population and Households	Census 2020	Census 2010	Change 2010-2020	Pct Change 2010-2020	SEMCOG Jul 2022	SEMCOG 2050
<b>Total Population</b>	30,950	30,019	931	3.1%	30,739	35,002
<b>Group Quarters Population</b>	88	76	12	15.8%	105	342
<b>Household Population</b>	30,862	29,943	919	3.1%	30,634	34,660
<b>Housing Units</b>	12,776	12,214	562	4.6%	12,949	-
<b>Households (Occupied Units)</b>	12,089	11,262	827	7.3%	12,110	14,325
<b>Residential Vacancy Rate</b>	5.4%	7.8%	-2.4%	-	6.5%	-
<b>Average Household Size</b>	2.55	2.66	-0.11	-	2.53	2.42

Source: U.S. Census Bureau and SEMCOG 2050 Regional Development Forecast

## Components of Population Change

Components of Population Change	2000-2005 Avg.	2006-2010 Avg.	2011-2018 Avg.
<b>Natural Increase (Births - Deaths)</b>	218	89	22
<b>Births</b>	424	309	284
<b>Deaths</b>	206	220	262
<b>Net Migration (Movement In - Movement Out)</b>	112	-59	58
<b>Population Change (Natural Increase + Net Migration)</b>	330	30	80

Source: Michigan Department of Community Health Vital Statistics, U.S. Census Bureau, and SEMCOG

## Household Types

Household Types	Census 2010	ACS 2021	Change 2010-2021	Pct Change 2010-2021	SEMCOG 2050
<b>With Seniors 65+</b>	2,520	3,804	1,284	51%	-
<b>Without Seniors</b>	8,742	8,015	-727	-8.3%	-
<b>Live Alone, 65+</b>	882	1,141	259	29.4%	-
<b>Live Alone, &lt;65</b>	1,406	1,127	-279	-19.8%	-
<b>2+ Persons, With children</b>	4,009	3,577	-432	-10.8%	-
<b>2+ Persons, Without children</b>	4,965	5,974	1,009	20.3%	-
<b>Total Households</b>	11,262	11,819	557	4.9%	-

Source: U.S. Census Bureau, Decennial Census, 2017-2021 American Community Survey 5-Year Estimates, and SEMCOG 2050 Regional Development Forecast



**Level of Service for Signalized Intersections**

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle. The criteria are given in Exhibit 19-8. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

**LOS A** describes operations with a control delay of 10 s/veh or less. This level is typically assigned when the volume-to-capacity ratio is low and either progression is extremely favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during a green indication and travel through the intersection without stopping.

**LOS B** describes operations with control delay between 10 and 20 s/veh. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

Exhibit 19.8. Level-of-Service Criteria for Signalized Intersections (Motorized Vehicles)

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	$\leq 10.0$
B	$> 10.0$ and $\leq 20.0$
C	$> 20.0$ and $\leq 35.0$
D	$> 35.0$ and $\leq 55.0$
E	$> 55.0$ and $\leq 80.0$
F	$> 80.0$

*1. If the v/c ratio for a lane group exceeds 1.0, a LOS F is assigned to the individual lane group. LOS for approach-based and intersection-wide assessments are determined solely by the control delay.*

**LOS C** describes operations with control delay between 20 and 35 s/veh. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicle stopping is significant, although many vehicles still pass through the intersection without stopping.

**LOS D** describes operations with control delay between 35 and 55 s/veh. This level is typically assigned when when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

**LOS E** describes operations with control delay between 55 and 80 s/veh. This level is typically assigned when when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

**LOS F** describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level, considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. This level is typically assigned when the volume-to-capacity ratio is high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual, 6th Edition. Transportation Research Board, National Research Council



HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

Existing Section 9, Item A.  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1192	9	9	792	26	1	0	6	109	0	55
Future Volume (veh/h)	47	1192	9	9	792	26	1	0	6	109	0	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1906	1906	1906	2000	2000	2000	1922	1922	1922
Adj Flow Rate, veh/h	51	1282	10	10	900	30	2	0	10	128	0	65
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.60	0.60	0.60	0.85	0.85	0.85
Percent Heavy Veh, %	6	6	6	6	6	6	0	0	0	5	5	5
Cap, veh/h	354	1558	695	264	1538	51	424	0	480	463	0	461
Arrive On Green	0.07	0.43	0.43	0.07	0.43	0.43	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1816	3622	1616	1816	3577	119	1358	0	1695	1371	0	1629
Grp Volume(v), veh/h	51	1282	10	10	456	474	2	0	10	128	0	65
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1816	1811	1885	1358	0	1695	1371	0	1629
Q Serve(g_s), s	1.3	28.1	0.3	0.2	17.2	17.2	0.1	0.0	0.4	6.7	0.0	2.7
Cycle Q Clear(g_c), s	1.3	28.1	0.3	0.2	17.2	17.2	2.8	0.0	0.4	7.1	0.0	2.7
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	1558	695	264	779	811	424	0	480	463	0	461
V/C Ratio(X)	0.14	0.82	0.01	0.04	0.59	0.59	0.00	0.00	0.02	0.28	0.00	0.14
Avail Cap(c_a), veh/h	354	1558	695	264	779	811	424	0	480	463	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	22.6	14.7	15.6	19.5	19.5	25.1	0.0	23.3	25.8	0.0	24.1
Incr Delay (d2), s/veh	0.9	5.1	0.0	0.3	3.2	3.1	0.0	0.0	0.1	1.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	0.1	0.1	7.0	7.3	0.0	0.0	0.2	2.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	27.7	14.7	15.9	22.7	22.6	25.1	0.0	23.3	27.3	0.0	24.7
LnGrp LOS	B	C	B	B	C	C	C	A	C	C	A	C
Approach Vol, veh/h		1343			940			12				193
Approach Delay, s/veh		27.1			22.6			23.6				26.4
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	45.0		32.0	13.0	45.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 39		25.5	* 6.7	* 39		25.5				
Max Q Clear Time (g_c+I1), s	2.2	30.1		9.1	3.3	19.2		4.8				
Green Ext Time (p_c), s	0.0	5.1		0.5	0.0	5.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		25.3
HCM 6th LOS		C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	3	1309	986	6	0	2
Future Vol, veh/h	3	1309	986	6	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	60	60
Heavy Vehicles, %	7	7	7	7	0	0
Mvmt Flow	3	1471	1108	7	0	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1115	0	-	0	1850 554
Stage 1	-	-	-	-	1108 -
Stage 2	-	-	-	-	742 -
Critical Hdwy	4.24	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.27	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	594	-	-	-	*173 481
Stage 1	-	-	-	-	*282 -
Stage 2	-	-	-	-	*534 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	594	-	-	-	*172 481
Mov Cap-2 Maneuver	-	-	-	-	*233 -
Stage 1	-	-	-	-	*281 -
Stage 2	-	-	-	-	*534 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	594	-	-	-	481
HCM Lane V/C Ratio	0.006	-	-	-	0.007
HCM Control Delay (s)	11.1	-	-	-	12.5
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗			↔	
Traffic Vol, veh/h	1	1297	11	25	952	4	39	0	58	5	1	1
Future Vol, veh/h	1	1297	11	25	952	4	39	0	58	5	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	88	88	88	93	93	93	60	60	60
Heavy Vehicles, %	5	5	5	6	6	6	0	0	0	0	0	0
Mvmt Flow	1	1380	12	28	1082	5	42	0	62	8	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1087	0	0	1392	0	0	1980	2525	690	1830	2532	541
Stage 1	-	-	-	-	-	-	1382	1382	-	1138	1138	-
Stage 2	-	-	-	-	-	-	598	1143	-	692	1394	-
Critical Hdwy	4.2	-	-	4.22	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.25	-	-	2.26	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	620	-	-	*828	-	-	*98	*28	*566	*158	*27	491
Stage 1	-	-	-	-	-	-	*534	*467	-	*218	*279	-
Stage 2	-	-	-	-	-	-	*461	*277	-	*534	*467	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	620	-	-	*828	-	-	*90	*27	*566	*137	*26	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	*90	*27	-	*137	*26	-
Stage 1	-	-	-	-	-	-	*533	*467	-	*218	*270	-
Stage 2	-	-	-	-	-	-	*441	*268	-	*474	*467	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			37.8			50.3		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	90	566	620	-	-	*828	-	-	91
HCM Lane V/C Ratio	0.466	0.11	0.002	-	-	0.034	-	-	0.128
HCM Control Delay (s)	75.9	12.1	10.8	-	-	9.5	-	-	50.3
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2	0.4	0	-	-	0.1	-	-	0.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

Existing Section 9, Item A.  
 PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1112	8	6	1486	76	6	2	12	249	0	165
Future Volume (veh/h)	165	1112	8	6	1486	76	6	2	12	249	0	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1953	1953	1953	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	194	1308	9	6	1598	82	10	3	20	280	0	185
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.60	0.60	0.60	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	231	2142	954	306	2056	105	200	48	319	342	0	357
Arrive On Green	0.06	0.57	0.57	0.06	0.57	0.57	0.21	0.21	0.21	0.21	0.00	0.21
Sat Flow, veh/h	1875	3741	1667	1860	3592	183	1217	225	1502	1398	0	1679
Grp Volume(v), veh/h	194	1308	9	6	822	858	10	0	23	280	0	185
Grp Sat Flow(s),veh/h/ln	1875	1870	1667	1860	1856	1920	1217	0	1727	1398	0	1679
Q Serve(g_s), s	5.1	27.6	0.3	0.1	40.8	41.5	0.9	0.0	1.3	24.0	0.0	11.7
Cycle Q Clear(g_c), s	5.1	27.6	0.3	0.1	40.8	41.5	12.6	0.0	1.3	25.3	0.0	11.7
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	231	2142	954	306	1062	1099	200	0	367	342	0	357
V/C Ratio(X)	0.84	0.61	0.01	0.02	0.77	0.78	0.05	0.00	0.06	0.82	0.00	0.52
Avail Cap(c_a), veh/h	231	2142	954	306	1062	1099	200	0	367	342	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	16.9	11.0	11.5	19.7	19.8	47.4	0.0	37.7	47.8	0.0	41.8
Incr Delay (d2), s/veh	28.8	1.3	0.0	0.1	5.5	5.5	0.5	0.0	0.3	19.2	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	10.9	0.1	0.1	17.1	17.9	0.3	0.0	0.6	9.7	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	18.2	11.0	11.6	25.2	25.3	47.9	0.0	38.0	67.0	0.0	47.1
LnGrp LOS	D	B	B	B	C	C	D	A	D	E	A	D
Approach Vol, veh/h		1511			1686			33				465
Approach Delay, s/veh		22.6			25.2			41.0				59.1
Approach LOS		C			C			D				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	75.0		32.0	13.0	75.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 69		25.5	* 6.7	* 69		25.5				
Max Q Clear Time (g_c+I1), s	2.1	29.6		27.3	7.1	43.5		14.6				
Green Ext Time (p_c), s	0.0	11.2		0.0	0.0	12.8		0.1				

Intersection Summary												
HCM 6th Ctrl Delay				28.6								
HCM 6th LOS				C								

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	4	1439	1811	16	2	1
Future Vol, veh/h	4	1439	1811	16	2	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	95	95	75	75
Heavy Vehicles, %	3	3	3	3	0	0
Mvmt Flow	4	1564	1906	17	3	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1924	0	-	0	2697 954
Stage 1	-	-	-	-	1907 -
Stage 2	-	-	-	-	790 -
Critical Hdwy	4.16	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.23	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	299	-	-	-	*14 263
Stage 1	-	-	-	-	*105 -
Stage 2	-	-	-	-	*462 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	299	-	-	-	*14 263
Mov Cap-2 Maneuver	-	-	-	-	*81 -
Stage 1	-	-	-	-	*104 -
Stage 2	-	-	-	-	*462 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	40.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	299	-	-	-	105
HCM Lane V/C Ratio	0.015	-	-	-	0.038
HCM Control Delay (s)	17.2	-	-	-	40.6
HCM Lane LOS	C	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	55.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗	↗		↕	
Traffic Vol, veh/h	6	1382	53	71	1793	11	27	0	40	14	1	7
Future Vol, veh/h	6	1382	53	71	1793	11	27	0	40	14	1	7
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	95	95	95	80	80	80	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	8	8	8	4	4	4
Mvmt Flow	7	1519	58	75	1887	12	34	0	50	23	2	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1900	0	0	1577	0	0	2628	3583	760	2812	3629	945
Stage 1	-	-	-	-	-	-	1533	1533	-	2038	2038	-
Stage 2	-	-	-	-	-	-	1095	2050	-	774	1591	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.66	6.66	7.06	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.58	4.08	3.38	3.54	4.04	3.34
Pot Cap-1 Maneuver	306	-	-	409	-	-	~11	5	336	~8	5	259
Stage 1	-	-	-	-	-	-	115	167	-	57	96	-
Stage 2	-	-	-	-	-	-	218	91	-	353	162	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	306	-	-	409	-	-	~6	4	336	~6	4	259
Mov Cap-2 Maneuver	-	-	-	-	-	-	~6	4	-	~6	4	-
Stage 1	-	-	-	-	-	-	112	163	-	56	78	-
Stage 2	-	-	-	-	-	-	166	74	-	294	158	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			\$ 1323.7			\$ 2517.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	6	336	306	-	-	409	-	-	8
HCM Lane V/C Ratio	5.625	0.149	0.022	-	-	0.183	-	-	4.583
HCM Control Delay (s)	\$ 3258.6	17.6	17	-	-	15.8	-	-	\$ 2517.5
HCM Lane LOS	F	C	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	5.7	0.5	0.1	-	-	0.7	-	-	5.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	69	371	381	123	33	233	242	18	16	129	72
Average Queue (ft)	27	233	215	11	6	127	127	1	2	54	21
95th Queue (ft)	60	338	329	63	22	206	209	8	11	106	52
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)			38	0							
Queuing Penalty (veh)			4	0							

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	WB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	28	4	21
Average Queue (ft)	1	0	2
95th Queue (ft)	11	3	11
Link Distance (ft)		204	320
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	500		
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	WB	NB	NB	SB
Directions Served	L	L	L	TR	LTR
Maximum Queue (ft)	8	54	74	69	34
Average Queue (ft)	0	10	29	29	6
95th Queue (ft)	3	34	64	54	26
Link Distance (ft)			520	520	248
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	500			
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	354	339	326	67	32	400	414	26	26	314	155
Average Queue (ft)	149	187	176	4	5	257	257	4	5	169	74
95th Queue (ft)	310	285	274	30	20	354	360	18	19	276	132
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)						0	0				
Queuing Penalty (veh)						0	0				
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)			26			0					
Queuing Penalty (veh)			2			0					

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	29	21
Average Queue (ft)	2	2
95th Queue (ft)	15	11
Link Distance (ft)		320
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	500	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	T	R	L	T	L	TR	LTR
Maximum Queue (ft)	28	4	8	78	18	432	170	196
Average Queue (ft)	3	0	0	31	1	300	40	99
95th Queue (ft)	17	3	4	66	18	519	162	234
Link Distance (ft)		204			1139	520	520	248
Upstream Blk Time (%)						7	1	11
Queuing Penalty (veh)						0	0	0
Storage Bay Dist (ft)	500		330	500				
Storage Blk Time (%)								
Queuing Penalty (veh)								

# HCM 6th Signalized Intersection Summary

## 1: Private Drive/Fisk Road & Highland Road (M-59)

AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1204	9	9	800	26	1	0	6	110	0	56
Future Volume (veh/h)	47	1204	9	9	800	26	1	0	6	110	0	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1906	1906	1906	2000	2000	2000	1922	1922	1922
Adj Flow Rate, veh/h	51	1295	10	10	909	30	2	0	10	129	0	66
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.60	0.60	0.60	0.85	0.85	0.85
Percent Heavy Veh, %	6	6	6	6	6	6	0	0	0	5	5	5
Cap, veh/h	351	1558	695	261	1539	51	423	0	480	463	0	461
Arrive On Green	0.07	0.43	0.43	0.07	0.43	0.43	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1816	3622	1616	1816	3578	118	1357	0	1695	1371	0	1629
Grp Volume(v), veh/h	51	1295	10	10	460	479	2	0	10	129	0	66
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1816	1811	1885	1357	0	1695	1371	0	1629
Q Serve(g_s), s	1.3	28.5	0.3	0.2	17.5	17.5	0.1	0.0	0.4	6.7	0.0	2.7
Cycle Q Clear(g_c), s	1.3	28.5	0.3	0.2	17.5	17.5	2.8	0.0	0.4	7.1	0.0	2.7
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1558	695	261	779	811	423	0	480	463	0	461
V/C Ratio(X)	0.15	0.83	0.01	0.04	0.59	0.59	0.00	0.00	0.02	0.28	0.00	0.14
Avail Cap(c_a), veh/h	351	1558	695	261	779	811	423	0	480	463	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	22.8	14.7	15.8	19.6	19.6	25.1	0.0	23.3	25.8	0.0	24.1
Incr Delay (d2), s/veh	0.9	5.3	0.0	0.3	3.3	3.2	0.0	0.0	0.1	1.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.7	0.1	0.1	7.2	7.4	0.0	0.0	0.2	2.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	28.1	14.7	16.0	22.9	22.8	25.2	0.0	23.3	27.3	0.0	24.7
LnGrp LOS	B	C	B	B	C	C	C	A	C	C	A	C
Approach Vol, veh/h		1356			949			12				195
Approach Delay, s/veh		27.5			22.7			23.6				26.4
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	45.0		32.0	13.0	45.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 39		25.5	* 6.7	* 39		25.5				
Max Q Clear Time (g_c+I1), s	2.2	30.5		9.1	3.3	19.5		4.8				
Green Ext Time (p_c), s	0.0	4.9		0.6	0.0	5.2		0.0				

### Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	3	1322	996	6	0	2
Future Vol, veh/h	3	1322	996	6	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	60	60
Heavy Vehicles, %	7	7	7	7	0	0
Mvmt Flow	3	1485	1119	7	0	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1126	0	-	0	1868 560
Stage 1	-	-	-	-	1119 -
Stage 2	-	-	-	-	749 -
Critical Hdwy	4.24	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.27	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	588	-	-	-	*189 477
Stage 1	-	-	-	-	*278 -
Stage 2	-	-	-	-	*502 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	588	-	-	-	*189 477
Mov Cap-2 Maneuver	-	-	-	-	*235 -
Stage 1	-	-	-	-	*277 -
Stage 2	-	-	-	-	*502 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	588	-	-	-	477
HCM Lane V/C Ratio	0.006	-	-	-	0.007
HCM Control Delay (s)	11.2	-	-	-	12.6
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘		↔	
Traffic Vol, veh/h	1	1310	11	25	962	4	39	0	59	5	1	1
Future Vol, veh/h	1	1310	11	25	962	4	39	0	59	5	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	88	88	88	93	93	93	60	60	60
Heavy Vehicles, %	5	5	5	6	6	6	0	0	0	0	0	0
Mvmt Flow	1	1394	12	28	1093	5	42	0	63	8	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1098	0	0	1406	0	0	2000	2550	697	1848	2557	547
Stage 1	-	-	-	-	-	-	1396	1396	-	1149	1149	-
Stage 2	-	-	-	-	-	-	604	1154	-	699	1408	-
Critical Hdwy	4.2	-	-	4.22	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.25	-	-	2.26	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	614	-	-	*828	-	-	*92	*26	*566	*149	*25	486
Stage 1	-	-	-	-	-	-	*534	*467	-	*215	*275	-
Stage 2	-	-	-	-	-	-	*457	*274	-	*534	*467	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	614	-	-	*828	-	-	*84	*25	*566	*129	*25	486
Mov Cap-2 Maneuver	-	-	-	-	-	-	*84	*25	-	*129	*25	-
Stage 1	-	-	-	-	-	-	*533	*467	-	*215	*266	-
Stage 2	-	-	-	-	-	-	*437	*265	-	*473	*467	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			41			52.7		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	566	614	-	-	*828	-	-	87
HCM Lane V/C Ratio	0.499	0.112	0.002	-	-	0.034	-	-	0.134
HCM Control Delay (s)	84.6	12.2	10.9	-	-	9.5	-	-	52.7
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2.1	0.4	0	-	-	0.1	-	-	0.4

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	1123	8	6	1501	77	6	2	12	251	0	167
Future Volume (veh/h)	167	1123	8	6	1501	77	6	2	12	251	0	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1953	1953	1953	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	196	1321	9	6	1614	83	10	3	20	282	0	188
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.60	0.60	0.60	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	228	2142	954	302	2056	105	197	48	319	342	0	357
Arrive On Green	0.06	0.57	0.57	0.06	0.57	0.57	0.21	0.21	0.21	0.21	0.00	0.21
Sat Flow, veh/h	1875	3741	1667	1860	3592	184	1213	225	1502	1398	0	1679
Grp Volume(v), veh/h	196	1321	9	6	830	867	10	0	23	282	0	188
Grp Sat Flow(s),veh/h/ln	1875	1870	1667	1860	1856	1920	1213	0	1727	1398	0	1679
Q Serve(g_s), s	5.2	28.0	0.3	0.1	41.5	42.2	0.9	0.0	1.3	24.2	0.0	11.9
Cycle Q Clear(g_c), s	5.2	28.0	0.3	0.1	41.5	42.2	12.8	0.0	1.3	25.5	0.0	11.9
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	228	2142	954	302	1062	1099	197	0	367	342	0	357
V/C Ratio(X)	0.86	0.62	0.01	0.02	0.78	0.79	0.05	0.00	0.06	0.82	0.00	0.53
Avail Cap(c_a), veh/h	228	2142	954	302	1062	1099	197	0	367	342	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	17.0	11.0	11.6	19.8	20.0	47.6	0.0	37.7	47.9	0.0	41.9
Incr Delay (d2), s/veh	31.8	1.3	0.0	0.1	5.7	5.8	0.5	0.0	0.3	19.7	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	11.1	0.1	0.1	17.4	18.3	0.3	0.0	0.6	9.9	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	18.3	11.0	11.8	25.6	25.8	48.1	0.0	38.0	67.6	0.0	47.4
LnGrp LOS	E	B	B	B	C	C	D	A	D	E	A	D
Approach Vol, veh/h		1526			1703			33				470
Approach Delay, s/veh		23.1			25.6			41.1				59.5
Approach LOS		C			C			D				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	75.0		32.0	13.0	75.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 69		25.5	* 6.7	* 69		25.5				
Max Q Clear Time (g_c+I1), s	2.1	30.0		27.5	7.2	44.2		14.8				
Green Ext Time (p_c), s	0.0	11.4		0.0	0.0	12.8		0.1				

Intersection Summary												
HCM 6th Ctrl Delay											29.0	
HCM 6th LOS											C	

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	4	1453	1829	16	2	1
Future Vol, veh/h	4	1453	1829	16	2	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	95	95	75	75
Heavy Vehicles, %	3	3	3	3	0	0
Mvmt Flow	4	1579	1925	17	3	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1943	0	-	0	2724 964
Stage 1	-	-	-	-	1926 -
Stage 2	-	-	-	-	798 -
Critical Hdwy	4.16	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.23	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	294	-	-	-	*13 259
Stage 1	-	-	-	-	*102 -
Stage 2	-	-	-	-	*462 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	294	-	-	-	*13 259
Mov Cap-2 Maneuver	-	-	-	-	*78 -
Stage 1	-	-	-	-	*100 -
Stage 2	-	-	-	-	*462 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	41.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	294	-	-	-	102
HCM Lane V/C Ratio	0.015	-	-	-	0.039
HCM Control Delay (s)	17.4	-	-	-	41.7
HCM Lane LOS	C	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	61.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗			↕	
Traffic Vol, veh/h	6	1395	54	72	1811	11	27	0	40	14	1	7
Future Vol, veh/h	6	1395	54	72	1811	11	27	0	40	14	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	95	95	95	80	80	80	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	8	8	8	4	4	4
Mvmt Flow	7	1533	59	76	1906	12	34	0	50	23	2	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1918	0	0	1592	0	0	2653	3617	767	2839	3664	953
Stage 1	-	-	-	-	-	-	1547	1547	-	2058	2058	-
Stage 2	-	-	-	-	-	-	1106	2070	-	781	1606	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.66	6.66	7.06	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.58	4.08	3.38	3.54	4.04	3.34
Pot Cap-1 Maneuver	301	-	-	403	-	-	~ 10	5	332	~ 8	5	256
Stage 1	-	-	-	-	-	-	113	164	-	55	94	-
Stage 2	-	-	-	-	-	-	214	88	-	350	160	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	301	-	-	403	-	-	~ 5	4	332	~ 6	4	256
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 5	4	-	~ 6	4	-
Stage 1	-	-	-	-	-	-	110	160	-	54	76	-
Stage 2	-	-	-	-	-	-	162	71	-	290	156	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			\$ 1616			\$ 2517.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	5	332	301	-	-	403	-	-	8
HCM Lane V/C Ratio	6.75	0.151	0.022	-	-	0.188	-	-	4.583
HCM Control Delay (s)	\$ 3983.6	17.8	17.2	-	-	16	-	-	\$ 2517.5
HCM Lane LOS	F	C	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	5.8	0.5	0.1	-	-	0.7	-	-	5.9

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	79	399	389	122	36	234	222	17	25	125	70
Average Queue (ft)	27	229	209	8	5	129	124	1	3	57	21
95th Queue (ft)	61	343	322	55	22	199	199	7	15	115	51
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)			39	0							
Queuing Penalty (veh)			4	0							

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	30	21
Average Queue (ft)	2	2
95th Queue (ft)	13	11
Link Distance (ft)		320
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	500	
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	WB	NB	NB	SB
Directions Served	L	L	L	TR	LTR
Maximum Queue (ft)	4	38	78	65	46
Average Queue (ft)	0	10	30	30	6
95th Queue (ft)	3	31	64	55	29
Link Distance (ft)			520	520	248
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	500			
Storage Blk Time (%)					
Queuing Penalty (veh)					



**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	347	396	346	66	32	382	415	22	21	345	174
Average Queue (ft)	180	192	176	7	4	257	260	4	5	182	74
95th Queue (ft)	361	308	288	44	18	354	365	17	17	308	148
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)							0				
Queuing Penalty (veh)							0				
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)	0	0	26								
Queuing Penalty (veh)	2	0	2								

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	WB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	31	16	21
Average Queue (ft)	4	1	3
95th Queue (ft)	19	11	14
Link Distance (ft)		204	320
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	500		
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	T	R	L	L	TR	LTR
Maximum Queue (ft)	21	3	18	80	326	74	259
Average Queue (ft)	4	0	1	33	207	25	156
95th Queue (ft)	16	2	10	69	432	57	307
Link Distance (ft)		204			520	520	248
Upstream Blk Time (%)							30
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	500		330	500			
Storage Blk Time (%)							
Queuing Penalty (veh)							

HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

Future C Section 9, Item A.  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1259	9	9	847	32	1	0	6	117	0	56
Future Volume (veh/h)	47	1259	9	9	847	32	1	0	6	117	0	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1906	1906	1906	2000	2000	2000	1922	1922	1922
Adj Flow Rate, veh/h	51	1354	10	10	962	36	2	0	10	138	0	66
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.60	0.60	0.60	0.85	0.85	0.85
Percent Heavy Veh, %	6	6	6	6	6	6	0	0	0	5	5	5
Cap, veh/h	335	1558	695	250	1531	57	423	0	480	463	0	461
Arrive On Green	0.07	0.43	0.43	0.07	0.43	0.43	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1816	3622	1616	1816	3560	133	1357	0	1695	1371	0	1629
Grp Volume(v), veh/h	51	1354	10	10	489	509	2	0	10	138	0	66
Grp Sat Flow(s),veh/h/ln	1816	1811	1616	1816	1811	1882	1357	0	1695	1371	0	1629
Q Serve(g_s), s	1.3	30.6	0.3	0.2	19.0	19.0	0.1	0.0	0.4	7.3	0.0	2.7
Cycle Q Clear(g_c), s	1.3	30.6	0.3	0.2	19.0	19.0	2.8	0.0	0.4	7.6	0.0	2.7
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	1558	695	250	779	809	423	0	480	463	0	461
V/C Ratio(X)	0.15	0.87	0.01	0.04	0.63	0.63	0.00	0.00	0.02	0.30	0.00	0.14
Avail Cap(c_a), veh/h	335	1558	695	250	779	809	423	0	480	463	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	23.3	14.7	16.5	20.0	20.0	25.1	0.0	23.3	26.0	0.0	24.1
Incr Delay (d2), s/veh	1.0	6.9	0.0	0.3	3.8	3.7	0.0	0.0	0.1	1.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.8	0.1	0.1	7.8	8.1	0.0	0.0	0.2	2.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	30.2	14.7	16.8	23.9	23.7	25.2	0.0	23.3	27.6	0.0	24.7
LnGrp LOS	B	C	B	B	C	C	C	A	C	C	A	C
Approach Vol, veh/h		1415			1008			12				204
Approach Delay, s/veh		29.6			23.7			23.6				26.7
Approach LOS		C			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	45.0		32.0	13.0	45.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 39		25.5	* 6.7	* 39		25.5				
Max Q Clear Time (g_c+I1), s	2.2	32.6		9.6	3.3	21.0		4.8				
Green Ext Time (p_c), s	0.0	4.0		0.6	0.0	5.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay											27.1	
HCM 6th LOS											C	

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	3	1357	1037	6	0	2
Future Vol, veh/h	3	1357	1037	6	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	60	60
Heavy Vehicles, %	7	7	7	7	0	0
Mvmt Flow	3	1525	1165	7	0	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1172	0	-	0	1934 583
Stage 1	-	-	-	-	1165 -
Stage 2	-	-	-	-	769 -
Critical Hdwy	4.24	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.27	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	564	-	-	-	*155 461
Stage 1	-	-	-	-	*263 -
Stage 2	-	-	-	-	*502 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	564	-	-	-	*155 461
Mov Cap-2 Maneuver	-	-	-	-	*216 -
Stage 1	-	-	-	-	*262 -
Stage 2	-	-	-	-	*502 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	564	-	-	-	461
HCM Lane V/C Ratio	0.006	-	-	-	0.007
HCM Control Delay (s)	11.4	-	-	-	12.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Notes  
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 6th TWSC  
3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘		↔	
Traffic Vol, veh/h	1	1345	11	25	1003	4	39	0	59	5	1	1
Future Vol, veh/h	1	1345	11	25	1003	4	39	0	59	5	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	88	88	88	93	93	93	60	60	60
Heavy Vehicles, %	5	5	5	6	6	6	0	0	0	0	0	0
Mvmt Flow	1	1431	12	28	1140	5	42	0	63	8	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1145	0	0	1443	0	0	2060	2634	716	1914	2641	570
Stage 1	-	-	-	-	-	-	1433	1433	-	1196	1196	-
Stage 2	-	-	-	-	-	-	627	1201	-	718	1445	-
Critical Hdwy	4.2	-	-	4.22	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.25	-	-	2.26	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	589	-	-	*777	-	-	*86	*21	*532	*142	*20	470
Stage 1	-	-	-	-	-	-	*502	*439	-	*201	*262	-
Stage 2	-	-	-	-	-	-	*443	*260	-	*502	*439	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	589	-	-	*777	-	-	*78	*20	*532	*122	*19	470
Mov Cap-2 Maneuver	-	-	-	-	-	-	*78	*20	-	*122	*19	-
Stage 1	-	-	-	-	-	-	*501	*438	-	*201	*253	-
Stage 2	-	-	-	-	-	-	*423	*251	-	*441	*438	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	45.6	63.5
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	78	532	589	-	-	*777	-	-	73
HCM Lane V/C Ratio	0.538	0.119	0.002	-	-	0.037	-	-	0.16
HCM Control Delay (s)	95.4	12.7	11.1	-	-	9.8	-	-	63.5
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2.3	0.4	0	-	-	0.1	-	-	0.5

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
4: Site Drive & Highland Road (M-59)

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1278	109	75	964	87	82
Future Vol, veh/h	1278	109	75	964	87	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	500	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	92	92
Heavy Vehicles, %	7	7	7	7	2	2
Mvmt Flow	1436	122	84	1083	95	89

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1558	0	2207 779
Stage 1	-	-	-	-	1497 -
Stage 2	-	-	-	-	710 -
Critical Hdwy	-	-	4.24	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.27	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	678	-	~ 61 *563
Stage 1	-	-	-	-	470 -
Stage 2	-	-	-	-	448 -
Platoon blocked, %	-	-	1	-	1 1
Mov Cap-1 Maneuver	-	-	678	-	~ 53 *563
Mov Cap-2 Maneuver	-	-	-	-	219 -
Stage 1	-	-	-	-	470 -
Stage 2	-	-	-	-	392 -

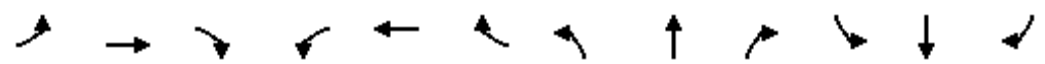
Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	32
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	-	-	678	-
HCM Lane V/C Ratio	0.591	-	-	0.124	-
HCM Control Delay (s)	32	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	3.5	-	-	0.4	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

Future C Section 9, Item A.  
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗		↗	↗		↗	↗	
Traffic Volume (veh/h)	167	1149	8	6	1524	84	6	2	12	259	0	167
Future Volume (veh/h)	167	1149	8	6	1524	84	6	2	12	259	0	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1953	1953	1953	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	196	1352	9	6	1639	90	10	3	20	291	0	188
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.60	0.60	0.60	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	223	2142	954	295	2048	112	197	48	319	342	0	357
Arrive On Green	0.06	0.57	0.57	0.06	0.57	0.57	0.21	0.21	0.21	0.21	0.00	0.21
Sat Flow, veh/h	1875	3741	1667	1860	3578	195	1213	225	1502	1398	0	1679
Grp Volume(v), veh/h	196	1352	9	6	845	884	10	0	23	291	0	188
Grp Sat Flow(s),veh/h/ln	1875	1870	1667	1860	1856	1918	1213	0	1727	1398	0	1679
Q Serve(g_s), s	5.2	29.0	0.3	0.1	42.9	43.8	0.9	0.0	1.3	24.2	0.0	11.9
Cycle Q Clear(g_c), s	5.2	29.0	0.3	0.1	42.9	43.8	12.8	0.0	1.3	25.5	0.0	11.9
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	223	2142	954	295	1062	1098	197	0	367	342	0	357
V/C Ratio(X)	0.88	0.63	0.01	0.02	0.80	0.80	0.05	0.00	0.06	0.85	0.00	0.53
Avail Cap(c_a), veh/h	223	2142	954	295	1062	1098	197	0	367	342	0	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	17.2	11.0	11.9	20.1	20.3	47.6	0.0	37.7	48.3	0.0	41.9
Incr Delay (d2), s/veh	35.6	1.4	0.0	0.1	6.2	6.3	0.5	0.0	0.3	22.5	0.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	11.5	0.1	0.1	18.1	19.1	0.3	0.0	0.6	10.4	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	18.6	11.0	12.0	26.3	26.6	48.1	0.0	38.0	70.7	0.0	47.4
LnGrp LOS	E	B	B	B	C	C	D	A	D	E	A	D
Approach Vol, veh/h		1557			1735			33				479
Approach Delay, s/veh		23.9			26.4			41.1				61.6
Approach LOS		C			C			D				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	75.0		32.0	13.0	75.0		32.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 69		25.5	* 6.7	* 69		25.5				
Max Q Clear Time (g_c+I1), s	2.1	31.0		27.5	7.2	45.8		14.8				
Green Ext Time (p_c), s	0.0	11.7		0.0	0.0	12.7		0.1				

Intersection Summary												
HCM 6th Ctrl Delay											29.9	
HCM 6th LOS											C	

Notes  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th TWSC  
2: Highland Road (M-59) & JOANN Fabric Drive

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	
Traffic Vol, veh/h	4	1486	1865	16	2	1
Future Vol, veh/h	4	1486	1865	16	2	1
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	500	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	95	95	75	75
Heavy Vehicles, %	3	3	3	3	0	0
Mvmt Flow	4	1615	1963	17	3	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1981	0	-	0	2780 983
Stage 1	-	-	-	-	1964 -
Stage 2	-	-	-	-	816 -
Critical Hdwy	4.16	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.23	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	284	-	-	-	*11 252
Stage 1	-	-	-	-	*97 -
Stage 2	-	-	-	-	*438 -
Platoon blocked, %		-	-	-	1
Mov Cap-1 Maneuver	284	-	-	-	*10 252
Mov Cap-2 Maneuver	-	-	-	-	*74 -
Stage 1	-	-	-	-	*96 -
Stage 2	-	-	-	-	*438 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	43.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	284	-	-	-	97
HCM Lane V/C Ratio	0.015	-	-	-	0.041
HCM Control Delay (s)	17.9	-	-	-	43.7
HCM Lane LOS	C	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
 3: Sunny Beach Boulevard & Highland Road (M-59)

Intersection												
Int Delay, s/veh	74.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗			↕	
Traffic Vol, veh/h	6	1428	54	72	1847	11	27	0	40	14	1	7
Future Vol, veh/h	6	1428	54	72	1847	11	27	0	40	14	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	330	500	-	120	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	95	95	95	80	80	80	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	8	8	8	4	4	4
Mvmt Flow	7	1569	59	76	1944	12	34	0	50	23	2	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1956	0	0	1628	0	0	2708	3691	785	2895	3738	972
Stage 1	-	-	-	-	-	-	1583	1583	-	2096	2096	-
Stage 2	-	-	-	-	-	-	1125	2108	-	799	1642	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.66	6.66	7.06	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.66	5.66	-	6.58	5.58	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.58	4.08	3.38	3.54	4.04	3.34
Pot Cap-1 Maneuver	291	-	-	391	-	-	~9	4	323	~7	4	248
Stage 1	-	-	-	-	-	-	107	158	-	52	90	-
Stage 2	-	-	-	-	-	-	208	84	-	341	153	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	291	-	-	391	-	-	~4	3	323	~5	3	248
Mov Cap-2 Maneuver	-	-	-	-	-	-	~4	3	-	~5	3	-
Stage 1	-	-	-	-	-	-	104	154	-	51	73	-
Stage 2	-	-	-	-	-	-	156	68	-	281	149	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			\$ 2054.8			\$ 2929.4		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	4	323	291	-	-	391	-	-	7
HCM Lane V/C Ratio	8.438	0.155	0.023	-	-	0.194	-	-	5.238
HCM Control Delay (s)	\$ 5071.9	18.2	17.7	-	-	16.4	-	-	\$ 2929.4
HCM Lane LOS	F	C	C	-	-	C	-	-	F
HCM 95th %tile Q(veh)	5.9	0.5	0.1	-	-	0.7	-	-	6

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th TWSC  
4: Site Drive & Highland Road (M-59)

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1428	63	72	1794	66	62
Future Vol, veh/h	1428	63	72	1794	66	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	500	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	95	95	92	92
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	1552	68	76	1888	72	67

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1620	0	2682
Stage 1	-	-	-	-	1586
Stage 2	-	-	-	-	1096
Critical Hdwy	-	-	4.16	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.23	-	3.52
Pot Cap-1 Maneuver	-	-	*726	-	*~ 15
Stage 1	-	-	-	-	*460
Stage 2	-	-	-	-	*282
Platoon blocked, %	-	-	1	-	1
Mov Cap-1 Maneuver	-	-	*726	-	*~ 13
Mov Cap-2 Maneuver	-	-	-	-	*154
Stage 1	-	-	-	-	*460
Stage 2	-	-	-	-	*252

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	42
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	230	-	-	* 726	-
HCM Lane V/C Ratio	0.605	-	-	0.104	-
HCM Control Delay (s)	42	-	-	10.5	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	3.5	-	-	0.3	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	179	494	474	106	30	244	234	17	30	139	72
Average Queue (ft)	37	274	260	9	6	134	130	1	4	59	23
95th Queue (ft)	114	424	407	58	24	209	201	7	16	115	52
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)		0	44	0							
Queuing Penalty (veh)		0	4	0							

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	WB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	17	8	20
Average Queue (ft)	1	0	1
95th Queue (ft)	9	6	9
Link Distance (ft)		204	320
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	500		
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	WB	NB	NB	SB
Directions Served	L	L	L	TR	LTR
Maximum Queue (ft)	9	39	114	65	38
Average Queue (ft)	1	11	45	26	7
95th Queue (ft)	6	32	105	49	28
Link Distance (ft)			520	520	248
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	500			
Storage Blk Time (%)					
Queuing Penalty (veh)					

**Intersection: 4: Site Drive & Highland Road (M-59)**

Movement	EB	WB	WB	NB
Directions Served	TR	L	T	LR
Maximum Queue (ft)	13	86	40	233
Average Queue (ft)	1	35	1	156
95th Queue (ft)	8	74	21	257
Link Distance (ft)	408		134	190
Upstream Blk Time (%)				41
Queuing Penalty (veh)				0
Storage Bay Dist (ft)		500		
Storage Blk Time (%)				
Queuing Penalty (veh)				

**Zone Summary**

Zone wide Queuing Penalty: 4

**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	327	354	343	105	27	393	408	30	22	352	190
Average Queue (ft)	143	199	182	6	3	262	270	3	5	193	76
95th Queue (ft)	273	294	280	47	17	354	372	17	19	321	145
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)			27								
Queuing Penalty (veh)			2								

**Intersection: 2: Highland Road (M-59) & JOANN Fabric Drive**

Movement	EB	EB	SB
Directions Served	L	T	LR
Maximum Queue (ft)	35	4	23
Average Queue (ft)	3	0	3
95th Queue (ft)	19	3	15
Link Distance (ft)		134	320
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	500		
Storage Blk Time (%)			
Queuing Penalty (veh)			

**Intersection: 3: Sunny Beach Boulevard & Highland Road (M-59)**

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	T	R	L	L	TR	LTR
Maximum Queue (ft)	26	8	12	86	461	160	207
Average Queue (ft)	4	0	0	34	328	44	129
95th Queue (ft)	18	4	5	71	550	195	266
Link Distance (ft)		204			520	520	248
Upstream Blk Time (%)					8	3	21
Queuing Penalty (veh)					0	0	0
Storage Bay Dist (ft)	500		330	500			
Storage Blk Time (%)							
Queuing Penalty (veh)							



Intersection: 4: Site Drive & Highland Road (M-59)

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	72	223
Average Queue (ft)	33	197
95th Queue (ft)	63	220
Link Distance (ft)		190
Upstream Blk Time (%)		96
Queuing Penalty (veh)		0
Storage Bay Dist (ft)	500	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 2

HCM 6th TWSC  
4: Site Drive & Highland Road (M-59)

Future Condition

Section 9, Item A.

AM Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1278	109	75	964	87	82
Future Vol, veh/h	1278	109	75	964	87	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	500	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	92	92
Heavy Vehicles, %	7	7	7	7	2	2
Mvmt Flow	1436	122	84	1083	95	89

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1558	0	2146
Stage 1	-	-	-	-	1436
Stage 2	-	-	-	-	710
Critical Hdwy	-	-	4.24	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.27	-	3.52
Pot Cap-1 Maneuver	-	-	678	-	*~ 73
Stage 1	-	-	-	-	*531
Stage 2	-	-	-	-	*448
Platoon blocked, %	-	-	1	-	1
Mov Cap-1 Maneuver	-	-	678	-	*~ 64
Mov Cap-2 Maneuver	-	-	-	-	*234
Stage 1	-	-	-	-	*531
Stage 2	-	-	-	-	*392

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	21.8
HCM LOS			C

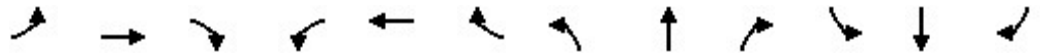
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	234	563	-	-	678	-
HCM Lane V/C Ratio	0.404	0.158	-	-	0.124	-
HCM Control Delay (s)	30.4	12.6	-	-	11.1	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	1.8	0.6	-	-	0.4	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 1: Private Drive/Fisk Road & Highland Road (M-59)

Future Condition Section 9, Item A.

PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗		↗	↗		↗	↗	
Traffic Volume (veh/h)	167	1149	8	6	1524	84	6	2	12	259	0	167
Future Volume (veh/h)	167	1149	8	6	1524	84	6	2	12	259	0	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1953	1953	1953	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	196	1352	9	6	1639	90	10	3	20	291	0	188
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.60	0.60	0.60	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	1	1	1
Cap, veh/h	258	1986	885	269	1750	96	254	57	382	401	0	427
Arrive On Green	0.10	0.53	0.53	0.06	0.49	0.49	0.25	0.25	0.25	0.25	0.00	0.25
Sat Flow, veh/h	1875	3741	1667	1860	3578	195	1213	225	1502	1398	0	1680
Grp Volume(v), veh/h	196	1352	9	6	845	884	10	0	23	291	0	188
Grp Sat Flow(s),veh/h/ln	1875	1870	1667	1860	1856	1918	1213	0	1728	1398	0	1680
Q Serve(g_s), s	7.3	31.9	0.3	0.2	51.3	52.4	0.8	0.0	1.2	23.8	0.0	11.3
Cycle Q Clear(g_c), s	7.3	31.9	0.3	0.2	51.3	52.4	12.1	0.0	1.2	25.1	0.0	11.3
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	258	1986	885	269	908	938	254	0	439	401	0	427
V/C Ratio(X)	0.76	0.68	0.01	0.02	0.93	0.94	0.04	0.00	0.05	0.73	0.00	0.44
Avail Cap(c_a), veh/h	258	1986	885	269	908	938	254	0	439	401	0	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	20.7	13.3	15.5	28.8	29.0	42.7	0.0	33.8	43.3	0.0	37.6
Incr Delay (d2), s/veh	18.9	1.9	0.0	0.2	17.3	18.3	0.3	0.0	0.2	10.9	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	13.1	0.1	0.1	24.9	26.4	0.3	0.0	0.5	9.0	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	22.6	13.3	15.7	46.0	47.3	43.0	0.0	34.1	54.2	0.0	40.9
LnGrp LOS	D	C	B	B	D	D	D	A	C	D	A	D
Approach Vol, veh/h		1557			1735			33				479
Approach Delay, s/veh		26.1			46.6			36.8				49.0
Approach LOS		C			D			D				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	70.0		37.0	18.0	65.0		37.0				
Change Period (Y+Rc), s	* 6.3	* 6.3		6.5	* 6.3	* 6.3		6.5				
Max Green Setting (Gmax), s	* 6.7	* 64		30.5	* 12	* 59		30.5				
Max Q Clear Time (g_c+I1), s	2.2	33.9		27.1	9.3	54.4		14.1				
Green Ext Time (p_c), s	0.0	10.9		0.7	0.1	3.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th TWSC  
4: Site Drive & Highland Road (M-59)

Future Condition

Section 9, Item A.

PM Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1428	63	72	1794	66	62
Future Vol, veh/h	1428	63	72	1794	66	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	100	500	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	95	95	92	92
Heavy Vehicles, %	3	3	3	3	2	2
Mvmt Flow	1552	68	76	1888	72	67

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1620	0	2648
Stage 1	-	-	-	-	1552
Stage 2	-	-	-	-	1096
Critical Hdwy	-	-	4.16	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.23	-	3.52
Pot Cap-1 Maneuver	-	-	*726	-	*~ 17
Stage 1	-	-	-	-	*460
Stage 2	-	-	-	-	*282
Platoon blocked, %	-	-	1	-	1
Mov Cap-1 Maneuver	-	-	*726	-	*~ 15
Mov Cap-2 Maneuver	-	-	-	-	*155
Stage 1	-	-	-	-	*460
Stage 2	-	-	-	-	*252

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	30.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	488	-	-	* 726	-
HCM Lane V/C Ratio	0.463	0.138	-	-	0.104	-
HCM Control Delay (s)	46.8	13.6	-	-	10.5	-
HCM Lane LOS	E	B	-	-	B	-
HCM 95th %tile Q(veh)	2.1	0.5	-	-	0.3	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection: 4: Site Drive & Highland Road (M-59)

Movement	EB	WB	WB	WB	NB	NB
Directions Served	R	L	T	T	L	R
Maximum Queue (ft)	21	89	46	23	189	169
Average Queue (ft)	1	34	3	1	112	52
95th Queue (ft)	9	75	31	16	213	136
Link Distance (ft)			122	122	178	178
Upstream Blk Time (%)			0	0	24	4
Queuing Penalty (veh)			0	0	0	0
Storage Bay Dist (ft)	100	500				
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Zone Summary

Zone wide Queuing Penalty: 0

**Intersection: 1: Private Drive/Fisk Road & Highland Road (M-59)**

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	185	323	297	81	24	485	496	21	38	289	166
Average Queue (ft)	87	210	204	5	4	394	398	2	6	159	78
95th Queue (ft)	156	293	280	43	17	524	524	13	23	255	147
Link Distance (ft)		1480	1480			471	471		200		1113
Upstream Blk Time (%)						10	11				
Queuing Penalty (veh)						82	85				
Storage Bay Dist (ft)	500			50	500			100		1000	
Storage Blk Time (%)			31			10					
Queuing Penalty (veh)			3			1					

**Intersection: 4: Site Drive & Highland Road (M-59)**

Movement	EB	WB	WB	WB	NB	NB
Directions Served	R	L	T	T	L	R
Maximum Queue (ft)	9	96	122	97	193	189
Average Queue (ft)	1	35	27	23	182	83
95th Queue (ft)	7	76	115	103	198	222
Link Distance (ft)			122	122	178	178
Upstream Blk Time (%)		0	3	4	96	38
Queuing Penalty (veh)		0	32	34	0	0
Storage Bay Dist (ft)	100	500				
Storage Blk Time (%)		0	3			
Queuing Penalty (veh)		0	2			

**Zone Summary**

Zone wide Queuing Penalty: 238
--------------------------------



Coffee Shop Drive Through Lane  
 95th Percentile Probability - Drive Through Queue Length (# of Vehicles)

Volume = 89 vph  
 service rate = 80 veh/hr  
 $\lambda = 1.1125$

$\lambda^x$	1	2	3	4	5	6	7	8	9	Poisson Queue
	No Veh in Cycle	X	X!	$P = (e^{(-\lambda)})(\lambda^x)/X!$	$\Sigma P$	P* # Cycle containing Volume in 1	$\Sigma$ Cycles in 6	Volume in Cycle (1*6)	$\Sigma$ volume	
1.0000	0	0	1	32.87%	32.87%	26	26	0	0	NO
1.1125	1	1	1	36.57%	69.45%	29	56	29	29	NO
1.2377	2	2	2	20.34%	89.79%	16	11	33	62	NO
1.3769	3	3	6	7.54%	97.33%	6	17	18	80	NO
1.5318	4	4	24	2.10%	99.43%	2	19	7	87	NO
1.7041	5	5	120	0.47%	99.90%	0	19	2	88	MET
1.8958	6	6	720	0.09%	99.98%	0	19	0	89	MET
2.1091	7	7	5040	0.01%	100.00%	0	19	0	89	MET
2.3464	8	8	40320	0.00%	100.00%	0	19	0	89	MET
2.6104	9	9	362880	0.00%	100.00%	0	19	0	89	MET
2.9040	10	10	3628800	0.00%	100.00%	0	19	0	89	MET
3.2307	11	11	39916800	0.00%	100.00%	0	19	0	89	MET

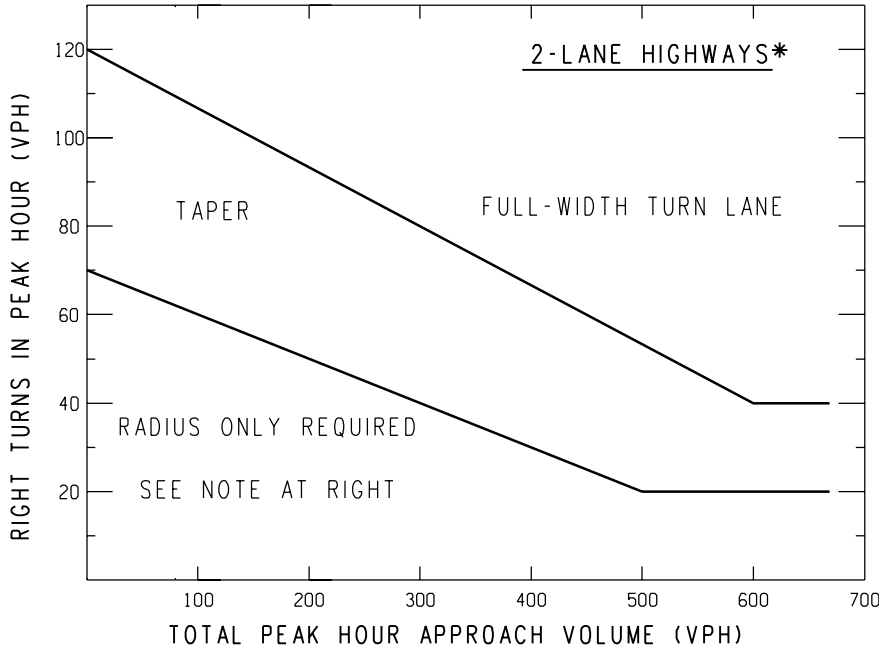
Fast-Food Drive Through Lane  
 95th Percentile Probability - Drive Through Queue Length (# of Vehicles)

Volume = 39 vph  
 service rate = 90 veh/hr  
 $\lambda = 0.433333$

	1	2	3	4	5	6	7	8	9	
$\lambda^x$	No Veh in Cycle	X	X!	$P = (e^{(-\lambda)})(\lambda^x)/X!$	$\Sigma P$	P* # Cycle containing Volume in 1	$\Sigma$ Cycles in 6	Volume in Cycle (1*6)	$\Sigma$ volume	Poisson Queue
1.0000	0	0	1	64.83%	64.83%	58	58	0	0	NO
0.4333	1	1	1	28.09%	92.93%	25	84	25	25	NO
0.1878	2	2	2	6.09%	99.02%	5	11	11	36	NO
0.0814	3	3	6	0.88%	99.90%	1	12	2	39	NO
0.0353	4	4	24	0.10%	99.99%	0	12	0	39	MET
0.0153	5	5	120	0.01%	100.00%	0	12	0	39	MET
0.0066	6	6	720	0.00%	100.00%	0	12	0	39	MET
0.0029	7	7	5040	0.00%	100.00%	0	12	0	39	MET
0.0012	8	8	40320	0.00%	100.00%	0	12	0	39	MET
0.0005	9	9	362880	0.00%	100.00%	0	12	0	39	MET
0.0002	10	10	3628800	0.00%	100.00%	0	12	0	39	MET
0.0001	11	11	39916800	0.00%	100.00%	0	12	0	39	MET

# EB Highland Road (M-59) & Site Drive

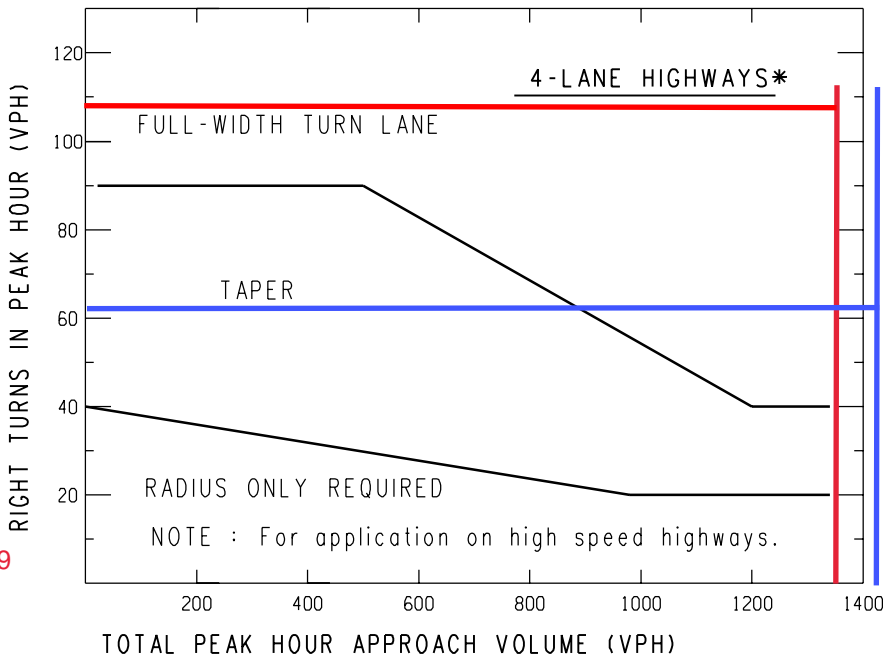
Section 9, Item A.



NOTE:

For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = Peak hour right turns - 20



\*If a center left-turn lane exists (i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

AM=109  
PM=63

AM=1388  
PM=1491

**RT Lane Recommended**

**Sample Problem:**

The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

**Solution:**

Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus, a right-turn lane may be recommended.

<p>TRAFFIC AND SAFETY NOTE</p>	<p>TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS</p>	
	<p>DRAWN BY: MTS</p> <p>CHECKED BY: JAT</p> <p>FILE: K:/DGN/ts notes/Note604A tsn.dgn</p>	<p>08/05/2004</p> <p>PLAN DATE:</p> <p>REV. 08/05/2004</p>





Report on Geotechnical Investigation

**Highland Road Commercial  
Development  
9101 Highland Road  
White Lake Township, Michigan  
48071**

Latitude 42.657084° N  
Longitude 83.465138° W

Prepared for:

Affinity 10 Investments  
44512 South Shore Street  
Waterford, Michigan 48328

G2 Project No. 240697  
September 24, 2024



CONSULTING  
GROUP

September 24, 2024

Mr. Thomas Hannawa  
Affinity 10 Investments  
44512 South Shore Street  
Waterford, Michigan 48328

c/o Ms. Susan Bowers  
Bowers + Associates  
2400 South Huron Parkway  
Ann Arbor, Michigan 48104

Re: Report on Geotechnical Investigation  
Highland Road Commercial Development  
9101 Highland Road  
White Lake Township, Michigan 48386  
G2 Project No. 240697

Dear Mr. Hannawa:

We have completed the geotechnical investigation for the proposed Highland Road Commercial Development in White Lake Township, Michigan. This report presents the results of our observations, analyses, and our recommendations for earthwork operations, foundation and pavement design, and construction considerations as they relate to the geotechnical conditions on site.

We appreciate the opportunity to be of service to Affinity 10 Investments and Bowers & Associates and look forward to discussing the recommendations presented. In the meantime, if you have any questions regarding the report or any other matter pertaining to the project, please call us.

Sincerely,

**G2 Consulting Group, LLC**

Michael J. Bajorek, P.E.  
Staff Engineer

Amy L. Schneider, P.E.  
Project Manager

MJB/ALS/ljv

Enclosures



## EXECUTIVE SUMMARY

We understand the proposed project consists of demolition of the existing buildings and constructing two new commercial single-story, slab on grade buildings with drive-thrus totaling 13,622 square feet. Portland cement concrete pavement will be constructed in the drive-thru alignments and bituminous concrete pavement will be constructed throughout the remainder of the property. Three dumpster enclosures will be constructed at the south side of the development. Associated utilities will be installed throughout the property, including a detention pond south of the pavements.

Approximately 2 to 3 inches of bituminous concrete underlain by 2 to 6 inches of aggregate base are present at soil borings B-11 and B-14. Approximately 8 to 20 inches of topsoil are present at the remaining boring locations. Very loose silty sand fill with is present below the topsoil and pavement section at borings B-10, B-11, and B-13 and extends to approximate depths ranging from 3 to 6-1/2 feet below grade. At boring B-4, approximately 13-1/2 feet of very loose silty sand fill and hard sandy clay fill are present at the boring location. Native stiff to very stiff sandy clay underlies the topsoil at borings B-1 and B-6 (extending to approximate depths of 3 to 4 feet below grade) and the fill at borings B-10 and B-11 (extending to approximate depths of 6 to 8-1/2 feet). Native very loose to medium compact granular soils, including sand, silty sand, clayey sand, and gravelly sand, underlie the fill, topsoil, native sandy clay, and pavement section and extend to the explored depths of 5, 10, and 15 feet. In general, no groundwater was observed during and upon completion of drilling operations. However, at boring B-11, groundwater was observed during drilling operations at an approximate depth of 3 feet with a wet cave of the borehole measured at 7-1/2 feet approximately 1 hour after completion.

The existing structures must be demolished, any footings and debris resulting from demolition completely removed, and the resulting excavations backfilled with engineered fill. During demolition of the existing building foundations, the deep fill soils encountered in the vicinity of boring B-4 should be completely removed within the zone of influence of the proposed building foundations and replaced with engineered fill. Additionally, it should be noted the topsoil encountered at the boring locations is thicker than typical (up to 20 inches in thickness) and the contractor should budget for removal and replacement of these extensive deposits.

The existing fill soils are not suitable for support of building foundations. Following removal and replacement of the deep fill in the zone of influence of the building foundations in the vicinity of boring B-4, we recommend the proposed buildings be supported on shallow strip and spread footings extending through any shallow fill (such as encountered at boring B-11) and bearing on the native very loose to loose sand, silty sand, and clayey sand, very stiff sandy clay, and engineered fill overlying native soils. A net allowable bearing capacity of 1,500 pounds per square foot (psf) may be used for design of foundations bearing on native soils or engineered fill overlying native soils. The bottom of the foundation excavations should be compacted prior to placement of concrete. Exterior footings should bear at a minimum depth of 3-1/2 feet below finished grade for protection against frost heave. Interior foundations can bear at shallower depths provided suitable bearing soils are present and foundations are protected from frost during construction. We recommend a G2 Consulting Group, LLC (G2) engineer or technician be on site during construction to observe the excavations, measure the bearing depths, observe foundation installation, and verify the adequacy of the bearing soils.

Subgrade soils for support of floor slabs are anticipated to consist of native very loose to loose granular fill with up to 1.1 percent organic matter, native very loose to loose granular soils, very stiff sandy clay, or engineered fill to raise site grades and replace topsoil deposits. If the risk of some floor slab settlement can be tolerated, the existing fill soils that pass the proof compaction/proof roll evaluation as described in the SITE PREPARATION section of this report may be used to support the proposed floor slabs. If the potential for floor slab settlement cannot be tolerated, the existing fill must be completely removed from the proposed building footprint and replaced with engineered fill for support of the building floor slab and engineered fill to raise site grades.

This summary is not to be considered separate from the entire text of this report, with all the conclusions and qualifications mentioned herein. Details of our analysis and recommendations are discussed in the following sections and in the Appendix of this report.



## PROJECT DESCRIPTION

We understand the proposed project consists of demolition of the existing single-story building, shed, garden, and pavements and constructing two (2) new single-story, slab on grade buildings totaling 13,622 square feet. Both buildings will have a drive-thru on the south and east side of the structures. The existing building is situated within the footprint of the proposed west building and associated drive-thru. Portland cement concrete pavement will be constructed in the drive-thru alignments and bituminous concrete pavement will be constructed throughout the remainder of the property. Three dumpster enclosures will be constructed along the south side of the property. Associated utilities will be installed throughout the property including a detention pond south of the parking lot.

Based on the Grading Plan (C-4) prepared by Stonefield Engineering & Design dated July 22, 2024, the proposed buildings will have finished floor elevations of 972.00 feet each, top of pavement will range from approximately 969-1/2 feet to 972 feet, and the bottom of the pond will have an elevation of approximately 964 feet.

No information regarding structural loading conditions was available at the time of this investigation. We anticipate structural loads will be relatively light with wall loads ranging from 1 to 1-1/2 kips per linear foot. Once structural loading conditions and/or traffic loading conditions become available, G2 should be notified so that we can review the recommendations herein.

## SCOPE OF SERVICES

The field operations, laboratory testing, and engineering report preparation were performed under the direction and supervision of a licensed professional engineer. Our services were performed according to generally accepted standards and procedures in the practice of geotechnical engineering in this area. Our scope of services for this project is as follows:

1. We drilled a total of fifteen soil borings throughout the property. Soil borings B-1 through B-8 were drilled within or adjacent to proposed building corners and extended to a depth of 15 feet each below existing grade. Boring B-9 was drilled at the proposed sanitary sewer connection along Highland Road and extended to a depth of 15 feet below existing grade. Boring B-10 was drilled within the footprint of the proposed detention pond and extended to a depth of 15 feet below existing grade. Borings B-11 and B-12 were drilled at the proposed dumpster pads and extended to a depth of 10 feet each below existing grade. Borings B-13, B-14, and B-15 were drilled within proposed pavement areas and extended to a depth of 5 feet each below existing grade.
2. We performed laboratory testing on representative samples obtained from the soil borings. Laboratory testing included visual engineering classification, moisture content, organic matter content (loss-on-ignition) moisture content, and unconfined compressive strength determinations.
3. We prepared this engineering report. The report includes recommendations regarding foundation types, allowable bearing capacity, estimated settlement, pavement recommendations, and construction considerations related to site development.

## FIELD OPERATIONS

G2, in conjunction with Bowers & Associates, selected the number, depth, and location of the soil borings based on the proposed site layout. The soil boring locations were determined in the field by a G2 engineer prior to drilling using GPS mobile technology in conjunction with measuring from existing site features using conventional taping methods. The approximate soil boring locations are shown on the Soil Boring Location Plan, Plate No. 1. Ground surface elevations at the boring locations were interpolated from the contour lines and spot elevations presented on the aforementioned Grading Plan.





Soil borings were drilled using a truck-mounted drilling rig. Continuous flight 2-1/4 inch inside diameter, hollow-stem augers were used to advance the boreholes to the explored depths. Within each soil boring, soil samples were obtained at intervals of 2-1/2 feet within the upper 10 feet and an additional sample was obtained at 15 feet, where applicable. The samples were obtained by the Standard Penetration Test method ASTM D 1586, which involves driving a 2-inch diameter split-spoon sampler into the soil with a 140-pound weight falling 30 inches. The sampler is generally driven three successive 6-inch increments with the number of blows for each increment recorded. The number of blows required to advance the sampler the last 12 inches is termed the Standard Penetration Resistance (N). The blow counts for each 6-inch increment and the resulting N-value are presented on the individual soil boring logs.

The soil samples were placed in sealed containers in the field and brought to the laboratory for testing and classification. During drilling operations, the drilling crew maintained logs of the encountered subsurface conditions, including changes in stratigraphy and observed groundwater levels to be used in conjunction with our analysis of the subsurface conditions. The final boring logs are based on the field logs and laboratory soil classification and test results. After completion of the drilling operations, the boreholes were backfilled with auger cuttings and capped with cold patch, where applicable.

### LABORATORY TESTING

Representative soil samples were subjected to laboratory testing to determine soil parameters pertinent to foundation design and site preparation. An experienced geotechnical engineer classified the samples in general conformance with the Unified Soil Classification System.

Laboratory testing on representative samples included moisture content, organic matter content (L.O.I.), and unconfined compressive strength determination. The organic matter content of representative samples was determined in accordance with ASTM Test Method D 2974, "Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils". The unconfined compressive strengths were determined using a spring-loaded hand penetrometer. The hand penetrometer estimates the unconfined compressive strength to a maximum of 4-1/2 tons per square foot (tsf), which is converted to psf, by measuring the resistance of the soil sample to the penetration of a calibrated spring-loaded cylinder.

The results of the moisture content, organic matter content, and unconfined compressive strength laboratory tests are indicated on the boring logs at the depths the samples were obtained. We will hold the soil samples for 60 days from the date of this report, after which time they will be discarded. If you would like to retain the samples beyond that date, please let us know.

### SITE CONDITIONS

The site is located at 9101 Highland Road in White Lake Township, Michigan. An existing single-story building is present on the west side of the property, situated in the footprint of the west building. A concrete drive extends to the west side of the building from Highland Road. Bituminous pavements extend west and south of the concrete drive. Two sheds are present on the site, one east of the existing building and one at the southwest corner of the property. A large garden is located east of the building, situated in the footprint of the east building. A playground and mature trees are present throughout the property.

Based on the Grading Plan, existing grades throughout the site slope downward to the south ranging from approximately 973 feet along Highland Road to 969 feet at the southwest corner of the property. Existing grades within the footprints of the proposed buildings range from 971 to 972-1/2 feet. Based on historical Oakland County aerial imagery, the site appears to have been constructed in the early 1960s with a building addition and pavement improvements completed in the 1980s. Surrounding properties are generally commercial and residential in nature.



## SOIL CONDITIONS

Approximately 2 to 3 inches of bituminous concrete underlain by 2 to 6 inches of aggregate base are present at soil borings B-11 and B-14. Approximately 8 to 20 inches of topsoil are present at the ground surface of the remaining boring locations. Silty sand fill is present below the topsoil and pavement section at borings B-10, B-11, and B-13 and extends to approximate depths ranging from 3 to 6-1/2 feet below grade. At boring B-4, approximately 13-1/2 feet of sandy clay fill and silty sand fill are present below the topsoil. Native sandy clay underlies the topsoil at borings B-1 and B-6 (extending to approximate depths of 3 to 4 feet below existing grade) and the fill at borings B-10 and B-11 (extending to approximate depths of 6 to 8-1/2 feet). Native granular soils, including sand, silty sand, clayey sand, and gravelly sand, underlie the fill, topsoil, native sandy clay, and pavement section and extend to the explored depths of 5, 10, and 15 feet.

The silty sand fill soils are very loose in compactness with Standard Penetration Test (SPT) N-values ranging from 1 to 4 blows per foot (bpf) and organic matter contents ranging from 0.5 to 1.1 percent. The sandy clay fill at boring B-4 is hard in consistency with a moisture content of 9 percent and an unconfined compressive strength of 9,000 psf. The native sandy clay is generally stiff to very stiff in consistency with moisture contents ranging from 11 to 12 percent and unconfined compressive strengths ranging from 2,500 to 5,000 psf. However, the native sandy clay at boring B-11 is medium in consistency with a moisture content of 24 percent and an unconfined compressive strength of 1,500 psf. The native granular soils within the upper 6 feet are generally very loose to loose in compactness with SPT N-values ranging from 2 to 9 bpf. The native granular soils below 6 feet are generally loose to medium compact with SPT N-values ranging from 7 to 24 bpf.

The stratification depths shown on the soil boring logs represent the soil conditions at the boring locations. Variations may occur between borings. Additionally, the stratigraphic lines represent the approximate boundaries between soil types. The transitions may be more gradual than what are shown. We have prepared the boring logs on the basis of laboratory classification and testing as well as field logs of the soils encountered.

The Soil Boring Location Plan, Plate No. 1, and Soil Boring Logs, Figure Nos. 1 through 15, are presented in the Appendix. The soil profiles described above are generalized descriptions of the conditions encountered at the boring locations. General Notes Terminology defining the nomenclature used on the boring logs and elsewhere in this report is presented on Figure No. 16.

## GROUNDWATER CONDITIONS

In general, no groundwater was observed during and upon completion of drilling operations. However, at boring B-11, groundwater was observed at an approximate depth of 3 feet during drilling operations. Approximately 1 hour after completion of drilling operations and following removal of the augers, a wet borehole cave was measured at an approximate depth of 7 feet. Fluctuations in perched and long-term groundwater levels should be anticipated due to seasonal variations and following periods of prolonged precipitation.

## SITE PREPARATION

Based on the existing conditions, we anticipate a moderate amount of earthwork will be required to develop the site. Earthwork operations are anticipated to consist of demolition of the existing building, shed, foundations, floor slabs, and utilities, backfilling associated excavations with engineered fill, removing existing pavements, playground, garden, topsoil, vegetation, and trees, proof-compacting / proof rolling the resulting subgrade, placement of engineered fill to raise grades or replace topsoil, and excavating for foundations and utilities. We recommend all earthwork operations be performed in accordance with comprehensive specifications and be properly monitored in the field by G2 geotechnical engineers or technicians under the direction of a licensed professional engineer.

The existing structures must be demolished and any footings and debris resulting from demolition of the existing structures completely removed. The existing soils at the base of demolished foundations must be evaluated by a G2 engineer to confirm soil conditions are consistent with those encountered within the soil borings and native, stable soils are present for support of backfill. The resulting excavations should be backfilled with granular engineered fill. Any existing utilities present within the footprint of the proposed building should be removed and the resulting excavations backfilled with engineered fill. Abandoned utilities outside the influence of the zone of influence of the building may be grouted in place.

During demolition of the existing building foundations, the deep fill soils encountered at boring B-4 should be evaluated to determine the extent of the material and ensure any fill within the zone of influence of the proposed foundations is undercut and backfilled with engineered fill as depicted in Figure 1 below. It may be necessary to remove and replace up to 13-1/2 feet of fill.

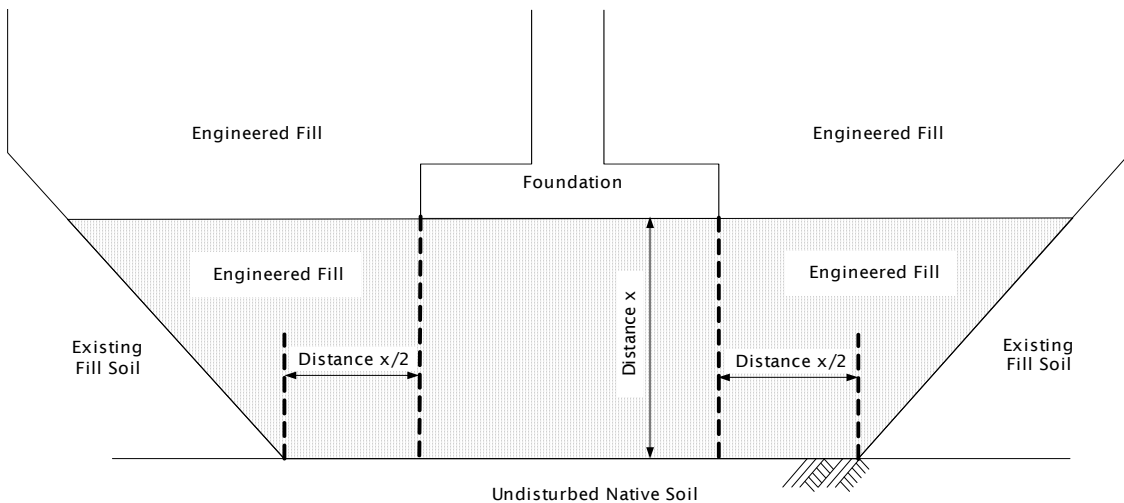


Figure 1

Following demolition of the existing structures, the existing trees and root structures, vegetation, topsoil, pavements, garden, playground, and concrete sidewalk must be completely removed. It should be noted topsoil deposits at the boring locations are up to 20 inches in thickness and the contractor should budget for the significant topsoil deposits. In addition to the engineered fill required to replace the topsoil, up to 2 feet of grade cuts and 6 inches of fill are required to achieve finished grades.

Prior to placement of any engineered fill, the resulting subgrade (anticipated to primarily consist of granular fill or native granular soils) should be thoroughly proof compacted with a heavy vibratory roller making a minimum of 10 passes in two perpendicular directions. Any cohesive soils should be thoroughly proof-rolled with a fully loaded tri-axle dump truck. During proof compaction / proof roll operations, the subgrade should be visually inspected by a qualified engineering technician or engineer for instability and/or unsuitable soil conditions. Unstable soils or soils exhibiting excessive instability should be undercut to expose stable soils or improved with further compaction. Resulting undercut excavations should be backfilled with engineered fill. The contractor should anticipate and budget for undercuts and tri-axial geogrid based on the existing fill soils and clayey sand throughout the site.

Engineered fill should be free of organic matter, frozen soil, clods, or otherwise harmful material. The fill should be placed in uniform horizontal layers, not to exceed 9 inches in loose thickness. The engineered fill should be compacted to achieve a density of at least 95 percent of the maximum dry density as determined by the Modified Proctor Compaction test (ASTM D1557). Any engineered fill should be placed at the approximate optimum moisture content. Frozen material should not be used as fill, nor should fill be placed on a frozen subgrade. The existing fill soils are not suitable for reuse as



engineered fill due to the organic matter in the material. The native soils are acceptable for use as engineered fill.

We recommend using imported granular engineered fill within confined areas such as demolished foundation or utility trenches, adjacent to foundation walls, or new utility trenches. Granular engineered fill is generally more easily compacted than cohesive soils within these confined areas. Additionally, the proper placement and compaction of backfill within these areas is imperative to provide adequate support for overlying foundations, floor slabs, and pavements.

## **FOUNDATION RECOMMENDATIONS**

The existing fill soils encountered at boring B-4 are not suitable for support of building foundations. Therefore, the existing fill should be evaluated and removed and replaced with engineered fill as discussed in the SITE PREPARATION section of this report prior to foundation excavation operations.

Following removal and replacement of the existing fill in the zone of influence of the proposed buildings, we recommend the proposed buildings be supported on shallow strip and spread footings bearing at conventional depths on the native very loose to loose sand, silty sand, and clayey sand, very stiff sandy clay, and engineered fill overlying native soil. The dumpster enclosure foundations must extend through any existing fill (such as encountered at boring B-11) must extend through any existing fill soils and bear on the underlying native medium sandy clay or native very loose to loose sand. A net allowable bearing capacity of 1,500 psf may be used for design of foundations bearing on native soils or engineered fill overlying native soils. The bottom of the foundation excavations should be compacted prior to placement of concrete.

Exterior footings should bear at a minimum depth of 3-1/2 feet below finished grade for protection against frost heave. Interior foundations can bear at shallower depths provided suitable bearing soils are present and foundations are protected from frost during construction. We recommend a G2 engineer be on site during construction to observe the excavations, measure the bearing depths, observe foundation installation, and verify the adequacy of the bearing soils.

Continuous wall or strip footings should be at least 16 inches in width and isolated spread footings should be at least 30 inches in their least dimension. We recommend all strip and spread footings be suitably reinforced to minimize the effects of differential settlements associated with local variations in subsoil conditions. Adjacent spread footings at different levels should be designed and constructed so the least lateral distance between them is equivalent to or more than the difference in their bearing levels. To achieve a change in the level of the strip footings, the footings should be gradually stepped at a grade no steeper than two units horizontal to one unit vertical.

If the recommendations outlined in this report are adhered to, total and differential settlements for the completed structure should be within 1 inch and 1/2 inch, respectively. We expect settlements of these magnitudes will be within tolerable limits for the type of structure proposed.

## **FLOOR SLAB RECOMMENDATIONS**

Subgrade soils for support of floor slabs are anticipated to consist of native very loose to loose granular fill with up to 1.1 percent organic matter, native very loose to loose granular soils, very stiff sandy clay, or engineered fill to raise site grades and replace deep topsoil deposits. If the risk of some floor slab settlement can be tolerated, the existing fill soils that pass proof compaction/proof roll evaluation as described in the SITE PREPARATION section of this report may be used to support the proposed floor slabs. We recommend a subgrade modulus (k) of up to 90 pounds per cubic inch (pci) may be used in the design of floor slab supported on the existing fill soils, native soils, and engineered fill.

If the potential for floor slab settlement cannot be tolerated, the existing fill must be completely removed from the proposed building footprint and replaced with engineered fill for support of the





building floor slab and engineered fill to raise site grades. A subgrade modulus of 150 pci be used for floor slabs supported by engineered fill overlying native soils and/or native loose granular soils.

We recommend at least 4 inches of clean coarse sand or pea gravel be placed between the subgrade and the bottom of the floor slab for use as a capillary break to reduce moisture transmission through the concrete floors and to reduce the potential for concrete curling. If moisture sensitive floor coverings are planned or if greater protection against vapor transmission is desired, a vapor barrier consisting of 10-mil plastic sheeting, or equivalent, may be placed on the sand layer beneath floor slabs. However, additional floor slab curing techniques will be required if a vapor barrier is used. The floor slab should be isolated from the foundation system to allow for independent movement.

**PAVEMENT RECOMMENDATIONS**

We understand the project includes construction of new bituminous concrete pavement throughout the property. In addition, Portland cement concrete pavement will be constructed in the drive-thru lanes. Subgrade soils will consist of very loose to loose silty sand and clayey sand, very loose silty sand fill, native very stiff sandy clay, and engineered fill used to raise grades or replace topsoil deposits. The existing subgrade should be properly proof compacted / proof rolled and prepared as outlined in the SITE PREPARATION section of this report.

The predominantly granular subgrade soils are typically good for support of the proposed pavement sections. Based on the primarily granular soils and completion of the subgrade preparation recommendations, we recommend the subgrade soils be assigned an effective roadbed modulus of 7,000 pounds per square inch (psi) for use in pavement design. No information regarding anticipated traffic volumes was made available at the time of this writing. Therefore, we have assumed that traffic will consist mainly of passenger vehicles.

We performed pavement design analyses in accordance with the “AASHTO Guide for Design of Pavement Structures” with an assumed load of 75,000 equivalent single-axle loads (ESALS) over a 20-year design life for standard-duty pavements. Once actual traffic loading information becomes available, G2 must be notified so that we may review our design assumptions. For purposes of design, we recommend a serviceability loss of 2.0, a standard deviation of 0.45 for flexible pavements and 0.39 for rigid pavements, and a reliability factor of 0.95. Based on the results of our analysis and construction consideration, we recommend the minimum following pavement design cross-sections:

Standard-Duty Flexible Pavement Section		
Material	Thickness	Structural Coefficient
MDOT 5E1 Bituminous Wearing Course	2 inches	0.42
MDOT 4E1 Bituminous Leveling Course	2 inches	0.42
MDOT 21AA Limestone Dense-Graded Aggregate	8 inches	0.14

Standard-Duty Rigid Pavement Section	
Material	Thickness
MDOT P1 Portland Cement Concrete	6 inches
MDOT 21AA Limestone Dense-Graded Aggregate	6 inches

Large front-loading refuse trucks can impose significant concentrated wheel loads within trash dumpster pick-up areas. Therefore, we recommend 8 inches of Portland cement concrete pavement be used in these areas and be large enough to accommodate the entire truck during pick-up operations.



All pavement materials are specified within the 2020 Standard Specifications for Construction from the Michigan Department of Transportation. The bituminous pavement materials are described in Sections 501 and 904 and can be assigned a structural coefficient number of 0.42. The Portland cement concrete pavement materials are described in Section 601. We recommend that bituminous concrete utilize grade PG 64-22 binder, with no more than 17 percent of the overall binder content from reclaimed asphalt pavement (RAP) within the top wearing course layer.

Proper drainage is an important consideration for pavement design. The pavement and subgrade should be properly sloped to promote effective surface and subsurface drainage and prevent water ponding.

Regular timely maintenance should be performed on the pavement to reduce the potential deterioration associated with moisture infiltration through surface cracks. The owner should be prepared to seal the cracks with a hot-applied elastic crack filler as soon as possible after cracking develops and as often as necessary to block the passage of water to the subgrade soils. In addition, regular joint maintenance should be performed.

### **CONSTRUCTION CONSIDERATIONS**

We anticipate the building foundations and utility excavations can be completed in dry conditions and any surface runoff can be controlled by sumps and pumps. We anticipate perched groundwater will be encountered within foundation excavations for the west dumpster enclosure. Prior to excavation operations, we recommend groundwater be removed in the fill soils using properly constructed sumps and pumps.

Caving and sloughing of the granular soils will occur during foundation excavation. Therefore, the contractor should be prepared to over excavate and form foundations within the granular soils, as necessary. The sides of the spread and/or strip footing foundations should be constructed straight and vertical to reduce the risk of frozen soil adhering to the concrete and raising the foundations.

For excavations that extend below a depth of 5 feet, we recommend a maximum slope of two horizontal units to one vertical unit (2H:1V) within the existing fill soils and native granular soils and 1H:1V within the stiff to very stiff sandy clay. If seepage from excavation cuts is observed, the slopes must be flattened sufficiently to achieve stability, but in no case left steeper than 3H:1V at and below the seepage level. All excavations should be safely sheeted, shored, sloped, or braced in accordance with OSHA requirements. If material is stored or equipment is operated near an excavation, stronger shoring must be used to resist the extra pressure due to the superimposed loads.

Care should be exercised when excavating near existing structures to avoid undermining adjacent utilities and pavements. Under no circumstances should excavations extend below the level of existing utilities or pavements unless underpinning is planned.

### **GENERAL COMMENTS**

We have formulated the evaluations and recommendations presented in this report relative to site preparation and foundations on the basis of data provided to us relating to the project location, type of structure, and surface grade for the proposed site. Any significant change in this data should be brought to our attention for review and evaluation with respect to prevailing subsurface conditions. Furthermore, if changes occur in the design, location, or concept of the project, conclusions and recommendations contained in this report are not valid unless G2 Consulting Group, LLC reviews the changes. G2 Consulting Group, LLC will then confirm the recommendations presented herein or make changes in writing.

The scope of the present investigation was limited to evaluation of subsurface conditions for the support of proposed buildings and pavements and other related aspects of the development. No chemical, environmental, or hydrogeological testing or analyses were included in the scope of this investigation.



September 24, 2024  
G2 Project No. 240697  
Page 9

We base the analyses and recommendations submitted in this report upon the data from the soil borings performed at the approximate locations shown on the Soil Boring Location Plan, Plate No. 1. This report does not reflect variations that may occur between the actual boring locations and the actual structure locations. The nature and extent of any such variations may not become clear until the time of construction and upon completion of the building demolition. If significant variations then become evident, it may be necessary for us to re-evaluate our report recommendations.

We recommend G2 Consulting Group, LLC observe all geotechnical related work, including foundation construction, subgrade preparation, and engineered fill placement. G2 Consulting Group, LLC will perform the appropriate testing to confirm the geotechnical conditions given in the report are found during construction.

**APPENDIX**

Soil Boring Location Plan

Plate No. 1

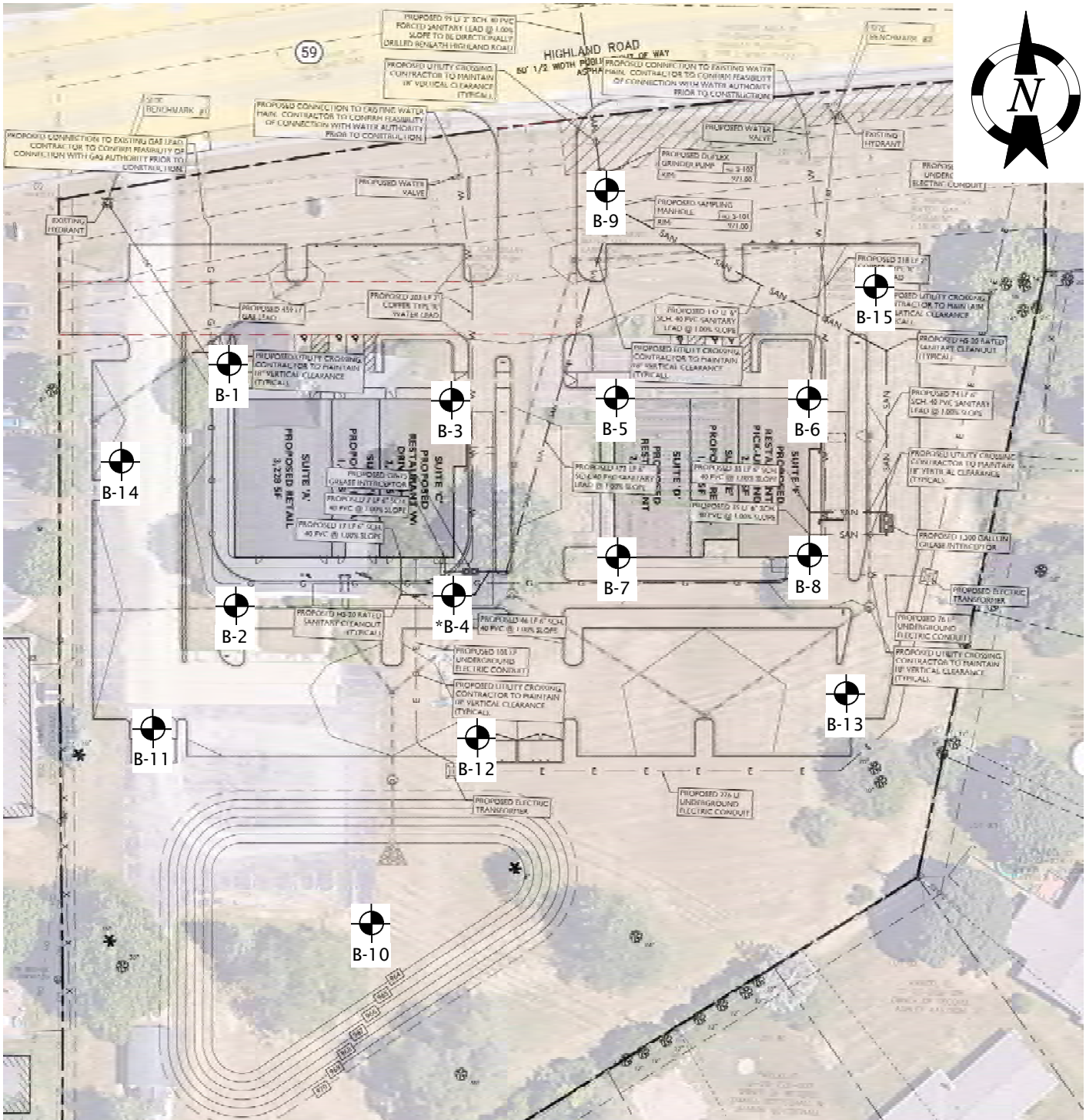
Soil Boring Log

Figure Nos. 1 through 15


General Notes Terminology

Figure No. 16





**Legend**

 Soil Borings Drilled by Strata Drilling Inc. on August 26 & 27, 2024

*\*B-4 offset from building corner 20 feet south due to overhead trees*

<b>Soil Boring Location Plan</b>	
Highland Road Commercial Development 9101 Highland Road White Lake Township, Michigan 48386	
 <b>2 CONSULTING GROUP</b>	Project No. 240697
	Drawn by: MJB
	Date: 09/18/24
	Scale: NTS
	Plate No.

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring  
**G2 CONSULTING GROUP**

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (20 inches)	1.7						
		Stiff Reddish Brown Sandy Clay with trace silt and gravel	4.0	S-1	3 2	4	10.8		4000*
967.5		Loose to Medium Compact Brown Sand with trace silt and gravel	5	S-2	1 3 3	6			
				S-3	7 9 10	19			
962.5			10	S-4	7 6 7	13			
957.5			15.0	15	S-5	7 6 6	12		
		End of Boring @ 15 ft							
952.5			20						

Total Depth: 15 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Notes:  
 \* Calibrated Hand Penetrometer

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Excavation Backfilling Procedure:  
 Auger cuttings

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



# Soil Boring

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (8 inches)	0.7						
		Loose Reddish Brown Silty Sand with trace clay and gravel	2.0		3 3 3	6			
		Loose Brown Clayey Sand with trace silt and gravel	3.5	S-1					
967.5			5	S-2	2 2 4	6			
				S-3	5 5 6	11			
962.5		Loose to Medium Compact Brown Sand with trace silt and gravel	10	S-4	5 6 7	13			
				S-5	5 6 6	12			
957.5		End of Boring @ 15 ft	15.0						
952.5			20						

Total Depth: 15 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



# Soil Boring

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (20 inches)	1.7						
		Loose Reddish Brown Clayey Sand with trace silt and little gravel	3.0	S-1	1 2 3	5			
967.0		Very Loose Reddish Brown Silty Sand with little gravel	5	S-2	1 2 2	4			
			7.0	S-3	0 1 1	2			
962.0		Very Loose to Loose Brown Sand with trace silt and gravel	10	S-4	2 3 4	7			
			15.0	S-5	3 4 6	10			
957.0		End of Boring @ 15 ft	15						
952.0			20						

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers



Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring  
Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.5 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (11 inches)	0.9						
		Fill: Hard Reddish Brown Sandy Clay with trace silt and gravel, occasional sand layers		S-1	2 4 6	10	9.5		9000*
967.5			5	S-2	3 2 1	3			
				S-3	2 1 1	2			
962.5			10	S-4	2 1 1	2			
		Medium Compact Brown Sand with trace silt and gravel	13.5						
957.5			15.0	S-5	8 10 11	21			
		End of Boring @ 15 ft							
952.5			20						

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Notes:  
 \* Calibrated Hand Penetrometer

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Excavation Backfilling Procedure:  
 Auger cuttings

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (8 inches)	0.7						
		Loose Reddish Brown Clayey Sand with trace silt and gravel	3.0	S-1	5 4 4	8			
966.0		Loose to Medium Compact Brown Sand with trace silt and gravel	5	S-2	4 5 6	11			
				S-3	7 9 7	16			
961.0			10	S-4	4 4 4	8			
956.0			15.0	S-5	6 7 7	14			
951.0		End of Boring @ 15 ft	20						

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations  
 Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring  
**G2 CONSULTING GROUP**

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (18 inches)	1.5						
		Very Stiff Reddish Brown Sandy Clay with trace silt and gravel	3.0	S-1	1 2 3	5	11.7		5000*
966.0		Very Loose Reddish Brown Silty Sand with trace gravel	5	S-2	1 1 1	2			
		Very Loose Brown Sand with trace silt and gravel	6.0	S-3	1 1 1	2			
961.0		Loose to Medium Compact Brown Sand with trace silt and gravel	8.0	S-4	2 3 5	8			
956.0		End of Boring @ 15 ft	15.0	S-5	8 13 11	24			
951.0			20						

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Notes:  
 \* Calibrated Hand Penetrometer

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Excavation Backfilling Procedure:  
 Auger cuttings

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



# Soil Boring

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (11 inches)	0.9						
		Very Loose Reddish Brown Silty Sand with trace clay and gravel	4.0	S-1	4 2 2	4			
966.0		Very Loose Brown Sand with trace silt and gravel	5	S-2	1 1 1	2			
		Very Loose Brown Sand with trace silt and gravel	8.0	S-3	1 1 2	3			
961.0		Loose to Medium Compact Brown Sand with trace silt and gravel	10	S-4	3 5 5	10			
956.0		Loose to Medium Compact Brown Sand with trace silt and gravel	15.0	S-5	6 9 9	18			
		End of Boring @ 15 ft							
951.0			20						

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Figure



Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring  
**G2 CONSULTING GROUP**

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (11 inches)	0.9						
		Very Loose Reddish Brown Silty Sand with little gravel, occasional clay layers	3.0	S-1	1 2 2	4			
966.0		Very Loose Brown Sand with trace silt and gravel	5	S-2	2 1 2	3			
		Medium Compact Brown Sand with trace silt and gravel	6.0	S-3	3 6 7	13			
961.0			10	S-4	5 7 8	15			
956.0			15	S-5	6 9 11	20			
951.0		End of Boring @ 15 ft	20						

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



# Soil Boring

Section 9, Item A.

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (14 inches)	1.2						
		Very Loose Reddish Brown Clayey Sand with trace silt and little gravel	3.0	S-1	3 2 2	4			
966.0		Medium Compact Brown Sand with trace silt, gravel, and cobbles	5	S-2	4 6 9	15			
				S-3	7 8 8	16			
961.0			10	S-4	4 6 5	11			
956.0			15.0	S-5	10 8 10	18			
951.0		End of Boring @ 15 ft	20						

Total Depth: 15 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA						
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 970.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)	
		Topsoil: Dark Brown Silty Sand (12 inches)	1.0							
		Fill: Very Loose Dark Brown Silty Sand with trace gravel and organic matter (Organic Matter Content = 1.1%)	3.5	S-1	2 1 3	4				
965.0				5	S-2	2 1 2	3	11.4		2500*
		Loose to Medium Compact Brown Sand with trace silt and gravel	10	S-3	3 4 6	10				
960.0				10	S-4	4 5 6	11			
				15.0	15	S-5	5 6 6	12		
955.0		End of Boring @ 15 ft								
950.0			20							

SOIL / PAVEMENT BORING 240697.GPJ 20150116 G2 CONSULTING DATA TEMPLATE.GDT 9/25/24

Total Depth: 15 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Notes:  
 \* Calibrated Hand Penetrometer

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Excavation Backfilling Procedure:  
 Auger cuttings and capped with cold patch

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 971.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Bituminous Concrete (2 inches) Aggregate Base: Brown Silty Sand	0.2 0.3						
		Fill: Very Loose Dark Brown and Brown Silty Sand with trace organic matter (Organic Matter Content = 0.9%)	3.0	S-1	3 2 2	4			
966.0		Fill: Very Loose Dark Brown Silty Sand with little gravel (Organic Matter Content = 0.5%)	5	S-2	1 1/12"	---			
		Medium Reddish Brown Sandy Clay with trace silt and little gravel	6.5 8.5	S-3	0 1 1	2	23.7		1500*
961.0		Loose Brown Gravelly Sand with trace silt	10.0	S-4	2 3 4	7			
		End of Boring @ 10 ft	10						
956.0			15						
951.0			20						

Total Depth: 10 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 3 feet during drilling, 7-1/2 feet wet cave 1 hour after completion of drilling

Notes:  
 \* Calibrated Hand Penetrometer

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

Excavation Backfilling Procedure:  
 Auger cuttings and capped with cold patch

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure N



Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (10 inches)	0.8						
		Very Loose Brown Silty Sand with trace clay and gravel	3.0	S-1	2 2 2	4			
967.0		Loose to Medium Compact Brown Sand with trace silt and gravel	5	S-2	2 3 5	8			
				S-3	4 5 8	13			
962.0			10.0	S-4	4 8 8	16			
		End of Boring @ 10 ft							
957.0			15						
952.0			20						

Total Depth: 10 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure N

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (13 inches)	1.1						
		Fill: Very Loose Dark Brown and Brown Silty Sand with trace clay, gravel, roots, and organic matter (Organic Matter Content = 0.7%)	3.0	S-1	1 1 1	2			
967.0		Loose Brown Sand with trace silt and gravel	5.0	S-2	2 3 3	6			
		End of Boring @ 5 ft							
962.0			10						
957.0			15						
952.0			20						

Total Depth: 5 ft  
 Drilling Date: August 26, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure N

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Bituminous Concrete (3 inches)	0.3						
		Aggregate Base: Brown Gravelly Sand with little silt (6 inches)	0.8						
		Loose Brown Silty Sand with trace clay and gravel		S-1	4 3 3	6			
		Loose Brown Sand with trace silt and gravel	3.5						
967.0			5.0	S-2	2 2 3	5			
		End of Boring @ 5 ft							
962.0			10						
957.0			15						
952.0			20						

Total Depth: 5 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure N

Project Name: Highland Road Commercial Development

Project Location: 9101 Highland Road  
White Lake Township, Michigan 48386

G2 Project No. 240697

Latitude: N/A Longitude: N/A



Soil Boring

Section 9, Item A.

CONSULTING GROUP

SUBSURFACE PROFILE				SOIL SAMPLE DATA					
ELEV. (ft)	PRO-FILE	GROUND SURFACE ELEVATION: 972.0 ft ±	DEPTH (ft)	SAMPLE TYPE-NO.	BLOWS/6-INCHES	STD. PEN. RESISTANCE (N)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONF. COMP. STR. (PSF)
		Topsoil: Dark Brown Silty Sand (14 inches)	1.2						
		Loose Reddish Brown Clayey Sand with little silt and gravel	3.0	S-1	1 3 3	6			
967.0		Loose Brown Sand with trace silt and gravel	5.0	S-2	3 4 5	9			
		End of Boring @ 5 ft							
962.0			10						
957.0			15						
952.0			20						

Total Depth: 5 ft  
 Drilling Date: August 27, 2024  
 Inspector:  
 Contractor: Strata Drilling, Inc.  
 Driller: B. Sienkiewicz

Water Level Observation:  
 Dry during and upon completion of drilling operations

Excavation Backfilling Procedure:  
 Auger cuttings

Drilling Method:  
 2-1/4 inch inside diameter hollow stem augers

SOIL / PAVEMENT BORING\_240697.GPJ\_20150116.G2 CONSULTING DATA TEMPLATE.GDT\_9/25/24

Figure N



## GENERAL NOTES TERMINOLOGY

Unless otherwise noted, all terms herein refer to the Standard Definitions presented in ASTM 653.

### PARTICLE SIZE

Boulders	- greater than 12 inches
Cobbles	- 3 inches to 12 inches
Gravel - Coarse	- 3/4 inches to 3 inches
- Fine	- No. 4 to 3/4 inches
Sand - Coarse	- No. 10 to No. 4
- Medium	- No. 40 to No. 10
- Fine	- No. 200 to No. 40
Silt	- 0.005mm to 0.074mm
Clay	- Less than 0.005mm

### CLASSIFICATION

The major soil constituent is the principal noun, i.e. clay, silt, sand, gravel. The second major soil constituent and other minor constituents are reported as follows:

Second Major Constituent (percent by weight)	Minor Constituent (percent by weight)
Trace - 1 to 12%	Trace - 1 to 12%
Adjective - 12 to 35%	Little - 12 to 23%
And - over 35%	Some - 23 to 33%

### COHESIVE SOILS

If clay content is sufficient so that clay dominates soil properties, clay becomes the principal noun with the other major soil constituent as modifier, i.e. sandy clay. Other minor soil constituents may be included in accordance with the classification breakdown for cohesionless soils, i.e. silty clay, trace sand, little gravel.

Consistency	Unconfined Compressive Strength (psf)	Approximate Range of (N)
Very Soft	Below 500	0 - 2
Soft	500 - 1,000	3 - 4
Medium	1,000 - 2,000	5 - 8
Stiff	2,000 - 4,000	9 - 15
Very Stiff	4,000 - 8,000	16 - 30
Hard	8,000 - 16,000	31 - 50
Very Hard	Over 16,000	Over 50

Consistency of cohesive soils is based upon an evaluation of the observed resistance to deformation under load and not upon the Standard Penetration Resistance (N).

Density Classification	COHESIONLESS SOILS Relative Density %	Approximate Range of (N)
Very Loose	0 - 15	0 - 4
Loose	16 - 35	5 - 10
Medium Compact	36 - 65	11 - 30
Compact	66 - 85	31 - 50
Very Compact	86 - 100	Over 50

Relative Density of cohesionless soils is based upon the evaluation of the Standard Penetration Resistance (N), modified as required for depth effects, sampling effects, etc.

### SAMPLE DESIGNATIONS

AS -	Auger Sample - Cuttings directly from auger flight
BS -	Bottle or Bag Samples
S -	Split Spoon Sample - ASTM D 1586
LS -	Liner Sample with liner insert 3 inches in length
ST -	Shelby Tube sample - 3 inch diameter unless otherwise noted
PS -	Piston Sample - 3 inch diameter unless otherwise noted
RC -	Rock Core - NX core unless otherwise noted

STANDARD PENETRATION TEST (ASTM D 1586) - A 2.0 inch outside-diameter, 1-3/8 inch inside-diameter split barrel sampler is driven into undisturbed soil by means of a 140-pound weight falling freely through a vertical distance of 30 inches. The sampler is normally driven three successive 6-inch increments. The total number of blows required for the final 12 inches of penetration is the Standard Penetration Resistance (N).

# MEMO

 VIA EMAIL: [ewilliams@stonefieldeng.com](mailto:ewilliams@stonefieldeng.com)
**To: Stonefield Engineering**
**From: Jacob Swanson, PE, PTOE  
Haylee Rubin, EIT  
Fleis & VandenBrink**
**Date: January 2, 2025**
**Re: 9101 Highland Road (M-59) – Commercial Development  
White Lake Township, Michigan  
Traffic Impact Study**

## 1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Study (TIS) for the proposed commercial development in White Lake Township, Michigan. The project site is generally located adjacent to the south side of Highland Road (M-59), approximately 1,000-feet east of Fisk Road, as shown in the attached **Figure 1**. The proposed development includes the construction restaurant and retail land uses. The project site is currently vacant and was most recently occupied by the Calvary Lutheran Church, which will be razed with the construction of the proposed development. Site access is proposed via one (1) full access driveway on Highland Road (M-59), which is under the jurisdiction of the Michigan Department of Transportation (MDOT). The purpose of this TIS is to evaluate the impact of the proposed development on the adjacent roadway network, as part of the site plan approval and driveway permitting processes.

The scope of work for this study was developed based on Fleis & VandenBrink's (F&V) knowledge of the study area, understanding of the development program, accepted traffic engineering practices, and information published by the Institute of Transportation Engineers (ITE). Study analyses were completed using Synchro/SimTraffic (Version 12) traffic analysis software. Sources of data for this study include F&V subconsultant Quality Counts (QC), MDOT, the Road Commission for Oakland County (RCOC), White Lake Township, the Southeast Michigan Council of Governments (SEMCOG), and ITE.

## 2 BACKGROUND

### 2.1 EXISTING ROAD NETWORK

The lane use and traffic control at the study intersections is shown in the attached **Figure 2** and study roadways are further described below. For purposes of this study, all minor streets and driveways were assumed to have an operating speed of 25 miles per hour (mph), unless otherwise noted.

**Highland Road (M-59)** generally runs in the east / west directions, adjacent to the north side of the project site. The study section of roadway is classified as an *Other Principal Arterial*, is under the jurisdiction of MDOT, has a posted speed limit of 50-mph, and has an Annual Average Daily Traffic (AADT) volume of approximately 33,400 (MDOT 2022) vehicles per day (vpd). The study section of roadway provides a typical five-lane cross-section, with two (2) lanes of travel in each direction and a center two-way left-turn lane (TWLTL). At the signalized study intersection with Fisk Road, Highland Road (M-59) widens to provide an exclusive eastbound right-turn lane. Additionally, Highland Road (M-59) widens to provide exclusive westbound right-turn lanes at all of the unsignalized intersections within the study roadway network.

**Fisk Road** generally runs in the north / south directions, approximately 1,000-feet west of the project site, terminating to the south at Highland Road (M-59). The study section of roadway is classified as a *Local Road*, is under the jurisdiction of RCOC, has an assumed prima-facie speed limit of 55-mph, and has an AADT volume of approximately 1,256 vpd (MDOT 2022). The study section of Fisk Road provides typical three-lane cross-section, with one (1) lane of travel in each direction and a center TWLTL.

 27725 Stansbury Boulevard, Suite 195  
 Farmington Hills, MI 48334

P: 248.536

F: 248.536

www.fveng.com

262

**Sunny Beach Boulevard** generally runs in the north / south directions, approximately 500-feet east of the project site. The study section of roadway is classified as a *Local Road*, is under the jurisdiction of RCOG, and has an assumed residential prima-facie speed limit of 25-mph. The study section of Sunny Beach Boulevard services a residential neighborhood, to the south of Highland Road (M-59), and services commercial uses, to the north of Highland Road (M-59).

**2.2 EXISTING TRAFFIC VOLUMES**

F&V subconsultant QC collected existing weekday Turning Movement Count (TMC) data during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods, at the study intersections as summarized below:

- Highland Road (M-59) & Fisk Road (12/13/2023)
- Highland Road (M-59) & JOANN Fabrick Driveway (12/13/2023)
- Highland Road (M-59) & Sunny Beach Boulevard (3/13/2024)
- Highland Road (M-59) & W. Marketplace Drive (12/11/2024)
- Highland Road (M-59) & E. Marketplace Drive (12/11/2024)

During the collection of the TMC data, Peak Hour Factors (PHFs), pedestrian and bicycle volumes, and commercial truck percentages were recorded and used in the traffic analysis. The peak hours of each of the study intersections were utilized and the through volumes were balanced upwards through the study roadway network and carried through at the proposed site driveway. Therefore, the traffic volumes used in the analysis and shown in the attached figures may not match the raw traffic volumes shown in the data collection.

The weekday AM and PM peak hours for the adjacent study roadway network were observed to generally occur between 7:30 AM to 8:30 AM and 4:15 PM to 5:15 PM, respectively. Additionally, F&V obtained the current signal timing permit for the study intersection of Highland Road (M-59) & Fisk Road from MDOT. The existing 2024 peak hour traffic volumes used in the analysis are shown in the attached **Figure 3**. All applicable background data referenced in this memorandum are attached.

**3 EXISTING CONDITIONS (2024)**

Existing peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersections using Synchro/SimTraffic (Version 12) traffic analysis software. This analysis was based on the existing lane use and traffic control shown in the attached **Figure 2**, the existing peak hour traffic volumes shown in the attached **Figure 3**, and methodologies presented in the *Highway Capacity Manual, 7<sup>th</sup> Edition* (HCM7).

Descriptions of LOS “A” through “F” as defined in the HCM, are attached. Typically, LOS D is considered acceptable, with LOS A representing minimal delay, and LOS F indicating failing conditions. Additionally, SimTraffic network simulations were reviewed to evaluate network operations and vehicle queues. The results for the existing conditions analysis are attached and summarized in **Table 1**.

**Table 1: Existing Intersection Operations**

Intersection	Control	Approach	Existing Conditions			
			AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
1 Highland Road (M-59) & Fisk Road	Signalized	EBL	14.4	B	57.6	E
		EBT	27.7	C	18.5	B
		EBR	14.7	B	11.0	B
		WBL	15.9	C	11.9	B
		WBTR	23.5	C	26.3	C
		NBL	25.2	C	47.9	D
		NBTR	23.3	C	38.0	D
		SBL	27.3	C	67.0	E
		SBTR	24.8	C	47.1	D
		<b>Overall</b>	<b>25.6</b>	<b>C</b>	<b>29.2</b>	<b>C</b>

Intersection	Control	Approach	Existing Conditions			
			AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS
2 Highland Road (M-59) & W. Marketplace Drive	Stop (Minor)	EBL	10.9	B	17.0	C
		WBL	10.9	B	12.3	B
		NB	9.6	A	201.8	F
		SBTL	56.7	F	\$	F
		SBR	12.3	B	21.4	C
3 Highland Road (M-59) & E. Marketplace Drive	Stop (Minor)	EBL	0.0*	A	17.3	C
		WB	Free			
		SB	16.5	C	25.5	D
4 Highland Road (M-59) & JOANN Fabric Drive	Stop (Minor)	EBL	11.1	B	17.3	C
		WB	Free			
		SB	12.5	B	39.5	E
5 Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.8	B	17.1	C
		WBL	11.0	B	12.9	B
		NBL	194.3	F	\$	F
		NBTR	10.4	B	10.7	B
		SB	72.9	F	\$	F

Note: \$ Indicates delays exceeding 1,000 seconds / vehicle.

The results of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better during both the AM and PM peak hours, with the following exceptions:

**Highland Road (M-59) & Fisk Road**

- During the PM peak hour: the eastbound left-turn movement and southbound left-turn movement are both currently operating at LOS E.

Review of SimTraffic network simulations indicates generally acceptable operations. Occasional periods of vehicle queues were observed for these movements; however, the majority of vehicle queues were observed to be processed within each cycle length, leaving minimal residual vehicle queueing. Additionally, any remaining vehicle queues were observed to dissipate and were not present throughout the PM peak hour.

**Highland Road (M-59) & W. Marketplace Drive**

- During the AM peak hour: the southbound shared left/through lane currently operates at LOS F.
- During the PM peak hour: the northbound approach and the southbound shared left/through lane are both currently operating at LOS F.

Review of SimTraffic microsimulations during the AM peak hour indicates generally acceptable operations. During the PM peak hour, periods of long vehicle queues were observed for the southbound shared left/through lane-turn movement; these queues were typically observed to persist throughout the PM peak hour. However, review of the TMC data collection videos indicates that adequate gaps are provided within the through traffic along Highland Road (M-59), in order to accommodate egress traffic from the minor street.

**Highland Road (M-59) & JOANN Fabric Drive**

- During the PM peak hour: the southbound approach currently operates at LOS E.

The southbound approach was designed to prohibit egress left-turns; however, the left-turn traffic from this approach is causing the reported delay. The total volume of southbound traffic during the PM peak hour is very low (3 vehicles), which includes two (2) vehicles making a left-turn movement. Additionally, although the reported delay results in LOS E, review of SimTraffic indicates acceptable operations; the 95<sup>th</sup> percentile queue length reported for this approach was approximately 11-feet (~1 vehicle), which is not significant.



**Highland Road (M-59) & Sunny Beach Boulevard**

- During both the AM and PM peak periods: The northbound left-turn movement and the southbound approach are both currently operating at LOS F.

Review of SimTraffic network simulations indicates generally acceptable operations during the AM peak hour. Review of SimTraffic microsimulations during the PM peak hour indicates that vehicles along Sunny Beach Boulevard experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues along the minor street; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour. However, as previously mentioned, review of the TMC data collection videos indicates traffic is able to find adequate gaps within the through traffic; therefore, SimTraffic is providing a more conservative evaluation, as it does not account for motorists making two-stage left-turns.

**4 BACKGROUND CONDITIONS (2026)**

Historical population and economic profile data was obtained for White Lake Township from the Southeast Michigan Council of Governments (SEMCOG) database, in order to calculate an annual background growth rate to project the existing 2024 peak hour traffic volumes to the site buildout year of 2026. Population and employment projections from 2020 to 2050 were reviewed and show average annual growth rates of approximately 0.41% and 0.28%, respectively.

In addition to background growth, it is important to account for traffic that will be generated by approved developments within the study area that have yet to be constructed or are currently under construction. At the time of this study, no background developments were identified within the vicinity of the project site. Therefore, a conservative annual background growth rate of **0.5%** per year was applied to the existing peak hour traffic volumes, in order to forecast the background 2026 peak hour traffic volumes **without the proposed development**, as shown in the attached **Figure 4**.

Background peak hour vehicle delays and LOS **without the proposed development** were calculated at the study intersections based on the existing lane use and traffic control shown in the attached **Figure 2**, the background peak hour traffic volumes shown in the attached **Figure 4**, and methodologies presented in the HCM7. The results of the background conditions analysis are attached and summarized in **Table 2**.

**Table 2: Background Intersection Operations**

Intersection	Control	Approach	Existing Conditions				Background Conditions				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1 Highland Road (M-59) & Fisk Road	Signal	EBL	14.4	B	57.6	E	14.5	B	61.5	E	0.1	-	3.9	-
		EBT	27.7	C	18.5	B	28.1	C	18.7	B	0.4	-	0.2	-
		EBR	14.7	B	11.0	B	14.7	B	11.0	B	0.0	-	0.0	-
		WBL	15.9	C	11.9	B	16.0	B	12.1	B	0.1	C→B	0.2	-
		WBTR	23.5	C	26.3	C	23.7	C	26.7	C	0.2	-	0.4	-
		NBL	25.2	C	47.9	D	25.3	C	48.1	D	0.1	-	0.2	-
		NBTR	23.3	C	38.0	D	23.3	C	38.0	D	0.0	-	0.0	-
		SBL	27.3	C	67.0	E	27.3	C	67.6	E	0.0	-	0.6	-
		SBTR	24.8	C	47.1	D	24.8	C	47.7	D	0.0	-	0.6	-
		<b>Overall</b>	<b>27.1</b>	<b>C</b>	<b>29.2</b>	<b>C</b>	<b>25.8</b>	<b>C</b>	<b>29.7</b>	<b>C</b>	<b>-1.3</b>	-	<b>0.5</b>	-
2 Highland Road (M-59) & W. Marketplace Drive	Stop (Minor)	EBL	10.9	B	17.0	C	11.0	B	17.2	C	0.1	-	0.2	-
		WBL	10.9	B	12.3	B	11.0	B	12.4	B	0.1	-	0.1	-
		NB	9.6	A	201.8	F	9.6	A	227.5	F	0.0	-	-	-
		SBTL	56.7	F	\$	F	59.8	F	\$	F	3.1	-	-	-
		SBR	12.3	B	21.4	C	12.3	B	21.8	C	0.0	-	-	-
3 Highland Road (M-59) & E. Marketplace Dr.	Stop (Minor)	EBL	0.0*	A	17.3	C	0.0*	A	17.5	C	0.0*	-	0.2	-
		WB	Free				Free				N/A			
		SB	16.5	C	25.5	D	16.6	C	25.9	D	0.1	-	-	-

Intersection	Control	Approach	Existing Conditions				Background Conditions				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
4 Highland Road (M-59) & JOANN Fabric Dr.	Stop (Minor)	EBL	11.1	B	17.3	C	11.2	B	17.5	C	0.1	-	0.2	-
		WB	Free				Free				N/A			
		SB	12.5	B	39.5	E	12.6	B	40.3	E	0.1	-	0.8	-
5 Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.4	B	17.1	C	10.9	B	17.3	C	0.5	-	0.2	-
		WBL	11.0	B	12.9	B	11.1	B	13.1	B	0.1	-	0.2	-
		NBL	194.3	F	\$	F	214.5	F	\$	F	20.2	-	-	-
		NBTR	10.4	B	10.7	B	10.4	B	10.7	B	0.0	-	0.0	-
		SB	72.9	F	\$	F	77.2	F	\$	F	4.3	-	-	-

\* Indicate no vehicle volume present. \$ Indicates delays exceeding 1,000 seconds / vehicle  
 Note: Decreased delays are the result of improved progression and/or HCM weighting methodology

The results of the background conditions analysis indicates that all study intersections approaches and movements are expected to continue operating in a manner similar to the existing conditions analysis, with minor increases in delays.

### 5 SITE TRIP GENERATION

The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed development were calculated using the rates and equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 11<sup>th</sup> Edition*. For purposes of this study the following land uses were assumed in the analysis: a coffee shop with drive-through, a fast-casual restaurant, and retail space. Additionally, the proposed restaurants are not anticipated to have breakfast service; however, in order to provide a conservative analysis, the AM peak hour trip generation was included for these land uses. The site trip generation forecast utilized for this study is summarized in **Table 3**.

**Table 3: Site Trip Generation Summary**

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Strip Retail Plaza (<40k SF)	822	2,387	SF	330	4	2	6	14	14	28
		<i>Pass-By (0% AM, 40% PM)</i>		66	0	0	0	5	5	10
		<i>New Trips</i>		264	4	2	6	9	9	18
Fast Casual Restaurant	930	10,043	SF	976	36	21	57	69	57	126
		<i>Pass-By (0% AM, 43% PM)</i>		210	0	0	0	27	27	54
		<i>New Trips</i>		766	36	21	57	42	30	72
Coffee Shop with Drive-Through	937	2,529	SF	1,349	111	106	217	50	49	99
		<i>Pass-By (50% AM, 55% PM)</i>		706	54	54	108	27	27	54
		<i>New Trips</i>		641	57	52	109	23	22	45
		<i>Total Trips</i>		2,655	151	129	280	133	120	253
		<i>Total Pass-By</i>		984	54	54	108	59	59	118
		<b>Total New Trips</b>		<b>1,671</b>	<b>97</b>	<b>75</b>	<b>172</b>	<b>74</b>	<b>61</b>	<b>135</b>

As is typical of commercial developments, a portion of the trips generated by the proposed development are from vehicles already on the adjacent roadway network that will pass the site on their way from an origin to their ultimate destination. Therefore, not all traffic at the site driveway is necessarily new traffic added to the street system. These trips are therefore reduced from the total external trips generated by a study site. This percentage of the trips generated by the development are considered “pass-by”, which are already present of the adjacent roadway network. The percentage of pass-by used in this analysis was determined based on the rates published by ITE in the *Trip Generation Manual, 11<sup>th</sup> Edition*.

### 6 SITE TRIP DISTRIBUTION

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed stie access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and methodologies published by ITE. The ITE trip distribution methodology assumes that new trips will enter the network and access the development, then leave the development and return to their direction of origin, whereas pass-by trips will enter and exit the development in their original direction of travel. The stie trip distributions utilized in the analysis are summarized in **Table 4**.

**Table 4: Site Trip Distribution**

New Trips				Pass-By Trips		
AM	PM	To/From	Via	Direction	AM	PM
7%	12%	North	Fisk Road			
41%	52%	East	Highland Road (M-59)	Eastbound	57%	44%
52%	36%	West	Highland Road (M-59)	Westbound	43%	56%
<b>100%</b>	<b>100%</b>	<b>Total</b>			<b>100%</b>	<b>100%</b>

The vehicular traffic volumes shown in **Table 3** were distributed to the study roadway network according to the distribution shown in **Table 4**. Therefore, the site generated trips shown in the attached **Figure 5** were added to the background peak hour traffic volumes shown in the attached **Figure 4**, in order to calculate the future peak hour traffic volumes, with the addition of the proposed development. Future peak hour traffic volumes are shown in the attached **Figure 6**.

### 7 FUTURE CONDITIONS (2026)

Future peak hour vehicle delays and LOS *with the addition of the proposed development*, were calculated based on the proposed lane use and traffic controls shown in the attached **Figure 2**, the future peak hour traffic volumes shown in the attached **Figure 6**, and the methodologies presented in the HCM7. The results of the future conditions analysis are attached and summarized in **Table 5**.

**Table 5: Future Intersection Operations**

Intersection	Control	Approach	Background Conditions				Future Conditions				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1 Highland Road (M-59) & Fisk Road	Signal	EBL	14.5	B	61.5	E	14.9	B	66.1	E	0.4	-	4.6	-
		EBT	28.1	C	18.7	B	30.3	C	19.1	B	2.2	-	0.4	-
		EBR	14.7	B	11.0	B	14.7	B	11.0	B	0.0	-	0.0	-
		WBL	16.0	B	12.1	B	16.8	B	12.4	B	0.8	-	0.3	-
		WBTR	23.7	C	26.7	C	24.6	C	27.6	C	0.0	-	0.0	-
		NBL	25.3	C	48.1	D	25.3	C	48.1	D	0.0	-	0.0	-
		NBTR	23.3	C	38.0	D	23.3	C	38.0	D	0.0	-	0.0	-
		SBL	27.3	C	67.6	E	27.3	C	67.6	E	0.0	-	0.0	-
		SBTR	24.8	C	47.7	D	24.8	C	47.4	D	0.0	-	-0.3	-
		<b>Overall</b>	<b>25.8</b>	<b>C</b>	<b>29.7</b>	<b>C</b>	<b>27.3</b>	<b>C</b>	<b>30.3</b>	<b>C</b>	<b>1.5</b>	-	<b>0.6</b>	-
2 Highland Road (M-59) & W. Marketplace Drive	Stop (Minor)	EBL	11.0	B	17.2	C	11.3	B	17.6	C	0.3	-	0.4	-
		WBL	11.0	B	12.4	B	11.4	B	12.7	B	0.4	-	0.3	-
		NB	9.6	A	227.5	F	9.7	A	290.6	F	0.1	-	63.1	-
		SBTL	59.8	F	\$	F	72.1	F	\$	F	12.3	-	\$	-
		SBR	12.3	B	21.8	C	12.6	B	22.4	C	0.3	-	0.6	-
3 Highland Road (M-59) & E. Marketplace Dr.	Stop (Minor)	EBL	0.0*	A	17.5	C	0.0*	A	17.8	C	0.0*	-	0.3	-
		WB	Free				Free				N/A			
		SB	16.6	C	25.9	D	17.4	C	26.7	D	0.8	-	0.8	-

Intersection	Control	Approach	Background Conditions				Future Conditions				Difference			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
4 Highland Road (M-59) & JOANN Fabric Dr.	Stop (Minor)	EBL	11.2	B	17.5	C	11.4	B	17.9	C	0.2	-	0.4	-
		WB	Free				Free				N/A			
		SB	12.6	B	40.3	E	12.9	B	42.1	E	0.3	-	1.8	-
5 Highland Road (M-59) & Sunny Beach Boulevard	Stop (Minor)	EBL	10.9	B	17.3	C	11.1	B	17.8	C	0.2	-	0.5	-
		WBL	11.1	B	13.1	B	11.2	B	13.4	B	0.1	-	0.3	-
		NBL	214.5	F	\$	F	261.7	F	\$	F	47.2	-	\$	-
		NBTR	10.4	B	10.7	B	10.6	B	10.8	B	0.2	-	0.1	-
		SB	77.2	F	\$	F	89.7	F	\$	F	12.5	-	\$	-
6 Highland Road (M-59) & Site Drive	Stop (Minor)	EB	N/A				Free				N/A			
		WBL					13.3	B	13.3	B				
		NBL					42.7	E	66.7	F				
		NBR					10.4	B	10.9	B				

\* Indicate no vehicle volume present. \$ Indicates delays exceeding 1,000 seconds / vehicle  
 Note: Decreased delays are the result of improved progression and/or HCM weighting methodology

The results of the future conditions analysis indicates that all study intersection approaches and movements are expected to continue operating in a manner similar to the background conditions analysis, with minor increases in delays and no additional impacts to LOS. Additionally, the proposed site driveway is expected to operate acceptably, at LOS D or better during both peak periods, with the exception of the following:

**Highland Road (M-59) & Site Drive**

- During the AM peak hour: The northbound approach is expected to operate at LOS E.
- During the PM peak hour: The northbound approach is expected to operate at LOS F.

Review of SimTraffic network simulations during the AM peak hour indicates acceptable operations. Review of SimTraffic microsimulations during the PM peak hour indicates that vehicles existing the Site Drive approach experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues. These vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour. However, as identified during the existing conditions analysis, SimTraffic microsimulations do not account for motorists making two-stage left-turn movements; therefore, SimTraffic network simulations are providing a more conservative evaluation than what drivers can expect to experience.

**7.1 RIGHT-TURN TREATMENT EVALUATION**

The MDOT right-turn treatment criteria were evaluated at the proposed site driveway on Highland Road (M-59), with the addition of the site-generated traffic volumes. Note: There is currently an existing center two-way left-turn lane (TWLTL) present along Highland Road (M-59), adjacent to the project site; therefore, only the right-turn lane criteria was reviewed. This analysis was based on the future peak hour traffic volumes shown in the attached Figure 6. The results of the analysis are shown on the attached MDOT warranting chart and is summarized in Table 6.

**Table 6: Right-turn Treatment Criteria Evaluation Summary**

Intersection	Peak Period		Recommendation
	AM Peak Hour	PM Peak Hour	
Highland Road (M-59) & Site Drive	Right-Turn Lane	Right-Turn Lane	<b>Right-Turn Lane</b>

The result of the right-turn treatment evaluation indicates that a right-turn deceleration lane is warranted along eastbound Highland Road (M-59) at the proposed site driveway.



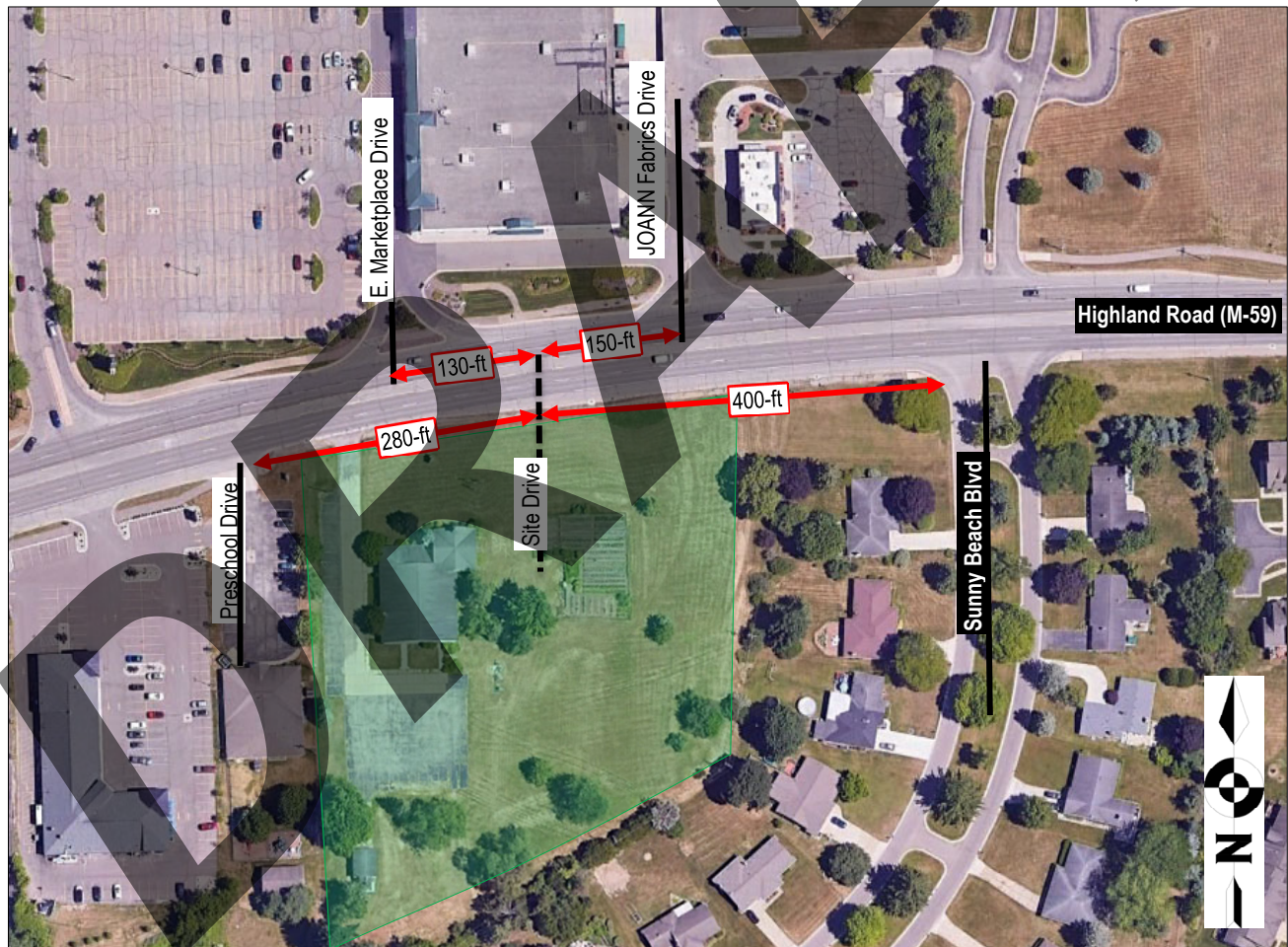
**7.2 DRIVEWAY SPACING EVALUATION**

The MDOT *Geometric Design Guidance* (Section 1.2.2) criteria were utilized to evaluate the location of the proposed site driveway, in relation to nearby intersections and access points within close proximity to the project site. The intersection corner clearance criteria were evaluated for the 50-mph section of Highland Road (M-59), adjacent to the project site. The distance of the proposed site driveway from nearby intersections and access points, and the warranting criteria are summarized in **Table 7** and displayed in **Exhibit 1**.

**Table 7: Desirable Corner Clearance Summary**

Adjacent Driveways & Intersections			Distance	Criteria	Meets
Site Drive	to	Preschool Drive	280 feet	455 feet	NO
Site Drive	to	Sunny Beach Boulevard	400 feet	170 feet	YES
Site Drive	to	JOANN Fabrics Drive	150 feet	750 feet	NO
Site Drive	to	ROSS Drive	130 feet	750 feet	NO

**Exhibit 1: Proposed Driveway Spacing**



The results of the driveway spacing analysis indicates that the location of the proposed site driveway on Highland Road (M-59) is not expected to meet the desirable MDOT spacing criteria, in relation to the nearby intersection and driveways. However, there is not sufficient property frontage to meet the recommended spacing criteria. Additionally, the site plan includes future cross access, stubbed at the property line to the west; this would provide improved site access, permitting cross access between the nearby developments on the south side of Highland Road (M-59), should the adjacent property be redeveloped. Furthermore, shared access was investigated and is not available with the Sunny Beach Boulevard neighborhood to the east.

### 8 FUTURE CONDITIONS WITH IMPROVEMENTS ANALYSIS

Mitigation measures were investigated in order to improve the study intersections and mitigate any of the impacts generated by the proposed development. The mitigation measures that were identified and the impacts to the study intersections are discussed below:

#### 8.1 HIGHLAND ROAD (M-59) & FISK ROAD

Signal timing optimizations were reviewed at the study intersection of Highland Road (M-59) & Fisk Road and were determined to adequately improve all approaches and movements to LOS D or better during the PM peak hour. Therefore, the following improvements are recommended:

- Optimize the signal timing splits during the PM peak hour.

#### 8.2 HIGHLAND ROAD (M-59) & SITE DRIVE

The proposed site plan includes shared access to the property to the west of the project site, which would reduce the projected delay for egress traffic; however, the property to the west would need to be redeveloped, in order to accommodate such a cross-access connection. Additionally, providing cross access with the Sunny Beach Boulevard neighborhood to the east would also reduce egress delays; however, this is not feasible. Therefore, since the egress delay cannot be reduced, the following improvement is recommended:

- Provide an eastbound right-turn lane along Highland Road (M-59) at the proposed Site Drive.

The results of the future improvements analysis, with the implementation of the recommended mitigation measures, are attached and summarized in **Table 8**.

**Table 8: Future Intersection Operations with Improvement**

Intersection	Control	Approach	Future Conditions				Future w/ IMP				Difference						
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak				
			Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS			
1 Highland Road (M-59) & Fisk Road	Signal	EBL	14.9	B	66.1	E	No Change				No Change			-12.7	E→D		
		EBT	30.3	C	19.1	B								29.2	C	10.1	B→C
		EBR	14.7	B	11.0	B								16.3	B	5.3	-
		WBL	16.8	B	12.4	B								16.3	B	3.9	-
		WBTR	24.6	C	27.6	C								50.9	D	23.3	C→D
		NBL	25.3	C	48.1	D								43.0	D	-5.1	-
		NBTR	23.3	C	38.0	D								34.1	C	-3.9	D→C
		SBL	27.3	C	67.6	E								52.8	D	-14.8	E→D
		SBTR	24.8	C	47.4	D								40.9	D	-6.5	-
		<b>Overall</b>	<b>27.3</b>	<b>C</b>	<b>30.3</b>	<b>C</b>								<b>42.3</b>	<b>D</b>	<b>12.0</b>	<b>C→D</b>
6 Highland Road (M-59) & Site Drive	Stop (Minor)	EB	Free				Free				N/A						
		WBL	13.3	B	13.3	B	13.3	B	13.3	B	0.0	-	0.0	-			
		NBL	42.7	E	66.7	F	39.2	E	63.1	F	-3.5	-	-3.6	-			
		NBR	10.4	B	10.9	B	10.4	B	10.9	B	0.0	-	0.0	-			

The results of the future conditions with improvements analysis indicates that, with the implementation of the recommended improvements, the study intersection approaches and movements are expected to operate acceptably, at LOS D or better during both peak periods, with the following exception:

#### Highland Road (M-59) & Site Drive

- During the AM peak hour: The northbound left-turn movement is expected to operate at LOS E.
- During the PM peak hour: The northbound left-turn movement is expected to operate at LOS F.

Review of SimTraffic network simulations indicates generally acceptable operations during both peak periods, with reduced queues from the background conditions analysis. However, as previously identified, SimTraffic microsimulations do not account for motorists making two-stage left-turn movements and therefore provides a more conservative evaluation than what drivers can expect to experience.

### 9 QUEUEING ANALYSIS

The drive-through vehicle queueing was reviewed to determine if the proposed on-site queue lengths provide adequate storage to accommodate the projected operations. The coffee-shop is expected to have a peak trip generation of 111 trips during the AM peak hour. Coffee-shops with drive-through typically have an average service rate of approximately 80 vehicles per hour (vph), with 80% of customers utilizing the drive-through. Therefore, of the total vehicles generated by the proposed coffee-shop during the peak period, it is estimated that approximately 89 vehicles will utilize the drive-through; the remaining vehicles will park and walk-in. The evaluation of the queue length included two criteria:

1. A queueing analysis was performed to determine if the projected demand of the site exceeds the service rate and calculate the projected queueing. The projected demand (89 vph) is greater than the service rate (80 vph) of the site; therefore, there is a potential for vehicles to queue past the pickup window, as the demand exceeds the capacity.
2. A Poisson Distribution was performed to determine the probability of random arrivals. The results indicate a maximum potential of five (5) vehicles arriving at any given time.

The results of the queueing analysis for the coffee shop are summarized in **Table 9**.

**Table 9: Coffee Shop Vehicle Queuing Analysis**

DRIVE-THROUGH STACKING SPACE CALCULATOR	
Number of Arrivals	89
Time per Vehicle (s)	45
Service Rate (veh/hr)	80
Drive-Through Queue (veh)	9
Peak Arrival (veh)	5
Vehicle Length	25
<b>TOTAL QUEUE (ft)</b>	<b>350</b>

### 10 CONCLUSIONS

The conclusions of this TIS are as follows:

#### 1. Existing Conditions (2024)

- The results of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better, during both the AM and PM peak hours, with the following exceptions:
  - Highland Road (M-59) & Fisk Road: The EB and SB left-turn movements are both currently operating at LOS E, during the PM peak hour. Review of SimTraffic network simulations indicates generally acceptable operations. Occasional periods of vehicle queues were observed; however, the majority were observed to be processed within each cycle length, leaving minimal residual vehicle queueing.
  - Highland Road (M-59) & W. Marketplace Drive: The NB approach and SB shared left/through lane are both currently operating at LOS F, during the AM peak hour. Additionally, the SB shared left/through lane is currently operating at LOS F, during the PM peak hour. Review of SimTraffic microsimulations indicates periods of long vehicle queues during the PM peak hour.
  - Highland Road (M-59) & JOANN Fabric Drive: The SB approach currently operates at LOS E, during the PM peak hour. This approach was designed to prohibit egress left-turns; however, the left-turns are causing the reported delay. The total volume of southbound egress traffic is very low (3 vehicles), which includes two (2) vehicles making an egress left-turn movement.



- Highland Road (M-59) & Sunny Beach Boulevard: The NB left-turn movement and the SB approach are both currently operating at LOS F, during both peak hours. Review of SimTraffic indicates generally acceptable operations during the AM peak hour. Review of SimTraffic during the PM peak hour indicates that vehicles along Sunny Beach Boulevard experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues along the minor street; these vehicle queues do not dissipate and were typically observed to persist throughout the PM peak hour.
- However, review of the TMC data collection videos indicates traffic is able to find adequate gaps within the through traffic; therefore, SimTraffic is providing a more conservative evaluation, as it does not account for motorists making two-stage left-turns

## 2. Background Conditions (2026 No Build)

- A conservative annual background growth rate of **0.5%** per year was utilized to project the existing 2024 peak hour traffic volumes to the site buildout year of 2026.
- The results of the background conditions analysis indicates that the study intersections are expected to continue operating in a manner similar to the existing conditions analysis, with minor increases in delays due increases in background traffic volumes.

## 3. Future Conditions (2026 Build)

- With the addition of the site-generated trips, the study intersections are expected to continue operating in a manner similar to the background conditions analysis, with no additional impacts to LOS.
- All approaches and movements at the proposed site driveway intersection with Highland Road (M-59) are expected to operate acceptably, at LOS D or better, during both the AM and PM peak hours, with the following exception:
  - Highland Road (M-59) & Site Drive: The NB approach is expected to operate at LOS E, during the AM peak hour, and at LOS F, during the PM peak hour. Review of SimTraffic network simulations during the PM peak hour indicates that vehicles existing the Site Drive approach experience difficulty in finding gaps within the through traffic along Highland Road (M-59), resulting in long vehicle queues.
  - However, as identified during the existing conditions analysis, SimTraffic does not account for motorists making two-stage left-turn movements and therefore provides a more conservative evaluation than what drivers can expect to experience
- Therefore, the results of the future conditions analysis indicates that the site-generated traffic volumes from the proposed development are expected to have a negligible impact to the delay (LOS) and vehicle queuing observed at the off-site study intersections along Highland Road (M-59).

## 4. Access Management

- The MDOT right-turn treatment criteria were evaluated at the proposed site driveway; the result of the analysis indicates that a right-turn lane is recommended along eastbound Highland Road (M-59) at the proposed Site Drive.
- The results of the driveway spacing analysis indicates that the location of the proposed site driveway on Highland Road (M-59) is not expected to meet the desirable MDOT spacing criteria, in relation to the nearby intersection and driveway.
  - However, there is not sufficient property frontage to meet the recommended spacing criteria. Additionally, the site plan includes proposed future cross access, stubbed at the property line to the west; this would provide improved site access, permitting this cross access between the nearby developments on the south side of Highland Road (M-59), should the adjacent property ever be redeveloped. Furthermore, shared access was investigated and is not available with the Sunny Beach Boulevard neighborhood to the east.



**5. Future Conditions with Improvements**

- Signal timing optimizations were reviewed and were determined to adequately improve the signalized study intersection of Highland Road (M-59) & Fisk Road to LOS D or better during the PM peak hour. Additionally, the vehicle queues at the signalized study intersection were observed to be reduced, with the implementation of the recommended mitigation measures.

**6. Drive-Through Queueing Evaluation**

- The results of the drive-through queueing evaluation indicates that the proposed site plan can adequately accommodate the projected vehicle queueing associated with the proposed coffee-shop, without impacting internal site circulation or the operations along Highland Road (M-59).

**11 RECOMMENDATIONS**

*The recommendation of this TIS are as follows:*

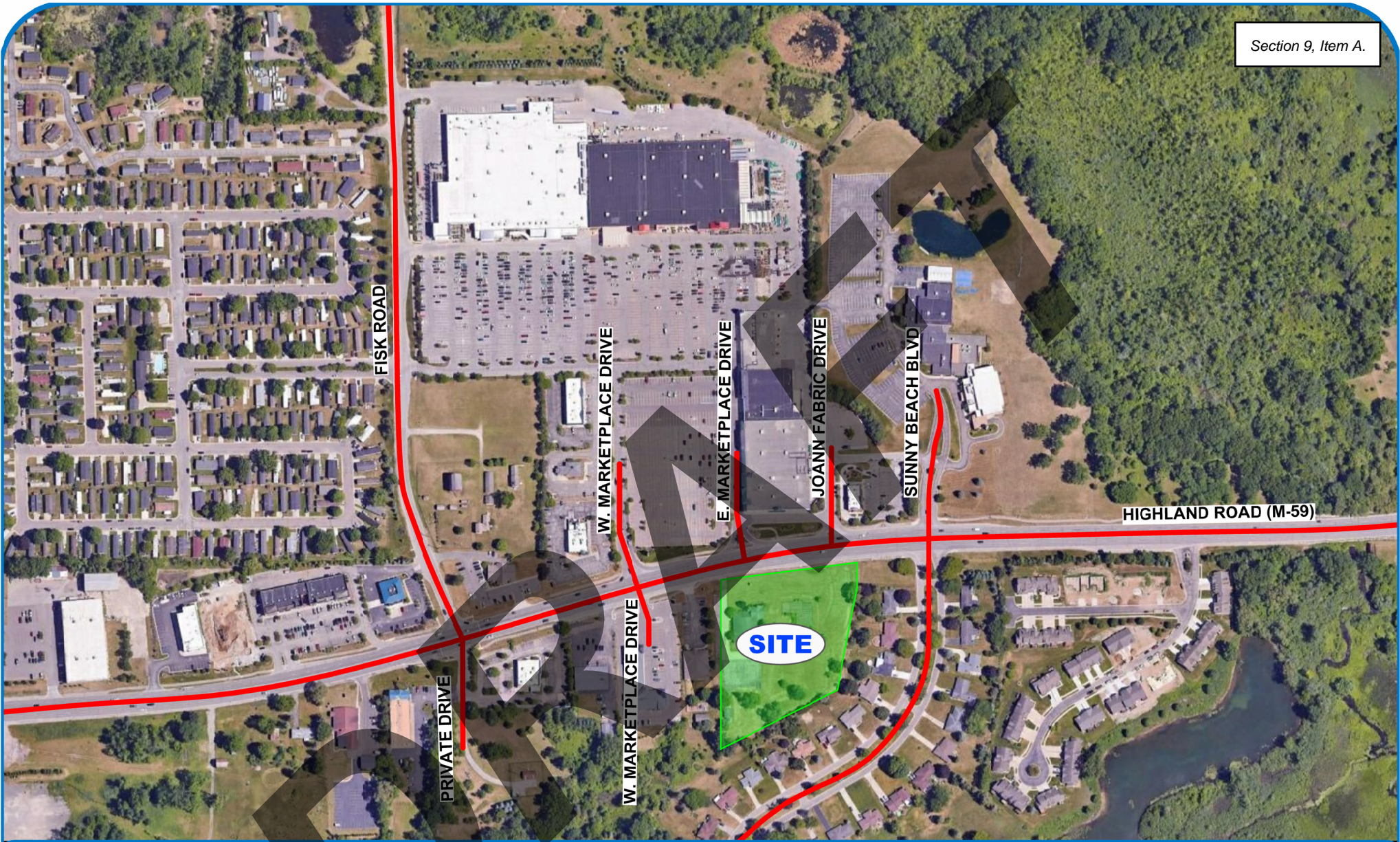
- Provide an eastbound right-turn lane along Highland Road (M-59) at the proposed Site Drive.
- Optimize the PM peak hour signal timing at the Highland Road (M-59) & Fisk Road intersection.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

- Attachments:** Figures 1 – 6  
Proposed Site Plan  
Traffic Volume Data  
Signal Timing Permits  
Synchro / SimTraffic Results  
Auxiliary Lane Warrants





**FIGURE 1**  
**SITE LOCATION**

9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

LEGEND

 SITE LOCATION





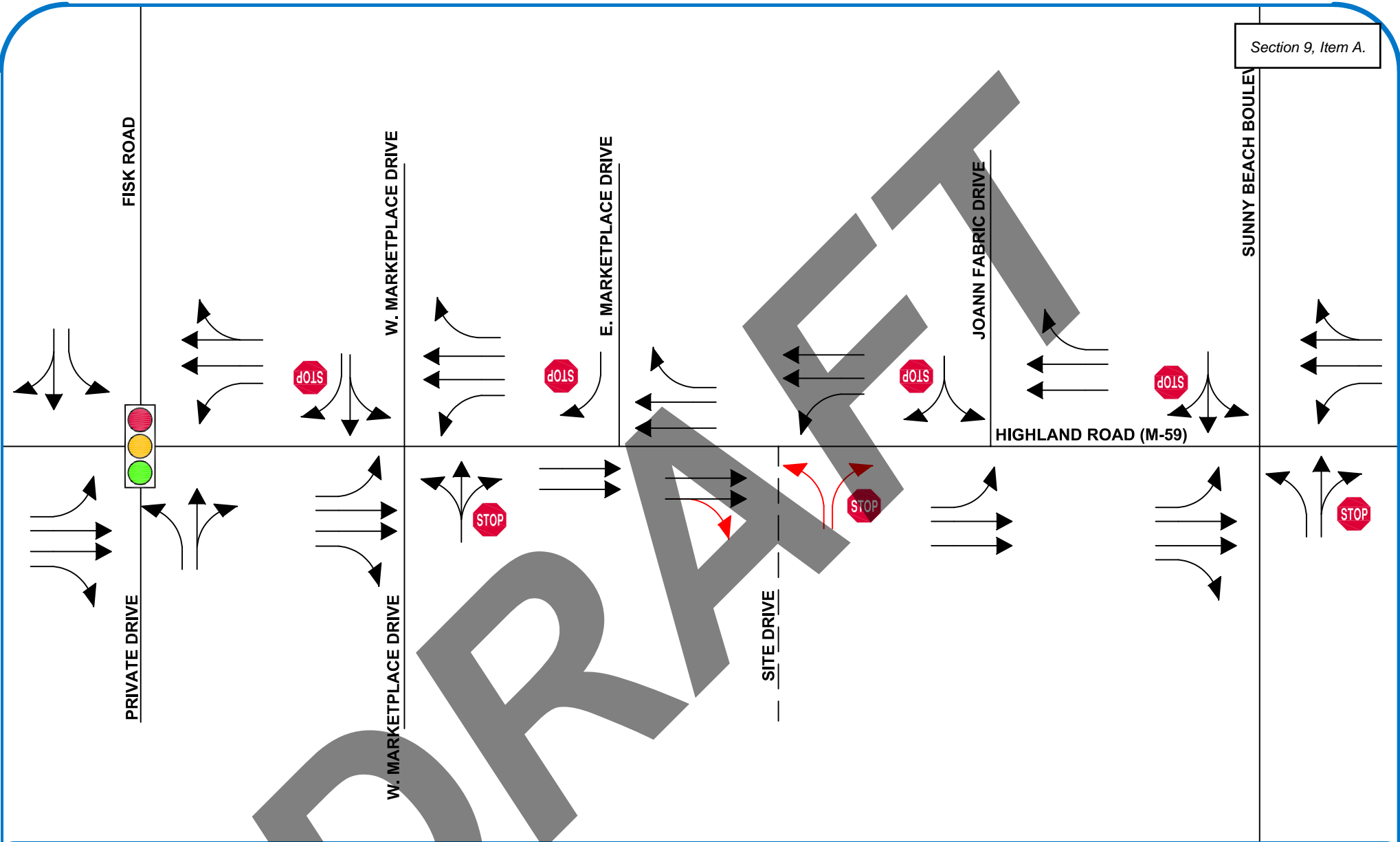


FIGURE 2

LANE USE AND TRAFFIC CONTROL

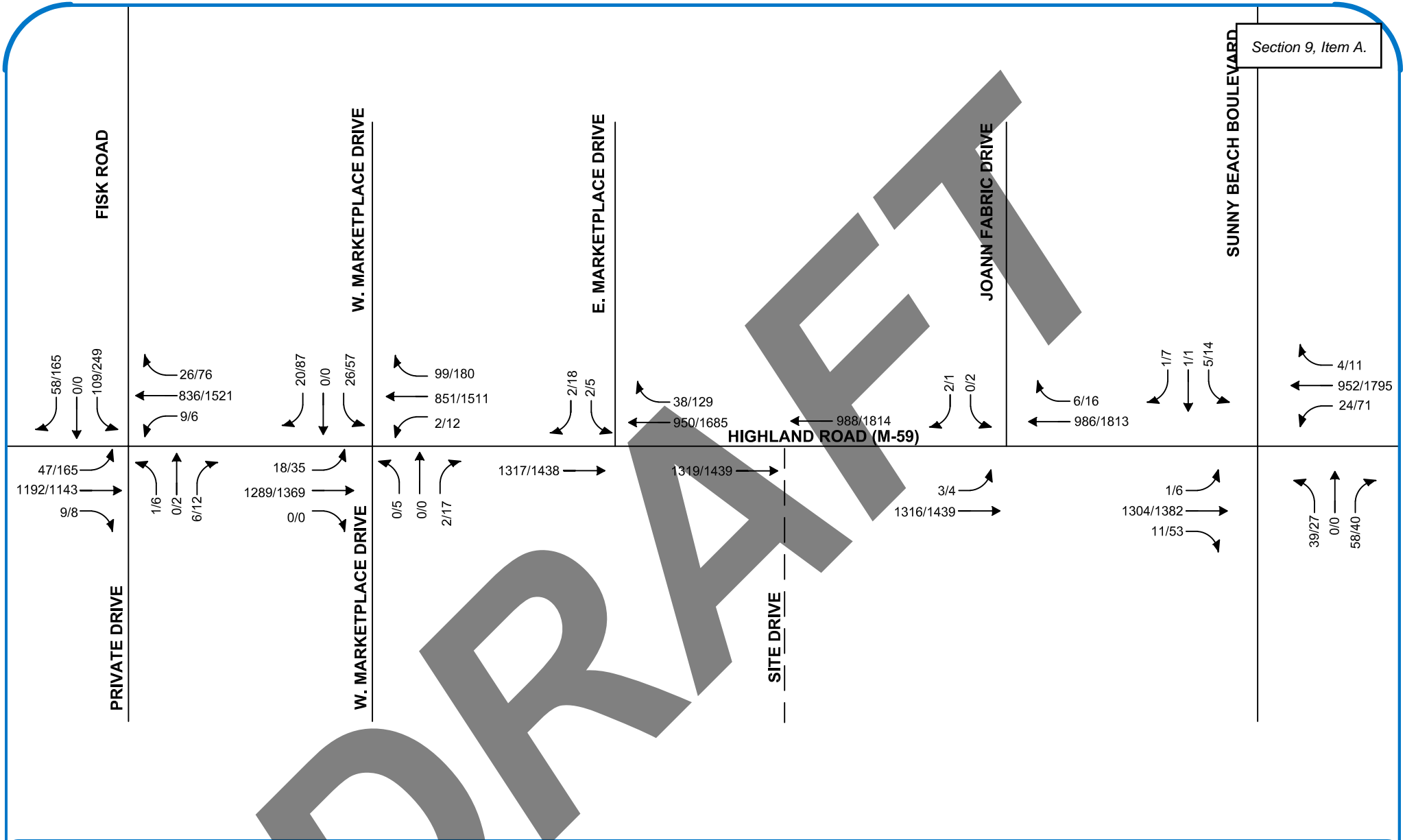
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

LEGEND

- ROADS
- PROPOSED ROADS
- LANE USE
- PROPOSED LANE USE
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION



NOR  
SCALE: NOT 275



**FIGURE 3**

**EXISTING (2024) TRAFFIC VOLUMES**

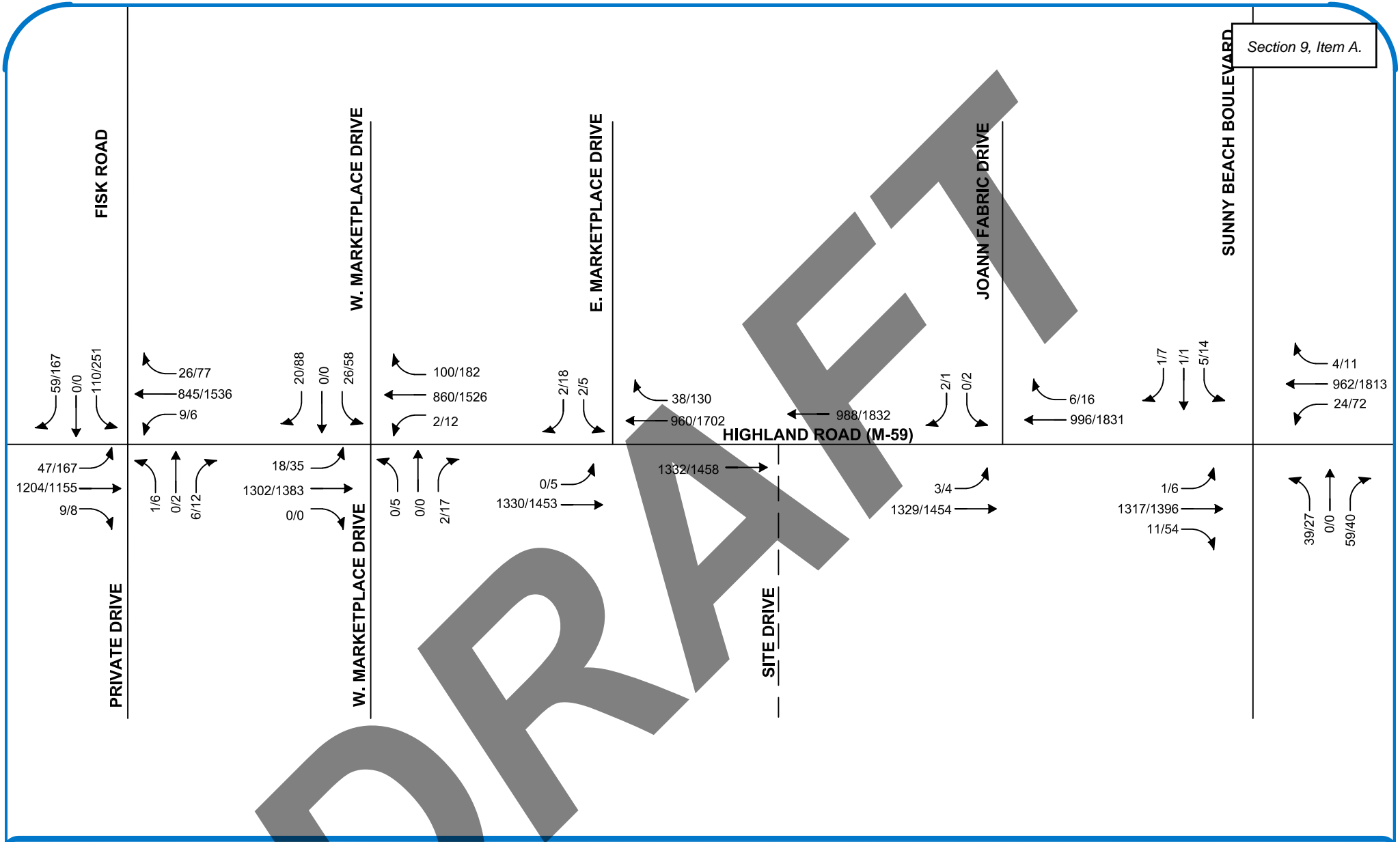
9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

**LEGEND**

- ROADS
- - - PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)





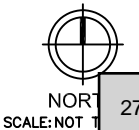


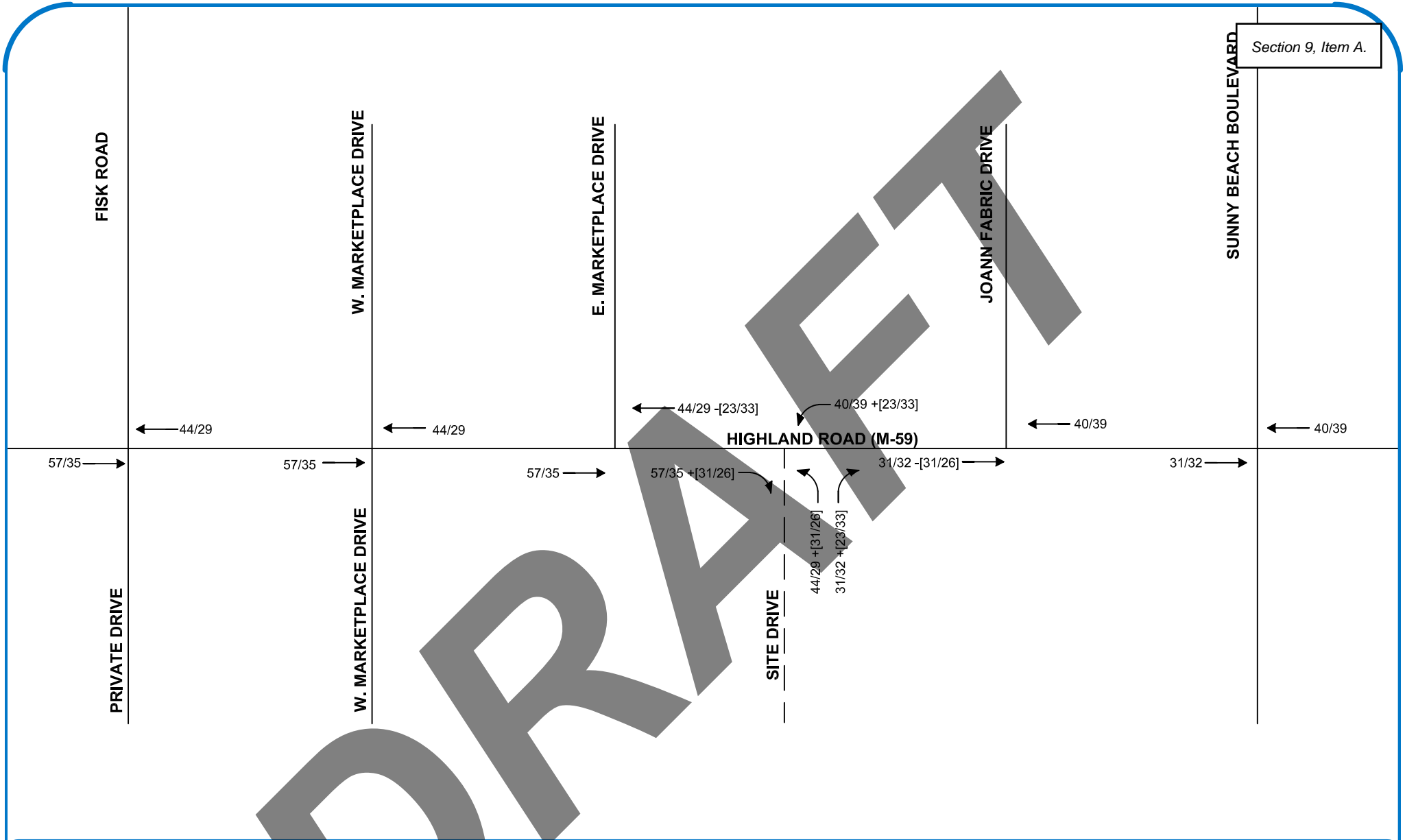
**FIGURE 4  
BACKGROUND (2026)  
TRAFFIC VOLUMES**

9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

**LEGEND**

- ROADS
- - - PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)





**FIGURE 5**  
**SITE-GENERATED**  
**TRAFFIC VOLUMES**

9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

**LEGEND**

- ROADS
- - - PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- +/-[000/000] PASS-BY [AM/PM]



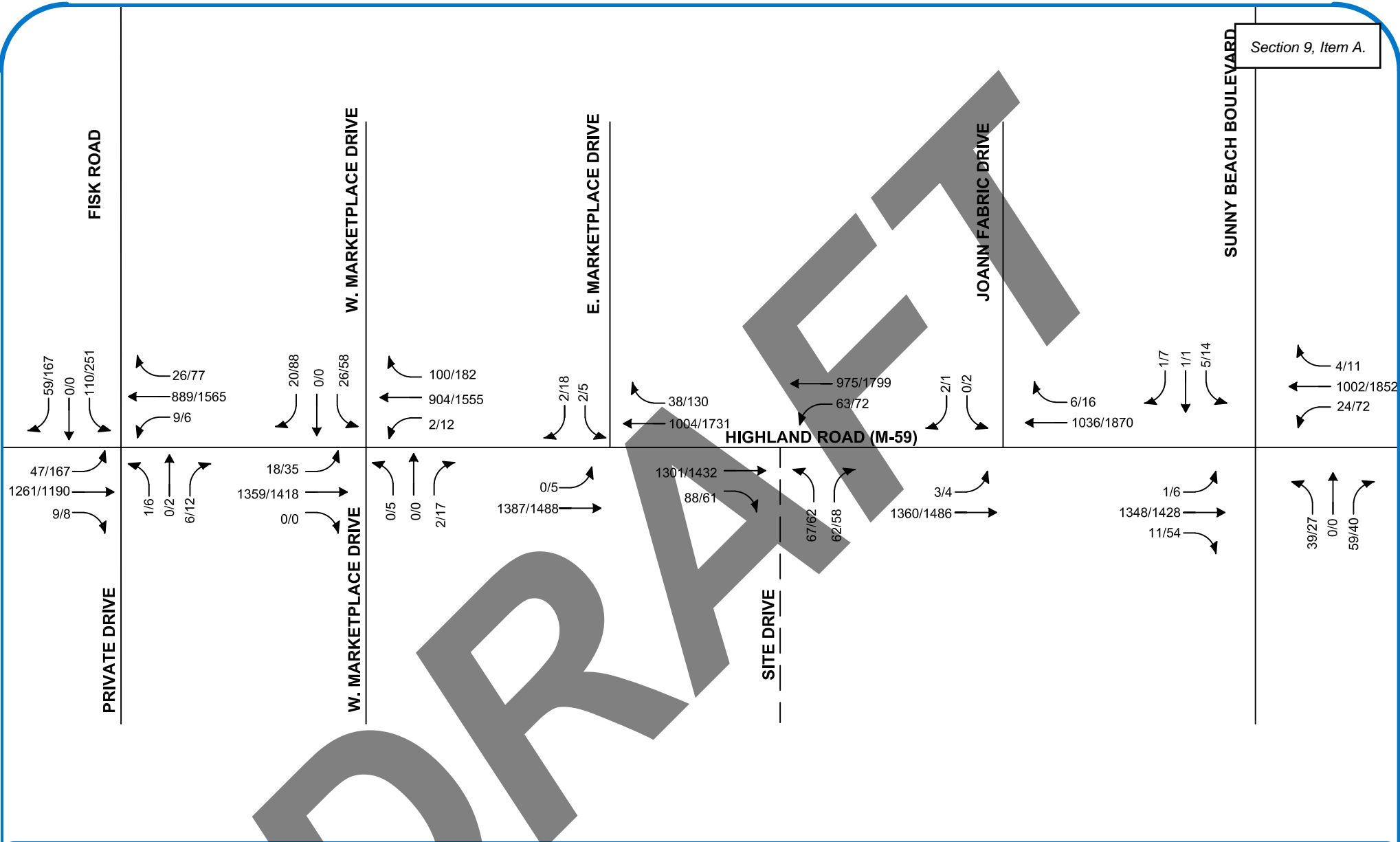


FIGURE 6

FUTURE (2026) TRAFFIC VOLUMES

9101 HIGHLAND ROAD TIS - WHITE LAKE TOWNSHIP, MI

LEGEND

- ROADS
- - - PROPOSED ROADS
- ↑↑↑ TRAFFIC VOLUMES (AM/PM)



NORTH  
SCALE: NOT TO

**WHITE LAKE TOWNSHIP  
INTER-OFFICE MEMORANDUM  
COMMUNITY DEVELOPMENT DEPARTMENT**

**DATE:** January 17, 2025

**TO:** Rik Kowall, Supervisor  
Township Board of Trustees

**FROM:** Sean O’Neil, AICP  
Community Development Director

**SUBJECT: 4001 Caron Ridge Rezoning Request**  
Location: Property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive), located south of Jackson Boulevard, between Ormond Road and McKeachie Road, consisting of approximately 40.95 acres.  
Request: **Applicant requests to rezone the property from R1-A (Single Family Residential) to SF (Suburban Farm) or any other appropriate zoning district.**

---

The rezoning request was considered by the Planning Commission at their regular meeting on January 16, 2025, at which time the **Planning Commission recommended approval of rezoning to parcel to GB (Suburban Farm)**. Please find enclosed the following related documents:

- ❑ Draft minutes of the January 16, 2025, Planning Commission meeting.
- ❑ Review letter prepared by Andrew Littman, Staff Planner, dated December 2, 2024.
- ❑ Rezoning application submitted by the applicant.
- ❑ Public hearing notice.

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.



**WHITE LAKE TOWNSHIP  
PLANNING COMMISSION  
JANUARY 25, 2025**

**CALL TO ORDER**

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

**ROLL CALL**

**Present:**

T. Joseph Seward, Chairperson  
Merrie Carlock, Vice Chairperson  
Mona Sevic  
Robert Seeley  
Debby Dehart (late arrival)

**Absent:**

Scott Ruggles, Township Board Liaison  
Pete Meagher

**Others:**

Sean O'Neil, Community Development Director  
Matteo Passalacqua, Carlisle and Wortman  
Kyle Gall, DLZ  
Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF THE AGENDA**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock to approve the agenda as presented. The motion carried with a voice vote: (4 yes votes).**

**APPROVAL OF MINUTES**

A. December 5, 2024

**MOTION by Commissioner Carlock, seconded by Commissioner Seeley to approve the minutes as presented. The motion carried with a voice vote: (4 yes votes).**

**CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)**

None.

**PUBLIC HEARING**

**A. Caron Ridge Drive Rezoning**

Location: Property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive), located south of Jackson Boulevard, between Ormond Road and McKeachie Road, consisting of approximately 40.95 acres.

Request: **Applicant requests to rezone the property from R1-A (Single Family Residential) to SF (Suburban Farm) or any other appropriate zoning district.**

Director O'Neil summarized Staff Planner Littman's review.

Commissioner Carlock asked staff if the house on the property was accessed from Caron Ridge Drive. Director O'Neil confirmed; Caron Ridge Drive is stubbed off Marie Meadows Drive.

Jeremy Latozas, 4001 Caron Ridge, stated he would use the proposed pole barn to store vehicles for personal use.

Chairperson Seward opened the public hearing at 6:39 P.M.

Cody Anderson, 2980 Steeple Hill, wanted to keep the subject property undeveloped and was in favor of the applicant's proposal.

David Brown, 3551 Marie Meadows Drive, had no objections to the applicant's request.

Brandon Chambers, 3049 Steeple Hill Road, looked forward to the property staying in its current state.

James Allen, 3701 Apple Grove, favored the applicant's request.

Chairperson Seward closed the public hearing at 6:42 P.M.

Member Dehart stated that the applicant came before the ZBA, and the surrounding properties are zoned Suburban Farm. It made sense to her to rezone the property and build on it in compliance with the Suburban Farm zoning district.

**MOTION by Commission Seeley, seconded by Commissioner Sevic to recommend the Township board rezone the property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive) from R1-A Single Family Residential to Suburban Farm. The motion carried with a voice vote: (5 yes votes).**

**CONTINUING BUSINESS**

None.

**NEW BUSINESS**

**A. 9101 Highland Development**

Location: Property described as 9101 Highland Road, identified as parcel number 12-23-227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.

Request: **Revised preliminary site plan approval recommendation**

Mr. Passalacqua summarized his review memo.

Mr. Gall reviewed the DLZ letter.

Erin McMachen, Stonefield Engineering & Design, was present. She stated that the plans have been changed based on the comments at the last Planning Commission meeting. The fence line will be placed

on the 20' residential setback. There will be zero light spillover on the residential properties, and a good portion of the site will remain green space.

Commissioner Carlock asked if there would be a long-term maintenance plan for the landscaping plan. Director O'Neil said if the neighbors decide to move the fence between now and the final site plan, it could be discussed at that time. Ms. McMachen said she is welcome to receive feedback from the neighbors regarding fence material and location.

**MOTION by Commissioner Dehart, seconded by Commissioner Seeley, to recommend the Township Board approve the revised preliminary site plan for 9101 Highland Development, identified as parcel number 12-23-227-003, subject to consideration of landscaping and fencing comments, and subject to staff and consultant comments. The motion carried with a voice vote: (5 yes votes).**

**B. Panera**

Location: Located on the north side of Highland Road (M-59) and west of Bogie Lake Road and identified as parcel number 12-20-276-035. The project area on the parcel consists of approximately 1.63 acres. Currently zoned PB (Planned Business District).

Requests: **1) Final site plan approval**

**2) Planned development agreement approval recommendation**

Director O'Neil stated that Panera received preliminary site plan approval a year and a half ago. During that time, the plans have been revised slightly. The building was revised from a two-unit building to a four-unit building. He felt it made sense to move forward with the final site plan at this time due to the site remaining largely the same.

Mr. Gall summarized the DLZ letter. He added that the driveway alignment with Culver's has been moved to the east and it was recommended to align Panera's driveway location better with the Culver's driveway. The driveway realignment can be worked on before final engineering approval.

Mr. Passalacqua reviewed his letter. The building size was increased slightly. A landscaping waiver would be needed; however, the waiver could be eliminated by planting landscaping around the dumpster enclosure.

Mitchell Harvey, Stonefield Engineering, was present. He stated the previous preliminary site plan was similar to the plan shown tonight. The challenge with the site is the existing topography, especially the grade changes. The driveway was shifted further east to avoid the retaining wall and major fill to the site. The shift allowed a reduction in the retaining walls. Culver's has agreed to the cross-access easement. The sidewalk will be tied into the ring road to connect to further east and west developments. 46 new trees and 286 shrubs will be added across the site. The existing mature trees on the site will remain, and the brush and bushes will be removed. Additional trees will be supplemented to maintain the green strip along Highland Road. The façade will be largely masonry and glazed windows on the south side of the building, The orientation of the building has remained unchanged, Panera and the other tenants will face south. The signage will be visible along Highland Road. He wanted to maintain the

façade facing the same way as the property to the east. He said he was working with the Fire Marshal on the 20' drive aisle to the east.

**MOTION by Commissioner Seeley, seconded by Commissioner Sevic, to approve the final site plan for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to enhanced landscaping instead of spanning glass windows, and subject to addressing the remaining comments from staff and consultants, and giving staff the authority to approve recommended changes. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock, to recommend the Township Board approve the PBD for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to resolution of all of the outstanding PBD comments. The motion carried with a voice vote: (5 yes votes).**

**OTHER BUSINESS**

- A. Bryan Ede - Conceptual Presentation

Bryan Ede was present and shared his presentation with the Planning Commission.

- B. Election of Officers and Selection of Liaisons

**MOTION by Chairperson Seward, seconded by Commissioner Seeley to appoint Merrie Carlock to chair the Planning Commission. The motion carried with a voice vote : (5 yes votes)**

**MOTION by Commissioner Seward, seconded by Commissioner Sevic to appoint Robert Seeley as vice chair of the Planning Commission. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commission Seward, seconded by Commissioner Seeley to appoint Debby Dehart as secretary. The motion carried with a voice vote: (5 yes votes).**

**MOTION by Commissioner Seward, seconded by Commissioner Seward to maintain the liaisons as Merrie Carlock and Debby Dehart for Parks and Recreation and ZBA respectively. The motion carried with a voice vote: (5 yes votes).**

**LIAISON'S REPORT**

The bids were opened for the Stanley Park Phase 1 construction. There were five bidders. The two lowest bidders were Cortis Brothers and Eagle Excavating. Post-bid interviews will be conducted next week. Scott Rolando was appointed to the Parks and Recreation Committee. The Committee was looking at new grant projects. Hess Hathaway Park had to eliminate all their birds due to bird flu.

The ZBA will meet next week. Five cases are on the agenda.

**DIRECTOR'S REPORT**



The Board met on Monday to pass resolutions to move forward and redo the bond process for the Civic Center. The damaged light on Elizabeth Lake Road will be replaced. The foundations are being poured at the Public Safety site. The work is resuming at the Civic Center site.

**NEXT MEETING DATE: February 20, 2025**

**ADJOURNMENT**

**MOTION by Commissioner Dehart, seconded by Commissioner Sevic, to adjourn at 8:45 P.M. The motion carried with a voice vote (5 yes).**

DRAFT

# WHITE LAKE TOWNSHIP PLANNING COMMISSION

## REPORT OF THE COMMUNITY DEVELOPMENT DEPARTMENT

### Rezoning Review



**Applicant:** Jeremy Latozas

**Project Name:** 4001 Caron Ridge Drive Rezoning

**Parcel ID:** 12-08-300-062

**Parcel Size:** 40.95 Acres

**Application Date:** December 2, 2024

**Current Zoning:** R1-A, Single Family Residential District

**Action Requested:** Rezone to SF, Suburban Farms District

### Project Description

The Applicant is requesting to rezone a 40.95-acre parcel from R1-A (Single Family Residential) to SF (Suburban Farms). The site, which is located south of Jackson Boulevard and west of Caron Ridge Drive, consists of a 1,028 square-foot single family home and undeveloped vacant land. This rezoning is being sought to be able to construct a 4,000 square-foot accessory structure. While Section 5.7.C of the Zoning Ordinance limits the size of accessory structures in residential districts to 125 percent of the ground floor area of the principal building, which would only allow the Applicant to construct a 1,285 square foot accessory structure, this size limitation does not apply to accessory structures in the SF (Suburban Farms) zoning district.

As a matter of history, in 1995 the subject site was part of 104 acres that was rezoned from AG (Agricultural) and SF (Suburban Farms) to R1-A (Single Family Residential) for the purpose of developing residential subdivisions. Although a part of the 104 acres was developed, the 40.95 acres of the subject site were not.



Aerial Photograph of Site (Source: Google Earth)

**Neighboring Zoning and Land Use**



The zoning map (shown above) and table (shown below) illustrate that rezoning the subject site to the SF zoning district would be consistent with the zoning classifications of surrounding land.

Direction	Zoning	Existing Use
Site	R1-A (Single Family Residential)	Single Family Home / Vacant
North	SF (Suburban Farms) / R1-A (Single Family Residential)	Single Family Homes
South	R1-D (Single Family Residential)	Grass Lake / Vacant
East	R1-A (Single Family Residential)	Single Family Homes / Vacant
West	SF (Suburban Farms) / AG (Agricultural)	Single Family Homes / Vacant

Additionally, the subject site can conform to SF zoning district development standards. Per Section 3.1.2 of the Zoning Ordinance, the SF district requires a minimum lot area of 2 acres and minimum lot width of 165 feet. The Applicant can easily meet these requirements, as the subject site is over 40 acres in area and has a lot width of 460 feet at its narrowest point. Furthermore, single-family detached dwellings (the existing land use of the subject site) are permitted by right in the SF zoning district.



## Natural Features

The Applicant did not provide any information related to the site’s natural features. Below is our observed condition of the site:

Topography: The site has varied terrain, with gently rolling hills in the north, a relatively flat middle section, and a steep declivity into Grass Lake in the south.

Wetlands: According to the Michigan Department of Environment, Great Lakes and Energy, wetlands stretch across the southern section of the parcel where land directly abuts Grass Lake.

Woodlands: Dense tree canopy coverage is concentrated on land adjacent to Grass Lake, and there is moderate tree canopy coverage in the northeast and midwest sections of the site.

Soils: Predominant soils are Leoni Gravelly Sandy Loam and Fox Sandy Loam

## Master Plan

### Future Land Use Map



### Future Land Use Designation

- Recreation / Open Space
- Agriculture / Rural Residential
- Suburban Residential

When evaluating a rezoning request, the Township should not only review the Master Plan’s Future Land Use Map, but also the broader goals and strategies of the Plan. As shown above, the subject

site has a future land use designation of “Suburban Residential.” This designation is intended to provide for large lot, low density residences with open space in residential subdivisions. Examples of appropriate uses in Suburban Residential areas include large-lot single family homes, parks, churches, and public facilities or institutions. A table in the Master Plan immediately before the future land use map lists R1-A and R1-B as the corresponding zoning districts to the Suburban Residential future land use.

Although the SF zoning district is not entirely consistent with the suburban residential future land use designation, the goals and strategies of the Master Plan appear to support rezoning this parcel from R1-A to SF. One primary goal is to preserve the rural character of the Township, which is to be achieved by concentrating residential development south of M-59 while preserving agricultural land north of M-59 (page 94 of the 2024 Master Plan). Although the applicant is not seeking to rezone to the “Agricultural” zoning district, the Master Plan affirms that the Suburban Farms zoning district “proves effective to encourage agrarian uses and preserve the rural character of the Township with large lot sizes” (page 95).

## Rezoning Standards

Section 7.13 of the White Lake Township Zoning Ordinance lists the criteria for evaluating a rezoning request. Our analysis of each criterion is as follows:

- A. Consistency with the goals, policies and future land use map of the White Lake Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area.*

Rezoning the subject site from R1-A to SF is consistent with preserving agricultural land and the rural character of the Township, which is one of the overarching goals of the Master Plan. Moreover, the SF zoning designation is consistent with the site’s Suburban Residential future land use designation in that it encourages larger lots, lower density residential development, and open space preservation.

- B. Compatibility of the site’s physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district.*

The site’s physical, geological, hydrological, and other environmental features are compatible with the uses permitted in the SF zoning district. Moreover, it should be noted that the site’s physical and environmental features (most notably its large size, hilly topography, and tree canopy) are more characteristic of Township properties zoned SF than Residential.

- C. Evidence the applicant cannot receive a reasonable return on investment through developing the property with one (1) of the uses permitted under the current zoning.*

Since the subject property has a residential land use, this criterion does not apply.

- D. The compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values.*

Rezoning the subject site to SF would result in it being compatible with neighboring properties. Property surrounding the subject site is either zoned R1-A or SF, and the uses permitted in these two zoning districts are nearly identical. Additionally, since the SF zoning district allows for lower density, it could result in lower environmental and traffic impacts, as well as less usage of Township infrastructure.

- E. The capacity of Township utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the “health, safety and welfare” of the Township.*

The uses permitted in the SF zoning district are the same or less intense than those permitted in R1-A zoning district, and therefore the proposed rezoning would not result in greater use of Township utilities or services.

- F. The capacity of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.*

Since the uses permitted in the SF zoning district are the same or less intense than those permitted in R1-A zoning district, the proposed rezoning would not result in an increase in traffic. A traffic study is not required under these circumstances.

- G. The apparent demand for the types of uses permitted in the requested zoning district in relation to the amount of land in the township currently zoned and available to accommodate the demand.*

This criterion is not relevant since the permitted uses in the SF and R1-A zoning districts are nearly identical.

- H. The boundaries of the requested rezoning district are reasonable in relationship to its surroundings, and construction on the site will be able to meet the dimensional regulations for the zoning district listed in the Schedule of Regulations.*

Although of above-average size, the boundaries of the subject site are not unreasonable compared to surrounding parcels. Moreover, any construction on this 40+ acre site will obviously be able to meet dimensional standards

- I. *The requested zoning district is considered to be more appropriate from the township’s perspective than another zoning district.*

Given the parcel’s physical features and history, as well as the zoning designations of surrounding properties and the Master Plan’s key objective to preserve the rural character of the Township, staff’s position is that the more appropriate zoning designation for the subject parcel is SF.

- J. *If the request is for a specific use, is rezoning the land more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use?*

This request does not concern a specific use, so this criterion does not apply.

- K. *The requested rezoning will not create an isolated and unplanned spot zone.*

Since the parcels to the immediate west of subject site are zoned SF, the proposed rezoning would not create an isolated or unplanned spot zone.

- L. *The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided.*

This is a new rezoning request.

- M. *An offer of conditions submitted as part of a conditional rezoning request shall bear a reasonable and rational relationship to the property for which rezoning is requested.*

No conditions are being requested, so this criterion does not apply.

- N. *Other factors deemed appropriate by the Planning Commission and Township Board.*

N/A

**Recommendation**

Given the parcel’s physical features and history, as well as the zoning designations of surrounding properties and the Master Plan’s key objective to preserve the rural character of the Township, we recommend approval of the proposed rezoning from R1-A (Single Family Residential) to SF (Suburban Farms).

Respectfully submitted,

*Andrew Littman*

Andrew Littman  
Township Planner



CHARTER TOWNSHIP OF WHITE LAKE  
COMMUNITY DEVELOPMENT DEPARTMENT  
7525 Highland Road, White Lake, Michigan 48383-2900  
248-698-3300, Ext. 163

**APPLICATION TO REZONE PROPERTY**

Date: 12.02.2024

Applicant: Jeremy Latozas

Address: 4001 Caron Ridge Dr. White Lake, MI 48383

Phone No.: 248.789.7014 Fax No.: \_\_\_\_\_

E-mail: specialtyfleetservicesllc@gmail.com

Applicant's Interest in Property: Owner

Property Owner: Jeremy Latozas

Owner's Address: 4001 Caron Ridge Dr. White Lake, MI 48383

Phone No.: 248.789.7014 Fax No.: \_\_\_\_\_

Location of Property: 4001 Caron Ridge Dr. White Lake, MI 48383

Sidwell No(s): 12-08-300-062

Total area of change: 40.95 acres

I, the undersigned (owner, attorney, or option holder) hereby request that this property now classified as R1-A Single Family Res. District, be reclassified as SF Suburban Farm District.

Applicant's Signature: \_\_\_\_\_  
(If owner does not sign application, attach letter signed by owner, requesting zoning change.)

Please Print Name: Jeremy Latozas

**Required Attachments:**

- x \_\_\_\_\_ 1. Legal description of the property proposed to be rezoned.
- X \_\_\_\_\_ 2. Location map
- X \_\_\_\_\_ 3. Rezoning sign location map
- X \_\_\_\_\_ 4. Statement indicating why change is requested
- X \_\_\_\_\_ 5. Review fee (check payable to the Charter Township of White Lake)







December 9, 2024

White Lake Township Planning Department  
 Andrew Littman, AICP  
 Staff Planner  
 7525 Highland Rd.  
 White Lake, MI 48383

RE: 4001 Caron Ridge Dr – Request for size variance for Accessory Structure

Mr. Littman,

Jeremy and Jordana Latozas, and Jerry LaForest, have retained Designhaus Architecture to seek the rezoning of their property at 4001 Caron Ridge Dr. The property is currently zone R1-A Single Family Residential, and they wish to rezone it to SF Suburban Farm.

The property at 4001 Caron Ridge Dr is a 40.95-acre parcel located in White Lake Township. The parcel is zoned R1-A Single Family Residential. There is a single-family home on the parcel that is 32' x 32' or 1,028 square feet in size.

This parcel went before the White Lake Township Zoning Board of Appeals on November 14<sup>th</sup>, 2024, for a variance for the allowable size of an accessory structure on the property. At this meeting, it was recommended that the parcel be rezoned to SF-Suburban Farm rather than granted the variance for the size of the proposed accessory structure.

The White Lake Township Zoning Ordinance, section 3.1.3, states the intent of the R1-A Single Family District; *Section 3.1.3.A - Intent: The Single-Family Residential Districts are established as districts in which the principal use of land is for single family dwellings, located in neighborhoods that include open space and that preserve sensitive natural environmental features.* The characteristics of this parcel do not fit the language of section 3.1.3 because the parcel is not the size or typography of a typical “neighborhood” lot.

The parcel and its size more closely fit the characteristics of the SF Suburban Farm zoning district per section 3.1.2 of the White Lake Township Zoning Ordinance; *Section 3.1.2.A – Intent: The Suburban Farms District is created to establish areas of the Township for single family residences in a rural environment characterized by low densities and significant open spaces.* This 40.95 acre parcel is a rural environment with low density and significant open space as opposed to a neighborhood.



This parcel is adjacent to other parcels of large size that are zoned SF-Suburban Farm and AG-Agricultural. The Rezoning of this parcel from R1-A Single Family Residential to SF Suburban Farm will not create a "SPOT" zone with unlike zoning districts adjacent to each other, instead, it will provide more continuity of the appropriate zoning districts per parcel size and use.





We believe the rezoning of this parcel from R1-A Single-Family District to SF-Suburban Farm is appropriate. This is due to the characteristics of the parcel meeting the intent of the SF-Suburban Farm district and the adjacent areas and parcels that are already zoned SF-Suburban Farm.

Thank you for your consideration and I am available to discuss this matter further. I can be reached at 248-601-4422 or via email at [joe@designhaus.com](mailto:joe@designhaus.com).

Regards,

Joe Latozas  
Senior Vice President  
Designhaus, LLC

CC:           Jeremy Latozas  
                Jordana Latozas  
                Jerry LaForest

**PARCEL 12-08-300-062**

PART OF SE 1/4 OF SECTION 7 & PART OF SW 1/4 OF SECTION 8, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN. DESCRIBED AS BEGINNING AT A POINT LOCATED N 87°02'04" E 520.00 FT FROM THE W 1/4 CORNER OF SAID SECTION 8, T3N, R8E; TH CONTINUING N 87°02'04" E 165.00 FT; TH S 02°57'56" E 324.00 FT; TH N 87°02'04" E 450.00 FT; TH S 02°57'56" E 156.28 FT; TH S 87°02'04" W 184.00 FT; TH S 02°57'56" E 579.72 FT; TH S 87°02'04" W 48.31 FT; TH S 02°57'56" E 167.74 FT; TH S 23°43'25" E 143.17 FT; TH ALONG A CURVE TO LEFT 51.38 FT, SAID CURVE HAVING A RADIUS OF 351.97 FT AND A LONG CHORD BEARING OF S 66°04'43" W 51.34 FT; TH S 17°18'38" E 30.46 FT; TH ALONG A CURVE TO THE RIGHT 185.28 FT, SAID CURVE HAVING A RADIUS OF 210.00 FT AND A LONG CHORD BEARING OF S 88°43'43" W 179.33 FT; TH ALONG A CURVE TO THE LEFT 180.80 FT, SAID CURVE HAVING A RADIUS OF 449.19 FT AND A LONG CHORD BEARING OF N 77°31'37" W 179.58 FT; TH N 89°03'28" W 128.56 FT; TH S 02°18'42" E 1103.77 FT; TH N 87°10'40" E 878.24 FT; TH S 01°54'40" E 217.80 FT; TH S 87°10'40" W 1301.05 FT; TH N 53°16'41" W 30.33 FT; TH N 38°09'22" W 371.47 FT; TH N 02°13'28" W 582.14 FT; TH N 88°04'12" E 216.65 FT; TH N 02°18'42" W 1107.02 FT; TH N 88°07'34" E 519.98 FT; TH N 02°18'42" W 669.91 FT TO THE POINT OF BEGINNING. EXCEPTION BEGINNING A POINT LOCATED N 87°02'04" E 520.00 FT FROM THE W 1/4 CORNER OF SAID SECTION 8, T3N, R8E; TH CONTINUING N 87°02'04" E 165.00 FT; TH S 02°57'56" E 324.00 FT; TH S 87°02'04" W 168.70 FT; TH N 02°18'42" W 324.02 FT TO THE POINT OF BEGINNING. CONTAINING 40.95 ACRES.

# WHITE LAKE TOWNSHIP NOTICE OF PUBLIC HEARING

*Section 9, Item B.*

Notice is hereby given the Planning Commission of White Lake will hold a public hearing on **Thursday, January 16, 2025, at 6:30 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan 48383, to consider the following changes to the zoning map:

Property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive), located south of Jackson Boulevard, between Ormond Road and McKeachie Road, consisting of approximately 40.95 acres.

The applicant requests to rezone the property from R1-A (Single Family Residential) to SF (Suburban Farm) or any other appropriate zoning district.

Persons interested are requested to be present. Pertinent information relative to this rezoning request is on file at the Community Development Department and may be examined at any time during regular business hours of 8:00 a.m. to 5:00 p.m. Persons interested may visit the Community Development Department, contact the Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

300

Sean O'Neil, AICP  
Community Development Director



Rik Kowall, Supervisor  
Anthony L. Noble, Clerk  
Mike Roman, Treasurer



Section 9, Item C.

Scott Ruggles  
Steve Anderson  
Andrea C. Voorheis  
Liz Fessler Smith

## WHITE LAKE TOWNSHIP

7525 Highland Road • White Lake, Michigan 48383-2900 • (248) 698-3300 • www.whitelaketwp.com

### Memorandum of Record

**To:** Board of Trustees  
**From:** Cathy Derocher; Human Resources Manager CMD  
**Date:** January 14, 2025  
**Re:** Earned Sick Time Act

---

The Earned Sick Time Act, passed by the Michigan legislature, replaces the Paid Medical Leave Act (PA 369) of 2018.

The Act requires employers with ten (10) or more employees to allow those employees to accrue at least one (1) hour of sick time for every thirty (30) hours worked and allows employees to use at least seventy-two (72) hours of paid sick time per year. This benefit applies to part time and temporary employees as well as full time employees.

The attached policy provides greater detail how time is accrued, when leave time can be used and who it can be used for.

This will not affect employees currently covered under a collective bargaining agreement. However, it will apply to all non-union full time and part time employees effective February 21, 2025. Final implementation of this policy is subject to approval of the Act.

Please contact me if you have any questions.

Attachment

**CHARTER TOWNSHIP OF WHITE LAKE**  
**Earned Sick Time Policy**  
**For Full Time and Part Time Employees**

**Purpose**

The Earned Sick Time Act replaces the Paid Medical Leave Act. This benefit is intended to provide an opportunity for eligible full time, part-time and temporary employees to accrue paid sick leave to be used in accordance with the Earned Sick Time Act.

**Application**

This Policy establishes the parameters of the Township of White Lake Policy and is not intended to amend, expand or reduce, the benefits provided to employees in accordance with Township Policy or an applicable collective bargaining agreement.

**Policy**

The Township of White Lake is required to adhere to State of Michigan Earned Sick Time Act. An act to require certain employers to provide certain employees with paid medical leave for personal or family health needs, as well as purposes related to domestic violence and sexual assault and to specify the conditions for accruing and using paid medical leave. Eligible employees shall include any individual engaged in service to the Township of White Lake except as noted herein.

**Eligible Employees**

Full time, part time and seasonal or temporary employees including employees provided through a temporary service or similar entity. Employees working at least 30 hours in a calendar year will be eligible to earn and accrue sick time.

**Accrual of Sick Time for Part Time Employees**

Accrual of sick time begins on February 21, 2025 or upon the commencement of the employee's employment, whichever is later in accordance with the Earned Sick Time Act. Employees will accrue one (1) hour of sick time for every thirty (30) hours worked. Employees shall be allowed to use at least (72) hours of paid sick time in a calendar year. If the employee uses over 72 hours of sick time, the Township has the right to request prior notice of leave time.

An employee is required to wait until the 90<sup>th</sup> calendar day after commencing employment before using accrued earned sick time.

Unused sick time will carry over from year to year but is not compensable at termination of employment.

**Leave Usage**

An employee may use earned sick time accrued for any of the following:

- An eligible employee or an eligible employee's family member's mental or physical illness, injury, or health condition; medical diagnosis, care, or treatment of a mental or physical illness, injury, or health condition; or preventative medical care.
- If the eligible employee or his or her family member is a victim of domestic violence or sexual assault, for the medical care of psychological or other counseling for physical or psychological injury or disability; to obtain services from a victim services organization; to relocate due to domestic violence or sexual assault; to obtain legal services; or to participate in any civil or criminal proceedings related to or resulting from the domestic violence or sexual assault.
- For meetings at a child's school or place of care related to the child's health or disability, or the effects of domestic violence or sexual assault on the child.
- For the closure of employee's workplace or a school or childcare of employee's child due to public health emergencies.
- Earned Sick Time shall not be considered as a right which an employee may use at his/her discretion but shall be allowed only in case of necessity. Full Time employees are required to use earned sick time concurrent with FMLA time.

### Documentation

If an employee uses earned sick time due to sexual assault or domestic violence, the Township may require documentation showing that the leave was used for that purpose. Satisfactory documentation includes:

- (a) a police report.
- (b) a signed statement from a victim and witness advocate; or
- (c) a court document.

The Township does not require that the documentation explains the details of the violence or sexual assault or the details of any medical condition. Any information the Township of White Lake has on the violence, sexual assault, or medical condition will be kept confidential.

Medical certification will not normally be required to substantiate earned sick time of three consecutive calendar days or less.

### Family Members

Under the Earned Sick Time Act family members include all of the following:

A biological, adopted or foster child, stepchild or legal ward, or a child to whom the eligible employee stands in loco parentis (i.e., is the legal guardian).

A biological parent, foster parent, stepparent, or adoptive parent or a legal guardian of an eligible employee or an eligible employee's spouse or an individual who stood in loco parentis when the eligible employee was a minor child.

An individual to whom the eligible employee is legally married under the laws of any state.

A grandparent.

A grandchild.

A biological, foster, or adopted sibling.

An individual related by blood or affinity whose close association with the employee is the equivalent of a family relationship.

**Payment of Sick Time Leave**

Eligible employees using earned sick time shall be paid at a pay rate equal to their base hourly wage in effect as of the date of earned sick time usage.

Earned sick time balances will not be paid out to employees upon separation of any kind, including termination, resignation, or retirement.

**Leave Increments**

Employees using EST for eligible absences must use their leave time in 30-minute increments.

**Presumption**

The Township of White Lake is in compliance with the Earned Sick Time Act with those employees that are already provided with at least 40 hours of paid leave. Paid leave includes vacation, sick, personal, and paid time off. Those employees will not receive additional PML.

Full time employees will however be allowed to use sick time under this law as designated for personal or family health needs, as well as purposes related to domestic violence and sexual assault and other conditions under the law.

This policy shall not reduce an employee's benefits as provided under the collective bargaining agreement.

The Earned Sick Time Policy is in effect February 21, 2025 for all non-union and part time employees.



Rik Kowall, Supervisor  
Anthony L. Noble, Clerk  
Mike Roman, Treasurer



Section 9, Item D.

Andrea C. Voorheis  
Liz Fessler Smith

WHITE LAKE TOWNSHIP  
DEPARTMENT OF PUBLIC SERVICES

7525 Highland Road, White Lake, Michigan 48383-2900, (248) 698-7700, www.whitelaketwp.com

January 13, 2024

Honorable Board of Trustees  
Charter Township of White Lake  
7525 Highland Road  
White Lake, MI 48383

**RE: Peerless Midwest Well Maintenance One Year Contract Extension**

Honorable Board of Trustees,

Oakland County has issued a one-year contract extension to Peerless Midwest for well and pump maintenance and repair.

In 2018 and 2022, Peerless extended the Oakland County contract unit pricing which was approved at Board of Trustees meetings not to exceed \$400,000 and \$100,000 respectively. Once again Peerless Midwest has offered to extend the Oakland County contract pricing to White Lake for the extension.

Last year we only had well and pump maintenance testing due. In 2025 we are due for overhaul of Aspen Meadows Well #1 and Hillview Well #2 based on annual well and pump performance testing.

**DPS requests the Board of Trustees approve a one-year extension of the OCWRC Peerless Midwest contract not to exceed \$100,000.**

Please feel free to call with any questions.

Sincerely,

Aaron D. Potter  
Director, Dept. of Public Services  
Charter Township of White Lake



OAKLAND COUNTY EXECUTIVE DAVID COULTER

Purchasing  
(248) 858-0511 | purchasing@oakgov.com

Buyer: Joan Daniels

CONTRACT NUMBER:10652

Event # 471B

CONTRACT between the COUNTY OF OAKLAND and CONTRACTOR

Not To Exceed Amount: \$500,000.00		Effective Date: 2/1/2024	Expiration Date:1/31/2026
Contract Description:	WRC: Well Maintenance Services - M		
Contractor Address:		Contract Administrator Information:	
Peerless Midwest, INC 55860 Russell Industrial Pkwy Mishawaka, IN 46545 Vendor No: 612			
Buyer and Purchasing Information:		County Contract Administrator and Using Department:	
Joan Daniels OAKLAND COUNTY 2100 Pontiac Lake Rd 41W Waterford, MI 48328-2762 248-858-0511 purchasing@oakgov.com		Gary Nigro Manager WRC One Public Works Drive Waterford, MI 48328 <a href="mailto:nigrog@oakgo.com">nigrog@oakgo.com</a> 248 343 2185	

The County and Contractor may be referred to individually as a "Party" or collectively as the "Parties." The Parties agree to the attached terms and conditions:

**FOR THE CONTRACTOR:**

SIGN: Mike Williams  
Mike Williams (Jan 12, 2024 13:55 EST)

**FOR THE COUNTY:**

SIGN:  
Contract Administrator

SIGN:  
Scott N. Guzy, CPPO, MBA, Purchasing Administrator

cmk



This Contract is organized and divided into the following Sections for the convenience of the Parties.

- Section 1. Contract Definitions
- Section 2. Contract Term and Renewal
- Section 3. Contract Administration and Amendments
- Section 4. Contract Termination
- Section 5. Scope of Deliverables and Financial/Payment Obligations
- Section 6. Contractor’s Warranties and Assurances
- Section 7. Liability
- Section 8. Insurance and Bond Requirements
- Section 9. Intellectual Property
- Section 10. Confidential Information
- Section 11. County Data
- Section 12. Information Technology Standards
- Section 13. General Terms and Conditions

**§1. CONTRACT DEFINITIONS**

The following words when printed with the first letter capitalized shall be defined and interpreted as follows, whether used in the singular or plural, nominative or possessive case, and with or without quotation marks:

- 1.1. **“Amendment”** means any change, clarification, or modification to this Contract.
- 1.2. **“Business Day”** means Monday through Friday from 8:00 a.m. to 5:00 p.m., excluding County designated holidays.
- 1.3. **“Claims”** means any loss; complaint; demand for relief or damages; lawsuit; cause of action; proceeding; judgment; penalty; costs or other liability of any kind which is imposed on, incurred by, or asserted against the County or for which the County may become legally or contractually obligated to pay or defend against, whether commenced or threatened, including, but not limited to, reimbursement for reasonable attorney fees, mediation, facilitation, arbitration fees, witness fees, court costs, investigation expenses, litigation expenses, or amounts paid in settlement.
- 1.4. **“Confidential Information”** means all information and data that the County is required or permitted by law to keep confidential, which includes computer software, cybersecurity assessments and plans and measures to protect the County’s security.
- 1.5. **“Contract”** means this document and any other documents expressly incorporated herein.
- 1.6. **“Contractor”** means the entity or person listed under “Contractor” on the first page of this Contract and Contractor Employee.



OAKLAND COUNTY EXECUTIVE DAVID COULTER

Purchasing  
(248) 858-0511 | purchasing@oakgov.com

1.7. **“Contractor Employee”** means any employee; officer; director; member; manager; trustee; volunteer; attorney; licensee; contractor; subcontractor; independent contractor; subsidiary; joint venture; partner or agent of Contractor; and any persons acting by, through, under, or in concert with any of the above, whether acting in their personal, representative, or official capacities. Contractor Employee shall also include any person who was a Contractor Employee at any time during the term of this Contract but, for any reason, is no longer employed, appointed, or elected in that capacity.

1.8. **“Contract Documents”** mean the following documents, which this Contract includes and incorporates:

**Exhibits (Applicable if Checked)**

1.8.1.  Exhibit I: Contractor Insurance Requirements

1.8.2.  Exhibit II: Business Associate Agreement (Health Insurance Portability and Accountability Act Requirements)

1.8.3.  Exhibit III: Requirements for Contractors with Access to County PII (Personally Identifiable Information)

1.8.4.  Exhibit IV: Requirements for Contractors with Access to Criminal Justice Information

1.8.5.  Exhibit V: Federally Funded Contract Requirements

1.8.6.  Exhibit VI: Software License(s)

1.8.7.  Exhibit VII: License for Use of County Servicemark

1.8.8.  Exhibit VIII: Acknowledgement of Independent Employment Status

1.8.9.  Exhibit IX: Scope of Contractor Deliverables/Financial Obligations

1.9. **“County”** means the County of Oakland, a Municipal and Constitutional Corporation, its departments, divisions, authorities, boards, committees, and “County Agents” as defined below.

1.10. **“County Agent”** means any elected and appointed officials; directors; board members; council members; commissioners; employees; and volunteers of the County; whether acting in their personal, representative, or official capacities. “County Agent” shall also include any person who was a “County Agent” anytime during the term of this Contract but, for any reason, is no longer employed, appointed, or elected and in that capacity.

1.11. **“County Data”** means information or data collected, used, processed, stored, or generated in any format, by or on behalf of the County, in connection with the Deliverables, which shall include, but not be limited to: (a) personal health information (PHI) as defined under the Health Insurance Portability and Accountability Act (HIPAA) and Exhibit II, (b) personally identifiable information (PII) as defined in Exhibit III, and (c) Criminal Justice Information defined in Exhibit IV if the Exhibit(s) are incorporated into the Contract. County Data includes Confidential Information as defined in this Contract.

1.12. **“County Network”** means County owned, leased, or licensed equipment, hardware, and software that is interconnected via fiber optic, wireless, or other communication mediums for the purposes of County hosting, processing, using, sharing, and/or transporting data, video, voice, or any other form of information.

1.13. **“Day”** means any calendar day, which shall begin at 12:00:00 a.m. and end at 11:59:59 p.m.



- 1.14. **“Deliverables”** mean goods and/or services provided under this Contract, whether tangible or intangible, and may be more specifically described in the Exhibits.
- 1.15. **“Effective Date”** means midnight on the date listed on the first page of this Contract.
- 1.16. **“Expiration Date”** means 11:59.59 p.m. on the date listed on the first page of this Contract.
- 1.17. **“E-Verify”** means an Internet based system operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration (SSA) that allows participating employers to electronically verify the employment eligibility of their newly hired employees. Information and the registration process are found at the E-Verify website:  
<https://e-verify.uscis.gov/enroll>.
- 1.18. **“Intellectual Property”** means any developments, improvements, designs, innovations, and materials that may be the subject of a trademark/servicemark, copyright, patent, trade secret, which includes ideas, concepts, inventions, and processes related to the development and operation of computer software and systems.
- 1.19. **“Iran-Linked Business”** is defined in the Michigan Compiled Laws (MCL), specifically MCL 129.312, being Section 2 of Public Act 517 of 2012.
- 1.20. **“Not to Exceed Amount”** means the dollar amount listed on the first page of this Contract, unless amended. The “Not to Exceed Amount” is not the County’s financial obligation under this Contract, but the maximum amount that can be paid to Contractor during the term of this Contract.
- 1.21. **“Proposal”** means Contractor’s response or bid to the County’s Request for Proposal, Request for Qualifications, or Request for Quotes.
- 1.22. **“Purchase Order”** means the County’s written request to Contractor for Deliverables pursuant to this Contract. The Purchase Order may include terms regarding delivery schedule, payment, and transportation.
- 1.23. **“Purchasing”** means the Purchasing Division of Oakland County.
- 1.24. **“Communities Served”** means all of the municipal corporations listed on **Exhibit A** attached, and all of their departments, divisions, authorities, boards, committees, and “Communities Served Agents” as defined below.
- 1.25. **“Communities Served Agent”** means all elected and appointed officials, directors, board members, council members, commissioners, employees, volunteers, representatives, and/or any such persons’ successors (whether such persons act or acted in their personal, representative or official capacities), and/or any persons acting by, through, under, or in concert with any of them. “Communities Served Agent” shall also include any person who was a “Communities Served Agent” any time during the term of this Contract but, for any reason, is no longer employed, appointed, or elected and serving as an Agent.
- 1.26. **“Drainage Districts”** means any and all legally established drains pursuant to Chapters 4, 6, 20 and 21 of the Michigan Drain Code, Michigan Public Act 40 of the Public Acts of 1956, as amended, for which the Contractor may be performing services under this contract.



## §2. CONTRACT TERM AND RENEWAL

- 2.1. **Contract Term.** This Contract shall begin on the Effective Date and shall end on the Expiration Date.
- 2.2. **Contract Renewal.** Unless otherwise provided herein, the Parties are under no obligation to renew or extend this Contract after the Expiration Date. This Contract may only be extended by an Amendment.
- 2.3. **Legal Effect.** This Contract shall be effective and binding when all of the following occur: (a) this Contract is signed by a Contractor Employee, legally authorized to bind Contractor; (b) this Contract is signed by an authorized County Agent; (c) all Contractor certificates of insurance, required by this Contract, are submitted and accepted by Purchasing; and (d) any other conditions precedent to this Contract have been met.

## §3. CONTRACT ADMINISTRATION AND AMENDMENTS

- 3.1. **Contract and Purchase Order Issuance.** Purchasing shall issue this Contract and any Purchase Orders that may be required. Purchasing is the sole point of contact in the County regarding all procurement and contractual matters relating to this Contract and any Purchase Orders. Purchasing is the only County office/department authorized to make any Amendments to this Contract or Purchase Orders.
- 3.2. **Purchase Orders.** Purchase Orders issued under this Contract are governed by the terms and conditions of this Contract and are included and incorporated herein.
- 3.3. **Project Managers.** Each Party may designate an employee or agent to act as a Project Manager. If Project Managers are selected, they shall be listed, along with their duties, in Exhibit IX. Unless otherwise stated in Exhibit IX, the County's Project Manager has no authority to amend this Contract.
- 3.4. **Contract Administrators.** The County shall designate an employee or agent to act as Contract Administrator(s). Contractor may designate its employee or agent to act as Contract Administrator(s). The Contract Administrators shall be listed on the first page of this Contract. The County's Contract Administrator(s) shall be responsible for monitoring and coordinating day-to-day activities under this Contract, reviewing Deliverables and invoices, and submitting requests for Amendments to Purchasing. The County's Contract Administrator(s) have no authority to amend this Contract.
- 3.5. **Contract Amendments.** All Amendments to this Contract must be in writing. This Contract shall not be amended by any packing slip, Purchase Order, invoice, click through license agreement, or Contractor policies or agreements published on Contractor's website or otherwise. Amendments to this Contract shall be issued only by Purchasing. The Amendment shall be effective when signed by an authorized Contractor Employee and an authorized County Agent.
- 3.6. **Unauthorized Changes.** Contract changes shall not be effective until an Amendment containing the change is executed according to the procedures described in this Contract. If the Contractor is directed to perform work that Contractor believes is a change in the Contract/Deliverables, then Contractor must notify Purchasing that it believes the requested work is a change to the Contract before performing the requested work. If Contractor fails to notify Purchasing before beginning the requested work, then Contractor waives any claims for additional compensation for performing the requested work. If Contractor begins work that is outside the scope of this Contract or begins work before an Amendment is executed and then stops performing that work, Contractor must, at the request of the County, undo any out-of-scope work that the County believes would adversely affect the County.

3.7. **Precedence of Contract Documents.** In the event of a conflict, the terms and conditions contained in Sections 1 through 13 of this Contract shall prevail and take precedence over any allegedly conflicting provisions in all Contract Documents, Exhibits, Purchase Orders, Amendments, and other documents expressly incorporated herein. Terms and conditions contained in Contractor invoices, packing slips, receipts, acknowledgments, click-through licenses, and similar documents shall not change the terms and conditions of this Contract.

#### §4. **CONTRACT TERMINATION**

4.1. **County Termination.** In addition to any other legal rights the County may have to terminate or cancel this Contract, the County may terminate the Contract as follows:

4.1.1. **Immediate Termination.** The County may terminate or cancel this Contract, in whole or in part, immediately, upon notice to Contractor, if any of the following occur: (a) Contractor, officer of Contractor, or an owner of a 25% or greater share of Contractor is convicted of a felony criminal offense or a criminal offense involving or related to Contractor's business; or (b) if any third-party funding for this Contract is reduced or terminated.

4.1.2. **Termination for Convenience.** The County may terminate or cancel this Contract, in whole or part, at any time, upon ninety (90) Days' notice to Contractor, for any reason, including convenience without incurring obligation or penalty of any kind. The effective date for termination or cancellation shall be clearly stated in the notice.

4.2. **Contractor Termination.** Contractor may terminate or cancel this Contract, in whole or part, upon one hundred and eighty (180) Days' notice to the County, if the County materially breaches any duty or obligation contained herein and within such notice period has failed or has not reasonably attempted to cure the breach. The effective date of termination or cancellation and the specific alleged default shall be clearly stated in the notice to the County.

4.3. **County's Obligations Upon Termination.** The County's sole obligation in the event of termination or cancellation of this Contract is for payment of the actual Deliverables provided to the County before the effective date of termination. Under no circumstances shall the County be liable for any future loss of income, profits, any consequential damages, any loss of business opportunities, revenues, or any other economic benefit Contractor may have realized but for the termination or cancellation of this Contract. The County shall not be obligated to pay Contractor any cancellation or termination fee if this Contract is cancelled or terminated as provided herein. If the County chooses to terminate the Contract in part, then the charges payable under this Contract must be equitably adjusted to reflect those Deliverables that are terminated.

4.4. **Contractor's Obligations Upon Termination.** If the County terminates this Contract, for any reason, then Contractor must do the following: (a) cease providing all Deliverables as specified at the time stated in the notice of termination; (b) take any action necessary, or as the County may direct, to preserve and protect Deliverables or other property derived or resulting from the Contract that is in Contractor's possession; (c) return all materials and property provided to Contractor by the County; (d) unless otherwise directed by the County, transfer title in and deliver to the County all Deliverables in the possession of Contractor or Contractor Employees (which Deliverables are transferred to the County "As-Is", except to the extent the amounts paid by the County for these Deliverables include warranties or warranty services and, in that situation, the Deliverables will be transferred with the warranty or



warranty services and not “As-Is”); and (e) take any action to mitigate and limit any potential damages, including terminate or limit, as applicable, those subcontracts and outstanding orders for materials and supplies connected with or related to this Contract.

- 4.5. **Assumption of Subcontracts.** If Contractor is in breach of this Contract and the County terminates this Contract, then the County may assume, at its option, any subcontracts and agreements for Deliverables provided under the Contract and may pursue completion of the Deliverables by replacement Contract or otherwise as the County, in its sole judgment, deems expedient.

## **§5. SCOPE OF DELIVERABLES AND FINANCIAL/PAYMENT OBLIGATIONS**

- 5.1. **Performance of Deliverables.** Contractor shall provide all Deliverables identified in and as set forth in Exhibit IX, any Purchase Orders, or any Amendments to this Contract.
- 5.2. **Software License(s).** If Contractor requires County to comply with a software license or any other third-party terms, the software license or other third-party terms must be attached to this Contract in Exhibit VI, and the Parties shall follow the terms and conditions therein. County is not obligated to follow or comply with any software license or other third-party terms that are not attached to or included in this Contract. Unless specifically agreed to by County in writing, if County Agents are required to accept click through license terms or any other terms not included in this Contract to access or use any of the Deliverables in this Contract, the terms and conditions of those click through licenses and other terms are without force and effect.
- 5.3. **Financial Obligations.** Except as otherwise set forth in this Contract, the County’s sole financial obligation under this Contract shall be set forth in Exhibit IX. The amount and manner of payment of the financial obligation shall be set forth in Exhibit IX and may be in the Software License Exhibit VI, if applicable, or a Purchase Order.
- 5.4. **Payment Obligations.** Except as otherwise set forth in the Exhibits, Contractor shall submit an invoice to the County’s Contract Administrator itemizing amounts due and owing under this Contract, as of the date of the invoice, within sixty (60) days of Contractor’s performance of the Deliverables listed in the invoice. Invoices shall contain the following information: (a) County Contract Number; (b) dates of Deliverables; (c) itemized list of Deliverables; (d) Contractor Tax ID Number (federal and State); (e) licenses; and (f) any other information reasonably requested by Purchasing. Unless otherwise set forth in the Exhibits, the County will pay undisputed invoices, which comply with this section (5.4), within sixty (60) days after receiving the invoice. Unless otherwise set forth in the Exhibits, the County shall only pay Contractor for Deliverables under this Contract and not any subcontractors or assignees of Contractor.
- 5.5. **Not to Exceed Amount.** The amount due and owing to Contractor, under this Contract, shall not exceed the “Not to Exceed Amount.” If Contractor can reasonably foresee that the total financial obligation for the Contract will exceed the “Not to Exceed Amount,” then Contractor shall provide Purchasing with notice of this fact as soon as possible, but no later than ten (10) days before this event.
- 5.1. **County Not Obligated for Penalties/Costs/Fines.** The County, Communities Served and Drainage Districts shall not be responsible for any cost, fee, fine, penalty; or direct, indirect, special, incidental, or consequential damages incurred or suffered by Contractor in connection with or resulting from the performance of this Contract under any circumstances.



- 5.2. **Set-Off of County Costs.** If the County incurs any costs (not specified in this Contract), loss, or damage that is caused by or results from Contractor or Contractor Employees, then the County has the right to set-off those costs, loss, and/or damage from any amounts due and owing Contractor. This set-off includes, but is not limited to, withholding payment in an amount equal to the cost of any County-provided equipment, supplies, badges, or other property that are not returned by Contractor upon completion, termination, or cancellation of this Contract. County also reserves the right at any time to set-off any amounts it owes to Contractor under this Agreement against any amounts that Contractor owes to County.
- 5.3. **In-Kind Services.** Unless expressly provided herein, this Contract does not authorize any in-kind services by either Party.

## **§6. CONTRACTOR'S WARRANTIES AND ASSURANCES**

- 6.1. **Full Knowledge of Contract Expectations.** Contractor warrants that before submitting its Proposal and/or entering into this Contract, it had a full opportunity to review all County requirements and/or expectations for this Contract. Contractor is responsible for being adequately and properly prepared to execute this Contract. Contractor has satisfied itself in all material respects that it will be able to perform the Contract as specified herein.
- 6.2. **Complete and Accurate Representations.** Contractor certifies that all statements, assurances, records, and materials submitted to the County in connection with seeking and obtaining this Contract have been truthful, complete, and accurate.
- 6.3. **Access to Contractor Policies.** If the Parties agree in this Contract to follow any Contractor policies, such as acceptable use or privacy policies, then Contractor shall retain each version of such policy with the effective dates and shall promptly provide such to the County, if requested.
- 6.4. **Grant Compliance.** If any part of this Contract is supported or paid for with any State, federal, or other third-party funds granted to the County, then Contractor shall comply with all applicable grant requirements. Upon request of Contractor, the County shall provide Contractor with a copy of the applicable grant requirements.
- 6.5. **Contractor Incidental Expenses.** Except as otherwise expressly provided in this Contract, Contractor shall be solely responsible and liable for all costs and expenses associated or needed to perform this Contract, including, but not limited to, any professional dues, association fees, license fees, fines, taxes, and penalties.
- 6.6. **Equipment and Supplies.** Contractor is responsible for providing all equipment and supplies to perform this Contract, which are not expressly required to be provided by the County.
- 6.7. **Contractor Employees.**
- 6.7.1. **Number and Qualifications of Contractor Employees.** Contractor shall employ and assign qualified Contractor Employees as necessary and appropriate to perform this Contract. Contractor shall ensure all Contractor Employees have the knowledge, skill, and qualifications to perform this Contract and possess any necessary licenses, permits, certificates, and governmental authorizations as may be required by law.



- 6.7.2. **Control and Supervision of Contractor Employees.** Contractor shall solely control, direct, and supervise all Contractor Employees with respect to all Contractor obligations under this Contract. Contractor will be solely responsible for and fully liable for the conduct and supervision of any Contractor Employees.
- 6.7.3. **Removal or Reassignment of Personnel at the County's Request.** Contractor shall remove a Contractor Employee performing work under this Contract at the County's request provided that the County's request is based on legitimate, good-faith reasons. Replacement personnel for the removed person must be fully qualified for the position. If the removal of a Contractor Employee results in an unanticipated delay, which is attributable to the County, then this delay shall not be considered a breach of the Contract and the terms and conditions of this Contract effected by the removal will be adjusted accordingly.
- 6.7.4. **Contractor Employee Identification.** If requested by the County, Contractor Employees shall wear and display a County-provided identification badge at all times while working on County, Communities Served, or Drainage Districts premises. In order to receive a County identification badge, a Contractor Employee shall sign the "Acknowledgement of Independent Contractor Status" form, Exhibit VIII to this Contract. Contractor shall return all County-provided identification(s) upon completion of Contractor's obligations under this Contract.
- 6.7.5. **Background Checks.** At the County's request, Contractor Employees performing work under this Contract shall be subject to a background check by the County. The scope of the background check is at the discretion of the County and the results will be used to determine Contractor Employee's eligibility to perform work under this Contract. Any request for background checks will be initiated by the County and will be reasonably related to the type of work requested. Contractor and Contractor Employees shall provide all information or documents necessary to perform the background check.
- 6.7.6. **Contractor Employee Expenses.** All Contractor Employees shall be employed at the Contractor's sole expense (including employment-related taxes and insurance). Contractor warrants to the County, Communities Served, and Drainage Districts that all Contractor Employees shall fully comply with and adhere to the terms of this Contract. Contractor shall be solely liable for all applicable Contractor Employees' federal, state, or local payment withholdings or contributions and/or all Contractor Employee related pension or welfare benefits plan contributions under federal or state law. Contractor shall indemnify and hold the County, Communities Served, and Drainage Districts harmless for all Claims against the County, Communities Served, or Drainage Districts by any Contractor Employee, arising out of any contract for hire or employer-employee relationship between Contractor and any Contractor Employee including, but not limited to, Worker's Compensation, disability pay, or other insurance of any kind.
- 6.7.7. **Contractor's Compliance with the Patient Protection and Affordable Care Act.** If Contractor is subject to the Patient Protection and Affordable Care Act ("ACA"), PL 111-148, 124 Stat 119, then Contractor shall ensure that all Contractor Employees, under assignment to the County, and their dependents, as defined by the ACA, are provided with or have access to insurance as required by the ACA. If Contractor is subject to the ACA, Contractor warrants it offers group health coverage to Contractor Employees and their dependents that is affordable, that provides minimum essential coverage and value, and that each offer of coverage meets the timing requirements of the ACA. Contractor warrants, whether or not it is subject to the ACA, that it will pay all applicable fees, taxes, or fines, as set forth in the employer



mandates of the ACA under Tax Code §4980H and related regulations for any Contractor Employee, whether the fee, tax, or fine is assessed against the Contractor or the County.

6.8. **Acknowledgment of Independent Contractor Status.**

- 6.8.1. **Independent Contractor.** Nothing in this Contract is intended to establish an employer-employee relationship between the County and Contractor or any Contractor Employee. In no event, shall Contractor Employees be deemed employees, agents, volunteers, or subcontractors of the County. Contractor shall ensure that Contractor Employees are apprised of their status and the limitations independent contractors have of this status.
- 6.8.2. **Contractor/Contractor Employee Representations.** Contractor and/or Contractor Employees shall not represent themselves as County employees. Contractor shall ensure that Contractor Employees do not represent themselves as County employees.
- 6.8.3. **County Benefits and Plans.** Contractor and Contractor Employees shall not be entitled to participate in any County employee benefit plans and programs, including but not limited to, retirement, deferred compensation, insurance (including without limitation, health, disability, dental, and life), and vacation pay. This limitation includes access to benefit plans and programs that are not described by a written plan. However, Contractor Employees who are retired County Employees may receive vested post-employment benefits such as retiree health care and pension benefits from Oakland County.
- 6.8.4. **County Reliance.** The County entered into this Contract in reliance of the representations made by Contractor regarding its understanding of the role of independent contractors, its stated relationship to Contractor Employees, and other representations Contractor has made regarding the management and performance oversight of Contractor Employees.
- 6.8.5. **Independent Employment Status.** If Contractor provides Contractor Employees for staffing and/or leasing services to County, those Contractor Employees shall sign Exhibit VIII, Acknowledgement of Independent Employment Status, prior to performing services for the County.
- 6.9. **Permits and Licenses.** Contractor shall be responsible for obtaining and maintaining, throughout the term of this Contract, all licenses, permits, certificates, governmental authorizations, and business/professional licenses necessary to perform this Contract. Upon request by the County, Contractor shall furnish copies of any permit, license, certificate, or governmental authorization necessary to perform this Contract.
- 6.10. **E-Verify.** In accordance with Miscellaneous Resolution No.09116 (BOC Minutes, July 30, 2009, pp 37-38), unless otherwise exempted, all service contractors who wish to contract with the County to provide services must first certify they have registered with, will participate in, and continue to utilize, once registered, the E-Verify Program (or any successor program implemented by the federal government or its departments or agencies) to verify the work authorization status of all newly hired employees employed by the Contractor. Breach of this term or condition is considered a material breach of this Contract. Contractor's execution of this Contract constitutes a certification that they are authorized to certify on behalf of Contractor and do hereby certify on behalf of Contractor that the Contractor has registered with, has and will participate in, and does and will continue to utilize once registered and throughout the term of this Contract and any permissible extension hereof, the E-Verify Program (or any successor program implemented by the federal government or its departments or agencies) to verify the work authorization status of all newly hired employees employed by the Contractor.



- 6.11. **Iran-Linked Business Certification.** Contractor certifies that it is not an Iran-Linked Business. Contractor further certifies that it was not an Iran-Linked Business at the time it submitted its Proposal for this Contract. Contractor must promptly notify the County, if Contractor becomes an Iran-Linked Business at any time during this Contract.
- 6.12. **Foreign Adversary Certification.** If Contractor supplies technology or equipment to County, Contractor certifies that the technology and/or equipment was not produced, assembled or manufactured by a foreign adversary, as defined, and as prohibited by the federal government.
- 6.13. **Taxes.**
  - 6.13.1. **Contractor Taxes.** Contractor shall collect and pay its local, state, and federal taxes, including but not limited to, all employment taxes, sales taxes, personal property taxes, and real property taxes. The County, Communities Served and Drainage Districts shall not be liable to or required to reimburse Contractor for any local, state, or federal tax of any kind.
  - 6.13.2. **County Tax-Exempt.** The County is exempt from state and local sales tax, personal property tax, and real property tax. Prices under this Contract shall not include taxes, unless the County is not tax-exempt for a specific Deliverable. Exemption certificates for sales tax will be furnished upon request.
- 6.14. **Warranty for Services.** Contractor warrants to the County, Communities Served, and Drainage Districts that all Deliverables that are services shall be performed in compliance with all applicable laws, statutes, regulations, ordinances, and professional standards.
- 6.15. **Warranty for Goods.** All Deliverables that are goods shall be subject to the following warranties to the County, Communities Served, and Drainage Districts:
  - 6.15.1. **Warranty of Merchantability.** Goods provided by Contractor pursuant to this Contract shall: (a) be merchantable; (b) be of good quality; (c) be fit for their ordinary purpose; (d) be adequately contained and packaged; and (e) conform to the specifications and descriptions contained in this Contract. Contractor acknowledges and agrees that time is of the essence for providing all Deliverables that are goods.
  - 6.15.2. **Warranty of Fitness for a Particular Purpose.** If Contractor knows or has reason to know that the goods will be used for a particular purpose and the County, or any of the Communities Served or Drainage Districts, is relying on Contractor’s skill or judgment to select or furnish the goods, then there is a warranty that the goods are fit for a particular purpose.
  - 6.15.3. **Warranty of Title.** All goods conveyed to the County, Communities Served and Drainage Districts shall be conveyed and transferred: (a) with good title; (b) free from any security interest, lien, or encumbrance that the County did not have knowledge of when the Contract was executed; and (c) free of any rightful claim of infringement or similar claim by a third-party.
- 6.16. **ADA and Section 508 Compliance.** If Contractor is providing a Deliverable that requires County Agents or the public to use a software application or to access a website, Contractor warrants that end users can utilize the software or access the website in accordance with the accessibility requirements of the ADA and the Rehabilitation Act of 1973. Contractor’s Deliverable will conform, where relevant, to level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0. Contractor may provide a description of conformance with the above-mentioned specifications by means of a completed Voluntary Product Accessibility Template for WCAG 2.0 (WCAG 2.0 VPAT) or



another comparable document. Any additional compliance requirements shall be specified in the Scope of Contractor's Deliverables - Exhibit IX.

**§7. LIABILITY**

- 7.1. **CONTRACTOR INDEMNIFICATION.** Contractor shall indemnify, defend, and hold the County, Communities Served and Drainage Districts harmless from all Claims, incurred by or asserted against the County, Communities Served and Drainage Districts by any person or entity, which are alleged to have been caused directly or indirectly from the acts or omissions of Contractor or Contractor's Employees. The County's, Communities' Served, and Drainage Districts' right to indemnification is in excess and above any insurance rights/policies required by this Contract.
- 7.2. **NO INDEMNIFICATION FROM THE COUNTY.** Contractor shall have no rights against the County, Communities Served, and Drainage Districts for indemnification, contribution, subrogation, or any other right to be reimbursed by the County, Communities Served, and Drainage Districts, except as expressly provided herein.
- 7.3. **COUNTY LIMITATION OF LIABILITY.**
- 7.3.1. COUNTY, COMMUNITIES SERVED, AND DRAINAGE DISTRICTS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, REMOTE, SPECULATIVE, PUNITIVE, EXEMPLARY, LIQUIDATED, TREBLE, OR SPECIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFIT, OPPORTUNITY, USE, REVENUE, DATA, OR GOODWILL, WHETHER BASED IN WHOLE OR IN PART IN CONTRACT, TORT, EQUITY, STRICT LIABILITY, UNDER STATUTE, OR ANY OTHER THEORY OF LIABILITY, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE OR CONTEMPLATED AND EVEN IF COUNTY WAS ADVISED OR AWARE OF THE POSSIBILITY OF SUCH DAMAGES.

- §8.** COUNTY, COMMUNITIES SERVED, AND DRAINAGE DISTRICTS SHALL NOT BE LIABLE IN CONTRACT, TORT, EQUITY, STRICT LIABILITY, UNDER STATUTE, OR ANY OTHER THEORY OF LIABILITY, FOR TOTAL AGGREGATE DAMAGES IN EXCESS OF COUNTY'S PAYMENT OBLIGATIONS TO CONTRACTOR FOR THE DELIVERABLES UNDER THIS CONTRACT.

**§9. INSURANCE AND BOND REQUIREMENTS**

- 9.1. **Contractor Provided Insurance.** At all times during this Contract, Contractor shall obtain and maintain insurance according to the requirements listed in Exhibit I. The Communities Served, Communities Served Agents, and Drainage Districts shall be added as additional name insured with the same terms on any and all insurance coverage provided for the County and County Agents by the Contractor.
- 9.2. **Contractor Provided Bonds.** Pursuant to Public Act 213 of 1963, if the Contract Not to Exceed Amount exceeds fifty thousand dollars (\$50,000.00) and the Contract is for the construction, alteration, or repair of any public building or public work or improvement of the County, then the Contractor shall furnish, at its sole cost, a performance bond and a payment bond to the County, which shall become binding upon execution of the Contract. Each bond shall be in an amount fixed by the County, as set forth in Exhibit IX, but in no event shall each bond be less than 25% of the Contract Not to Exceed Amount.

## §10. INTELLECTUAL PROPERTY

- 10.1. **Contractor Use of County Licensed Software.** In order for Contractor to perform this Contract, the County may permit Contractor or Contractor Employees to access certain Software licensed to the County. Contractor or Contractor Employees shall not transfer, remove, use, copy, or otherwise provide or make available such Software or documentation to any other person or entity, for any purpose, without the prior written consent of the County and/or the licensor. Furthermore, neither Contractor nor Contractor Employee shall produce a source listing, decompile, disassemble, or otherwise reverse engineer any Software. Neither Contractor nor Contractor Employee shall use any Software contrary to the provisions of any applicable Software license agreement or state or federal law.
- 10.2. **Contractor License to Use County Servicemarks.** If this Contract involves the use of County servicemarks, then Contractor is granted a license to use the servicemarks subject to the terms listed in Exhibit VII. Contractor shall only use the servicemarks as directed by the County in Exhibit VII. If Exhibit VII is not selected and attached to this Contract, Contractor shall not and has no right to use County servicemarks.
- 10.3. **Assignment of Rights.** In consideration for the performance of this Contract and the fees paid to Contractor, Contractor agrees to the following: (a) Contractor shall have no copyright, patent, trademark, or trade secret rights in County Intellectual Property; (b) any and all programs, inventions, and other work or authorship developed by Contractor while providing Deliverables to the County are works made for hire, created for, and owned exclusively by the County, unless otherwise specified in the Contract; (c) Contractor assigns to the County all rights and interest in County Intellectual Property, which Contractor has made or conceived or may make and conceive, either solely or jointly with others, either on or off County premises while performing this Contract or with the use of the time, material, or facilities of the County; and (d) Contractor and its applicable Contractor Employees shall sign any documents necessary for the County to register patents, copyrights, or trademarks with federal or state agencies. Contractor shall ensure Contractor Employees assign their rights and interests in County Intellectual Property to the County.
- 10.4. **Infringement Remedies.** If, in either Party's opinion, any of the services or Deliverables supplied by Contractor or Contractor Employees are likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor shall at its own expense: (a) procure for County the right to continue using the services or Deliverables, or if this option is not reasonably available to Contractor; (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by County with appropriate credits to County and reimburse County for any losses or costs incurred as a consequence of County ceasing its use and returning it.

## §11. CONFIDENTIAL INFORMATION

- 11.1. **Contractor Use of Confidential Information.** Contractor and Contractor Employees shall use appropriate safeguards to protect the confidentiality and integrity of Confidential Information. Contractor shall not reproduce, provide, disclose, or give access of Confidential Information to any Contractor Employee or third-party not having a legitimate need to know. Contractor and Contractor Employees shall only use the Confidential Information for performance of this Contract. Notwithstanding the foregoing, Contractor may disclose the Confidential Information, if required by law, statute, or other legal process; provided that Contractor: (a) gives the County prompt written notice of the impending disclosure; (b) provides reasonable assistance to the County in opposing or limiting the disclosure; and (c) makes only such disclosure as is compelled or required. This Contract imposes no obligation upon Contractor with respect

to any Confidential Information which Contractor can establish by legally sufficient evidence: (a) was in possession of or was known by Contractor, prior to its receipt from the County, without any obligation to maintain its confidentiality; or (b) is obtained by Contractor from a third-party having the right to disclose it, without an obligation to keep such information confidential.

- 11.2. **County Confidentiality Obligations.** County has no obligation to Contractor to keep confidential any information or records that are required to be disclosed by County under the Michigan Freedom of Information Act, 1976 PA 442, as amended (the "FOIA") nor shall County be obligated to inform or provide notice to Contractor regarding the disclosure of information or records that are required to be disclosed under the FOIA. Furthermore, County may disclose Confidential Information to third parties if required by law, statute, subpoena, court order, or other legal process.
- §12. **COUNTY DATA.** If Contractor uses or possesses County Data in the performance of this Contract, then the following provisions contained in this section apply:
- 12.1. **Use of County Data.** Contractor and Contractor Employees shall have a limited license to County Data, including a license to collect, process, store, generate, and display County Data but only to the extent necessary to provide services under this Contract. Contractor and Contractor Employees may not use, sell, rent, transfer, distribute, or otherwise disclose or make available County Data to any third-party, for Contractor's own purposes, or for the benefit of anyone other than the County, without the County's prior written consent, unless otherwise provided for within an Exhibit to this Contract.
- 12.2. **Unauthorized Access/Disclosure or Theft of County Data.** Contractor or Contractor Employees shall notify the County's Chief Information Officer as soon as practicable but no later than forty-eight (48) hours of "Discovery" of suspected unauthorized access, acquisition, disclosure, or theft of County Data (a "Security Breach"). "Discovery" means the first day on which the Security Breach is known to Contractor or Contractor Employees. Upon Discovery of a Security Breach, Contractor shall do the following: (a) take reasonable measures to promptly cure the deficiencies relating to the Security Breach in order to secure County Data; (b) cooperate with the County in investigating the occurrence, including making available all relevant records, logs, files, and data reporting materials required upon request by the County; and (c) comply with all applicable federal or state laws and regulations pertaining to unauthorized disclosures or as otherwise directed by the County. If Contractor uses or possesses County Data described in Exhibit II (HIPAA), Exhibit III (PII), or Exhibit IV (CJIS), Contractor shall follow the procedures in the applicable Exhibits governing the unauthorized access/disclosure or theft of County Data.
- 12.3. **Storage of County Data.** Contractor shall only store and process County Data at and from data centers located within the United States. Contractor shall not permit Contractor Employees to store County Data on portable devices, including, but not limited to, personal computers, tablets, laptops, and phones, except for portable devices that encrypt County Data at rest, have up-to-date firewall and antivirus protection, require multi-factor authentication to access, and are used and kept within the U.S. Contractor shall permit its Contractor Employees to access County Data remotely only as required to provide the Deliverables.
- 12.4. **Requirements for PCI Data.** If Contractor possesses, stores, processes, or transmits County Data that is considered Payment Card Industry (PCI) Data by the PCI Security Standards Council, Contractor shall comply with PCI Data Security Standard (DSS) and shall provide the County with a copy of its PCI DSS Attestation of Compliance and its Certificate of Compliance with PCI Data Security Standard on or before the Effective Date. Contractor warrants that it will keep its Certification of Compliance with

PCI Data Security Standard current and will provide evidence that the Certification of Compliance is current to County upon request.

- 12.5. **Response to Legal Request for County Data.** If the County receives a Court Order, a Freedom of Information Act (FOIA) request, or other legal request to provide County Data held by Contractor, then Contractor shall provide County Data to the County, in a format directed by the County, within the time frame required by law.
- 12.6. **Obligations upon Expiration, Termination or Cancellation of Contract.** At the County's sole discretion, upon expiration, termination, or cancellation of this Contract, Contractor shall return County Data in a mutually agreeable format in a prompt and orderly manner or provide for the secure disposal of County Data as directed by County.
- §13. **INFORMATION TECHNOLOGY STANDARDS.** If Contractor provides a technology application or requires the use of the Internet to access a Deliverable, the following sections apply:
- 13.1. **County Standards.** If Contractor and Contractor Employees that will be given access to the County Network, Contractor and Contractor Employees shall comply with the County Electronic Communications and Use of Technology Policy.
- 13.2. **Implementation of Security Measures.** Contractor shall implement and maintain appropriate administrative, technical, and organizational security measures to safeguard against unauthorized access to the County Network and County Data. Such measures shall be in accordance with security industry best practice and not less stringent than the measures Contractor applies to protect its own data of a similar kind.
- 13.3. **Completion of County Security Questionnaire.** Contractor warrants it has completed the County's security questionnaire. Each year, prior to the anniversary date of this Contract, and upon receipt of the County's security questionnaire, Contractor shall promptly provide the County with the answers to the County's security questionnaire.

§14. **GENERAL TERMS AND CONDITIONS**

- 14.1. **Access to County, Communities Served, and Drainage District Property or Facilities.** As set forth in this Contract, Contractor has access to and the right to use County, Communities Served, or Drainage Districts property and facilities necessary to perform this Contract. Unless otherwise provided in this Contract or Contractor receives prior written permission from the County's Director responsible for the department requiring access outside of Business Days, Contractor may only access and use County property and facilities for performance of this Contract on Business Days.
- 14.2. **Signs on County, Communities Served, or Drainage Districts Property or Facilities.** Contractor shall not place any signs or advertisements on County, Communities Served, or Drainage Districts property or facilities without the prior written permission of the County's Director of Facilities Management, successor, or designee.
- 14.3. **Use of County, Communities Served, or Drainage District Property or Facilities.** While performing this Contract, Contractor shall keep County, Communities Served, and Drainage Districts property or facilities, and anything stored thereon in a clean, safe, sanitary, responsible, and healthful condition and





shall keep the property and facilities in a manner that will not prevent or interfere with the County's, Communities' Served, or Drainage Districts' performance of its functions.

- 14.4. **Removal of Contractor's Personal Property.** At the expiration or termination of this Contract, Contractor shall leave County, Communities Served, and Drainage District property or facilities in the same condition that Contractor found them and clean of all rubbish. Contractor shall remove all of its personal property within thirty (30) Days of expiration or termination of this Contract. If Contractor does not remove its personal property within the thirty (30) Day period, then the County may, at County's sole discretion, dispose of the personal property and bill Contractor for any costs associated with the removal and disposal or keep, have all rights to, and be the owner of the personal property.
- 14.5. **Damage to County, Communities Served, or Drainage District Property or Facilities.** Contractor shall be responsible for any damage to any County, Communities Served, or Drainage District property or a facility that is caused by Contractor or Contractor Employees. If damage occurs, the County shall make the necessary repairs and/or replacements or cause a third-party to make the necessary repairs or replacements, provided, however, that Contractor shall reimburse the County, Communities Served, or Drainage Districts for all costs associated with repairing and/or replacing the damaged property or facilities. Without limiting any of County's other setoff rights in this Contract, County has the right to set-off those costs and/or damages from any amounts due and owing Contractor.
- 14.6. **Damage to Contractor's Property.** Contractor shall be solely liable and responsible for any loss or damage to Contractor's personal property located, kept, or stored on or at County, Communities Served, or Drainage District property or facilities during performance of this Contract.
- 14.7. **County's Right to Suspend Contract Performance.** Upon written notice, the County may require Contractor to suspend performance of this Contract if Contractor has failed to comply with any federal, state, or local laws or any requirements contained in this Contract. The right to suspend performance of this Contract is in addition to the County's right to terminate and/or cancel this Contract. The County, Communities Served, and Drainage Districts shall incur no penalty, expense, or liability to Contractor if the County suspends performance of this Contract under this Section.
- 14.8. **Discrimination.** Contractor, and its subcontractors under this Contract, shall not discriminate against an employee or an applicant for employment in hiring, any terms and conditions of employment or matters related to employment regardless of race, color, religion, sex, sexual orientation, gender identity or expression, national origin, age, genetic information, height, weight, disability, veteran status, familial status, marital status or any other reason, that is unrelated to the person's ability to perform the duties of a particular job or position, in accordance with applicable federal and state laws.
- 14.9. **Conflict of Interest.** Pursuant to Public Act 317 and 318 of 1968, as amended (MCL 15.301, *et seq.* and MCL 15.321, *et seq.*), no contracts shall be entered into between the County and any County Agent. To avoid any real or perceived conflict of interest, Contractor shall disclose to the County the identity of all Contractor Employees and all Family Members of Contractor Employees who: a) are employed by the County on the date the Contract is executed; and b) become employed by the County during the term of the Contract. Contractor shall also disclose to the County the identity of all County Agents and all Family Members of County Agents who: a) are employed by Contractor on the date the Contract is executed; and b) become employed by Contractor during the term of the Contract. For the purposes of this section, "Family Member" means a person's spouse or spouse's sibling or child; a person's sibling or

sibling's spouse or child; a person's child or child's spouse; or a person's parent or parent's spouse, and includes these relationships as created by adoption, marriage, or law.

- 14.10. **Access and Records.** Contractor will maintain accurate books and records in connection with performance of this Contract for thirty-six (36) months after the end of this Contract and Contractor shall provide the County with reasonable access to such books and records, upon request.
- 14.11. **Audit.** The County or an independent auditor hired by the County may perform contract audits (in its sole discretion) and shall have the authority to access all pertinent records and data and to interview any Contractor Employee during the term of this Contract and for a period of three years after final payment. Contractor shall explain any audit findings, questioned costs, or other Contract compliance deficiencies to the County within thirty (30) Business Days of receiving the draft audit report. Contractor's written response shall include all necessary documents and information that refute the draft audit report and an action plan to resolve the audit findings. A copy of Contractor's response will be included in the final report. Failure by Contractor to respond in writing within thirty (30) Business Days shall be deemed acceptance of the draft audit report and will be noted in the final report.
- 14.12. **Assignments/Delegations/Subcontracts.**
- 14.12.1. **Prior Written Consent Required.** Except by operation of law, neither Party may assign, delegate, or subcontract any of its duties, obligations, or rights under this Contract without the prior written consent of the other Party; provided, however, Contractor may assign, delegate, or subcontract this Contract to an affiliate or subsidiary as long as the affiliate or subsidiary is adequately capitalized and can provide adequate written assurances to the County that the affiliate or subsidiary can perform this Contract. The County may withhold consent, if the County determines that the assignment, delegation, or subcontract would impair performance of this Contract or the County's ability to recover damages under this Contract. Contractor shall also provide the County with adequate information to allow the County to make a determination regarding the assignment, delegation, or subcontract.
- 14.12.2. **Flow Down Clause Required.** Any assignment, delegation, or subcontract by Contractor must include a requirement that the assignee, delegee, or subcontractor will comply with the terms and conditions of this Contract. The assignment, delegation, or subcontract shall in no way diminish or impair performance of any term or condition of this Contract.
- 14.12.3. **Contractor Responsibility for Assigns/Delegates/Subcontractors.** If Contractor assigns, delegates, or subcontracts this Contract, in whole or in part, Contractor shall remain the sole point of contact regarding all matters under this Contract and shall remain liable for performance of this Contract. Contractor is solely responsible for the management of assignees, delegees, and subcontractors.
- 14.12.4. **Performance Required.** If an assignee, delegee, or subcontractor fails to perform as required under this Contract, Contractor shall contract with another entity for such performance. Any additional costs associated with securing another assignee, delegee, or subcontractor shall be the sole responsibility of Contractor.
- 14.13. **Non-Exclusive Contract.** This Contract is a non-exclusive agreement. No provision in this Contract limits or is intended to limit, in any way, Contractor's right to offer and provide its services to the general public, other business entities, municipalities, or governmental agencies during or after the term of this Contract. Similarly, the County may freely engage other persons to perform the same work that Contractor performs. Except as provided in this Contract, this Contract shall not be construed to guarantee Contractor or any Contractor Employee any fixed or certain number of Deliverables.

- 14.14. **No Third-Party Beneficiaries.** Except as provided for the benefit of the Parties and/or Communities Served or Drainage Districts, or except as specifically set forth in the Contract or this Amendment this Contract does not and is not intended to create any obligation, duty, promise, contractual right or benefit, right to be indemnified, right to be subrogated to the Parties' right in this Contract, or any other right in favor of any other person or entity.
- 14.14.1. **Survival of Terms and Conditions.** The following terms and conditions shall survive and continue in full force beyond the termination or cancellation of this Contract (or any part thereof) until the terms and conditions are fully satisfied or expire by their nature: **Section 1.** Contract Definitions, **Section 5.** Scope of Deliverables and Financial/Payment Obligations, **Section 6.** Contractor's Warranties and Assurances, **Section 7.** Liability, **Section 8.** Insurance and Bond Requirements, **Section 9.** Intellectual Property, **Section 10.** Confidential Information, **Section 11.** County Data, **Section 13.** General Terms and Conditions; and if incorporated into this Contract, Exhibit II: Business Associate Agreement (Health Insurance Portability and Accountability Act Requirements), Exhibit III: Requirements for Contractors with Access to County PII (Personally Identifiable Information) and Exhibit IV: Requirements for Contractors with Access to CJIS Data (Criminal Justice Information Security).
- 14.15. **Reservation of Rights.** This Contract does not, and is not intended to impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege, power, obligation, duty, or immunity of the County, Communities Served, or Drainage Districts.
- 14.16. **Compliance with Laws.** Contractor shall comply with all federal, state, and local laws, statutes, ordinances, regulations, executive orders, insurance policy requirements, and requirements applicable to its activities under this Contract. Contractor shall comply with all applicable laws and regulations related to the import, export, re-export, transfer, shipping, sale, re-sale, and/or use of goods, services, information, data, and equipment involving or related to this Contract.
- 14.17. **Force Majeure.** Notwithstanding any other term or condition of this Contract, neither Party shall be liable for failure to perform contractual duties or obligations caused by events beyond their reasonable control, including but not limited to: (a) acts of public enemies; (b) natural disasters; (c) terrorism; (d) war; (e) insurrection or riot; (f) natural disasters; (g) strikes, lockouts, work stoppages, or other labor difficulties; or (h) compliance with law. Reasonable notice shall be given to the affected Party of such event. Contractor is expected, through insurance or alternative temporary or emergency service arrangements, to continue its contractual duties or obligations if a reasonably anticipated, insurable business risk, such as business interruption or any insurable casualty or loss occurs.
- 14.18. **Notices.**
- 14.18.1. **Written Notice.** All notices required under this Contract shall be in writing. Notices shall be effective: (a) the next Business Day, if personally delivered; (b) the third Business Day, if sent by U.S. mail, postage prepaid, return receipt requested; (c) the next Business Day, if sent by a nationally recognized overnight express courier with a reliable tracking system; or (d) the next Business Day with a written response or receipt of confirmation, if sent by e-mail or fax.
- 14.18.2. **Notice to Contractor.** Unless otherwise specified, Notice to Contractor shall be addressed to the Contract Administrator listed on the first page of this Contract.

- 14.18.3. **Notice to County.** Unless otherwise specified herein, Notice to the County shall be addressed to Purchasing, the County Project Manager (if applicable), and the County Contract Administrator(s) listed on the first page of this Contract.
- 14.19. **Captions.** Section and subsection numbers, captions, and any index to sections or subsections contained in this Contract are intended for the convenience of the reader and are not intended to have any substantive meaning and shall not be interpreted to limit or modify any substantive provisions of this Contract. In this Contract, for any noun or pronoun, use of the singular or plural form, use of the nominative, possessive, or objective case, and any reference to gender (masculine, feminine, and neuter) shall mean the appropriate form, case, or gender as the context requires.
- 14.20. **Waiver.** Waiver of any term or condition under this Contract must be in writing and notice given pursuant to this Contract. No written waiver, in one or more instances, shall be deemed or construed as a continuing waiver of any term or condition of this Contract. No waiver by either Party shall subsequently affect its right to require strict performance of this Contract.
- 14.21. **Cumulative Remedies.** A Party's exercise of any remedy shall not preclude the exercise of any other remedies, all of which shall be cumulative. A Party shall have the right, in its sole discretion, to determine which remedies are to be exercised and in which order.
- 14.22. **Severability.** If a court of competent jurisdiction finds a term or condition of this Contract to be illegal or invalid, then the term or condition shall be deemed severed from this Contract. All other terms or conditions shall remain in full force and effect. Notwithstanding the above, if Contractor's promise to indemnify or hold the County, Communities Served, or Drainage Districts harmless is found illegal or invalid, Contractor shall contribute the maximum it is permitted to pay by law toward the payment and satisfaction of any Claims against the County, Communities Served, or Drainage Districts.
- 14.23. **Dispute Resolution.** All disputes arising under or relating to the execution, interpretation, performance, or nonperformance of this Contract involving or affecting the Parties may first be submitted to the respective Project Manager (if applicable) and Contract Administrators for possible resolution.
- 14.24. **Governing Laws/Consent to Jurisdiction and Venue.** This Contract shall be governed, interpreted, and enforced by the laws of the State of Michigan, excluding Michigan's conflict of law principles. Except as otherwise required by law or court rule, any action brought to enforce, interpret, or decide any Claim arising under or related to this Contract shall be brought in the Sixth Judicial Circuit Court of the State of Michigan, the 50<sup>th</sup> District of the State of Michigan, or the United States District Court for the Eastern District of Michigan, Southern Division, as dictated by the applicable jurisdiction of the court. Except as otherwise required by law or court rule, venue is proper in the courts set forth above. The choice of forum set forth above shall not be deemed to preclude the enforcement of any judgment obtained in such forum or taking action under this Contract to enforce such judgment in any appropriate jurisdiction.
- 14.25. **Entire Contract.** This Contract represents the entire agreement and understanding between the Parties. This Contract supersedes all other prior oral or written understandings, communications, agreements, or contracts between the Parties. The language of this Contract shall be construed as a whole according to its fair meaning and not construed strictly for or against any Party.





EXHIBIT I
CONTRACTOR INSURANCE REQUIREMENTS

During this Contract, the Contractor shall provide and maintain, at Contractor’s own expense, all insurance as set forth and marked below, protecting the County, Communities Served, and Drainage Districts against any Claims, as defined in this Contract. The insurance shall be written for not less than any minimum coverage herein specified. Limits of insurance required in no way limit the liability of the Contractor.

Primary Coverages

- Commercial General Liability Occurrence Form including: (a) Premises and Operations; (b) Products and Completed Operations (including On and Off Premises Coverage); (c) Personal and Advertising Injury; (d) Broad Form Property Damage; (e) Broad Form Contractual including coverage for obligations assumed in this Contract;
\$1,000,000 – Each Occurrence Limit
\$1,000,000 – Personal & Advertising Injury
\$2,000,000 – Products & Completed Operations Aggregate Limit
\$2,000,000 – General Aggregate Limit
\$ 100,000 – Damage to Premises Rented to You (formally known as Fire Legal Liability)

Workers’ Compensation Insurance with limits statutorily required by any applicable Federal or State Law and Employers Liability insurance with limits of no less than \$500,000 for each accident, \$500,000 for a disease for each employee, and \$500,000 for a disease policy limit. Contractor must comply with one of the following:

- 1. [X] Be a Fully Insured or State approved self-insurer;
2. [ ] Sole Proprietors must submit a signed Sole Proprietor form; or
3. [ ] Exempt entities, Partnerships, LLC, etc., must submit a State of Michigan form WC-337 Certificate of Exemption. Evidence of workers’ compensation insurance is not necessary if neither Contractor nor any Contractor Employees come onsite to any County real property, land, premises, buildings, or other facilities in the performance of this Contract.

Commercial Automobile Liability Insurance covering bodily injury or property damage arising out of the use of any owned, hired, or non-owned automobile with a combined single limit of \$1,000,000 each accident. This requirement is waived if there are no company owned, hired or non-owned automobiles utilized in the performance of this Contract.

Commercial Umbrella/Excess Liability Insurance with minimum limits of \$2,000,000 each occurrence. This coverage shall be in excess of the scheduled underlying General Liability, Automobile Liability, and Employer’s Liability Insurance policies with exclusions that are not broader than those contained in the underlying policies. This Umbrella/Excess requirement may be met by increasing the primary Commercial General Liability limits to meet the combined limit requirement.



**Supplemental Coverages. The following supplemental coverages are required if checked:**

1.  **Professional Liability/Errors & Omissions Insurance** (i.e., Consultants, Technology Vendors, Architects, Engineers, Real Estate Agents, Insurance Agents, Attorneys, etc.) with minimum limits of \$1,000,000 per claim and \$1,000,000 aggregate, shall be required when the Contractor provides professional services that the County, or any of the Communities Served, or Drainage Districts relies upon.
2.  **Cyber Liability Insurance** with minimum limits of \$1,000,000 per claim and \$1,000,000 aggregate, shall be required when the Contractor has access to County, or any of the Communities Served, or Drainage Districts' IT systems and/or stores County data electronically.
3.  **Commercial Property Insurance.** The Contractor shall be responsible for obtaining and maintaining insurance covering their equipment and personal property against all physical damage.
4.  **Liquor Legal Liability Insurance** with a limit of \$1,000,000 each occurrence shall be required when liquor is served and/or provided by Contractor.
5.  **Pollution Liability Insurance** with minimum limits of \$1,000,000 per claim and \$1,000,000 aggregate, shall be required when storage, transportation and/or cleanup & debris removal of pollutants are part of the services utilized.
6.  **Medical Malpractice Insurance** with minimum limits of \$1,000,000 per claim and \$1,000,000 aggregate, shall be required when medically related services are provided.
7.  **Garage Keepers Liability Insurance** with minimum limits of \$1,000,000 per claim and \$1,000,000 aggregate, shall be required when County, Communities Served, or Drainage Districts owned vehicles and/or equipment are stored and/or serviced at the Contractors facilities.
8.  **Other Insurance Coverages** as may be dictated by the provided product/service and deemed appropriate by the County Risk Management Department.

### General Insurance Conditions

The aforementioned insurance shall be endorsed, as applicable, and shall contain the following terms, conditions, and/or endorsements. All certificates of insurance shall provide evidence of compliance with all required terms, conditions and/or endorsements.

1. All policies of insurance shall be on a primary, non-contributory basis with any other insurance or self-insurance carried by the County, Communities Served, or Drainage Districts;
2. The insurance company(s) issuing the policy(s) shall have no recourse against the County, Communities Served, or Drainage Districts for subrogation (policy endorsed written waiver), premiums, deductibles, or assessments under any form. All policies shall be endorsed to provide a written waiver of subrogation in favor of the County;
3. Any and all deductibles or self-insured retentions shall be assumed by and be at the sole risk of the Contractor;
4. Contractor shall be responsible for their own property insurance for all equipment and personal property used and/or stored on County, Communities Served, or Drainage Districts property;
5. The Commercial General Liability and Commercial Automobile Liability policies along with any required supplemental coverages shall be endorsed to name the County of Oakland and its officers, directors, employees, appointees, and commissioners, Communities Served, Communities Served Agents, and Drainage Districts as additional insured where permitted by law and policy form;
6. If the Contractor's insurance policies have higher limits than the minimum coverage requirements stated in this document the higher limits shall apply and in no way shall limit the overall liability assumed by the Contractor under contract.
7. The Contractor shall require its contractors or sub-contractors, not protected under the Contractor's insurance policies, to procure and maintain insurance with coverages, limits, provisions, and/or clauses equal to those required in this Contract;
8. Certificates of insurance must be provided prior to the County's execution of the Contract and must bear evidence of all required terms, conditions and endorsements; and provide thirty (30) days' written notice of cancellation/material change endorsement to the insurance coverages required by this Exhibit.
9. All insurance carriers must be licensed and approved to do business in the State of Michigan along with the Contractor's state of domicile and shall have and maintain a minimum A.M. Best's rating of A- unless otherwise approved by the County Risk Management Department.

**EXHIBIT II**  
**BUSINESS ASSOCIATE AGREEMENT**  
**(Health Insurance Portability and Accountability Act Requirements)**

Exhibit II is a Business Associate Agreement between Contractor (“Business Associate”) and the County (“Covered Entity”). This Exhibit is incorporated into the Contract and shall be hereinafter referred to as “Agreement.” The purpose of this Agreement is to facilitate compliance with the Privacy and Security Rules and to facilitate compliance with HIPAA and the HITECH Amendment to HIPAA.

- §1. DEFINITIONS.** The following terms have the meanings set forth below for purposes of the Agreement, unless the context clearly indicates another meaning. Terms used but not otherwise defined in this Agreement have the same meaning as those terms in the Privacy Rule.
- 1.1 **Business Associate.** “Business Associate” means the Contractor.
  - 1.2 **CFR.** “CFR” means the Code of Federal Regulations.
  - 1.3 **Contract.** “Contract” means the document with the Purchasing Contract Number.
  - 1.4 **Contractor.** “Contractor” means the entity or individual defined in the Contract and listed on the first page of this Contract.
  - 1.5 **Covered Entity.** “Covered Entity” means the County of Oakland as defined in the Contract.
  - 1.6 **Designated Record Set.** “Designated Record Set” is defined in 45 CFR 164.501.
  - 1.7 **Electronic Health Record.** “Electronic Health Record” means an electronic record of health-related information on an individual that is created, gathered, managed, and consulted by authorized health care clinicians and staff.
  - 1.8 **HIPAA.** “HIPAA” means the Health Insurance Portability and Accountability Act of 1996.
  - 1.9 **HITECH Amendment.** “HITECH Amendment” means the changes to HIPAA made by the Health Information Technology for Economic and Clinical Health Act.
  - 1.10 **Individual.** “Individual” is defined in 45 CFR 160.103 and includes a person who qualifies as a personal representative in 45 CFR 164.502(g).
  - 1.11 **Privacy Rule.** “Privacy Rule” means the privacy rule of HIPAA as set forth in the Standards for Privacy of Individually Identifiable Health Information at 45 CFR part 160 and part 164, subparts A and E.
  - 1.12 **Protected Health Information.** “Protected Health Information” or “PHI” is defined in 45 CFR 160.103, limited to the information created or received by Business Associate from or on behalf of Covered Entity.
  - 1.13 **Required By Law.** “Required By Law” is defined in 45 CFR 164.103.
  - 1.14 **Secretary.** “Secretary” means the Secretary of the Department of Health and Human Services or his or her designee.
  - 1.15 **Security Incident.** “Security Incident” is defined in 45 CFR 164.304.
  - 1.16 **Security Rule.** “Security Rule” means the security standards and implementation specifications at 45 CFR part 160 and part 164, subpart C.



- §2. OBLIGATIONS AND ACTIVITIES OF BUSINESS ASSOCIATE.** Business Associate agrees to perform the obligations and activities described in this Section.
- 2.1 Business Associate understands that pursuant to the HITECH Amendment, it is subject to the HIPAA Privacy and Security Rules in a similar manner as the rules apply to Covered Entity. As a result, Business Associate shall take all actions necessary to comply with the HIPAA Privacy and Security Rules for business associates as revised by the HITECH Amendment, including, but not limited to, the following: (a) Business Associate shall appoint a HIPAA privacy officer and a HIPAA security officer; (b) Business Associate shall establish policies and procedures to ensure compliance with the Privacy and Security Rules; (c) Business Associate shall train its workforce regarding the Privacy and Security Rules; (d) Business Associate shall enter into a privacy/security agreement with Covered Entity; (e) Business Associate shall enter into privacy/security agreements with its subcontractors that perform functions relating to Covered Entity involving PHI; (f) Business Associate shall conduct a security risk analysis; and (g) Business Associate shall provide documentation upon request in relation to performance under this section.
- 2.2 Business Associate shall not use or disclose PHI other than as permitted or required by this Agreement or as required by law.
- 2.3 Business Associate shall use appropriate safeguards to prevent use or disclosure of the PHI. Business Associate shall implement administrative, physical, and technical safeguards (including written policies and procedures) that reasonably and appropriately protect the confidentiality, integrity, and availability of PHI that it creates, receives, maintains, or transmits on behalf of Covered Entity as required by the Security Rule.
- 2.4 Business Associate shall mitigate, to the extent practicable, any harmful effect that is known to Business Associate of a use or disclosure of PHI by Business Associate in violation of law or this Agreement.
- 2.5 Business Associate shall report to Covered Entity any known Security Incident or any known use or disclosure of PHI not permitted by this Agreement.
- 2.6 Effective September 23, 2009 or the date this Agreement is signed, if later, Business Associate shall do the following in connection with the breach notification requirements of the HITECH Amendment:
- 2.6.1 If Business Associate discovers a breach of unsecured PHI, as those terms are defined by 45 CFR 164.402, Business Associate shall notify Covered Entity without unreasonable delay but no later than ten (10) calendar days after discovery. For this purpose, "discovery" means the first day on which the breach is known to Business Associate or should have been known by exercising reasonable diligence. Business Associate shall be deemed to have knowledge of a breach if the breach is known or should have been known by exercising reasonable diligence, to any person, other than the person committing the breach, who is an employee, officer, subcontractor, or other agent of Business Associate. The notification to Covered Entity shall include the following: (a) identification of each individual whose unsecured PHI has been breached or has reasonably believed to have been breached, and (b) any other available information in Business Associate's possession that the Covered Entity is required to include in the individual notice contemplated by 45 CFR 164.404.
- 2.6.2 Notwithstanding the immediate preceding subsection, Business Associate shall assume the individual notice obligation specified in 45 CFR 164.404 on behalf of Covered Entity where a breach of unsecured PHI was committed by Business Associate or its employee, officer, subcontractor, or other agent of Business Associate or is within the unique knowledge of Business Associate as opposed to Covered Entity.

In such case, Business Associate shall prepare the notice and shall provide it to Covered Entity for review and approval at least five (5) calendar days before it is required to be sent to the affected individual(s). Covered Entity shall promptly review the notice and shall not unreasonably withhold its approval.

- 2.6.3 Where a breach of unsecured PHI involves more than five hundred (500) individuals and was committed by the Business Associate or its employee, officer, subcontractor, or other agent or is within the unique knowledge of Business Associate as opposed to Covered Entity, Business Associate shall provide notice to the media pursuant to 45 CFR 164.406. Business Associate shall prepare the notice and shall provide it to Covered Entity for review and approval at least five (5) calendar days before it is required to be sent to the media. Covered Entity shall promptly review the notice and shall not unreasonably withhold its approval.
- 2.6.4 Business Associate shall maintain a log of breaches of unsecured PHI with respect to Covered Entity and shall submit the log to Covered Entity within thirty (30) calendar days following the end of each calendar year, so that the Covered Entity may report breaches to the Secretary in accordance with 45 CFR 164.408. This requirement shall take effect with respect to breaches occurring on or after September 23, 2009.
- 2.7 Business Associate shall ensure that any agent or subcontractor to whom it provides PHI, received from Covered Entity or created or received by Business Associate on behalf of Covered Entity, agrees in writing to the same restrictions and conditions that apply to Business Associate with respect to such information. Business Associate shall ensure that any such agent or subcontractor implements reasonable and appropriate safeguards to protect Covered Entity's PHI.
- 2.8 Business Associate shall provide reasonable access, at the written request of Covered Entity, to PHI in a Designated Record Set to Covered Entity or, as directed in writing by Covered Entity, to an Individual in order to meet the requirements under 45 CFR 164.524.
- 2.9 Business Associate shall make any amendment(s) to PHI in a Designated Record Set that the Covered Entity directs in writing or agrees to pursuant to 45 CFR 164.526.
- 2.10 Following receipt of a written request by Covered Entity, Business Associate shall make internal practices, books, and records reasonably available to the Secretary in order to determine Covered Entity's compliance with the Privacy Rule. The afore mentioned materials include policies and procedures and PHI relating to the use and disclosure of PHI received from Covered Entity or created or received by Business Associate on behalf of Covered Entity.
- 2.11 Business Associate shall document disclosures of PHI and information related to such disclosures, to permit Covered Entity to respond to a request by an Individual for: (a) an accounting of disclosures of PHI in accordance with 45 CFR 164.528 or (b) effective January 1, 2011 or such later effective date prescribed by regulations issued by the U.S. Department of Health and Human Services, an accounting of disclosures PHI from an Electronic Health Record in accordance with the HITECH Amendment.
- 2.12 Following receipt of a written request by Covered Entity, Business Associate shall provide to Covered Entity or an Individual information collected in accordance with Section 2 to permit Covered Entity to respond to a request by an Individual for: (a) an accounting of disclosures of PHI in accordance with 45 CFR 164.528 or (b) effective as of January 1, 2011 or such later effective date prescribed by regulations issued by the U.S. Department of Health and Human Services, an accounting of disclosures of Protected Health Information from an Electronic Health Record in accordance with the HITECH Amendment.
- §3. PERMITTED USES AND DISCLOSURES BY BUSINESS ASSOCIATE.** Business Associate may use and disclose PHI as set forth in this Section.



- 3.1 Except as otherwise limited in this Agreement, Business Associate may use or disclose PHI to perform functions, activities, or services for or on behalf of Covered Entity as specified in the underlying service agreement between Covered Entity and Business Associate, provided that such use or disclosure shall not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity. If no underlying service agreement exists between Covered Entity and Business Associate, Business Associate may use or disclose PHI to perform functions, activities, or services for or on behalf of Covered Entity for the purposes of payment, treatment, or health care operations as those terms are defined in the Privacy Rule, provided that such use or disclosure shall not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
- 3.2 Except as otherwise limited in this Agreement, Business Associate may use PHI for the proper management and administration of the Business Associate or to carry out the legal responsibilities of the Business Associate.
- 3.3 Except as otherwise limited in this Agreement, Business Associate may disclose PHI for the proper management and administration of the Business Associate or to carry out the legal responsibilities of the Business Associate, provided that disclosures are Required by Law or Business Associate obtains reasonable assurances in writing from the person to whom the information is disclosed that: (a) the disclosed PHI will remain confidential and will be used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person and (b) the person notifies the Business Associate of any known instances in which the confidentiality of the information has been breached.
- 3.4 Except as otherwise limited in this Agreement, Business Associate may use PHI to provide data aggregation services to Covered Entity as permitted by 45 CFR 164.504(e)(2)(i)(B).
- 3.5 Business Associate may use PHI to report violations of law to appropriate federal and state authorities, consistent with 45 CFR 164.502(j)(1).

**§4. OBLIGATIONS OF COVERED ENTITY.**

- 4.1 Covered Entity shall notify Business Associate of any limitation(s) of Covered Entity in its notice of privacy practices in accordance with 45 CFR 164.520, to the extent that such limitation may affect Business Associate’s use or disclosure of PHI.
- 4.2 Covered Entity shall notify Business Associate of any changes in or revocation of permission by an Individual to use or disclose PHI, to the extent that such changes may affect Business Associate’s use or disclosure of PHI.
- 4.3 Covered Entity shall use appropriate safeguards to maintain and ensure the confidentiality, privacy and security of PHI transmitted to Business Associate pursuant to this Agreement, the Contract, and the Privacy Rule, until such PHI is received by Business Associate, pursuant to any specifications set forth in any attachment to the Contract.
- 4.4 Covered Entity shall manage all users of the services including its qualified access, password restrictions, inactivity timeouts, downloads, and its ability to download and otherwise process PHI.
- 4.5 The Parties acknowledge that Covered Entity owns and controls its data.
- 4.6 Covered Entity shall provide Business Associate with a copy of its notice of privacy practices produced in accordance with 45 CFR Section 164.520, as well as any subsequent changes or limitation(s) to such notice, to the extent such changes or limitations may affect Business Associate’s use or disclosure of PHI. Covered

Entity shall provide Business Associate with any changes in or revocation of permission to use or disclose PHI, to the extent the changes or revocation may affect Business Associate's permitted or required uses or disclosures. To the extent that the changes or revocations may affect Business Associate's permitted use or disclosure of PHI, Covered Entity shall notify Business Associate of any restriction on the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 CFR Section 164.522. Covered Entity may effectuate any and all such notices of non-private information via posting on Covered Entity's web site.

**§5. EFFECT OF TERMINATION.**

- 5.1 Except as provided in Section 5, upon termination of this Agreement or the Contract, for any reason, Business Associate shall return or destroy (at Covered Entity's request) all PHI received from Covered Entity or created or received by Business Associate on behalf of Covered Entity. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of PHI.
- 5.2 If Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity written notification of the conditions that make return or destruction infeasible. Upon receipt of written notification that return, or destruction of PHI is infeasible, Business Associate shall extend the protections of this Agreement to such PHI and shall limit further uses and disclosures of such PHI to those purposes that make the return or destruction infeasible, for so long as Business Associate maintains such PHI, which shall be for a period of at least six (6) years.

**§6 MISCELLANEOUS.**

- 6.1 This Agreement is effective when the Contract is executed or when Business Associate becomes a Business Associate of Covered Entity and both Parties sign this Agreement, if later. However, certain provisions have special effective dates, as set forth herein or as set forth in HIPAA or the HITECH Amendment.
- 6.2 **Regulatory References.** A reference in this Agreement to a section in the Privacy Rule or Security Rule means the section as in effect or as amended.
- 6.3 **Amendment.** The Parties agree to take action to amend this Agreement as necessary for Covered Entity to comply with the Privacy and Security requirements of HIPAA. If the Business Associate refuses to sign such an amendment, this Agreement shall automatically terminate.
- 6.4 **Survival.** The respective rights and obligations of Business Associate and Covered Entity under this Agreement shall survive the termination of this Agreement and/or the Contract.



**EXHIBIT III**  
**REQUIREMENTS FOR CONTRACTORS WITH ACCESS TO COUNTY PII**  
**(Personally Identifiable Information)**

Exhibit III governs the requirements for Contractors with Access to Personally Identifiable Information (PII).

**1. DEFINITIONS**

- 1.1 **Security Breach** means the unauthorized access, acquisition, theft, or disclosure of PII.
- 1.2 **PII (Personally Identifiable Information)** means information that can be used to identify an individual, either alone or when combined with other personal or identifying information. PII includes, but is not limited to, a name, number, address, telephone number, driver's license or state personal identification card number, social security number, place of employment, employee identification number, employer or taxpayer identification number, government passport number, health insurance identification number, mother's maiden name, demand deposit account number, savings account number, financial transaction device account number or the person's account password, any other account password in combination with sufficient information to identify and access the account, automated or electronic signature, biometrics, stock or other security certificate or account number, credit card number, vital record, or medical records or information as well as the first name or first initial and last name linked to a social security number, driver's license or state personal identification card or financial account number in combination with a code or password that would permit access to a person's financial account(s) and as otherwise may be defined by state or federal laws governing the unauthorized access to personal information, or other information that is used for the purpose of identifying a specific person or providing access to a person's financial accounts.

**2. OBLIGATIONS**

- 2.1 Contractor shall not use or disclose PII other than as permitted or required by this Contract or as required by law.
- 2.2 Contractor shall implement administrative, physical, and technical safeguards (including written policies and procedures) that reasonably and appropriately protect the confidentiality, integrity, and availability of PII that it creates, receives, maintains or transmits on behalf of the County.
- 2.3 Contractor shall mitigate, to the extent practicable, any harmful effect known to Contractor of the use or disclosure of PII in violation of law or this Contract.
- 2.4 If Contractor or Contractor Employees discover a Security Breach, Contractor shall notify the County without unreasonable delay, but no later than within forty-eight (48) hours of discovery. For this purpose, "discovery" means the first day on which the Security Breach is known to Contractor or Contractor Employees. The notification to the County shall include the following: (a) describe the Security Breach in general terms; (b) describe the type of personal information that is the subject of the Security Breach; (c) identify each individual whose PII has been breached or has reasonably believed to have been breached; (d) describe in general terms, what Contractor has done to prevent additional Security Breaches; and (e) provide any other available information in Contractor or subcontractor's possession that may be necessary to comply with Security Breach notification laws.
- 2.5 If the County determines it will provide the notice of the Security Breach to the affected individuals and/or to governmental authorities, Contractor shall reimburse the County for: (a) its costs in notifying the affected individuals; (b) the cost of third-party credit and identify monitoring services to each of the affected

individuals with compromised PII for no less than twenty-four (24) months following the date of notification to each individual; and (c) costs associated with the Security Breach, including but not limited to any costs incurred by the County in investigating and resolving the Security Breach, including reasonable fees associated with such investigation and resolution. Without limiting Contractor's obligations of indemnification as described in the Contract, Contractor shall indemnify, defend, and hold harmless the County for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the County in connection with the Security Breach. Contractor shall reimburse County for the applicable costs described above within thirty (30) days of receipt of an itemization of costs incurred by the County because of the Security Breach.

- 2.6 Within ten (10) calendar days of its discovery of the Security Breach, Contractor shall provide the County with a detailed plan describing the measures Contractor will undertake to prevent a future Security Breach. The County shall have the right to audit, inspect and test Contractor's new safeguards put in place because of the Security Breach. Contractor shall be responsible for recreating lost County Data in the manner and on the schedule set by the County without charge to the County.



**EXHIBIT IV**  
**REQUIREMENTS FOR CONTRACTORS WITH ACCESS TO CJIS DATA**  
**(Criminal Justice Information Security)**

Exhibit IV governs the requirements for Contractors with Access to Criminal Justice Information governed by the CJIS Security Policy of the FBI.

**1. Definitions**

- 1.1 **Criminal Justice Information (CJI)** means data or information governed by the CJIS Security Policy.
- 1.2 **Criminal Justice Information Services (CJIS)** means the Criminal Justice Information Services, a division in the Federal Bureau of Investigation (FBI) that sets a minimum standard of security requirements to protect and safeguard CJI.
- 1.3 **CJIS Security Policy** means the Policy that governs the security of CJI. The CJIS Security Policy provides guidance for the creation, viewing, modification, transmission, dissemination, storage, and destruction of CJI. This Policy applies to every individual—contractor, private entity, noncriminal justice agency representative, or member of a criminal justice entity—with access to, or who operate in support of, criminal justice services and information.

**2. Obligations**

Contractor shall comply with the current version of the CJIS Security Policy, which may be amended from time to time by the CJIS Advisory Policy Board of the FBI. A link to the current FBI standards is available: <https://www.fbi.gov/services/cjis/cjis-security-policy-resource-center>



**EXHIBIT V  
FEDERALLY FUNDED CONTRACT REQUIREMENTS**

Exhibit V sets forth additional provisions for all federally funded contracts. To the extent that this Contract is funded, in whole or in part, by any federal award, the following provisions apply:

1. **Termination.** In addition to the termination rights set forth in Section 4 of this Contract, the County may terminate this Contract, in whole or in part, for cause upon notice to Contractor if Contractor breaches any duty or obligation in the Contract and fails to cure the breach, to the County's satisfaction, if applicable.
  - 1.1 **Right to Cure.** If the Contractor breaches this Contract, and the County, in its sole discretion, determines that the breach is curable, then the County must provide the Contractor with written notice of the breach and a time period (not less than thirty (30) Days) to cure the breach. The notice of breach and opportunity to cure do not apply in the following circumstances: (1) for successive or repeated breaches; (2) if the County determines in its sole discretion that the breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage, or destruction of any real or tangible personal property; or (3) if the County terminates the Contract under this Section or Section A above. The effective date for termination or cancellation shall be clearly stated in the written notice.
  - 1.2 **Termination Deemed for Convenience.** If the County terminates the Contract for cause and it is determined, for any reason, that Contractor was not in breach of Contract, then the termination for cause shall be deemed a termination for convenience, effective as of the same date specified in the notice of breach.
2. **Contractor's Obligations Upon Termination for Cause.** If the Contract is terminated for cause, the County may require Contractor to pay all costs incurred by the County in terminating the Contract, including but not limited to, administrative costs, reasonable attorneys' fees, court costs, and any reasonable additional costs the County may incur to procure the Deliverables required by the Contract from other sources. Re-procurement costs are not consequential, indirect or incidental damages and cannot be excluded by any other terms included in this Contract; however, such costs shall not exceed 50% of the County's financial obligation under this Contract.
3. **Compliance with Laws.** Contractor shall comply with the following, if applicable:
  - 3.1 The Davis-Bacon Act (40 U.S.C. 3141-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction");
  - 3.2 The Copeland "Anti-Kickback" Act (40 U.S.C. 3145 *et seq.*), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States");
  - 3.3 The Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708) as supplemented by Department of Labor regulations (29 CFR Part 5);
  - 3.4 The requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency;
  - 3.5 All applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387);





PURCHASING

OAKLAND COUNTY EXECUTIVE DAVID COULTER

Purchasing

(248) 858-0511 | purchasing@oakgov.com

- 3.6 All mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201 *et seq.*); and
- 3.7 The Byrd Anti-Lobbying Amendment (31 U.S.C. 1352 *et seq.*)
- 3.8 The requirements of 2 CFR 200.323 (Procurement of recovered materials), including, but not limited to, section 6002 of the Solid Waste Disposal Act, as amended, and 40 CFR Part 247.
- 3.9 The requirements of 2 CFR 200.216 (Prohibition on certain telecommunications and video surveillance services or equipment).
- 3.10 The requirements of 2 CFR 200.322 (Domestic preferences for procurements).
- 3.11 The requirements and obligations imposed on contractors in 2 CFR Appendix II to Part 200 (Contract Provisions for Non-Federal Entity Contracts Under Federal Awards).
4. **Debarment and Suspension.** Contractor certifies that it is not listed on the government-wide Excluded Parties List System in the System for Award Management (SAM). Contractor must promptly notify the County, if Contractor is listed in SAM at any time during the term, renewal, or extension of this Contract. If Contractor is listed in SAM, the County may terminate or cancel this Contract, in whole or in part, immediately, upon notice to Contractor.
5. **Equal Employment Opportunity.** If this Contract meets the definition of “Federally Assisted Construction Contract” under 41 CFR Part 60-1.3, then during the performance of this Contract, Contractor agrees as follows:
- 5.1 The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- 5.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 5.3 The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- 5.4 The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 5.5 The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 5.6 The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 5.7 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 5.8 The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.



**EXHIBIT VII  
LICENSE FOR USE OF COUNTY SERVICEMARK**

County grants to Contractor the non-exclusive right to use its Servicemark (hereinafter "Mark"), described and listed in the Servicemark Guidelines (below), for programs and activities that are directly related to the Deliverables and governmental services provided by Oakland County.

The Mark may be used on: (Applicable if Checked):

- Printed materials
- Electronic materials
- Contractor's website: [insert website address].

Contractor shall not use the Mark for any other purpose.

The Mark must be used by Contractor as shown in the Servicemark Guidelines, with no variations of color, font or proportion. Contractor acknowledges that the County has intellectual property rights in the Mark. Nothing in this Contract gives Contractor any right, title, or interest in the Mark. Contractor may not take any action that will interfere with County's rights in the Mark.

The County may terminate Contractor's rights under this Exhibit, if County notifies Contractor it has breached the terms of this Exhibit and Contractor fails to cure the breach within ten (10) business days of notice of breach. Following termination of this Exhibit, Contractor shall have ten (10) business days to remove the Mark from the materials and/or website authorized for use above. Contractor shall provide County with written confirmation that such actions have been taken. Upon termination of the Contract, Contractor shall cease all use of the Mark.

Service mark Guidelines

The Guidelines for proper use of the Mark provided to the Contractor are as follows:

## OAKLAND COUNTY, MICHIGAN

### LOGO BRAND STANDARDS


#### PRIMARY LOGO

Oakland County has two logos that can be used interchangeably. Use the Horizontal Two Trees logo as your default choice. This is our primary logo. The Stacked Logo can be used whenever space or size is a consideration in your publication. Either logo is acceptable for all Oakland County publications.


However, **only one style of logo may be used per publication.** For instance, if you have the horizontal logo on the front of a publication, you can't use the stacked logo elsewhere in the document.

Pick one logo style for each publication and use it throughout, do not mixed styles.

**HORIZONTAL "TWO TREES" LOGO**



**STACKED LOGO**




#### BRAND COLORS

The primary Oakland County logos use the following brand colors.

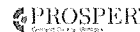
PMS 347	PMS Black C
CMYK 84.16.78.2	CMYK 0.0.0.100
RGB 0,164,102	RGB 0,0,0
HEX #009A66	HEX #000000

Accent colors for the brand are pulled from two other major servicemarks for Oakland County. These colors may be used as secondary colors in publications.

**Destination Oakland Blue**  
 PMS 2923 | CMYK 83.91.0.0 | RGB 0,134,222

  
**OAKLAND COUNTY PARKS**

**Prosper Orange**  
 PMS 111 | CMYK 02.44.01.83 | RGB 246,147,45

  
**PROSPER**  
Community Group


#### WHITE SPACE


A prescribed amount of space around the logo must be maintained at all times.





#### LOGO VARIATIONS

Logos should appear in full color when used in a full color design, whenever possible. However, if the publication requires a single color version of the logo, choose either all-black or all-white. No other color is acceptable.

  
OAKLAND COUNTY MICHIGAN

  
OAKLAND COUNTY MICHIGAN


  
OAKLAND COUNTY MICHIGAN

  
OAKLAND COUNTY MICHIGAN

#### QUESTIONS

For questions or clarification on these brand standards, please contact:

Pam Tremble  
Graphic Designer  
County Executive Administration  
(248) 858-8964 | tremblep@oakgov.com


**Adobe Swatch Exchange**  
The official .ase file is available upon request

Do not provide copies to a third-party of any artwork provided to you by County and referenced in this Exhibit without the express consent of County.





OAKLAND COUNTY EXECUTIVE DAVID COULTER

PURCHASING

Purchasing

(248) 858-0511 | purchasing@oakgov.com

EXHIBIT VIII

ACKNOWLEDGEMENT OF INDEPENDENT EMPLOYMENT STATUS

I, \_\_\_\_\_, acknowledge that I am an employee or subcontractor of (Name of Contractor's Company): \_\_\_\_\_ (hereinafter "Company") under Contract #: \_\_\_\_\_, and

- At all times during my assignment at Oakland County, I will remain an employee or subcontractor of the Company
• I am not an employee of Oakland County; and,
• I may not represent myself as an employee of Oakland County.

I understand that:

- Company is responsible for establishing the conditions of my assignment to Oakland County; and
• Company is solely responsible for compensating me for my services; and
• I understand and agree that as an employee or subcontractor of Company, I am not eligible to participate in or accrue any benefits under any of Oakland County's employee benefits or benefit plans, including retirement, deferred compensation, insurance (including without limitation: health, disability dental and life insurance), vacation pay, and any other similar plans and programs. However, if I am a retired County employee, I may receive vested post-employment benefits such as retiree healthcare and pension benefits from Oakland County. I understand that the post-retirement benefits I receive from the County cannot be enhanced by my work for the above Contractor.

I acknowledge that:

- I have no copyright, patent, trademark or trade secret rights to any Oakland County Intellectual Property or any work developed by me while providing services to Oakland County; and,
• If I will be given access to the County Network, I will comply with the Oakland County Electronic Communications and Use of Technology Policy.
• I will comply with and sign the FBI Criminal Justice Information Services Security Addendum if I will have access to CJIS Data.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

\*Contractor or Contractor Employee must provide a copy of completed form to the Purchasing Division at Purchasing@oakgov.com to receive a County Identification badge.

## EXHIBIT IX

## SCOPE OF CONTRACTOR DELIVERABLES / FINANCIAL OBLIGATIONS

Oakland County Water Resources Commissioner (WRC) operates and maintains several wells, well water supply systems, and well water treatment plants throughout Oakland County. WRC is accepting proposals for a vendor to perform necessary maintenance and rehabilitation of existing wells, pumps, motors, and appurtenances. Work may include evaluation of the existing wells and pumps, prioritization of maintenance, failure analysis, and recommendations for rehabilitation of existing wells, equipment replacement, and installation of new wells. Work will be done at the direction of the Water Resources Commissioner's Office. Services shall be provided on an as-needed basis and only at the request and direction of authorized County staff.

Awarded vendor is expected to respond and to provide repair services within four hours of being contacted by WRC.

Services include but are not limited to the following.

- a. Potable water well design and installation.
- b. Potable well and pump performance testing, evaluation, and inspection.
- c. Potable well cleaning and rehabilitation.
- d. Pumping equipment repair and overhauling.
- e. New pump and pump parts supply.
- f. Comprehensive hydrogeological service including the following at a minimum.
  1. Comprehensive hydrogeologic studies.
  2. Water supply investigation and development
  3. Well head protection area (WHPA) delineation and management.
  4. Aquifer performance testing and analysis.
  5. Groundwater flow profiling and contaminant modeling.
  6. Electric logging (E- logging) and Gamma logging.
  7. Fracture trace analysis.
  8. Lake augmentation well feasibility studies.
  9. Injection wells.
- g. Alignment testing.
- h. Revisions to well standards.
- i. Asset management of wells/tanks/etc.
- j. Water quality investigations (listed under f.4).
- k. Filter installation, inspection, and maintenance including filter media core sampling, testing and analysis, cleaning, and replacement.
- l. Well repair services for wells and pumps from 0.5 horsepower and above.

### Service Report

For work performed, a comprehensive report will be submitted to WRC regarding the work completed. Report format shall be within WRC guidelines and include dates, detailed description of work completed and names of employees on the project.



### WRC Standards

Work will be done in compliance with Oakland County Water Resources Commissioner Municipal Well and Well House Design Standards available online at <https://www.oakgov.com/home/showpublisheddocument/5030/638050707941530000>.

Alternate approaches should be submitted to WRC for approval in advance of the work.

### Pump Testing

The awarded vendor will perform pump testing at intervals directed by WRC. The number of points will be determined by WRC but is expected to be either a one-point test (shutdown/deadhead and rated permitted capacity) or a two-point test (shutdown/deadhead, rated/permitted capacity and 20 psi). The frequency of testing will be determined by WRC. The cost for pump testing will be billed on a time and material basis as some tests will require a one-man crew while others will require a two-man crew. A sand test will be included, for no additional cost, when directed by WRC.

#### Potable well and pump performance testing, evaluation, and inspection

Our annual testing program services include orifice testing, if possible, for each well and pump installation. High service pumps are also included in this program. The orifice test is conducted at the rated design flow for the pump, or as near to the rated design flow as possible, along with system operating pressure and shutoff. Static water level and pumping level readings are taken in the well with an electronic water level measuring device. Discharge pressure is recorded. Amp and volt readings are also taken. The data is compiled by our office staff and presented to the appropriate representative of the WRC in a personal meeting. Determinations are made relative to the condition of the well and pump. Whether or not the specific capacity of the well is at an appropriate level, whether the pump is performing with full efficiency and other important aspects of the system are identified and discussed. This is an essential tool for planning of larger maintenance projects and for efficient use of the maintenance budget. Necessary projects are identified at the proper time – not too soon or too late, after the equipment has fallen apart and something catastrophic has occurred.

#### Potable well cleaning and rehabilitation

We can offer many different types of well cleaning and rehabilitation procedures. These include conventional tank cleaning, high pressure hydro-injection, high chemical volume/high pressure methodology, wire brushing, isolation discs, dynamite blasting, air burst, and other types as well. The key is to tailor the best approach from a quality and cost perspective to the particular application.

#### Pumping equipment repair and overhauling

We have an in-house machine shop that enables us to provide turnkey service and quick turnaround.

#### New pump and pump parts supply

We are authorized distributors for Floway Pump, National Pump, and Peerless Pump. These are three leading firms in the manufacture of pumping equipment for the Municipal Water Market. We have \$750,000 of pump component inventory here in our warehouse in Mishawaka, IN which enables us to respond to emergency situations on an immediate basis as opposed to having to deal with a factory and the inherent associated delivery problems.

#### Comprehensive hydrogeologic studies

Our Hydrogeologists are routinely involved in groundwater resource exploration, development and management projects and we are experienced in meeting the State of Michigan requirements for Hydrogeologic Studies as outlined in Rule 221 of the Part 22 rules of Part 31 of the Natural Resources and Environmental Protection Act, 1994 PA 451. A brief list of our Hydrogeologic Consulting services includes: geologic mapping; cross-section development; lithology sampling and identification; surficial and down-hole geophysical surveying, riparian surveying and sampling; production well design; wellfield design; numerical and analytical groundwater modeling; groundwater contamination characterization; groundwater sampling; Phase I and Phase II Site Investigations; aquifer performance testing and analysis; fracture trace analysis and public education. We are also capable of completing contaminant source inventories (CSIs), contingency plans, management plans and leading local planning team meetings to produce high quality Wellhead Protection Plans (WHPP). We are also familiar with the State of Michigan WHP Grant Program and complete these regularly at no cost to our clients to help them reduce their costs associated with WHP.

We have extensive experience in meeting and satisfying the requirements of the EGLE policy WD-03-003; *Aquifer Test Requirements for Public Water Supply Wells*. By owning all of our own pressure transducers and test pumping equipment, we are able to perform these services with short notice and at lower cost to the client because there are no rental fees passed on to the client. We maintain an inventory of In-Situ Level Troll700 pressure transducers for monitoring water level fluctuations and we utilize the AQTESOLV Pro (HydroSOLVE, 2007) software package for analysis of multiple well and single well pumping test data, recovery data and slug test data.

Whether it be vertical flow and chemical profiling within a single production well or a large-scale groundwater contamination characterization study, our Hydrogeologists are able to design the sampling program necessary to evaluate the hydro-geochemical problem at hand, complete the necessary field work and then analyze the data to develop conceptual and numerical models of the groundwater contaminant extent and transport characteristics. When predictive computer simulations are needed to evaluate contamination impact and remedial alternatives, our Hydrogeologist are also experienced at modeling groundwater contaminant transport using a variety of modeling softwares such as MODFLOW and GFLOW.

Electric logging and gamma ray logging. As a matter of standard practice, we perform down-hole single point resistivity (e-logs) and natural gamma ray (gamma logs) surveys on every test well that we drill. These services are conducted by our hydrogeologist using the Mount Sopris MGXII geophysical logging system.

#### Injection wells

We are fully capable of providing any services that may be required for any injection well project that you may be considering from permitting to construction and maintenance of the injection wells.

#### Water quality investigations

We routinely perform water quality investigations as part of our work. This can include assessment of water quality parameters for potential new wellfields. Also, we are actively engaged in projects where quality problems in existing systems are analyzed and solved. We have been on the leading edge of industry technology in this area. Amongst other services, we are performing well profiling studies which can present a utility with a very cost-effective solution to difficult water quality problems. A successful





well profiling project can result in enormous savings for a utility by eliminating the need for conventional treatment.

Filter Installation, Inspection, and Maintenance

We perform core sampling and then the samples are analyzed at a certified laboratory, and recommendations are made about the quality and remaining service life for the media. Complete media change out services are provided, along with any depth of filter repair that may be found to be required.

Peerless-Midwest, inc. is capable of providing emergency repair services within 4 hours of being contacted. Steve Studer is based in Fenton and can provide these services.

Proposed project team:

- a) Frank Williams – Responsible for overall administration of all work for WRC
- b) Mike Williams – Assists in overall administration of work for WRC
- c) Steve Studer – Fenton based emergency repair contact
- d) Jon Dock – Superintendent of Field Services
- e) Katelynn Shail – Manager of Hydrogeology Department
- f) Rod Helmuth – Manager of Technical Services Department

Peerless-Midwest, Inc has the great majority of required services able to be performed in-house with our direct employees and equipment. The one area as pertains to WRC that will occasionally come up would be in regard to some of the specialty pump house buildings which require a subcontracted crane service, Skyline Crane from Auburn Hills, MI, to safely pull the pumping equipment.

Warranty description: The standard warranty for Peerless-Midwest, Inc. work is 1-year parts and labor.

Job Classification Rate

Job Classification	Rate
Foreman Level Worker with Truck and Equipment	\$140 per hour
Apprentice Level Worker if Needed to Accompany Foreman	\$125 per hour
Shop Worker	\$125 per hour
Office Labor	\$50 per hour
Certified Hydrogeologist	\$165 per hour
Technical Services Manager	\$160 per hour

\*The time is charged portal to portal. These are straight time rates which includes up to 8 hours per day. For overtime or Saturday work, we would ask for time and one half. For Sundays and holidays, we would ask for double time.

We attach an itemized list of products and materials with pricing.



OAKLAND COUNTY EXECUTIVE DAVID COULTER

Purchasing

(248) 858-0511 | purchasing@oakgov.com

Equipment Rate Sheet

Equipment	Rate
Pump Hoisting Rig	\$40 per hour
Drilling Machine (any type PMI owns)	\$65 per hour
TV Video Camera Truck	\$1250 per day
Cleaning Tank	\$40 per day

\*These prices will be the same for overtime, weekend, or holidays.

For materials used that are not listed on the itemized price list, we would request a markup percentage of 25%.

For subcontracted services and rented equipment, we would request a markup percentage of 20%.

With respect to freight charges, the items that are stocked in our warehouse are "freight allowed". We buy in bulk and obtain these terms from the suppliers. For non-stock items that would be specially purchased for WRC projects, a markup of 10% would be requested for the freight charge.

Exhibit A Locations

Exhibit B Safety Compliance Form

**Exhibit A**

Oakland County, by and through the Water Resources Commissioner, operates and maintains the following cities', villages' and townships' water and/or sewer systems, or components thereof.

Water Systems	Sanitary Sewer Systems
City of Farmington Hills	City of Farmington Hills
Charter Township of Oakland	Charter Township of Oakland
Charter Township of Royal Oak	Charter Township of Royal Oak
Charter Township of Highland	City of Walled Lake
City of Walled Lake	City of Novi
Bavarian Softwater	Charter Township of Oxford
Charter Township of Oxford	City of Farmington ( <i>retention tank and lift stations</i> )
City of Farmington ( <i>booster station, storage tank</i> )	Village of Franklin
Village of Bingham Farms	City of Lathrup Village ( <i>retention tank, grinder pumps</i> )
City of Bloomfield Hills	Village of Lake Orion
Village of Beverly Hills	Village of Bingham Farms
City of Orchard Lake Village	City of Bloomfield Hills
City of Keego Harbor	Village of Beverly Hills
Charter Township of Commerce	City of Orchard Lake Village
City of Pontiac	Charter Township of White Lake
	Village of Wolverine Lake
	Charter Township of Commerce
	City of Keego Harbor
	City of Pontiac

**Contract Addendum and Certification for Safety Compliance**

This Contract Addendum and Certification for Safety Compliance is effective as of \_\_\_\_\_ between the Contractor identified below and the Oakland County Water Resources Commissioner’s office, whose address is One Public Works Drive, Waterford, Michigan 48328.

1. By executing this Contract Addendum, the Contractor certifies that it, its employees, agents, subcontractors, and assigns strictly follows all Michigan Occupational Safety & Health Administration (MIOSHA) safety and health standards relevant to the work being performed for the Oakland County Water Resources Commissioner’s office, its drainage districts, municipal customers, private systems, or other customers, at any and all times during which work is being performed.
2. The Contractor further certifies that it will provide a qualified or competent person, whichever is required pursuant to MIOSHA safety and health standards for the work being performed, to oversee safety on the job site.
3. If a qualified or competent person is not present on the job site, then work must not proceed until a qualified or competent person is present.
4. The Contractor must provide a list of all qualified or competent persons to the Oakland County Water Resources project engineer or field staff prior to commencement of any work.
5. If at any time, any of the information provided in this Certification changes, the Contractor agrees to notify the Oakland County Water Resources Commissioner’s office in writing prior to any further work performed on a job site.

Contractor name, address and telephone number:	Contractor’s safety coordinator:
Peerless Midwest, Inc.	Adam Grenert
55860 Russell Industrial Parkway	574-254-9050
Mishawaka, IN 46545	adam.grenert@peerlessmidwest.com

The signatory below hereby certifies that the statements and representations of fact made by such signatory contained in this document are true, accurate, and complete. This Contract Addendum and Certification for Safety Compliance has been made, presented, and delivered for the purpose of ensuring compliance with MIOSHA safety standards and may be relied upon by the Oakland County Water Resources Commissioner’s office as a true statement of the facts set forth in this document.

By signing below on behalf of the Contractor, the signatory represents that he or she is duly authorized and has legal capacity to execute and deliver this Certification.

Mike Williams  
Mike Williams (Jan 12, 2024 13:55 EST)

Signature  
Print Name: Mike Williams  
Title: Consultant






**Fire Department**  
Charter Township of White Lake

To: Board of Trustee Officials  
From: John Holland, Fire Chief  
Date: 12/09/24  
Re: Adoption of the International Fire Code (IFC), 2021 Edition – First Reading

---

The Fire Department is requesting the adoption of the 2021 edition of the International Fire Code (IFC), Appendices B, C, D, E, F, G, H, and I, and all amendments. This edition is replacing the 2015 IFC that has been the scope of fire prevention inspection and enforcement since 2017.

This request is for first reading.



John Holland  
Fire Chief

**CHARTER TOWNSHIP OF WHITE LAKE  
AN ORDINANCE TO AMEND CHAPTER 18, ARTICLE II - FIRE CODE  
OF THE WHITE LAKE TOWNSHIP CODE OF ORDINANCES**

**THE CHARTER TOWNSHIP OF WHITE LAKE ORDAINS:**

**ARTICLE 1 - AMENDMENT**

**Sec. 18-19. - Adoption of the 2021 International Fire Code by reference.**

The International Fire Code, 2021 Edition, together with appendices B, C, D, E, F, G, H, and I, as promulgated by the International Code Council, is hereby adopted by referenced in its entirety herein, except for those deletions and additions set forth below.

**Sec. 18-20. - Purpose.**

The purpose and intent of this article is to prescribe minimum requirements and controls to safeguard life, property, or public welfare from the hazards of fire and explosion arising from the storage, handling or use of substances, materials or devices, and to establish regulations preventing conditions hazardous to life or property in the use or occupancy of buildings or premises. One complete copy of the International Fire Code, 2021 Edition, shall be made available for use and inspection by the general public at the office of the clerk in the Township of White Lake during regular business hours.

**Sec. 18-21. - References in code.**

- a) Where the words "name of jurisdiction" is used in the International Fire Code, they shall be held to mean the Charter Township of White Lake.
- b) Where reference is made in the Code to the "International Building Code," it shall be held to mean the Michigan Building Code.
- c) Where reference is made in the Code to the "International Mechanical Code," it shall be held to mean the Michigan Mechanical Code.

**Sec. 18-22. - State regulations prevail.**

When state law or regulations apply a higher standard or requirement than is provided in this Code, the higher requirement or standard of state law shall prevail.

**Sec. 18-23. - False alarms.**

It shall be unlawful for any person and/or entity to summon in any way the fire department, unless a valid reason for their response is present, or for any person or entity to fail to maintain a properly operating alarm system.

**Sec. 18-24. - Activation of fire alarm systems.**

A person or entity shall not activate a fire alarm system in any building or place within the township unless a valid fire emergency exists within that building or place. A fire alarm system is any system which, upon activation, warns the occupants of the building or place that a fire emergency exists.

**SECTION 18-25 – Changes in the Code**

The following sections and subsections of the International Fire Code, 2021 Edition, are hereby amended or deleted as set forth below, and additional sections and subsections are added as indicated. Subsequent section numbers used in this Section shall refer to like-numbered sections of the International Fire Code, 2021 Edition.

**Section 101.1 shall be amended to read as follows:**

101.1 TITLE. These regulations as set forth herein shall be known as the Fire Prevention and Protection Ordinance of the Charter Township of White Lake and are herein referred to as such or as "this Code."

**Section 102.5 shall be amended to read as follows:**

102.5 APPLICATION OF THE RESIDENTIAL CODE. Where structures are designed and constructed in accordance with the International Residential Code, the provisions of this code shall apply as follows:

1. Construction and design provisions of this code pertaining to the exterior of the structure shall apply, including but not limited to, premises identification, fire apparatus access and water supplies, where interior or exterior systems or devices are installed, construction permits required by this section 105.6 of this code shall apply.
2. Administrative, operational and maintenance provisions of the code shall apply.
3. Section 322 Medical Marijuana Grow Operations shall apply.
4. It shall apply to Section 903.2.8 Group R.
5. It shall apply to Section 1107 Requirements for Suppression of Existing One and Two Family Dwellings.

**Section 103.1 shall be amended to read as follows:**

103.1 GENERAL. The department of fire prevention is established within the jurisdiction under the direction of the Fire Code Official. The function of the department shall be the implementation, administration and enforcement of the provision of this Code. It shall be the duty and responsibility of the Fire Chief as the designated Fire Code Official, or his designee, to enforce the provisions of this Code.

**Section 103.1.1 shall be added to read as follows:**

103.1.1 AUTHORIZATION. Any fire official, as designated by the Fire Code Official is hereby authorized to issue and serve appearance tickets pursuant to the White Lake Township Code of Ordinances, Chapter 22, Article III - Appearance Tickets, and MCLA 764.9c, as amended, and Chapter 22, Article IV - Municipal Civil Infractions, and MCL 600.101, as amended, with respect to any violation of this code.

**Section 104.1 shall be amended to read as follows:**

104.1 GENERAL. The Fire Code Official is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. However, if an interpretation of a provision is in conflict with other township ordinances, the Township Board of the Township shall retain final jurisdiction of the provision requirements.

**Section 104.12 shall be amended to read as follows:**

104.12 AUTHORITY AT FIRES AND OTHER EMERGENCIES. The Fire Code Official or his duly authorized representative is empowered to direct such operations as may be necessary to extinguish or control any suspected or reported fires, hazardous conditions or situations or taking any other action necessary in the reasonable performance of their duty. The Charter Township of White Lake Police Department or the Charter Township of White Lake Fire Department may prohibit any person, vehicle or object from approaching the scene of an emergency situation and may remove or cause to be removed from the scene any person, vehicle or object which may impede or interfere with the operations of the Fire Department. The Police or Fire Official may remove or cause to be removed any person, vehicle or object from hazardous areas. All persons ordered to leave a hazardous area shall not re-enter the area until authorized to do so by the Police or Fire Official in charge.

**Section 104.12.2.1 shall be added to read as follows:**

104.12.2.1 DAMAGE OR INJURY TO FIRE DEPARTMENT EQUIPMENT OR PERSONNEL It shall be unlawful for any person to willfully damage or deface or attempt to conspire to damage or deface any Fire Department emergency vehicle at any time, or to injure, or conspire to injure Fire Department personnel while performing departmental duties.

**Section 104.12.2.2 shall be added to read as follows:**

104.12.2.2 VEHICLE CROSSING FIRE HOSE. A vehicle shall not be driven or propelled over any unprotected fire hose of the Fire Department when laid down on any street, alley way, private drive or any other vehicular roadway without consent of the Fire Official in command of said operations.

**Section 105.5 shall be amended to read as follows:**

105.6 REQUIRED OPERATIONAL PERMITS AND ASSOCIATED FEES. The Fire Code Official or his duly authorized representative is authorized to issue operational permits for the operations set forth in Sections 105.5.3 (amusement buildings), 105.5.16 (explosives), 105.5.32 (Mobile food preparation vehicles) 105.5.34 (open burning), 105.5.42 (pyrotechnic special effects material), 105.5.49 (temporary membrane structures and tents, but only when used as a place of assembly as defined by the fire code, Section 3103.3), and 5608.2.2.1 (indoor



pyrotechnic displays). A permit fee must accompany any application. The fee shall be in accordance with the Township Fee Resolution.

**Section 107.7 shall be added to read as follows:**

107.7 RESTITUTION. When the Fire Department or any persons authorized to enforce this Ordinance are called to respond to any emergency or incident which was the result of a violation of federal, state or local regulation governing fire safety, or from gross negligence, the person(s) or entity(ies) responsible shall reimburse the Charter Township of White Lake for all expenses of the response.

Cost recovery for any Hazardous Materials response may be pursued in a civil action, pursuant to the Natural Resource Environmental Protection Act (MCL 324.20135(1)(b)).

**Section 107.8 shall be added to read as follows:**

107.8 ARSON. In any case in which arson takes place, the person(s) convicted of that crime, or of any lesser charge, or by way of a plea bargain, shall be financially responsible for all costs of investigation, fighting and extinguishing the fire and/or for any EMS service, for any board-up services and/or for any other security procedures performed by the Charter Township of White Lake or its agents.

**Section 107.9 shall be added to read as follows:**

107.9 SPECIAL RESPONSE UNIT. In any case where a Special Response Unit (SRU) is required, the person(s) responsible for the need for such unit to arrive at a call shall be financially responsible for the usage of such unit. An SRU is a truck that carries special equipment for hazardous materials incidents, building collapse and/or elevated, confined and subterranean spaces and needs.

**Section 107.10 shall be added to read as follows:**

107.10 UTILITY COMPANIES. In any case where a response results from an actual or possible hazard created by the construction, operation, maintenance, and/or act of God involving any public or private utility company operating within the Charter Township of White Lake, the utility company shall reimburse the Charter Township of White Lake for all expenses of the response, including utility stand-bys. The decision to render such services or provide such personnel and/or equipment, shall be based either upon the request of a utility, a White Lake Township resident, or upon the sole and exclusive discretion of White Lake Township officials.

**Section 107.11 shall be added to read as follows:**

107.11 EMS TRANSPORT. In any case where a response necessitates transport to a hospital or other medical facility by the White Lake Township Fire Department, White Lake Township shall be entitled to recover all the expenses of the medical transport.

**Section 107.12 shall be added to read as follows:**

107.12 REQUEST FOR NON-EMERGENCY ASSISTANCE. White Lake Township shall be entitled to recover a reasonable fee from a building owner and/or operator in any case where a non-emergency response is requested to assist an uninjured individual who is unable (under their own power) to move themselves from an undesired position, while residing within a facility or building that employs staff responsible for resident care and assistance. "Facilities, and buildings" include, but is not limited to, assisted living centers, nursing homes, senior apartment buildings, or any facility which employs staff for resident care and assistance. For the purpose of this section, cost recovery shall be evaluated on a quarterly basis, and fees shall be charged if any of the following apply:

1. Two (2) or more nonemergency responses to the same location or address; or
2. At the time of the response, the facility was sufficiently staffed; or
3. The facility is properly equipped with lifting equipment.

**Section 111.1 shall be amended to read as follows:**

111.1 BOARD OF APPEALS. In order to hear and decide appeals of orders, decisions or determinations made by the Fire Code Official relative to the application and interpretation of this code, there shall be and is hereby established a board of appeals. The White Lake Township Building Code Board of Appeals shall serve as the Fire Code Board of Appeals, and shall adhere to the procedural requirements set forth within the latest adopted edition of the International Fire Code. The Fire Code Official shall be an ex officio member of said board but shall not vote on any manner before the board. The board shall render all decisions and findings in writing to the appellant with duplicate copy to the Fire Code Official.

**Section 111.2 shall be amended to read as follows:**

111.2 LIMITATIONS ON AUTHORITY. An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection or safety is proposed.

**Section 111.3 shall be amended to read as follows:**

111.3 QUALIFICATIONS. At least one member of the board of appeals shall be qualified by experience and training to pass on matters pertaining to hazards of fire, hazardous conditions or fire protection systems, and is not an employee of the jurisdiction.

**Section 112.4 shall be amended to read as follows:**

112.4 VIOLATION PENALTIES. Except as provided herein, any person who shall violate a provision of this code, or fail to comply with any of the requirements thereof, or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the Fire Code Official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than Five Hundred Dollars (\$500.00)

or by imprisonment not exceeding ninety (90) days, or both such fine and imprisonment. Each day that violation continues after due notice has been served be deemed a separate offense.

The following provisions of the 2021 International Fire Code, as adopted by this Code or Ordinances, shall be deemed municipal civil infractions and subject to the penalties as provided in Chapter 22, Article IV of the White Lake Township Code of Ordinances.

Chapter 1, with the exception of: Section 104.12.2 (obstructing operations); Section 104.12.2.1 (damage or injury to fire department equipment or personnel); Section 104.12.2.2 (vehicle crossing hose); Section 109.5 (rendering equipment inoperable); and Section 109.6 (overcrowding).

Chapter 3, with the exception of Section 305.4 (deliberate or negligent burning); and Section 316.3 (pitfalls).

Chapter 4, with the exception of Section 401.8 (interference with Fire Department operations).

Chapter 5, with the exception of Section 503.4 (obstruction of fire apparatus access roads); Section 503.5.1 (secured gates and barricades); and Section 507.5.4 (obstruction).

Chapter 6 through Chapter 8,

Chapter 9, with the exception of Section 901.8 (removal of or tampering with equipment); Section 901.8.1 (removal of or tampering with appurtenances); and Section 912.4 (access).

Chapter 10, with the exception of 1010.2 (door operations), 1032.2 (reliability) 1032.3 (obstructions)

Chapter 11, with the exception of 1104.16.7.1 (means of egress).

Chapter 12

Chapter 20 through Chapter 55

Chapter 57 through Chapter 67

All adopted appendices.

**Section 113.4 shall be amended to read as follows:**

113.4 FAILURE TO COMPLY. Any person who shall continue any work after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to those penalties and fines as set forth in Section 112.4 - VIOLATIONS.

**Section 114.8 shall be added to read as follows:**

114.8 OPEN BUILDINGS DUE TO FIRE. The Fire Code Official or his duly authorized representative is empowered to order the securing of fire damaged buildings. If the owners of the affected building are present, this order shall be given to them. If no owners or representatives of the building are present, the Fire Code Official or his duly authorized representative may have the building secured. The expense of securing shall be a debt to the Township from the responsible owner and shall be collected as any other debt to the Township.

**Section 114.9 shall be added to read as follows:**

114.9 FIRE DAMAGED PROPERTY. This section shall apply to any building (as defined in Chapter 2 of the International Fire Code) that has sustained fire damage to the extent that the property cannot be safely occupied, or the integrity of the structure is uncertain as determined by the Building Code Official.

Where a building has sustained fire damage, the property owner, within ninety (90) days from the date of the incident, shall apply for a permit to start construction or demolition. Additional ninety (90) day extensions may be granted by the Building Official, provided the owner can demonstrate substantial progress toward completing the necessary repairs. Failure to act within the allowable time thresholds will result in the property being deemed as a dangerous building.

The following shall be the property owner’s responsibility:

Security – To secure the building against unwanted entry until such time the repairs are completed, or the building has been demolished.

Hazards – To secure the site around the building if in the Fire Code Official or Building Code Official’s opinion poses risk of collapse.

Nuisance – To remove all loose debris that has the potential to invade properties, or any debris/refuse causing foul, offensive odors.

**Section 202 Definition for “Open Burning” shall be amended to read as follows:**

“Open Burning” shall mean the burning of natural materials in an open area wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues or chimneys necessary to provide combustion air and permit the escape of exhausted gas are open. Open burning is a general term inclusive of other terms such as bonfires, and recreational fires. Open burning does not include barbeque grills (gas or solid fuel, or charcoal), road flares, patio torches or similar devices.

**Section 202 Definition for “Person” shall be amended to read as follows:**

Person. shall mean an individual, heirs, executors, administrators or assigns, and also includes a firm, partnership, corporation, limited liability company, association, consortium,



governmental entity, or any other legal entity, or its or their successors or assigns, or the agent of any of the aforesaid.

**Section 202 shall be amended to add the following definitions:**

"Expenses of the response" shall mean the direct and reasonable costs incurred by the Township or any entity operating at the request of the Township or any other responder as set forth in the National Incident Management System (Homeland Security Presidential Directive 5), when responding to a request for services, including but not limited to, all salaries and wages of Township personnel who responded to the incident and/or engaged in the investigation, supervision, and report preparation regarding the response; and all other costs incurred in the response, including such items as disposable materials and supplies used during the response, the use, rental, or leasing of vehicles or equipment used for the response, special technical services, and laboratory costs, and services and supplies purchased for any specific evacuation relating to the response.

"Flame throwing devices" shall mean a pressurized portable device that is fueled with an ignitable liquid, and projects a jet that is ignited, and spreads fire by launching flaming material.

"Hazardous materials response" shall mean any response to an event involving any chemical, substance, compound, mixture, or other material defined as, designated as, listed as, or having the same characteristics as any substance, compound, mixture or material listed as hazardous under federal or state law or regulation.

"Lumber or Natural Materials" shall mean timber, logs or sawn natural material that includes but is not limited to - dimensional material, plywood, oriented strand board (OSB), pallets, wood chips, mulch, or any type of engineered wood products as it applies to outdoor sales or storage.

"Prescribed burn" shall mean the burning, in compliance with a written plan establishing the criteria necessary for starting, controlling, and extinguishing a burn and to meet planned fire or land management objectives, of a cover of vegetation capable of sustaining and carrying fire over the area intended to be burned.

**Section 302.1 shall be amended to include the following definition:**

302.1 COMBUSTIBLE MATERIAL. Any material that will ignite and burn when sufficient heat is applied, including, but not limited to, dwelling units or homes, garages, decks and wooden privacy fences.

**Section 307 shall be amended to read as follows:**

Section 307 OPEN BURNING

**Section 307.1.1 shall be amended to read as follows:**

307.1.1 PROHIBITED OPEN BURNING. Open burning that will be offensive or objectionable due to smoke or odor emissions, fire debris including embers, sparks or ash, or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

**Section 307.2.1 shall be deleted in its entirety.**

**Section 307.2.2 shall be added to read as follows:**

307.2.2 Permitted Contents. Materials permitted to be burned under this code shall be limited to natural wood materials, including sawn trees, branches, limbs, sawn lumber (non-treated/finished), small amounts of paper product and cardboard, wood kindling, or commercially available fire starters can be used to aid in the ignition of an open burn.

**Section 307.2.3 shall be added to read as follows:**

307.2.3 Prohibited Contents. The burning of construction or demolition debris, dimensional lumber of any type, waste from land clearing processes, materials which are byproducts of a business operation, cardboard, or large volumes of paper, or vegetation that includes leaves, grass or brush material shall be prohibited.

Exception: This section 307.2.3 shall not apply to prescribed burns when conducted in conformance with section 307.6 of this code

Note: The use of flammable liquids including gasoline with any open burning operation is prohibited.

**Section 307.2.4 shall be added to read as follows:**

307.2.4 Fire size. The amount of material permitted to be kindled shall be limited to a volume of material that does not extend beyond a five foot (5') diameter circle and does not exceed five feet (5') in height.

Exception: This section 307.2.4 shall not apply to prescribed burns when conducted in conformance with Chapter 324, Part 515 of the Natural Resource Environmental Protection Act, 1994 PA 451, as amended, MCL 324.51501 to 324.51514, as amended.

**Section 307.3 shall be amended to read as follows:**

307.3 EXTINGUISHMENT AUTHORITY. When open burning creates or adds to a hazardous situation, becomes a nuisance to neighboring property owners, or is noncompliant with Section 307, the fire code official or his or her designee is authorized to order the extinguishment of the open burning operation.

**Section 307.4 shall be amended as follows:**

Section 307.4 LOCATION. shall be amended to delete exception 2.

**Section 307.4.1 shall be amended to read as follows:**

307.4.1 Open burning shall not be conducted within 50 feet of a structure or combustible material unless the fire is contained within an approved container (noncombustible barrel with a lid or cover to suppress embers/sparks, an outdoor fireplace/portable outdoor fireplace used in accordance with the manufacturer's instructions, or an approved below grade enclosure). Open burning in approved containers shall not be located less than 15 feet from a structure or combustible material. The burning material shall not exceed 2 feet in diameter x 2 feet in height.

Conditions that could cause fire to spread to nearby combustibles shall be eliminated prior to the ignition of any open burning operation.

Below grade enclosure explanation: A below grade enclosure shall not be less than 12 inches deep and not exceed 5 foot in diameter. Horizontal clearance shall be maintained at a minimum of 24 inches between ground vegetation and the upper boarder of the enclosure. Noncombustible material including but not limited to, sand/dirt, stone or brick shall be placed within this clearance area. Additionally, noncombustible material as described above, shall be positioned around the upper boarder of the enclosure maintaining at minimum, 10 inches of vertical height above grade.

**Section 307.4.2 shall be deleted in its entirety.**

**Section 307.4.3 shall be deleted in its entirety.**

**Section 307.4.4 shall be added to read as follows:**

307.4.4 OPEN BURNING ON EASEMENTS/COMMON AREAS. Open burning within easement areas or common areas shall require special permission from the fire code official.

**Section 307.5 shall be amended to read as follows:**

307.5 ATTENDANCE. Any open burning shall be constantly attended by a competent adult until the fire is extinguished. Unless the ground is snow covered, a minimum of one portable fire extinguisher complying with Section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

**Section 307.6 shall be added to read as follows:**

307.6 PRESCRIBED BURNS. Prior to the issuance of a prescribed burn permit, the application shall be completed, along with the required application fee in accordance with the Township Fee Resolution, and all of the following information:

1. Written authorization from the property owner(s) requesting the prescribed burn.
2. Certificate of Liability Insurance.
3. A prescribed burn plan and objective.
4. Proof evidencing notification to bordering property owners at least one month prior to the scheduled burn.
5. Proof demonstrating that the individual conducting the burn is insured as a business, experienced and trained in the use of fire as it pertains to prescribed burning.
6. Resources to be provided by contractor.
7. A site plan showing the area to be burned, the bordering properties, and all structures within the vicinity of the prescribed burn area.

**Subsection 308.1.6.2.1 shall be added to read as follows:**

308.1.6.2.1. FLAME THROWING DEVICE. The use or manufacture of a flame throwing device (as defined in Chapter 2) shall be prohibited within the boundaries of White Lake Township.

Exception: An operation governed or otherwise approved by Local, State or Federal agencies.

**Section 308.1.6.3 shall be amended to read as follows:**

308.1.6.3 SKY LANTERNS. The use of sky lanterns or similar devices shall be prohibited.

**Section 315.4 shall be amended to read as follows:**

315.4 OUTSIDE STORAGE. Outside storage of combustible materials shall not be located within 10 feet (3048 mm) of a lot line.

Exceptions:

1. The separation distance is allowed to be reduced to 3 feet (914 mm) for storage not exceeding 6 feet (1829 mm) in height.
2. The separation distance is allowed to be reduced where the fire code official determines that no hazard to the adjoining property exists.

315.4.1 Storage beneath overhead projections from buildings. Where buildings are protected by automatic sprinklers, the outdoor storage, display and handling of combustible materials under eaves, canopies or other projections or overhangs are prohibited except where automatic sprinklers are installed under such eaves, canopies or other projections or overhangs.

315.4.2 Height. Storage in the open shall not exceed 10 feet in height.

315.4.3 Lumber stacks shall be on stable ground, and paved or surfaced with materials such as cinders, fine gravel, or stone.

315.4.4 The height of lumber stacks shall not exceed 10 feet with consideration for stability.

315.4.5 Storage of any material shall not be located within designated fire lanes.

315.4.6 The sales or storage of combustible material shall not be located within 15 feet of buildings or designated exits.

315.4.7 Storage piles of any combustible material shall not exceed 4,000 cubic feet in volume unless approved by the Township prior to the adoption of this subsection.

315.4.8 A 15 foot minimum clear space shall be maintained between storage piles of combustible materials.

315.4.9 Smoking shall be prohibited in areas storing combustible materials. No smoking signs shall be conspicuously posted.

315.4.10 Combustible rubbish creating a fire hazard shall not be allowed to accumulate on the premises.

**Section 322 shall be added to read as follows:**

Section 322 Medical Marijuana Grow Operations:



322.1 GENERAL. The cultivation or growing of medical marijuana shall be in accordance with the White Lake Township Code of Ordinances, and in compliance with Chapter 39. The ordinance does not apply to the retail sale or possession of medical marijuana. The process and operation shall not pose any undue risk to the public or public safety personnel.

322.2 PERMITS. All necessary permits shall be obtained from the appropriate Township Department, or agency.

322.2.1 DEFINITIONS. Grow area shall refer to the interior of a structural area where marijuana is planted, grown and cultivated.

322.3 HOUSEKEEPING AND GENERAL STORAGE. Shall be in compliance with section 315 (General Storage), Chapter 50 (Hazardous Materials General Provisions).

322.4 ELECTRICAL INSTALLATION. The installation of lighting and other electrical equipment shall not pose any risk of collapse, entanglement, fire, electrical shock or electrocution, and shall comply with section 605 (Electrical Equipment, Wiring and Hazards), and the IEC.

322.5 CARBON DIOXIDE TANKS AND USE. The storage and use of CO<sub>2</sub> shall be in compliance with Chapter 53 (Compressed Gases) and the latest edition of National Fire Protection Association (NFPA) as it applies to (Marijuana Growing, Processing or Extraction Facilities).

322.6 UNAUTHORIZED MATERIAL. The use of plastic sheeting, tarps or similar material suspended from walls, or ceilings shall be prohibited.

322.7 OIL EXTRACTION. The use of flammable or combustible material or any process that poses a fire or explosion risk while attempting to extract oil or chemicals from marijuana plants shall be prohibited.

322.8 ACCESS. Property or structural security features shall not hinder access or endanger public safety personnel, and shall be in compliance with Section 316 (hazards to Firefighters).

322.9 CONSTRUCTION CONFIGURATION. Hallways, exit access, and other building configurations shall be well defined and easily navigated.

322.10 FUMIGATION. Fumigation operations shall not be conducted in a manner that would create a fire, explosion, or health hazard, and shall be in compliance with Chapter 26 (Fumigation and Insecticidal Fogging).

**Section 503.3.1 shall be added to read as follows:**

503.3.1 POSTING. All fire lanes shall be conspicuously posted with uniform "NO PARKING FIRE LANE" signs as prescribed by the Fire Code Official. The location and spacing of the signs, mounted or erected, shall be as directed by the fire code official. Signs shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

**Section 503.4.2 shall be added to read as follows:**

503.4.2 AUTHORITY TO REMOVE OBSTRUCTIONS. If any vehicle, trailer or other object is so located within a fire apparatus access road or at any other location is prohibited by this Ordinance at a time the Fire Department is responding to an alarm which necessitates use of such fire apparatus access road and/or other said location, then any member of the Charter Township of White Lake Police or Fire Department may move or cause same to be moved by any means necessary without liability for any damage being incurred by the Charter Township of White Lake or any officer, agent or employee thereof.

**Section 506.1.1.2 shall be added to read as follows:**

506.1.1.2 LOCATION. Key boxes shall be installed at an accessible location as determined by the Fire Code Official. Location shall be maintained free of obstruction.

**Section 506.1.1.3 shall be added to read as follows:**

506.1.1.3 TYPE, CONTENTS, INSTALLATION. The key box shall be of a type approved by the Fire Code Official, shall contain keys to gain necessary access as required by the Fire Code Official and shall be installed in a manner approved by the Fire Code Official. In the event, the locks are changed for which keys have been provided, the Fire Department shall be notified immediately.

**Section 506.3 shall be added to read as follows:**

506.3 ALARMS. At the request of the owner or tenant, the Fire Code Official shall permit a key box tamper switch connection to the building burglar or fire alarm system.

**Section 507.5.4 shall be amended to read as follows:**

507.5.4 BLOCKING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS. It shall be unlawful to obscure from view, damage, deface, obstruct or restrict the access to any fire hydrant or Fire Department connection located on public or private streets and access lanes or on private property. No parking shall be permitted within fifteen feet (15') of any fire hydrant or Fire Department Connection, on public or private streets.

If, upon the expiration of time mentioned in the notice of violation, obstructions or encroachments are not removed, the fire code official shall proceed to remove the same. The expense incurred shall be a debt to the Charter Township of White Lake from the responsible person, and if necessary, the legal authority of the municipality shall institute appropriate action for recovery of such costs.

**Section 507.5.6 shall be amended to read as follows:**

507.5.6 PHYSICAL PROTECTION. Where fire hydrants or Fire Department connections are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

**Section 901.2.2 shall be added to read as follows:**

901.2.2 REVIEW FEES. When, at the discretion of the Fire Code Official, the plans and specifications are to be reviewed in-house, or by an outside consultant, the person or firm submitting the plans and specifications shall be responsible for the total consulting fees and administrative charges, as established by the Township Fee Resolution. The Fire Code Official or his designee shall select the consultant. Consulting fees or charges shall be submitted in full, prior to the review, with the plans and specifications.

**Section 903.2.8 shall be amended to read as follows:**

903.2.8 Group R. An automatic sprinkler system installed in accordance with section 903.3 shall be provided throughout all buildings with group R fire area and buildings or structures classified as one and two family dwellings, when not accessible by fire apparatus due to site location/topography, or any long term condition that would interfere with Fire Department accessibility.

**Section 903.3.7.1 shall be added to read as follows:**

903.3.7.1 FIRE DEPARTMENT CONNECTION TYPE. All required Fire Department connections shall be equipped with a single five inch (5") storz metal-faced adapter fitting with thirty degree (30°) to forty-five degree (45°) downturn.

**Section 903.3.7.2 shall be added to read as follows:**

903.3.7.2 VISUAL. A red rotating beacon light shall be installed as directed by the Fire Code Official and shall be connected to the water flow alarm valve or water flow switch. A water flow alarm valve or water flow switch activation shall activate the red rotating beacon.

**Section 907.2.11.2.1 shall be added to read as follows:**

907.2.11.2.1 RENTAL PROPERTY SMOKE ALARMS. The following shall apply to residential rental property smoke alarm installation:

1. Type. Smoke alarms within residential rental property shall be dual sensor (ionization - photoelectric) type with a sealed, 10 year battery.
2. Location. As required by Section 907.2.11.
3. Replacement thresholds. Smoke alarms shall be replaced at the earliest of the following events: end of the battery life (10 years); if low battery indicators are present; if the device fails to function; if the device is damaged or altered in any manner that would impede its function.

**Section 1103.8.1 shall be amended to read as follows:**

1103.8.1 Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Section 907.2.11. Interconnection and power sources shall be in accordance with section 1103.8.2 and 1103.8.3, respectively.

Exception: Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.

**Section 1104.16.7.1 shall be added to read as follows:**

1104.16.7.1 Means of egress. Exit access, exit doors and exit discharge shall be as required in sections 1010.2, 1032.2, and 1032.3

**Section 1107 shall be added to read as follows:**

1107 Requirements for Suppression of Existing One and Two Family Dwellings. Existing buildings or structures classified as one and two family dwellings, when not accessible by fire apparatus (as described in section 903.2.8) shall be equipped with an automatic sprinkler system in accordance with section 903.3, as follows:

- A. When repairs, alterations, or modifications are made to any building or structure in any period of twelve (12) consecutive months and the repairs, alterations or modifications exceed fifty (50) percent of the state equalized valuation of the building or structure.
- B. When an addition, which increases the existing cubic content of 1000 cubic feet or more is made to any building or structure.

For the purpose of clarification, the requirement of a fire sprinkler system in existing one and two family dwellings as described in this section, only applies when the dwelling meets the condition(s) of subsection(s) A, B or both, and when not accessible by fire apparatus as described in section 903.2.8.

**Section 3903.2 shall be amended to read as follows:**

3903.2 Prohibited Occupancies. Extraction processes utilizing flammable gases or flammable cryogenic fluid shall not be located in any building containing a Group A, B, E, F, I, M, R OR S occupancy.

**Section 5307.3.2 shall be added to read as follows:**

5307.3.2 Gas Detection System.

- 3. An audible and visible alarm shall be installed on the outside exterior wall, in close proximity to the rear entry door, or in an approved alternative location. The mounting height shall be determined by the Fire Code Official prior to installation. The alerting devices shall be listed for outside applications. The visual portion of this alerting system shall be a yellow rotating beacon.

**Section 5504.3.1.1.3 shall be amended to read as follows:**

5504.3.1.1.3 LOCATION. Stationary containers shall be located in accordance with Section 5503.6. Containers of cryogenic fluids shall not be located within diked areas containing other hazardous materials.

Storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited in accordance with NFPA 50B.



**Section 5601.1.3.1 shall be added to read as follows:**

5601.1.3.1. ASSEMBLING, MANUFACTURING OF FIREWORKS, EXPLOSIVES OR EXPLOSIVE MATERIALS. The assembling or manufacturing of fireworks, explosives or explosive material shall be prohibited within the Township of White Lake, Michigan.

Exceptions:

1. The hand loading of small arms ammunition prepared for personal use and not offered for resale.
2. The mixing and loading of blasting agents at blasting sites in accordance with NFPA 495.
3. The use of binary explosives or phosphoric materials in blasting or pyrotechnic special effects applications in accordance with NFPA 495 or NFPA 1126.

**Section 5601.2.2.1 shall be added to read as follows:**

5601.2.2.1 RETAIL SALE OF MICHIGAN LEGAL FIREWORKS. Shall comply with Public Act 256 of 2011 (MCL 28.451, et seq.) and with the Township Fireworks Ordinance, Chapter 18, Article III of this Code of Ordinances.

**Section 5608.2.2.1 shall be added to read as follows:**

5608.2.2.1 PERMIT REQUIRED. A permit to conduct indoor pyrotechnic displays shall be required. The applicant must submit an application to the Fire Code Official prior to the display. The application must accompany the application fee in accordance with the White Lake Township Fee Resolution, along with site and floor plans identifying the type and inventory of devices proposed to be used. All requirements of Section 5608.2.2 shall be met.

**Section 5704.2.9.6.1 shall be amended to read as follows:**

5704.2.9.6.1 LOCATIONS WHERE ABOVE-GROUND TANKS ARE PROHIBITED. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited in accordance with NFPA 30.

**Section 5706.2.4.4 shall be amended to read as follows:**

5706.2.4.4 LOCATIONS WHERE ABOVE-GROUND TANKS ARE PROHIBITED. The storage of Class I and II liquids in above-ground tanks is prohibited in accordance with NFPA 30.

**Section 6109.13 shall be amended to read as follows**

6109.13 Protection of Container. LP - gas containers shall be stored within a suitable enclosure or otherwise protected against tampering. Vehicle impact protection shall be provided as required by section 6107.4

Exception: Unless otherwise directed by the Fire Code Official, or his designee, vehicle impact protection shall not be required for protection of LP-gas containers where the containers are kept in a lockable, ventilated cabinet of metal construction.

**Appendix C**

**C103.1 shall be deleted in its entirety.**

**C103.2 shall be amended to read as follows:**

C103.2 Average spacing. The maximum spacing between fire hydrants shall be in accordance with White Lake Township design standards for Commercial, Industrial, Multi-Family (300 feet) One and Two Family Dwellings (500 feet).

**C103.3 shall be deleted in its entirety**

**C104 shall be amended to read as follows:**

C104.1 Existing Fire Hydrants. Existing fire hydrants on fire apparatus access roads (as defined in Chapter 2) are allowed to be considered as available to meet the requirements of section C103.2. Existing fire hydrants on adjacent properties are allowed to be considered as available to meet the requirements of section C103.2 provided that a fire apparatus road extends between properties and that an easement is established to prevent obstruction of such roads.

**Appendix D**

**D104.3 Shall be amended to read as follows:**

D104.3. Remoteness As approved by the Fire Code Official

**D106.3 Shall be amended to read as follows:**

D106.3 Remoteness. As approved by the Fire Code Official.

**D107.2 Shall be amended to read as follows:**

D107.2 Remoteness. As approved by the Fire Code Official.

**ARTICLE 2: SEVERABILITY.**

If any section, clause or provision of this Ordinance shall be declared to be unconstitutional, void, illegal or ineffective by any Court of competent jurisdiction, such selection, clause or provision declared to be unconstitutional, void or illegal shall thereby cease to be a part of this Ordinance, but the remainder of the Ordinance shall stand and be in full force and effect.

**ARTICLE 3: EFFECTIVE DATE.**

This Ordinance shall take effect following publication in the manner prescribed by law.

**ARTICLE 4: REPEALER.**

All other ordinances or parts of ordinances in conflict with this ordinance are hereby repealed to the extent necessary to give this ordinance full force and effect

**ARTICLE 5: ADOPTION.**

This Ordinance is hereby declared to have been adopted by the Township Board of this Charter Township of White Lake at a meeting thereof duly called and held on the \_\_\_\_ day of \_\_\_\_\_, 2024, and ordered to be given publication in the manner prescribed by the Charter of the Charter Township of White Lake.

BY: \_\_\_\_\_  
Rik Kowall, Supervisor

BY: \_\_\_\_\_  
Anthony L. Noble, Clerk



# POLICE DEPARTMENT

CHARTER TOWNSHIP OF WHITE LAKE

**DANIEL T. KELLER**  
CHIEF OF POLICE

January 13, 2025

Rik Kowall, Township Supervisor  
White Lake Township

**RE: 2025 ADMINISTRATIVE VEHICLE PURCHASE**

I am writing to address the replacement of a fleet vehicle, a 2017 Ford Fusion with 137,214 miles. This vehicle has reached a point where significant repairs have been necessary and more may soon be required due to the age and mileage. The vehicle's reliability and safety have become concerns, due to wear/tear and the excessive mileage.


Lieutenant Silverthorn has researched the cost of replacing with a quality used, low mileage alternative. Lieutenant Silverthorn focused on a 2022 Dodge Ram 1500 Crew Cab 4x4 with a V6 engine and compared prices based on mileage. Below are the findings:

<u>PRICE</u>	<u>MILEAGE</u>	<u>DEALER</u>
\$28,500	25,500	Szott M-59 Jeep of White Lake, MI
\$27,900	66,125	Feldman Chrysler Jeep of Livonia, MI
\$28,620	42,830	Preferred Dodge of Grand Rapids, MI
\$31,900	25,331	Fredonia Jeep of Fredonia, NY

Lieutenant Silverthorn spoke to the manager of Szott M-59 Jeep. The vehicle is not listed for sale as it is being used as a courtesy vehicle for their customers. The price is based on the dealer cost plus \$500. As a result, the vehicle cost is less than vehicles of similar mileage.

Based on this analysis, I recommend selecting Szott M-59 Jeep as the vendor for this purchase. Szott offers the best balance of price and mileage, and their proximity within the township ensures a seamless delivery process. Furthermore, our prior experiences with Szott have demonstrated their reliability and trustworthiness as a business partner.

The 2017 Ford Fusion will be removed from the fleet and placing it in a future vehicle auction. The 2017 Ford Fusion is currently in use by the WLTPD Detective assigned to a DEA Task Force. The cost of the replacement vehicle will come from Drug Forfeiture Funds received as a result of that position.

Sincerely,  
  
Daniel T. Keller  
Chief of Police



Livonia CDJR

30777 Plymouth Rd | Livonia, MI 48150

# Used 2022 Ram 1500 Classic Warlock



### Vehicle Details

Trim:	Warlock
Stock #:	PRA121241
VIN:	1C6RR7GG6NS121241
Exterior Color:	Delmonico Red Pearlcoat
Interior Color:	Black
Mileage:	66,125
Doors:	4
Engine:	3.6L V6 24V VVT
Transmission:	8-Speed Automatic
Drivetrain:	4WD

Price **\$27,900**

Due to current low supply and high demand of new vehicles, inventory changes hourly. Your Virtual Assistant will confirm availability of your order.

### Description

**\*\*CALL FELDMAN CHRYSLER JEEP OF LIVONIA 734-525-5000\*\***  
4x4 Flat Black Badge, B-Pillar Black Out, Bi-Function Halogen Projector Headlamps, Black Exterior Truck Badging, Black Grille w/RAM Lettering, Black Headlamp Filler Panel, Black Powder Coated Front Bumper, Black Powder Coated Rear Bumper, Black RAM Head Tailgate Badge, Black Wheel Flares, Front Wheel Well Liners, ParkSense Rear Park Assist System, Quick Order Package 29F Warlock, Raised Ride Height, Rear Extra HD Shock Absorbers, Semi-Gloss Black Hub, Sport Tail Lamps, Warlock, Warlock Interior Accents, Wheels: 20" x 9" Semi-Gloss Black Aluminum. CARFAX One-Owner. Clean CARFAX.

Delmonico Red Pearlcoat 2022 Ram 1500 Classic Warlock 4WD 8-Speed Automatic 3.6L V6 24V VVT



Certified 2022 RAM 1500 Classic Warlock

**\$28,620** See estimated payment

Check Availability

Section 9, Item F.

< Results

< Previous

Next >

*Grand Rapid: d5*



View /

Compare Share Save

## Certified 2022 RAM 1500 Classic Warlock

KBB.com Consumer Vehicle Rating ★ 4.4 (138)

42,830 miles

3.6L 6-Cylinder Gas Engine

16 City / 23 Highway ⓘ

Hydro Blue Pearlcoat Exterior

Black Interior

8-Speed Automatic Transmission

4 wheel drive

6'4" Bed Length (Short)

Wallet by Kelley Blue Book®



Chat



Jeep Fredonia Chrysler Dodge Jeep Ram

10294 RT. 40, FREDONIA, NJ 08631-4000  
SALES: 855-933-1902  
SERVICE: 855-933-1886  
PARTS: 855-933-1893



**EMPLOYEE PRICING** Every Day is Black Friday at Fredonia CDJR



Hi there, have a question? Text us here.  
Text us Video

Value Your Trade

Used 2022 Ram  
**1500 Classic Warlock Warlock 4x4 Quad Cab  
64 Box**

in Jamestown and Fredonia area

5 views in the past 7 days

Track Price Save

Price **\$31,900**

- Check Availability >
- Schedule Test Drive >
- Value Your Trade >

Ask Drive

View Window Sticker >

Financing Options >

Value Your Trade Enter Year Make Model Trim POWERED BY TRADEPEND

Exterior Color	<input type="radio"/> Bright White Clearcoat	Engine	6
Interior Color	<input checked="" type="radio"/> Black	Bed Length	6.4 ft
Odometer	25,331 miles	VIN	1C6RR7GG4NS219149
Fuel Economy	16/23 MPG City/Hwy Details	Stock Number	FP3024



# POLICE DEPARTMENT

CHARTER TOWNSHIP OF WHITE LAKE

**DANIEL T. KELLER**  
CHIEF OF POLICE

December 4, 2024

Rik Kowall, Township Supervisor  
White Lake Township

**RE: 2025 FLEET VEHICLE PURCHASE**

Lieutenant Way researched and received bids for the purchase of three (3) Dodge Durango Pursuit Vehicles. These vehicles will be replacing three of our current, aging fleet patrol vehicles. The retiring three fleet vehicles would be set for auction. Lieutenant Way contacted and received quotes from three (3) Chrysler/Dodge/Ram dealerships that handle government contract, fleet purchases. Those dealerships are Szott Dodge, Galeana Dodge, Lafontaine Dodge. The request for bids regarding the Dodge Durango Pursuit Vehicles were under the following parameters:

**DODGE DURANGO**

- 2024 Dodge Durango Police Pursuit Package, AWD
- 3.6L V6 VVT Engine
- Black Color Option
- Police Floor Console (Factory)
- LED Spot Light
- Entire Fillet Alike Key
- Deactivate Rear Doors/Windows
- Black Cloth Bucket Seats w/ Rear Vinyl

Lieutenant Way received the quotes from all requested dealerships, using the government-bid amount for the purchase. The quotes from each dealer are as follows:

**QUOTES**

- Szott Dodge (V6) .....\$42,500.00 x 3 = \$127,500.00
- Lafontaine Dodge (V6) .....\$43,670.00 x 3 = \$131,010.00
- Galeana Dodge (V6) .....\$48,240.00 x 3 = \$144,720.00

All contacted dealerships advised that they were able to obtain the vehicles.



Upon review of all quotes, it is my recommendation that we select Szott Dodge as the vendor for this purchase. The Szott Dodge quote is \$1,170.00 less, per vehicle, than the next lowest received quote.

Delivery of vehicles will be seamless, as the dealership is in the Township. We have conducted prior business with Szott and they have proven themselves as a trustworthy company, worthy of receiving the bid. The bid amount of \$127,500.00 is an "out-the-door" price for the vehicles. I have attached all quotes to this memorandum for review.

Sincerely,



Daniel T. Keller  
Chief of Police

SZOTT M-59 CHRYSLER DODGE RAM  
 2665 E HIGHLAND RD  
 HIGHLAND MI 48356  
 248-887-3222

CUST #: 87193  
 Deal #: 104886  
 Date: 10/03/2024  
 County: Oakland  
 DOB:

**RETAIL PURCHASE AGREEMENT**

Purchaser's Name(s): WHITE LAKE TOWNSHIP  
 Address: 7525 HIGHLAND RD WHITE LAKE MI 483832938  
 Telephone (1): \_\_\_\_\_ Telephone (2): 248-935-6739  
 E-mail: dkeller@whitelakepolice.com D.L./State I.D.#: N/A Issuing State: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

The above information has been requested so that we may verify your identity. By signing below, you represent that you are at least 18 years of age and have authority to enter into this Agreement. The Odometer Reading for the Vehicle you are purchasing is accurate unless indicated otherwise. Please refer to the Federal Mileage Statement for full disclosure.

YEAR 2025	MAKE DODGE	MODEL DURANGO	COLOR	STOCK NO.
VIN/SERIAL NO.		ODOMETER READING <input type="checkbox"/> Not Accurate	SALESPERSON JASON HINZMAN	
THE VEHICLE IS: <input checked="" type="checkbox"/> NEW <input type="checkbox"/> USED		PRIOR USE DISCLOSURE: <input type="checkbox"/> DEMONSTRATOR <input type="checkbox"/> FACTORY OFFICIAL <input type="checkbox"/> RENTAL <input type="checkbox"/> OTHER		
<b>WARRANTY STATEMENT</b>			CASH PRICE OF VEHICLE	42461.00
<p>We are selling this Vehicle to you AS-IS and we expressly disclaim all warranties, express and implied, including any implied warranties of merchantability and fitness for a particular purpose, unless the box beside "Used Vehicle Limited Warranty Applies" is marked below or we enter into a service contract with you at the time of, or within 90 days of, the date of this transaction. Any warranties by a manufacturer or supplier other than our Dealership are theirs, not ours, and only such manufacturer or supplier shall be liable for performance under such warranties. We neither assume nor authorize any other person to assume for us any liability in connection with the sale of the Vehicle and the related goods and services.</p> <p><b>CONTRACTUAL DISCLOSURE STATEMENT (USED VEHICLES ONLY)</b> The information you see on the window form for this Vehicle is part of this contract. Information on the window form overrides any contrary provisions in the contract of sale. Guía para compradores de vehículos usados. La información que ve en el formulario de la ventanilla para este vehículo forma parte del presente contrato. La información del formulario de la ventanilla deja sin efecto toda disposición en contrario contenida en el contrato de venta.</p> <p><input type="checkbox"/> We are providing a Used Vehicle Limited Warranty in connection with this transaction. Any implied warranties apply for the duration of the Limited Warranty.</p>			N/A	N/A
			N/A	N/A
			N/A	N/A
			N/A	N/A
			N/A	N/A
			N/A	N/A
			N/A	N/A
<b>TRADE-IN VEHICLE INFORMATION</b>			TITLE FEE	15.00
Year:	Make:	Model:	Color:	N/A
VIN/Serial No:	Odometer Reading: <input type="checkbox"/> Not Accurate			N/A
Trade-In Allowance:	Balance Owed & Lienholder:			N/A
*The Deposit/Down Payment received from you is <u>not refundable</u> , except as set forth in this Retail Purchase Agreement. In the case of a Deposit, we will refrain from selling the Vehicle for <u>N/A</u> days.			N/A	N/A
X _____ X <u>N/A</u>			N/A	N/A
<b>OTHER MATERIAL UNDERSTANDINGS AND INTEGRATED DOCUMENTS</b>			TOTAL DUE	42500.00
<input type="checkbox"/> IF BOX IS MARKED, PLEASE SEE THE DELIVERY CONFIRMATION			LESS DEPOSIT/DOWN PAYMENT*	N/A
			LESS REBATE	N/A
			N/A	N/A
			LESS CASH DUE AT DELIVERY	N/A
			AMOUNT TO BE FINANCED	42500.00

This Agreement and any documents which are part of this transaction or incorporated herein comprise the entire agreement affecting this Retail Purchase Agreement and no other agreement or understanding of any nature concerning the same has been made or entered into, or will be recognized. I have read all of the terms and conditions of this Agreement and agree to them as if they were printed above my signature. I further acknowledge receipt of a copy of this Agreement. This Agreement shall not become binding until signed and accepted by an Authorized Dealership Representative.

Purchaser \_\_\_\_\_ Accepted by Authorized Dealership Representative \_\_\_\_\_  
 Purchaser N/A

**LaFontaine CDJR-Lansing**

**6131 S. Pennsylvania Ave.**

**Lansing, MI 48911**

**517-394-1022-Direct**

**517-394-1205-Fax**

[mdeacon@lafontaine.com](mailto:mdeacon@lafontaine.com)

Name: White Lake Township  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Contact: Lt. J Way  
 Phone: 248.698.4400  
 Email: [jway@whitelakepolice.com](mailto:jway@whitelakepolice.com)

Date: 10/2/2024  
 Quote 100224

State of Michigan Contract 071B7700183		
WDEE75	2025 Dodge Durango AWD	\$41,194.00
2BZ	3.6L V6	
PXJ	DB Black	
A7X9	Black Cloth Bucket Seats w/Rear Vinyl	\$160.00
LNF	Black Left LED Spot Lamp	\$700.00
GXF	Entire Fleet Alike Key (FREQ 1)	\$410.00
CW6	Deactivate Rear Doors/Windows	\$130.00
CUG	Police Floor Console	\$1,076.00
	Per contract delivery is \$2.00 a mile one way mileage.	
	55 x 2.00 = \$110.00 (not included in pricing)	
	By signing the purchase agreement you agree to purchase of the vehicle or vehicles X _____	
	<b>Total Cost:</b>	<b>\$43,670.00</b>

Signed Michelle Deacon

Please note payment is due within 30 days of delivery. Any invoices paid after 30 days may be subject to a 1.5% late fee

GALEANA'S VAN DYKE DODGE  
28400 VAN DYKE AVENUE  
WARREN, MI 480937133

Configuration Preview

Date Printed: 2024-10-03 10:53 AM VIN:  
Estimated Ship Date: VON:

Quantity: 1  
Status: BA - Pending order  
FAN 1: 01B68 White Lake Township  
FAN 2:  
Client Code:  
Bid Number: TB5071  
PO Number:

Sold to:  
GALEANA'S VAN DYKE DODGE (57081)  
28400 VAN DYKE AVENUE  
WARREN, MI 480937133

Ship to:  
GALEANA'S VAN DYKE DODGE (57081)  
28400 VAN DYKE AVENUE  
WARREN, MI 480937133

Vehicle: 2025 DURANGO PURSUIT VEHICLE AWD (WDEE75)

	Sales Code	Description	MSRP(USD)
Model:	WDEE75	DURANGO PURSUIT VEHICLE AWD	43,940
Package:	2BZ	Customer Preferred Package 2BZ	0
	ERC	3.6L V6 24V VVT Engine Upg 1 w/ESS	0
	DFT	8-Spd Auto 850RE Trans (Make)	0
Paint/Seat/Trim:	PXJ	DB Black Clear Coat	0
	APA	Monotone Paint	0
	*A7	Cloth Bucket Seats W/Rear Vinyl	160
	-X9	Black	0
Options:	4ES	Delivery Allowance Credit	0
	MAF	Fleet Purchase Incentive	0
	CUG	Police Floor Console	1,195
	LNF	Black Left LED Spot Lamp	750
	GXF	Entire Fleet Alike Key (FREQ 1)	455
	CW6	Deactivate Rear Doors/Windows	145
	4DH	Prepaid Holdback	0
	5N6	Easy Order	0
	4FM	Fleet Option Editor	0
	4FT	Fleet Sales Order	0
	142	Zone 42-Detroit	0
	4EA	Sold Vehicle	0
Non Equipment:	4FA	Special Bid-Ineligible For Incentive	0
Bid Number:	TB5071	Government Incentives	0
Discounts:	YG1	7.5 Additional Gallons of Gas	0
Destination Fees:			1,595

PRICE" \$43,260.00

Total Price: 48,240

TITAL INC

GLENN BUTTERWORTH, FLEET MGR.

DATE: 10-03-2024

PSP Month/Week:

Build Priority:

99

Order Type: Fleet  
Scheduling Priority: 1-Sold Order  
Salesperson:  
Customer Name:  
Customer Address:  
Instructions: USA

Note: This is not an invoice. The prices and equipment shown on this priced order confirmation are tentative and subject to change or correction without prior notice. No claims against the content listed or prices quoted will be accepted. Refer to the vehicle invoice for final vehicle content and pricing. Orders are accepted only when the vehicle is shipped by the factory.



**WHITE LAKE TOWNSHIP  
INTER-OFFICE MEMORANDUM  
COMMUNITY DEVELOPMENT DEPARTMENT**

**DATE:** January 17, 2025

**TO:** Rik Kowall, Supervisor  
Township Board of Trustees

**FROM:** Sean O’Neil, AICP  
Community Development Director

**SUBJECT: White Lake Retail Management II (Panera)**  
Property described as parcel number 12-20-276-035, located north of Highland Road (M-59), west of Bogie Lake Road, southeast of Meijer consisting of approximately 1.63 acres.  
Request: **Planned business agreement approval**

---

The above request is now ready for Township Board Consideration. The matter was considered by the Planning Commission at their regular meeting on January 16, 2025, at which time the **Planning Commission recommended approval** of the preliminary site plan. The request is now ready to be considered by the Township Board.

Please find enclosed the following related documents:

- Draft minutes of the January 16, 2025, Planning Commission meeting.
- Draft PBD agreement.

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.

**WHITE LAKE TOWNSHIP  
PLANNING COMMISSION  
JANUARY 25, 2025**

**CALL TO ORDER**

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

**ROLL CALL**

**Present:**

T. Joseph Seward, Chairperson  
Merrie Carlock, Vice Chairperson  
Mona Sevic  
Robert Seeley  
Debby Dehart (late arrival)

**Absent:**

Scott Ruggles, Township Board Liaison  
Pete Meagher

**Others:**

Sean O'Neil, Community Development Director  
Matteo Passalacqua, Carlisle and Wortman  
Kyle Gall, DLZ  
Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF THE AGENDA**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock to approve the agenda as presented. The motion carried with a voice vote: (4 yes votes).**

**APPROVAL OF MINUTES**

A. December 5, 2024

**MOTION by Commissioner Carlock, seconded by Commissioner Seeley to approve the minutes as presented. The motion carried with a voice vote: (4 yes votes).**

**CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)**

None.

**PUBLIC HEARING**

**A. Caron Ridge Drive Rezoning**

Location: Property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive), located south of Jackson Boulevard, between Ormond Road and McKeachie Road, consisting of approximately 40.95 acres.

Request: **Applicant requests to rezone the property from R1-A (Single Family Residential) to SF (Suburban Farm) or any other appropriate zoning district.**

Director O'Neil summarized Staff Planner Littman's review.

Commissioner Carlock asked staff if the house on the property was accessed from Caron Ridge Drive. Director O'Neil confirmed; Caron Ridge Drive is stubbed off Marie Meadows Drive.

Jeremy Latozas, 4001 Caron Ridge, stated he would use the proposed pole barn to store vehicles for personal use.

Chairperson Seward opened the public hearing at 6:39 P.M.

Cody Anderson, 2980 Steeple Hill, wanted to keep the subject property undeveloped and was in favor of the applicant's proposal.

David Brown, 3551 Marie Meadows Drive, had no objections to the applicant's request.

Brandon Chambers, 3049 Steeple Hill Road, looked forward to the property staying in its current state.

James Allen, 3701 Apple Grove, favored the applicant's request.

Chairperson Seward closed the public hearing at 6:42 P.M.

Member Dehart stated that the applicant came before the ZBA, and the surrounding properties are zoned Suburban Farm. It made sense to her to rezone the property and build on it in compliance with the Suburban Farm zoning district.

**MOTION by Commission Seeley, seconded by Commissioner Sevic to recommend the Township board rezone the property identified as Parcel Number 12-08-300-062 (4001 Caron Ridge Drive) from R1-A Single Family Residential to Suburban Farm. The motion carried with a voice vote: (5 yes votes).**

**CONTINUING BUSINESS**

None.

**NEW BUSINESS**

**A. 9101 Highland Development**

Location: Property described as 9101 Highland Road, identified as parcel number 12-23-227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting of approximately 5.02 acres.

Request: **Revised preliminary site plan approval recommendation**

Mr. Passalacqua summarized his review memo.

Mr. Gall reviewed the DLZ letter.

Erin McMachen, Stonefield Engineering & Design, was present. She stated that the plans have been changed based on the comments at the last Planning Commission meeting. The fence line will be placed

on the 20' residential setback. There will be zero light spillover on the residential properties, and a good portion of the site will remain green space.

Commissioner Carlock asked if there would be a long-term maintenance plan for the landscaping plan. Director O'Neil said if the neighbors decide to move the fence between now and the final site plan, it could be discussed at that time. Ms. McMachen said she is welcome to receive feedback from the neighbors regarding fence material and location.

**MOTION by Commissioner Dehart, seconded by Commissioner Seeley, to recommend the Township Board approve the revised preliminary site plan for 9101 Highland Development, identified as parcel number 12-23-227-003, subject to consideration of landscaping and fencing comments, and subject to staff and consultant comments. The motion carried with a voice vote: (5 yes votes).**

**B. Panera**

Location: Located on the north side of Highland Road (M-59) and west of Bogie Lake Road and identified as parcel number 12-20-276-035. The project area on the parcel consists of approximately 1.63 acres. Currently zoned PB (Planned Business District).

- Requests: **1) Final site plan approval**  
**2) Planned development agreement approval recommendation**

Director O'Neil stated that Panera received preliminary site plan approval a year and a half ago. During that time, the plans have been revised slightly. The building was revised from a two-unit building to a four-unit building. He felt it made sense to move forward with the final site plan at this time due to the site remaining largely the same.

Mr. Gall summarized the DLZ letter. He added that the driveway alignment with Culver's has been moved to the east and it was recommended to align Panera's driveway location better with the Culver's driveway. The driveway realignment can be worked on before final engineering approval.

Mr. Passalacqua reviewed his letter. The building size was increased slightly. A landscaping waiver would be needed; however, the waiver could be eliminated by planting landscaping around the dumpster enclosure.

Mitchell Harvey, Stonefield Engineering, was present. He stated the previous preliminary site plan was similar to the plan shown tonight. The challenge with the site is the existing topography, especially the grade changes. The driveway was shifted further east to avoid the retaining wall and major fill to the site. The shift allowed a reduction in the retaining walls. Culver's has agreed to the cross-access easement. The sidewalk will be tied into the ring road to connect to further east and west developments. 46 new trees and 286 shrubs will be added across the site. The existing mature trees on the site will remain, and the brush and bushes will be removed. Additional trees will be supplemented to maintain the green strip along Highland Road. The façade will be largely masonry and glazed windows on the south side of the building, The orientation of the building has remained unchanged, Panera and the other tenants will face south. The signage will be visible along Highland Road. He wanted to maintain the



façade facing the same way as the property to the east. He said he was working with the Fire Marshal on the 20' drive aisle to the east.

**MOTION by Commissioner Seeley, seconded by Commissioner Sevic, to approve the final site plan for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to enhanced landscaping instead of spanning glass windows, and subject to addressing the remaining comments from staff and consultants, and giving staff the authority to approve recommended changes. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commissioner Seeley, seconded by Commissioner Carlock, to recommend the Township Board approve the PBD for White Lake Retail Management II, identified as parcel number 12-20-276-035, subject to resolution of all of the outstanding PBD comments. The motion carried with a voice vote: (5 yes votes).**

**OTHER BUSINESS**

- A. Bryan Ede - Conceptual Presentation

Bryan Ede was present and shared his presentation with the Planning Commission.

- B. Election of Officers and Selection of Liaisons

**MOTION by Chairperson Seward, seconded by Commissioner Seeley to appoint Merrie Carlock to chair the Planning Commission. The motion carried with a voice vote : (5 yes votes)**

**MOTION by Commissioner Seward, seconded by Commissioner Sevic to appoint Robert Seeley as vice chair of the Planning Commission. The motion carried with a voice vote: (5 yes votes)**

**MOTION by Commission Seward, seconded by Commissioner Seeley to appoint Debby Dehart as secretary. The motion carried with a voice vote: (5 yes votes).**

**MOTION by Commissioner Seward, seconded by Commissioner Seward to maintain the liaisons as Merrie Carlock and Debby Dehart for Parks and Recreation and ZBA respectively. The motion carried with a voice vote: (5 yes votes).**

**LIAISON'S REPORT**

The bids were opened for the Stanley Park Phase 1 construction. There were five bidders. The two lowest bidders were Cortis Brothers and Eagle Excavating. Post-bid interviews will be conducted next week. Scott Rolando was appointed to the Parks and Recreation Committee. The Committee was looking at new grant projects. Hess Hathaway Park had to eliminate all their birds due to bird flu.

The ZBA will meet next week. Five cases are on the agenda.

**DIRECTOR'S REPORT**

The Board met on Monday to pass resolutions to move forward and redo the bond process for the Civic Center. The damaged light on Elizabeth Lake Road will be replaced. The foundations are being poured at the Public Safety site. The work is resuming at the Civic Center site.

**NEXT MEETING DATE: February 20, 2025**

**ADJOURNMENT**

**MOTION by Commissioner Dehart, seconded by Commissioner Sevic, to adjourn at 8:45 P.M. The motion carried with a voice vote (5 yes).**

DRAFT

**PLANNED BUSINESS DEVELOPMENT AGREEMENT**  
**PANERA BREAD**

**THIS PLANNED BUSINESS DEVELOPMENT AGREEMENT** (the "Agreement"), dated \_\_\_\_\_, 2025, is made and entered into by and between the **CHARTER TOWNSHIP OF WHITE LAKE**, a Michigan municipal corporation, having the address of 7525 Highland Road, White Lake, Michigan 48383, hereinafter referred to as and called the "Township", and **BLUEPOINT MANAGEMENT, LLC**, a Michigan limited liability company, whose address is 7734 Somerhill Lane, Clarkston, Michigan 48348 ("Panera").

**RECITALS:**

A. Panera is the fee owner of the real property in White Lake Township, Michigan, which is more particularly described on **Exhibit A**, attached hereto and made a part hereof (hereinafter referred to as the "Property").

B. The Property is zoned PB, Planned Business District, and is currently master planned Commercial Corridor and is located within the White Lake Township Corridor Improvement Authority District.

C. This Planned Business Development consists of 1.63 acres of real property as described on Exhibit A. The Property is a vacant outlot located north of M-59, west of Bogie Lake Road, and south of the Meijer private drive.

D. In 2023, Panera applied to the Township to develop the Property as a 5,868 sq. ft. two-tenant building, including a 2,662 sq. ft. retail space and a 3,206 sq. ft. restaurant with outdoor seating and drive-thru service using the Planned Business Development (PBD) process under the Township's Zoning Ordinance.

E. The Planning Commission recommended approval of the Preliminary Site Plan dated June 22, 2023 at its July 20, 2023 Planning Commission Meeting, after having held a public hearing on that date.

F. On August 15, 2023, the Township Board considered and approved the Preliminary Site Plan dated June 22, 2023.

G. On December 13, 2024, Panera submitted a revised Site Plan for final site plan approval, dated December 9, 2024, which has been determined by the Community Development Director to be in substantial conformance with the Preliminary Site Plan approved by the Planning Commission and Township Board. The revised Site Plan, attached here to as **Exhibit B** shall be hereinafter referred to as the "PBD Plan."

H. The PBD Plan proposes the construction of a 7,072 sq. ft. four-tenant building, including 3,038 sq. ft. of two retail spaces, a 1,589 sq. ft. fast food/carry out restaurant, and a 2,445 sq. ft. restaurant with outdoor seating and drive-thru service using the Planned Business Development (PBD) process under the Township’s Zoning Ordinance (the “Development”).

I. Considering the Property is zoned PD, a public hearing was previously held on the Preliminary Site Plan, and the determination of the Community Development Director that the PBD Plan is in substantial conformance with the Preliminary Site Plan approved by the Planning Commission and Township Board, final site plan approval is appropriate.

J. On \_\_\_\_\_, the Planning Commission considered and recommended approval of the PBD Plan and this Agreement.

K. On \_\_\_\_\_, the Township Board considered and approved the PBD Plan and this Agreement subject to certain conditions.

L. The Township considered and relied upon the representations by Panera of certain public benefits of the Panera PBD, which benefits were summarized in Panera’s Written Statement dated \_\_\_\_\_.

M. Panera has represented to the Township its objective to be achieved by the Development is to \_\_\_\_\_ [provide a desired service to the community at a convenient location].

N. Panera has represented to the Township that it has no intention to sell or lease the Development.

O. The Township desires to ensure that the real property that is depicted on the PBD Plan is developed in accordance with, and used for the purposes permitted by the approved PBD Plan, the related documents and undertakings of Panera, and all applicable laws, ordinances, regulations, and standards; and Panera’s desire to proceed with obtaining engineering division approval of the proposed site plan and the issuance of permits required to develop the Property in accordance with the approved PBD Plan.

**NOW, THEREFORE**, it is hereby agreed as follows:

1. The Township has granted its approval of the PBD Plan and this Agreement under the Planned Development Approval Process of Section 6.7 of the Township’s Zoning Ordinance, which approval is subject to the terms and conditions of this Agreement. The parties agree and acknowledge that the Property shall be developed only in accordance with:

- a. all applicable provisions of the White Lake Township Code of Ordinances, including (without limitation) Section 6.7 of the Zoning Ordinance relating to Planned Developments; and
- b. the PBD Plan, as such PBD Plan was approved by the Planning Commission on \_\_\_\_\_, which PBD Plan shall also constitute the approved final site



plan, lighting and landscape plan for the Development, because Panera chose to submit the PBD Plan in sufficient detail so as to allow the PBD Plan to act as the final site plan, lighting and landscape plan for the Development; and

- c. engineering construction plan review and approval by the Township's Engineering Consultant, which plans shall be submitted by Panera in accordance with all applicable laws, ordinances, regulations and standards; and
- d. this Agreement.

The items listed in 1.a. through d. above are referred to in this Agreement as the "PBD Documents."

2. The permitted use of the Property shall be those permitted in the PB, Planned Business District.

3. The Township's approval of the PBD Documents, and the use of the Property and any development thereof, are subject to compliance with this Agreement and the following conditions:

- a. Submission by Panera of engineering construction plans and approval by the Township's Engineering Consultant. Such plans shall comply with all applicable ordinances, standards, rules, regulations, and requirements of the Township as determined by the Engineering Consultant, including without limitation its comments in the December 30, 2024 correspondence to the Community Development Director relating to the PBD Plan.
- b. The requirements of the Township as determined by the Planning Consultant, including without limitation its comments in the Report of the Community Development Department to the Planning Commission, dated January 7, 2025, issued by Sean O'Neil, Community Development Director and Matteo Passalacqua, of Carlisle Wortman Associates, Inc., the Township's Planning Consultant, relating to the PBD Plan.
- c. The requirements of the Fire Department, including without limitation, the requirements set forth in correspondence dated December 9, 2024, issued by the Fire Department to the Planning Commission, and applicable fire and safety codes adopted by the Township.
- d. Conditions imposed on the Development by the Planning Commission during site plan review, including the hours of operation for the outdoor seating area (6:00 a.m. to established hours of closure), conditions recommended by the Township's Planning Consultant and Engineer and any other staff, and any other reasonable conditions, which may be subsequently imposed on the site plan, landscape plan, and engineering plans that are not contrary to this Agreement and the approved PBD Plan.
- e. All improvements shown on the PBD Plan and PBD Documents completed at Panera's sole cost and expense, in accordance with applicable ordinances, rules, standards and regulations.

- f. The only deviation from otherwise applicable Township ordinances is: Dumpster enclosure location, lighting, \_\_\_\_\_.
  - g. Panera shall ensure that the proposed use on the Property shall not exceed the performance criteria found in the Township’s Zoning Ordinance, Section 4.47.
  - h. Prior to commencement of construction of the Development, Panera will contribute the sum of \$20,000.00 to the Corridor Improvement Authority (CIA) to benefit its Development, which is located within the CIA District, and the community.
  - i. Prior to issuance of building permits, Panera shall apply for and obtain necessary lot splits for the Development of the Property.
  - j. Architectural style, elevation features and materials must be consistent with Panera’s representations to the Planning Commission at its Planning Commission Meeting on \_\_\_\_\_, and in accordance with the PBD Plan.
  - k. The proposed development schedule for the development of the Property is attached as **Exhibit C**, which may be modified by Panera as necessary or appropriate, with the Township’s consent.
  - l. The Traffic Impact Study was waived by the Planning Commission at its July 20, 2023 meeting.
  - m. The Community Impact Statement was waived by the Planning Commission at its July 20, 2023 meeting.
4. The Zoning Board of Appeals shall have no jurisdiction over the Property or the application of this Agreement.
5. Except for deviations specifically approved by the Township under this Agreement, if any, and the approved PBD Plan, the Township Code of Ordinances, Zoning Ordinance and all applicable regulations of the Township shall apply to the Property, and any violation of such Codes, Ordinances and regulations by Panera, its successors or assigns, or occupant of the Property shall be deemed a breach of this Agreement, as well as a violation of the Township Code or Ordinance.
6. (a) Any breach of this Agreement shall constitute a nuisance *per se* which shall be abated. The parties therefore agree that, in the event of a breach of this Agreement by Panera, which is not cured in accordance with this Agreement, the Township, in addition to any other relief to which it may be entitled at law or in equity, shall be entitled under this Agreement to an order of a court of competent jurisdiction providing for relief in the form of injunctive relief or specific performance requiring abatement of the nuisance *per se*.
- (b) In the event of a breach of this Agreement, the Township may notify Panera of the occurrence of the breach and issue a written notice requiring the breach be cured within thirty (30) days; provided, however, that if the breach, by its nature, cannot be cured within thirty (30)

days, Panera shall not be in the breach hereunder if Panera commences the cure within the thirty (30) day period and diligently pursues the cure to completion. Failure to comply with such notice shall, in addition to the remedy provided in subsection (c) below and any other relief to which the Township may be entitled in equity or at law, render Panera liable to the Township in any suit for enforcement for actual costs incurred by the Township including, but not limited to, reasonable attorneys' fees, expert witness fees and the like.

(c) In addition to the above described remedies, in the event the breach is due to a failure to maintain the Property in a first class condition, using commercially reasonable standards consistent with the PBD plan and this Agreement, and the Township provided the notice described in subsection (b), above, which notice sets forth the date, time and place of a hearing before the Township Board for the purpose of allowing Panera to be heard as to why the Township should not proceed to perform the maintenance which has not been undertaken. In that hearing, the time for curing such deficiencies and the hearing itself may be extended. If, following the hearing, the Township Board shall determine that the deficiency has not been cured within the time specified at the hearing, then upon five (5) days written notice to Panera, the Township shall thereupon have the power and authority, but not the obligation, to enter upon the Property or cause its agents or contractors to enter upon the Property to cure such deficiency as reasonably found by the Township to be appropriate and/or necessary, in a manner so as to reasonably minimize any interference with the business operations on the Property and the cost and expense of such curative action, including the cost of notices by the Township and reasonable legal, planning, and engineering fees and costs incurred by the Township, shall be paid by Panera. Such amount shall constitute a lien on the Property and the Township may require such costs and expenses to be paid prior to the commencement of work. If such costs and expenses have not been paid within sixty (60) days of a billing to Panera, all unpaid amounts may be a) placed on a delinquent tax roll of the Township as to the Property and shall accrue interest and penalties and shall be collected as and shall be deemed delinquent real property taxes according to the laws made and provided for the collection of delinquent real property taxes in the discretion of the Township; or b) assessed against Panera and collected as a special assessment on the next annual Township tax roll; or c) collected by use of the applicable provisions of Michigan law providing for foreclosure by advertisement, Panera having specifically granted the Township the required power of sale to do so; or d) collected by suit against the Owner. If suit is initiated, the Owner shall pay all the Township's legal fees and costs. The selection of remedy shall be at the sole option of the Township, and election of one remedy shall not waive the use of any other remedy.

7. This Agreement may not be amended except in writing signed by the parties and recorded in the same manner as this Agreement.

8. The parties understand and agree that if any part, term, or provision of this Agreement is held by a court of competent jurisdiction, and as a final enforceable judgment, to be illegal or in conflict with any law of the State of Michigan or the United States, the validity of the remaining portions or provisions of this Agreement shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provisions held to be invalid.

9. This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. In the event of any litigation relating to this Agreement or the

PBD, the parties consent to the venue in and to the exclusive jurisdiction of the courts of and in the State of Michigan, including the federal courts.

10. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. A delay in enforcement of any provision of this Agreement shall not be construed as a waiver or estoppel of the Township's right to eventually enforce, or take action to enforce, the terms of this Agreement. All remedies afforded in this Agreement shall be taken and construed as cumulative; that is, all remedies afforded in this Agreement are in addition to every other remedy provided by law.

11. The signers of this Agreement warrant and represent that they have the authority to sign this Agreement on behalf of their respective principals and the authority to bind each party to this Agreement according to its terms. Further, each of the parties represent that the execution of this Agreement has been duly authorized and is binding on such parties.

12. This Agreement shall run with the land described herein as the Property and bind the parties, their heirs, successors, and assigns. This Agreement shall be recorded in the Oakland County Register of Deeds by the Township. The parties acknowledge that the Property is subject to changes in ownership and/or control at any time, but that heirs, successors, and assigns shall take their interest subject to the terms of this Agreement. All references to "Panera" in this Agreement shall also include its heirs, successors, and assigns.

13. (a) Panera has negotiated with the Township the terms of the PBD Documents, including this Agreement, and such documentation represents the product of the joint efforts and mutual agreements of Panera and the Township.

(b) The parties agree that this Agreement and its terms, conditions, and requirements are lawful and consistent with the intent and provisions of local ordinances, state and federal law, and the Constitutions of the State of Michigan and the United States of America. Panera has offered and agreed to proceed with the undertakings and obligations as set forth in this Agreement in order to protect the public health, safety, and welfare and provide material advantages and development options for Panera, all of which undertakings and obligations the parties agree are necessary in order to ensure public health, safety, and welfare, to ensure compatibility with adjacent uses of land, to promote use of the Property in a socially, environmentally, and economically desirable manner, and to achieve other reasonable and legitimate objectives of the parties, as authorized under applicable Township codes and ordinances and the Michigan Zoning Enabling Act, MCL 125.3101, *et seq.*, as amended. It is also agreed and acknowledged that the terms, conditions, obligations, and requirements of this Agreement are clearly and substantially related to the burdens to be created by the development and use of the Property under the approved PBD, and are, without exception, clearly and substantially related to the Township's legitimate interests in protecting the public health, safety and general welfare. Furthermore, Panera fully accepts and agrees to the final terms, conditions, requirements and obligations of the PBD Documents, and Panera shall not be permitted in the future to claim that the effect of the PBD Documents results in an unreasonable limitation upon uses of all or any portion of the property described in attached Exhibit A, or claim that enforcement of the PBD Documents causes an inverse condemnation, other condemnation or taking of all or any portion of the property described in attached Exhibit A.

14. Panera acknowledges that, at the time of the execution of this Agreement, Panera has not yet obtained engineering approvals for the development of the Property. Panera acknowledges that the Township's Engineering Consultant may impose additional conditions other than those contained in this Agreement during their plan reviews and approvals as authorized by law; provided, however, that such conditions shall not be inconsistent with the PBD Plan or PBD Documents and shall not change or eliminate any development right authorized thereby. The plans approved by the Engineering Consultant and any conditions imposed thereby, shall be incorporated into and made a part of this Agreement automatically upon issuance of the Engineering Consultant's approval of same and without the necessity of amending this Agreement, and shall be enforceable against Panera in the event it proceeds with the development of the Property.

15. It is understood that construction of some of the improvements included in the PBD Documents may require the approval of other governmental agencies.

16. None of the terms or provisions of this Agreement shall be deemed to create a partnership or joint venture between the Developer and the Township.

17. The recitals contained in this Agreement and all exhibits attached to this Agreement and referred to herein shall for all purposes be deemed to be incorporated in this Agreement by this reference and made a part of this Agreement.

18. This Agreement, together with the PBD Documents, are intended as the complete integration of all understandings between the parties related to the subject matter herein. No prior contemporaneous addition, deletion, or other amendment shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent notation, renewal, addition, deletion or other amendment shall have any force or effect unless embodied in a written amendatory or other agreement executed by the parties required herein, other than additional conditions, which may be attached to site plan approvals as stated in Section 14 above.

19. The parties intend that this Agreement shall create no third-party beneficiary interest except for an assignment pursuant to this Agreement. The parties are not presently aware of any actions by them or any of their authorized representatives that would form the basis for interpretation construing a different intent and, in any event, expressly disclaim any such acts or actions, particularly in view of the integration of this Agreement.

20. Where there is a question with regard to applicable regulations for a particular aspect of the development, or with regard to clarification, interpretation, or definition of terms or regulations, and there are no apparent express provisions of the PBD Documents which apply, the Township Council, in the reasonable exercise of its discretion, shall determine the regulations of the Township's Zoning Ordinance, as that Ordinance may have been amended, or other Township Ordinances that shall be applicable, provided that such determination is not inconsistent with the nature and intent of this Agreement and the PBD Documents. In the event of a conflict or inconsistency between two or more provisions of the PBD Documents, the more restrictive provision, as determined in the reasonable discretion of the Township Council, shall apply. In the event there exists any conflict between this Agreement and the PBD Plans and current and future Township Zoning Ordinance provisions, this Agreement and the PBD Plan shall apply.



[Signatures on Next Page]

DRAFT

IN WITNESS WHEREOF, the parties hereto have set their hands on the day and year set forth with the notarization of their signatures.

**PANERA:**

**BLUEPOINT MANAGEMENT, LLC**, a Michigan limited liability company

\_\_\_\_\_  
By:  
Its:

STATE OF MICHIGAN )  
  ) ss  
COUNTY OF OAKLAND )

On this \_\_\_\_ day of \_\_\_\_\_, 2025, before me personally appeared \_\_\_\_\_, the \_\_\_\_\_ of Bluepoint Management, LLC, a Michigan limited liability company, who acknowledged that he/she signed this agreement on behalf of said company.

\_\_\_\_\_  
Notary Public  
Oakland County, Michigan  
Acting in Oakland County, Michigan  
My Commission Expires: \_\_\_\_\_

**TOWNSHIP:**

**CHARTER TOWNSHIP OF WHITE LAKE**, a Michigan municipal corporation

\_\_\_\_\_  
By: Rik Kowall  
Its: Township Supervisor

\_\_\_\_\_  
By: Anthony Noble  
Its: Township Clerk



EXHIBIT A

PROPERTY LEGAL DESCRIPTION

DRAFT

EXHIBIT B

PBD PLANS

DRAFT



Exhibit C

Development Schedule

DRAFT

**WHITE LAKE TOWNSHIP**  
**COMMUNITY DEVELOPMENT DEPARTMENT**

**DATE:** January 9, 2025

**TO:** Rik Kowall, Supervisor  
Township Board of Trustees

**FROM:** Andrew Littman  
Township Planner

**SUBJECT:** Beckett & Raeder Proposal – Consultation Services for MDNR Land  
& Water Conservation Fund Grant Application

---

The above item is ready for Township Board consideration. At its regular monthly meeting held on January 8, 2025, the Parks & Recreation Committee considered Beckett & Raeder's proposal to provide consulting services to assist the Township in the preparation of a Michigan Department of Natural Resources Land & Water Conservation Fund Grant Application for a multi-purpose building at Stanley Park. The Committee **recommended to accept this proposal and award a contract to Beckett & Raeder in an amount not to exceed \$5,000.**

I am attaching the following related documents:

- Draft minutes from the Parks & Recreation meeting held on January 8, 2025
- Beckett & Raeder proposal to provide consulting services for MDNR Land & Conservation Fund Grant Application for Stanley Park Multi-Purpose Building

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.

**WHITE LAKE TOWNSHIP  
PARKS AND RECREATION  
JANUARY 8, 2025**

**CALL TO ORDER/ PLEDGE OF ALLEGIANCE.**

Chairperson Carlock called the regular meeting to order at 6:30 p.m. and led the Pledge of Allegiance.

Roll was called.

**ROLL CALL:**

- Rhonda Grubb
- Andrea Voorheis, Township Board Liaison
- Alexandra Schillack
- Scott Rolando
- Merrie Carlock, Chairperson

**Also Present:**

- Andrew Littman, Staff Planner
- Kelly Lang, Secretary for the Supervisor
- Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF AGENDA**

Member Carlock wanted to switch New Business items A & B.

**MOTION by Member Grubb, seconded by Member Voorheis to approve the agenda as presented.  
The motion carried with a voice vote: (5 yes votes).**

**APPROVAL OF MINUTES**

- A. October 9, 2024

**MOTION by Member Voorheis, seconded by Member Grubb, to approve the minutes as presented.  
The motion carried with a voice vote: (5 yes votes).**

**CALL TO PUBLIC**

Kelly Lang, Supervisor’s Office, stated the 2024 Tree Lighting ceremony costs were under \$1,000.

**NEW/CONTINUING BUSINESS**

- A. Discussion: Parks & Rec Committee Financial Position

Staff Planner Littman said he had spoken with Director Homeister, the Township’s Finance Director, about Parks and Recreation funds. The budget projects at the end of 2025, the fund will be reduced significantly. The reduction is connected with the expenses associated with the debt service to the bonds and the Stanley Park Phase One construction costs. The millage will provide \$500,000 yearly.

Staff Planner Littman suggested pursuing the MDNR Land and Water Conservation Grant for smaller projects.

- B. Discussion: MDNR Land & Water Conservation Fund Grant for Stanley Park Restroom/Concession Building; Beckett & Raeder Proposal

Staff Planner Littman said Supervisor Kowall wanted to pursue a grant for a restroom and concession building at Stanley Park. The estimated cost of a new building would be around \$500,000. The Committee discussed moving the building closer to the central area of the park.

**MOTION by Member Schillack, seconded by Member Rolando, to recommend the Township Board award a contract to Beckett and Raeder, in an amount not to exceed \$5,000 provide consulting services for an MDNR Land & Water Conservation Fund Grant for Stanley Park Restroom and Concession building. The motion carried with a voice vote: (5 yes votes).**

**OTHER BUSINESS**

- A. Welcome New Member Scott Rolando

The Committee welcomed Scott. He is a teacher at Lakeland High School. He is also on the Huron Valley Chamber of Commerce and Milford Memories Planning Committee.

**STAFF REPORT**

Several contractors submitted bids for the Stanley Park Phase One construction. The bid award will be at the February Township Board meeting.

**COMMUNICATIONS**

- A. Member Communications

None.

**ADJOURNMENT**

**MOTION by Member Grubb, seconded by Member Schillack, to adjourn at 7:20 P.M. The motion carried with a voice vote: (5 yes votes).**

NEXT MEETING DATE: Wednesday, February 12, 2025

December 23, 2024

Mr. Andrew Littman  
White Lake Township  
7525 Highland Road  
White Lake, MI 48383

Regarding: Consultation Services  
for  
MDNR Land & Water Conservation Fund Grant Application  
Stanley Park Multi-Purpose Building



Dear Mr. Littman,

Beckett & Raeder, Inc. (BRI) offers this proposal to assist White Lake Township with preparation of a MDNR Land & Water Conservation Fund Grant Application for the Stanley Park Multi-Purpose Building Renovation.

The subject grant project would renovate a former campground building in Stanley Park to serve multiple park support functions including restrooms, sheltered picnic space, and storage. The grant would also include utility connections, and accessible pedestrian and picnic pavements immediately surrounding the building.

BRI proposes the following scope of work to assist White Lake Township with development of a grant application prior to the MDNR submittal deadline of April 1, 2025:

## SCOPE OF WORK

### *Draft Application Materials*

BRI will prepare a draft grant application narratives and supplemental content. The draft will be provided for Township review and comment. Application items to be prepared by BRI include:

- Project need and justification narrative
- Applicant history narrative
- Site & design quality narrative
- Universal Design narrative
- Project Schedule
- Conceptual site plan (notated Stanley Park Master Plan)
- Prime Professional information
- Permit list
- Renovation narrative and site photographs
- Additional information narrative
- Letter of Intent

Beckett & Raeder, Inc.  
535 West William, Suite 101  
Ann Arbor, MI 48103

Petoskey Office  
616 Petoskey St., Suite 100  
Petoskey, MI 49770

Traverse City Office  
921 West 11th St., Suite 2E  
Traverse City, MI 49684

Toledo, Ohio  
419.242.3428 ph

734 663.2622 ph  
734 663.6759 fx

231.347.2523 ph  
231.347.2524 fx

231.933.8400 ph  
231.944.1709 fx



***Final Application Materials***

BRI will finalize application narratives and supplemental content based upon Township review comments, then input/upload to the MDNR MiGrants website.

**ASSUMPTIONS**

BRI prepares this proposal understanding the Township will supply the following application items/content:

- Establish MDNR MiGrants registration and authorize BRI access to the application
- Provide general applicant data/information
- Provide Documentation of Site Control Form and copy of property deed (re-use documents from Stanley application)
- Maintenance funding information
- Project cost estimate in MDNR format
- Local match funds amount and sources (if any)
- Building floorplans and renderings
- Building sustainability and universal design features (solar, etc.)
- Letters of support (if desired)
- Board resolution approving grant application
- Certification of application in MDNR MiGrants

*i*  
initiative

Based on the Stanley Park grant process, BRI anticipates that submittal of SHPO Section 106 and USFWS NEPA Reviews will be required. We further anticipate resubmitting the SHPO and USFWS documents produced for the previous Stanley Park LWCF grant. Any required update or modification of the previous documents after MDNR’s initial review will be performed as an hourly service upon authorization.

Services are for a 2025 MDNR Land & Water Conservation Fund application. Resubmittals or modifications for subsequent application rounds will be performed as an hourly service upon authorization.

**SCHEDULE**

We understand the application must be uploaded and certified by the Township on or before April 1, 2025. In order to accommodate this schedule, BRI requests the Township’s authorization to proceed immediately following the January 2025 Board meeting.

**PROFESSIONAL FEE**

BRI proposes an **hourly not-to-exceed fee of \$5,000**. Services will be billed monthly according to the attached Fee Schedule.

***Reimbursable Expenses***

Provided all communications, drawings, graphics and other materials are provided electronically, we do not anticipate a need for reimbursable expenses.

**ADDITIONAL SERVICES**

Consultation services outside those described in this proposal will be considered an additional service and performed upon Township approval.

We look forward to working with you on this project! Please feel free to contact us to discuss any components of our proposal.

Sincerely,



Brian D. Barrick, PLA, ASLA  
Partner

Attach: BRI 2025 Rates



## 2025 Professional Service Fee and Structure

Beckett & Raeder, Inc. / BRI, Inc. is pleased to submit for consideration the following fees for professional services and time / material services:

**AS REQUIRED BY CLIENT:**

Partner	\$170.00 Hour
Principal	\$160.00 Hour
Senior Associate	\$150.00 Hour
Senior Project Manager	\$145.00 Hour
Senior Professional Engineer	\$145.00 Hour
Associate	\$140.00 Hour
Senior Project Professional/Landscape Architect/Planner	\$135.00 Hour
Project Manager	\$135.00 Hour
Professional Engineer	\$135.00 Hour
Senior GIS Specialist	\$125.00 Hour
Project Engineer (E.I.T.)	\$120.00 Hour
Senior Project Site Representative	\$115.00 Hour
Project Professional/Landscape Architect/Planner	\$115.00 Hour
GIS Technician	\$105.00 Hour
Resident Project Site Representative	\$ 95.00 Hour
Computer Technician /CAD Technician	\$ 95.00 Hour
Clerical	\$ 80.00 Hour
Interns (non-degreed)	\$ 70.00 Hour
Inspection Forms	At Cost
Printing and Duplicating	At Cost
Photography	At Cost
Postage / UPS / FedEx	At Cost
Permit Application Fees	At Cost
Site Plan Review Fees	At Cost
Travel Expenses (Airfare, Lodging, Meals, Fares, etc)	At Cost
Mileage	At Current Federal Rate

*Note: Rates will be adjusted on the first of each year and billings will reflect the rates in effect at the time of services rendered*



2600 WEST BIG BEAVER ROAD, SUITE 300  
TROY, MI 48084-3312  
TELEPHONE: (248) 433-7200  
FACSIMILE: (248) 433-7274  
<http://www.dickinsonwright.com>

ERIC MCGLOTHLIN  
[emcglathlin@dickinsonwright.com](mailto:emcglathlin@dickinsonwright.com)  
(248) 433-7566

December 23, 2024

Via Email

Mike Roman, Treasurer  
Charter Township of White Lake  
7525 Highland Rd.  
White Lake, Michigan 48383

Dear Mr. Roman,

Thank you for asking Dickinson Wright PLLC (the "Firm") to represent the Charter Township of White Lake (the "Client" or "Issuer") as special counsel in connection with execution and delivery of one or more installment purchase agreements among the Issuer, Huron Valley State Bank (the "Bank"), and one or more vendors (collectively, the "IPA") for the purpose of financing the Issuer's purchase of two ambulances and related vehicle modifications (the "Project"). Our work commenced on or around March 27, 2024, and we proceeded to assist the Issuer with authorizing the Project. After authorization of the Project, our work was paused given that delivery of the ambulances was not expected for several months. We have recently received inquiries from the Bank requesting to schedule a closing sometime in January 2025. Given the lengthy pause in our work on the Project, it is necessary to re-establish our engagement with the Issuer with respect to the IPA. We understand that the IPA will be executed and delivered pursuant to 1933 PA 99 in the not to exceed principal amount of \$965,659.74, and the Issuer will pledge to annually appropriate monies sufficient to pay principal of and interest on the IPA when due. In addition, the Issuer will pledge to levy ad valorem taxes on all taxable property within the Issuer's boundaries each year in an amount necessary to make its debt service payments under the IPA, subject to applicable constitutional and statutory tax rate limitations. The purpose of this engagement letter ("Agreement") is to describe the services we will perform as special counsel and the Firm's respective responsibilities and expectations under this engagement.

**Scope of Engagement:**

In the Firm's capacity as special counsel, the Firm has performed in connection with the IPA and expects to perform in connection with the IPA the following services:

- (1) Subject to the completion of proceedings to the Firm's satisfaction, render the Firm's legal opinion (the "Approving Opinion") regarding the validity and binding effect of the IPA, the source of payment and security for the IPA, and the excludability of interest on the IPA from gross income for federal and Michigan income tax purposes. Our Approving Opinion will be addressed to the Issuer and will be delivered by us on the date that the IPA is exchanged for its purchase price (the "Closing").

December 23, 2024  
Page 2

(2) Draft the resolutions of the governing body of the Issuer authorizing the execution and delivery of the IPA; resolutions amending the authorizing resolution, if necessary; the order of the authorized officer of the Issuer approving the sale of the IPA, if necessary; and all necessary closing documents.

(3) Prepare and review other documents necessary or appropriate to the authorization, execution and delivery of the IPA, coordinate the authorization and execution of documents, and review enabling legislation.

(4) Prepare the Issuer's proceedings necessary for the execution and delivery of the IPA.

(5) Assist the Issuer in seeking from other governmental authorities such approvals, permissions and exemptions as the Firm determines is necessary or appropriate in connection with the authorization, execution and delivery of the IPA, except that the Firm will not be responsible for any required blue sky filings. The Firm will not be responsible for obtaining any approvals and permits relating to the construction and operation of the Project financed with the proceeds of the IPA.

(6) Review legal issues relating to the structure of the IPA.

(7) Review any term sheet and purchase order with the Bank and one or more Vendors in connection with the Project and the IPA.

(8) Prepare the closing transcripts for the IPA.

The Firm's Approving Opinion will be based on facts and law existing as of its date. In rendering our Approving Opinion, we will rely upon the certified proceedings and other certifications of public officials and other persons furnished to us without undertaking to verify the same by independent investigation, and we will assume continuing compliance by the Issuer with applicable laws relating to the IPA. During the course of this engagement, we will rely on you to provide us with complete, accurate and timely information on all developments pertaining to any aspect of the IPA and its security.

The Firm's duties in this engagement are limited to those legal services expressly set forth above, which are services traditionally provided by special counsel. As attorneys, we do not represent ourselves as financial advisors or experts and do not provide advice that is primarily financial in nature, such as advice concerning the financial feasibility of the Project or the financing, recommending a particular structure for the IPA as being financially advantageous, advice estimating or comparing the relative cost to maturity of the IPA depending on various interest rate assumptions, or advice regarding the financial aspects of pursuing a competitive sale versus a negotiated sale.

Specifically, among other things, our duties under this letter do not include: (a) handling litigation that may arise with respect to the IPA; (b) services relating to any grant



December 23, 2024  
Page 3

funds for the Project or to any contracts or agreements related thereto; (c) preparing requests for tax rulings from the Internal Revenue Service or no action letters from the Securities and Exchange Commission; (d) preparing blue sky or investment surveys with respect to the IPA; (e) making an investigation or expressing any view as to the creditworthiness of the Issuer or the IPA; (f) assisting in the preparation or review of any official statement or other disclosure document with respect to the IPA, or performing an independent investigation to determine the accuracy, completeness, or sufficiency of any financial or statistical information provided to the Bank and any vendors; (g) advice on post-closing tax issues (e.g., our engagement does not include rebate calculations); (h) obtaining, reviewing, confirming, approving, or transmitting any bank account information or wire transfer or similar electronic transfer instructions; and (i) addressing any other matter not specifically set forth above that is not required to render our Approving Opinion.

**Attorney-Client Relationship:** Upon execution of this engagement letter, the Issuer will be the client and an attorney-client relationship will exist between the Issuer and the Firm. The Firm's services as special counsel are limited to those contracted for in this letter; the Issuer's execution of this engagement letter will constitute an acknowledgment of those limitations.

**Fees:** We propose that our fee in connection with the IPA shall be payable upon the execution and delivery of the IPA. The fee for the IPA shall be in an amount of \$10,650, calculated as described in my e-mail to you dated March 26, 2024. The fee includes our out-of-pocket disbursements for expenses incurred in performing the foregoing services.

Our fee for services is based upon the facts and expectations set forth above, and we reserve the right to fairly and reasonably modify our fee if such facts or expectations significantly change or if the financing experiences any significant delays.

If for any reason the financing represented by the IPA is not consummated, we will not invoice the Issuer for our fee hereunder, but we will expect to be reimbursed for any client charges and out-of-pocket expenses we have incurred.

In addition, if the Issuer requests us to perform additional services beyond those set forth in paragraphs (1) to (8) above, we propose that such work be charged at hourly rates to be agreed upon by the Issuer and the Firm.

Our representation of the Issuer and the attorney-client relationship created by this engagement letter will be concluded upon delivery of the IPA. Nevertheless, subsequent to the Closing, we will mail the Internal Revenue Service Form 8038-G, make the required filing with the Michigan Department of Treasury, and prepare and distribute to the participants in the transaction a transcript of the proceedings pertaining to the IPA.

**Client Liaison and Firm Liaison:** The Firm understands that Mike Roman, Treasurer, will be the primary contact for the Client in furtherance of this engagement and Eric McGlothlin will be the Firm attorney responsible for this engagement. Amelia Livingway, who has

December 23, 2024  
Page 4

assisted with proceedings thus far, will continue to assist with this engagement. The Firm will communicate with the Client through Mike Roman and will keep the Client informed of the status and progress of the engagement. The Firm will also seek the Client's input and approval on any significant decisions or actions that may affect the engagement.

**Conflicts Issues:** The Firm represents large numbers of governmental entities, business entities and financial institutions, including the Bank, as well as individuals. It is possible that, during the time the Firm is representing the Client, some of the Firm's current or future clients will have disputes or transactions with the Client. The Client agrees that the Firm may continue to represent or undertake in the future to represent existing or new clients in any matter, including litigation, even if the interests of such other clients in such other matters are directly adverse to the Client's, so long as those matters are not substantially related to the Firm's work for the Client and the Firm's representation of the other clients would not involve the Firm's use of any confidential information the Client has provided the Firm and would otherwise be permitted by the applicable Rules of Professional Conduct.

**Choice of Law/Forum Selection:** This Agreement will be interpreted, construed and governed by and under the laws of the State of Michigan and any action arising hereunder or with respect to this Firm's legal representation of the Client shall be brought only in a court of competent jurisdiction in the County of Oakland, State of Michigan.

**Right to Withdraw from Representation:** The Firm may terminate this representation if the Client does not pay the invoices promptly or breaches any other obligations to the Firm.

[Remainder of page intentionally left blank]

December 23, 2024  
Page 5

**Standard Terms of Engagement:** The attached Standard Terms of Engagement of the Firm for the representation of the Client in these matters are incorporated into this Agreement. The Client agrees to abide by the terms and conditions set forth therein.

Sincerely,



Eric McGlothlin

I have read the foregoing engagement agreement, and my signature indicates that the Charter Township of White Lake agrees to all of its terms and fully understand its provisions, including the risks described above with respect to conflicts and prior work conflicts issues, and consents to the representation set forth above. The terms of the engagement of the firm as stated above are accepted and approved by:

CHARTER TOWNSHIP OF WHITE LAKE

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

**MICHIGAN IOLTA – TRUST/RETAINER INSTRUCTIONS**

**Payment via Wire Transfer (available for immediate use):**

Beneficiary Name: Dickinson Wright PLLC – Client Trust Account  
Bank Name: JP Morgan Chase Bank, N.A.  
Bank Address: 28660 Northwestern Hwy, Southfield, MI 48034  
Swift Code (International): CHASUS33  
ABA (Domestic): 021000021  
Account No: 717243  
Reference: Please include Client/Matter number

**Payment via ACH\*:**

Beneficiary Name: Dickinson Wright PLLC – Client Trust Account  
Bank Name: JP Morgan Chase Bank, N.A.  
Bank Address: 28660 Northwestern Hwy, Southfield, MI 48034  
ABA (Domestic): 072000326  
Account No: 717243  
Reference: Please include Client/Matter number

\*funds received via ACH are subject to a five (5) business day hold, not including the date of deposit; NOT available for immediate use

**Payment via Credit Card:** e-mail [remittance.notice@dickinson-wright.com](mailto:remittance.notice@dickinson-wright.com) to request

---

**Invoice Payment Instructions; NOT to be used for Trust/Retainer transactions**

**Payment via Wire Transfer:**

Beneficiary Name: Dickinson Wright PLLC  
Bank Name: JP Morgan Chase Bank, N.A.  
Bank Address: 28660 Northwestern Hwy, Southfield, MI 48034  
Swift Code (International): CHASUS33  
ABA (Domestic): 021000021  
Account No: 38852  
Reference: Please include invoice number(s)

**Payment via ACH:**

Beneficiary Name: Dickinson Wright PLLC  
Bank Name: JP Morgan Chase Bank, N.A.  
Bank Address: 28660 Northwestern Hwy, Southfield, MI 48034  
ABA (Domestic): 072000326  
Account No: 38852  
Reference: Please include invoice number(s)

**Notes:**

- To verbally confirm instructions please contact Cash Applications at (248)433-7200
- Remittance advice information may be sent to: [remittance.notice@dickinson-wright.com](mailto:remittance.notice@dickinson-wright.com)
- Please see instructions on the invoice for other accepted forms of payment

## Dickinson Wright PLLC Standard Terms of Engagement

Dickinson Wright PLLC (“the Firm”) is pleased to be retained by the Client to provide legal services. Below are the standard terms of engagement in relation to any matter on which the Client retains the Firm, unless otherwise set forth in the Client's engagement letter and subject always to applicable rules of professional conduct

**1. Entire Agreement:** The engagement letter and these Standard Terms of Engagement constitute the entire understanding and agreement between the client identified in the engagement letter (“the Client”) and the Firm regarding the Firm's representation of the Client in the matter described in the engagement letter. Unless otherwise agreed, they supersede any prior understandings and agreements, written or oral, and any billing requirements, outside counsel guidelines, or letters submitted to the Firm. If any provision of the engagement letter or these Standard Terms of Engagement are held by a court or other arbitrator to be invalid, void, or unenforceable, the remainder of the provisions shall remain in full force and effect. The Client should review this document carefully and contact the Firm promptly with any questions. The Client should retain this document in its file.

**2. The Client:** The Firm will provide representation for only the person(s) or entity identified in the engagement letter. In matters related to corporations, partnerships, and other entities, unless otherwise agreed in writing, the Firm's representation does not extend to officers, directors, employees, shareholders, partners, members, or other individuals. Additionally, unless otherwise agreed in writing, the Firm's representation of an entity does not extend to its affiliates (such as parent, sister, or subsidiary corporations).

**3. The Scope of our Services:** The engagement letter sets forth the specific matter for which representation will be provided and the scope of the Firm's services. The services the Firm will provide to the Client may be varied by agreement during the course of the matter. The Firm's services will not include advice on tax-related issues unless and to the extent specifically requested by the Client and included in the scope of the Firm's representation.

At times, the Firm may be called upon to express opinions of law or anticipated outcomes. Such opinions are limited by the Firm's knowledge of the facts at the time the opinion is rendered, the present state of the law, and, at times, factors that are unknown or beyond the Firm's control. Although the Firm will use its best professional judgment, it cannot guarantee the outcome of any matter.

**4. Primary Attorney:** The primary attorney(s) responsible for the Client's relationship with the Firm may, in the exercise of his/her/their professional judgment, involve other attorneys (including other members or associates), paralegals, or non-legal professionals possessing special knowledge or experience to improve efficiency.

The Firm's invoices for services may reflect time and professional services rendered by attorneys or other legal personnel associated with the Firm's international or other affiliate(s). Such attorneys, who are licensed in other jurisdictions, are consulted and serve as legal advisors to the Firm based on their licensed status in such jurisdictions and expertise in particular legal specialties.



**5. Basis of Our Charges:** Unless other arrangements are made, the Firm's billing for legal services will be on a per-hour basis. The Firm's standard hourly rates will apply in the absence of any other agreement, and details of the hourly rates for the attorneys working on the Client's matter(s) are available upon request. The Firm's hourly rates are subject to periodic reviews and adjustments, and the Firm reserves the right to revise its hourly rates in accordance with such general Firm reviews.

The Firm is often asked to provide estimates regarding the cost of its representation on a given matter. The Firm is pleased to provide such estimates when, in its professional judgment, they can be made. Unless the Firm agrees in writing to perform a specific project for a fixed fee, an estimate will not represent a maximum, minimum, or agreed charge.

**6. File Closure:** Upon the completion of the services described in the engagement letter, the Firm's representation will be considered concluded. At that time, the Firm will close the file and retain it in accordance with the Firm's retention policy.

**7. Records Retention:** The Firm acknowledges the importance of client confidentiality, the protection of personal data, and the need to retain data for legal, accounting, and operational purposes (including but not limited to personal information, case files, correspondence, and any other data provided to the Firm in the course of providing legal services). The Firm shall retain client data for a period not exceeding the duration necessary to serve the purposes for which the data was collected and processed, including the fulfillment of any legal, regulatory, or ethical obligations, as well as in alignment with the Firm's retention policies. Data shall be maintained in a secure environment with appropriate safeguards against unauthorized access, alteration, or destruction and in compliance with applicable data protection laws. Upon the expiration of the retention period the Firm shall securely destroy the data in a manner that is consistent with best practices for the protection of confidential information and the environment. Client consents to the destruction of the file upon the expiration of the retention period.

**8. Retainers:** Unless otherwise set forth in the engagement letter, it is understood that the Firm may withdraw amounts from the retainer at any time as may be necessary to satisfy outstanding invoices. If at any time the retainer proves insufficient to cover past due invoices or falls below the agreed amount, the Firm may require that it be replenished.

**9. Conflicts of Interest:** Conflicts of interest are a concern for the Firm and the clients it represents. The Firm attempts to identify actual and potential conflicts at the outset of any engagement and may request that the Client sign a conflict waiver before the Firm accepts an engagement from the Client. Occasionally, other clients or prospective clients may ask the Firm to seek a conflict waiver from the Client so that the Firm can accept an engagement on their behalf. Please do not take such a request to mean that the Firm will represent the Client less zealously; rather, it indicates that the Firm takes its professional responsibilities to all clients and prospective clients very seriously.

Unfortunately, conflicts sometimes arise or become apparent after work begins on an engagement. When that happens, the Firm will do its best to address and resolve the situation in a manner that is consistent with its professional responsibilities.

The Firm will not represent any other client on any matter on which the Firm is representing the Client unless the Firm has the Client's express agreement that it may do so and where permitted to do so by the applicable jurisdiction's Rules of Professional Conduct.

Client agrees that the Firm may also act generally for another client which, for the Client, is a market competitor.

**10. Liability Insurance Coverage:** It is the Client's responsibility to ascertain whether the Client is covered by any relevant insurance in respect of either liability or legal expenses. If so, the Client is responsible to notify the Client's insurer(s) of the claim or potential claim and the Firm's involvement as soon as possible. It is also the Client's responsibility to inform the Firm if the Client believes that the Client has insurance coverage for the specific matter for which the Firm has been retained.

**11. Termination of Representation:** The Client may terminate the Firm's representation at any time, with or without reason. The Firm has a right to discontinue providing services under certain circumstances, such as the Client's failure to fulfill financial obligations to the Firm. The Client's termination of the Firm's representation in no way relieves the Client of the obligation to pay for legal services that have been provided prior to the time of termination and that are necessitated to make an orderly transfer of the Firm's file materials.

Upon termination of the Firm's representation for any reason, the Firm will return the Client's papers, documents, and other property to the Client upon receipt of the Client's request for them. The Firm may, and likely will, retain a copy of the materials returned to the Client. If the Client has outstanding invoices owing to the Firm, the Firm may have the right to retain the Client's documents if they are properly subject to a lien.

At such time as the Firm has completed the scope of work for which the Firm has been retained, the Firm will consider its representation to have ended. If the Client later retains the Firm to perform further or additional work, the Firm's future representation will be subject to the terms and understanding set forth herein, unless other terms and conditions are expressly agreed to.

Furthermore, upon termination of the Firm's representation, any and all outstanding legal fees and costs incurred by the Firm for its legal services rendered to the Client in connection with the engagement will become immediately due and owing. In the event the Client fails to immediately pay any outstanding legal fees and costs owed to the Firm, the Firm reserves all rights and remedies available to it for collection of any and all amounts of money owed to it for said legal services. The Client also agrees to pay all charges, costs, expenses, and reasonable attorney's fees incurred by the Firm in enforcing and recovering any and all legal fees and costs incurred pursuant to the engagement letter.

**12. E-mail and Cellular Phone Authorization:** The Firm is able to communicate with clients via electronic mail over the internet ("e-mail"), and many of the Firm's attorneys utilize cellular phones. With e-mail, current technology cannot eliminate the risk that confidences and/or secrets otherwise protected by attorney/client privilege may be viewed by unauthorized third parties and the privilege thereby lost. As to both means of communication, sensitive, confidential, and proprietary materials of the Client may be intercepted by unauthorized third parties. Please be advised that in connection with the use of e-mail and cellular phones:

1. There is the risk of the loss of the attorney/client privilege and that sensitive, confidential, or proprietary material may be inadvertently disclosed to unauthorized third parties.
2. The Firm's standard for e-mail encryption is Transport Layer Security (TLS) protocol.

3. The Client has the right to specifically direct Dickinson Wright PLLC not to send sensitive, confidential, or proprietary materials via e-mail or to utilize a cellular phone when communicating.

Unless the Client specifically provides direction to the contrary, the Client's acceptance of the Firm's engagement letter will indicate the Client's review of this policy statement on the use of e-mail and cellular phones and will specifically authorize Dickinson Wright PLLC to utilize e-mail, to send information over the internet to communicate with the Client and with third parties, and to utilize cellular phones. By engaging the Firm, the Client agrees to assume the risk of inadvertent disclosure and the risk of the loss of attorney/client privilege as it relates to information being transmitted. The Client retains the right to direct Dickinson Wright PLLC not to send specific items of information via the internet, by e-mail, or over a cellular phone. This authorization shall remain in effect until revoked in writing.

**13. Post-Engagement Matters:** The Client is engaging the Firm to provide legal services in connection with a specific matter. After completion of the matter, changes may occur in the applicable laws or regulations that could impact the Client's future rights and liabilities. Unless the Client engages the Firm after the completion of the matter to provide additional legal advice on issues arising from the matter, the Firm has no continuing obligation to advise the company on such issues or on future legal developments, including monitoring renewal or notice dates or similar deadlines that may arise with respect to the matter.

**14. Privacy:** The Firm recognizes the importance of data privacy and is committed to protecting the confidentiality, integrity, and availability of all personal and business information in compliance with all applicable data protection laws and regulations. The Firm will only collect personal and business information that is necessary for the fulfillment of its duties and within the scope of its services. The information collected shall be used exclusively for the purposes for which it was provided and other compatible purposes unless the Client provides explicit consent to the contrary or where it is required or permitted by law. For inquiries, or to remove personal data from the firm's systems upon completion of the engagement, please contact the firm directly.

**15. Corporate Transparency Act (CTA) Disclaimer:** Under the Corporate Transparency Act ("CTA"), certain entities organized in the U.S. (including entities that are disregarded for federal income tax purposes) and foreign entities doing business in the U.S. are required to report information to the Financial Crimes Enforcement Network (FinCEN) as to their beneficial ownership. The report must provide information regarding the entity, each beneficial owner, and (in some cases) each company applicant. Entities subject to beneficial ownership information (BOI) reporting include corporations, limited liability companies, and any other entity created by filing a document with the secretary of state or similar office under state, Tribal, or foreign law. Certain states may have their own reporting obligations. The Firm is not assuming any responsibility in this engagement regarding CTA or equivalent state-level compliance by the Client or any affiliated entity. This would change only if the Client requests the Firm's assistance with CTA or state-level compliance, and the Firm agrees in writing to accept the increased scope of work. In particular, the Client should not send the Firm any confidential BOI related to CTA compliance until the Firm has agreed to accept that additional task.

These Standard Terms of Engagement will apply to the services the Firm provides to the Client, unless the Firm agrees otherwise in writing. By instructing the Firm to act for the Client,

the Client accepts these terms and authorizes the Firm to perform the services as outlined in our engagement letter.

If the Client has any questions or concerns about any aspect of the Firm's engagement, they should contact the attorney responsible for their matters.

4897-6701-0312 v1 [9207-39]

**WHITE LAKE TOWNSHIP  
INTER-OFFICE MEMORANDUM  
COMMUNITY DEVELOPMENT DEPARTMENT**

**DATE:** December 6, 2024

**TO:** Rik Kowall, Supervisor  
Township Board of Trustees

**FROM:** Sean O’Neil, AICP  
Community Development Director

**SUBJECT: 9451 Elizabeth Lake Rezoning Request**  
Location: property identified as Parcel Number 12-26-204-002 (9451 Elizabeth Lake Road), located on the south side of Elizabeth Lake Road, east of Marina Court, consisting of approximately 1.33 acres.  
Request: **Rezone the property from GB (General Business) to RM-1 or any other appropriate zoning district.**

---

The rezoning request was considered by the Planning Commission at their regular meeting on December 5, 2024, at which time the **Planning Commission recommended approval of rezoning the parcel to RM-1 (Attached Single Family)**. I am attaching the following related documents:

- ❑ Draft minutes of the December 5<sup>th</sup>, 2024, Planning Commission meeting.
- ❑ Review letter prepared by Matteo Passalacqua, Planning Consultant, dated November 25<sup>th</sup>, 2024.
- ❑ Rezoning application submitted by the applicant.
- ❑ Public hearing notice.

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.



**WHITE LAKE TOWNSHIP  
PLANNING COMMISSION  
DECEMBER 5, 2024**

**CALL TO ORDER**

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

**ROLL CALL**

**Present:**

- T. Joseph Seward, Chairperson
- Merrie Carlock, Vice Chairperson
- Mona Sevic
- Pete Meagher
- Matt Slicker
- Robert Seeley
- Debby Dehart
- Scott Ruggles, Township Board Liaison

**Others:**

- Andrew Littman, Staff Planner
- Matteo Passalacqua, Carlisle and Wortman
- Michael Leuffgen, DLZ
- Hannah Kennedy-Galley, Recording Secretary

**APPROVAL OF THE AGENDA**

**MOTION by Commissioner Carlock, seconded by Commissioner Seeley to approve the agenda as presented. The motion carried with a voice vote: (8 yes votes).**

**APPROVAL OF MINUTES**

- A. November 7, 2024
- B.

Commissioner Meagher pointed out a clerical error on page 2. The sentence should read “reducing to 7 members”.

**MOTION by Commissioner Seeley, seconded by Commissioner Ruggles to approve the agenda as presented. The motion carried with a voice vote: (8 yes votes).**

**CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)**

None.

**PUBLIC HEARING**

**A. 9101 Highland Development**

Location: Property described as 9101 Highland Road, identified as parcel number 12-23227-003, located south of Highland Road, west of Sunnybeach Boulevard, consisting

of approximately 5.02 acres.

Request: **Preliminary site plan approval recommendation and special land use approval**

Applicant: Affinity 10 Investments, LLC

Mr. Passalacqua summarized his review letter.

Commissioner Ruggles suggested the trees be on the outside of the 8' fence, so the neighbors who surround it see them instead of the wall.

Commissioner Slicker asked Mr. Passalacqua if a bypass lane was required. Mr. Passalacqua said he believes one needs to be provided.

Commissioner Carlock asked what the special land use approval is for. Director O'Neil said it was for the drive-thru and outdoor seating.

Commissioner Carlock asked if the applicant met the parking standards. Director O'Neil confirmed.

Mr. Leuffgen reviewed his letter.

Commissioner Seeley stated if the sewer is to be extended, the applicant could make the sewer connection with the adjacent property owner, and potentially share parking spaces. There could also be the potential to have reciprocal access.

Commissioner Seward asked Mr. Leuffgen about the traffic flow and the property to the west. If a driver turns onto M-59 too early, there is no way to reorient. He expressed concern about the parking lot in the rear of the buildings.

Commissioner Slicker asked Mr. Leuffgen if the applicant would be required to maintain the retention basin. Mr. Leuffgen confirmed, there is an agreement the applicant signs between themselves and the Township that outlines the maintenance requirements.

Erin McMachen, Stonefield Engineering, was present to speak on behalf of the applicant. The goal of the property was to maintain respect for the surrounding residential properties while maintaining the aesthetic with the rest of the M-59 commercial corridor. The pickup window will be for the Chipotle restaurant, and there will be additional waiting spaces as well. The buffer at the corner of the site was increased to 30' with dense landscaping and the 8' fence. The trash enclosures, loading, and drive-thru users will be over 100' from the closest residential property. The applicant has formally submitted to MDOT, and a right-turn taper lane will be added. There were no comments on the pedestrian pathway. Sidewalk easements are proposed for the portions of the sidewalk that encroach on the subject site. The applicant is happy to provide more separation if the Township wants it. She was in favor of working with the neighboring commercial property to share access and improvements. 116 spaces are provided, but one will be removed to create access to the retention basin. There will be no truck idling allowed on site. There will be zero lighting spillover on the eastern side of the property onto the residential

properties. Landscaping will be planted in abundance. The applicant agrees with the conditions outlined in the consultant's letter. There is no intention for any of the users to serve alcohol.

Commissioner Seward asked Ms. McMachen about getting in line for the eastern building, and the drive-thru bypass on the western side of the site. Ms. McMachen said there will be directional signage throughout the site. A customer would have to loop around if they miss the Chipotle pick-up window. She added that the employees would most likely utilize the spaces in the rear of the building.

Commissioner Ruggles asked Ms. McMachen about the hours of operation for the users. Ms. McMachen said around 10 am -10 pm, but they aren't set in stone and would be amiable to set hours as a condition of special land use approval. Site lighting will be shut off an hour from close.

Chairperson Seward opened the public hearing at 7:22 P.M.

Dan Gottschall, 891 Sunnybeach Blvd, spoke in opposition to the applicant's request.

Elizabeth Herrod, 868 Sunnybeach Blvd, spoke in opposition to the proposed tenants and the potential traffic.

Megan Schultz, 987 Sunnybeach Blvd, spoke in opposition to the proposed tenants. She thanked Commissioner Ruggles for his comments.

Aaron Hyder, 953 Sunnybeach Blvd, said the plan is busy and clustered. He recommended denying the restaurant tenants.

Stephanie Smith, 8990 Twin Lakes Dr, expressed concerns about the increase in traffic to the area. She said a traffic light needed to be installed.

Giuseppa Heiski, 573 Deer Run, wanted to know why she didn't receive a letter. Director O'Neil said state law requires property owners within 300' of the property to be notified.

Chairperson Seward closed the public hearing at 7:34 P.M.

Director O'Neil clarified that the tenant is seeking preliminary site plan and special land use approval. The applicant still needs to receive final site plan approval. The plans will change between now and final site plan approval.

Commissioner Slicker voiced concerns about shared outdoor seating. Ms. McMachen said the outdoor seating is dedicated to one user each.

Commissioner Ruggles said he will bring up the issue of the fence placement again at the Township Board meeting later this month.

Ms. McMachen added over 50% of the property is dedicated green space. Starbucks and Chipotle are not interested in signing leases without drive-thrus.

Commissioner Dehart took issue with two buildings and the traffic lanes. She suggested one building with the drive-thru and pick-up window on the ends of the building. Ms. McMachen said there wouldn't be anywhere to wrap the stacking lane if there is only one building.

Commissioner Dehart said she appreciated all the conditions of the special land use.

**MOTION by Commissioner, seconded by Commissioner Meagher, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and the drive through and pick up windows. The motion failed with a voice vote: (5 no votes). (Meagher/yes, Seeley/yes, Dehart/yes, Carlock/no, Seward/no, Ruggles/no, Sevic/no, Slicker/no).**

**MOTION by Commissioner Carlock, seconded by Commissioner Seward, to approve the special land use for 9101 Highland, identified as parcel number 12-23-227-003, accepting all the concessions made by the applicant concerning lighting, sidewalk, hours of operations, idling trucks, and the sewer stub and all comments from staff and consultants, including the two outdoor seating areas and one drive-thru. The motion carried with a roll call vote: (8 yes votes). (Slicker/yes, Sevic/yes, Ruggles/yes, Seward/yes, Carlock/yes, Dehart/yes, Seeley/yes, Meagher/yes).**

**MOTION by Commissioner Meagher, seconded by Commissioner Seeley to recommend the Township Board approve the preliminary site plan for 9101 Highland, identified as parcel number 12-23-227-003 subject to the specifications outlined in the special land use approval. The motion failed with a roll call vote: (5 no votes). (Meagher/yes, Seeley/yes, Dehart/no, Carlock/yes, Seward/no, Ruggles/no, Sevic/no, Slick/no).**

**B. 9451 Elizabeth Lake - Rezoning Request**

Location: property identified as Parcel Number 12-26-204-002 (9451 Elizabeth Lake Road), located on the south side of Elizabeth Lake Road, east of Marina Court, consisting of approximately 1.33 acres.

Request: **The applicant requests to rezone the property from GB (General Business) to RM-1 (Attached Single-Family) or any other appropriate zoning district.**

Applicant: Shirin Raimifar

Mr. Passalaqua summarized his review letter.

Commissioner Dehart asked staff if there was sewer in the area. Director O'Neil confirmed.

David Ramifar, 9451 Elizabeth Lake, spoke on behalf of his request. He said he believed the Township would need more affordable housing in this area. He said the units would be somewhere from 1,000-1,500 square feet.

Commissioner Dehart asked the applicant if the units would be for sale. Mr. Raimfar confirmed.

Commissioner Seeley stated that the concept plan looked dated. He said he would prefer a product that looked more modern. Mr. Raimifar presented his updated concept plan in front of the Planning Commission.

Chairperson Seward opened the public hearing at 8:16 P.M. Seeing none, he closed the public hearing at 8:16 P.M.

**MOTION by Commissioner Ruggles, seconded by Commissioner Sevic to recommend the Township Board approve the rezoning requested by Sharin Ramifar 9451 Elizabeth Lake Road, property identified as parcel number 12-26-204-002. The motion carried with a voice vote: (8 yes votes).**

**CONTINUING BUSINESS**

None.

**NEW BUSINESS**

None.

**OTHER BUSINESS**

**A. Conceptual Presentation - Mark DeGroff**

Mr. DeGroff presented his concept for the property at 8300 Pontiac Lake Road. His concept was a multi-venue entertainment and hospitality complex, including a BBQ restaurant, a high-end cocktail lounge, and a banquet facility. He said the design would take advantage of the sunset views of Pontiac Lake. There will not be a need for variances. There will be alcohol served and entertainment. Entertainment and decibel levels will be limited. There will be lakeside docking. The building is proposed to be two stories.

**LIAISON'S REPORT**

The Township was the victim of a cyber-attack related to the closing of infrastructure bonds for the Civic Center project. The site work will continue for three weeks or so, but after that, the Board will need to decide moving forward. The Township Tree lighting is at Fisk Farm this Friday, December 6. Stanley Park will be open to rebid on December 23, 2024. The opening is scheduled for January 2025 and the anticipated bid award will be February 2025.

**DIRECTOR'S REPORT**

Streetlights will be installed along Elizabeth Lake Road within the next week. Culver's, West Valley, and Lakepointe all had their pre-construction meetings. Gateway Crossing and Ginko Storage will be holding pre-construction meetings soon.



**NEXT MEETING DATE:** January 16, 2025

**ADJOURNMENT**

**MOTION** by Commissioner Carlock, seconded by Commissioner Seeley to adjourn at 8:43 P.M. The motion carried with a voice vote: (8 yes votes).

DRAFT



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: November 25<sup>th</sup>, 2024

**Rezoning Review  
For  
White Lake Township, Michigan**

- Applicant:** Shirin Rahemifar / Viviana Group
- Project Name:** 9451 Elizabeth Lake Road Rezoning
- Location:** South side of Elizabeth Lake Road, East of Union Lake Road.
- Parcel ID:** 12-26-204-002
- Parcel Size:** 1.33 gross acres
- Application Date:** November 6<sup>th</sup>, 2024
- Current Zoning:** GB, General Business District
- Action Requested:** Rezone to RM-1, Attached Single Family Residential

**PROJECT DESCRIPTION**

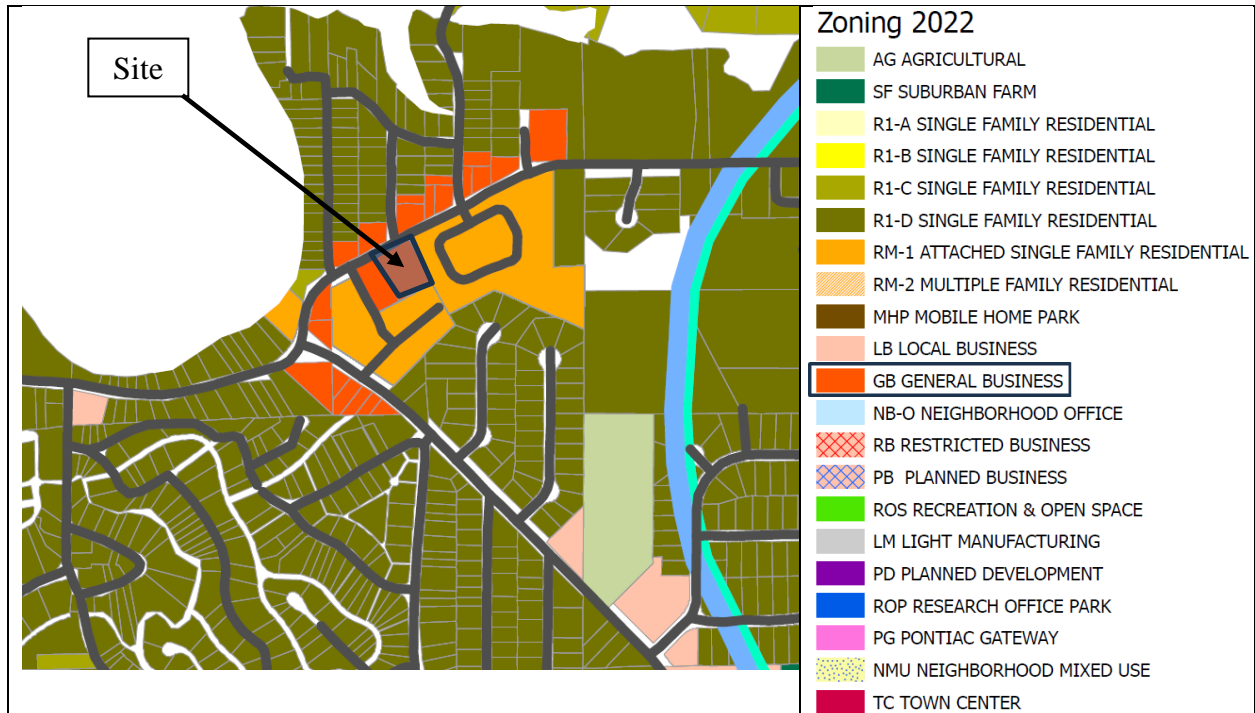
The Applicant is requesting a zoning change for the parcel located near Union Lake Road on the south side of Elizabeth Lake Road to convert the permissible uses of the site from commercial to attached residential. The rezoning statement states *“This rezoning request aligns closely with the White Lake Township’s Master Plan, fulfilling critical community needs, and is supported by statistical evidence that highlights immediate and long term benefits to the township.”*. The applicant has provided a concept plan showing a multi-tenant residential building. The application states the building will contain ten (10) units. It appears units will be a for sale product. We note these are concept plans. No formal site plan has been submitted.

Benjamin R. Carlisle, *President* Douglas J. Lewan, *Executive Vice President* John L. Enos, *Vice President*  
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal*  
Paul Montagno, *Principal*, Megan Masson-Minock, *Principal*, Laura Kreps, *Senior Associate*  
Richard K. Carlisle, *Past President/Senior Principal*



**NEIGHBORING ZONING AND LAND USE**

**Zoning**



The zoning and existing land uses for the subject site and surrounding parcels are identified in the following table:

Direction	Zoning	Existing Use
North	GB – General Business	Construction Material Supplier
South	RM-1 – Single Family Attached Residential	Multi-Family Residences
East	RM-1 – Single Family Attached Residential	Multi-Family Residences
West	GB – General Business	Vehicle Towing Company

The application does not indicate how many bedrooms the development would have. Using the lot size standards set forth in Section 3.1.8, the site could support approximately eight (8) to ten (10) units depending on bedroom count. Permitted and special land uses in the RM-1 zone are shown below.

RM-1 Zoning District	
Permitted Land Uses	Special Land Uses
Attached single-family dwellings	Hospitals and other health care facilities
Two family dwellings	Adult foster care congregate facilities
Outdoor recreation uses, other public and private parks and similar outdoor recreation uses not listed in §4.38	Local utility structures, stations and substations
Adult foster care family home in detached dwelling	Public and private schools
Adult foster care small group home	Utility transmission systems
Adult foster care large group home	Wireless communication antennas
Family day care home in detached dwelling	Convalescent or nursing homes
	Nursery schools, group adult and child care centers

**Considerations:**

- 1) *The permitted uses in the GB district offer an array of commercial options. Some uses would not be able to fit on a lot of this size. Some uses may not be seen as compatible with neighboring existing multi-family developments but are permitted by right.*
- 2) *The site being developed as an RM-1 multi-family development would be conducive to neighboring residential uses but may not be conducive to the neighboring commercial uses.*

**NATURAL FEATURES**

The lot is undeveloped and cleared of vegetation along the majority of the site. Tree rows exist along the site’s perimeter. No natural feature information was provided in the application. Below is our observed condition of the site.

**Topography:** The site appears relatively flat.

**Wetlands:** The Department of Environment, Great Lakes and Energy indicate wetlands located just east of the parcel.

**Woodland:** No major woodlands are present on the site.



**Soils:** Predominant soils are Spinks Loamy Sand.

**Water:** No waterbodies exist onsite. The site is approx. 315 feet from Oxbow Lake but does not have access.

**Items to be addressed:** None.

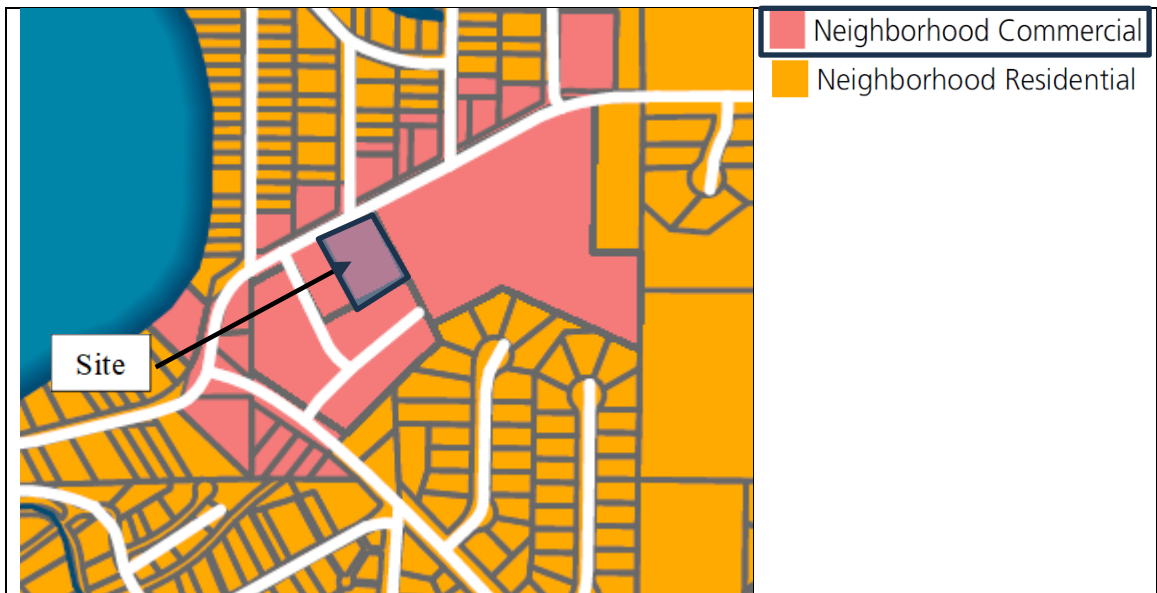
## MASTER PLAN

The Township’s Master Plan is a comprehensive document that includes many elements that should be considered when determining rezoning requests. Pertinent sections to review include future land uses, as well as goals, objectives and strategies of the site(s) proposed for rezoning.

The application states that the 2024 Master Plan emphasizes a growing need for affordable, diverse, middle-class housing. Census data is cited regarding average incomes and cost of housing to support residential housing.

### Future Land Use

Under the current Master Plan, the site is located in the Neighborhood Commercial district which is shown below:



The description and example of uses (not an exhaustive list) for the Neighborhood Commercial district is:

Description: *“Provides neighborhood scale commercial establishments that have daily goods and services for residents. Creates centers of neighborhood life, encouraging a mix of compatible retail, service, office, and residential uses in a walkable environment.”*

Example of Uses: “Professional services/office, personal care, restaurants, mixed-use”

Lot sizes are not prescribed in the Master Plan for future land use designations however the corresponding zoning districts associated with the Neighborhood Commercial district are LB, RB, NB-O, and NMU.

There is a conflict between the future land use designation in the 2024 Master Plan and proposed zoning for the site. As the description indicates, the goal of Neighborhood Commercial is to promote small scale retail or commercial uses that are walkable. The only use indicated to promote residential in the district is mixed use. While residential may be a component of this type of use, it is not the sole function of the site.

2011-2012 Master Plan designated the site as Planned Neighborhood and included the location in a focus area. The designation called for a mix of limited density residential and small-scale commercial. The Union Lake Road / Elizabeth Lake Road Focus Area outlines uses and forms for the area. Both residential and small-scale commercial are referenced.

The reference to the former Master Plan was to establish whether a trend was present in the way the community viewed the area in question and its future development.

**2024 Master Plan Housing Section**

The proposed rezoning conflicts with the 2024 Master Plan future land use designation however does support the Township’s need for diversified housing. The Master Plan Housing section cites the Township’s dominant dwelling type is single family detached housing. Demographic information highlights that household sizes (number of individuals in a family) are decreasing in the Township thus indicating that future demand for large single-family housing may decline. Allowing for the permitted use of smaller scale single family attached housing does align with the 2024 Master Plan.

**Considerations:**

- 1) *RM-1 zoning conflicts with 2024 Master Plan future land use designation of Neighborhood Commercial.*
- 2) *Additional and diversified housing options are a stated need in the 2024 Master Plan.*

**DEVELOPMENT POTENTIAL**

Per lot size standards in Section 3.1.8. it is important to note that ten (10) units could be developed on the site if units were a mixture of efficiency (studio) or one-bedroom units.

If rezoned, the lot will allow for attached single family developments as noted earlier in this report regarding permitted and special land uses. Accounting for current market conditions, infrastructure, the concept plan provided in the application, or similar plans indicating residential development, it is likely the site would be developed sooner for residential than small scale

commercial. The applicant has stated they believe residential development on the site would offer a more reasonable return on investment over commercial uses.

**Considerations:**

- 1) *The site has been designated for commercial land use in the last two master plans and is zoned GB but has not garnered any viable commercial development interest. It is likely the site would be developed sooner if rezoned to residential use and provide a higher rate of return.*

**REZONING STANDARDS**

Section 7.9 of the White Lake Township Zoning Ordinance states that all proposed amendments to the provisions of the Ordinance or the Official Zoning Map shall be referred to the Planning Commission for public hearing and recommendation to the Township Board, prior to consideration thereof by the Township Board.

Section 7.13 of the White Lake Township Zoning Ordinance outlines the criteria the Planning Commission and Township Board are to utilize when assessing any petition for an amendment to the Official Zoning Map. Below is a review of the materials provided by the applicant as they relate to the proposed rezoning.

- 1) *Consistency with the goals, policies and future land use map of the White Lake Township Master Plan, including any subarea or corridor studies. If conditions have changed since the Master Plan was adopted, the consistency with recent development trends in the area.*

**Applicant Response:** The 2024 White Lake Township Master Plan emphasizes a growing need for affordable, diverse housing options, particularly for middle-income families, Census Bureau data (2020) shows White Lake's median income at \$81,633, positioning many households within the middle-income bracket, which aligns well with the proposed housing. Furthermore, with rental costs averaging \$1,192 per month—higher than the county and state averages—this development will offer homeownership opportunities that address a housing affordability gap for this demographic.

**CWA Comment:** The future land use map from the 2024 Master Plan designates the subject site in the Neighborhood Commercial category, which is not conducive with the proposed RM-1 zoning district and uses. Attached residential uses would be consistent with goals highlighted in the Housing section of the master plan.

- 2) *Compatibility of the site's physical, geological, hydrological and other environmental features with the host of uses permitted in the proposed zoning district.*

**Applicant Response:** Not provided

**CWA Comment:** The RM-1 designation is a compatible use taking into account the site's environmental features.

- 3) *Evidence the applicant cannot receive a reasonable return on investment through developing the property with one (1) of the uses permitted under the current zoning.*

**Applicant Response:** The current BG zoning designation has limited viability, as commercial demand is lower in this predominantly residential area. Attempts to develop the land commercially have been hindered by a lack of demand, making residential zoning more practical and in line with adjacent properties. RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

**CWA Comment:** We note BG is likely a typo and meant to be GB. GB permits a wide array of uses however some uses require lot sizes in excess of the site's 1.33 acres which limits development possibilities. As noted earlier in this report, developing the site as RM-1 is possible and in a higher demand. However, ten (10) units may not be permitted depending on the unit type proposed.

- 4) *The compatibility of all the potential uses allowed in the proposed zoning district with surrounding uses and zoning in terms of land suitability, impacts on the environment, density, nature of use, traffic impacts, aesthetics, infrastructure and potential influence on property values.*

**Applicant Response:** The property is bordered on two sides by residential zones, making RM1 a seamless fit that will harmonize with neighboring homes. By converting this parcel to a well-planned residential development, the community will experience aesthetic improvements and an overall increase in neighborhood appeal.

**CWA Comment:** The multifamily residential uses to the south and east are compatible with RM-1. Uses north (construction material supplier) and west (vehicle towing yard) of the site conflict with residential uses, aesthetics, and potential nuisance to residential properties. Some permitted uses in GB would be non-compatible with the existing neighboring multi-family developments.

- 5) *The capacity of Township utilities and services sufficient to accommodate the uses permitted in the requested district without compromising the "health, safety and welfare" of the Township.*

**Applicant Response:** The township's existing water and sewer infrastructure can support this development, as confirmed by capacity assessments, preserving the community's health, safety, and welfare.

**CWA Comment:** Utilities are present for the site. Township public safety services are 2.5 miles from the site. We cite no concerns with Township services but note that Public Safety and Engineering will be consulted on any proposed development for the site.

- 6) *The capability of the street system to safely and efficiently accommodate the expected traffic generated by uses permitted in the requested zoning district.*

**Applicant Response:** Elizabeth Lake Road is equipped to handle the modest increase in traffic from 10 new units, and analysis confirms there will be no adverse impact on traffic flow.

**CWA Comment:** No traffic analysis was provided in the application. We do not cite concerns regarding the traffic that would be generated by a multi-family development on the site given the geographical limits for maximum units permitted.

- 7) *The apparent demand for the types of uses permitted in the requested zoning district in relation to the amount of land in the township currently zoned and available to accommodate the demand.*

**Applicant Response:** RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

**CWA Comment:** RM-1 exists throughout the Township's primary corridors but is not the predominant residential zoning. Residential uses are in demand for the Township and metropolitan area.

- 8) *The boundaries of the requested rezoning district are reasonable in relationship to its surroundings, and construction on the site will be able to meet the dimensional regulations for the zoning district listed in the Schedule of Regulations.*

**Applicant Response:** Not provided.

**CWA Comment:** The lot is 1.33 gross acres. As noted in this review, the applicant's proposed use of ten (10) attached residential units may not be permissible based on the lot size. However, pending issues identified in a site plan review, some level of multi-family development is possible for the site.

- 9) *The requested zoning district is considered to be more appropriate from the township's perspective than another zoning district.*

**Applicant Response:** Applicant has stated RM-1 is in higher demand than commercial.



**CWA Comment:** Given surrounding developments, both GB and RM-1 uses could be appropriate for the site. Many GB permitted uses would be challenged by the site's size as well as compatibility issues with neighboring residential uses.

*10) If the request is for a specific use, is rezoning the land more appropriate than amending the list of permitted or special land uses in the current zoning district to allow the use?*

**Applicant Response:** Not provided.

**CWA Comment:** Rezoning is more appropriate than amending the uses in GB.

*11) The requested rezoning will not create an isolated and unplanned spot zone.*

**Applicant Response:** Not provided.

**CWA Comment:** No spot zoning is proposed. The surrounding and nearby areas are zoned R1-D, RM-1 and GB.

*12) The request has not previously been submitted within the past one (1) year, unless conditions have changed or new information has been provided.*

**Applicant Response:** Not provided.

**CWA Comment:** This request is a new application.

*13) An offer of conditions submitted as part of a conditional rezoning request shall bear a reasonable and rational relationship to the property for which rezoning is requested.*

**Applicant Response:** Not Applicable

**CWA Comment:** No conditions were offered in the application.

*14) Other factors deemed appropriate by the Planning Commission and Township Board.*

**Applicant Response:** Not Applicable

**CWA Comment:** The Planning Commission and Township Board may also consider other factors which may be relevant to the rezoning request.

**Items to be addressed:** None.

**RECOMMENDATION**

While the proposed rezoning does conflict with the 2024 Master Plan future land use designation, it does align with housing goals stated in the plan. The site has remained vacant under the GB zoning and 2012 / 2024 Master Plan future land use commercial designations. While several factors determine site specific use demands, residential demand in the Township and region is currently higher than small scale commercial.

Conflicting adjacent land uses would exist whether the site was developed residential or commercial. Given the array of permitted uses in GB and the site’s limited size, it is likely that a GB zoned development would be less conducive to the adjacent existing residential developments than a new RM-1 development being adjacent to the existing commercial businesses.

For these reasons, and the findings outlined in the rezoning standards, we recommend the proposed rezoning. The Planning Commission may wish to consider the items listed in this report and below while developing their determination.

**Considerations**

- 1) *The permitted uses in the GB district offer an array of commercial options. Some uses would not be able to fit on a lot of this size. Some uses may not be seen as compatible with neighboring existing multi-family developments but are permitted by right.*
- 2) *The site being developed as an RM-1 multi-family development would be conducive to neighboring residential uses but may not be conducive to the neighboring commercial uses.*
- 3) *RM-1 zoning conflicts with 2024 Master Plan future land use designation of Neighborhood Commercial.*
- 4) *Additional and diversified housing options are a stated need in the 2024 Master Plan.*
- 5) *The site has been designated for commercial land use in the last two master plans and is zoned GB but has not garnered any viable commercial development interest. It is likely the site would be developed sooner if rezoned to residential use and provide a higher rate of return.*

Respectfully,

  
\_\_\_\_\_  
**CARLISLE/WORTMAN ASSOC., INC.**  
Matteo Passalacqua  
Community Planner

CHARTER TOWNSHIP OF WHITE LAKE  
COMMUNITY DEVELOPMENT DEPARTMENT  
7525 Highland Road, White Lake, Michigan 48383-2900  
248-698-3300, Ext. 163

**APPLICATION TO REZONE PROPERTY**

Date: 11-06-2024

Applicant: Shirin Rahimifar

Address: 2118 Middlebelt Rd. west-bloomfield 48324

Phone No.: 646-399-6494 Fax No.: —

E-mail: Shirinrf@gmail.com / info@keegocconsulting.com

Applicant's Interest in Property: owner

Property Owner: ~~##~~ Viviana Groux - Shirin Rahimifar

Owner's Address: 2118 Middlebelt Rd. west Bloomfield 48324

Phone No.: 646 399 6494 Fax No.: —

Location of Property: 9451 Elizabeth lake Rd.

Sidwell No(s): \_\_\_\_\_

Total area of change: 1.3 acres

I, the undersigned (owner, attorney, or option holder) hereby request that this property now classified as ~~RHXX~~ GB District, be reclassified as RN1 District.

Applicant's Signature: \_\_\_\_\_  
(If owner does not sign application, attach letter signed by owner, requesting zoning change.)

Please Print Name: Shirin Rahimifar

**Required Attachments:**

- 1. Legal description of the property proposed to be rezoned.
- 2. Location map
- 3. Rezoning sign location map
- 4. Statement indicating why change is requested
- 5. Review fee (check payable to the Charter Township of White Lake)

RECEIVED  
NOV 06 2024  
COMMUNITY DEVELOPMENT DEPARTMENT

**Supporting Statement for Rezoning from BG to RM1 at 9451 Elizabeth Lake Road**

Thank you for considering this request to rezone the vacant property at 9451 Elizabeth Lake Road from BG (Business General) to RM1 (Residential Multi-Family 1). This rezoning request aligns closely with White Lake Township’s Master Plan, fulfilling critical community needs, and is supported by statistical evidence that highlights immediate and long-term benefits to the township.

**1. Alignment with the Master Plan and Community Demand**

The 2024 White Lake Township Master Plan emphasizes a growing need for affordable, diverse housing options, particularly for middle-income families. Census Bureau data (2020) shows White Lake’s median income at \$81,633, positioning many households within the middle-income bracket, which aligns well with the proposed housing. Furthermore, with rental costs averaging \$1,192 per month—higher than the county and state averages—this development will offer homeownership opportunities that address a housing affordability gap for this demographic.

**2. Housing Affordability and Availability**

Statistics indicate a pressing need for mid-sized homes. Almost half (46%) of White Lake residents currently live in homes between 1,000-2,000 square feet, and demand for similarly sized, affordable options remains high. The township's Master Plan also reports an affordability issue, with nearly 64% of renters paying 35% or more of their income on housing. This proposed development of 10 attached single-family units will directly address this gap, providing housing options that meet the financial needs of middle-income families and reducing the local housing cost burden.

**3. Financial Viability and Limitations of Current Zoning**

The current BG zoning designation has limited viability, as commercial demand is lower in this predominantly residential area. Attempts to develop the land commercially have been hindered by a lack of demand, making residential zoning more practical and in line with adjacent properties. RM1 zoning would not only ensure a reasonable return on investment but also enable the development of needed housing.

**4. Compatibility with Surrounding Residential Uses**

The property is bordered on two sides by residential zones, making RM1 a seamless fit that will harmonize with neighboring homes. By converting this parcel to a well-planned residential development, the community will experience aesthetic improvements and an overall increase in neighborhood appeal.

**5. Traffic and Infrastructure Impact**

Elizabeth Lake Road is equipped to handle the modest increase in traffic from 10 new units, and analysis confirms there will be no adverse impact on traffic flow. Additionally, the township’s existing water and sewer infrastructure can support this development, as confirmed by capacity assessments, preserving the community's health, safety, and welfare.

**6. Support for Township Utilities and Tax Revenue**

This development will generate new tax revenue, while the moderate density of the proposed housing will not strain township utilities or services. The property's conversion from vacant land to productive use also contributes to White Lake's financial health and addresses Master Plan goals.

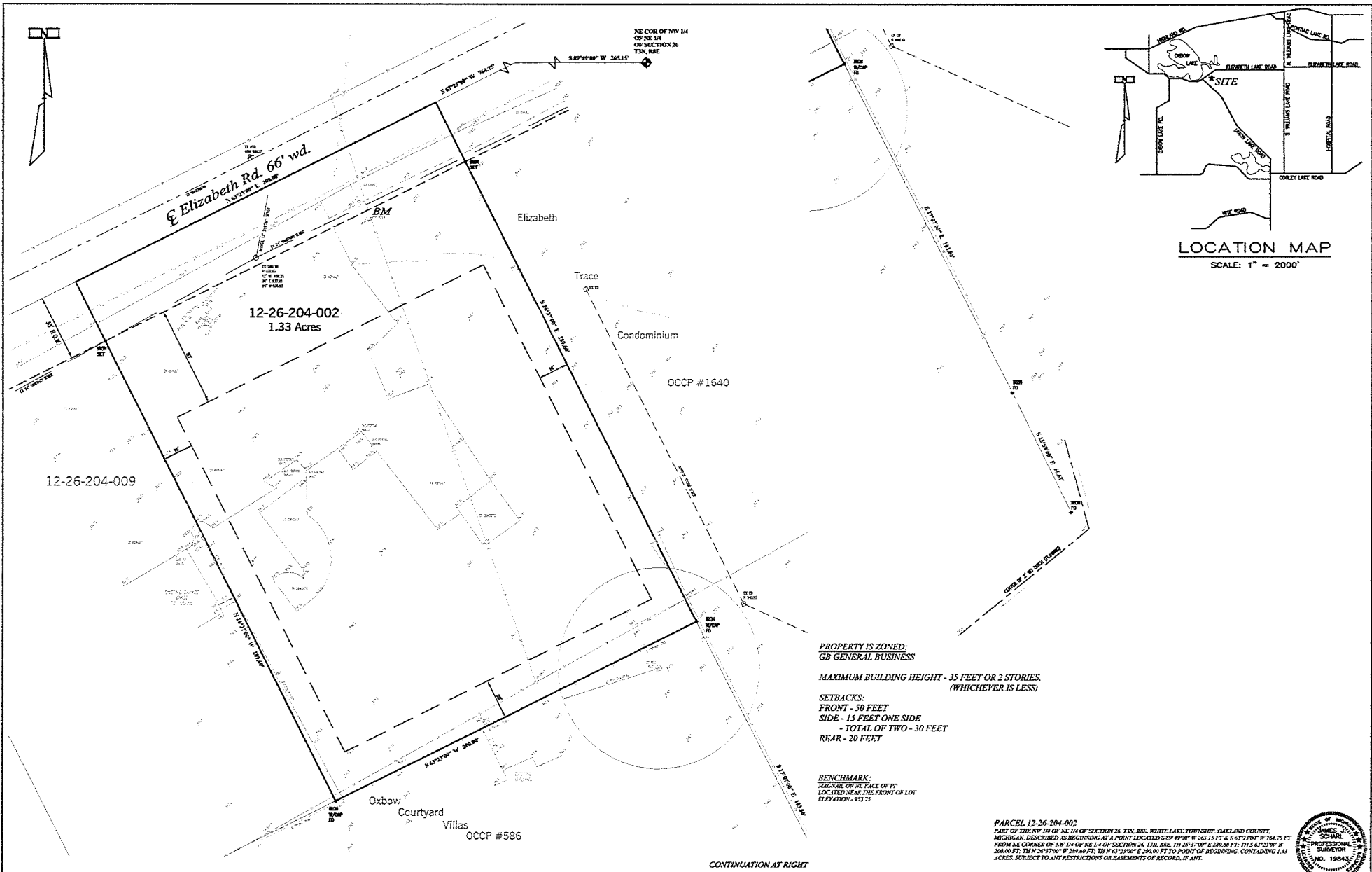
In conclusion, this rezoning is fully consistent with White Lake Township's Master Plan, addressing both immediate housing needs and long-term goals for sustainable growth. The proposed development will directly address local housing demands, provide financial benefits, and seamlessly integrate into the existing residential community.

Attached are the following supporting documents:

1. **Site Survey** – This includes detailed topographical data of the land, as well as boundary markings with setback information, providing a clear understanding of the physical characteristics of the site.
2. **Preliminary Proposed Plan** – This preliminary plan outlines the layout of the 10-unit residential buildings, including initial traffic flow and parking arrangements to ensure accessibility and minimize impact on surrounding infrastructure. Please note that further development and detailed drawings will be provided once the rezoning request is accepted, allowing for more refined information as proper architectural and engineering drawings are developed.
3. **Highlighted Master Plan Pages** – Relevant pages from the White Lake Township Master Plan are attached, with key sections highlighted and annotated to correspond with references made in the rezoning statement. These references underscore the development's alignment with township goals, housing needs, and infrastructure compatibility.



Section 10, Item A.

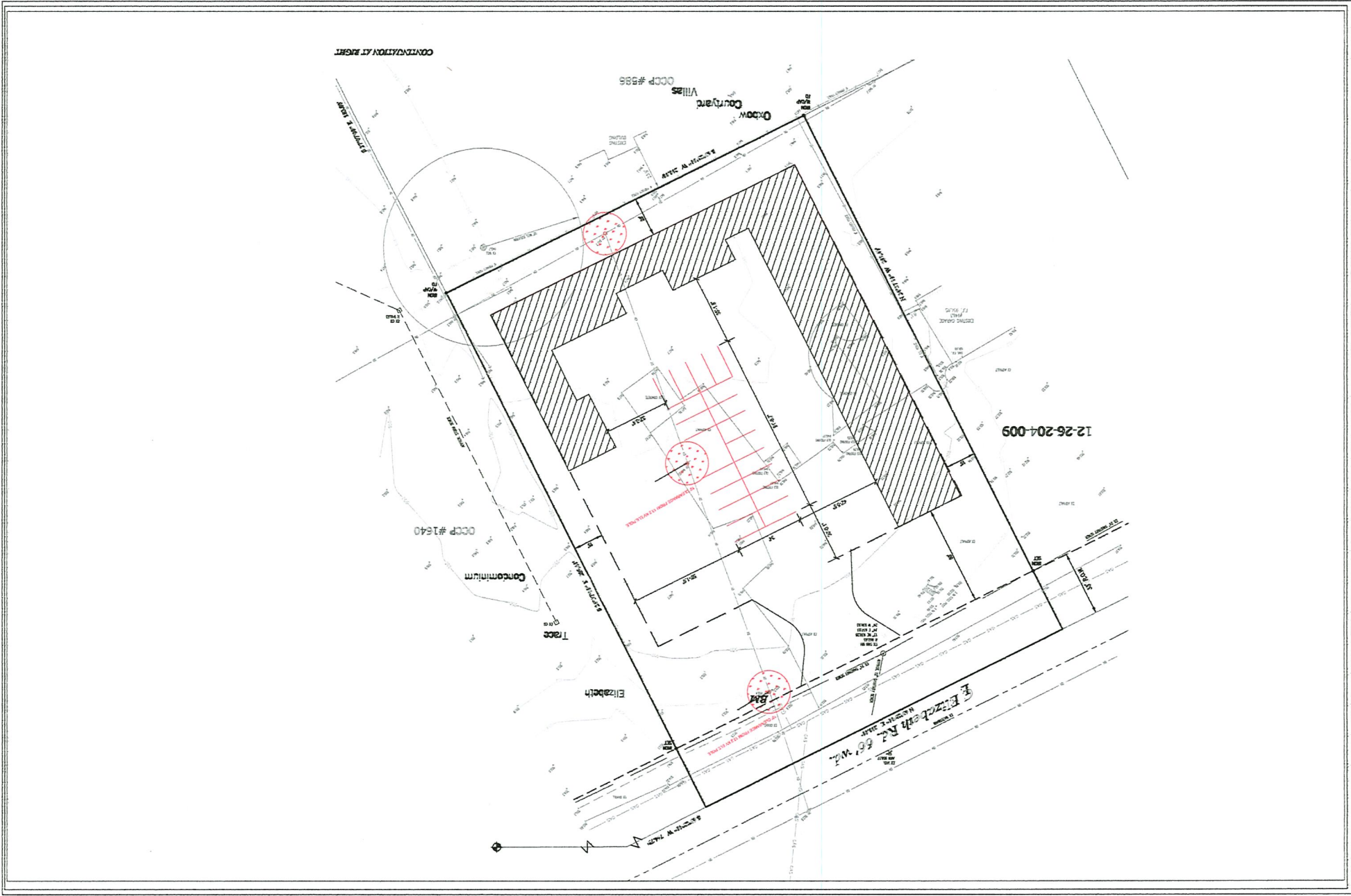


CONTINUATION AT RIGHT

DATE	ISSUE	<b>PROPRIETOR:</b> RSI HOLDINGS LLC 2450 ELIZABETH LAKE ROAD WHITE LAKE, MI 48306 (248) 770-3828	THIS DRAWING IS THE PROPERTY OF KIEFT ENGINEERING, INC. AND MAY NOT BE USED, REPRODUCED OR FORWARDED, BY ANY OR IN WHOLE, WITHOUT EXPRESSED WRITTEN PERMISSION FROM KIEFT ENGINEERING, INC.		<b>KIEFT ENGINEERING, INC.</b> REG. PROF. ENGINEER AND REG. LAND SURVEYOR 3032 SOUTH MAIN STREET, STE #1, CLARKSTON, MICHIGAN 48346 PHONE (248) 625-5251	SHEET 3-25-18 DRAWN JM SECTION 28	CDD. BY DAVE 	72 HOURS OF REVIEW (NET) BEFORE YOU DIG CALL MESS DFC 800-482-7171 (TOLL FREE)	<b>BOUNDARY / TOPOGRAPHIC SURVEY</b> PARCEL 12-26-204-002 WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN	SCALE 1" = 20' SHEET 1 OF 1 KE 2016.125



PROPOSED SITE PLAN OVERLAY







Section 10, Item A.









**Land Legal Description**

PART OF THE NW ¼ OF SECTION 26, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN. DESCRIBED AS BEGINNING AT A POINT LOCATED S 89DEGREE 49'00" W 764.75 FT FROM NE CORNER OF NW ¼ OF NE ¼ OF SECTION 26,T3N, R8E.TH 26DEGREE 23'00"W 200.00 FT; TH 26DEGREE37'00" W289.60 FT;TH N 63 DEGREE 23'00" E 200.00 FT TO POIT OF BEGINNING. CONTAINING 1.33 ACRES. SUBJECT TO ANY RESTRICTIONS OR EASMENTS OF RECORD, IF ANY.

# WHITE LAKE TOWNSHIP

## NOTICE OF PUBLIC HEARING

Section 10, Item A.

Notice is hereby given the Planning Commission of White Lake will hold a public hearing on **Thursday, December 5, 2024, at 6:30 P.M.** at the Township Annex, 7527 Highland Road, White Lake, Michigan 48383, to consider the following changes to the zoning map:

Property identified as Parcel Number 12-26-204-002 (9451 Elizabeth Lake Road), located on the south side of Elizabeth Lake Road, east of Marina Court, consisting of approximately 1.33 acres.

The applicant requests to rezone the property from GB (General Business) to RM-1 (Attached Single-Family) or any other appropriate zoning district.

Persons interested are requested to be present. Pertinent information relative to this rezoning request is on file at the Community Development Department and may be examined at any time during regular business hours of 8:00 a.m. to 5:00 p.m. Persons interested may visit the Community Development Department, contact the Community Development Department by telephone at 248-698-3300, ext. 5, or attend the Public Hearing on the date specified. Written comments are also welcome at 7525 Highland Road, White Lake, MI 48383. Individuals with disabilities requiring auxiliary aids or services should contact the Clerk's Office at least 5 days before the hearing.

441

Sean O'Neil, AICP  
Community Development Director