APPLICANT SUBMITTALS:

HAMPTON MANOR SENIOR HOUSING PROJECT

A request by Van Buren Investors Land Holdings LLC to construct a senior housing development with assisted living and memory care units, called Hampton manor. The proposed 62,516 square foot building is to be located on the south side of Tyler Road, between Morton Taylor and Haggerty Roads on a 7.11 acre site. The site has tax parcel ID#'s: 83-054-99-0012-000, 83-054-99-0013-000, 83-054-99-0014-701, 83-054-99-0015-701, 83-054-99-0016-002, 83-054-99-0016-003.

Senior housing developments are a Special Land Use in the C (Local Business) District, and the proposed Special Land Use requires a public hearing. This hearing is being held in accordance with Section 12.03 (Permitted Uses with Special Approval) of the Zoning Ordinance.

Item	Page #
17-page resubmitted civil and architectural site plan set, revision-dated July 6, 2020	2
Full color landscape plan	21
Full color architectural elevation renderings	22
Applicant response to December 29, 2019 site plan review comments from Township Principal Planner	24
Applicant response to December 29, 2019 special land use comments from Township Principal Planner	26
Applicant response to November 15, 2019 site plan comments from Township Engineer	27
Applicant response to November 12, 2019 site plan comments from Township Fire Marshall	32
Applicant response to January 9, 2020 questions following public hearing	33
Traffic impact study, dated February 14, 2020, without appendices	36

HAMPTON MANOR
of
VAN BUREN TOWNSHIP

SENIOR ASSISTED LIVING COMMUNITY

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8
EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

ENGINEER:
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WILLIAM J. THOMPSON, PE
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bill@la-eng.com

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zohaibsyed2001@yahoo.com

DESCRIPTIONS ARE PREPARED FROM EXISTING VAN BUREN TOWNSHIP TAX RECORDS. ALL PARCELS SHALL BE COMBINED AFTER PURCHASE OF PROPERTY IS COMPLETED.

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PARCEL 3: PARCEL #83-054-99-0014-701
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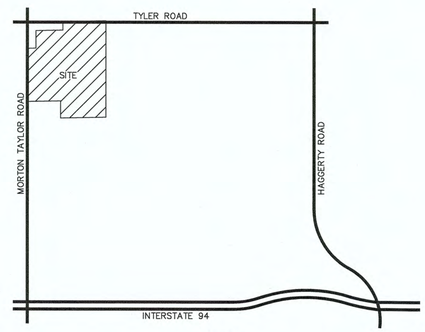

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BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POLE ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POLE ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

STATE OF MICHIGAN
WILLIAM J. THOMPSON
ENGINEER
No. 24438
PROFESSIONAL ENGINEER

Revisions:
12-03-2019 REV PER TWP L.A.
02-03-2020 REV PER TWP L.A.
07-02-2020 REV PER WCDPS L.A.

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HAMPTON MANOR
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COVER SHEET

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Scale: NO SCALE
Paper Size: 24"x36"
Date: 11-06-19
Drawn By: L.A.
Checked By: W.J.T.
Job No.: 19-249
Sheet No. 01

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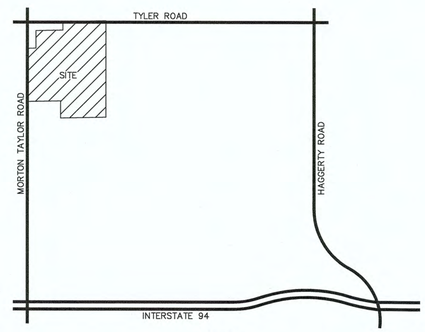

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1. RAILROAD SPIKE IN UTILITY POLE ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POLE ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

STATE OF MICHIGAN
WILLIAM J. THOMPSON
ENGINEER
No. 24438
PROFESSIONAL ENGINEER

Revisions:
12-03-2019 REV PER TWP L.A.
02-03-2020 REV PER TWP L.A.
07-02-2020 REV PER WCDPS L.A.

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LAND HOLDINGS, LLC
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CLINTON TOWNSHIP, MI 48035
989-708-1878
zohaibsyed2001@yahoo.com

HAMPTON MANOR
OF VAN BUREN TOWNSHIP
COVER SHEET

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale: NO SCALE
Paper Size: 24"x36"
Date: 11-06-19
Drawn By: L.A.
Checked By: W.J.T.
Job No.: 19-249
Sheet No. 01

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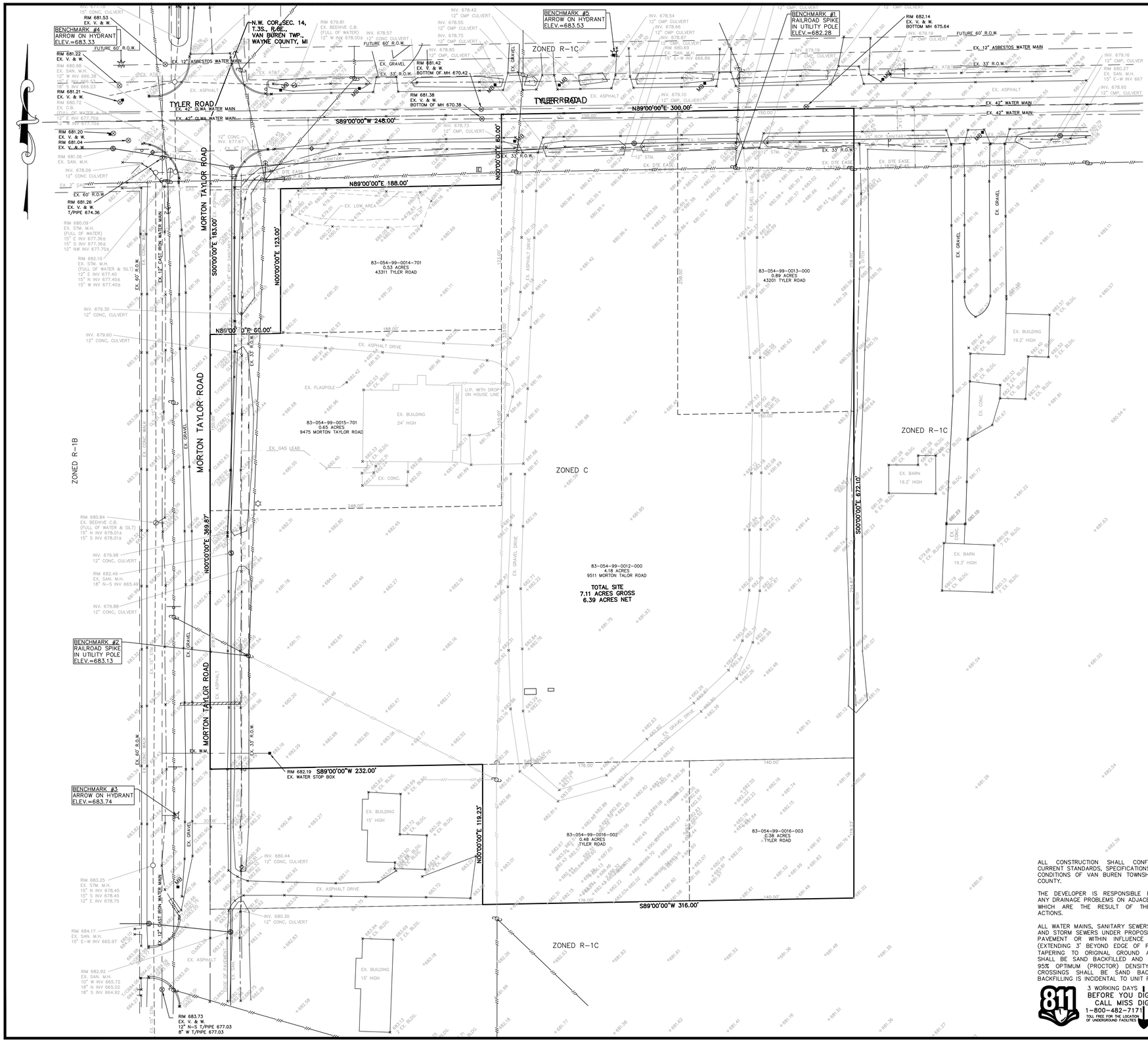

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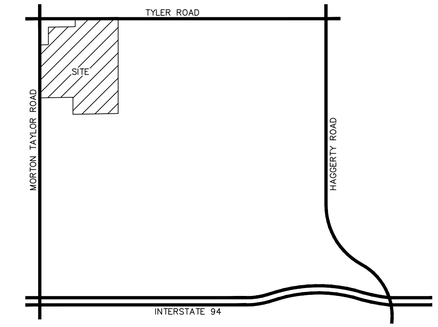

LOCATION MAP
SCALE: 4"=1 MILE

DESCRIPTIONS ARE PREPARED FROM EXISTING VAN BUREN TOWNSHIP TAX RECORDS. ALL PARCELS SHALL BE COMBINED AFTER PURCHASE OF PROPERTY IS COMPLETED.

PARCEL 1: PARCEL #83-054-99-0012-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 333 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE NORTH 333 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 294.87 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 548 FEET; THENCE NORTH 219.87 FEET TO THE POINT OF BEGINNING. 4.18 ACRES.

PARCEL 2: PARCEL #83-054-99-0013-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING NORTH 89 DEGREES 00 MINUTES EAST 398 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 150 FEET; THENCE NORTH 258 FEET TO THE POINT OF BEGINNING. 0.89 ACRES.

PARCEL 3: PARCEL #83-054-99-0014-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 60 FEET AND NORTH 89 DEGREES EAST 60 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE SOUTH 123 FEET; THENCE NORTH 89 DEGREES EAST 188 FEET; THENCE NORTH 123 FEET; THENCE SOUTH 89 DEGREES WEST 188 FEET TO THE POINT OF BEGINNING. 0.53 ACRES.

PARCEL 4: PARCEL #83-054-99-0015-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 183 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE SOUTH 150 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 248 FEET; THENCE NORTH 150 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 60 FEET THEREOF. 0.65 ACRES.

PARCEL 5: PARCEL #83-054-99-0016-002
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 232 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 176 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 176 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.48 ACRES.

PARCEL 6: PARCEL #83-054-99-0016-003
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 408 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 140 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 140 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.38 ACRES.

NOTE:
ALL EXISTING UTILITIES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UNDERGROUND LOCATIONS HAVE BEEN TAKEN FROM RECORD DOCUMENTS AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, EXACTNESS OR CORRECTNESS OF LOCATIONS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES AND RELOCATE AS NECESSARY TO AVOID CONFLICTS WITH NEW CONSTRUCTION.

EXISTING LEGEND

- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- VALVE IN WELL
- WATER SHUT OFF
- WELL
- GAS VALVE
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF VAN BUREN TOWNSHIP AND WAYNE COUNTY.

THE DEVELOPER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE THE RESULT OF THE DEVELOPERS' ACTIONS.

ALL WATER MAINS, SANITARY SEWERS, (AND LEADS) AND STORM SEWERS UNDER PROPOSED OR EXISTING PAVEMENT OR WITHIN INFLUENCE OF PAVEMENT (EXTENDING 3' BEYOND EDGE OF PAVEMENT THEN TAPERING TO ORIGINAL GROUND AT 1:1 SLOPE) SHALL BE SAND BACKFILLED AND COMPACTED TO 95% OPTIMUM (PROCTOR) DENSITY. ALL UTILITY CROSSINGS SHALL BE SAND BACKFILLED. SAND BACKFILLING IS INCIDENTAL TO UNIT PRICES.

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GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1" = 40'

Revisions:		
12-03-2019	REV PER TWP	L.A.
02-03-2020	REV PER TWP	L.A.
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HAMPTON MANOR OF VAN BUREN TOWNSHIP BOUNDARY AND TOPOGRAPHY

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

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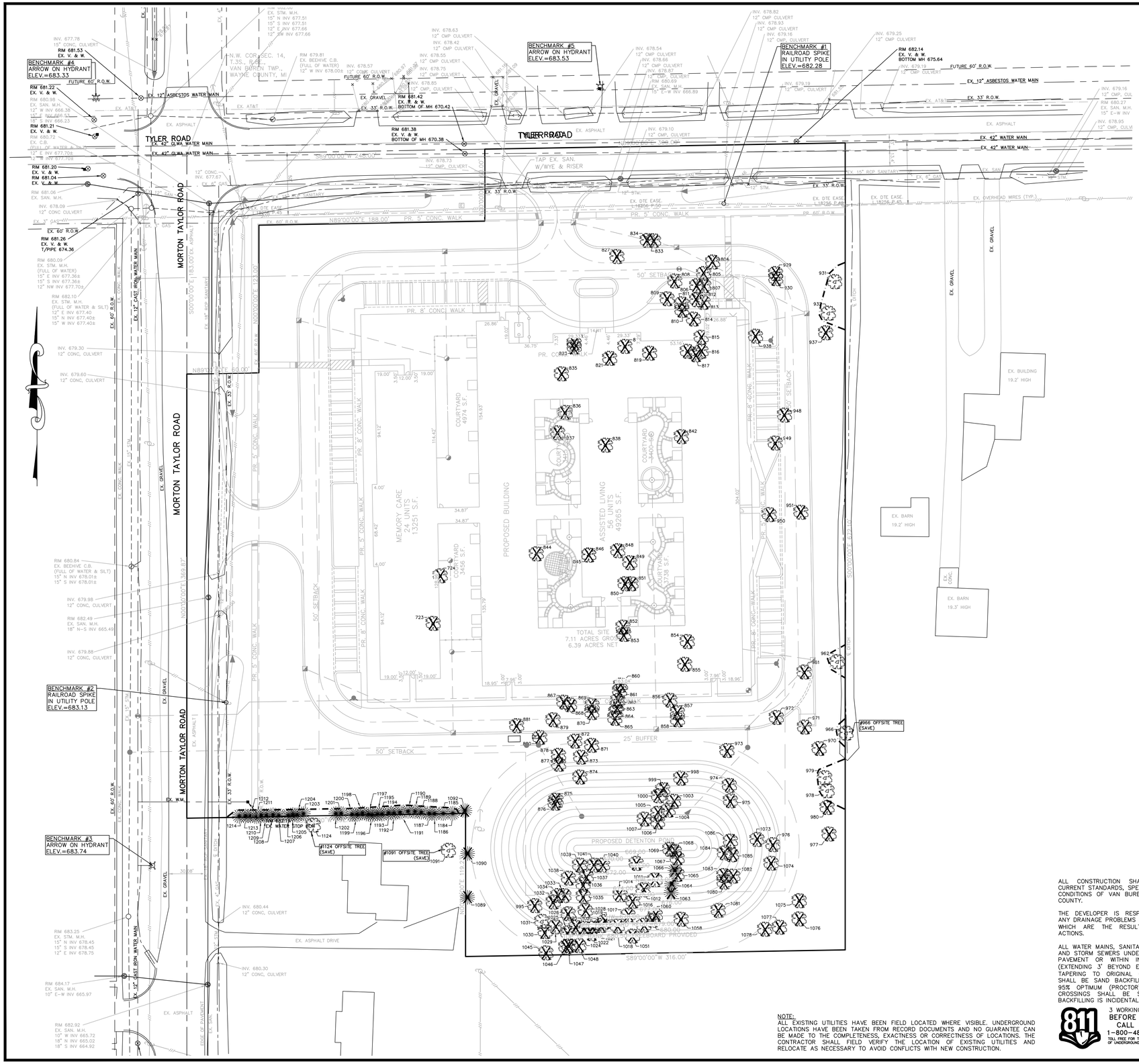

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- P.I. SIGN
- SECTION CORNER
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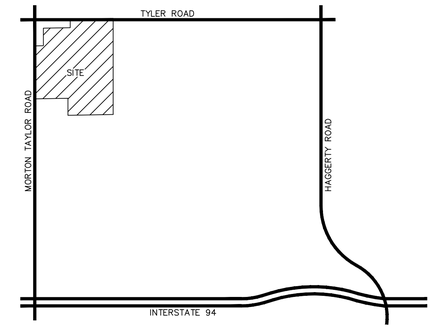
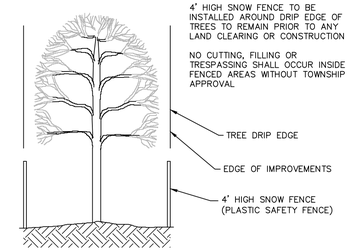
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER

LEGEND

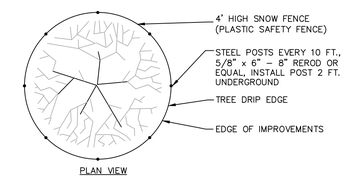
- TREE PROTECTION FENCE
- X TREE TO BE REMOVED



LOCATION MAP
SCALE: 4"=1 MILE



SECTION VIEW



PLAN VIEW

TREE PROTECTION DETAIL

N.T.S.

DEFINITIONS OF RATINGS:

Good: The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; the life expectancy is judged to be greater than twenty five (25) years.

Fair: The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years.

Poor: The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than en (10) years.

Very Poor: The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance and several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pest or diseases present; and the life expectancy is judged to be less than five (5) years.

Dead: The tree has no live branches, is topped, or fallen.

SEE LANDSCAPE PLAN LS-1 OF 4
FOR TREE REMOVAL/REPLACEMENT SUMMARY.

OFFSITE TREES SHALL NOT BE REMOVED.

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1" = 40'

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HAMPTON MANOR OF VAN BUREN TOWNSHIP TREE PRESERVATION PLAN

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

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TREE LIST
LEGEND: G=GOOD, F=FAIR, P=POOR, D=DEAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	CONDITION	REMOVE/SAVE	REGULATED/UNREGULATED
723	682.59	4609.42	5204.87	15" HONEY LOCUST	G	REMOVE	REGULATED
724	682.21	4649.08	5210.79	7" SUGAR MAPLE	G	REMOVE	REGULATED
804	681.42	4910.38	5437.58	10" RED MAPLE	G	REMOVE	REGULATED
805	681.70	4900.68	5430.07	10" HONEY LOCUST	G	REMOVE	REGULATED
806	681.65	4890.56	5424.25	10" HONEY LOCUST	G	REMOVE	REGULATED
807	681.65	4890.56	5430.25	7" RED MAPLE	G	REMOVE	REGULATED
808	681.34	4894.55	5405.99	10" HONEY LOCUST	G	REMOVE	REGULATED
809	681.29	4879.71	5399.61	15" HONEY LOCUST	G	REMOVE	REGULATED
810	680.57	4870.17	5411.90	10" HONEY LOCUST	G	REMOVE	REGULATED
811	681.30	4875.53	5411.84	8" HONEY LOCUST	G	REMOVE	REGULATED
812	681.44	4878.90	5424.22	3-6" HONEY LOCUST	G	REMOVE	REGULATED
813	681.02	4876.72	5429.56	5" HONEY LOCUST	G	REMOVE	REGULATED
814	681.57	4862.83	5421.46	10" HONEY LOCUST	G	REMOVE	REGULATED
815	681.74	4847.69	5427.94	10" HONEY LOCUST	G	REMOVE	REGULATED
816	681.69	4836.03	5427.79	10" HONEY LOCUST	G	REMOVE	REGULATED
817	681.76	4833.09	5423.40	10" HONEY LOCUST	G	REMOVE	REGULATED
818	681.59	4836.01	5416.41	12" HONEY LOCUST	G	REMOVE	REGULATED
819	681.91	4834.45	5385.04	3-5&6" MULBERRY	F	REMOVE	UNREGULATED
820	681.87	4840.09	5364.47	3-6" MULBERRY	F	REMOVE	UNREGULATED
821	681.53	4830.17	5351.82	7" APPLE	P	REMOVE	UNREGULATED
823	681.57	4839.67	5322.24	7" RED OAK	G	REMOVE	REGULATED
824	681.57	4842.67	5322.24	2-5" BASSWOOD	F	REMOVE	REGULATED
827	681.78	4914.88	5357.82	5" WHITE ASH	F	REMOVE	UNREGULATED
833	683.42	4928.05	5388.36	12&6" WHITE ASH	F	REMOVE	UNREGULATED
834	682.71	4928.29	5383.07	7" WHITE ASH	F	REMOVE	UNREGULATED
835	681.64	4817.22	5311.64	7" WHITE ASH	F	REMOVE	UNREGULATED
836	682.05	4785.11	5314.92	7" WHITE ASH	F	REMOVE	UNREGULATED
837	682.48	4768.13	5308.53	12" RED MAPLE	G	REMOVE	REGULATED
838	682.29	4757.83	5348.28	10" BOX ELDER	F	REMOVE	UNREGULATED
842	681.52	4764.92	5411.40	6&10" APPLE	D	REMOVE	UNREGULATED
844	682.09	4667.30	5290.75	12" HONEY LOCUST	G	REMOVE	REGULATED
845	681.80	4666.33	5334.36	6-6" APPLE	F	REMOVE	REGULATED
846	681.81	4666.33	5334.35	6-6" APPLE	F	REMOVE	REGULATED
848	681.85	4669.93	5358.54	3-6&8" RED MAPLE	G	REMOVE	REGULATED
849	681.85	4659.93	5368.54	10" RED MAPLE	G	REMOVE	REGULATED
850	681.90	4642.42	5364.58	7" RED MAPLE	G	REMOVE	REGULATED
851	681.90	4642.42	5369.58	8" RED MAPLE	G	REMOVE	REGULATED
852	682.14	4606.34	5362.92	9" RED MAPLE	G	REMOVE	REGULATED
853	682.04	4600.26	5363.50	7" RED MAPLE	F	REMOVE	REGULATED
854	682.18	4594.30	5416.37	5-6" CRABAPPLE	F	REMOVE	REGULATED
855	682.51	4575.34	5414.26	7" SUGAR MAPLE	F	REMOVE	REGULATED
856	682.43	4545.42	5401.86	5" WHITE ASH	D	REMOVE	UNREGULATED
857	682.53	4535.09	5408.26	5" WHITE ASH	D	REMOVE	UNREGULATED
858	682.53	4529.09	5408.26	3-8&3-5" RED MAPLE	F	REMOVE	REGULATED
860	681.93	4557.95	5360.91	11" RED MAPLE	G	REMOVE	REGULATED
861	681.93	4553.03	5360.05	11" RED MAPLE	G	REMOVE	REGULATED
862	681.93	4545.15	5358.66	11" RED MAPLE	G	REMOVE	REGULATED
863	681.93	4540.22	5357.79	11" RED MAPLE	G	REMOVE	REGULATED
864	681.93	4535.30	5356.92	11" RED MAPLE	G	REMOVE	REGULATED
865	681.93	4530.37	5356.05	11" RED MAPLE	G	REMOVE	REGULATED
867	682.29	4543.81	5313.63	6" BOX ELDER	F	REMOVE	UNREGULATED
868	682.22	4541.65	5318.44	7" BOX ELDER	P	REMOVE	UNREGULATED
869	682.21	4541.12	5337.22	6" WHITE ASH	D	REMOVE	UNREGULATED
870	682.21	4535.13	5336.91	6" BOX ELDER	P	REMOVE	UNREGULATED
871	681.60	4507.88	5336.77	8" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
872	682.30	4511.33	5322.77	5" AMERICAN ELM	D	REMOVE	UNREGULATED
873	682.15	4498.02	5327.65	5" AMERICAN ELM	D	REMOVE	UNREGULATED
874	682.02	4481.45	5326.98	6" WHITE ASH	D	REMOVE	UNREGULATED
875	682.83	4462.18	5307.14	2-6" AMERICAN ELM	D	REMOVE	UNREGULATED
876	683.09	4459.68	5306.33	2-5" WHITE ASH	D	REMOVE	UNREGULATED
877	682.69	4492.07	5309.29	5&9" RED MAPLE	G	REMOVE	REGULATED
878	682.34	4499.55	5309.27	8" RED MAPLE	G	REMOVE	REGULATED
879	682.38	4529.17	5304.66	2-8" RED MAPLE	G	REMOVE	REGULATED
880	682.38	4514.42	5293.60	6" HOP-HORNBEAM	F	REMOVE	REGULATED
881	683.02	4524.22	5274.35	4&8" BOX ELDER	G	REMOVE	UNREGULATED

TREE LIST
LEGEND: G=GOOD, F=FAIR, P=POOR, D=DEAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	CONDITION	REMOVE/SAVE	REGULATED/UNREGULATED
929	681.63	4900.68	5489.96	7" BOX ELDER	F	REMOVE	UNREGULATED
930	681.61	4896.49	5490.06	2-7" BOX ELDER	F	REMOVE	UNREGULATED
931	681.34	4894.03	5539.03	18" HONEY LOCUST	G	SAVE	REGULATED
932	681.53	4867.76	5533.80	7" SUGAR MAPLE	G	SAVE	REGULATED
937	681.39	4851.44	5531.62	2-5" APPLE	F	SAVE	REGULATED
938	681.04	4848.63	5473.24	12" BOX ELDER	F	REMOVE	UNREGULATED
948	681.54	4782.88	5497.33	5&6" BOX ELDER	F	REMOVE	UNREGULATED
949	681.76	4759.58	5489.51	5" APPLE	P	REMOVE	REGULATED
950	681.45	4700.03	5484.60	14" BOX ELDER	F	REMOVE	UNREGULATED
951	681.34	4701.98	5510.92	2-12&8" BOX ELDER	F	REMOVE	UNREGULATED
961	681.50	4568.92	5513.65	7" APPLE	P	REMOVE	UNREGULATED
962	680.74	4577.51	5541.09	6" RED OAK	G	SAVE	REGULATED
966	680.55	4518.07	5548.45	2-5" WHITE ASH	F	SAVE	UNREGULATED/OFFSITE
970	681.06	4505.19	5526.07	5" HAWTHORN	G	REMOVE	REGULATED
971	681.76	4523.05	5513.97	6" HAWTHORN	G	REMOVE	REGULATED
972	682.07	4531.06	5490.56	6" SUGAR MAPLE	F	REMOVE	UNREGULATED
973	682.38	4503.52	5449.34	5&6" HONEY LOCUST	P	REMOVE	UNREGULATED
974	682.21	4474.50	5451.42	3-9" RED MAPLE	G	REMOVE	REGULATED
975	682.31	4461.71	5452.28	12" RED MAPLE	G	REMOVE	REGULATED
976	681.74	4425.14	5487.57	2-5" HAWTHORN	F	REMOVE	REGULATED
977	681.08	4433.99	5534.40	6&10" RED MAPLE	G	REMOVE	REGULATED
978	681.16	4470.06	5532.75	13" RED MAPLE	G	SAVE	REGULATED
979	681.16	4480.89	5530.84	6" RED MAPLE	F	SAVE	REGULATED
980	681.16	4456.06	5532.75	5&7" RED OAK	G	REMOVE	REGULATED
995	682.67	4374.35	5289.50	6" SILVER MAPLE	G	REMOVE	UNREGULATED
998	682.52	4480.56	5410.91	6" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
999	682.53	4471.01	5395.96	5" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1000	682.92	4465.81	5392.42	7" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1003	683.13	4461.23	5405.03	7" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1004	682.97	4453.91	5400.44	5" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1005	682.93	4451.23	5391.92	8" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1006	682.32	4444.06	5391.71	8" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1007	682.41	4446.39	5380.56	5" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1010	689.08	4409.53	5373.86	12" EASTERN COTTONWOOD	F	REMOVE	UNREGULATED
1011	689.27	4395.84	5389.52	2-5" EASTERN COTTONWOOD	P	REMOVE	UNREGULATED
1012	689.83	4387.55	5379.53	2-6" RED MAPLE	G	REMOVE	REGULATED
1014	690.45	4383.25	5360.56	2-4&7" WILLOW	F	REMOVE	UNREGULATED
1016	690.93	4378.13	5371.10	10" BOX ELDER	F	REMOVE	UNREGULATED
1017	689.70	4366.36	5367.15	5" WILLOW	F	REMOVE	UNREGULATED
1018	686.86	4357.37	5358.03	2-5" WILLOW	F	REMOVE	UNREGULATED
1019	687.18	4361.04	5347.66	6" WILLOW	F	REMOVE	UNREGULATED
1020	687.47	4357.80	5344.49	8" WILLOW	F	REMOVE	UNREGULATED
1021	686.32	4355.60	5337.59	2-5" SILVER MAPLE	G	REMOVE	UNREGULATED
1022	685.53	4350.97	5336.59	5" WILLOW	F	REMOVE	UNREGULATED
1023	686.46	4355.53	5330.28	6" SILVER MAPLE	F	REMOVE	UNREGULATED
1024	686.13	4356.28	5323.74	6" SILVER MAPLE	F	REMOVE	UNREGULATED
1025	686.38	4351.63	5316.86	6" WILLOW	F	REMOVE	UNREGULATED
1026	689.60	4367.57	5317.31	6" WILLOW	F	REMOVE	UNREGULATED
1028	687.65	4370.18	5331.47	6" SILVER MAPLE	G	REMOVE	UNREGULATED
1029	685.64	4356.78	5306.40	6" SILVER MAPLE	G	REMOVE	UNREGULATED
1030	682.44	4352.76	5298.01	2-5" SILVER MAPLE	G	REMOVE	UNREGULATED
1031	682.43	4361.27	5295.33	12" SILVER MAPLE	F	REMOVE	UNREGULATED
1032	683.01	4377.38	5304.84	3-5" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1033	682.57	4382.72	5313.66	10" WILLOW	G	REMOVE	UNREGULATED
1034	682.57	4382.72	5308.66	8" SILVER MAPLE	G	REMOVE	UNREGULATED
1035	682.51	4382.15	5329.86	6" SILVER MAPLE	G	REMOVE	UNREGULATED
1036	681.39	4392.14	5329.63	6" SILVER MAPLE	G	REMOVE	UNREGULATED
1037	682.59	4398.60	5332.19	5" SILVER MAPLE	F	REMOVE	UNREGULATED
1038	682.80	4397.22	5317.46	11" EASTERN COTTONWOOD	G	REMOVE	UNREGULATED
1039	682.88	4408.12	5326.72	12" EASTERN COTTONWOOD	F	REMOVE	UNREGULATED
1040	682.85	4408.12	5345.90	9" SILVER MAPLE	G	REMOVE	UNREGULATED
1041	682.85	4408.12	5338.90	6" SILVER MAPLE	G	REMOVE	UNREGULATED
1045	682.15	4335.01	5298.76	6" SILVER MAPLE	F	REMOVE	UNREGULATED
1046	682.35	4339.87	5315.32	5" SILVER MAPLE	F	REMOVE	UNREGULATED
1047	683.14	4341.05	5317.83	5" SILVER MAPLE	G	REMOVE	UNREGULATED
1048	682.43	4341.13	5326.07	5" SILVER MAPLE	G	REMOVE	UNREGULATED

TREE LIST
LEGEND: G=GOOD, F=FAIR, P=POOR, D=DEAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	CONDITION	REMOVE/SAVE	REGULATED/UNREGULATED
1051	684.99	4348.97	5370.77	7" WILLOW	G	REMOVE	UNREGULATED
1052	686.94	4358.00	5380.15	2-5" WILLOW	G	REMOVE	UNREGULATED
1058	683.07	4363.03	5411.29	5" SILVER MAPLE	F	REMOVE	UNREGULATED
1060	687.16	4366.46	5389.83	6" WILLOW	F	REMOVE	UNREGULATED
1061	687.18	4362.23	5387.44	12" WILLOW	G	REMOVE	UNREGULATED
1063	682.44	4385.30	5403.01	6" BLUE SPRUCE	D	REMOVE	UNREGULATED
1064	682.51	4392.70	5403.39	6" BLUE SPRUCE	D	REMOVE	UNREGULATED
1065	682.52	4400.41	5407.91	6" HAWTHORN	D	REMOVE	UNREGULATED
1066	682.83	4403.68	5406.17	6" BLUE SPRUCE	D	REMOVE	UNREGULATED
1067	682.57	4413.82	5407.97	5" WHITE ASH	P	REMOVE	UNREGULATED
1068	682.66	4419.48	5405.65	5" BLACK CHERRY	P	REMOVE	REGULATED
1069	683.35	4421.29	5401.85	7" SILVER MAPLE	G	REMOVE	UNREGULATED
1073	682.16	4429.46	5474.47	5" RED MAPLE	P	REMOVE	REGULATED
1074	682.15	4409.67	5486.09	7" RED MAPLE	F	REMOVE	REGULATED
1075	681.97	4378.45	5509.57	8" PIN OAK	G	REMOVE	REGULATED
1076	681.83	4363.27	5509.41	3-6" SUGAR MAPLE	G	REMOVE	REGULATED
1077	681.99	4356.36	5493.13	5" SUGAR MAPLE	F	REMOVE	REGULATED
1078	681.52	4354.69	5480.88	7" RED MAPLE	G	REMOVE	REGULATED
1080	682.29	4393.97	5446.98	5&7" SUGAR MAPLE	G	REMOVE	REGULATED
1081	682.02	4370.33	5442.15	9" SUGAR MAPLE	G	REMOVE	REGULATED
1082	681.84	4398.91	5454.29	11" SUGAR MAPLE	G	REMOVE	REGULATED
1083	682.19	4399.37	5446.87	6" SUGAR MAPLE	G	REMOVE	REGULATED
1084	682.22	4418.22	5447.27	9" SUGAR MAPLE	F	REMOVE	REGULATED
1085	682.22	4416.67	5453.07	7&10" SILVER MAPLE	F	REMOVE	UNREGULATED
1086	682.55	4428.11	5452.34	16" SUGAR MAPLE	G	REMOVE	REGULATED
1089	683.49	4381.26	5233.64	9" SCOTCH PINE	P	REMOVE	UNREGULATED
1090	683.48	4417.71	5233.68	7" BLUE SPRUCE	P	REMOVE	UNREGULATED
1091	683.15	4420.42	5217.58	6" RED MAPLE	G	SAVE	UNREGULATED/OFFSITE
1092	683.04	4453.46	5231.47	10" RED PINE	P	REMOVE	UNREGULATED
1124	683.11	4441.45	5105.07	12" BLACK CHERRY	G	SAVE	UNREGULATED/OFFSITE
1184	682.45	4451.21	5221.35	13" RED PINE	F	SAVE	REGULATED
1185	682.40	4451.08	5213.46	10" RED PINE	F	SAVE	REGULATED
1186	682.52	4450.94	5206.18	10" RED PINE	F	SAVE	REGULATED
1187	682.53	4450.98	5201.78	11" RED PINE	F	SAVE	REGULATED
1188	682.66	4452.09	5195.11	7" RED PINE	F	SAVE	REGULATED
1189	682.75	4452.64	5189.88	15" RED PINE	F	SAVE	REGULATED
1190	682.79	4452.78	5184.07	8" RED PINE	F	SAVE	REGULATED
1191	682.74	4452.01	5177.38	10" RED PINE	F	SAVE	REGULATED
1192	682.77	4451.25	5172.27	9" RED PINE	F	SAVE	REGULATED
1193	682.75	4451.50	5167.99	9" RED PINE	F	SAVE	REGULATED
1194	682.83	4450.54	5162.40	9" RED PINE	F	SAVE	REGULATED
1195	682.82	4450.61	5158.69	13" RED PINE	F	SAVE	REGULATED
1196	682.90	4449.89	5154.21	9" RED PINE	F	SAVE	REGULATED
1197	682.94	4450.36	5151.11	13" RED PINE	F	SAVE	REGULATED
1198	683.06	4451.37	5146.15	9" RED PINE	F	SAVE	REGULATED
1199	683.06	4450.29	5141.72	10" RED PINE	F	SAVE	REGULATED
1200	683.08	4450.30	5137.52	12" RED PINE	F	SAVE	REGULATED
1201	682.86	4451.00	5128.40	12" RED PINE	F	SAVE	REGULATED
1202	682.85	4450.86	5123.95	12" RED PINE	F	SAVE	REGULATED
1203	682.68	4450.95	5097.04	12" RED PINE	F	SAVE	REGULATED
1204	682.59	4449.77	5091.61	12" RED PINE	F	SAVE	REGULATED
1205	682.58	4450.11	5088.20	9" RED PINE	F	SAVE	REGULATED
1206	682.46	4449.41	5084.37	9" RED PINE	F	SAVE	REGULATED
1207	682.38	4449.33	5076.49	10" RED PINE	F	SAVE	REGULATED
1208	682.43	4449.91	5071.70	9" RED PINE	F	SAVE	REGULATED
1209	682.34	4449.39	5066.23	11" RED PINE	F	SAVE	REGULATED
1210	682.35	4449.32	5061.80	12" RED PINE	F	SAVE	REGULATED
1211	682.31	4448.40	5058.25	12" RED PINE	F	SAVE	REGULATED
1212	682.26	4449.05	5052.96	8" RED PINE	F	SAVE	REGULATED
1213	682.23	4448.96	5048.95	9" RED PINE	F	SAVE	REGULATED
1214	681.97	4448.76	5043.54	13" RED PINE	F	SAVE	REGULATED

SEE LANDSCAPE PLAN LS-1 OF 4
FOR TREE REMOVAL/REPLACEMENT SUMMARY.

OFFSITE TREES SHALL NOT BE REMOVED.

Revisions:

12-03-2019 REV PER TWP L.A.
02-03-2020 REV PER TWP L.A.
07-02-2020 REV PER WCDPS L.A.

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Client:

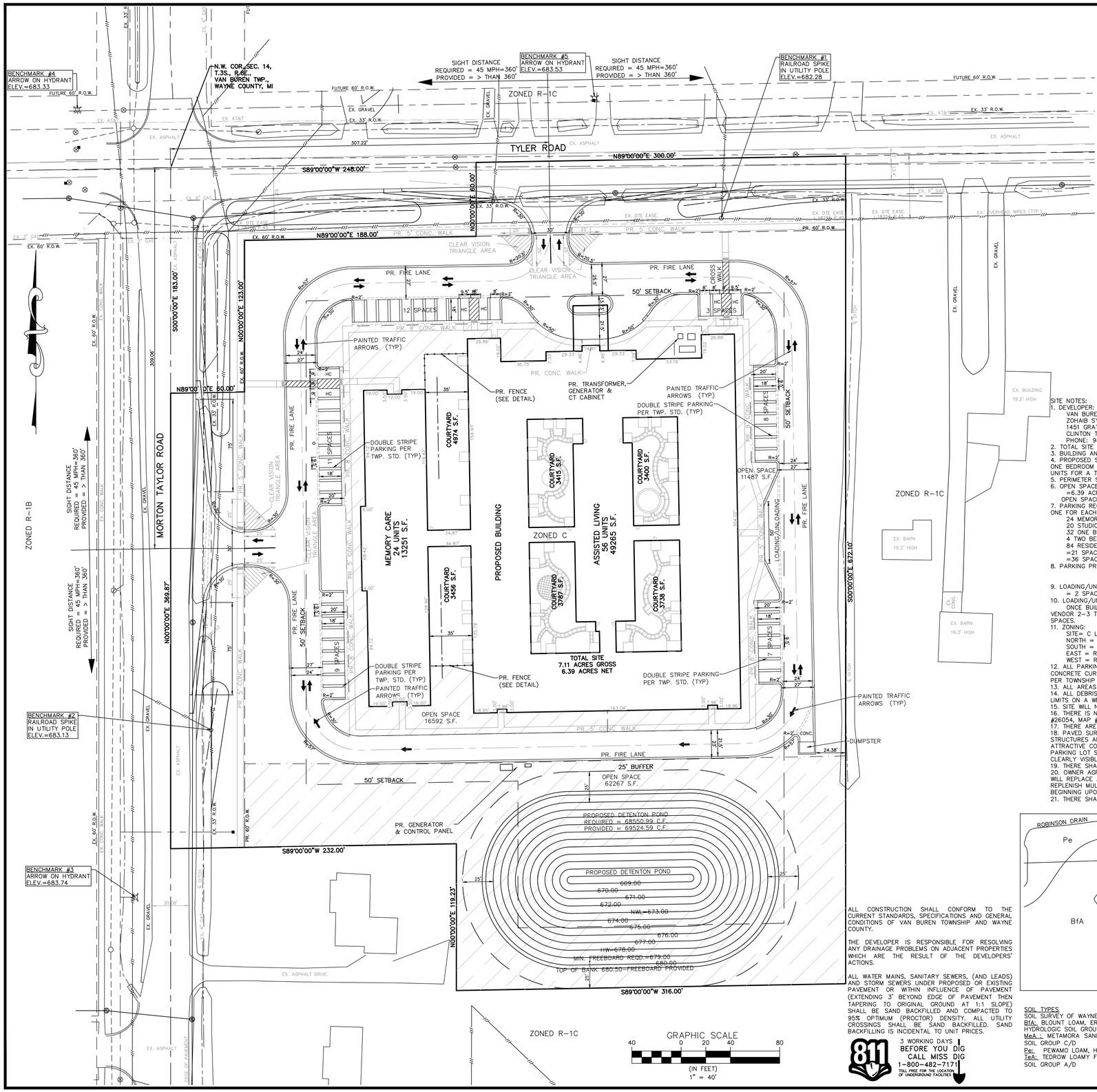
VAN BUREN INVESTORS
LAND HOLDINGS, LLC
ZOHAIB SYED
1451 S. GRATIOT AVENUE
CLINTON TOWNSHIP, MI 48035
989-708-1878
zohaibsyed2001@yahoo.com

HAMPTON MANOR OF VAN BUREN TOWNSHIP TREE LIST

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale: 1"=40'
Paper Size: 24"x36"
Date: 11-06-19
Drawn By: L.A.
Checked By: W.J.T.
Job No.: 19-249
Sheet No. 04

F:\19\19-249\Drafting & Engineering\Site Plan\19-249-SitePlan.dwg, 04-Tree List, 7/6/2020 10:00:24 AM, laura.ambros



DESCRIPTIONS ARE PREPARED FROM EXISTING VAN BUREN TOWNSHIP TAX RECORDS. ALL PARCELS SHALL BE COMBINED AFTER PURCHASE OF PROPERTY IS COMPLETED.

PARCEL 1: PARCEL #83-054-99-0012-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 333 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE NORTH 333 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 548 FEET; THENCE NORTH 219.87 FEET TO THE POINT OF BEGINNING. 4.18 ACRES.

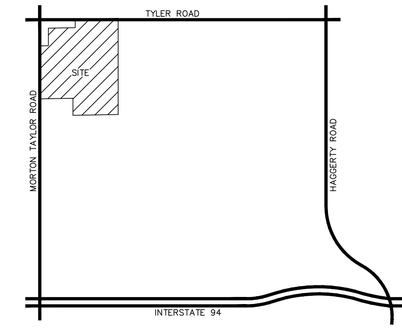
PARCEL 2: PARCEL #83-054-99-0013-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING NORTH 89 DEGREES 00 MINUTES EAST 398 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 150 FEET; THENCE NORTH 258 FEET TO THE POINT OF BEGINNING. 0.89 ACRES.

PARCEL 3: PARCEL #83-054-99-0014-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 60 FEET AND NORTH 89 DEGREES EAST 60 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE SOUTH 123 FEET; THENCE NORTH 89 DEGREES EAST 188 FEET; THENCE NORTH 123 FEET; THENCE SOUTH 89 DEGREES WEST 188 FEET TO THE POINT OF BEGINNING. 0.53 ACRES.

PARCEL 4: PARCEL #83-054-99-0015-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 183 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE SOUTH 150 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 248 FEET; THENCE NORTH 150 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 60 FEET THEREOF. 0.65 ACRES.

PARCEL 5: PARCEL #83-054-99-0016-002
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 232 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 176 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 176 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.48 ACRES.

PARCEL 6: PARCEL #83-054-99-0016-003
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 408 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 140 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 140 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.38 ACRES.

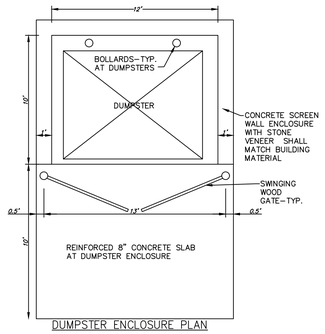


LOCATION MAP
SCALE: 4"=1 MILE

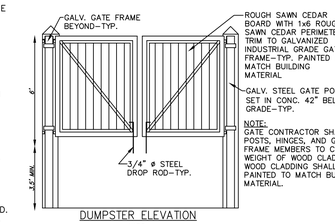
BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POL ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POL ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

SITE NOTES:
1. DEVELOPER:
VAN BUREN INVESTORS LAND HOLDINGS, LLC
ZOHAIB SYED
1451 GRATIOT AVENUE
CLINTON TWP., MI 48036
PHONE: 989-708-1878
2. TOTAL SITE AREA = 6.39 ACRES.
3. BUILDING AND PAVEMENT LOT COVERAGE = 50%
4. PROPOSED SENIOR ASSISTED LIVING WITH 4 TWO BEDROOM, 32 ONE BEDROOM UNITS, 20 EFFICIENCY UNITS AND 24 MEMORY CARE UNITS FOR A TOTAL OF 80 UNITS.
5. PERIMETER SETBACK = 50 FT.
6. OPEN SPACE REQUIRED = 25% OF SITE AREA
=6.39 ACRES * 0.25 = 1.6 ACRES
OPEN SPACE PROVIDED = 2.40 ACRES
7. PARKING REQUIRED = 1 SPACE FOR EVERY 4 RESIDENTS PLUS ONE FOR EACH EMPLOYEE
24 MEMORY CARE = 24 RESIDENTS
20 STUDIO = 20 RESIDENTS
32 ONE BED = 32 RESIDENTS
4 TWO BED = 8 RESIDENTS
84 RESIDENTS/4
=21 SPACES + 15 EMPLOYEES
=36 SPACES REQUIRED
8. PARKING PROVIDED = 44 SPACES @ 9.5'x20'
6 HANDICAP SPACES
50 TOTAL SPACES PROVIDED
9. LOADING/UNLOADING REQUIRED
= 2 SPACES FOR OVER 50,000 S.F. OF FLOOR AREA
10. LOADING/UNLOADING PROVIDED = 1 10'x50' SPACE
ONCE BUILDING IS OPERATIONAL DELIVERIES WILL BE FROM ONE VENDOR 2-3 TIMES A WEEK WHICH DOES NOT NECESSITATE TWO SPACES.
11. ZONING:
SITE= C LOCAL BUSINESS
NORTH = R-1C SINGLE FAMILY RESIDENTIAL
SOUTH = R-1C SINGLE FAMILY RESIDENTIAL
EAST = R-1C SINGLE FAMILY RESIDENTIAL
WEST = R-1B SINGLE FAMILY RESIDENTIAL
12. ALL PARKING AND PAVING SURFACES SHALL BE ASPHALT WITH CONCRETE CURB AND GUTTER AND/OR THICKENED EDGE ASPHALT PER TOWNSHIP SPECIFICATIONS.
13. ALL AREAS NOT BUILT OR PAVED UPON SHALL BE IRRIGATED.
14. ALL DEBRIS SHALL BE REMOVED FROM WITHIN THE PROPERTY LIMITS ON A WEEKLY BASIS OR AS NEEDED.
15. SITE WILL NOT BE CONSTRUCTED IN PHASES.
16. THERE IS NO FLOOD PAIN ON THIS SITE PER FEMA COMMUNITY #26054, MAP #6163C0352E, DATED 02-02-2012.
17. THERE ARE NO REGULATED WETLANDS ON THIS SITE.
18. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES AND SURFACES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED. PARKING LOT STRIPING AND MARKINGS SHALL BE MAINTAINED IN A CLEARLY VISIBLE CONDITION.
19. THERE SHALL BE NO OUTDOOR STORAGE.
20. OWNER AGREES TO SEASONAL MAINTENANCE PROGRAM AND WILL REPLACE ALL DISEASED, DEAD OR DAMAGED PLANTS, REPLENISH MULCH, CONTROL WEEDS, FERTILIZE AND PRUNE BEGINNING UPON COMPLETION OF CONSTRUCTION OF LANDSCAPING.
21. THERE SHALL BE NO HAZARDOUS/TOXIC WASTE FROM THIS SITE.

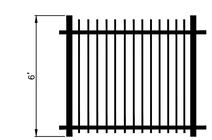


DUMPSTER ENCLOSURE PLAN
(N.T.S.)



NOTE:
GATE CONTRACTOR SHALL SIZE POSTS, HINGES, AND GATE FRAME MEMBERS TO CARRY WEIGHT OF WOOD CLADDING. WOOD CLADDING SHALL BE PAINTED TO MATCH BUILDING MATERIAL.

DUMPSTER ELEVATION
(N.T.S.)

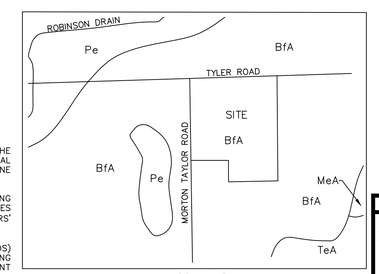


6' SIMULATED WROUGHT IRON FENCE
(N.T.S.)

ALUMINUM FENCE SIMULATING THE LOOK OF WROUGHT IRON. (MAINTENANCE FREE, POLYESTER POWDER COAT FINISH-NO PAINTING NECESSARY, DOESN'T RUST, CHIP, ETC.).

PROPOSED LEGEND
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- FENCE
- UNDERGROUND CABLE, ELECTRIC & PHONE
- GAS
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM CATCH BASIN (PAVEMENT)
- STORM CATCH BASIN (YARD)
- STORM MANHOLE
- STORM MANHOLE WITH CATCH BASIN COVER (PAVEMENT)
- STORM MANHOLE WITH CATCH BASIN COVER (YARD)
- STORM INLET
- FIRE HYDRANT
- VALVE IN WELL
- WATER LEAD STOP BOX
- CB 1 STORM STRUCTURE NUMBER
- MH 1 SANITARY STRUCTURE NUMBER
- HYD 1 WATER STRUCTURE NUMBER
- 1 UTILITY CROSSING NUMBER
- UTILITY CROSSING
- U.S. SPECIFICATION SAND BACKFILL
- OPEN SPACE

EXISTING LEGEND
- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- VALVE IN WELL
- WATER SHUT OFF
- WELL
- GAS VALVE
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER



SOIL MAP
NO SCALE

SOIL TYPES
SOIL SURVEY OF WAYNE COUNTY, MICHIGAN
BfA: BLOUNT LOAM, ERIE-HURON LAKE PLAIN, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP D
MeA : METAMORA SANDY LOAM, 0 TO 3 PERCENT SLOPES, HYDROLOGIC SOIL GROUP C/D
Pe: PEWAMO LOAM, HYDROLOGIC SOIL GROUP C/D
TeA: TEDROW LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP A/D

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Revisions:		
12-03-2019	REV PER TWP	L.A.
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zohaibsyed2001@yahoo.com

HAMPTON MANOR OF VAN BUREN TOWNSHIP SITE PLAN

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale:	1"=40'
Paper Size:	24"x36"
Date:	11-06-19
Drawn By:	L.A.
Checked By:	W.J.T.
Job No.:	19-249
Sheet No.	05

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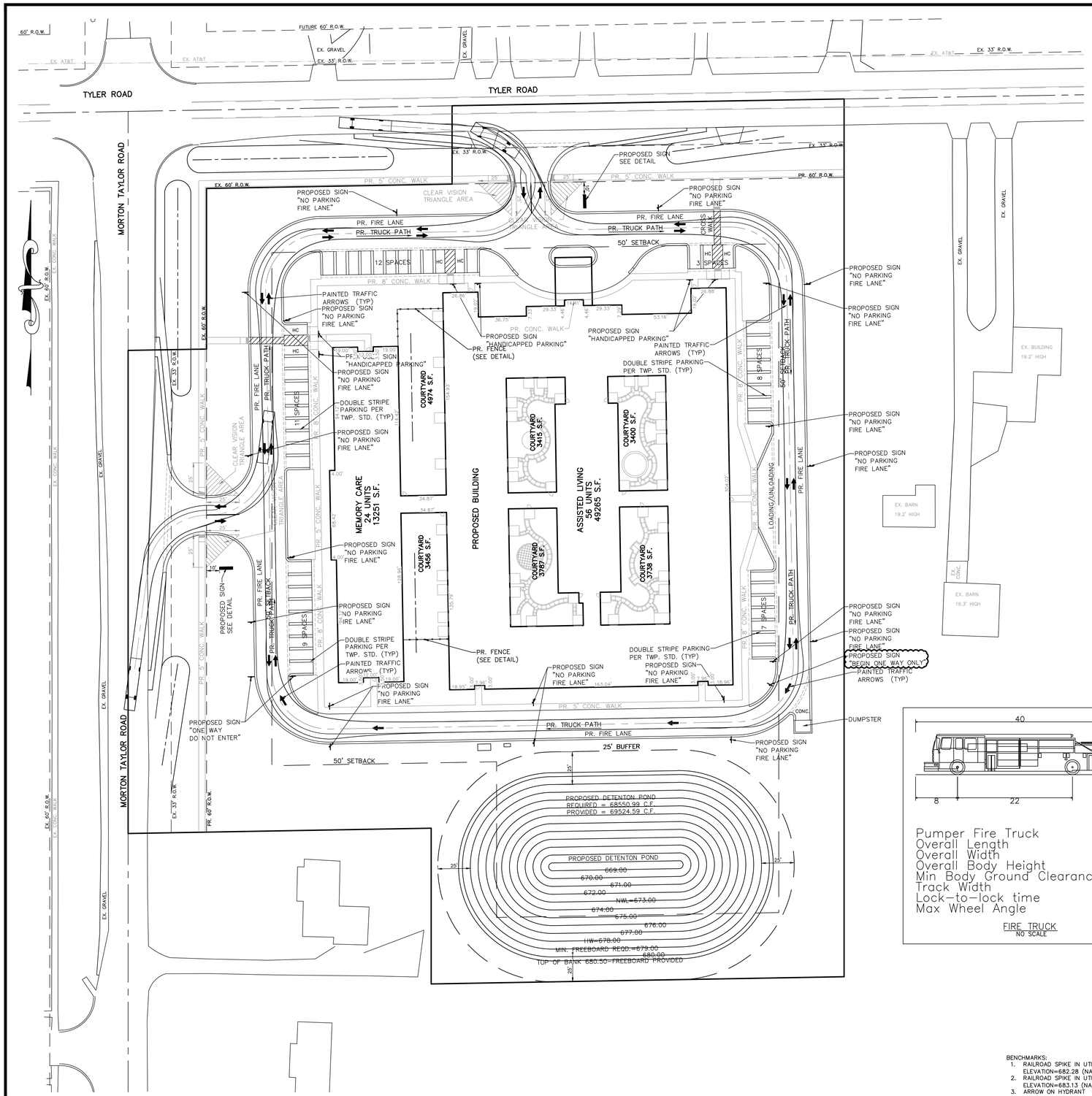

PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- FENCE
- UNDERGROUND CABLE, ELECTRIC & PHONE
- GAS
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM CATCH BASIN (PAVEMENT)
- STORM CATCH BASIN (YARD)
- STORM MANHOLE
- STORM MANHOLE WITH CATCH BASIN COVER (PAVEMENT)
- STORM MANHOLE WITH CATCH BASIN COVER (YARD)
- STORM INLET
- FIRE HYDRANT
- VALVE IN WELL
- WATER LEAD STOP BOX
- CB 1 STORM STRUCTURE NUMBER
- MH 1 SANITARY STRUCTURE NUMBER
- HYD 1 WATER STRUCTURE NUMBER
- 1 UTILITY CROSSING NUMBER
- UTILITY CROSSING
- SAND BACKFILL

EXISTING LEGEND

- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
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- WATER SHUT OFF
- WELL
- GAS VALVE
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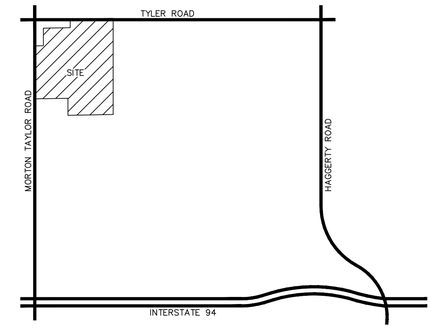
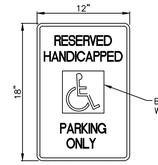
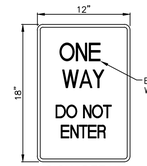
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER



LOCATION MAP
SCALE: 4"=1 MILE



SIGN DETAIL



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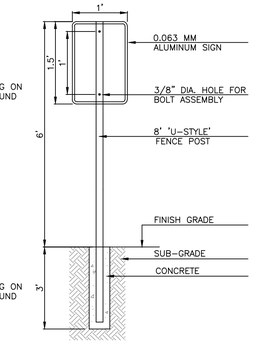
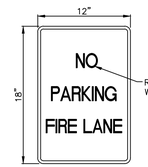


PARKING AREA SIGN DETAIL
(N.T.S.)



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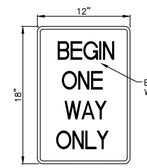

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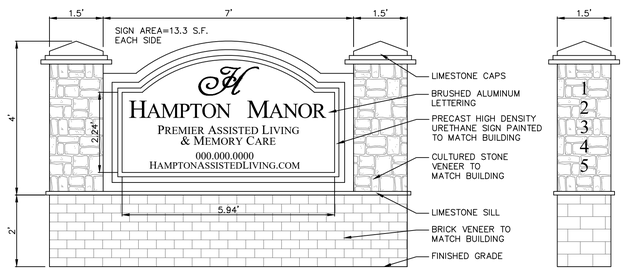
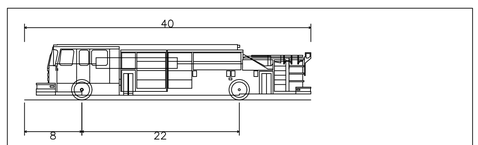


PROPOSED SIGN
SCALE: 1"=2'



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

FIRE TRUCK
NO SCALE

SEE ARCHITECTURAL PLANS FOR ENTRANCE SIGN DETAIL

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1" = 40'

BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POLE ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POLE ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

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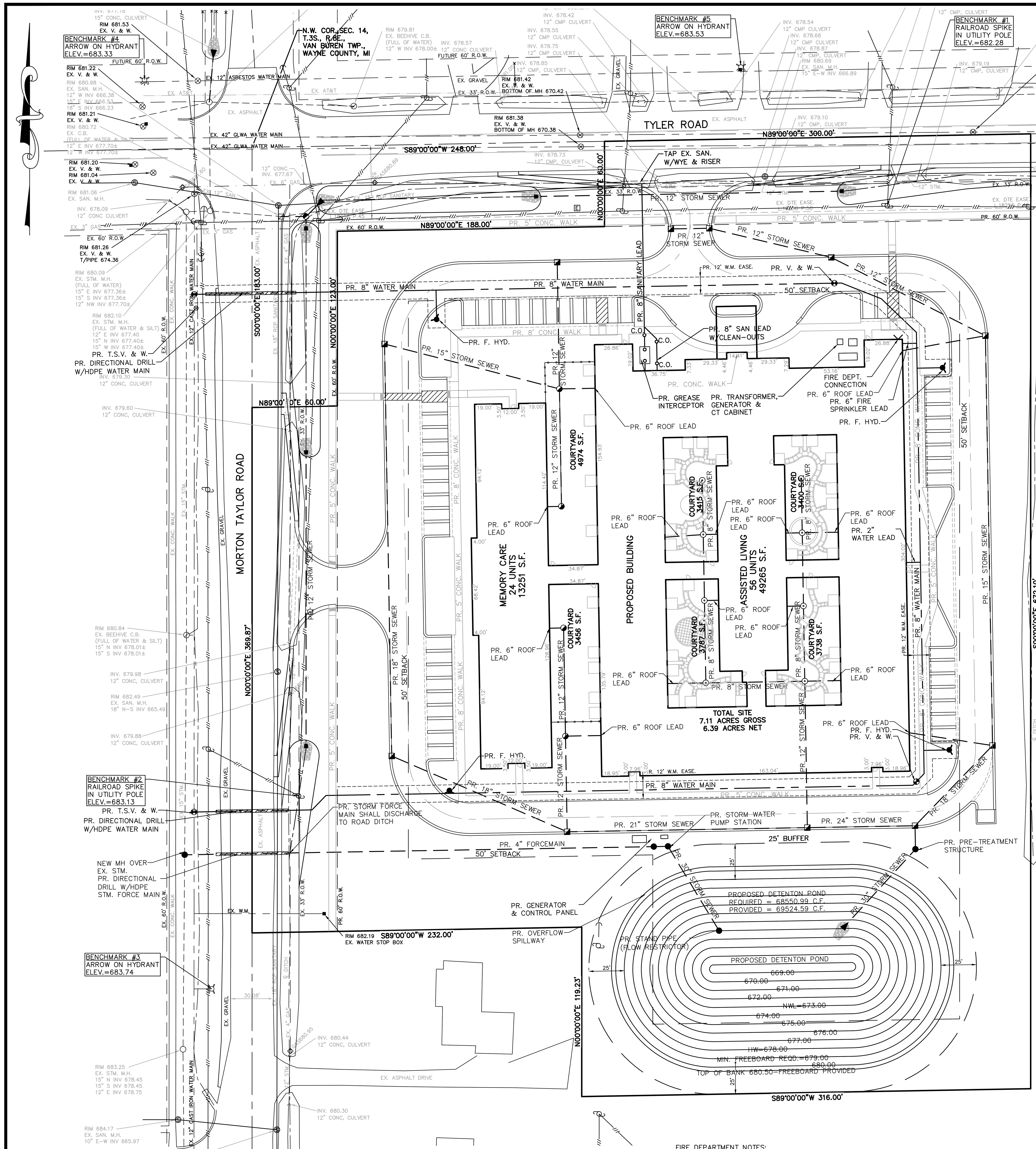

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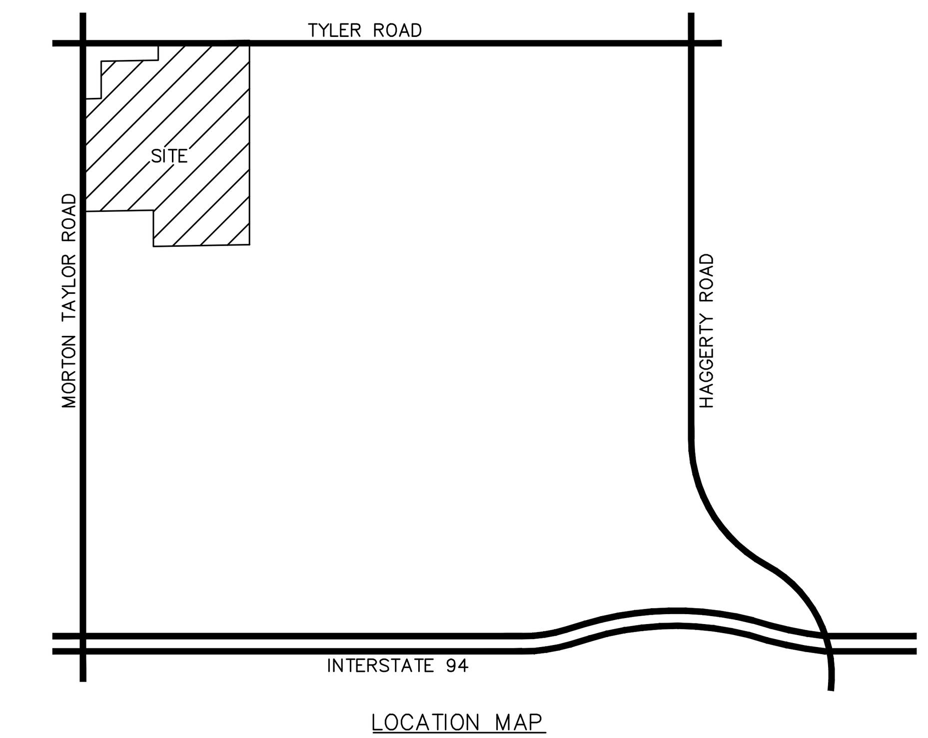

LOCATION MAP
SCALE: 4"=1 MILE

WAYNE COUNTY DETENTION CALCULATIONS FOR 100 YEAR STORM

Wayne County Storm Water Management Standards Section 11.1

SURFACE		AREA A				Cimp	A*C
Net Site Area	=	278150.00	sf	6.385	acres		
Pervious (Open Space, Soil Group D)	=	111504.00	sf	2.560	acres	0.45	1.152
Water		25412.00	sf	0.583	acres	1.00	0.583
Impervious (Building & Paving)	=	141234.00	sf	3.242	acres	0.95	3.080
Total	=	278150.00	sf	6.385	acres		4.815
C ave		0.7541	imp				
A (area)	=	6.385	acres				
C ave	..	0.754	imp				
Frontage (Morton Taylor Road)		492.87	ft				
Frontage (Tyler Road)		488.00	ft				
Qa (allowable)		0.958	cfs		0.15*A		
Qa (allowable)(Morton Taylor Road)	=	0.508	cfs	=	0.103*frontage/100		
Qa (allowable)(Tyler Road)	=	0.503	cfs	=	0.103*frontage/100		
Qa (Van Buren Twp.)	..	0.639	cfs	..	0.10*A		
Qa (Pumped)	=	0.490	cfs	=	Pump Outflow		
Qa (use smaller value)	=	**0.490**	cfs				
Qo (max)	=	0.102		=	Qa/(A*C)		
T100	=	396.529		=	-45+SQRT(19845/Qo)		
Vs, 100	=	14235.629		=	17649*T100/(T100+45)-40*Qo*T100		
Vt, 100	=	68550.992	cu ft	=	Vs100*A*C		
Vt bf	=	24847.734	cu ft	=	5160*A*C		
Vt ff	=	8740.046	cu ft	=	1815*A*C		

Detention Provided (100 Yr. Storm)

	Contour	Area	Ave. Area	Increment	Volume cft	Summation cft
High Water	678.00	21243.24				
			19622.79	1.00	19622.79	69554.57
	677.00	18045.78				
			16537.89	1.00	16537.89	49931.78
	676.00	15074.52				
			13694.54	1.00	13694.54	33393.89
	675.00	12359.45				
			11060.51	1.00	11060.51	19699.35
	674.00	9810.57				
			8638.85	1.00	8638.85	8638.85
Normal Water	673.00	7517.90				
					TOTAL=	69554.57 cft

10 Yr. Stm. Volume

	Contour	Area	Ave. Area	Increment	Volume cft	Summation cft
	676.20	15650.67				
			13972.77	1.20	16767.27	32436.29
	675.00	12359.45				
			11060.51	1.00	11060.51	15669.02
	674.00	9810.57				
			9217.03	0.50	4608.51	4608.51
	673.50	8635.96				
			8070.47	0.50	4035.24	4035.24
Normal Water	673.00	7517.90				
					TOTAL=	32436.29 cft

Permanent Pond Volume

	Contour	Area	Ave. Area	Increment	Volume cft	Summation cft
Normal Water	673.00	7517.90				
			6457.04	1.00	6457.04	14957.72
	672.00	5451.41				
			4499.80	1.00	4499.80	8500.68
	671.00	3611.12				
			2764.53	1.00	2764.53	4000.89
	670.00	1997.03				
			1236.36	1.00	1236.36	1236.36
Bottom of Pond	669.00	609.13				
					TOTAL=	14957.72 cft

Volume Above High Water

	Contour	Area	Ave. Area	Increment	Volume cft	Summation cft
Overflow	680.00	27626.73				
			25811.00	1.00	25811.00	48436.69
Required Freeboard	679.00	24036.89				
			22625.69	1.00	22625.69	22625.69
High Water	678.00	21243.24				
					TOTAL=	48436.69 cft

OUTLET STANDPIPE DESIGN

FIRST FLUSH:					
First Flush Volume Vt ff	=	8740.05	cu ft	=	1815*A*C
First Flush Elevation Zff	=	674.01	ft	=	673.00+[(674.00-673.00)*((8740.05 cft)/(8638.85 cft))]
24 Hour Allowable Flow Rate Qavg ff	=	0.101	ft	=	Vt ff/86,400
ORIFICE CALCULATIONS:					
Design 1" Diameter Orifices at Low Water 673.00:					
Aout	=	0.0206		=	Qavg ff/(0.62*SQRT(2*g*havg))
G=32.2 ft/sec^2	=	32.2		=	32.2 ft/sec^2
Havg	=	0.970		=	674.01-(673.00+(0.08 ft/2))=
1" Diameter Holes Area	=	0.005	sq ft		
Number of 1" Diameter Holes	=	3.785		=	Aout/Hole Area
Use 3-1" holes @ 673.00	=	3	holes		
Actual Area of Orifices Ao	=	0.016	sq ft	=	3*0.0055 sq ft
Actual Outflow Qavg ff	=	0.080	sq ft	=	0.62*Ao*SQRT(2*g*havg)
Actual Holding Time Tff	=	30.279	hours	=	Vt ff/(Qavg*3,600)
BANK FULL FLOOD:					
Bank Full Volume Vt bf	=	24847.734	cu ft	=	5160*C*A
Bank Full Elev Zbf	=	675.26	ft	=	675.00+((676.00-675.00)*(24847.734 cft/(33393.89))=
40 Hour Allowable Flow Rate Qavg bftotal	=	0.1726	cfs	=	Vt bf/144000
ORIFICE CALCULATIONS					
Bank Full Outflow from First Flush 1" Orifices at Low Water 673.00					
Havg bf1		2.214			675.26-(673.00+(0.08 ft/2))
G=32.2 ft/sec^2	=	32.2		=	32.2 ft/sec^2
Actual Area First Flush Orifices Ao bf1	=	0.0164			
Actual Outflow Qavg bf1	=	0.121		=	0.62*Ao bf1*SQRT(2*g*havg bf1)
Design 1" Diameter Orifices at 674.50:					
Outflow from First Flush Orifices Qavg bf1	=	0.121			
Remaining Outflow for Bank Full Qavg bf2		0.051			Qavg bf total - Qavg bf1
Aout bf2	=	0.012		=	Qavg bf2/(0.62*SQRT(2*g*havg bf2))
G=32.2 ft/sec^2	=	32.2			
Havg bf2		0.714			675.23-(674.50+(0.08 ft/2))
1" Diameter Holes Area	=	0.005	sq ft		
Number of 1" Diameter Holes	=	2.242		=	Aout bf2/Hole Area
Use 2-1" holes @ 674.50	=	2	holes		
Actual Area of Orifices Ao bf2	=	0.011	sq ft	=	4*0.0055 sq ft
Actual Outflow Qavg bf2	=	0.046	cfs	=	0.62*Ao bf2*SQRT(2*g*havg bf2)
Total Outflow Qavg bftotal	=	0.167		=	Qavg bf1+Qavg bf2
Actual Holding Time Tbf		41.329	hours		Vt bf/(Qavg bftotal*3,600)

EXISTING LEGEND

- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- VALVE IN WELL
- WATER SHUT OFF
- WELL
- GAS VALVE
- LIGHT POLE
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- GUY WIRE
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- HYD 1 WATER STRUCTURE NUMBER
- 1 UTILITY CROSSING NUMBER
- UTILITY CROSSING
- SAND BACKFILL

WATER MAIN NOTES:
1. CONNECTION TO THE EXISTING WATER MAIN SHALL NOT OCCUR UNTIL ALL REQUIRED HYDROSTATIC AND BACTERIOLOGICAL TESTING HAS BEEN SUCCESSFULLY COMPLETED AND ACCEPTED BY THE TOWNSHIP ENGINEER.
2. ALL 8" WATER MAIN SHALL BE DUCTILE IRON, CLASS 54, DOUBLE CEMENT LINED (WITH INTERIOR BITUMINOUS COATING) WITH PUSH ON TYPE JOINTS. PUSH ON JOINTS SHALL BE TYTON, SURER BELLTITE OR APPROVED EQUAL WITH SERRATED BRASS WEDGES (2 WEDGES PER JOINT).
3. ALL WATER MAIN AND WATER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF VAN BUREN TOWNSHIP.

FIRE DEPARTMENT NOTES:
1. THE PROPOSED FIRE DEPARTMENT CONNECTION IS LOCATED ON THE NORTH WALL NEAR THE EAST CORNER OF THE BUILDING.
2. THE FIRE DEPARTMENT CONNECTION SHALL BE A 4 INCH STORTZ FITTING WITH A 30 DEGREE DOWNTURN AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
3. FIRE HYDRANTS SHALL BE TWO 4 INCH STORTZ CONNECTIONS NOT THREADED.
4. THE BUILDING SHALL BE PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA13, STANDARD FOR THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS.
5. THE ARCHITECT AND FIRE DEPARTMENT SHALL COORDINATE FOR THE LOCATION OF A KNOX BOX ELOCK SYSTEM.
6. EMERGENCY RESPONDER RADIO COVERAGE SYSTEM IS REQUIRED UNLESS IT CAN BE PROVEN AFTER BUILDING IS CONSTRUCTED AND OCCUPIED THAT COVERAGE IS SUFFICIENT. THIS WILL BE VERIFIED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
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Sheet No. 07

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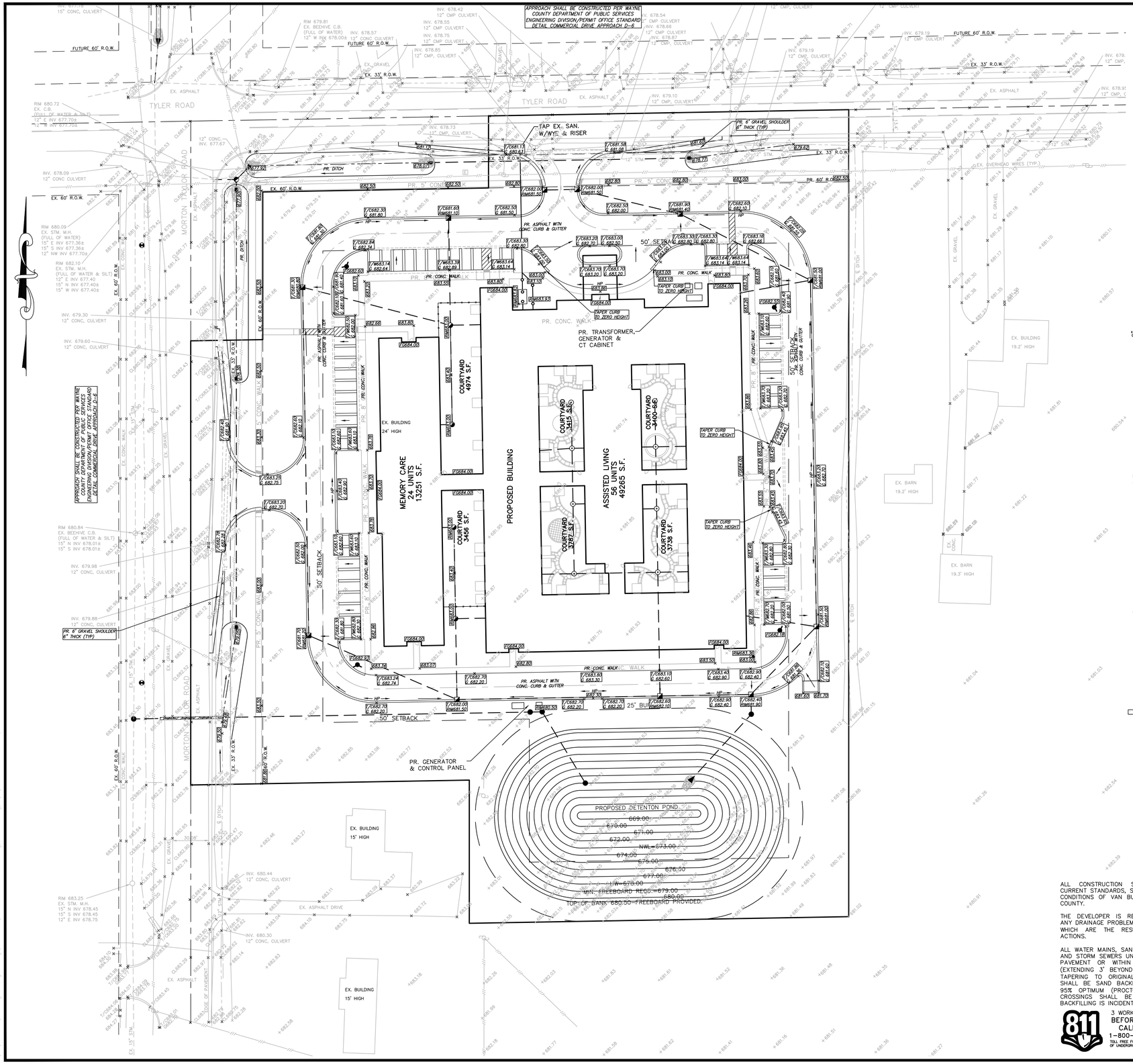
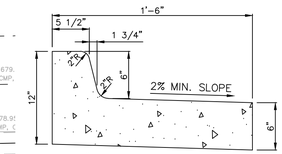
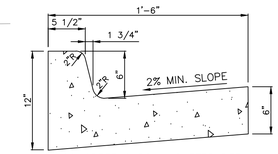
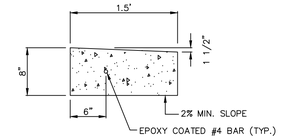




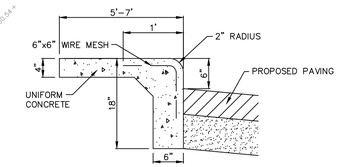
6" CONCRETE CURB DETIL
REVERSE GUTTER PAN
(N.T.S.)



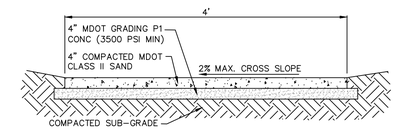
6" CONCRETE CURB & GUTTER DETAIL
(N.T.S.)



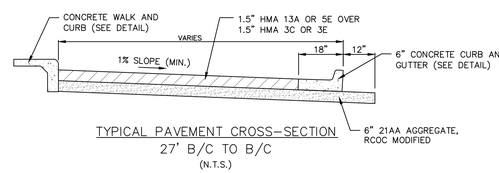
PARKING/DRIVE TRANSITION
(N.T.S.)



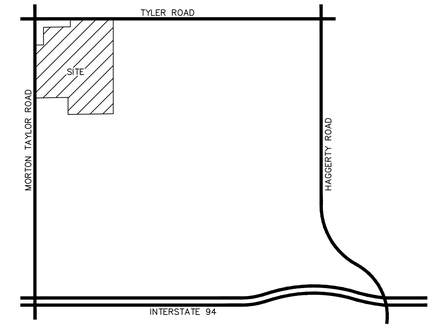
SIDEWALK CURB DETAIL
(N.T.S.)



TYPICAL WALK CROSS-SECTION
(N.T.S.)



TYPICAL PAVEMENT CROSS-SECTION
27' B/C TO B/C
(N.T.S.)



LOCATION MAP
SCALE: 4"=1 MILE

BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POL ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POL ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

EXISTING LEGEND

- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- VALVE IN WELL
- WATER SHUT OFF
- WELL
- GAS VALVE
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER

PROPOSED LEGEND

- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- FENCE
- UNDERGROUND CABLE, ELECTRIC & PHONE
- GAS
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM CATCH BASIN (PAVEMENT)
- STORM CATCH BASIN (YARD)
- STORM MANHOLE
- STORM MANHOLE WITH CATCH BASIN COVER (PAVEMENT)
- STORM MANHOLE WITH CATCH BASIN COVER (YARD)
- STORM INLET
- FIRE HYDRANT
- VALVE IN WELL
- WATER LEAD STOP BOX
- CB 1 STORM STRUCTURE NUMBER
- MH 1 SANITARY STRUCTURE NUMBER
- HYD 1 WATER STRUCTURE NUMBER
- 1 UTILITY CROSSING NUMBER
- UTILITY CROSSING
- SAND BACKFILL

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1" = 40'

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF VAN BUREN TOWNSHIP AND WAYNE COUNTY.

THE DEVELOPER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE THE RESULT OF THE DEVELOPERS' ACTIONS.

ALL WATER MAINS, SANITARY SEWERS, (AND LEADS) AND STORM SEWERS UNDER PROPOSED OR EXISTING PAVEMENT OR WITHIN INFLUENCE OF PAVEMENT (EXTENDING 3' BEYOND EDGE OF PAVEMENT THEN TAPERING TO ORIGINAL GROUND AT 1:1 SLOPE) SHALL BE SAND BACKFILLED AND COMPACTED TO 95% OPTIMUM (PROCTOR) DENSITY. ALL UTILITY CROSSINGS SHALL BE SAND BACKFILLED. SAND BACKFILLING IS INCIDENTAL TO UNIT PRICES.

811
3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

Revisions:		
12-03-2019	REV PER TWP	L.A.
02-03-2020	REV PER TWP	L.A.
07-02-2020	REV PER WCDPS	L.A.

Client:
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1451 S. GRATIOT AVENUE
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Clinton Township, Michigan 48038
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HAMPTON MANOR OF VAN BUREN TOWNSHIP CONCEPTUAL GRADING PLAN

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale:	1"=40'
Paper Size:	24"x36"
Date:	11-06-19
Drawn By:	L.A.
Checked By:	W.J.T.
Job No.:	19-249
Sheet No.	08

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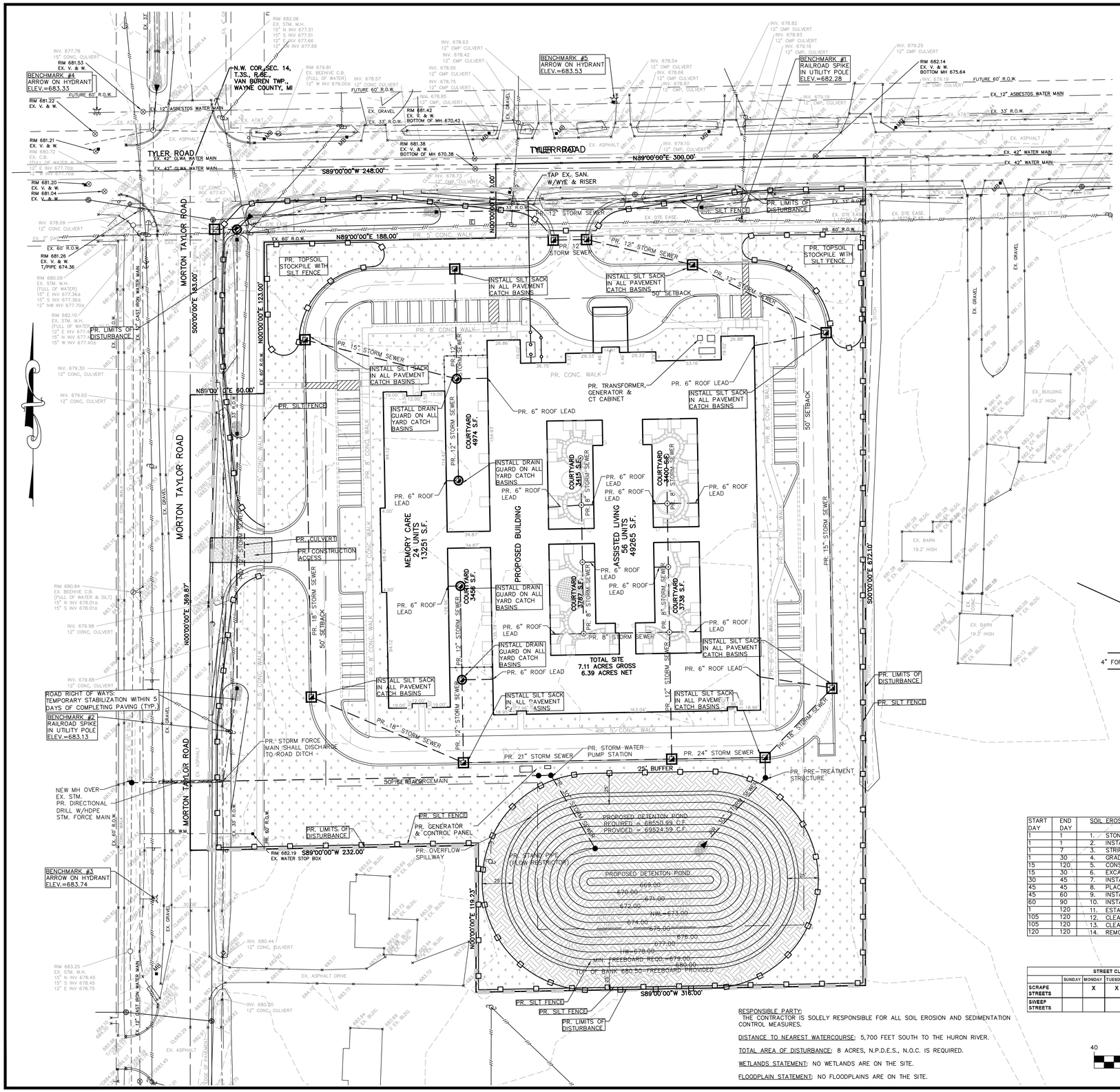

BENCHMARKS:
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2. RAILROAD SPIKE IN UTILITY POLE ELEVATION=683.13 (NAVD88)
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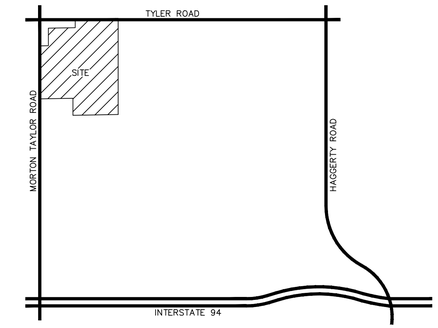
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

SOIL EROSION LEGEND

- LIMITS OF DISTURBANCE
- SILT FENCE
- SEED AND MULCH
- SILT SACK
- DRAIN GUARD
- MULCH BLANKET



LOCATION MAP
SCALE: 4"=1 MILE

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- WATER MAIN
- STORM SEWER
- FENCE
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- (M) MEASURED
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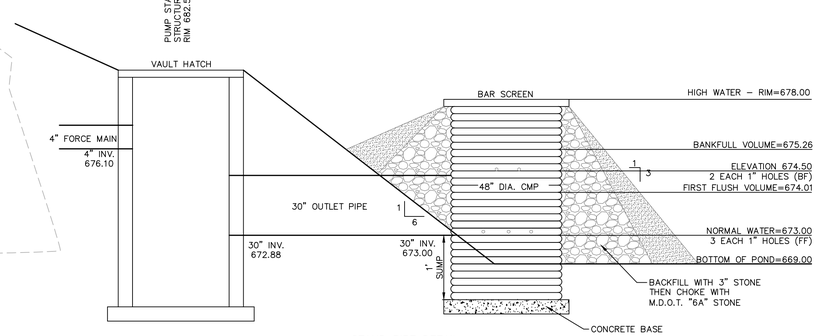
- GAS LINE MARKER



STAND PIPE DETAIL
N.T.S.

START DAY	END DAY	SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION:
1	1	1. STONE TRACKING MAT ATOP GEOTEXTILE LINER: MUD-MAT.
1	1	2. INSTALL SILT FENCING AND PROTECTIVE FENCING.
1	7	3. STRIP AND STOCKPILE TOPSOIL.
1	30	4. GRADE AND BALANCE AS REQUIRED. STABILIZE DITCHES, SWALES, COMMON AREAS AND SLOPES PER PLAN WITHIN 5 DAYS OF GRADE
15	120	5. CONSTRUCT BUILDING.
15	30	6. EXCAVATE DETENTION BASIN, INSTALL APPROVED OUTLET, STABILIZE BASIN BEFORE PAVING IS STARTED.
30	45	7. INSTALL UNDERGROUND UTILITIES: I.E. SANITARY, STORM, AND WATER MAIN.
45	45	8. PLACE INLET FILTERS.
45	60	9. INSTALL ALL PUBLIC UTILITIES COMPLETE: ELECTRIC, TELEPHONE, AND CABLE T.V.
60	90	10. INSTALL PAVEMENT COMPLETE.
1	120	11. ESTABLISH VEGETATION FOR ALL DISTURBED AREAS AND ROAD/R.O.W.s
105	120	12. CLEAN OUT STORM SEWERS SYSTEM.
105	120	13. CLEAN OUT AND RESTORE SEDIMENT BASIN AND DETENTION POND TO DESIGN SPECIFICATIONS.
120	120	14. REMOVE SILT FENCE AND CATCH BASIN FILTERS FOLLOWING WC-DPS APPROVAL: CALL FOR FINAL INSPECTION.

STREET CLEANING SCHEDULE							
	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SCRAPE STREETS		X	X	X	X	X	X
SWEEP STREETS				X			

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1" = 40'

RESPONSIBLE PARTY:
THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.

DISTANCE TO NEAREST WATERCOURSE: 5,700 FEET SOUTH TO THE HURON RIVER.

TOTAL AREA OF DISTURBANCE: 8 ACRES, N.P.D.E.S., N.O.C. IS REQUIRED.

WETLANDS STATEMENT: NO WETLANDS ARE ON THE SITE.

FLOODPLAIN STATEMENT: NO FLOODPLAINS ARE ON THE SITE.

Revisions:
12-03-2019 REV PER TWP L.A.
02-03-2020 REV PER TWP L.A.
07-02-2020 REV PER WCDPS L.A.

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CLINTON TOWNSHIP, MI 48035
989-708-1878
zohaibsyed2001@yahoo.com

HAMPTON MANOR OF VAN BUREN TOWNSHIP SOIL EROSION AND SEDIMENTATION CONTROL PLAN

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale: 1"=40'
Paper Size: 24"x36"
Date: 11-06-19
Drawn By: L.A.
Checked By: W.J.T.
Job No.: 19-249
Sheet No. 09

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EROSION CONTROL STANDARD NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES.

2. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.

3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED WITHIN THE WORK AREA AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, PONDS AND WETLANDS.

4. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS DIRECTED ON THESE PLANS AND WHERE OTHERWISE REQUIRED BY THE WORK. THE CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.

5. SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF DIRT OFF THE WORK AREA.

6. THE CONTRACTOR SHALL PRESERVE OFF-SITE NATURAL VEGETATION AS MUCH AS POSSIBLE.

7. PROTECT ALL EXISTING TREES , INCLUDING THEIR BRANCHES AND ROOTS, FROM DAMAGE DUE TO THIS WORK UNLESS SPECIFICALLY IDENTIFIED FOR REMOVAL.

8. ALL EXPOSED EARTH SHALL BE STABILIZED WITH SEED AND MULCH OR SOD WITHIN 5 DAYS OF FINAL GRADE. SEDIMENT AND DETENTION BASINS, SWALES AND DITCHES SHALL BE STABILIZED WITH SEED AND STRAW MULCH BLANKETS, STAKED INTO THE GROUND 5 DAYS AFTER THE CONSTRUCTION OF THE SEDIMENT AND DETENTION BASINS, SWALES AND DITCHES.

9. THE CONTRACTOR SHALL SCRAPE THE STREETS DAILY, AND SWEEP THE STREETS WEEKLY.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL AND SHALL PROVIDE ALL EQUIPMENT AND MATERIAL TO KEEP DUST IN CHECK AT ALL TIMES. THE CONTRACTOR SHALL RESPOND IMMEDIATELY TO ANY AND ALL COMPLAINTS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NPDES PERMIT AND ENSURING COMPLIANCE WITH ALL APPLICABLE PERMIT REGULATIONS, INCLUDING BUT NOT LIMITED TO, INSPECTION, RESTORATION AND RECORD KEEPING REQUIREMENTS. REPORTS FROM THE CERTIFIED STORM WATER OPERATOR SHALL BE MADE AVAILABLE TO WAYNE COUNTY.

DESCRIPTIONS ARE PREPARED FROM EXISTING VAN BUREN TOWNSHIP TAX RECORDS. ALL PARCELS SHALL BE COMBINED AFTER PURCHASE OF PROPERTY IS COMPLETED.

PARCEL 1: PARCEL #83-054-99-0012-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 333 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE NORTH 333 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 294.87 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 548 FEET; THENCE NORTH 219.87 FEET TO THE POINT OF BEGINNING. 4.18 ACRES.

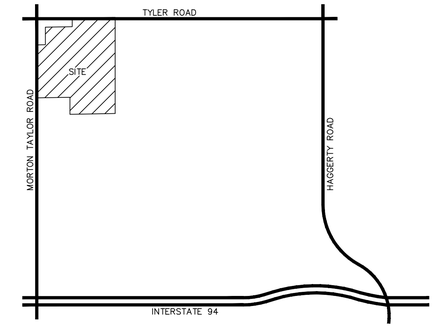
PARCEL 2: PARCEL #83-054-99-0013-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING NORTH 89 DEGREES 00 MINUTES EAST 398 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 150 FEET; THENCE NORTH 258 FEET TO THE POINT OF BEGINNING. 0.89 ACRES.

PARCEL 3: PARCEL #83-054-99-0014-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 60 FEET AND NORTH 89 DEGREES EAST 60 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE SOUTH 123 FEET; THENCE NORTH 89 DEGREES EAST 188 FEET; THENCE NORTH 123 FEET; THENCE SOUTH 89 DEGREES WEST 188 FEET TO THE POINT OF BEGINNING. 0.53 ACRES.

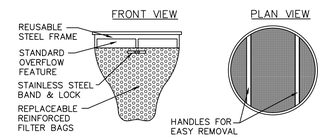
PARCEL 4: PARCEL #83-054-99-0015-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 183 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE SOUTH 150 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 248 FEET; THENCE NORTH 150 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 60 FEET THEREOF. 0.65 ACRES.

PARCEL 5: PARCEL #83-054-99-0016-002
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 232 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 176 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 176 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.48 ACRES.

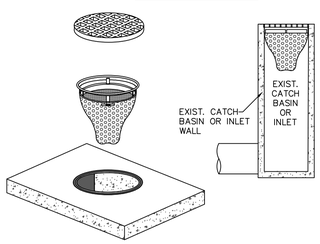
PARCEL 6: PARCEL #83-054-99-0016-003
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 408 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 140 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 140 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING



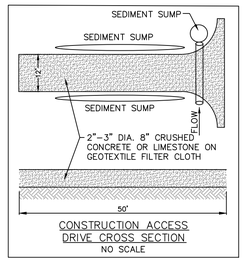
LOCATION MAP
SCALE: 4"=1 MILE



INSTALLATION DETAILS



SILT SACK INLET PROTECTOR
NO SCALE



CONSTRUCTION ACCESS DRIVE CROSS SECTION
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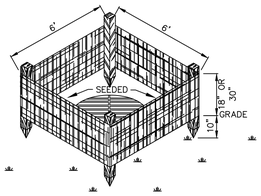
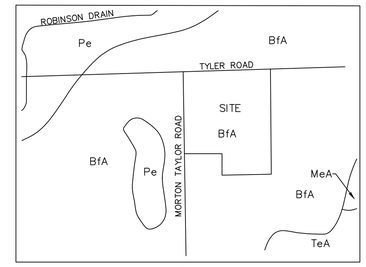


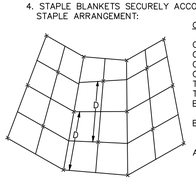
DRAIN GUARD
NO SCALE



SOIL MAP
NO SCALE

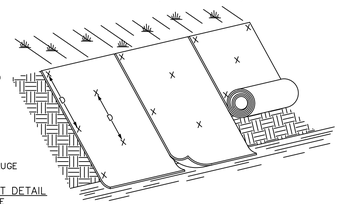
SOIL TYPES
SOIL SURVEY OF WAYNE COUNTY, MICHIGAN
BfA: BLOUNT LOAM, ERIE-HURON LAKE PLAIN, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP D
MeA : METAMORA SANDY LOAM, 0 TO 3 PERCENT SLOPES, HYDROLOGIC SOIL GROUP C/D
Pe: PEWAMO LOAM, HYDROLOGIC SOIL GROUP C/D
TeA: TEDROW LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP A/D

INSTALLATION INSTRUCTIONS
1. REMOVE PROTECTIVE OUTER WRAPPER.
2. START UNROLLING BLANKET AS INDICATED BY SEPARATOR APPEARING AT THE BEGINNING OF EACH ROLL.
3. BE SURE THAT NETTING IS ON TOP OF THE EXCELSIOR FIBER AND THE EXCELSIOR IS IN DIRECT CONTACT WITH THE SOIL AND REMAINS SP CONTINUOUSLY WHILE UNROLLING.
4. STAPLE BLANKETS SECURELY ACCORDING TO THE FOLLOWING STAPLE ARRANGEMENT:

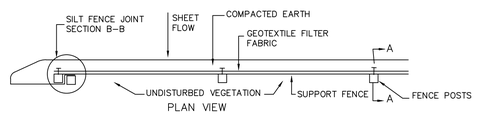


CHANNEL INSTALLATION
THE BLANKET SHOULD BE ROLLED OUT ALONG THE CHANNEL BOTTOM AND SIDE SLOPES IN THE DIRECTION OF THE WATER FLOW. ADJACENT BLANKETS SHOULD BE CLOSELY BUTTED OR SLIGHTLY OVERLAPPED SO THAT ONE ROW OF STAPLES WILL FASTEN BOTH EDGES ALONG THE SEAM. A ROW OF STAPLES SHOULD BE CENTERED DOWN THE BLANKET LOCATED IN BETWEEN THE STAPLES AT THE BLANKETS EDGE.
WHEN COMING TO THE END OF A ROLL, OVERLAP THE BEGINNING OF THE NEXT ROLL BY AT LEAST 6 INCHES.
STAPLE SPACING: (D) - 4 FEET
STAPLE SIZE: MOST SOILS - 6"x1"x6" - 11 GAUGE
APPROXIMATELY 110 STAPLES PER BLANKET (3 BLANKETS WIDE)

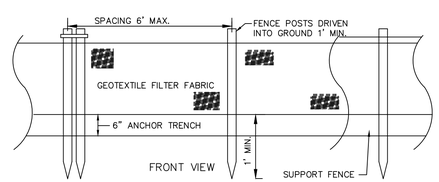
SLOPE INSTALLATION
ON SHORT BANKS THE BLANKET MAY BE ROLLED OUT HORIZONTALLY OF VERTICALLY, WHICHEVER IS MORE CONVENIENT. HOWEVER, ON LONG AND STEEP BANKS, IT IS RECOMMENDED THAT THE BLANKET BE ROLLED DOWN SLOPE VERTICALLY, SO THAT IT CAN CONTRIBUTE TO THE RESTRAINT OF "SLOUGHING".
IN A MANNER SIMILAR TO THE METHODS USED IN THE CHANNEL PROCEDURES, FASTEN THE BLANKETS SECURELY WITH APPROPRIATE SIZED STAPLES AND INDICATED STAPLING ARRAY.
STAPLE SPACING: (D) - 5 FEET
STAPLE SIZE: MOST SOILS - 6"x1"x6" - 11 GAUGE
APPROXIMATELY 80 STAPLE PER BLANKET



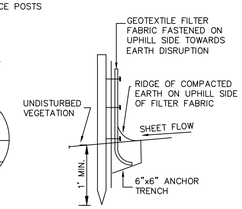
MULCH BLANKET DETAIL
NO SCALE



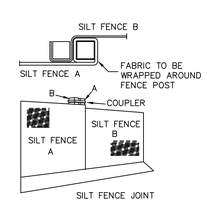
PLAN VIEW



SILT FENCE
NO SCALE



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF VAN BUREN TOWNSHIP AND WAYNE COUNTY.

THE DEVELOPER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE THE RESULT OF THE DEVELOPERS' ACTIONS.

ALL WATER MAINS, SANITARY SEWERS, (AND LEADS) AND STORM SEWERS UNDER PROPOSED OR EXISTING PAVEMENT OR WITHIN INFLUENCE OF PAVEMENT (EXTENDING 3' BEYOND EDGE OF PAVEMENT THEN TAPERING TO ORIGINAL GROUND AT 1:1 SLOPE) SHALL BE SAND BACKFILLED AND COMPACTED TO 95% OPTIMUM (PROCTOR) DENSITY. ALL UTILITY CROSSINGS SHALL BE SAND BACKFILLED. SAND BACKFILLING IS INCIDENTAL TO UNIT PRICES.

811 3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES

BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POLE ELEVATION=682.28 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POLE ELEVATION=683.13 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.74 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.33 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.53 (NAVD88)

SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

Revisions:		
12-03-2019	REV PER TWP	L.A.
02-03-2020	REV PER TWP	L.A.
07-02-2020	REV PER WCDPS	L.A.

Lehner Associates, Inc.
Civil Engineers | Surveying | Planning | Consulting
Serving Michigan Since 1912
17001 Nineteen Mile Road, Suite 3
Clinton Township, Michigan 48038
o: 586.412.7050 | f: 586.412.7114
www.lehnerassociates.com

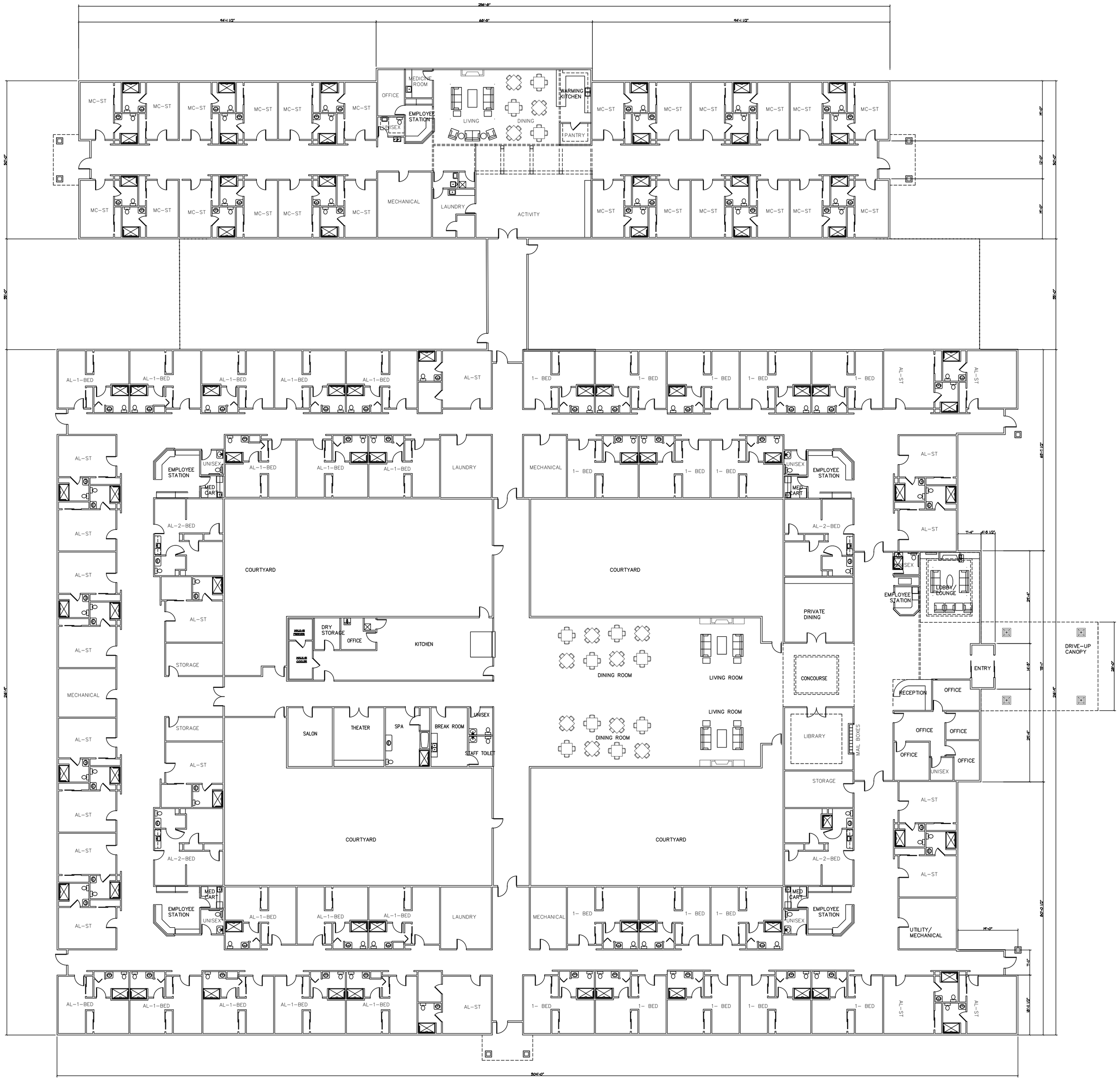
Client:
VAN BUREN INVESTORS
LAND HOLDINGS, LLC
ZOHAIB SYED
1451 S. GRATIOT AVENUE
CLINTON TOWNSHIP, MI 48035
989-708-1878
zohaibsyed2001@yahoo.com

HAMPTON MANOR OF VAN BUREN TOWNSHIP
SOIL EROSION AND SEDIMENTATION CONTROL - NOTES AND DETAILS

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale:	1"=40'
Paper Size:	24"x36"
Date:	11-06-19
Drawn By:	L.A.
Checked By:	W.J.T.
Job No.:	19-249
Sheet No.	10

F:\19\19-249\Drafting & Engineering\Site Plan\19-249-SitePlan.dwg, 10-Soil Det, 7/6/2020 9:29:55 AM, laura.ambros



Unit Summary

MC STUDIO UNITS (301 S.F.)	24
AL STUDIO UNITS (346 S.F.)	20
AL ONE BED UNITS (433 S.F.)	32
AL TWO BED UNITS (537 S.F.)	4
TOTAL UNITS =	80

PER STATE OF MICHIGAN, HOME FOR THE AGED LICENSING REQUIRMENTS, SECTION R 325.1967, RESIDENT ROOMS: A SINGLE RESIDENT ROOM SHALL HAVE AT LEAST 80 SQ. FT. OF USEABLE FLOOR SPACE, A MULTI-BED RESIDENT ROOM SHALL HAVE AT LEAST 70 SQ. FT. OF USEABLE FLOOR SPACE PER LICENSED BED. THE RESIDENT UNITS AS DESIGNED FOR THIS FACILITY COMPLY WITH AND EXCEED THE MINIMUM REQUIREMENTS.

OVERALL FLOOR PLAN

1/16"=1'-0" 63,880 SQ. FT.

N

SITE PLAN REVIEW
2-3-2020

JOHN K. COSTA, AIA
ARCHITECTURAL DESIGN & CONSULTATION, PLLC
417 OLDMILL DRIVE
FLUSHING, MICHIGAN 48433
810-659-5275 FAX 810-659-5399

PROPOSED NEW HOME FOR THE AGED

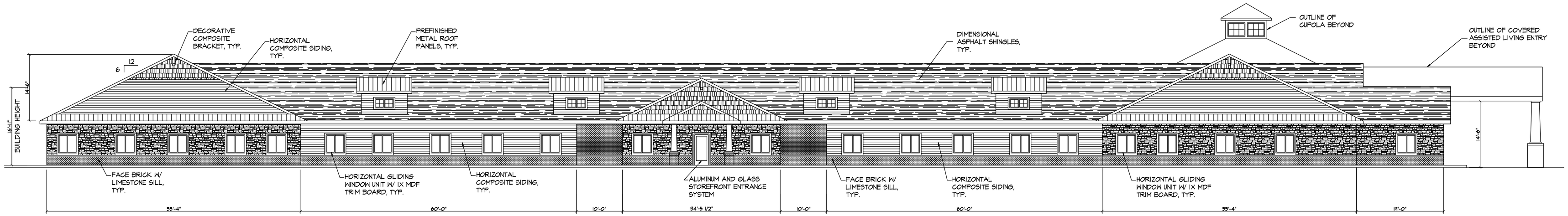
HAMPTON MANOR
OF VAN BUREN TOWNSHIP

OVERALL FLOOR PLAN

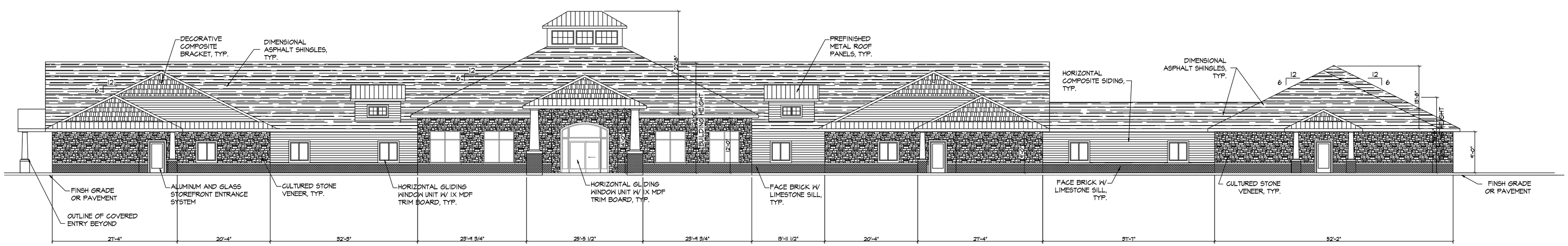
REVISIONS
1 11-8-2019
2 2-3-2020

JOB NO: 019-035
DATE: 11-1-2019
DRAWN BY: JKC
SCALE: AS NOTED

SHEET NO:
A1
OF



EAST ELEVATION
3/32"=1'-0"



NORTH ELEVATION
3/32"= 1'-0"

EXTERIOR FINISHES

ROOFING SHINGLES: CERTAINTEED, LANDMARK, ASPHALT ROOFING, COLOR- MOIRE BLACK
COPING AND DRIPS: ALCOA EXTERIORS, ALUMURE 2000, COLOR- WHITE
GUTTERS AND DOWNSPOUTS: AMERIMAX, 5" K STYLE GUTTER SYSTEM, COLOR- WHITE
TRIM BOARDS & FASCIA: FIBER CEMENT OR PVC VINYL, COLOR- WHITE
BRICK: BELDEN BRICK, STANDARD, COLOR- ADMIRAL RED VELOUR
VINYL SIDING: FOUNDRY, CEDAR SHAKE, COLOR- MOON ROCK #826
VINYL SIDING: VARIFORM, HORIZONTAL SIDING, DOUBLE 4", COLOR- HAZELNUT
CULTURED STONE VENEER: QUARRY RIDGE STONE, COLOR- TUSCANY

SITE PLAN REVIEW
2-3-2020

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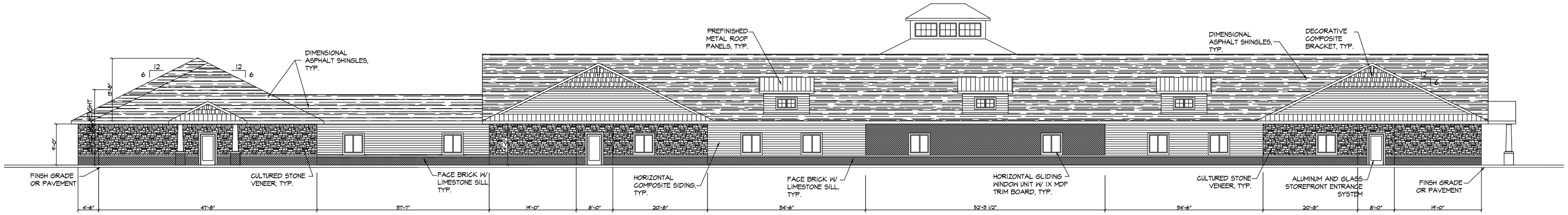
PROPOSED NEW HOME FOR THE AGED
HAMPTON MANOR
OF VAN BUREN TOWNSHIP

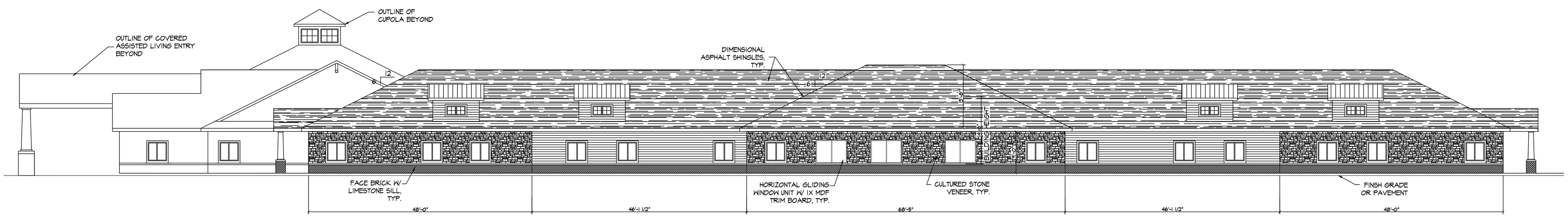
EXTERIOR ELEVATIONS

REVISIONS
2 2-3-2020

JOB NO: 019-035
DATE: 11-1-2019
DRAWN BY: JKC
SCALE: AS NOTED
SHEET NO:
A2
OF



SOUTH ELEVATION
3/32"=1'-0"



WEST ELEVATION
3/32"= 1'-0"

EXTERIOR FINISHES

ROOFING SHINGLES: CERTAINTEED, LANDMARK, ASPHALT ROOFING, COLOR- MOIRE BLACK
COPING AND DRIPS: ALCOA EXTERIORS, ALUMURE 2000, COLOR- WHITE
GUTTERS AND DOWNSPOUTS: AMERIMAX, 5" K STYLE GUTTER SYSTEM, COLOR- WHITE
TRIM BOARDS & FASCIA: FIBER CEMENT OR PVC VINYL, COLOR- WHITE
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VINYL SIDING: FOUNDRY, CEDAR SHAKE, COLOR- MOON ROCK #B26
VINYL SIDING: VARIFORM, HORIZONTAL SIDING, DOUBLE 4", COLOR- HAZELNUT
CULTURED STONE VENEER: QUARRY RIDGE STONE, COLOR- TUSCANY

SITE PLAN REVIEW
2-3-2020

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PROPOSED NEW HOME FOR THE AGED
HAMPTON MANOR
OF VAN BUREN TOWNSHIP

EXTERIOR ELEVATIONS

REVISIONS
2 2-3-2020

JOB NO: 019-035
DATE: 11-1-2019
DRAWN BY: JKC
SCALE: AS NOTED
SHEET NO:
A3
OF

landscape requirements:

road frontage landscape

TLYER ROAD R.O.W LIN FT. 458'
(488'-30' WIDE DRIVE = 458' ROAD FRONTAGE)

	REQUIRED	PROVIDED
ONE (1) 3" DECIDUOUS OR EVERGREEN TREE PER 40' OF ROAD FRONTAGE (458' / 40' = 11.45 TREES)	11	12
ONE (1) ORNAMENTAL TREE PER 100' OF ROAD FRONTAGE (458' / 100' = 4.5 TREES)	5	5
EIGHT (8) SHRUBS PER 40' OF ROAD FRONTAGE (458' / 40' = 11.45 X 8= 91.6 SHRUBS)	92	100+

MORTON TAYLOR ROAD R.O.W LIN FT. 443'
(493'-28' WIDE DRIVE = 465' ROAD FRONTAGE)

	REQUIRED	PROVIDED
ONE (1) 3" DECIDUOUS OR EVERGREEN TREE PER 40' OF ROAD FRONTAGE (465' / 40' = 11.6 TREES)	12	12
ONE (1) ORNAMENTAL TREE PER 100' OF ROAD FRONTAGE (465' / 100' = 4.6 TREES)	5	5
EIGHT (8) SHRUBS PER 40' OF ROAD FRONTAGE (465' / 40' = 11.6 X 8=93 SHRUBS)	93	100+

parking lot landscaping

TOTAL PAVEMENT AREA PROVIDED 117,538 S.F.

	REQUIRED	PROVIDED
INTERIOR PARKING LANDSCAPING =15% PAVEMENT AREA (117,538 S.F. X .15 (15%) = 17,630.7 S.F.)	17,631 S.F.	17,631 S.F.
ONE (1) 3"DECIDUOUS OR EVERGREEN TREE PER 300 S.F. OF INTERIOR LANDSCAPE AREA (17,631 S.F. / 300 =58.77 TREES)	59	59

greenbelt buffering

TOTAL LIN FT. OF EAST PROPERTY LINE 612'

	REQUIRED	PROVIDED
ONE (1) 3"DECIDUOUS OR EVERGREEN TREE PER 20' (612 / 20' PER TREE =30.6 TREES)	31	28 +4 EX.TREES

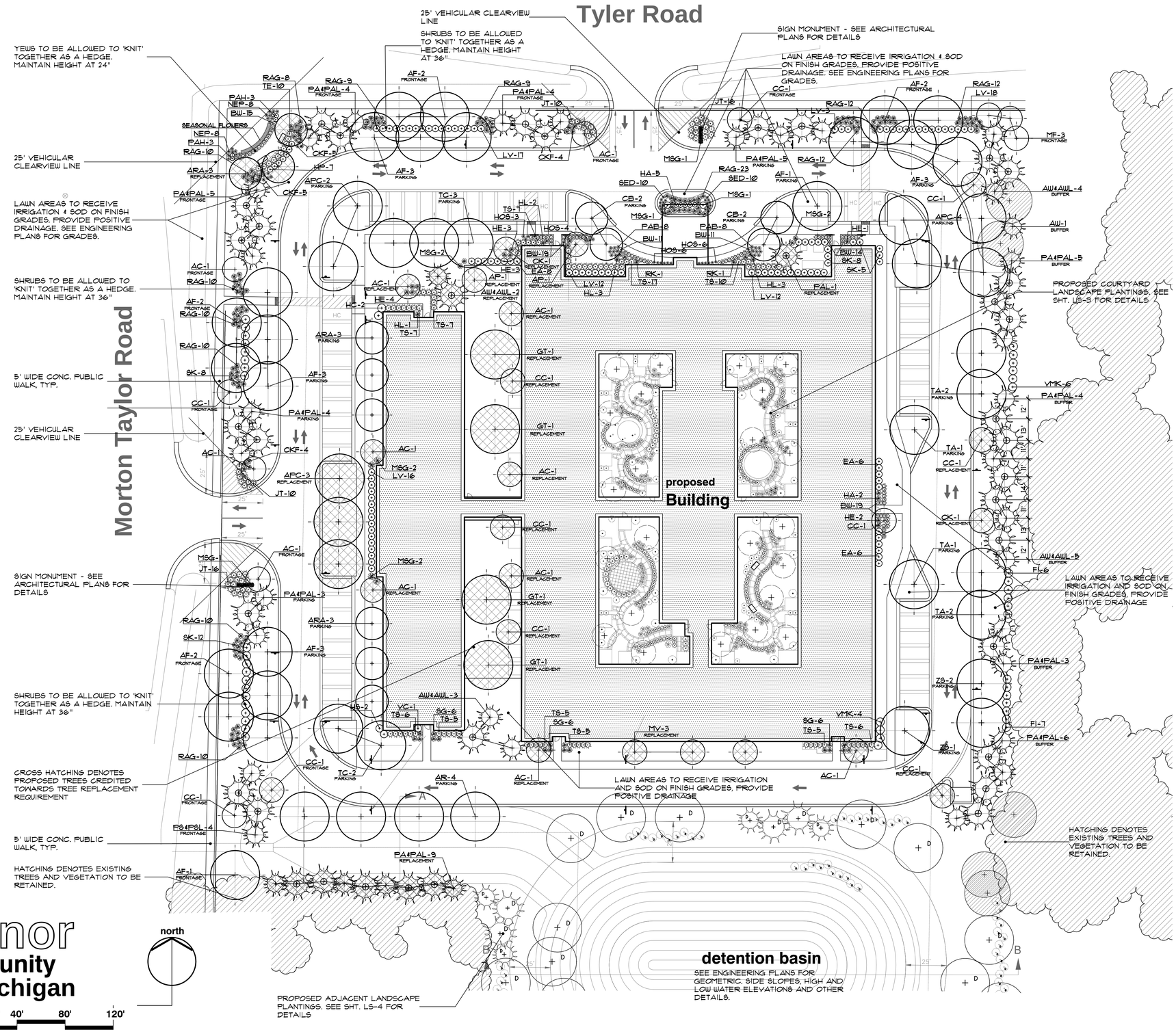
TOTAL LIN FT. OF SOUTH PROPERTY LINE 607'

	REQUIRED	PROVIDED
ONE (1) 3"DECIDUOUS OR EVERGREEN TREE PER 20' (607 / 20' PER TREE =30.35 TREES)	30	31

tree removal/replacement summary

TOTAL NO. TREES INVENTORIED 249
(245-TREES ONSITE AND 4-TREES OFFSITE)
TOTAL NO. OF TREES SAVED 38
NO. OF REGULATED TREES SAVED 38
NO. OF NON-REGULATED TREES SAVED 0
TOTAL NO. OF TREES REMOVED 207
NO. OF REGULATED TREES REMOVED 97
NO. OF NON-REGULATED TREES REMOVED 110

TOTAL NO. OF REPLACEMENT TREES REQUIRED 97
TOTAL NO. OF REPLACEMENT TREES PROVIDED 98.5
7- 8' HIGH EVERGREEN TREE EQUAL 2-REP. TREE 14
9- 10' HIGH EVERGREEN TREE EQUAL 2.5-REP. TREE 22.5
44- 2" DECIDUOS TREE EQUAL 1-REP. TREE 44
18- 3" DECIDUOS TREE EQUAL 1-REP. TREE 18



landscape plan for:

Hampton Manor

Senior Living Community
Van Buren Township, Michigan

FPA
FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:
STATE OF MICHIGAN FELINO A. PASCUAL LANDSCAPE ARCHITECT No. 1433 REGISTERED LANDSCAPE ARCHITECT

client:
S & S HOLDING, LLC
1451 Gratiot Avenue
Clinton Township,
Michigan 48036

project:
HAMPTON MANOR of VAN BUREN TOWNSHIP

project location:
Van Buren Township , Michigan
Morton Taylor Road & Tyler Road

sheet title:
LANDSCAPE PLAN

job no./issue/revision date:

LS 19.123.11	SPA	11-5-2019
LS 19.123.11	SPA	11-26-2019
LS 20.015.01	SPA	2-2-2020

drawn by: JP, DK
checked by: FP
date: 10-26-2019

notice:
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3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 For free location of public utility lines
The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no: LS19.123.10

sheet no: LS-1 of 4

plant material list

key	quant.	botanical name	common name	size	comments	required
		LARGE AND SMALL DECIDUOUS TREES				
AR	4	ACER RUBRUM	RED MAPLE (MULTI-STEM)	3" BB		
AF	22	ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE RED MAPLE	3" BB		
TC	5	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3" BB		
CB	4	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPENAN HORNBEAN	4" BB		
ZS	3	ZELKOVA SERRATE 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	3" BB		
GT	4	GLEDITSIA TRI. INERMIS 'SKYCOLE'	SKYLINE LOCUST	3" BB		4 RT
APC	9	ACER P. 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	3" BB		3 RT
TA	6	TILIA AMERICANA	AMERICAN LIDEN	3" BB		3 RT
ARA	9	ACER R. 'ARMSTRONG'	ARMSTRONG RED MAPLE	3" BB		3 RT
AP	2	ACER P. 'BLOODGOOD'	BLOODGOOD LACE LEAF MAPLE	6" BB		2 RT
MF	3	MALUS FLORIBUNDA	JAPANESE FLOWERING CRABAPPLE	2" BB		
AC	12	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	10" BB	(MULTI-STEM)	7 RT
CC	11	CERCIS CANADENSIS	EASTERN REDBUD	10" BB	(MULTI-STEM)	8 RT
CK	2	CORNUS KOUSA	KOUSA DOGWOOD	2" BB		2 RT
MV	3	MALUS'RED BARON'	RED BARON CRABAPPLE	2" BB		3 RT
		SHRUBS				
SK	33	SYRINGA PATULA 'MISS KIM'	MISS KIM DWARF LILAC	3" B.B.		
LV	78	LIGUSTRUM VULGARE 'LODENSE'	LODENSE PRIVET 42" O.C. SPACING	3" BB		
VMK	10	VIBURNUM X.B. 'MOHAWK'	MOHAWK VIBURNUM	3" BB		
RK	2	ROSA X. 'OSA EASY DOUBLE RED''	OSA EASY DOUBLE RED ROSE	#5 CONT.		
HA	7	HYDRANGEA ANNEBELLE	ANNABELLE HYDRANGEA	#5 CONT.		
HE	13	HYDRANGEA M. 'GLOWING EMBERS'	GLOWING EMBERS HYDRANGEA	#5 CONT.		
HL	9	HYDRANGEA 'LINDSEY ANN'	LA DREAMIN HYDRANGEA	#5 CONT.		
SG	18	SPIREA B. 'GOLD FLAME'	GOLD FLAME SPIREA	#3 CONT.		
EA	20	EUONYMUS ALATUS 'COMPACTUS'	DWARF WING BURNING BUSH	3" BB		
VC	3	VIBURNUM X.B. 'CARLESII'	KOREAN SPICE	3' 1/2' B.B		
FI	13	FORSYTHIA X INTERMEDIA	BORDER FORSYTHIA	#3 CONT.		
HP	7	HYDRANGEA PANICULATA	HYDRANGEA LITTLE LIME	#3 CONT.		
HS	2	HIBISCUS SYRIACUS	APHRODITE	#3 CONT.		
		LARGE AND SMALL EVERGREENS				
TS	80	TAXUS X M. 'SEBIAN'	SEBIAN YEW	18" BB	24" O.C. SPACING	
TE	10	TAXUS X.M. 'EVERLOW'	EVERLOW YEW	24"-30" BB	32" O.C. SPACING	
BW	88	BUXUS S. 'GREEN VELVET	GREEN VELVET BOXWOOD	18" BB	32" O.C. SPACING	
JT	42	JUNIPERUS SABINE'TAMARISCIFOLIA'	TAM JUNIPER	18" BB	32" O.C. SPACING	
AW	8	ABIES CONCOLOR	CONCOLOR WHITE FIR	8' BB		6 BT
AWL	7	ABIES CONCOLOR	CONCOLOR WHITE FIR	10' BB O		4 BT
PA	26	PICEA ABIES	NORWAY SPRUCE	8' BB		9 BT
PAL	27	PICEA ABIES	NORWAY SPRUCE	10' BB O		9 BT 1 RT
PS	2	PINUS STROBUS	WHITE PINE	8' BB		- BT
PSL	2	PINUS STROBUS	WHITE PINE	10' BB O		- BT
		PERENNIALS AND GRASSES				
PAH	6	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	#3 CONT.		
CKF	14	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3 CONT.		
MSG	12	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT JAPANESE SILVER GRASS	#3 CONT.		
NEP	16	NEPATA X.F. 'WALKER'S LOW'	WALKER'S LOW CATMINT	#1 CONT.		
RAG	145	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#3 CONT.		
SED	20	SEDUM SPECTABILE 'NEON'	NEON SEDUM	#1 CONT.		
HOS	19	HOSTA	REGAL HOSTA	#1 CONT.		
PAB	16	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	#3 CONT.		

Required Legend
Buffer = BT
Replacement = RT

general landscape notes:

1. LANDSCAPE CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISITNG CONDITIONS, REVIEW PROPOSED PLANTINGS AND RELATED WORK. CONTACT THE OWNER AND/OR LANDSCAPE ARCHITECT WITH ANY CONCERNS OR DISCREPANCY BETWEEN THE PLAN, PLANT MATERIAL LIST, AND/OR SITE CONDITIONS.

2. PRIOR TO BEGINING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES, GAS, ELECTRIC, TELEPHONE, CABLE TO BE LOCATED BY CONTACTING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER PRIOR TO COMMENCING

3. NUMERICAL VALUE ON THE LANDSCAPE QUANTITIES SPECIFIED ON THE PLAN TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION. VERIFY ANY CONCERN-DISCREPANCY WITH LANDSCAPE ARCHITECT.

4. ALL CONSTRUCTION AND PLANT MATERIAL LOCATION TO BE ADJUSTED ON SITE IF NECESSARY

5. ALL SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED BY VAN BUREN TOWNSHIP AND LANDSCAPE ARCHITECT.

6. ALL LARGE TREES AND EVERGREENS TO BE STAKED, GUYED AND WRAPPED AS DETAIL SHOWN ON PLAN.

7. PLANT BEDS TO BE DRESSED WITH MIN. 4" OF FINELY DOUBLE SHREDDED HARDBARK MULCH.

8. DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALL. BACK FILL WITH ONE PART TOP SOIL AND ONE PART SOIL FROM EXCAVATED PLANTING HOLE.

9. NATURAL COLOR, FINELY SHREDDED HARDWOOD BARK MULCH REQUIRED FOR ALL PLANTINGS.

10. REMOVE ALL TWINE, WIRE AND BURLAP FROM TREE AND SHRUB EARTH BALLS, AND FROM TREE TRUNKS, 4" THICK BARK MULCH FOR TREES IN 4' DIA. CIRCLE WITH 3" PULLED AWAY FROM TRUNK , 4" THICK BARK MULCH FOR SHRUBS AND 4" THICK BARK MULCH FOR PERENNIALS.

11. PLANT MATERIAL QUALITY & INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.

12. PROVIDE PEAT SOD FOR ALL NEW AND DISTURBED LAWN AREAS UNLESS NOTED OTHERWISE.

13. ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.

14. PLANT TREES AND SHRUBS GENERALLY NO CLOSER THEN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS AND PARKING STALLS:
   a.). SHADE TREES _____ 5 FT.
   b.). ORNAMENTAL AND EVERGREEN TREES (CRAB, PINE, SPRUCE, ETC.) _____ 10 FT.
   c.). SHRUBS THAT ARE LESS THAN 1 FOOT TALL AND WIDE AT MATURITY _____ 2 FT.

15. NO TREES OR EVERGREENS TO BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE ENGINEERING PLANS FOR LOCATION AND DETAILS.

16. ALL LAWN AREAS AND LANDSCAPE BEDS TO BE FULLY IRRIGATED WITH A AUTOMATIC UNDERGROUND SYSTEMS. IRRIGATION SYSTEM TO HAVE SEPARTE ZONES FOR LAWN AREAS, PARKING ISLANDS, AND SHRUB BEDS WITH DIFFERENT CONTROL MOISTURE LEVEL ADJUSTMENT PER ZONE AS REQUIRED

17. UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN TO RECIEVE EDGING. EDGING SHALL BE 4" X 1/8" METAL (FINISH BLACK OR GREEN) OR APPROVED EQUAL AND TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 32" O.C. OR PER MANUFACTERER'S SPECIFICATION.

18. ALL NEW PARKING ISLANDS AND LANDSCAPE BEDS ADJACENT AND NEXT TO BUILDING SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS A MIN. OF 12"-16" DEPTH. BACK FILL WITH GOOD, MEDIUM TEXTURED PLANTING SOILS. ADD A MIN. 4" OF TOPSOIL OVERFILL TO FINISH GRADE. PROVIDE POSITIVE DRAINAGE.

19. WATERING OF ALL PLANTS AND TREES TO BE PROVIDED IMMEDIATELY AND MULCHING WITHIN 24 HOURS AFTER INSTALLATION.

20. ALL TREE PITS TO BE TESTED FOR PROPER DRAINAGE PRIOR TO TREE PLANTING. PROVIDE APPROPERATES DRAINAGE SYSTEM AS REQUIRED IF THE TREE PIT DOES NOT DRAIN SUFFICIENTLY.

21. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE PLANT MATERIALS AND IRRIGATION INSTALLATION FOR A PERIOD OF TWO YEAR BEGINNING AFTER THE COMPLETION OF LANDSCAPE INSTALLTION DATE APPROVED BY THE CITY OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE TOWNSHIP OR LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.

landscape maintenance notes:

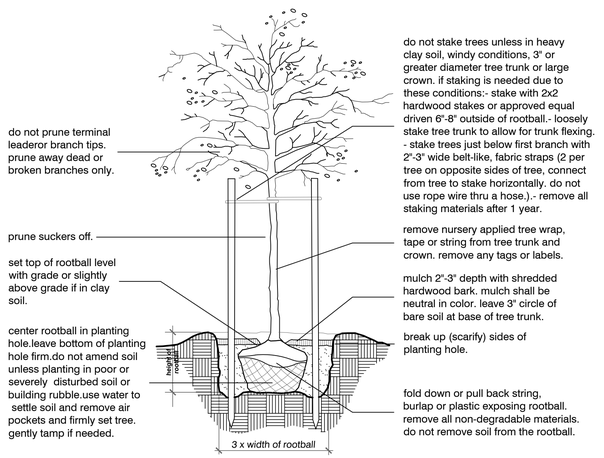
LANDSCAPE MAINTENANCE PROCEDURES AND FREQUENCIES TO BE FOLLOWED SHALL BE SPECIFIED ON THE LANDSCAPE PLAN, ALONG WITH THE MANNER IN WHICH THE EFFECTIVENESS, HEALTH AND INTENDED FUNCTIONS OF THE VARIOUS LANDSCAPE AREAS ON THE SITE WILL BE ENSURED.

1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.

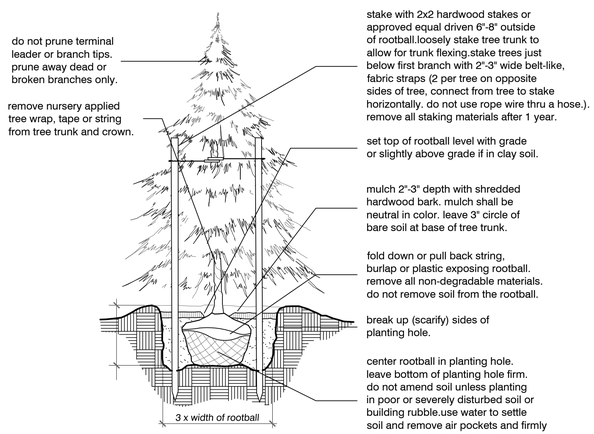
2. PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.

3. ALL DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED AND REPLACED WITHIN SIX (6.) MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 15 AND NOVEMBER 15 OR UNTIL THE PREPARED SOIL BECOMES FROZEN. THE PLANTING SEASON FOR EVERGREEN PLANTS SHALL BE BETWEEN MARCH 1 AND JUNE 1. PLANT MATERIAL INSTALLED TO REPLACE DEAD OR DISEASED MATERIAL SHALL BE AS CLOSE AS PRACTICAL TO THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE.

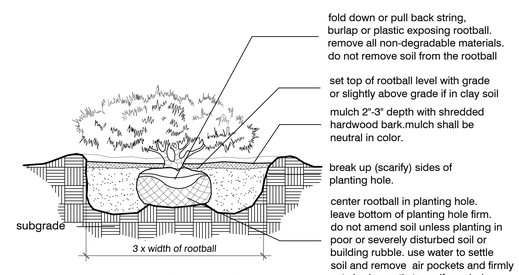
4. THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED IN ACCORDANCE WITH THE AFOREMENTIONED PROCEDURES, ANY REVISIONS TO, OR REMOVAL OF, PLANT MATERIALS WILL PLACE THE PARCEL IN NON-CONFORMITY WITH THE APPROVED LANDSCAPE PLAN, AND SHALL BE VIEW AS A VIOLATION OF THIS ORDINANCE AND THE AGREED UPON TERMS OF THE FINAL SITE PLAN APPROVAL.



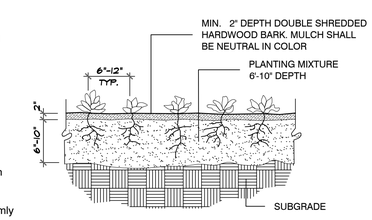
tree planting detail
no scale



evergreen planting detail
no scale



shrub planting detail
no scale



perennial planting detail
no scale

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Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
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fax. (248) 557-5416

seal:
STATE OF MICHIGAN FELINO A. PASCUAL LANDSCAPE ARCHITECT No. 1433 REGISTERED LANDSCAPE ARCHITECT

client:
S & S HOLDING, LLC
1451 Gratiot Avenue
Clinton Township,
Michigan 48036

project:
HAMPTON MANOR of VAN BUREN TOWNSHIP

project location:
Van Buren Township , Michigan
Morton Taylor Road & Tyler Road

sheet title:
plant material list, planting details and landscape notes

job no./issue/revision date:

LS 19.123.11	SPA	11-5-2019
LS 19.123.11	SPA	11-26-2019
LS 20.015.01	SPA	2-2-2020

drawn by:
JP, DK
checked by:
FP
date:
10-26-2019

notice:
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The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no:
LS19.123.10

sheet no:
LS-2 of 4

plant material list

key	quant. 3A	quant. 3B	quant. 3C	quant. 3D	botanical name	common name	size	comments
					SMALL ORNAMENTAL TREES			
AP	1	1	1	2	ACER P. 'BLOODGOOD'	BLOODGOOD LACE LEAF MAPLE	6' BB	
AC	2	1	2	3	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	10' BB	(MULTI-STEM)
CP	-	-	-	-	CRATAEGUS PHAENOPYRUM	WASHINGTON HAWTHORN	10' BB	(MULTI-STEM)
CC	-	1	-	-	CERCIS CANADENSIS	EASTERN REDBUD	10' BB	(MULTI-STEM)
CK	2	1	1	-	CORNUS KOUSA	KOUSA DOGWOOD	2" BB	
MJ	1	1	1	2	MAGNOLIA LILLIFLORA 'JANE'	JANE MAGNOLIA	10' BB	(MULTI-STEM)
					SHRUBS			
HE	5	5	5	9	HYDRANGEA M. 'GLOWING EMBERS'	GLOWING EMBERS HYDRANGEA	#3 CONT.	
HA	11	3	5	7	HYDRANGEA ANNEBELLE	ANNABELLE HYDRANGEA	#3 CONT.	
TS	9	-	17	-	TAXUS X.M. 'SEBIAN'	EVERLOW SEBIAN	24"-30" BB	32" O.C. SPACING
AZ	-	-	-	-	AZALEA 'STEWARTSTONIAN'	STEWARTSTONIAN AZALEA	#3 CONT.	
VC	2	2	1	3	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	3 1/2' BB	
VMK	1	-	3	2	VIBURNUM X.B 'MOHAWK	MOHAWK VIBURNUM	3 1/2' BB	
HL	2	2	-	3	HYDRANGEA 'LINDSEY ANN'	LA DREAMIN HYDRANGEA	#3 CONT.	
WF	4	-	6	2	WEIGLA FLORIDA 'ALEXANDRA'	WINE & ROSES WEIGELA	2'-2 1/2' BB	
BW	48	60	41	58	BUXSUS M. 'GREEN VELVET'	GREEN VELVET BOXWOOD	18" BB	24" O.C. SPACING
SG	6	11	8	-	SPIRAEA X.B. BUMALDA 'GOLDFLAME'	GOLDFLAME SPIREA	#3 CONT	36" O.C. SPACING
SK	4	6	2	-	SYRINGA PATULA 'MISS KIM'	MISS KIM DWARF LILAC	3' B.B.	
RK	3	11	5	5	ROSA X. 'OSA EASY DOUBLE RED''	OSA EASY DOUBLE RED ROSE	#5 CONT.	
					PERENNIALS AND GRASSES			
PAH	6	8	6	8	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	#3 CONT.	
MSG	1	1	1	-	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT JAPANESE SILVER GRASS	#3 CONT.	

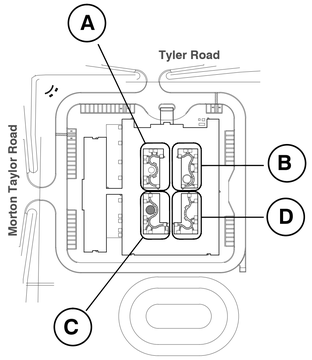
A decorative planter urn
(9-CONDITIONS)
MANUFACTURER:
HADDONSTONE LTD. 32207 UNITED AVE.
PUEBLO, CO 81001
WEB:WWW.HADDONSTONE.COM
PH. 866-733-8225
MODEL:
STONE PLANTER URNS
PER OWNER SELECTIONS

B outdoor wicker lounge chairs
(1-CONDITIONS)
DESCRIPTION:
5-PIECE RESIN WICKER PATIO FURNITURE
WITH CUSHION
FINISH SELECTION BY OWNER

C outdoor wicker table / chairs
(4-CONDITIONS)
DESCRIPTION:
RESIN WICKER CHAIRS AND TEMPERED
ROUND TABLE WITH CUSHION
FINISH SELECTION BY OWNER

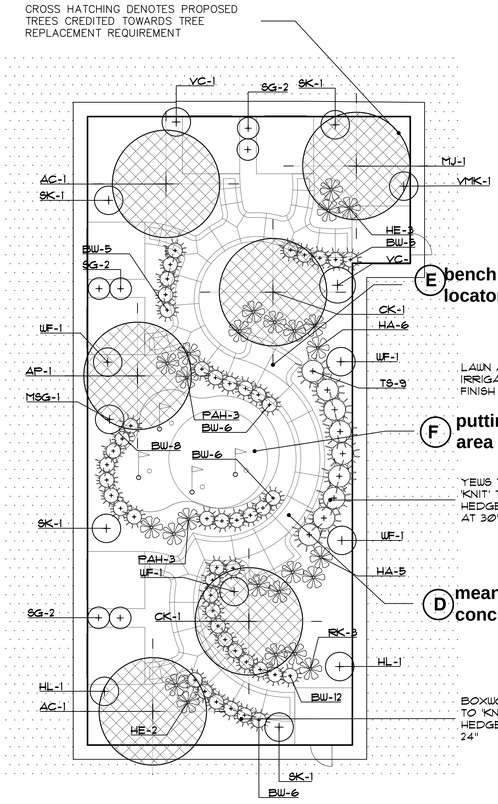
D concrete walk or patio
BROOM FINISH WITH 4" WITH TROWEL
SMOOTH EDGE

E bench seat
(4-CONDITIONS)
MANUFACTURER:
ANOVA, INC. OR EQUAL
211 NORTH LINDBERGH BLVD. SUITE 200
ST. LOUIS, MISSOURI 63141-1809
TOLL FREE NO. (800)231-1321
WWW.ANOVAFURNISHINGS.COM
MODEL NO. LEXC6 or EQUAL
DESCRIPTION: 6' WIDE CONTOUR BENCH
FINISH: TEXTURE PEWTER

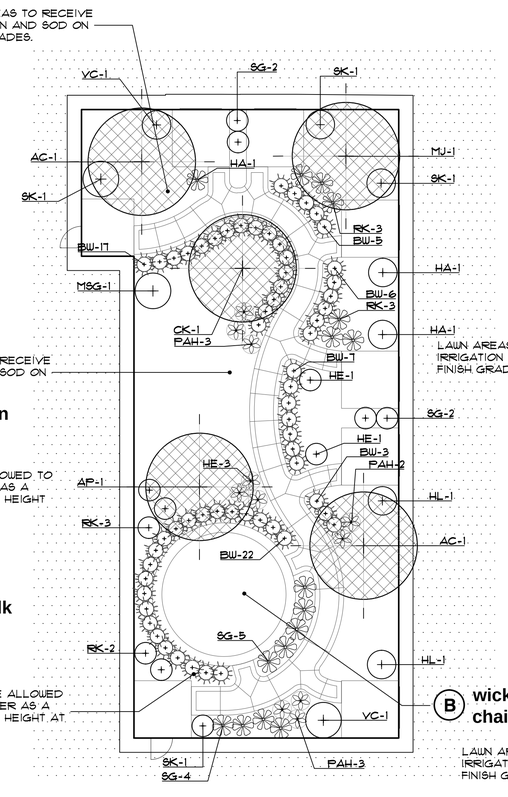


key reference location map
NO SCALE

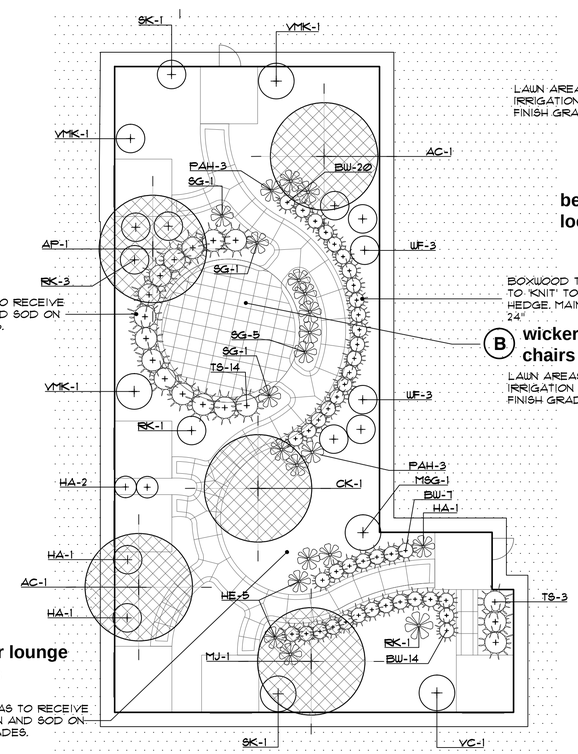
F artificial grass mini putting green
(1-CONDITIONS)



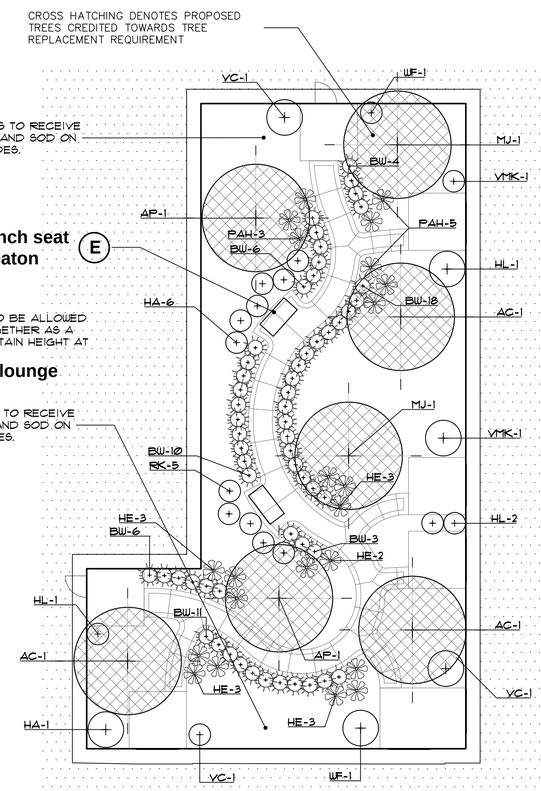
3A courtyard planting detail
SCALE: 1"= 10'-0"



3B courtyard planting detail
SCALE: 1"= 10'-0"



3C courtyard planting detail
SCALE: 1"= 10'-0"



3D courtyard planting detail
SCALE: 1"= 10'-0"

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Community Land Planner and registered Landscape Architect
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Farmington Hills, MI 48336
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fax. (248) 557-5416

seal:

STATE OF MICHIGAN
FELINO A. PASCUAL
LANDSCAPE ARCHITECT
No. 1433
REGISTERED LANDSCAPE ARCHITECT

client:
S & S HOLDING, LLC
1451 Gratiot Avenue
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Michigan 48036

project:
HAMPTON MANOR of VAN BUREN TOWNSHIP

project location:
Van Buren Township , Michigan
Morton Taylor Road & Tyler Road

sheet title:
COURTYARD LANDSCAPE PLANTING DETAIL

job no./issue/revision date:

LS 19.123.11	SPA	11-5-2019
LS 19.123.11	SPA	11-26-2019
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10-26-2019
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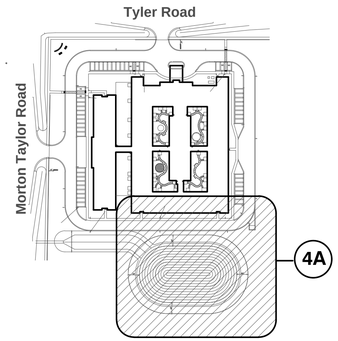
project no:
LS19.123.10

sheet no:
LS-3 of 4



reference location map

NO SCALE

basin vegetation notes

A landscaping plan is required for open detention basins, due to the importance of the vegetation to the function on of the entire system. Vegetation should be specified for each zone within the detention basin as follows:

Pond zone (permanent water depths from 0 to 3 ft deep):Vegetation in the pond zone is entirely or partially submerged and should consist of a combination of native plant plugs and bare-root stock.

Edge zone (permanent water elevation to bank full elevation). Vegetation in the edge zone must withstand periods of inundation and drought. This vegetation also stabilizes the side slopes of the facility.

Upland zone (bank full elevation to 100-year flood elevation and beyond): Vegetation in the upland zone may have little or no inundation by storm water, and must withstand periods of drought. This vegetation also stabilizes the side slopes of the system. Note that the buffer strip lies within the upland zone.

basin construction notes

1. Proper construction techniques, particularly installation of vegetation, are important to the successful functioning of open detention basins, especially for constructed wetland type open detention basins in order to establish a dense and diverse emergent wetland plant community. General guidelines for vegetation installation include:

2. If emergent plant stock is proposed in the pond zone, the supplied plug material must have sufficient vegetative growth extending out of the water once planted.

3. Seed must be planted above the permanent water elevation.

4. All seeded areas to be properly stabilized with a much blanket pegged in place.

5. Additional guidance on seed and sod specifications and installation is provided in Section 8.5.1 of this manual.

6. Depending on the type of vegetation, barriers may be required for one year to protect the plantings (e.g., snow fence or netting to deter wildlife, prevent mowing).

7. If detention basin are compacted, the slopes must be rototilled. 4" (four) of compost or topsoil must be added

8. If detention basin are compacted, the slopes must be rototilled. 4" (four) of compost or topsoil must be added

9. "No mow zone" signs must be placed around the basin

10. Detention basin native seeding to be performed in early spring or late fall. aquatic plants should be installed in the summer after the cover crop has established

basin maintenance notes

A. Maintenance activities for open detention basins are listed below. These activities must be identified in the maintenance plan that the applicant must submit with an application for storm water construction approval. Additionally, provision for maintenance access should be shown on the plan; it is recommended that the maintenance access to the storm water management system be a minimum of 15-feet wide. The landscape plan should be designed to prevent obstruction of the access by trees and shrubs.

B. Inspect and clean the storm sewer system and catch basins upstream from the detention basin (every five years or as needed).

C. Inspect for sediment accumulation at the inlet pipes and remove sediment which may be impeding flow (semiannually and after rain events).

D. Inspect inlets, outlets, and appurtenances (e.g., grates) annually for structural integrity.

E. Check the outlets regularly for clogging and clean when necessary, especially after large storm events.

F. Inspect the stone around riser-type outlet structures semiannually and after rain events. If stone has accumulated sediment, vegetation and/or debris to an extent that water is not flowing through the stone and out of the pond as originally designed, then the stone should be replaced.

G. Check for floatables and debris and remove as necessary.

H. Remove dead vegetation that obstructs flow (early spring).

I. Check banks and bottom for erosion and correct as necessary (annually).

J. Remove sediment when accumulation reaches six to twelve inches or if resuspension is observed

K. Reseed banks near inlet/outlet and stabilize eroded banks as necessary.

L. Ensure that no mowing, chemical application, or construction has occurred in the buffer strip (annually).

M. Inspect detention basin and buffer strip zone for invasive species such as purple loosestrife, phragmites, buckthorn (common & glossy), honeysuckle and autumn olive that out-compete native vegetation (annually - July).

N. Have a professional selectively remove invasive species (annually, July-August). Purple loosestrife flower heads can be clipped off to reduce seed production until plant removal may be achieved. If woody debris is cut, the cut should be four inches above the ground surface and the stumps should be treated with herbicide immediately after cutting. Monitor for sucker growth.

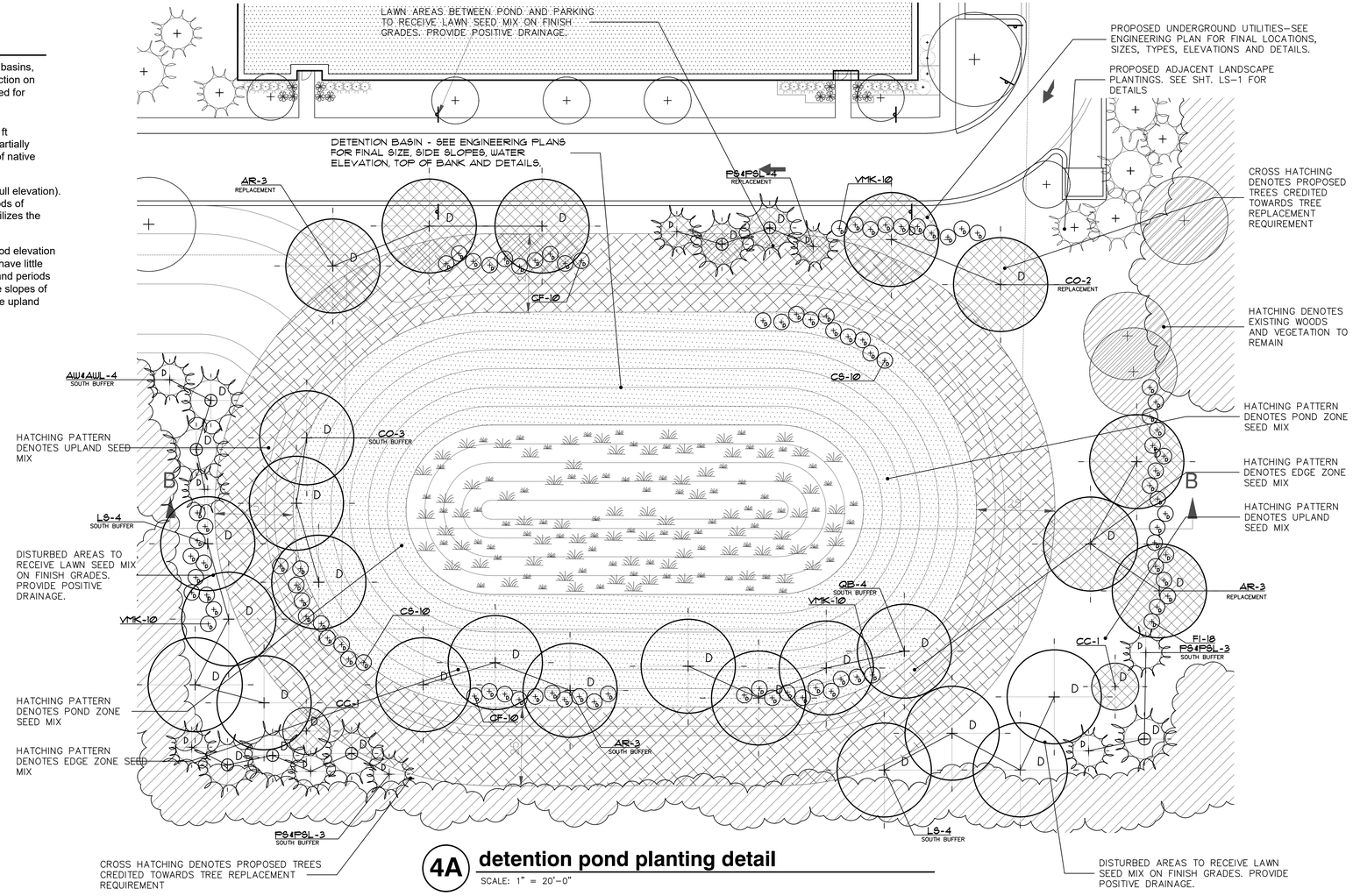
O. Planting must be monitored for two years after establishment. Replacement will be necessary as determined by the agency having jurisdiction over the system.

P. During the first two growing seasons, all areas planted with native prairie seed mix should be mowed three times at a height of 6-8 inches in order to control weeds. Beginning in the third year, a burning or mowing regimen should be instituted, either burning or mowing once in spring, or once in the fall.

THE PROPOSED VARIETIES AND QUANTITIES OF SEEDS AND PLANTING MATERIALS FOR THE FOREBAY'S-DETENTION BASIN SYSTEM MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE "WAYNE COUNTY STORM WATER ORDINACE"

plant material list

key	quant.	botanical name	common name	size	comments
		LARGE AND SMALL DECIDUOUS TREES			
QB	4	QUERCUS 'BICOLOR'	SWAMP WHITE OAK	3" BB	
AR	9	ACER R. 'FRANKSRED'	RED SUNSET RED MAPLE	14' BB	MULTI-STEM 4-CANES
CO	5	CELTIS OCCIDENTALIS	HACKBERRY TREE	3" BB	
LS	8	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	3" BB	
CC	2	CERCIS CANADENSIS	EASTERN REDBUD	8' BB	MULTI-STEM 4-CANES
		SHRUBS			
CS	20	CORNUS STOLONIFERA	REDTWIG DOGWOOD	3' BB	60" O.C. SPACING
CF	20	CORNUS FLAVIRAMEA	YELLOWTWIG DOGWOOD	3' BB	60" O.C. SPACING
VMK	30	VIBURNUM X.B. 'MOHAWK'	MOHAWK VIBURNUM	3' B.B	60" O.C. SPACING
FI	18	FORSYTHIA X. INTERMEDIA	BORDER FORSYTHIA	3' B.B	60" O.C. SPACING
		LARGE AND SMALL EVERGREEN TREES			
AW	2	ABIES CONCOLOR	CONCOLOR WHITE FIR	8' BB	
AWL	2	ABIES CONCOLOR	CONCOLOR WHITE FIR	10' BB O	
PS	7	PINUS STROBUS	WHITE PINE	8' BB	
PSL	6	PINUS STROBUS	WHITE PINE	10' BB O	



4A detention pond planting detail

SCALE: 1" = 20'-0"

upland zone seed mix

Natural Basin: Dry Upland Zone:Permanent Grasses (Minimum 5 species)

Scientific Name	Common Name	Scientific Name	Common Name
Andropogon gerardii	Big bluestem grass	*Koeleria cristata*	June grass
Andropogon scoparius	Little bluestem grass	*Panicum virgatum*	Switch grass
Bouteloua curtipendula	Side-oats gramma	*Sorghastrum nutans*	Indian grass
Elymus canadensis	Canada wild rye	*Sporobolius heterolepis*	Prairie dropseed

Natural Basin: Dry Upland Zone: Native Forbs (Minimum 9 species)

Scientific Name	Common Name	Scientific Name	Common Name
Amorpha canescens	Lead plant	Lupinus perennis	Wild lupine
Anemone cylindrica	Thimbleweed	Monarda fistulosa	Wild bergamot
Aquilegia canadensis	Wild columbine	Parthenium integrifolium	Wild quinine
Asclepias tuberosa	Butterfly weed	Petalostemum purpureum	Purple prairie clover
Aster ericoides	Heath aster	Physostegia virginiana arenaria	Prairie obedient plant
Aster laevis	Smooth blue aster	Pycnanthemum virginianum	Common mountain mint
Aster novae-angliae	New England aster	Ratibida pinnata	Yellow coneflower
Baptista leucantha	White wild indigo	Rudbeckia hirta	Black-eyed susan
Cassia fasciculata	Partridge pea	Rudbeckia subtomentosa	Sweet black-eyed susan
Coreopsis lanceolata	Sand coreopsis	Silphium laciniatum	Compass plant
Coreopsis tripteris	Tall coreopsis	Solidago juncea	Early goldenrod
Echinacea purpurea	Broad-leaved purple coneflower	Solidago nemoralis	Old-field goldenrod
Eryngium yuccifolium	Rattlesnake master	Solidago rigida	Stiff goldenrod
Helianthus mollis	Downy sunflower	Tradescantia ohiensis	Common spiderwort
Heliopsis helianthoides	False sunflower	Vernonia altissima taeniotricha	Hairy tall ironweed
Lespedeza capitata	Round-headed bush clover	Veronicastrum virginicum	Culver's root
Liatris aspera	Rough blazing star		

Note: These native plants are appropriate for areas surrounding basins categorized as natural basins and recommended within areas that have elevations higher than the 100-year flood elevation. This seed selection consists of dry-to-mesic prairie, basic prairie, and low-profile prairie plant species.

edge zone seed mixtures

OPEN DETENTION BASINS: EDGE ZONE VEGETATION

A variety of trees, shrubs, wildflowers, and grasses may be planted in the edge zone along the banks of detention basins. A native wetland edge or native sedge meadow seed mix is recommended.

Edge Zone: Native Seed Mixes

Grasses/Sedges/Rushes (Minimum 5 species)

Scientific Name	Common Name	Scientific Name	Common Name
Carex 'lurida	Bottlebrush sedge	Leersia oryzoides	Rice cut grass
Carex vulpinoidea	Brown fox sedge	Scirpus acutus	Hard-stemmedbulrush
Echinochloa crusgalli	Barnyard grass	Scirpus atrovirens	Dark green rush
Elymus Canadensis	Canada wild rye	Scirpus pungens	Chairmaker's rush
Glyceria striata	Fowl manna grass	Scirpus validus creber	Great bulrush (softstem)
Juncus effusus	Common rush		

Native Forbs (Minimum 9 species)

Scientific Name	Common Name	Scientific Name	Common Name
Acorus calamus	Sweet flag	Mimulus ringens	Monkey flower
Actinomeris alternifolia	Wingstem	Peltandra virginica	Arrow arrum
Alisma subcordatum	Common water plantain	Polygonum pensylvanicum	Pinkweed
Asclepias incarnate	Swamp milkweed	Pontederia cordata	Pickerel weed
Aster simplex	Panicled aster	Rosa palustris	Swamp rose
Bidens spp.	Bidens, various	Rudbeckia laciniata	Wild golden glow
Cassia hebecarpa	Wild senna	*Sagittaria latifolia*	*Common arrowhead*
Eupatorium perfoliatum	Common boneset	Spiraea alba	Meadowsweet
Helenium autumnale	Sneezeweed	Verbena hastata	Blue vervain
Iris virginica shrevei	Blue flag iris	Vernonia fasciculata	Common ironweed
Ludwigia alternifolia	Seedbox		

Note: A quick growing species such as annual rye grass (lillium multiflorum))and species which will provide the permanent cover (e.g., seed oats) should also be included in all Edge Zone seed mixes.

pond zone plant list (plugs and bare root)

Native Plants for Pond Zone (min. 4-species)

Scientific Name	Common Name	Spacing (inches O.C.)	Scientific Name	Common Name	Spacing (inches O.C.)
Acorus calamus	Sweet flag	24	Polygonum amphibium	Water knotweed	36
Carex lacustris	Common lake sedge	24	Pontederia cordata	Pickerel weed	24
Cephalanthus occidentalis	Buttonbush	5 feet	Potamogeton natans	Common pondweed	36
Decodon verticillatus	Swamp Loosestrife	24	Potamogeton pectinatus	Sago pondweed	36
Elodea canadensis	Common waterweed	36	Sagittaria latifolia	Common arrowhead	24
Hibiscus laevis	Halberd-leaved rose mallow	24	Scirpus acutus	Hard-stemmed bulrush	18
Hibiscus palustris	Swamp rose mallow	24	Scirpus atrovirens	Dark green rush	18
Iris virginica shrevei	Blue flag iris	18	Scirpus cyperinus	Wool grass	24
Justicia americana	Water willow	5 feet	Scirpus fluviatilis	River bulrush	18
Nelumbo lutea	Lotus	48	Scirpus validus creber	Great bulrush	18
Nuphar advena	Yellow pond lily	36	Sparganium americanum	American bur reed	18
Nymphaea tuberosa	White water lily	36	Sparganium eurycarpum	Common bur reed	18
Peltandra virginica	Arrow arum	18	Vallisneria americana	Tape grass	36

Note: Plant species selected should cover 25% of the pond zone and should also cover the range of water depths within the pond zone(2ft to 3ft). (For example, 4 plant species may not all be placed at an 18ft water depth covering 25% of the pond zone.)

FPA
FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:

client:
S & S HOLDING, LLC
1451 Gratiot Avenue
Clinton Township, Michigan 48036

project:
HAMPTON MANOR of VAN BUREN TOWNSHIP

project location:
Van Buren Township , Michigan
Morton Taylor Road & Tyler Road

sheet title:
DETENTION PLANTING DETAIL

job no./issue/revision date:
LS 19.123.11 SPA 11-5-2019
LS 19.123.11 SPA 11-26-2019
LS 20.015.01 SPA 2-2-2020

drawn by: JP, DK
checked by: FP
date: 10-26-2019

notice:
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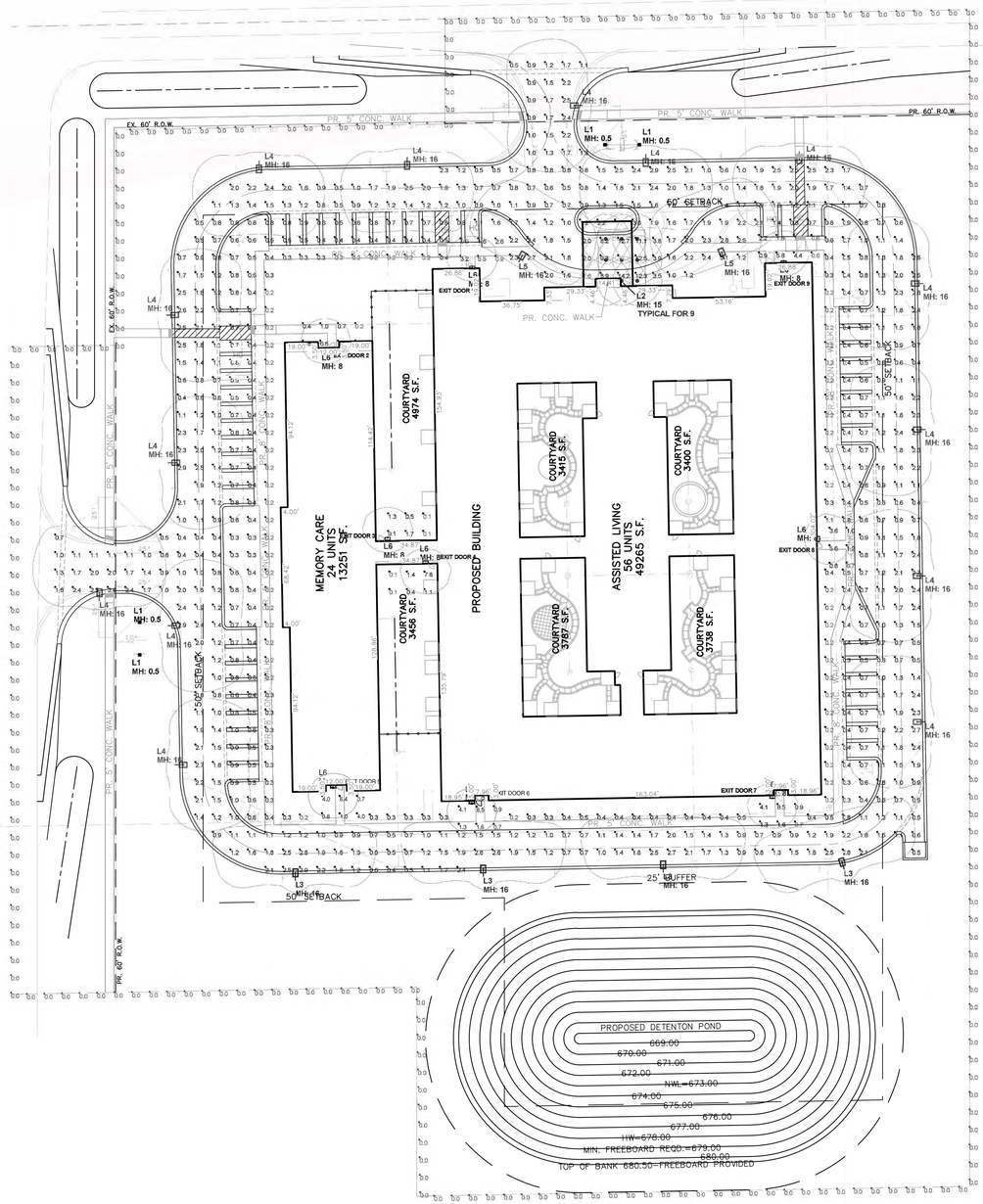
Do Not scale drawings. Use figured dimensions only

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 For free location of public utility lines

The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no: LS19.123.10

sheet no: LS-4 of 4



Scale: 1 inch = 40 Ft.

NOTE

1. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF LAYOUT TO EXISTING/FUTURE FIELD CONDITIONS AND ALL MANDATORY BUILDING AND LIFE SAFETY CODES AND COMPLIANCE.
2. LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS/LEDS, AND OTHER VARIABLE FIELD CONDITIONS.
3. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.
4. CLARUS DOES NOT ACT AS THE ELECTRICAL, CIVIL OR STRUCTURAL ENGINEER AND DOES NOT DETERMINE BASE REQUIREMENTS AND APPLICABLE CODE COMPLIANCE. CLARUS IS NOT LIABLE FOR ANY CODE COMPLIANCE DISCREPANCY.
5. THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT OF RECORD IS RESPONSIBLE TO REVIEW FOR CODE COMPLIANCE, INCLUDING AND NOT LIMITED TO - NFPA 101 LIFE SAFETY CODE, MICHIGAN ENERGY CODE, MICHIGAN BUILDING CODE AND/OR IECC CODE AND LIGHTING QUALITY COMPLIANCE.

Luminaire Schedule

Symbol	Qty	Label	LLF	Description	Lum. Watts	Lum. Lumens
	4	L1	0.900	NFFLD-S-C15-D-UNV-66	51.2	5859
	9	L2	0.900	HC620D010-HM612840-61NDH	20	1797
	4	L3	0.900	GLEON-AF-01-LED-E1-SL3	59	6376
	14	L4	0.900	GLEON-AF-01-LED-E1-SL4	59	6058
	2	L5	0.900	GLEON-AF-01-LED-E1-SL4-HSS	59	5175
	9	L6	0.900	XTOR2B-W	18.2	2103

Calculation Summary

Label	Units	Avg	Max	Min	Max/Min	Avg/Min
Exterior Exit Door 1	Fc	2.45	5.5	0.9	6.11	2.72
Exterior Exit Door 2	Fc	1.69	6.6	0.2	33.00	8.45
Exterior Exit Door 3	Fc	2.13	9.1	0.1	91.00	21.30
Exterior Exit Door 4	Fc	1.82	7.8	0.1	78.00	18.20
Exterior Exit Door 5	Fc	2.20	6.4	0.3	21.33	7.33
Exterior Exit Door 6	Fc	2.10	7.1	0.4	17.75	5.25
Exterior Exit Door 7	Fc	2.85	8.5	0.7	12.14	4.07
Exterior Exit Door 8	Fc	2.15	5.6	0.7	8.00	3.07
Exterior Exit Door 9	Fc	2.15	5.8	0.6	9.67	3.58
Main Entrance Canopy Area	Fc	8.03	14.4	1.6	9.00	5.02
Parking Lot and Walkways	Fc	1.09	3.2	0.2	16.00	5.45
Property Line @ 5ft AFG	Fc	0.00	0.1	0.0	N.A.	N.A.
Sign Typical_Side_4	Fc	15.54	19.9	12.4	1.60	1.25

MOUNTING HEIGHTS LISTED NEXT TO LUMINAIRES ON PLAN (MH:XX)

CALCULATION POINTS FOR PROPERTY LINE AT 5'-0" A.F.G., ALL OTHER CALCULATION POINTS TAKEN AT GRADE.

FLOODLIGHT, TYPE L1 IS SETBACK 8'-0" FROM FACE OF SIGN (BOTH SIDES), TWO SIGN LOCATIONS.

LUMINAIRE TYPE L6 SHALL BE WALL MOUNTED 8'-0" A.F.G. AS MEASURED FROM BOTTOM LENS.

REVISION	DATE
XX	

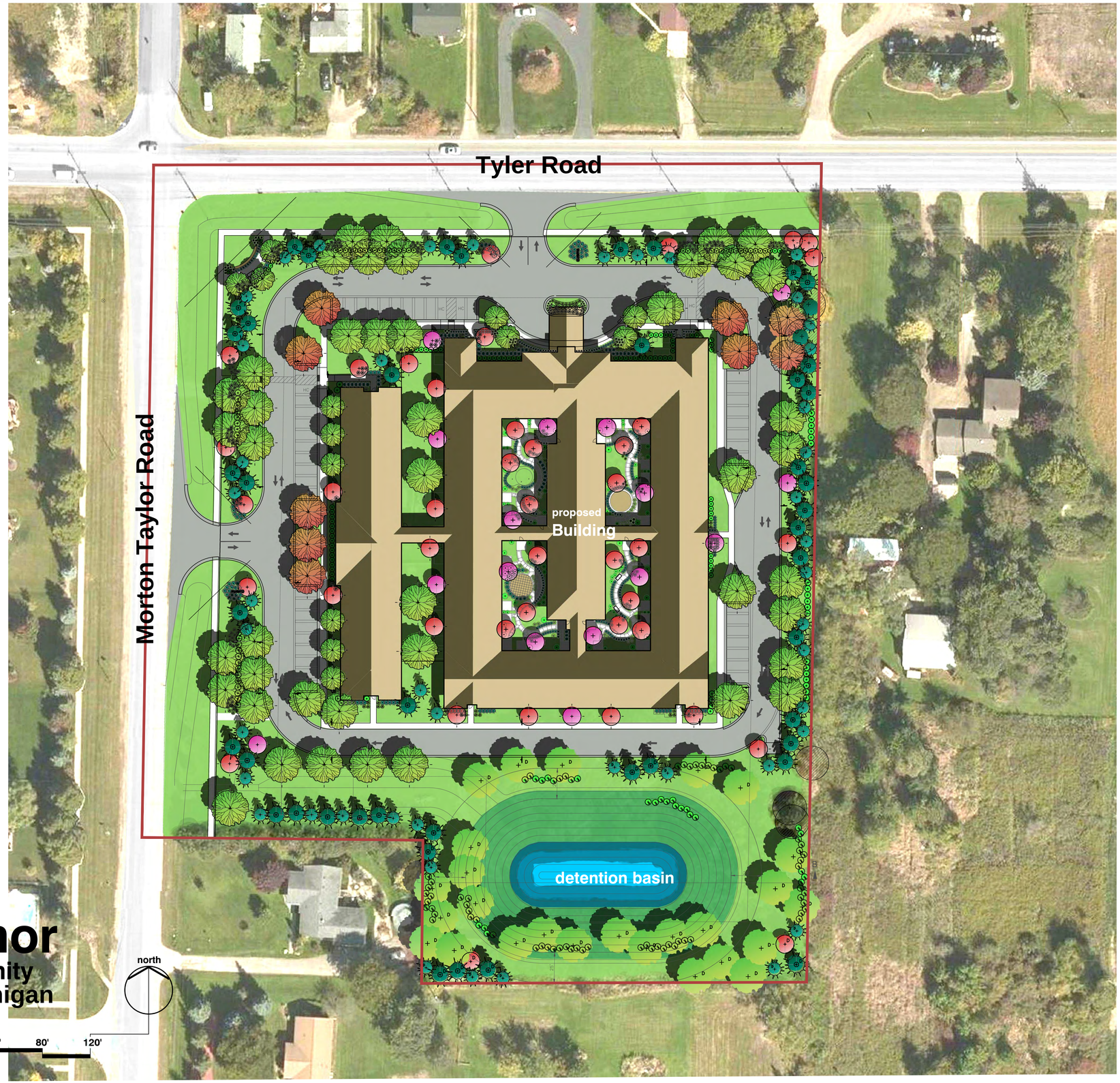
CLARUS LIGHTING & CONTROLS
30775 Barrington St.
Madison Heights, MI 48071
P: 248.677.0850
F: 248.677.0512
E: info@clarus-lighting.com

PROJECT TITLE
HAMPTON MANOR OF
VAN BUREN TOWNSHIP
WAYNE COUTY, MICHIGAN

SHEET TITLE
PHOTOMETRIC CALCULATION

DATE
10-28-19
PROJECT No.
CLC19-69000
SHEET No.
L201

F:\19\19-249\Drafting & Engineering\Site Plan\L201-Hampton Manor Van Buren Ltg Calc.dwg, L201 LIGHTING, 7/6/2020 11:07:58 AM, laura.ambros



Hampton Manor

Senior Living Community
Van Buren Township, Michigan

FPA
FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:

STATE OF MICHIGAN
FELINO A. PASCUAL
LANDSCAPE ARCHITECT
No. 1433
REGISTERED LANDSCAPE ARCHITECT

client:

S & S HOLDING, LLC
1451 Gratiot Avenue
Clinton Township,
Michigan 48036

project:

HAMPTON MANOR of VAN BUREN TOWNSHIP

project location:
Van Buren Township , Michigan
Morton Taylor Road & Tyler Road

sheet title:

COLORED LANDSCAPE PLAN

job no./issue/revision date:

LS 19.123.11	SPA	11-5-2019
LS 19.123.11	SPA	11-26-2019
LS 20.015.01	SPA	2-2-2020

drawn by:
JP, DK

checked by:
FP

date:
10-26-2019

notice:
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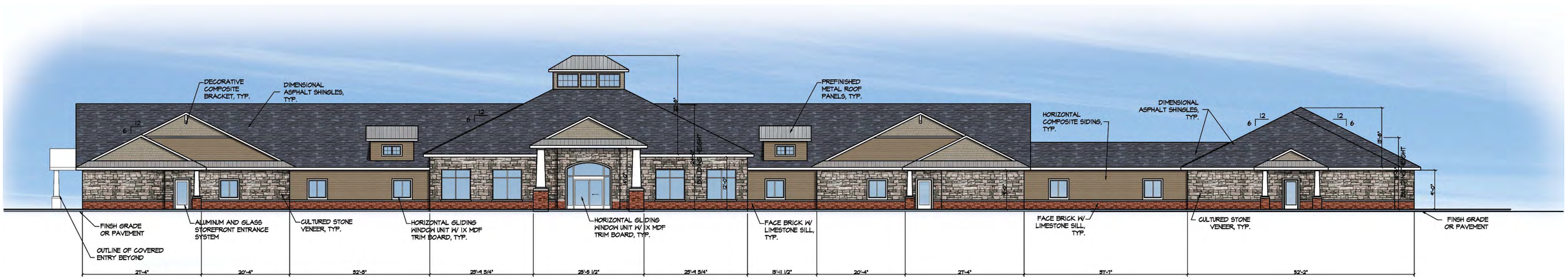
3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
For free location of public utility lines

The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no:
LS19.123.10

sheet no:
LS-1 of 4


DECORATIVE COMPOSITE BRACKET, TYP.
DIMENSIONAL ASPHALT SHINGLES, TYP.
PREFINISHED METAL ROOF PANELS, TYP.
HORIZONTAL COMPOSITE SIDING, TYP.
DIMENSIONAL ASPHALT SHINGLES, TYP.
6 12
6 12
12 6
12 6
24'-8"
BUILDING HEIGHT
21'-2"
BUILDING HEIGHT
8'-0"
FINISH GRADE OR PAVEMENT
OUTLINE OF COVERED ENTRY BEYOND
ALUMINUM AND GLASS STOREFRONT ENTRANCE SYSTEM
CULTURED STONE VENEER, TYP.
HORIZONTAL GLIDING WINDOW UNIT W/ 1X MDF TRIM BOARD, TYP.
HORIZONTAL GLIDING WINDOW UNIT W/ 1X MDF TRIM BOARD, TYP.
FACE BRICK W/ LIMESTONE SILL, TYP.
FACE BRICK W/ LIMESTONE SILL, TYP.
CULTURED STONE VENEER, TYP.
FINISH GRADE OR PAVEMENT
27'-4"
20'-4"
52'-3"
23'-4 3/4"
23'-5 1/2"
23'-4 3/4"
15'-11 1/2"
20'-4"
27'-4"
57'-7"
52'-2"

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William J. Thompson, PE
Thomas W. Kellogg, PE, PS
Robert R. Drouillard, PS

July 6, 2020

McKenna
Attn: Vidya Krishnan
235 East Main Street, Suite 105
Northville, MI 48167

Re: Hampton Manor of Van Buren Township
Site Plan Review #2
VBT-19-037

Ms. Krishnan:

We are pleased to submit the revised Preliminary Site Plan for Township Site Plan approval. Enclosed, please find 12 sets of revised plans, including lighting cut sheets, flash drive with digital copies and response letters.

The following is in response to your letter dated December 29, 2019:

Comments:

1. **Zoning and use.** Criteria has been met.
2. **Required Information.** All site plan related notes and details have been provided.
3. **Lot.** Parcel area, legal description and tax i.d. numbers have been provided.
4. **Dimensional Requirements.** There is no required minimum lot width in the C Local Business District.
5. **Access and Circulation.**
   a. **Location of Curb Cuts.** Signage has been added to the plans at the southeast and southwest drives to direct traffic appropriately in the one-way drive.
   b. **Cross access.** Noted as acceptable.
   c. **Sidewalks.** Noted as acceptable.
6. **Parking and Loading.**
   a. **Space Dimensions.** Noted as acceptable.
   b. **Number of Parking Spaces.** Noted as acceptable.
   c. **Barrier Free Spaces.** Noted as acceptable.
   d. **Loading.** Noted as acceptable.
7. **Landscaping and Screening.**
   a. **Landscaping Adjacent to the Right of Way.** Noted as compliant with ordinance requirements.
   b. **Parking Lot Landscaping.** Noted as acceptable.
   Interior Parking Lot Landscaping. Noted as acceptable.
   c. **Loading Area Landscaping.** Noted as acceptable.
   d. **Display Area Buffering.** Not applicable.
   e. **Greenbelt Buffering.** The landscaping along the south property line has been revised accordingly.
   f. **Local Business (C) District Landscaping District.** Noted as acceptable.
   g. **Detention Pond Landscaping.** Wayne County Department of Public Services shall be provided with a full set of engineering plans, including landscaping plans, for approval of any work within their jurisdiction.

8. **Tree Removal Permit.** The note indicating a total of 249 trees surveyed of which 245 are on-site and 4 are off-site has been corrected to a total of 249 trees surveyed of which 246 are on-site and 3 are off-site. The off-site surveyed trees have been labeled on the plan. An additional note has been added to the plans stating that no off-site trees shall be removed.
9. **Stormwater Pond.** Wayne County Department of Public Services shall be provided with a full set of engineering plans, for approval of any work within their jurisdiction.
10. **Lighting.** Noted as acceptable.
11. **Architecture and Building Details.** The "conceptual" label has been removed from the plans. The color of the composite siding has been changed to an earth tone color. Building material samples shall be provided at the Planning Commission meeting for review.
12. **Dumpster.** Noted as acceptable.
13. **Signs.** Noted as acceptable.

Based on the comments from your letter dated December 29, 2019, the site plan meets most of the criteria for Site Plan approval.

The following conditions have been included with this submittal:

1. Signage has been added to the plans at the southeast and southwest drives to direct traffic appropriately in the one-way drive.
2. The landscaping along the south property line has been revised as suggested in comment 7(e).
3. Wayne County Department of Public Services shall be provided with a full set of engineering plans, including landscaping plans, for approval of any work within their jurisdiction.
4. Wayne County Department of Public Services shall be provided with a full set of engineering plans, including landscaping plans, for approval of any work within their jurisdiction.
5. The note indicating a total of 249 trees surveyed of which 245 are on-site and 4 are off-site has been corrected to a total of 249 trees surveyed of which 246 are on-site and 3 are off-site. The off-site surveyed trees have been labeled on the plan. An additional note has been added to the pans stating that no off-site trees shall be removed.
6. The "conceptual" label has been removed from the plans. The color of the composite siding has been changed to an earth tone color.

Please feel free to contact me with any questions or concerns,

Respectfully,

William J. Thompson, PE

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William J. Thompson, PE
Thomas W. Kellogg, PE, PS
Robert R. Drouillard, PS

July 6, 2020

McKenna
Attn: Vidya Krishnan
235 East Main Street, Suite 105
Northville, MI 48167

Re: Hampton Manor of Van Buren Township
Special Land Use Review #1

Ms. Krishnan:

We are pleased to submit the revised Preliminary Site Plan for Township Special Land Use approval.

Based on the comments from your letter dated December 29, 2019, the site plan meets the criteria for Special Land Use approval.

The following conditions shall be met during the engineering review process:

1. Plans will be submitted to the Township and Wayne County for approval.
2. The architect shall demonstrate compliance to State of Michigan licensing requirements for minimum unit size.
3. All conditions of the preliminary site plan approval shall be met.
4. Plans shall be submitted to the Township for Final Site Plan approval after engineering plans are approved by all governing agencies.

Please feel free to contact me with any questions or concerns,

Respectfully,

William J. Thompson, PE

17001 Nineteen Mile Road, Suite 3, Clinton Township, Michigan 48038
o: 586.412.7050 | f: 586.412.7114
www.lehnerassociates.com

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William J. Thompson, PE
Thomas W. Kellogg, PE, PS
Robert R. Drouillard, PS

July 6, 2020

Fishbeck
Attn: Paul Kammer, PE
39500 MacKenzie Drive, Suite 100
Novi, MI 48377

Re: Hampton Manor of Van Buren Township
Township Project #19-037
Fishbeck Project #191597

Mr. Kammer,

We are pleased to submit the revised Preliminary Site Plan for Township Planning Commission approval.

The following is in response to you review letter dated November 15, 2019:

General

All general requirements established as part of the Engineering Standards Manual, Charter Township of Van Buren will incorporated as part of the engineering plans.

1. There is no evidence that a septic system is located on the site. Wayne County Environmental Health Department has been contacted but have no records on file. The current property owner says there is no septic system. The Township was contacted in November of 2019 and they have no lead information for the site and recommend having it traced. A complete Demolition Plan will be part of the engineering plans.
2. An irrigation plan will be provided with engineering plan submittal.
3. We have started the process with DTE Energy to get the existing on-site overhead utilities relocated and removed. We will update the engineering plans as necessary as the project proceeds.
4. Soil boring information will be provided during the engineering review process.
5. A quantity list itemizing all proposed public sanitary sewer, storm sewer, and water main construction will appear on each sheet of the engineering plans indicating such construction. A quantity list indicating the total quantities and estimated construction cost for the entire project will be included as part of the engineering review submittal
6. The Van Buren Township Standard Detail Sheets for construction will be made an integral part of the engineering plans.

Water Main Service

Existing: The existing water mains in Tyler Road and Morton Taylor Road have been located through existing records or field survey and shown on the plans.

Proposed: We are proposing a public 8-inch water main loop around the proposed building with three 6-inch fire hydrant leads, a 6-inch fire service lead, and a 2-inch domestic service lead. The plans indicate a 12-foot wide public water main easement with 2 connections to the existing 12-inch cast iron public water main running north-south along Morton Taylor Road.

Comments:

1. Wayne County Department of Public Services shall be provided with a full set of engineering plans for approval of any work within their jurisdiction.
2. We will provide the demand pressure requirements for building service and fire flows during the engineering review process.
3. The Township shall be consulted regarding the connection type and shut down/isolation procedures for the tap to the existing water main during the engineering review process.

Sanitary Sewer

Existing: The existing sanitary sewers in Tyler Road and Morton Taylor Road have been located through existing records or field survey and shown on the plans.

Proposed: We are proposing an 8-inch sanitary sewer lead with a grease interceptor for kitchen services and a lead with a clean-outs for domestic service.

Comments:

1. If necessary, approval from wastewater treatment system owner (South Huron Valley Utility Authority – SHVUA) and Michigan Department of Environment, Great Lakes, and Energy (EGLE) will be applied for during the engineering process.
2. The sanitary sewer basis of design will be included as part of the engineering review submittal.

Storm Sewer

Existing: The existing storm sewer and open ditches in Tyler Road and Morton Taylor Road have been located through existing records or field survey and shown on the plans.

Proposed: We are proposing to capture storm water runoff from the site via roof drain leads and storm drain inlets through a system of storm sewers into an on-site detention basin. The detention basin is proposed to outflow through a restrictor standpipe into a proposed pump station, which will discharge to the existing storm sewer in Morton Taylor Road. All pipe materials and full construction details will be provided on the engineering plans.

Comments:

1. Plans were submitted to Wayne County Department of Public Services for storm water management and soil erosion control review and have acknowledge receipt on November 13, 2019. Review plans were received on December 29, 2019 and revisions are included in this plan submittal.
2. Plans indicate the ditch being rerouted along the north and west sides of the property and directing the flow to the existing culvert at the northwest corner of the site. On-site survey elevations indicate the existing road ditches on this site drain to the north and west to the existing culvert at the northwest corner of the site. Preliminary research indicates this storm water proceeds to flow along the west side of Morton Taylor Road across Tyler Road to the north through an open ditch where it discharges into the existing open drain. Some clean-out of the existing system may be required to provide positive drainage. This information will be verified during the engineering review process.
3. All storm structures shall be appropriately sized and labeled on the engineering plans.

Paving and Grading

1. A detailed paving and grading plan, including pavement flow arrows with slopes and ADA compliance will be provided during the engineering review process.

Soil Erosion and Sedimentation Control

1. A Soil Erosion and Sedimentation Plan has been prepared in accordance with the standards of all governing agencies and submitted to Wayne County Department of Public Services – Land Resource Division, Soil Erosion on November 6, 2019 for review/approval. A permit was received on November 21, 2019 and copy is enclosed for your records.

Please feel free to contact me with any questions or concerns,

Respectfully,

William J. Thompson, PE

PERMIT

SOIL EROSION AND SEDIMENTATION CONTROL
AS PERSCRIBED BY
Part 91 of Act 451, Public Acts of 1994

Permit Number: 19-329
Project Title: Hampton Manor of Van Buren
Date Issued: 11/21/2019
Expiration Date: 11/21/2021

AUTHORITY IS HEREBY GRANTED TO:

APPLICANT

Zohaib Syed
Van Buren Investors Land Holdings, LLC
1451 S. Gratiot Avenue
Clinton Twp., Michigan 48035
Phone:
Fax: 586-465-2525 Cell: 989-708-1878
Email: zohaibsyed2001@yahoo.com

LAND OWNER OR EASEMENT HOLDER

Walter and Joyce Rochowiak

43250 Tyler Road
Van Buren Twp., Michigan 48111
Phone: 734-697-1765 C: 313-304-0474
Fax: 734-699-0505
Email: miflower@sbcglobal.net

TO CONDUCT AN EARTH CHANGE OF 8 ACRES ON A PARCEL 8 ACRES IN SIZE.
IN ACCORD WITH PLANS DATED: 10/25/2019

PLAN PREPARED BY:

Lehner Associates, Inc.
17001 Nineteen Mile Road, Suite 3
Clinton Twp., Michigan 48038
Phone: 586-412-7050 x113

THIS EARTH CHANGE TO BE LOCATED IN:

Community: Van Buren Twp
Section Number: 14
Subdivision:
Lot #:

PLAN APPROVED ON: 11/21/2019

THE EARTH CHANGE SHALL CONSIST OF:

Earthwork, SESC measures, umderground utilities, building structure, paving, landscaping and turf restoration

Start Date: 3/1/2020 Finish Date 11/15/2021

LOCATED AS FOLLOWS

Tyler Road and Morton Taylor Road

43250 Tyler Road, Van Buren Twp., Michigan 48111

Huron River 5,700' ft away.

PROJECT CONTACT:

Zohaib Syed
P: E: zohaibsyed2001@yahoo.com

Van Buren Investors Land Holdings, LLC
F: C: 989-708-1878

WORK UNDER AUTHORITY OF THIS PERMIT IS SUBJECT TO THE EARTH CHANGE REQUIRMENTS ON THE BACK OF THIS PERMIT, AND THE FOLLOWING SPECIAL RESTRICTIONS, LIMITATIONS AND INSTRUCTIONS:

1.) Notify the Wayne County Department of Public Services at least 48 hours prior to beginning earthwork.

2.) Secure all other necessary clearances and permits from other governmental units prior to beginning earth change work

3.) Projects of 5 acres or more in size are required to obtain an NPDES storm water discharge permit. Contact MDEQ SE MI District Office (586) 753-3700.

CC::

WAYNE COUNTY
DEPARTMENT OF PUBLIC SERVICES
Land Resources Management Division
3600 Commerce Court, Building E
Tel: (734) 326-3936
Fax: (734) 326-4421

Authorized by: Jerry Webb
Authorized Signature:
Title: Soil Erosion Inspector

GENERAL EARTH CHANGE REQUIREMENTS

1. A copy of the Soil Erosion and Sedimentation Control Permit and a set of plans approved by this office shall be **located at the earth change site at all times** that earthwork is taking place. Inform the Wayne County Department of Public Services, Land Resource Management Division of any changes to approved plans after issuance of permit.

2. The proposed work shall be carried out in accordance with approved earth change plans and in compliance with all requirements of the permit, Part 91, Act 451 of the Public Acts of 1994, as amended, and rules promulgated thereunder.

3. All earth changes shall be conducted in a manner that will effectively reduce accelerated soil erosion and resulting sedimentation.

4. All persons engaged in earth change activities shall, in conformance with Part 91, Act 451, implement and maintain acceptable soil erosion and sedimentation control measures that effectively reduce accelerated soil erosion.

5. All earth changes shall be constructed and completed in manner that will limit the exposed area of any disturbed land for the shortest possible period of time, as determined by the Wayne County Department of Public Services, Land Resource Management Division.

6. Sediment caused by accelerated soil erosion shall be removed from runoff water before it leaves the site of earth change.

7. A temporary or permanent facility designed and constructed for the conveyance of water around, through or from the earth change area shall be designed to limit the water flow to a non-erosive velocity.

8. Temporary soil erosion control facilities shall be removed after the permanent soil erosion measures have been implemented. All earth change areas shall be graded and stabilized with permanent soil erosion control measures pursuant to standards and specifications established by the Wayne County Soil Conservation District on September 24, 1974.

9 Permanent soil erosion control measures for all slopes, channels, ditches, or any other disturbed land area shall be completed within 5 calendar days after final grading or the final earth change has been completed. All temporary soil erosion control measures shall be maintained until permanent soil erosion control measures are implemented. All permanent soil erosion control measures shall be maintained for a minimum of one year after the project passes the department's completion inspection.

10. All soil, miscellaneous debris, or other materials spilled, dumped or otherwise deposited on public streets, highways, sidewalks, or other public thoroughfares during transit to or from the earth change site shall be removed promptly.

11. THE PERMITTEE SHALL NOTIFY THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES, LAND RESOURCE MANAGEMENT DIVISION IN WRITING AS TO WHEN THE PROJECT COMPLETION INSPECTION CAN BE MADE.

12. Notify the Wayne County Department of Public Services, Land Resource Management Division in writing of sale of property while permit is active. Any sales or, exchange agreement between seller and purchaser must contain a reference to this permit and inform the purchaser that permanent erosion control measures shall be maintained.

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William J. Thompson, PE
Thomas W. Kellogg, PE, PS
Robert R. Drouillard, PS

July 6, 2020

Van Buren Fire Department
David McInally, Fire Marshall
46425 Tyler Road
Belleville, MI 48111

Re: Hampton Manor Of Van Buren Township
Twp. File #VBT 19-037-SPR & SLU
Fire Department Review

Mr. McInally,

We are pleased to submit revised the Preliminary Site Plan for Township Planning Commission approval.

The following notes have been added to the plans in response to you review letter dated November 12, 2019:

Fire Department Notes:

1. The proposed fire department connection is located on the north wall near the east corner of the building.
2. The fire department connection shall be a 4 inch Stortz fitting with a 30 degree downturn as required by the authority having jurisdiction.
3. Fire hydrants shall be two 4 inch Stortz connections not threaded.
4. The building shall be provided with an automatic sprinkler system in accordance with nfpa13, standard for the installation of automatic sprinkler systems.
5. The architect and fire department shall coordinate for the location of a knox box elock system.
6. Emergency responder radio coverage system is required unless it can be proven after building is constructed and occupied that coverage is sufficient. this will be verified by the authority having jurisdiction prior to final certificate of occupancy.

We look forward to continuing involvement with the Van Buren Township Fire Department during the review and construction process for this project.

Please feel free to contact me with any questions or concerns,

Respectfully,

William J. Thompson, PE

17001 Nineteen Mile Road, Suite 3, Clinton Township, Michigan 48038
o: 586.412.7050 | f: 586.412.7114
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William J. Thompson, PE
Thomas W. Kellogg, PE, PS
Robert R. Drouillard, PS

July 6, 2020

Van Buren Township
Planning and Economic Development
46425 Tyler Road
Van Buren Township, MI 48111

Re: Hampton Manor of Van Buren Township
Special Land Use and Preliminary Site Plan

The following is in response to your request list of follow up questions dated January 9, 2020.

— **Is an emergency generator used?** Yes.

— **What is the level of ambient noise produced by the facility?** The ambient noise level will vary depending on the time of the day but should vary between 50 and 60 dBA.
  - **Generator sound level.** 85.6 dBA at 23ft without a sound enclosure, 71 dBA with a sound enclosure (which will be installed). Every time you double the distance from the sound source, you reduce the dBA by 6 i.e. going from 23 feet to 46 feet reduces the dBA from 71 to 65, then going from 46 feet to 92 feet reduces the dBA from 65 to 59. The generator at its closest point is about 80 feet south of the Tyler Road sidewalk, the resulting sound level would be about 66 dBA at that point. The nearest house to the north is bout 248 feet away with a resulting noise level of about 58 dBA near the house. The nearest house to the west is about 540 feet away which would result in a noise level of about 50. It is important to remember that the stand-by generator only runs when the electricity is out or during its monthly "wellness" checks, that last only a couple of minutes.
  - **Please provide a manufacturing specification that describes the noise (decibels) produced by generator equipment at an existing facility.** Manufacturers spec sheet attached, see weather enclosure.

— **Are you seeking tax abatements as part of this development?** No

— **To what extent will there be an increase in ambulatory first aid responders from this facility?** Records from other Hampton run facilities indicate an average of about 1 to 2 "ambulance runs" a month. Please note that the residents in this type of facility are not "sick" and are generally healthy but are no longer capable of living alone without help. They enjoy other peoples' company and are generally mobile.

— **What level of assistance is provided via assisted living services?** The facility provides meals, housekeeping, laundry, entertainment and transportation, if needed. If an emergency occurs, caregivers call family/responsible party, physician is notified, incident report completed, patient information printed out, vitals are taken and information is given to paramedics upon arrival.

— **What is the cost to rent units at the proposed facility?** Rental costs will vary, depending on unit size.

— **Please provide the addresses of the existing facilities in Michigan that can be toured:**
  - Brighton Manor, 1320 Rickett Rd. Brighton Mi 48116;
  - Hampton Manor of Dundee, 123 Waterstradt Commerce Dr. Dundee Mi 48131
  - Hampton Manor of Shelby, 51831 Van Dyke Ave. Shelby Charter Twp, Mi 48315

— **Confirm that residents are invited to tour facilities for which you've provided address (yes/no):** Yes; this invitation was issued at the meeting.

— **Is this business related to or affiliated with any group homes in the vicinity?** No.

— **How will this parcel's property tax be impacted by the proposed business?** A review of tax records for other Hampton facilities indicates the taxes will be multiplied by at least a factor of 7. This of course, depends on several conditions.

— **Will the existing tree line be preserved on the parcel?** The existing trees lying off-site, or on the property line will be persevered and supplemental trees will also be added.

— **How will ambulatory and other transportation to and from the site impact noise?** Ambulatory generally turns off the sirens as they approach the facility. Transportation, such as waste management will be scheduled for pick up during hours which will not be intrusive to residents (after 8 am, before 5 pm), the same thing for deliveries.

— **Where will mechanical units such as air conditioners be places and screened?** These are shown on the site plan and landscape, located in an area at the northeast corner of the building. The area will be landscaped to help mitigate both the visual and audible effect of the units.

— **Will you have the ability to adjust the number of memory care vs. assisted living units based on your license?** Yes.

  - **Will you be seeking to do so?** No, but we are open to requests from the Township.

— **What will be the impact on wildlife and existing woodlands?** The number of trees will increase, and they will be healthier which have a positive impact on the birds and other native wildlife.

— **What transportation safety improvements will this warrant at the existing 4-way stop intersection of Tyler and Morton Taylor Roads?** A traffic study is underway to determine what impact this facility will have on the surrounding area. A quick analysis indicates that the site will create about 50 automotive trips a day. If the site were developed as a residential subdivision, it would generally create about 100 trips per day. If developed under its current zoning of commercial, the trip generation would be more than the residential subdivision.

— **What are the shift change times for your staff?** Other Hampton facilities have 7am-3pm, 3 pm-11pm and 11pm-7am schedules.

— **How will your staff's shift change times relate to existing bus pick-up and drop-off times?** We can change the shift times to avoid conflict with the school busses if necessary.

— **How will outdoor space be managed and secured to assure there is no trash, cigarette butts, and related debris leaving the site and littering adjacent property?** Standard outdoor maintenance will be built into the project. Smoking is prohibited on the campus.

— **Concern was shared regarding the intensity of development on this site in relation to the nearby residential developments of Charter Club Estates, Walden Woods, Hickory Woods, Parkwood Manor, and Rolan Meadows. Please provide data from other comparable facilities that you currently own and operate.** A traffic study is underway to determine what impact this facility will have on the surrounding area. A quick analysis indicates that the site will create about 50 automotive trips a day. If the site were developed as a residential subdivision, it would generally create about 100 trips per day. If developed under its current zoning of commercial, the trip generation would be more than the residential subdivision.

— **Finally, your proposal includes substantial landscaping. You are recommended to provide elevation or perspective / 3-dimensional renderings demonstrating the proposed site landscaping in relation to the building façade and site perimeter.** A rendering of the eye level views of the facility with its landscaping is provided with this submittal and will be presented at the meeting.

Please feel free to contact me with any questions or concerns,

Respectfully,

William J. Thompson, PE

Traffic Impact Study
For
Hampton Manor of Van Buren
S.E. Corner of
Tyler Road & Morton Taylor Road
Van Buren Township
Wayne County, Michigan

Prepared by:
Traffic Engineering Consultants, Inc.
35890 Monterey Dr.
Clinton Township, Michigan 48035
(586) 615-4120

February 14, 2020

Introduction

This report presents the methodologies, analysis, and results of the Traffic Impact Study (TIS) for a proposed Assisted Living and Memory Care Facility in Van Buren Township, Michigan. The project site is in Section 14, Town 3, South, Range 8 East, Van Buren Township, and Wayne County, Michigan, as shown in Figure 1. The development is located on the Southeast corner of Tyler Road and Morton Taylor Road.

The proposed project includes 80 units, 56 units Assisted Living and 24 units Memory Care for a total of 84 Residents or beds. As shown in Figure 2. The proposed development is providing vehicular access via two (2) driveways; One (1) each on Tyler Road and Morton Taylor Road. Both roadways are under the jurisdiction of the Wayne County Department of Roads.

The purpose of the study is to conduct a comprehensive review and analysis to quantify the current traffic impacts of the new development on the adjacent roads and intersection. In addition, the study included the identification of roads and traffic control mitigation improvements needed to accommodate the traffic generated by this development and other planned future developments.

The specific objectives of the study were to:

- Quantify existing traffic flow and safety condition.
- Identify future traffic impacts due the traffic generated by the new development.
- Determine currently planned road and intersection improvements that will be in place when development is completed.
- Identify any additional road mitigation needed to provide a safe and acceptable level of service.

The study intersections analyzed for this include:

- Tyler Road & Morton Taylor Road.

Area Roadways

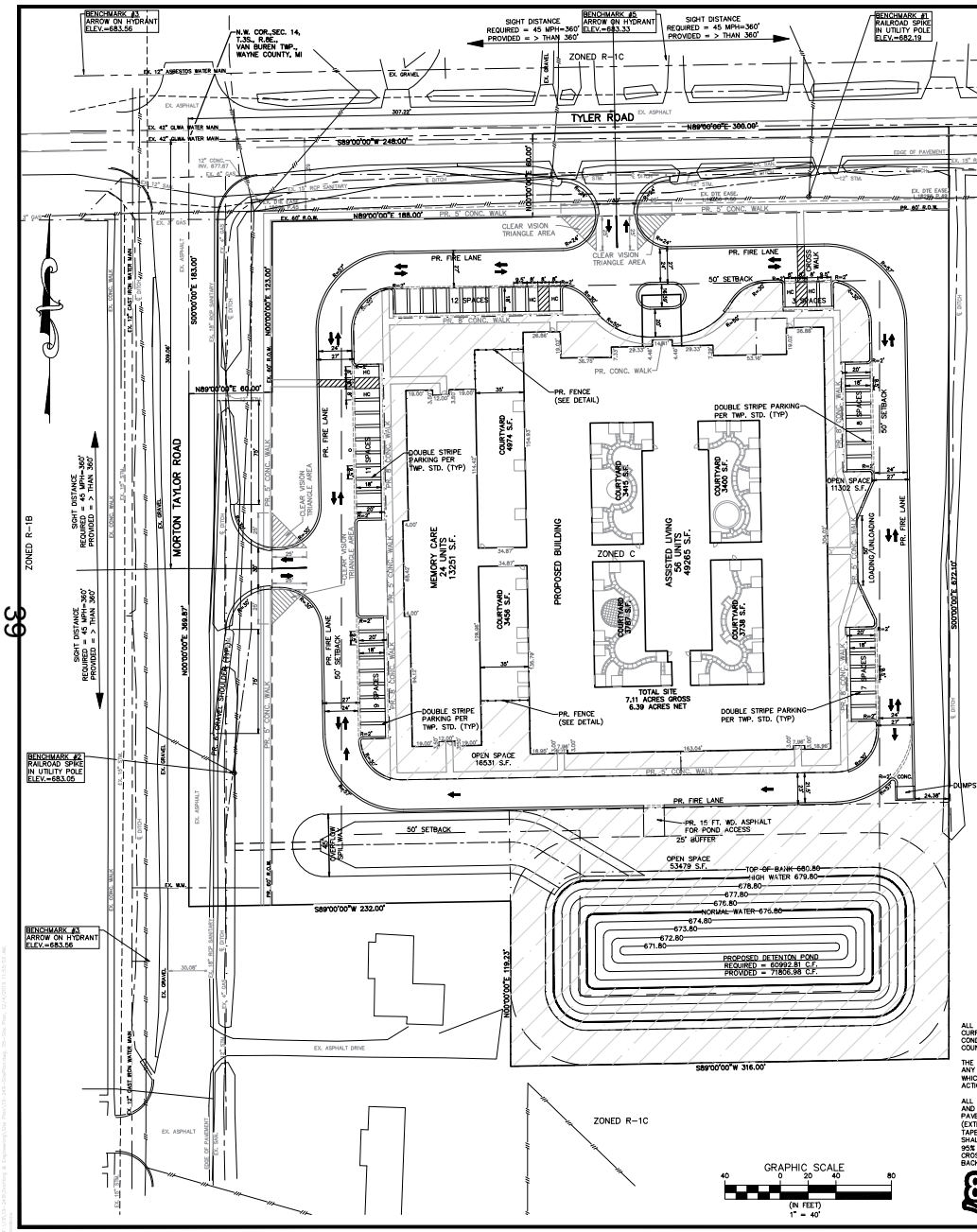
Existing Road Network

The roadway system most directly impacted by the site development is Tyler Road and Morton Taylor Road. These roads are described below in detail. The lane use and traffic control at the study intersections are shown in Figure 3.

Tyler Road runs in west-east direction with a posted speed limit of 45 miles per hour (MPH). Tyler Road is under the jurisdiction of the Wayne County Department of Roads and is classified as a Minor Road Arterial with an average daily traffic (ADT) volume of approximately 8,303 vehicles per day. Tyler Road is a paved roadway and has a 3-lane cross section with 1- lane in each direction and a center turn lane in the vicinity of the proposed development.

Hampton Manor of Van Buren
Van Buren Township, Michigan

Figure 1



DESCRIPTIONS ARE PREPARED FROM EXISTING VAN BUREN TOWNSHIP TAX RECORDS. ALL PARCELS SHALL BE COMBINED AFTER PURCHASE OF PROPERTY IS COMPLETED.

PARCEL 1: PARCEL #83-054-99-0012-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 333 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE NORTH 333 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 294.87 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 548 FEET; THENCE NORTH 219.87 FEET TO THE POINT OF BEGINNING. 4.18 ACRES.

PARCEL 2: PARCEL #83-054-99-0013-000
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING NORTH 89 DEGREES 00 MINUTES EAST 398 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 150 FEET; THENCE SOUTH 258 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 150 FEET; THENCE NORTH 258 FEET TO THE POINT OF BEGINNING. 0.89 ACRES.

PARCEL 3: PARCEL #83-054-99-0014-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 60 FEET AND NORTH 89 DEGREES EAST 60 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE SOUTH 123 FEET; THENCE NORTH 89 DEGREES EAST 188 FEET; THENCE NORTH 123 FEET; THENCE SOUTH 89 DEGREES WEST 188 FEET TO THE POINT OF BEGINNING. 0.53 ACRES.

PARCEL 4: PARCEL #83-054-99-0015-701
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING SOUTH 183 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES 00 MINUTES EAST 248 FEET; THENCE SOUTH 150 FEET; THENCE SOUTH 89 DEGREES 00 MINUTES WEST 248 FEET; THENCE NORTH 150 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 60 FEET THEREOF. 0.65 ACRES.

PARCEL 5: PARCEL #83-054-99-0016-002
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 232 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 176 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 176 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.48 ACRES.

PARCEL 6: PARCEL #83-054-99-0016-003
PART OF THE NORTHWEST 1/4 OF SECTION 14, TOWN 3 SOUTH, RANGE 8 EAST, BEGINNING DUE SOUTH 672.10 FEET AND NORTH 90 DEGREES EAST 408 FEET FROM THE NORTHWEST CORNER OF SECTION 14; THENCE NORTH 89 DEGREES EAST 140 FEET; THENCE DUE NORTH 119.23 FEET; THENCE SOUTH 89 DEGREES WEST 140 FEET; THENCE DUE SOUTH 119.23 FEET TO THE POINT OF BEGINNING. 0.38 ACRES.

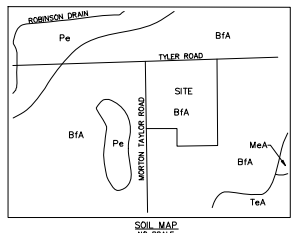
SITE NOTES:
1. DEVELOPER:
VAN BUREN INVESTORS LAND HOLDINGS, LLC
ZOHAIB SYED
1451 GRATIOT AVENUE
CLINTON TWP., MI 48036
PHONE: 989-708-1878
2. TOTAL SITE AREA = 6.39 ACRES.
3. BUILDING AND PAVEMENT LOT COVERAGE = 50%
4. PROPOSED SENIOR ASSISTED LIVING WITH 4 TWO BEDROOM, 32 ONE BEDROOM UNITS, 20 EFFICIENCY UNITS AND 24 MEMORY CARE UNITS FOR A TOTAL OF 80 UNITS.
5. PERIMETER SETBACK = 50 FT.
6. OPEN SPACE REQUIRED = 25% OF SITE AREA
=6.39 ACRES * 0.25 = 1.6 ACRES
OPEN SPACE PROVIDED = 2.25 ACRES
7. PARKING REQUIRED = 1 SPACE FOR EVERY 4 RESIDENTS PLUS ONE FOR EACH EMPLOYEE
24 MEMORY CARE = 24 RESIDENTS
20 STUDIO = 20 RESIDENTS
32 ONE BED = 32 RESIDENTS
4 TWO BED = 8 RESIDENTS
84 RESIDENTS/4
=21 SPACES + 15 EMPLOYEES
=36 SPACES REQUIRED
8. PARKING PROVIDED = 44 SPACES @ 9.5'x20'
6 HANDICAP SPACES
50 TOTAL SPACES PROVIDED
9. LOADING/UNLOADING REQUIRED
= 2 SPACES FOR OVER 50,000 S.F. OF FLOOR AREA
10. LOADING/UNLOADING PROVIDED = 1 10'x50' SPACE
ONCE BUILDING IS OPERATIONAL DELIVERIES WILL BE FROM ONE VENDOR 2-3 TIMES A WEEK WHICH DOES NOT NECESSITATE TWO SPACES.
11. ZONING:
SITE= C LOCAL BUSINESS
NORTH = R-1C SINGLE FAMILY RESIDENTIAL
SOUTH = R-1C SINGLE FAMILY RESIDENTIAL
EAST = R-1C SINGLE FAMILY RESIDENTIAL
WEST = R-1B SINGLE FAMILY RESIDENTIAL
12. ALL PARKING AND PAVING SURFACES SHALL BE ASPHALT WITH CONCRETE CURB AND GUTTER AND/OR THICKENED EDGE ASPHALT PER TOWNSHIP SPECIFICATIONS.
13. ALL AREAS NOT BUILT OR PAVED UPON SHALL BE IRRIGATED.
14. ALL DEBRIS SHALL BE REMOVED FROM WITHIN THE PROPERTY LIMITS ON A WEEKLY BASIS OR AS NEEDED.
15. SITE WILL NOT BE CONSTRUCTED IN PHASES.
16. THERE IS NO FLOOD PAIN ON THIS SITE PER FEMA COMMUNITY #26054, MAP #6163C0352E, DATED 02-02-2012.
17. THERE ARE NO REGULATED WETLANDS ON THIS SITE.
18. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES AND SURFACES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED. PARKING LOT STRIPING AND MARKINGS SHALL BE MAINTAINED IN A CLEARLY VISIBLE CONDITION.
19. THERE SHALL BE NO OUTDOOR STORAGE.
20. OWNER AGREES TO SEASONAL MAINTENANCE PROGRAM AND WILL REPLACE ALL DISEASED, DEAD OR DAMAGED PLANTS, REPLENISH MULCH, CONTROL WEEDS, FERTILIZE AND PRUNE BEGINNING UPON COMPLETION OF CONSTRUCTION OF LANDSCAPING.
21. THERE SHALL BE NO HAZARDOUS/TOXIC WASTE FROM THIS SITE.

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS, SPECIFICATIONS AND GENERAL CONDITIONS OF VAN BUREN TOWNSHIP AND WAYNE COUNTY.

THE DEVELOPER IS RESPONSIBLE FOR RESOLVING ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH ARE THE RESULT OF THE DEVELOPERS' ACTIONS.

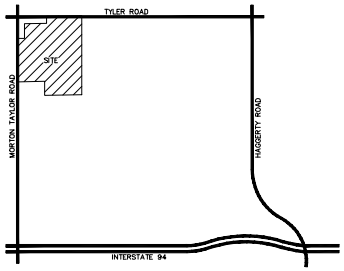
ALL WATER MAINS, SANITARY SEWERS, (AND LEADS) AND STORM SEWERS UNDER PROPOSED OR EXISTING PAVEMENT OR WITHIN INFLUENCE OF PAVEMENT (EXTENDING 3' BEYOND EDGE OF PAVEMENT THEN TAPERING TO ORIGINAL GROUND AT 1:1 SLOPE) SHALL BE SAND BACKFILLED AND COMPACTED TO 95% OPTIMUM (PROCTOR) DENSITY. ALL UTILITY CROSSINGS SHALL BE SAND BACKFILLED. SAND BACKFILLING IS INCIDENTAL TO UNIT PRICES.

811
3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
TOLL FREE FOR THE LOCATION OF UNDERGROUND FACILITIES



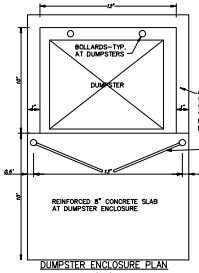
SOIL MAP
NO SCALE

SOIL TYPES
SOIL SURVEY OF WAYNE COUNTY, MICHIGAN
BfA: BLOUNT LOAM, ERIE-HURON LAKE PLAIN, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP D
MeA : METAMORA SANDY LOAM, 0 TO 3 PERCENT SLOPES, HYDROLOGIC SOIL GROUP C/D
Pe: PEWAMO LOAM, HYDROLOGIC SOIL GROUP C/D
TeA: TEDROW LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES, HYDROLOGIC SOIL GROUP A/D

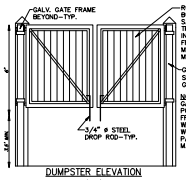


LOCATION MAP
SCALE: 4"=1 MILE

BENCHMARKS:
1. RAILROAD SPIKE IN UTILITY POL ELEVATION=682.19 (NAVD88)
2. RAILROAD SPIKE IN UTILITY POL ELEVATION=683.05 (NAVD88)
3. ARROW ON HYDRANT ELEVATION=683.56 (NAVD88)
4. ARROW ON HYDRANT ELEVATION=683.20 (NAVD88)
5. ARROW ON HYDRANT ELEVATION 683.33 (NAVD88)
SUBTRACT 0.44 FT. TO CONVERT TO NGVD 29 DATUM

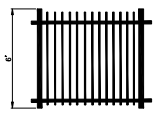


DUMPSTER ENCLOSURE PLAN
(N.T.S.)



NOTE:
GATE CONTRACTOR SHALL SIZE POSTS, HINGES, AND GATE FRAME MEMBERS TO CARRY WEIGHT OF WOOD CLADDING. WOOD CLADDING SHALL BE PAINTED TO MATCH BUILDING MATERIAL.

DUMPSTER ELEVATION
(N.T.S.)



6' SIMULATED WROUGHT IRON FENCE
(N.T.S.)

ALUMINUM FENCE SIMULATING THE LOOK OF WROUGHT IRON. (MAINTENANCE FREE, POLYESTER POWDER COAT FINISH-NO PAINTING NECESSARY, DOESN'T RUST, CHIP, ETC.).

PROPOSED LEGEND
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- FENCE
- UNDERGROUND CABLE, ELECTRIC & PHONE
- GAS
- SANITARY MANHOLE
- SANITARY CLEANOUT
- STORM CATCH BASIN (PAVEMENT)
- STORM CATCH BASIN (YARD)
- STORM MANHOLE
- STORM MANHOLE WITH CATCH BASIN COVER (PAVEMENT)
- STORM MANHOLE WITH CATCH BASIN COVER (YARD)
- STORM INLET
- FIRE HYDRANT
- VALVE IN WELL
- WATER LEAD STOP BOX
- CB 1 STORM STRUCTURE NUMBER
- MH 1 SANITARY STRUCTURE NUMBER
- HYD 1 WATER STRUCTURE NUMBER
- UTILITY CROSSING NUMBER
- UTILITY CROSSING
- SAND BACKFILL

EXISTING LEGEND
- GAS LINE (PAINTED)
- SANITARY SEWER
- WATER MAIN
- STORM SEWER
- OVERHEAD UTILITY LINES
- UNDERGROUND UTILITY LINES
- FENCE
- DITCH
- SANITARY MANHOLE
- STORM SQ. CATCH BASIN
- STORM ROUND CATCH BASIN
- STORM MANHOLE
- CULVERT
- FIRE HYDRANT
- VALVE IN WELL
- WATER SHUT OFF
- WELL
- GAS VALVE
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- P.I. SIGN
- SECTION CORNER
- F.I. FOUND IRON
- S.I. SET IRON
- (M) MEASURED
- (R) RECORD
- GAS LINE MARKER

Revisions:	
12-03-19 REV PER TWP	L.A.

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Client:
VAN BUREN INVESTORS
LAND HOLDINGS, LLC
ZOHAIB SYED
1451 S. GRATIOT AVENUE
CLINTON TOWNSHIP, MI 48035
989-708-1878
zohaibsyed2001@yahoo.com

HAMPTON MANOR OF VAN BUREN TOWNSHIP SITE PLAN

PART OF THE NORTHEAST 1/4 OF SECTION 14, TOWN 3, SOUTH, RANGE 8 EAST, VAN BUREN TOWNSHIP, WAYNE COUNTY, MICHIGAN

Scale:	1"=40'
Paper Size:	24"x36"
Date:	11-06-19
Drawn By:	L.A.
Checked By:	W.J.T.
Job No.:	19-249
Sheet No.	05

Morton Taylor Road runs in a north - south direction with an un-posted speed limit of 55 miles per hour (MPH)). Morton Taylor Road is under the jurisdiction of the Wayne County Department of Roads and is classified as a two lane minor collector Road with an average daily traffic (ADT) volume of approximately 356 vehicles per day. Morton Taylor is a gravel road North of the approach going north of Tyler Road and is paved going South of Tyler Road approximately 1000 feet along the frontage of the proposed development along Morton Taylor Road. The intersection is controlled by 4-way Stop.

Existing Traffic Volumes

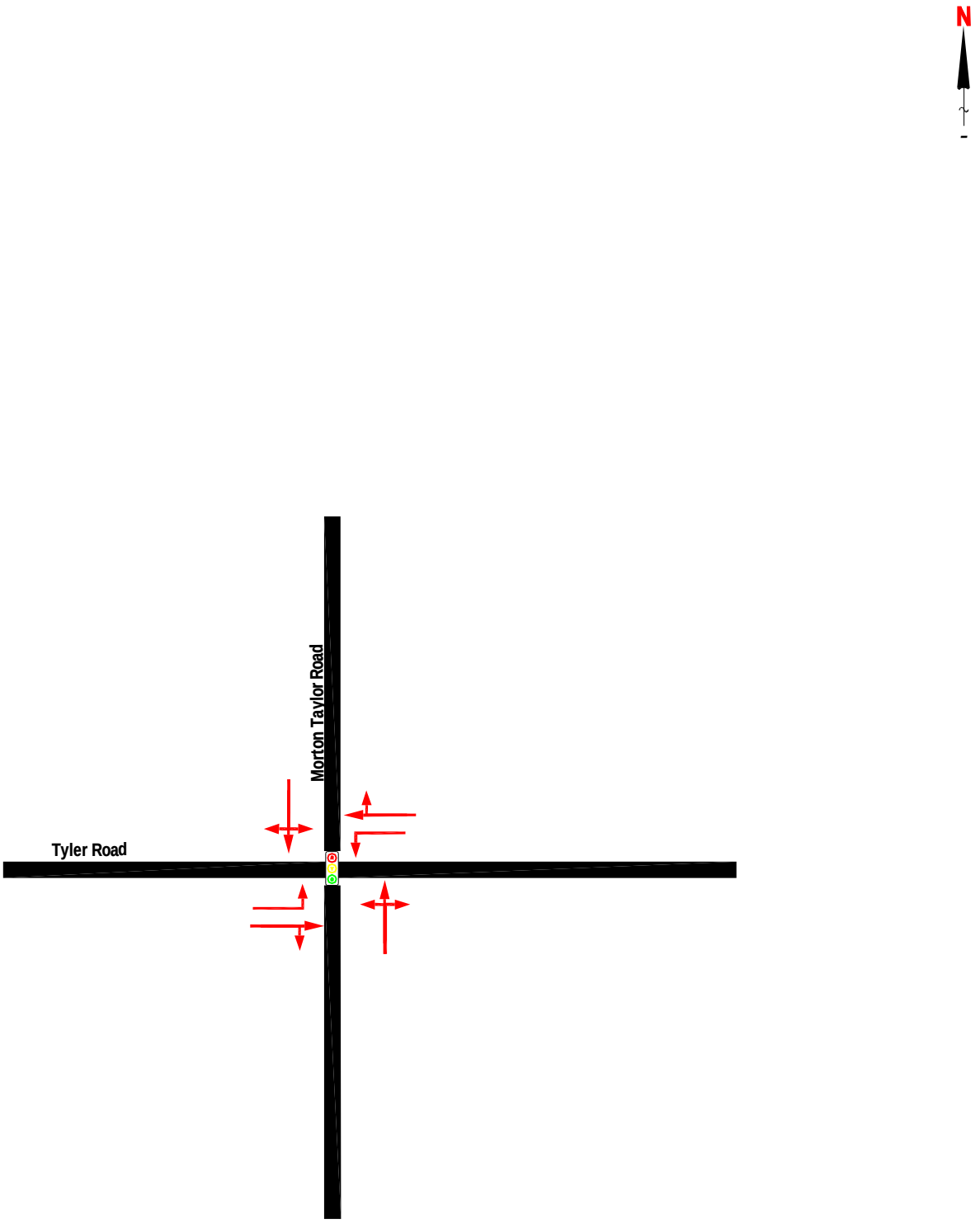
On February 11-12, 2020 Traffic Engineering Consultants, Inc. performed manual turning movement counts at the study intersections during the A.M. peak periods (7:00 to 9:00 a.m.) and P.M. peak period (4:00 to 6:00). 24 hour Counts were also collected on both roadways. At the time of the counts, school was in session under a normal schedule. The existing traffic volume data is included in Appendix A and the existing AM & PM peak hour volumes are summarized on Figure 4. The AM and PM peak hour volumes for each intersection were utilized for this study and the volumes were balanced upward through the study network. No pedestrians observed during the studies period.

Tyler Road & Morton Tylor Road Signal Warrant

A signal warrant was conducted for the intersection Morton Tylor & Tyler Road based on the criteria in Michigan Manual of Uniform Traffic Control Devices (MMUTCD). The intersection is currently 4-way stop. The warrant was conducted based on existing traffic conditions. Several studies have shown that traffic signals can result in higher crash rates and higher delays. Traffic control signals should not be installed unless one or more of the signal warrants in the MMUTCD are met. Information should be obtained by means of engineering studies and compared with the requirements set forth in the warrants. If the requirements are not met, traffic signals should not be put in operation. When a traffic control signal is indicated as being warranted, it is presumed that the signal and all related traffic control devices and markings are installed according to the standards set forth in the MMUTCD. Added traffic from the proposed development will support the warrant.

An investigation of the need for a traffic signal included an analysis of the factors contained in nine warrants:

- Warrant 1: Eight-Hour Vehicular Volume
- Warrant 2: Four-Hour Vehicular Volume
- Warrant 3: Peak Hour



xxAM/xxPM

TRAFFIC ENGINEERING COUNSULTANTS, INC. **35890 Monterey Dr.** **Clinton Township, MI 48035** **(586) 615-4120**	**Traffic Control & Lane Use** **Hampton Manor of Van Buren** **Van Buren Township**	**Figure 3**

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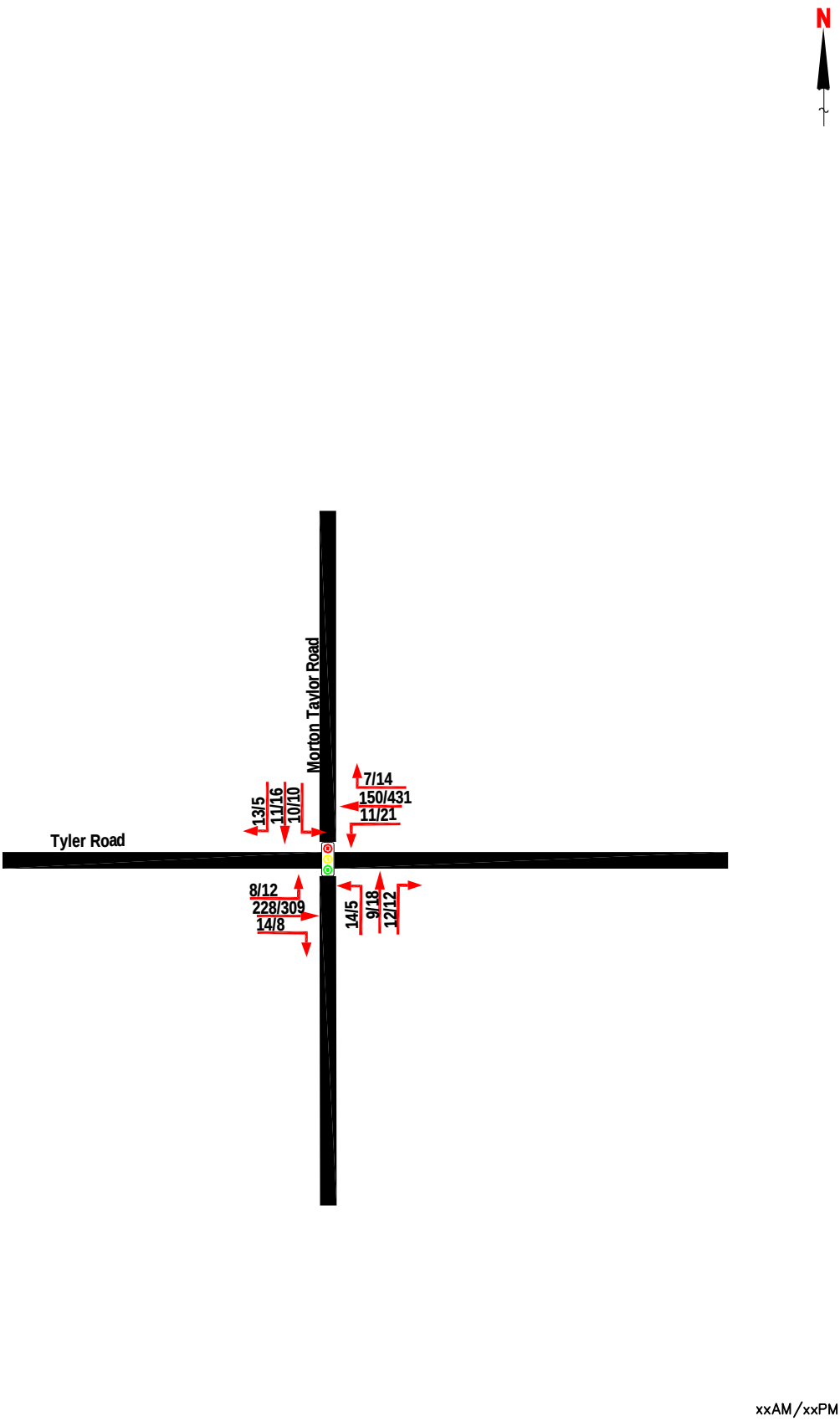

TRAFFIC ENGINEERING COUNSULTANTS, INC. **35890 Monterey Dr.** **Clinton Township, MI 48035** **(586) 615-4120**	**Existing Traffic** **Hampton Manor of Van Buren** **Van Buren Township**	**Figure 4**

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- Warrant 4: Pedestrian Volume
- Warrant 5: School Crossing
- Warrant 6: Coordinated Signal System
- Warrant 7: Crash Experience
- Warrant 8: Roadway Network
- Warrant 9: Intersection near a Grade Crossing

- A summary of the traffic signal warrant is provided in Table 1. The addition of the proposed site will not support a traffic Signal. Therefore, Signal isn't warranted

Table 1-Traffic Signal Warrant Analysis Summary

Warrant		Tyler Road & Morton Tylor Road
		Warrant Met
Warrant 1: Eight-Hour Vehicular Volume	Condition A	No
	Condition B	NO
	Combination of A & B	No
Warrant 2: Four-Hour Vehicular Volume		NO
Warrant 3: Peak Hour		NO
Warrant 4: Pedestrian Volume		No
Warrant 5: School Crossing		N/A
Warrant 6: Coordinated Signal System		N/A
Warrant 7: Crash Experience		No
Warrant 8: Roadway Network		N/A
Warrant 9: Intersection Near a Grade Crossing		N/A

ANALYSIS

Existing Conditions

Existing peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersections using Synchro (Version 10) traffic analysis software. The results of the analysis of existing conditions were based on the existing lane use and traffic control shown on Figure 3, and the existing traffic volumes shown on Figure 4. SYNCHRO/SIM TRAFFIC software (Version 9) was utilized to model the study area roadway network and to perform intersection capacity analysis which, conforms to the methodologies published in the 2010 Highway Capacity Manual. The analysis was performed for Existing.

The procedures for analysis and criteria are those outlined in the 2010 Highway Capacity Manual (HCM) published by the Transportation Research Board.

Un-Signalized Intersection

At an un-signalized intersection with stop control on the minor approach, LOS F occurs when there are not enough gaps of suitable size to allow a minor-street demand to safely cross through traffic on the major street. This is typically evident from extremely long control delays experienced by minor street traffic and by queuing on the minor approaches. LOS F may also appear in the form of drivers on the minor street selecting smaller than usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. Note that LOS F may not always result in long queues, but in adjustments to normal gap acceptance behavior. For example, this may occur when a left-turning vehicle uses a shorter than normal gap in traffic to complete a left-turn. **Table 2** indicates the control delay criteria used for determining the LOS for un-signalized intersections.

Table 2: LOS Criteria for Un-Signalized Intersections

LOS	Control Delay per Vehicle (seconds)
A	≤ 10
B	> 10 to ≤ 15
C	> 15 to ≤ 25
D	> 25 to ≤ 35
E	> 35 to ≤ 50
F	> 50

A capacity analysis was conducted for the intersection of Tyler Road & Morton Tylor Road during the AM and PM peak hours for existing and future conditions.

The results of the analysis of existing conditions are presented in Appendix B and are summarized in Table 3, and Appendix B a Capacity Analysis Result for Existing Traffic Operations

Table 3 Capacity Analysis Results for Existing Traffic Operations

Intersection		Approach Direction									
		AM Peak Hour					PM Peak Hour				
		EB	WB	NB	SB	Overall Intersection	EB	WB	NB	SB	Overall Intersection
Tyler Road & Morton Taylor Rd	LOS	A	A	A	A	A	B	C	A	A	B
	Delay (Sec)	9.2	8.2	8.2	8.1	8.7	11.8	16.4	9.2	9.2	14.1

The results of the existing Operations analysis for the study intersections indicate that all study intersections and approaches currently operate at acceptable LOS C or better.

Background Conditions

In order to determine the applicable growth rate for the existing traffic volumes to projected build-out, historical traffic count data and population forecasts publish by SEMCOG. For the Existing/ No Build conditions are considered equal since the traffic counts (existing conditions) were conducted in February 2020 and the Opening Day date is summer 2021. Thus, a growth rate for the background traffic was not conducted to expand 2020 traffic to 2021.

Future Site Trip Generation

The number of AM and PM peak hour trips that would be generated by the proposed development were forecast based on data published by ITE in the "Trip Generation Manual", 10th Edition. One standard deviation was used to calculate number of trips generated by the development as recommended by Township Consultants. The number of trips expected to be generated by the proposed project during the weekday AM peak and PM peak was calculated. The trip generation shown represents the trip generation using ITE Land use code 254, as shown in table 4, the Assisted Living development is estimated to generate 15 trips during the AM peak and 24 trips during PM peak. Facility operation shown in Appendix D.

Table 4: Site Trip Generation – Proposed Assisted living

Land Use	Land Use Code	Unit	AM Peak Hour			PM Peak Hour			24 Hour Two-Way Volume
			In	Out	Total	In	Out	Total	
Assisted Living	254	84 beds	10	5	15	12	12	24	344
Total Trips:			**10**	**5**	**15**	**12**	**12**	**24**	**344**

The property is presently zoned as C Local Business. Table 5 shows the trip generation if the site was developed as currently Zoned.

Table 5: Site Trip Generation – Existing Zoning C Local Business

Land Use	Land Use Code	Unit	AM Peak Hour			PM Peak Hour			24 Hour Two-Way Volume
			In	Out	Total	In	Out	Total	
CenterShopping1	820	10 (10,000s.f.)	6	3	9	18	20	38	378
Total Trips:			**6**	**3**	**9**	**18**	**20**	**38**	**378**

If the site is built as currently zoned, it is estimated to generate 8 trips in the AM and 38 trips in the PM. Therefore, both alternatives will have insignificant impact on traffic flow on the adjacent roads.

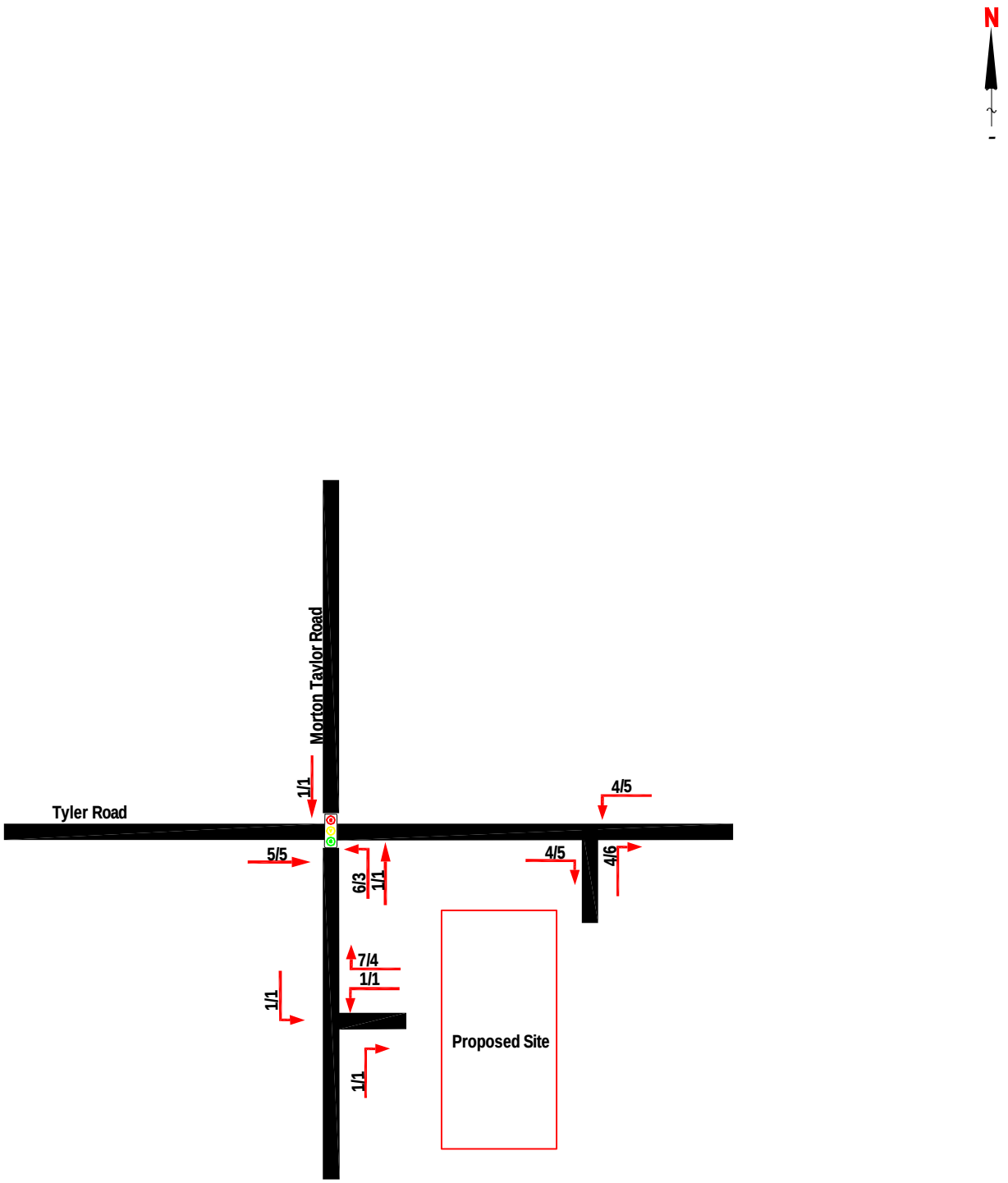
Overall, there are 34 additional trips generated by the Local Business alternative compared to the Assissted Living development.

Trip Distribution

Traffic expected to be generated by a project must be distributed and assigned to the roadway system so that the impacts of the proposed project on roadway links and intersections within the study area can be analyzed. After an estimate of the total traffic into and out of the site has been made, that traffic must be distributed and assigned to the roadway system. The trip distribution step produces estimates of trip origins and destinations. The assignment step produces estimates of the amount of site traffic that will use certain access routes between their origin and destination.

The vehicle trips that would be generated by the development were assigned to the study road network based on existing peak hour traffic patterns and the methodologies published by ITE. The existing traffic patterns indicate the distribution of site-generated traffic as shown in Figure 5.

The site-generated vehicle trips were assigned to the study road network based on this trip distribution model as shown on Figure 6. The site-generated trips were added to the existing traffic volumes shown on Figure 4 to calculate the future AM & PM peak hour traffic volumes, as shown on Figure 7.



xxAM/xxPM

TRAFFIC ENGINEERING COUNSULTANTS, INC. **35890 Monterey Dr.** **Clinton Township, MI 48035** **(586) 615-4120**	**Trip Generation** **Hampton Manor of Van Buren** **Van Buren Township**	**Figure 5**

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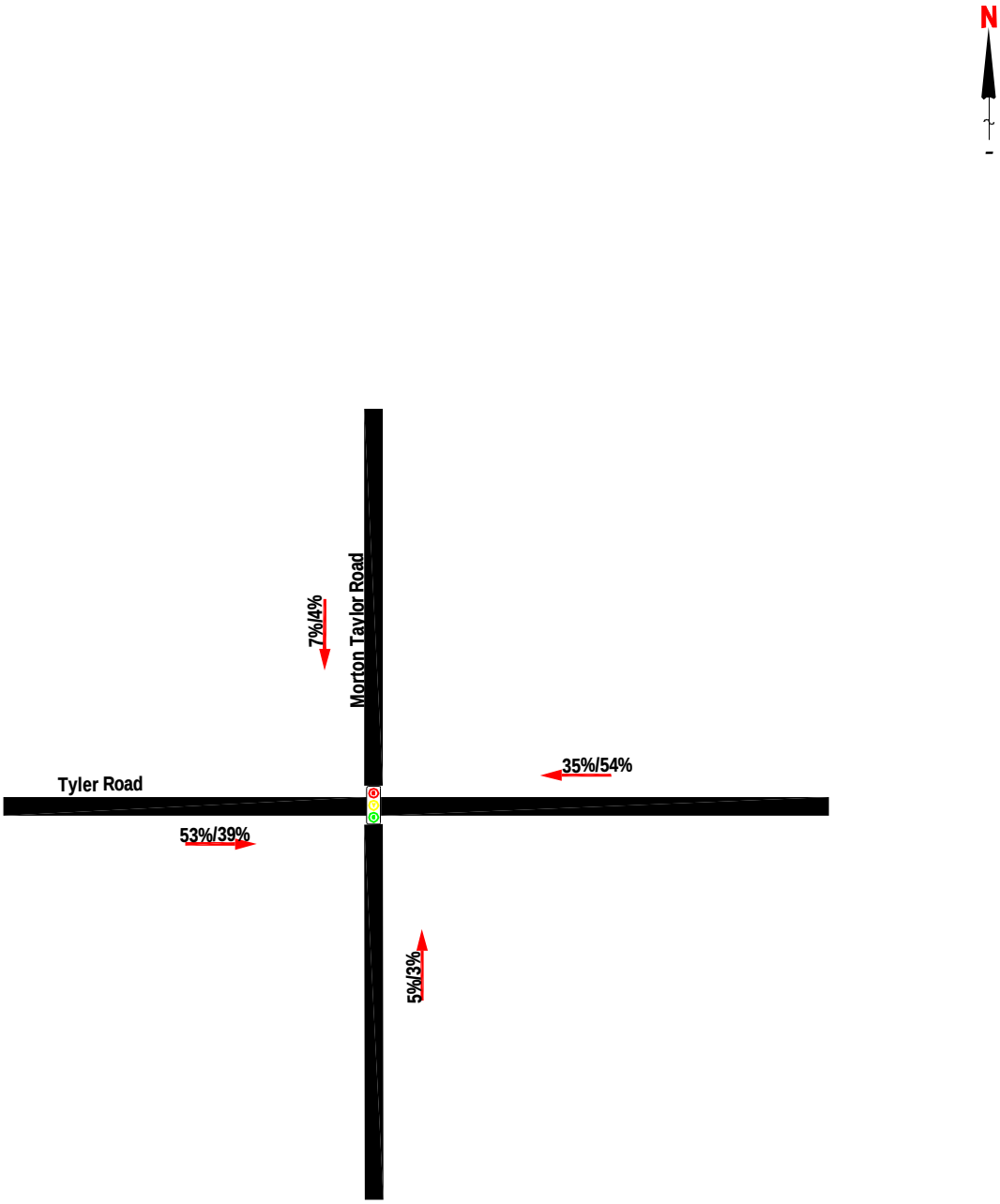

xxAM/xxPM

TRAFFIC ENGINEERING COUNSULTANTS, INC. **35890 Monterey Dr.** **Clinton Township, MI 48035** **(586) 615-4120**	**Trip Distribution** **Hampton Manor of Van Buren** **Van Buren Township**	**Figure 6**

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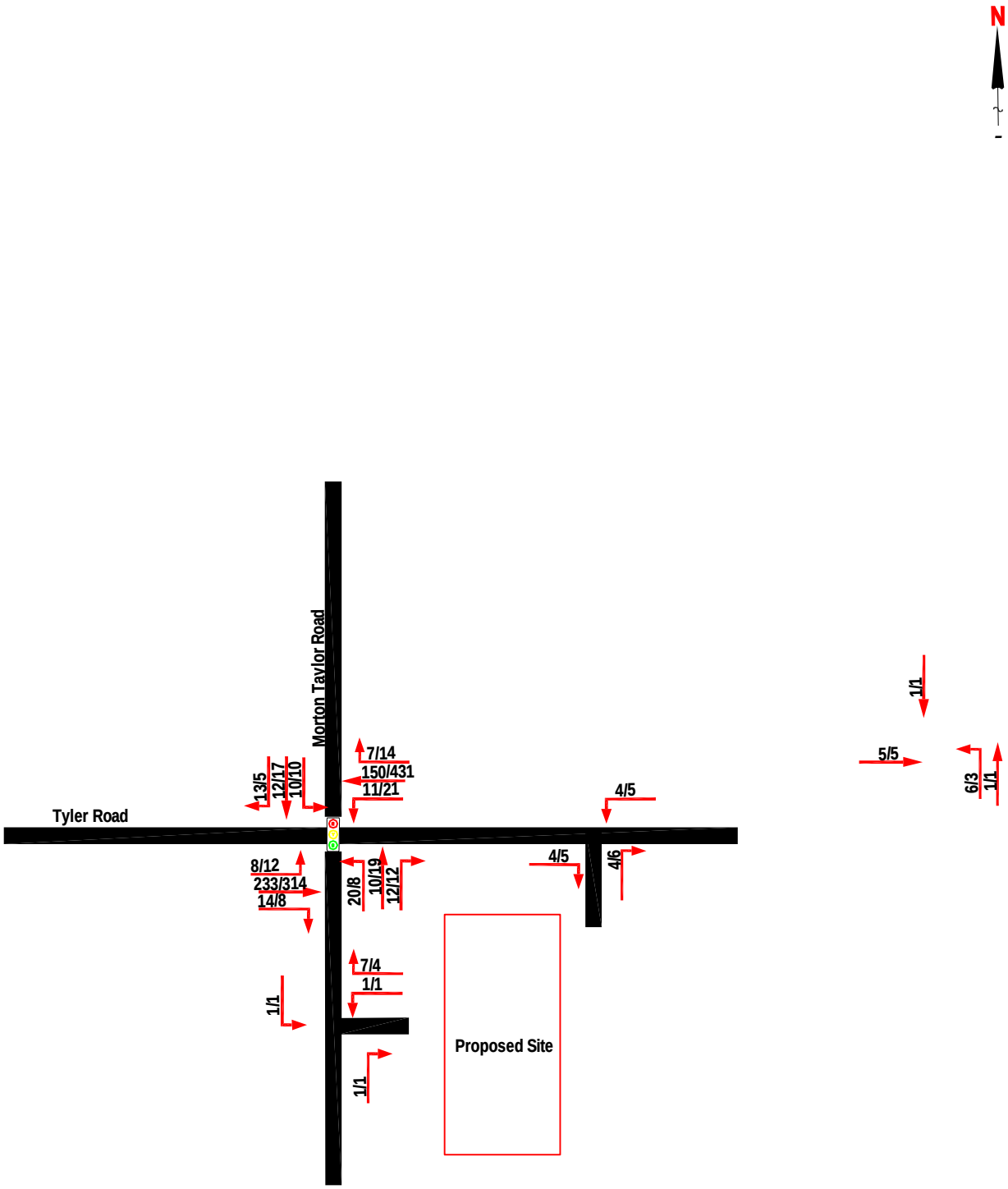

TRAFFIC ENGINEERING COUNSULTANTS, INC.
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Clinton Township, MI 48035
(586) 615-4120

Future Traffic
Hampton Manor of Van Buren
Van Buren Township

Figure 7

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Future Conditions

Future peak hour vehicle delays and LOS ***with the proposed development*** were calculated based on the existing lane use and traffic control shown on Figure 3, the proposed site access plan, the future traffic volumes shown on Figure 7, and the methodologies presented in the HCM. Additionally, SimTraffic simulations were utilized to evaluate network operations and vehicle queues. The results of the analysis of future conditions are presented in Appendix C and are summarized in Table 6.

Table 6 Capacity Analysis Results for Future Traffic Condition

Intersection		Approach Direction									
		AM Peak Hour					PM Peak Hour				
		EB	WB	NB	SB	Overall Intersection	EB	WB	NB	SB	Overall Intersection
Tyler road & Morton Taylor Rd	LOS	A	A	A	A	A	B	C	A	A	B
	Delay (Sec)	9.3	8.2	8.3	8.2	8.8	12.0	16.6	9.3	9.3	14.2

The results of the future conditions analysis for the study intersection indicate that the study intersection and approaches currently operate at acceptable LOS C or better.

CRASH ANAYLSIS

A crash analysis was conducted at the intersection of Tyler Road Morton Tylor Road as required when reviewing signal warrant and left turn warrant. Three years of crash data was reviewed (2017-2019). A summary of crashes by type is provided in Table 7 and Appendix D is Crash Data.

Table 7-Crash Type Summary

Crash Type	All Crashes	% of Total (n=21)	K & A Crashes	B Crashes	% B Crashes
Rear End	9	82%	0	1	9%
Angle	1	9%	0	1	9%
Head On	0	0.0%	0	0	0%
Sideswipe	0	0.0%	0	0	0%
Single	1	9%	0	0	5%
Back	0	0.0%	0	0	0%
Other (Bike, Ped, Motorcycle)	0	0.0%	0	0	0%
Total	**11**	**100%**	**0**	**2**	**18%**

Note: K & A Crashes are fatal and severe crashes as noted by the K ABCO scale: K = fatal crash, A = incapacitating injury, B = non-incapacitating injury, C = possible injury, and O = no injury.

Proposed Site Access

The proposed site layout includes two proposed access drives. One on Tyler Road and One on Morton Taylor Road. The placement and the geometry for the drives should be designed in accordance with the standards and guidelines set forth by the Wayne County Department of Roads.

Sight Distance Evaluation

Sight distance measurements were performed at the project driveways intersections with the existing Roads in accordance with the American Association of State Highway (AASHTO) latest Edition requirements. These measurements indicate that the available line of sight for motorists traveling along Tyler Road and Morton Taylor approaching the respective project driveway and for motorists exiting the project site exceed the recommended minimum sight distance requirements for a 45 MPH approach speed.

Conclusion

The analysis results under existing conditions show that all study intersections and roadway segments currently operate at acceptable levels of service (LOS C or better), and are forecast to continue operating at acceptable LOS with the addition of project-generated traffic to existing traffic volumes.

A review of the Tyler Road & Morton Taylor Road intersection for additional improvements as a result of the proposed Development indicate that warrants are not met for a Traffic Signal based on projected volumes with the addition of the development.

Review of Traffic Crashes for the last 3 years indicates no crash patterns that could be mitigated by making improvements to the intersection.

Based on the above, the proposed development will have minimal if any impact on the traffic operations and safety of Tyler Road and Morton Taylor Road and on the intersection of Tyler Road & Morton Taylor road.