#### GENOA CHARTER TOWNSHIP BOARD Regular Meeting and Public Hearing September 16, 2019 6:30 p.m.

#### AGENDA

Call to Order:

Pledge of Allegiance:

Call to the Public (Public comment will be limited to two minutes per person)\*:

#### **Approval of Consent Agenda:**

1. Payment of Bills.

2. Request to Approve Minutes: August 19, 2019

#### **Approval of Regular Agenda:**

3. Presentation by Ken Palka of Pfeffer, Hanniford and Palka with regard to results of the audit for the Fiscal Year ending March 31, 2019.

4. Consideration of a recommendation for approval of a preliminary site condominium site plan and impact assessment for a proposed 106 attached residential units within 29 buildings for Westbury Phase II. The property in question is located north of the intersection of Whitehorse Drive and Arundell Drive. This property is located within the Lorentzen Planned Unit Development and was previously approved for 137 apartment units. The request is petitioned by Singh Development Company.

- A. Disposition of Environmental Impact Assessment (6-28-19)
- B. Disposition of Preliminary Site Condominium Plan (8-28-19)

5. Consideration of a recommendation for approval of an environmental impact assessment for a proposed 11,000 sq. ft. addition to an existing Brighton Area Fire Department building located at 2755 Dorr Road, Brighton. The request is petitioned by Partners in Architecture, PLC.

A. Disposition of Environmental Impact Assessment (8-21-19)

6, Consideration of recommendation for approval of a site plan and impact assessment requesting final site condominium approval for a proposed 19 unit site condominium known as "The Ridge". The property in question is located on approximately 30.8 acres at 4242 Bauer Road (parcel # 4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

A. Disposition of Environmental Impact Assessment (6-13-19)B. Disposition of Final Site Condominium Plan (8-20-19)

7. Request for approval of Resolution #1 (to proceed with the project and direct preparation of the plans and cost estimates) for Elmhurst Drive Road Improvement Project Summer 2020. (Roll Call)

8. Request for approval of Resolution #2 (to approve the project, schedule the first hearing, and direct issuance of statutory notices) for the Elmhurst Dive Road Improvement Project Summer 2020. (Roll Call)

9. Request to approve a contract with the Livingston County Road Commission for overband crack sealing approximately .98 miles of Timberbend and Old Hickory Road at a cost not to exceed \$7,000.00.

10. Consider a request from Advanced Communications and Data for a permit extension to the Metro Act Right of Way to expire August 11, 2024.

11. Request to approve the proposal from Renovations Roofing for the Township Hall roof replacement at a cost not to exceed \$56,205.00.

12. Consider approval of a contract with Pfeffer, Hanniford and Palka to provide auditor services.

Correspondence Member Discussion Adjournment

\*Citizen's Comments- In addition to providing the public with an opportunity to address the Township Board at the beginning of the meeting, opportunity to comment on individual agenda items may be offered by the Chairman as they are presented.

## CHECK REGISTERS FOR TOWNSHIP BOARD MEETING

### DATE: September 16, 2019

TOWNSHIP GENERAL EXPENSES: Thru September 16, 2019	\$257,448.85
August 23, 2019 Bi Weekly Payroll	\$92,928.78
September 6, 2019 Bi Weekly Payroll	\$92,677.08
OPERATING EXPENSES: Thru September 16, 2019	\$270,227.82
TOTAL:	\$713,282.53

Page: 1/1

Amount

Check Date	Check	Vendor Name	Amount
Bank FNBCK CHEC	KING ACCOUNT		
Dally theory offer			
		PRINTING SYSTEMS	168.06
08/14/2019	35458	ADVANCED DISPOSAL SERVICES	87,720.52
08/14/2019	35459	PRINTING SYSTEMS	39.36
08/15/2019	35460	RON CARLSON GLASS LLC	295.00
08/15/2019	35461	SAFEBUILT STUDIO	2,398.72
08/15/2019	35462	VERIZON WIRELESS	457.53
08/15/2019	35463		5,620.62
08/19/2019	35464	EHIM, INC	259.75
08/19/2019	35465	LAURA GAMBINO	6,000.00
08/19/2019	35466	PFEFFER, HANNIFORD, PALKA	55.54
08/19/2019	35467	DEBRA ROJEWSKI US BANK EQUIPMENT FINANCE	1,840.85
08/19/2019	35468		3,804.22
08/22/2019	35469	DELTA DENTAL	18,729.54
08/22/2019	35470	ETNA SUPPLY COMPANY	24.98
08/22/2019	35471	GENOA TOWNSHIP D.P.W. FUND	2,545.79
08/22/2019	35472	GUARDIAN	179.40
08/22/2019	35473	PRINTING SYSTEMS	1,710.00
08/22/2019	35474	TETRA TECH INC	253.17
08/22/2019	35475	TRI COUNTY SUPPLY, INC.	3,095.54
08/26/2019	35476	CHASE CARD SERVICES	247.81
08/26/2019	35477	COMCAST	224.79
08/26/2019	35478	MASTER MEDIA SUPPLY	29.95
0B/26/2019	35479	WAL-MART COMMUNITY	420.24
08/26/2019	35480	WALMART COMMUNITY	500.00
08/27/2019	35481	MICHAEL ARCHINAL	49.27
08/27/2019	35482	DTE ENERGY	16,901.00
08/27/2019	35483	DYKEMA GOSSETT, PLLC	100.73
08/27/2019	35484	FEDERAL EXPRESS	62.00
08/27/2019	35485	LAKESIDE SERVICE COMPANY, INC.	382.00
08/27/2019	35486	MHOG UTILITIES	400.00
08/27/2019	35487	NETWORK SERVICES GROUP, L.L.C.	1,130.00
	35488	COOPER'S TURF MANAGEMENT LLC	149.34
09/03/2019	35489	MICHIGAN OFFICE SOLUTIONS	
09/03/2019	35490	MMRMA	12,756.28
09/03/2019	35491	OFFICE EXPRESS INC.	291.68
09/03/2019	35492	PERFECT MAINTENANCE CLEANING	565.00
09/03/2019	35492	US POSTAL SERVICE	225.00
09/03/2019		DTE ENERGY	34.65
09/04/2019	35494	NETWORK SERVICES GROUP, L.L.C.	50.00
09/04/2019	35495	US POSTAL SERVICE	10.00
09/04/2019	35496	ADVANCED DISPOSAL	87,720.52
09/09/2019	35497	MDAURCED DIDIORNA	

FNBCK TOTALS:

Total of 40 Checks: Less 0 Void Checks:

Total of 40 Disbursements:

257,448.85 0.00 257,448.85

#### Check Register Report For Genoa Charter Township For Check Dates 08/23/2019 to 08/23/2019

Check Date	Bank C	heck Number	Name	Chec Gros		Direct Deposit	Status
			FLEX SPENDING (TASC)	1,032.1	2 1,032.12	0.00	Open
08/23/2019	FNBCK		INTERNAL REVENUE SERVICE	21,820.7	21,820.78	0.00	Open
08/23/2019	FNBCK			3,116.0	3,116.00	0.00	Open
08/23/2019	FNBCK		PRINCIPAL FINANCIAL	2,181.0	2,181.07	0.00	Open
				28,149.	28,149.97	0.00	
Totals:			Number of Checks: 004	,	Dir. Dep.		
	Total Physical Checks:	1	4		64,778.81		
	Total Check Stubs:		•	G.	\$ 92,928.78		

For Check Dates 09/06/2019 to 09/06/2019

- -

heck Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
	FNBCK	12999	SZURAN, DAVID	659.62	565.50	0.00	Open
9/06/2019 9/06/2019	FNBCK	EFT373	FLEX SPENDING (TASC)	1,032.12	1,032.12		Open
9/06/2019	FNBCK	EFT374	INTERNAL REVENUE SERVICE	21,728.15	21,728.15		Open
9/06/2019	FNBCK	EFT375	PRINCIPAL FINANCIAL	3,116.00	3,116.00		Open
9/06/2019	FNBCK	EFT376	PRINCIPAL FINANCIAL	2,181.07	2,181.07	0.00	Open
			Number of Checks: 005	 28,716.96	28,622.84	0.00	
	Total Physical Checks Total Check Stubs:	3 2	1 4		Dir. Dep. 64,054.24 \$92,677.08		

#### CHECK REGISTER FOR GENOA TOWNSHIP CHECK NUMBERS 4731 - 4900

Page: 1/1

Check Date	Check	Vendor Name	Amount
ank 503FN DPW-1	UTILITIES #503		۵
8/14/2019	4731	POSTMASTER	298.20
08/15/2019	4732	VERIZON WIRELESS	768.11
08/15/2019	4733	PORT CITY COMMUNICATIONS, INC.	490.54
08/19/2019	4734	PFEFFER, HANNIFORD, PALKA	500.00
	4735	ADVANCE AUTO PARTS	43.73
)8/20/2019	4736	ADVANTAGE MARKETING	1,331.84
08/20/2019	4737	CORRIGAN OIL COMPANY	51.81
08/20/2019	4738	CRUISERS	88.00
08/20/2019		D & G EQUIPMENT, INC.	362.35
08/20/2019	4739	GIFFELS WEBSTER	2,040.00
08/20/2019	4740	NETWORK SERVICES GROUP, L.L.C.	499.00
08/20/2019	4741	RED WING BUSINESS ADVANTAGE ACCOUNT	417.86
08/20/2019	4742		30.00
08/20/2019	4743	SPIRIT OF LIVINGSTON	102.19
08/20/2019	4744	STANDARD ELECTRIC	4,505.00
08/20/2019	4745	TETRA TECH INC	2,190.00
08/20/2019	4746	TRUCK & TRAILER SPECIALTIES INC	57.47
08/20/2019	4747	HOWELL TRUE VALUE HARDWARE	1,405.06
08/20/2019	4748	USA BLUEBOOK	
08/20/2019	4749	VICTORY LANE QUICK OIL CHANGE	130.48
08/21/2019	4750	AARON KORPELA	45.79
08/26/2019	4751	HOME DEPOT CREDIT SERVICES	2,112.06
OB/27/2019	4752	GREG TATARA	700.00
09/03/2019	4753	MMRMA	9,656.58
09/09/2019	4754	STATE OF MICHIGAN	45.00
503FN TOTALS:			AR AR1 AR
Total of 24 Che Less 0 Void Che			27,871.07
Total of 24 Dis	bursements:		27,871.07
09/10/2019 01:4	2 PM	CHECK REGISTER FOR GENOA TOWNSHIP	Page: 1/1
User: Angie		CHECK NUMBERS 3633 - 4900	
DB: Genoa Towns	hip		
Check Date	Check	Vendor Name	Amount
Bank 593FN LAKE	EDGEWOOD OPERATING	G FUND #593	
08/19/2019	3633	BRIGHTON ANALYTICAL , L.L.C.	67.00
08/19/2019	3634	PFEFFER, HANNIFORD, PALKA	720.00
08/20/2019	3635	COOPER'S TURF MANAGEMENT LLC	671.00
08/20/2019	3636	GENOA TOWNSHIP D.P.W. FUND	70.05
08/20/2019	3637	GENOA TOWNSHIP D.P.W. FUND	233.19
	3638	GENOA OCEOLA SEWER AUTHORITY	288.38
08/20/2019	3639	GENOA TOWNSHIP DPW FUND	11,384.25
08/20/2019	3640	GRAINGER	646.11
08/20/2019	.104U		3,000.00
		UNDUCAND SEPTIC SERVICE, INC.	
	3641	HARTLAND SEPTIC SERVICE, INC.	2,211.00
08/20/2019	3641 3642	KENNEDY INDUSTRIES	
08/20/2019 08/20/2019	3641 3642 3643	KENNEDY INDUSTRIES MICHIGAN CAT	475.00
08/20/2019 08/20/2019	3641 3642 3643 3644	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT	475.00 1,735.00
08/20/2019 08/20/2019 08/20/2019	3641 3642 3643 3644 3645	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W	475.00 1,735.00 1,844.30
08/20/2019 08/20/2019 08/20/2019 08/20/2019	3641 3642 3643 3644	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA	475.00 1,735.00 1,844.30 214.50
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019	3641 3642 3643 3644 3645	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C.	475.00 1,735.00 1,844.30 214.50 67.00
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019	3641 3642 3643 3644 3645 3646	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C.	475.00 1,735.00 1,844.30 214.50 67.00 67.00
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/26/2019 08/27/2019	3641 3642 3643 3644 3645 3646 3647	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C.	475.00 1,735.00 1,844.30 214.50 67.00 67.00 67.00
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/27/2019 08/27/2019	3641 3642 3643 3644 3645 3646 3647 3648 3648 3649	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C.	475.00 1,735.00 1,844.30 214.50 67.00 67.00 67.00 21.91
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/26/2019 08/27/2019 08/27/2019 08/27/2019	3641 3642 3643 3644 3645 3646 3647 3648 3648 3649 3650	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C.	475.00 1,735.00 1,844.30 214.50 67.00 67.00 67.00 21.91 477.50
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/26/2019 08/26/2019 08/27/2019 08/27/2019 08/27/2019 08/27/2019	3641 3642 3643 3644 3645 3646 3647 3648 3649 3649 3650 3651	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C. BRIGHTON ANALYTICAL , L.L.C. CONSUMERS ENERGY MMRMA	475.00 1,735.00 1,844.30 214.50 67.00 67.00 21.91 477.50 2,980.55
08/20/2019 08/26/2019 08/27/2019 08/27/2019	3641 3642 3643 3644 3645 3646 3647 3648 3648 3649 3650	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C. BRIGHTON ANALYTICAL , L.L.C. CONSUMERS ENERGY	475.00 1,735.00 1,844.30 214.50 67.00 67.00 67.00 21.91 477.50
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/27/2019 08/27/2019 08/27/2019 08/27/2019 09/03/2019 09/04/2019	3641 3642 3643 3644 3645 3646 3647 3648 3649 3649 3650 3651 3651	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C. BRIGHTON ANALYTICAL , L.L.C. CONSUMERS ENERGY MMRMA DTE ENERGY	475.00 1,735.00 1,844.30 214.50 67.00 67.00 21.91 477.50 2,980.55
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/26/2019 08/27/2019 08/27/2019 08/27/2019 09/03/2019 09/03/2019 09/04/2019 09/09/2019 593FN TOTALS: Total of 21 Che	3641 3642 3643 3644 3645 3646 3647 3648 3649 3650 3651 3652 3653	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C. BRIGHTON ANALYTICAL , L.L.C. CONSUMERS ENERGY MMRMA DTE ENERGY	475.00 1,735.00 1,844.30 214.50 67.00 67.00 21.91 477.50 2,980.55 1,131.00 28,371.74
08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/20/2019 08/26/2019 08/27/2019 08/27/2019 08/27/2019 08/27/2019 09/03/2019 09/03/2019 09/09/2019 593FN TOTALS:	3641 3642 3643 3644 3645 3646 3647 3648 3649 3650 3651 3652 3653	KENNEDY INDUSTRIES MICHIGAN CAT MICHIGAN CAT OAK POINTE OPERATING S/W UIS SCADA BRIGHTON ANALYTICAL , L.L.C. BRIGHTON ANALYTICAL L.L.C. BRIGHTON ANALYTICAL , L.L.C. CONSUMERS ENERGY MMRMA DTE ENERGY	475.00 1,735.00 1,844.30 214.50 67.00 67.00 21.91 477.50 2,980.55 1,131.00

87.21

213,985.01 0.00

213,985.01

Ber Mana	and an		
)B: Genoa Towns	urb		Amount
Theck Date	Check	Vendor Name	
Jank 592FN OAK	POINTE OPERATING	FUND #592	
			720.00
)8/19/2019	4650	PFEFFER, HANNIFORD, PALKA	99.70
)8/21/2019	4651	AMERICAN AQUA	710.00
08/21/2019	4652	BBVA COMPASS BANK	185.00
08/21/2019	4653	BRIGHTON ANALYTICAL , L.L.C.	139.95
08/21/2019	4654	CONSUMERS ENERGY	2,143.00
08/21/2019	4655	COOPER'S TURF MANAGEMENT LLC	406.66
08/21/2019	4656	GENOA TOWNSHIP D.P.W. FUND	517.45
08/21/2019	4657	GENOA OCEOLA SWR & WTR AUTHORI	42,462.39
08/21/2019	4658	GENOA TOWNSHIP DPW FUND	428.92
08/21/2019	4659	HACH COMPANY	1,893.30
08/21/2019	4660	HAVILAND PRINTING	12,710.00
08/21/2019	4661	KEIDER PAINTING COMPANY	788.00
08/21/2019	4662	KENNEDY INDUSTRIES	1,810.00
08/21/2019	4663	MICHIGAN CAT	3,000.00
08/21/2019	4664	NELSON TANK ENGINEERING & CONSULTIN	243.38
08/21/2019	4665	NORTHWEST PIPE & SUPPLY	260.00
08/21/2019	4666	STATE OF MICHIGAN	11,781.00
08/21/2019	4667	TETRA TECH INC	2.78
08/21/2019	4668	TRUE VALUE HARDWARE	15,218.54
OB/21/2019	4669	UIS SCADA	507.31
	4670	USA BLUEBOOK	
08/21/2019	4671	WATER SOLUTIONS UNLIMITED, INC	3,467.00 137.58
08/21/2019	4672	WATSON MARLOW	
08/21/2019	4673	GENOA TWP OAK POINTE SEWER BOND	105,926.88
08/22/2019	4674	AT&T LONG DISTANCE	41.58
08/26/2019	4675	CONSUMERS ENERGY	147.49
09/03/2019	4676	DTE ENERGY	2,814.10
09/03/2019		MMRMA	657.25
09/03/2019	4677	MMRMA	1,619.39
09/03/2019	4678	BRIGHTON ANALYTICAL , L.L.C.	185.00
09/04/2019	4679	DTE ENERGY	748.11
09/04/2019	4680	DTE ENERGY	2,126.04
AA (AA (AA1A	7601		07 71

DTE ENERGY

ATET LONG DISTANCE

592FN TOTALS:

09/04/2019

09/09/2019

Total of 33 Checks:

Less 0 Void Checks:

Total of 33 Disbursements:

4681

4682

#### Pine Creek Checks No A/P checks issued for this Board Packet

#### GENOA CHARTER TOWNSHIP BOARD Regular Meeting and Public Hearing August 19, 2019

#### **MINUTES**

Supervisor Rogers called the Regular Meeting of the Genoa Charter Township Board to order at 6:30 p.m. at the Township Hall with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Robin Hunt, Jean Ledford, Terry Croft, Jim Mortensen and Diana Lowe. Also present were Township Manager Michael Archinal and no persons in the audience.

A Call to the Public was made with no response.

#### Approval of Consent Agenda:

Moved by Mortensen and supported by Lowe to approve all items under the Consent Agenda as requested. The motion carried unanimously.

#### 1. Payment of Bills.

2. Request to Approve Minutes: August 5, 2019

3. Request Board approval to adjust the 2017 Winter Tax roll removing the Refuse Special Assessment charge in the amount of \$121.00 for parcel number 4711-07-400-031, as requested by the Township Treasurer.

#### Approval of Regular Agenda:

Moved by Ledford and supported by Lowe to approve for action all items listed under the Regular Agenda as requested, amending item 4 to include the word "amended" special assessment roll. The motion carried unanimously.

4. Public hearing for the Fendt Drive Road Maintenance Project initiated in the (Winter 2018).

#### A. Call to the Property Owners and to the Public

A call to the public and property owners was made with no response

B. Request for approval of Resolution #5 [confirming the amended special assessment roll] for the Fendt Drive Road Improvement Project Special Assessment District (Winter 2018). Moved by Lowe and supported by Ledford to approve resolution No. 5 for Fendt Drive as requested. The motion carried by roll call vote as follows: Ayes – Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None.

5. Consideration of a recommendation for approval of the environmental impact assessment for a proposed 358 sq. ft. building expansion and parking lot expansion for Enterprise Rental Car located at 7184 Grand River Avenue, Brighton. The request is petitioned by Enterprise Leasing Company. Moved by Skolarus and supported by Croft to approve the environmental impact assessment dated 03/26/2019 as requested. The motion carried unanimously.

6. Request to approve resolution to adopt procedures for granting and removing real property exemptions as requested by the assessor.

Moved by Skolarus and supported by Lowe to approve Resolution #190819 to adopt procedures for granting and removing real property exemptions as described in Chapter 6: Property Tax Exemptions, Abatements and Tax Capture Authorities of the State Tax Commission Manual, Bulletin 7 of 20a6 (Senior Citizen and Disabled Family Housing Exemption), Bulletin 26 of 2017 (Charitable Exemption), as attached hereto making them part of the resolution. The motion carried by roll call vote as follows: Ayes – Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None.

7. Request to direct staff to solicit an amended proposal from TLS Construction for land balancing and installation of two sports courts.

Moved by Lowe and supported by Croft to direct staff to solicit an amendment to the proposal from TLS Construction to include the installation of a second concrete pad for the sports courts. The motion carried unanimously.

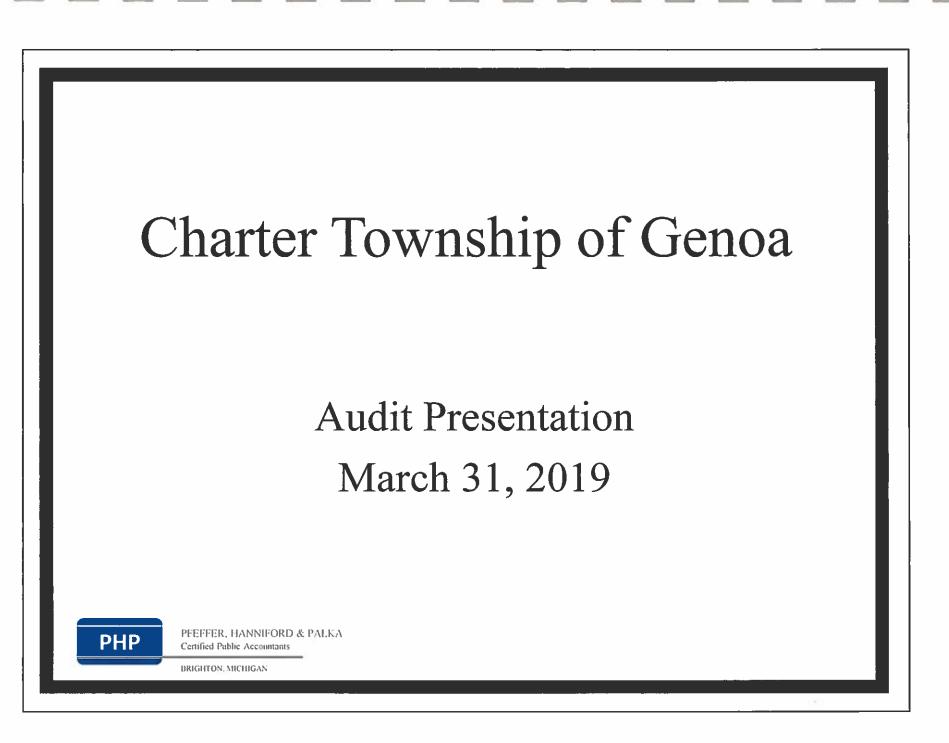
8. Receive Notice of Assessment and Apportionment hearing from the Livingston County Drain Commissioner with an estimate of \$29,868.15.

This notice was informational and no action was taken by the board.

Moved by Hunt and supported by Croft to adjourn the meeting at 6:42. P.M.

Baulitte Ce Stelan

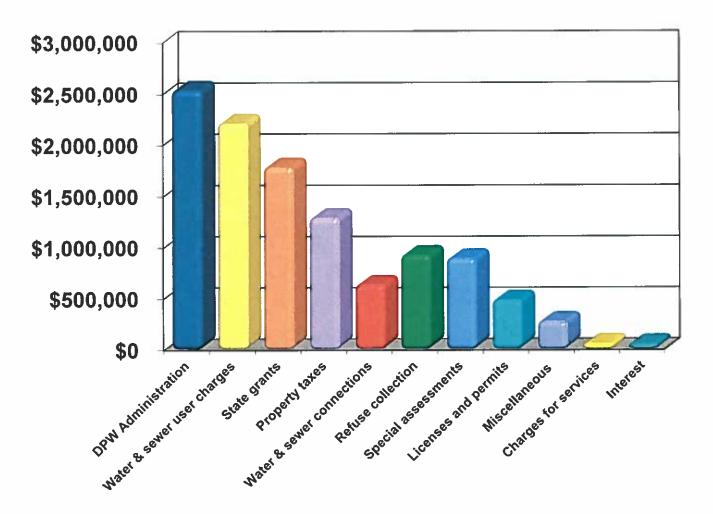
Paulette A. Skolarus, Clerk Genoa Charter Township





Charter Township of Genoa Revenues for Township For The Year Ended March 31, 2019

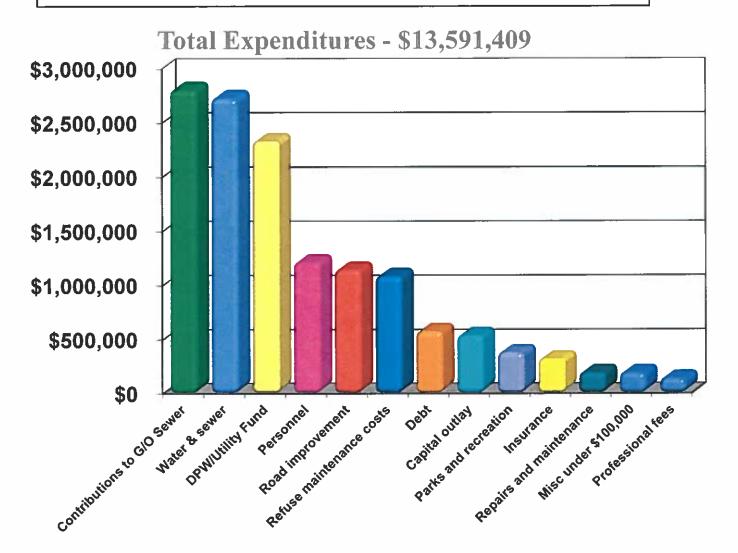
**Total Revenues - \$11,169,068** 



-1-



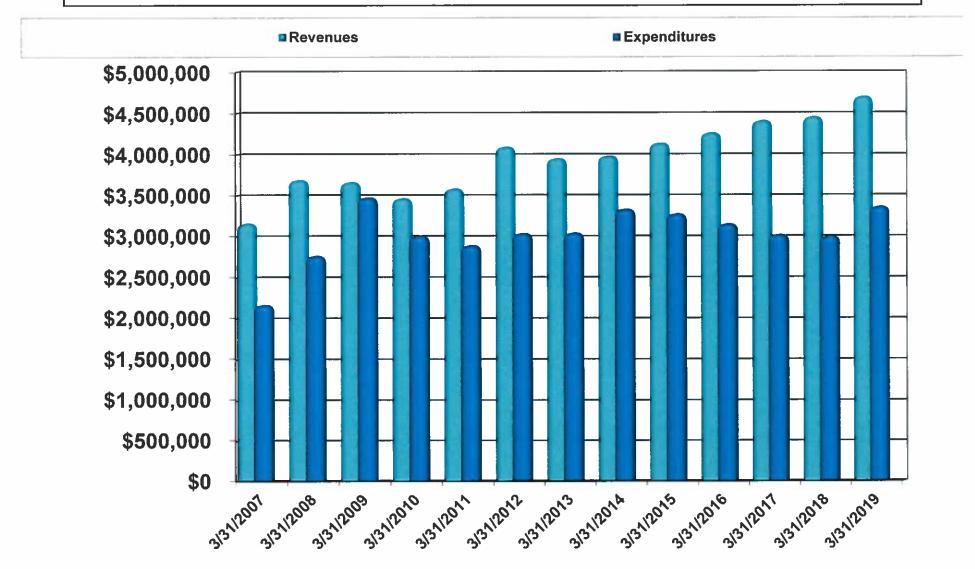
Charter Township of Genoa Expenditures For Township For The Year Ended March 31, 2019



-2-

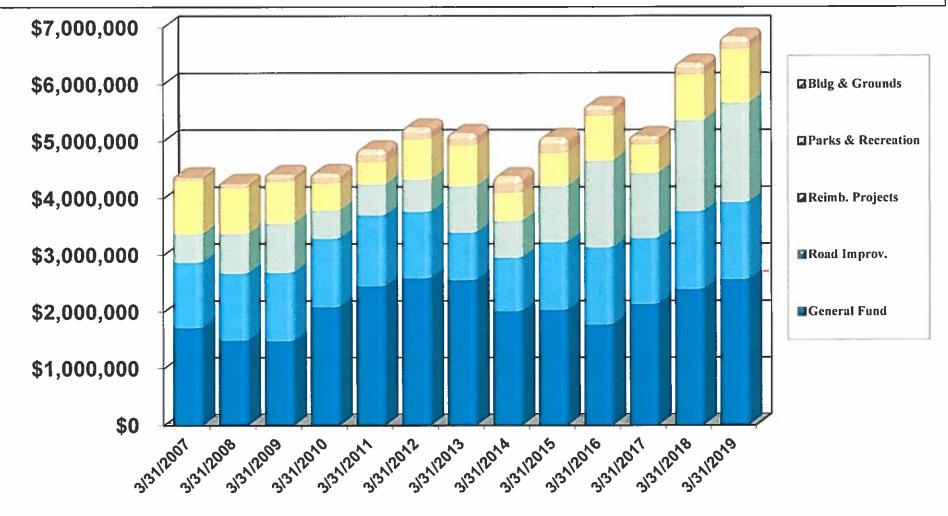


## Charter Township of Genoa General Fund Revenues and Expenditures For the Years Ended March 31, 2007-2019



-3-

Charter Township of Genoa General, Road Improvement, Reimbursable Projects, Future Development, and Building Reserve Fund Balance Comparison (Pre-Gasb 54) March 31, 2007-2019

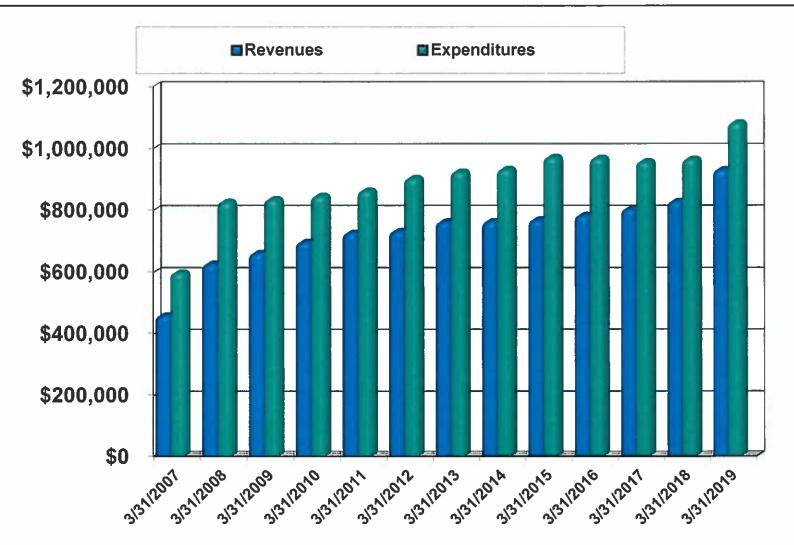


-4-



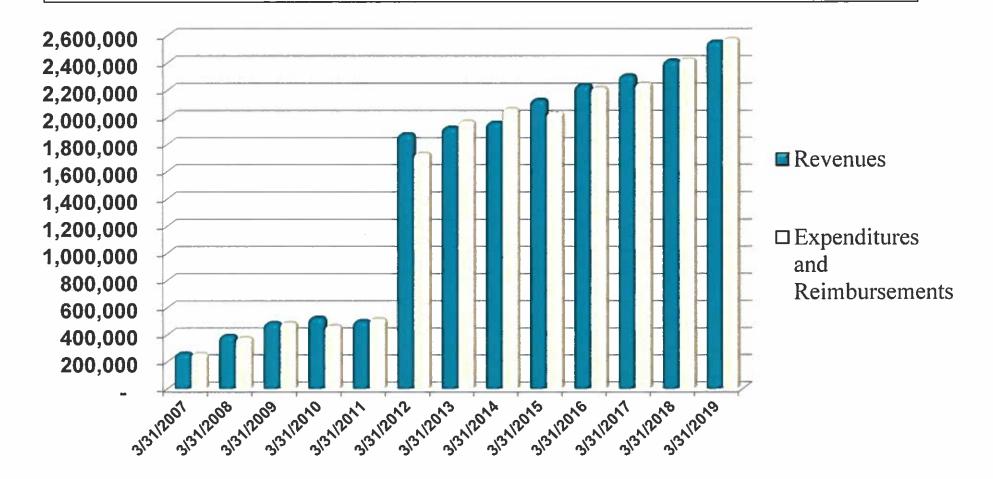
# Charter Township of Genoa Refuse Collection

For The Years Ended March 31, 2007-2019



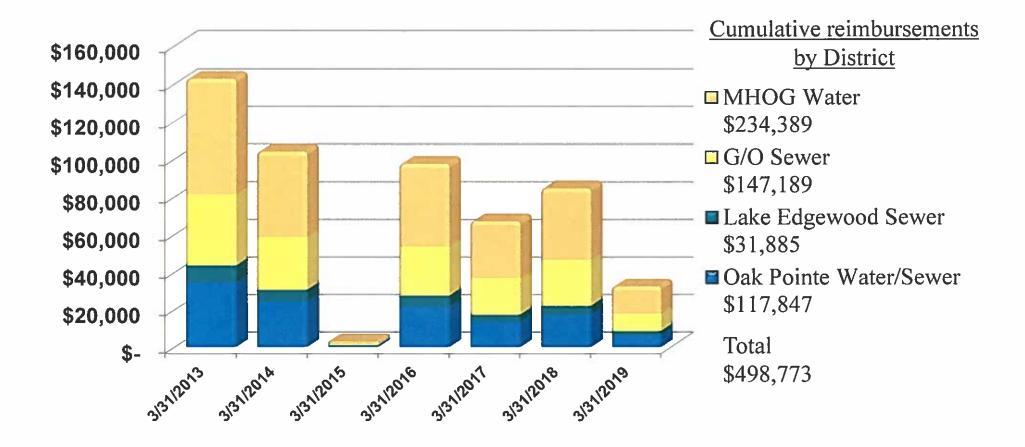
-5-

Charter Township of Genoa DPW Comparison of Revenues and Expenditures and Reimbursements For The Years Ended March 31, 2007-2019



-6-

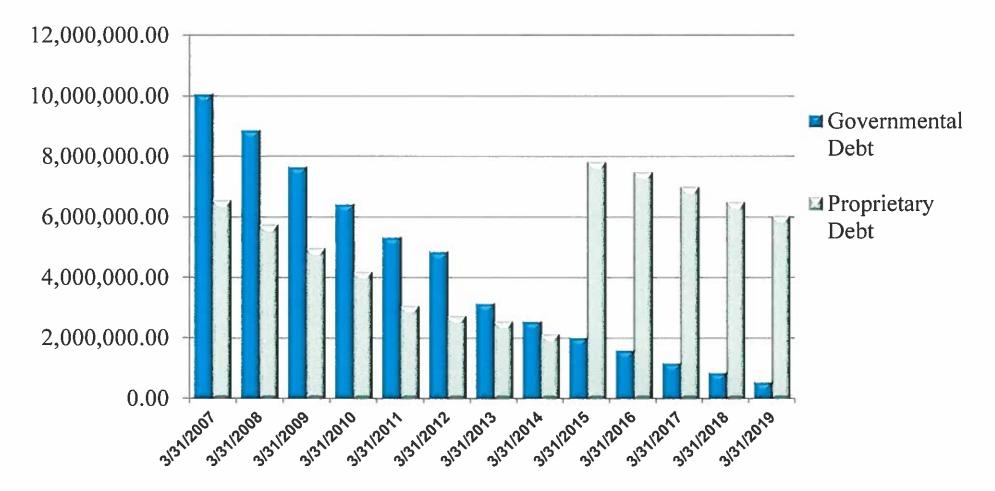
Charter Township of Genoa DPW Reimbursements to Water/Sewer Districts For The Years Ended March 31, 2013-2019



18

-7-

Charter Township of Genoa Long Term Debt (Governmental and Proprietary Debt) For the Years Ended March 31, 2007-2019



-8-



2911 Dorr Road Brighton, MI 48116 810.227.5225 810.227.3420 fax genoa.org

TO:

Development Director	wnship Manager/Community
DATE: September 11, 2019	
RE: Westbury Phase 2 Preliminary Site Condominiu	m
	$\sim$

MEMORANDUM

Honorable Board of Trustees

In consideration of the approval recommendation by the Township Planning Commission on August 12, 2019 please find the attached project case file for Westbury Phase 2. The applicant is seeking preliminary approval for 106 attached condominium units in 29 buildings on 17.42 acres. The property is located north of the Whitehorse Drive and Arundell Drive intersection. The proposed residential development is located within the Lorentzen PUD on a parcel that was previously approved for 137 apartments.

Procedurally, Section 12.07 requires both preliminary and final approval for condominium plans. Both reviews go through the Planning Commission for a recommendation to the Township Board which has approval authority. Based on the conditions established within the Planning Commission recommendation, I offer the following for your consideration:

SUPERVISOR

Bill Rogers

CLERK Paulette A. Skolarus

TREASURER Robin L. Hunt

TRUSTEES

Jean W. Ledford H. James Mortensen Terry Croft Diana Lowe

MANAGER Michael C.: Archinal Moved by \_\_\_\_\_\_, seconded by \_\_\_\_\_\_, to approve the Impact Assessment dated June 28, 2019 related to preliminary site condominium approval for Westbury Phase 2.

Moved by \_\_\_\_\_\_, seconded by \_\_\_\_\_\_, to approve the preliminary site condominium plan for Westbury Phase 2 as revised on August 28, 2019, subject to the following:

- 1. The following documents will be required with a final submittal:
  - a. Condominium documents (Master Deed, By-Laws and Exhibit B Drawings);

September 11, 2019 Westbury Phase 2 Preliminary Condominium Page 2 of 2

- b. The condo documents must fulfil the criteria for private road maintenance as determined by the Township Engineer;
- c. A detailed lighting plan;
- d. A detail of the residential entrance signage.
- 2. The Township attorney shall review the condominium documents.
- 3. The applicant must obtain authorization for a road connection with the development to the north.
- 4. The petitioner will follow recommendations made by the Township engineer in the letter dated August 2, 2019 and the Brighton Area Fire Authority letter dated August 2, 2019.
- 5. The section of Arundell Drive between Whitehorse Drive and Grand River Avenue will be repaved as part of this project.

Should you have any questions concerning this matter, please do not hesitate to contact me.

Sincerely, DUC Kelly VanMarter

Assistant Township Manager/Community Development Director



## GENOA CHARTER TOWNSHIP Application for Site Plan Review

#### TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: SINGH DEVELOPMENT COMPANY

If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS: AVI GREWAL

SITE ADDRESS:\_

\_\_\_\_\_PARCEL #(s):\_\_\_\_\_

APPLICANT PHONE: ( 248 ) 562-7129 OWNER PHONE: ( 248 ) 865-1600

OWNER EMAIL: \_\_\_\_\_

LOCATION AND BRIEF DESCRIPTION OF SITE: PART OF THE SOUTHWEST 1/4 OF

SECTION 4 AND PART OF THE NORTHWEST 1/4 OF SECTION 9, T02N-R05E,

GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN.

SEE ATTACHED SITE PLAN

BRIEF STATEMENT OF PROPOSED USE: PROPOSED USE OF THIS VACANT PARCEL

IN TO CONSTRUCT ATTACHED CONDOMINIUM (2 UNITS & 4 UNITS)

SEE ATTCHED SITE PLAN

THE FOLLOWING BUILDINGS ARE PROPOSED: \_\_\_\_\_A TOTAL OF 29 BUILDINGS ARE

PROPOSED. BUILDINGS #4, 12, 15, 20, & 24 ARE 2 UNITS EACH. BUILDINGS #1-3,

5-11, 13, 14, & 16-29 ARE 4 UNITS EACH. A TOTAL OF 106 UNITS ARE

PROPOSED.

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY:

**AVI GREWAL** 

ADDRESS: 7125 ORCHARD LAKE ROAD, SUITE 200, WEST BLOOMFIELD, MI, 48334

**Contact Information** - Review Letters and Correspondence shall be forwarded to the following:

1.) VIPUL DESAI

Name

of SOMAT ENGINEERING

at\_\_\_\_\_E-mail Address

**Business Affiliation** 

FEE EXCEEDANCE AGREEMENT	FEE EXCEEDANCE AGREEMENT
As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy. SIGNATURE:	ning Commission meeting. If additional reviews or meetings are necessary, the applicant red to pay the actual incurred costs for the additional reviews. If applicable, additional review will be required concurrent with submittal to the Township Board. By signing below, icates agreement and full understanding of this policy.
PRINT NAME: AVI GREWAL PHONE: 248-865-1600 ADDRESS: 7125 ORCHARD LAKE ROAD, SUITE 200, WEST BLOOMFIELD,MI, 48334	AVI GREWAL248-865-1600

#### GENOA TOWNSHIP APPLICATION FOR PRIVATE ROAD 2911 Dorr Road, Brighton MI 48116 (810) 227-5225

A private road requiring approval of the Township shall be any road providing access to more than four dwelling units or two non-residential principal buildings. This does not include drives within a multiple family complex or parking lot aisles, but does include collector type roadways within such a development.

APPLICANT: SINGH DEVELOPMENT COMPANY

OWNER ADDRESS: 7125 ORCHARD LAKE ROAD, SUITE 200, WEST BLOOMFIELD, MI, 48334

PART OF THE SOUTHWEST 1/4 OF SECTION 4 AND PART OF THE NORTHWEST 1/4 OF SITE ADDRESS: SECTION 9, T02N-R05E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN.

#### APPLICABILITY OF PUBLIC VS. PRIVATE ROAD STANDARDS

All private roads in Genoa Township shall be constructed to the standards of the Livingston County Road Commission unless the Planning Commission and Township Board determine your road qualifies under the following ordinance criteria:

- Explain how there will be no need for the roadway to be dedicated as a public road in the future.
   EXISTING STUBS FROM PHASE-I ARE PRIVATE ROAD
- 2. Explain how dedication of the road as a public street would not result in continuity in the public street system at the present time or in the future.

SEE ABOVE N/A

 What uses (number of lots, number of residential units, number of buildings, etc) will have access from the private road. Will the expected traffic volumes along the roadway be below three hundred vehicles per average weekday, based on accepted trip generation figures?
 PROPOSED CONDOMINIUM UNITS (RESIDENTIAL), YES, NUMBER OF PROPOSED UNITS

#### ARE LESS THAN PREVIOUSLY APPROVED FOR PHASE-II

4. Are there any significant natural features such as mature trees, natural slopes, wetlands or other water bodies would be preserved through construction and maintenance as a private road?

YES & N/A

Page 1 of 5

5. What financial and administrative mechanisms will be provided to ensure maintenance of the private road?

#### CONDOMINIUM BY LAWS & EXHIBIT B'S

#### **AFFIDAVIT**

\_\_\_\_\_ (owner, lessee, or other The undersigned says that they are the specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

By:

Address: Phone:

Fax No.

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

1.) VIPUL DESAI Name

of SOMAT ENGINEERING at ( **Business** Affiliation

FEE EXCEEDANCE AGREEMENT

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy. PROJECT NAME: WESTBURY PHASE-II
PROJECT LOCATON & DESCRIPTION: PART OF THE SOUTHWEST 1/4 OF SECTION 4 AND PART OF
THE NORTHWEST 1/4 OF SECTION 9, T02N-R05E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN.

DATE: 06/28/2019 SIGNATURE: 5 PHONE: 248-865-1600 PRINT NAME: AVI GREWAL SINGH DEVELOPMENT COMPANY 7125 ORCHARD LAKE ROAD, SUITE 200, COMPANY NAME & ADDRESS: WEST BLOOMFIELD, MI, 48334

Page 2 of 5

Commissioner Mortensen would like the Master Deed to state that the ordinances of Genoa Township shall override what is in the document, if the Township's is stricter.

Commissioner Rickard is concerned about the road ROW at the entrance and that the plans are shown with landscaping out of the ROW. She would like the applicant's engineer to address the Township engineer's concerns before the Planning Commission makes a recommendation to the Township Board. Commissioner Rauch agrees. He would like to see a clean set of plans before making a recommendation for approval.

Mr. Moretti stated the biggest issue is with Lot #8, but the other items are easy to address.

The call to the public was made at 7:45 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Rickard, to postpone Agenda Item #1 for The Ridge Subdivision to allow the petitioner to address the following items:

- The need for easements at the entry
- Location of the cluster mailbox
- Storm sewer location
- Buildability of Lot #8

#### The motion carried unanimously.

**OPEN PUBLIC HEARING #2**... Review of a site plan and environmental impact assessment for 106 attached residential units within 29 buildings for Westbury Phase II. The property in question is located north of the intersection of Whitehorse Drive and Arundell Drive. This property is located within the Lorenzen Planned Unit Development and was previously approved for 137 apartment units. The request is petitioned by Singh Development Company.

- B. Recommendation of Environmental Impact Assessment. (6-28-19)
- C. Recommendation of Preliminary Site Condominium Plan (7-24-19)

Mr. Vipul Desai, the engineer, and Sunny Grewal from Singh Development, were present. Mr. Desai provided a brief review of the project. It is Phase II of Westbury Development, which is 107 units of attached condominiums for sale. Phase I is apartments.

They received the consultant's comments and addressed their concerns. They are aware that there are additional review letters.

Mr. Borden reviewed his letter of August 6, 2019.

- If preliminary condominium site plan approval is granted, the applicant must provide the following items with the final condominium plan submittal:
  - Condominium documents (master deed and by-laws)
  - A private road maintenance agreement, including financial and maintenance assurances
  - A detailed lighting plan
  - Details of residential identification signage.
- The Planning Commission is able to grant a reduction in the road width. He noted that this can be addressed further by the Township engineer.
- The applicant must obtain authorization for a road connection with the development to the north.
- The total number of trees depicted on the landscape plan exceeds Ordinance requirements; however, the types and planting locations are not fully compliant. The applicant must modify the plan; however, the Planning Commission has the discretion to modify the specific requirements.
- The applicant proposes to allow access to existing recreational features / structures for Phase II residents. He believes this access will suffice in lieu of additional recreational features/structures that are required, which would be park/open space of approximately 3.65 acres
- There is a discrepancy in the lot area for Phase II between the site plan (16.35 acres) and Impact Assessment (17.42 acres).

Mr. Markstrom reviewed his letter of August 2, 2019. He noted that since this is preliminary site plan review, most of his comments can be addressed before final site plan approval.

- The existing stretch of Arundell Avenue from White Horse Lane to Grand River Avenue is in poor condition and the petitioner noted on the plans that improvements to Arundell Avenue would be included on the construction plans.
- The petitioner is proposing to extend the two existing private roads of Arundell Avenue and Westbury Boulevard. After site plan approval, the petitioner must submit private road construction plans for review.
- The proposed road cross section shown on the plan notes a 50-foot-wide road ROW. The Township's Engineering Design Standards require that local roads have a minimum road ROW of 66 feet; however the proposed 50-footwide road ROW matches the previously approved road ROW in Westbury Phase I.
- After final site plan approval, the petitioner will be required to submit construction plans to MHOG Sewer and Water Authority for review and approval.

- The construction plan review phase is only for sanitary sewer, water main, and private road improvements; however, it is important that storm sewers and detentions are sized correctly as part of the site plans, as it could affect the proposed arrangement of the site. The petitioner should provide storm sewer and detention calculations for the existing detention basin as part of the final site plans.
- Prior to obtaining Livingston County Soil Erosion and Sedimentation Control Permit from the Drain Commissioner, petitioner will need to obtain a drainage review letter from the Township indicating the improvements were designed to County standards.

Commissioner Rauch recommends traffic calming devices be placed throughout the site because the roadways are very straight and long and the sidewalks are close to the roadway. Mr. Desai agrees and they will look into this.

Chairman Brown feels that a new Impact Assessment should have been created for this phase of the development instead of having it continually reference the one from Phase I. There should be more detail.

The call to the public was made at 8:30 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Environmental Impact Assessment dated June 28, 2019 for Westbury Condominiums Phase II. **The motion carried unanimously**.

**Moved** by Commissioner Grajek, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Preliminary Site Condominium Plan dated July 24, 2019, with the following conditions:

- The following items shall be provided with the final condominium plan submittal:
  - Condominium documents (master deed and by-laws);
  - A private road maintenance agreement, including financial and maintenance assurances
  - A detailed lighting plan
  - Details of residential identification signage.
- The applicant must obtain authorization for a road connection with the development to the north
- The conditions stated in the Township Engineer's letter dated August 2 shall be met.

• The conditions stated in the Brighton Area Fire Authority's letter dated August 2 shall be met.

• Arundell Avenue from White Horse Lane to Grand River Avenue will be repaved. **The motion carried unanimously**.

#### ADMINISTRATIVE BUSINESS

#### Staff Report

Ms. VanMarter anticipates that Home Depot and Lowe's will be on the September meeting agenda.

#### Approval of the July 8, 2019 Planning Commission meeting minutes

**Moved** by Commissioner McCreary, seconded by Commissioner Dhaenens, to approve the minutes of the July 8, 2019 Planning Commission Meeting as presented. **The motion carried unanimously.** 

#### **Member Discussion**

Commissioner Grajek expressed his concern with members of the audience speaking out during an applicant's presentation or discussion between the Commission and the applicant.

#### Adjournment

**Moved** by Commissioner Rickard, seconded by Commissioner Rauch, to adjourn the meeting at 8:46 pm. **The motion carried unanimously.** 

Respectfully Submitted,

Patty Thomas, Recording Secretary

August 6, 2019

Planning Commission Genoa Township 2911 Dorr Road Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP
	Planning Director and Assistant Township Manager
Subject:	Westbury Phase II – Preliminary Condominium Plan Review #2
Location:	Phase II of Westbury – north of Grand River Avenue, east of S. Latson Road
Zoning:	MUPUD Mixed Use Planned Unit Development

Dear Commissioners:

At the Township's request, we have reviewed the revised preliminary condominium plan (dated 7/24/19) for Phase II of the Westbury development, which is part of the Lorentzen PUD.

The applicant proposes 106 attached residential units within 29 buildings, along with private road extensions/connections. The originally approved PUD plan for Phase II included 137 units, so the proposal entails an overall reduction in the allowable density.

We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance and the specific requirements of this PUD.

#### A. SUMMARY

- 1. If preliminary condominium plan approval is granted, the applicant must provide the following items with the final condominium plan submittal:
  - a. Condominium documents (master deed and by-laws);
  - b. A private road maintenance agreement, including financial and maintenance assurances;
  - c. A detailed lighting plan; and
  - d. Details of residential identification signage.
- 2. The Planning Commission may grant a reduction in the private roadway easement width; however, the proposed roadway width warrants further discussion.
- 3. The applicant must obtain authorization for a road connection with the development to the north.
- 4. We defer technical review of the private roads to the Township Engineer and Brighton Area Fire Authority.
- 5. The total number of trees depicted on the landscape plan exceeds Ordinance requirements; however, the types and planting locations are not fully compliant. The applicant must either modify the plan or request Planning Commission discretion to modify the specific requirements.
- 6. The applicant proposes to allow access to existing recreational features/structures for Phase II residents. In our opinion, this access will suffice in lieu of additional recreational features/structures.
- 7. Alternatively, the Commission could require sufficient park/open space (approximately 3.65 acres); though existing open space (9.75 acres) may be sufficient for both Phase I and II.
- 8. There is a discrepancy in the lot area for Phase II between the site plan (16.35 acres) and Impact Assessment (17.42 acres).



Aerial view of site and surroundings (looking west)

#### B. PROPOSAL/PROCESS

The applicant proposes a condominium development with 106 attached residential units across 29 separate buildings as Phase II of the existing Westbury development. The project includes private road extensions and connections.

Section 12.07 requires both preliminary and final approval for condominium plans. Procedurally, both reviews go through the Planning Commission for a recommendation to the Township Board, who has final approval authority.

#### C. CONDOMINIUM PLAN REVIEW

- 1. **Submittal Requirements.** Pending approval of the preliminary plan, the applicant will need to prepare and submit condominium documents (master deed and by-laws) with the final condominium plan submittal.
- 2. Dimensional Requirements. The Phase II site area is noted as 16.35 acres and, as previously noted, includes fewer units (106) than allowed by the original PUD approval (137). As such, the overall density of 6.48 dwelling units per acre is well within that allowed for this PUD.

Typical dimensions noted include 20-foot front setbacks from the private road easements, 20-foot spacing between buildings and 30-foot setbacks from the rear of the proposed buildings.

- **3.** Pedestrian Circulation. The preliminary plan includes 5-foot wide sidewalks along both sides of each roadway proposed. The sidewalks are within the limits of the proposed private road easements and connections are provided to existing Phase I sidewalks.
- **4. Private Roads.** The project includes private road extensions and connections of Westbury Boulevard and Arundell Drive.

Details include 26-foot wide roads (back of curb to back of curb) within 50-foot wide easements. As noted in our initial review letter, Section 15.05.03 requires widths of 30 feet (road) and 60 feet (easement), respectively. In response, the applicant has indicated that the roadway and easement widths are consistent with Phase I of the PUD.

Paragraph (b) of Section 15.05.03 allows the Planning Commission to grant a reduction in easement width to not less than 50 feet; however, there is no such discretion for the roadway width.

In our opinion, this aspect of the request warrants additional discussion with input from both the Township Engineer and Brighton Area Fire Authority.

If technical reviews indicate that the proposed roadway width is acceptable, the Ordinance requirement could be modified as a deviation via amendment to the PUD Agreement.

The applicant has acknowledged the requirement to provide a private road maintenance agreement at the time of final condominium plan submittal.

Lastly, the plan proposes a connection between the extended Arundell Drive and Aster Boulevard within the adjacent residential development to the north. The applicant must obtain authorization from the appropriate party (owner/developer/association) affiliated with that property.

If such authorization is not obtained, the roadway end must be modified to meet Township standards.

**5.** Landscaping. The revised submittal includes a detailed landscape plan. Ordinance requirements include a total of 217 canopy trees (212 street trees and 5 parking lot trees).

In total the plan includes 223 trees -200 canopy and 23 evergreen. The street tree requirements do not indicate that evergreen trees can be substituted for canopy trees. Additionally, only 180 of the proposed trees are along the street or within the front yard of residential units.

The applicant must either modify the landscape plan to meet Ordinance standards, or request Planning Commission discretion to modify the specific requirements of the Ordinance.

7. Park/Open Space. The applicant will allow access to existing recreational features/structures for Phase II residents. In our opinion, this access will accommodate the requirements of Section 12.06 for park/open space.

If the Commission does not agree with this opinion, the applicant must incorporate 3.65 acres of park/open space into the project, including the amenities required by Ordinance.

The revised submittal also indicates that 9.75 acres of land was dedicated as park/open space within Phase I of the project. If enough excess open space was included in Phase I, it may be sufficient to meet the requirements for both Phase I and II.

Provisions for preservation and maintenance of such areas would also need to be included in the condominium documents.

- **8.** Lighting. The revised submittal indicates that a lighting plan will be included with the final condominium plan submittal. We suggest fixtures and poles match any existing Phase I site lighting to the greatest extent possible.
- **9. Buildings.** The project includes two building types: a 4-unit building, of which there are 24; and 5 2-unit buildings. The submittal includes floor plans and color elevation drawings of both building types.

Materials include brick, 2 types of vinyl siding and asphalt shingles. Each unit includes a front-facing 2-car garage.

- **10. Signs.** The revised submittal indicates that details of residential identification signage will be included with the final condominium plan submittal. We suggest signage match any existing Phase I signage to the greatest extent possible.
- **11. Grading, Drainage, and Utilities.** We defer to the Township Engineer for review and comment on the site engineering elements of the proposal.
- **12. Impact Assessment.** Our only comment on the amended Impact Assessment (dated June 28, 2019) is that the land area is noted as 17.42 acres, while the site plan identifies 16.35 acres. This discrepancy must be corrected.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at <u>bborden@safebuilt.com</u>.

Respectfully, **SAFEBUILT STUDIO** 

Brian V. Borden, AICP Planning Manager



August 2, 2019

Ms. Kelly Van Marter Genoa Township 2911 Dorr Road Brighton, MI 48116

#### Re: Westbury Phase II Preliminary Site Plan Review No. 2

Dear Ms. Van Marter:

Tetra Tech conducted a second review of the preliminary Westbury Phase II PUD site plan amendment last dated June 28, 2019. The plans were prepared by Somat Engineering, Inc. on behalf of Singh Development Company. The development includes 16.35 acres located on the north side of the existing Westbury Development located on White Horse Lane. The petitioner is proposing 29 additional buildings as part of the second phase of the development. The proposed buildings will include both duplex and fourplex structures with a total of 106 individual units. We offer the following comments:

#### PRIVATE ROAD

- 1. The existing stretch of Arundell Avenue from White Horse Lane to Grand River Avenue is in poor condition and the petitioner noted on the plans that improvements to Arundell Avenue would be included on the construction plans.
- 2. The petitioner is proposing to extend the two existing private roads of Arundell Avenue and Westbury Boulevard. After site plan approval, the petitioner must submit private road construction plans for review.
- 3. The proposed road cross section shown on the plan notes a 50-foot-wide road ROW. The Township's Engineering Design Standards require that local roads have a minimum road ROW of 66 feet. The 50-foot-wide road ROW matches the previously approved road ROW in Westbury Phase I.

#### SANITARY AND WATER SERVICES

1. After final site plan approval, the Petitioner will be required to submit construction plans to MHOG Sewer and Water Authority for review and approval.

#### **DRAINAGE AND GRADING**

1. The construction plan review phase is only for sanitary sewer, water main, and private road improvements. It is important that storm sewers and detention are sized correctly as part of the site plans, as it could affect the proposed arrangement of the site. The petitioner should provide storm sewer and detention calculations for the existing detention basin as part of the final site plans.

2. Prior to obtaining Livingston County Soil Erosion and Sedimentation Control Permit from the Drain Commissioner, Petitioner will need to obtain a drainage review letter from the Township indicating the improvements were designed to County standards.

We recommend the petitioner address the above comments in their final site plan and submit a final site plan for review.

Please call or email if you have any questions.

Sincerely,

Gary J. Markstrom, P.E. Vice President

helby Scherdt

Shelby Scherdt Project Engineer

**BRIGHTON AREA FIRE AUTHORITY** 



615 W. Grand River Ave. Brighton, MI 48116 0: 810-229-6640 f: 810-229-1619

August 2, 2019

Kelly VanMarter Genoa Township 2911 Dorr Road Brighton, MI 48116

RE: Westbury Phase II PUD Amendment Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Authority has reviewed the above-mentioned site plan. The plans were received for review on July 25, 2019, and the drawings are dated June 28, 2019. The project is the proposed second phase of multi-family development. The new phase will include the development of 106-units to be split between duplex and quad units. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

- 1. The fire hydrant locations proposed shall be modified according to the image included at the end of this letter. (All hydrant locations have been revised as required.)
- 2. Future project submittals shall include the address and street name of the project in the title block. (Acknowledged by applicant)

IFC 105.4.2

3. The building shall include the building address on the building. The address shall be a <u>minimum of 4"</u> high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. (Acknowledged by applicant)

#### IFC 505.1

4. The access roads throughout the site shall be a minimum of 26' wide measured from the face of the curbs or from the center of the gutters. With a width of 26' wide, one side of the street shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to the site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 84,000 pounds. (The road width correction to 26-feet FOC and locations of fire lane signage is not provided on the drawings as required. Fire Lane signage is recommended to be installed on the side of the road that the fire hydrants are installed).

IFC D 103.6 IFC D 103.1 IFC D 102.1 IFC D 103.3

5. Access throughout the site shall provide emergency vehicles with a minimum turning radius of 50'-outside and 30'-inside. Provide emergency vehicle circulation plan for the attached vehicle template. (Compliant template provided as required, however, see comment 6 below.)



August 2, 2019 Page 2 Westbury Phase II PUD Amendment Site Plan Review

- 6. A minimum vertical clearance of 13½-feet shall be maintained throughout the site. This includes future growth of plantings and trees. (Noted to be complied with in final condominium documents. This encroachment on the road width overlaps the emergency vehicle circulation path significantly effectively reducing clear road width and navigability of the roadways for emergency vehicles. This must be addressed through different species, planting locations, etc.)
- 7. Provide names, addresses, phone numbers, emails of owner or owner's agent, contractor, architect, on-site project supervisor. (Provided as requested)

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

Rick Boisvert, CFPS Fire Marshal

Received 8-29-19

#### AMMENDMENT TO PREVIOUSLY APPROVED IMPACT ASSESSMENT PREPARED BY BOSS ENGINEERING COMPANY (SEE ATTACHED) PART OF LORENZEN PUD GENOA TOWNSHIP, LIVINGSTON COUNTY MICHIGAN

PERSUANT TO SECTION 18.07.00 AND 18.07.13, GENOA TOWNSHIP ORDINANCE

PREPARED FOR:

SINGH DEVELOPMENT COMPANY 7125 ORCHARD LAKE ROAD, SUITE 200 WEST BLOOMFIELD, MICHIGAN 48334 (248) 865-1600

**PREPARED BY:** 

SOMAT ENGINEERING 7125 ORCHARD LAKE ROAD, SUITE 104 WEST BLOOMFIELD, MICHIGAN 48334 (313) 887-7155

JUNE 28, 2019



#### INTRODUCTION

No changes proposed.

#### **DISCUSSION ITEMS**

- A. No changes proposed.
- B. Description of site generally same, but this is Phase-II condominium development is proposed on balance of vacant 17.42 acres from 46.66 acres. (See attached legal description)

Existing utilities will be utilized from Phase-I development for Phase-II construction. See attached site plan. (water main, sanitary, storm etc.)

Adjacent properties include to the east vacant parcel, to the south existing Westbury Phase-I development, to the west previously dedicated park area, to the north, existing Hampton ridge development.

- **C.** No change; however, Phase-II development will utilize existing detention ponds in the center and at southeast (SE) corner of the property for storm water discharge. These ponds were designed to accommodate the proposed Phase II development.
- D. No changes are proposed per PUD agreement, Proposed condominium community will enjoy the existing amenities of Club House, Swimming pool and all open space of the developed Westbury Phase I
- E. No changes except previously approved density was 264 units, Phase-I was constructed with 127 units balance remaining 137 units, proposed density of Phase-II is 106 units, which is significantly less than remaining units from Phase-I, so there will be much minimal impact overall.
- **F.** No changes but minimal impact as lesser density is proposed than previously approved density.
- **G.** No changes proposed.
- H. No changes proposed.
- I. No changes whith minimal impact as a result of condominium development.
- **J.** The applicant would like to amend this PUD agreement to reflect 106 condominiums units versus 137 remaining apartment units from previously approved.
- K. No changes proposed.
- L. See attached Impact assessment from February 7, 2002.

In the balance of the attached sketches and description, there is no change proposed.



#### Westbury Phase II Legal Description

PART OF THE SOUTHWEST ¼ OF SECTION 4 AND PART OF THE NORTHWEST ¼ OF SECTION 9. T02N-R05E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, MORE PARTICULARLY **DESCRIPED AS FOLLOW:** BEGINNING AT THE NORTH ¼ CORNER OF SAID SECTION 9, ALSO BEING THE SOUTH ¼ CORNER OF SAID SECTION 4; THENCE, ALONG THE NORTH SOUTH QUARTER LINE OF SAID SECTION 9, S 01° 46' 49" E FOR A DISTANCE OF 457.82 FEET TO THE SOUTH ROW OF WHITE HORSE LANE. THENCE, ALONG SAID SOUTH ROW LINE N 64° 07' 56" W FOR A DISTANCE OF 401.50 FEET TO THE EAST ROW LINE OF ARUNDELL DRIVE. THENCE, ALONG SAID EAST ROW LINE OF ARUNDELL DRIVE S 25° 47' 50" W FOR A DISTANCE OF 310.35 FEET TO A POINT ON THE NORTHERLY ROW OF GRAND RIVER AVE. THENCE, ALONG SAID NORTHERLY ROW OF GRAND RIVER AVE. N 64° 09' 31" W FOR A DISTANCE OF 66.00 FEET TO A POINT ON THE WESTERLY ROW OF ARUNDELL DRIVE. THENCE, ALONG SAID WESTERLY ROW OF ARUNDELL, N 25° 49' 23" E FOR A DISTANCE OF 310.12 FEET TO A POINT ON THE SOUTHERLY LINE OF WHITE HORSE DRIVE. THENCE THE FOLLOWING EIGHTEEN CALLS ALONG THE BOUNDARY OF PHASE I OF WESTBURY (WESTBURY APARTMENTS): THENCE, N 31° 13' 48" E FOR A DISTANCE OF 153.62 FEET TO A POINT. THENCE, N 62° 38' 36" W FOR A DISTANCE OF 81.10 FEET TO A POINT. THENCE, N 59° 29' 41" W FOR A DISTANCE OF 38.18 FEET TO A POINT. THENCE, N 22° 51' 39" E FOR A DISTANCE OF 156.67 FEET TO A POINT. THENCE, N 21° 57' 24" E FOR A DISTANCE OF 255.26 FEET TO A POINT. THENCE, N 86° 32' 02" E FOR A DISTANCE OF 95.34 FEET TO A POINT. THENCE, N 03° 19' 14" W FOR A DISTANCE OF 20.22 FEET TO A POINT. THENCE, N 03° 15' 41" W FOR A DISTANCE OF 229.67 FEET TO A POINT. THENCE, N 63° 31' 48" W FOR A DISTANCE OF 34.62 FEET TO A POINT. THENCE, N 01° 54' 53" W FOR A DISTANCE OF 52.16 FEET TO A POINT. THENCE, N 03° 14' 09" W FOR A DISTANCE OF 399.95 FEET TO A POINT. THENCE, S 86° 07' 36" W FOR A DISTANCE OF 223.17 FEET TO A POINT. THENCE, S 03° 25' 16" E FOR A DISTANCE OF 423.20 FEET TO A POINT. THENCE, N 77° 39' 12" W FOR A DISTANCE OF 132.29 FEET TO A POINT. THENCE, N 85° 07' 23" W FOR A DISTANCE OF 34.49 FEET TO A POINT. THENCE, N 48° 25' 29" W FOR A DISTANCE OF 35.28 FEET TO A POINT. THENCE, S 33° 48' 12" W FOR A DISTANCE OF 30.30 FEET TO A POINT. THENCE, S 65° 14' 25" W FOR A DISTANCE OF 49.11 FEET TO A POINT. THENCE, N 25° 34' 39" W FOR A DISTANCE OF 94.52 FEET TO A POINT. THENCE, N 80° 52' 07" W FOR A DISTANCE OF 21.51 FEET TO THE EAST LINE OF THE PARK AREA OF WESTBURY. THENCE, ALONG SAID EAST LINE N 01° 26' 11" W FOR A DISTANCE OF 620.78 FEET TO THE SOUTH LINE OF HAMPTON RIDGE PHASE II. THENCE, ALONG SAID SOUTH LINE N 86° 19' 33" E A DISTANCE OF 739.65 FEET TO THE WEST LINE OF PROPOSED SUMMERFIELD POINT AND THE NORTH SOUTH 1/4 LINE OF SECTION 4, AS PREVIOUSLY SURVEYED AND MONUMENTED BY BOSS ENGINEERING. THENCE, ALONG SAID NORTH SOUTH ¼ LINE S 01° 35' 53" E FOR A DISTANCE OF 1365.87 FEET TO THE POINT OF BEGINNING. CONTAINING 17.472 ACRES MORE OR LESS AND SUBJECT TO THE RIGHTS FO THE PUBLIC OVER THE EXISTING GRAND RIVER AVENUE (100 FEET WIDE). ALSO, SUBJECT TO AND INCLUDING THE USE OF EASEMENT B AS RECORDED IN LIBER 2580 PG 0194-0205, EASEMENT A AND THE WHITE HORSE DRIVE EASEMENT AS RECORDED IN LIBER 3623 PG 0768-0778.

ALSO, SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD.



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## IMPACT ASSESSMENT FOR "WESTBURY" PART OF LORENZEN PUD GENOA TOWNSHIP, LIVINGSTON COUNTY MICHIGAN

Prepared for:

SINGH DEVELOPMENT COMPANY 7125 ORCHARD LAKE ROAD SUITE 200 WESTBLOOMFIELD, Michigan 48334 (248) 865-1600

Prepared by:

BOSS ENGINEERING COMPANY 7125 ORCHARD LAKE ROAD SUITE 108 WESTBLOOMFIELD, MI 48334 (248) 626-2677

Revised - February 7, 2002

February 27, 2001

2-00038EIA

#### INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed development have on various factors in the general vicinity of the project. The format used for presentation of this report conforms to the *Submittal Requirements For Impact Assessment/Impact Statement* guidelines in accordance with Section 13.05 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

#### **DISCUSSION ITEMS**

A. Name(s) and address(es) of person(s) responsible for preparation of the impact assessment and a brief statement of their qualifications.

Prepared By : BOSS ENGINEERING COMPANY 3121 E. Grand River Howell, MI 48843 (517) 546-4836

Prepared For : SINGH DEVELOPMENT COMPANY 7125 Orchard Lake Road Suite 200 West Bloomfield, MI 48322 (248) 865-1600

B. Description of the site, including existing structures, man made facilities, and natural features, all-inclusive to within 10' of the property boundary.

The site is located on the Grand River Avenue, just west of Latson Road, in section 4 & 9, T2N-R5E, Genoa Township, Livingston County, Michigan. The site location is presented on an USGS quad in Figure 1, Attachment A. The parcel contains an approximate area of 46.66 acres and is currently vacant. The northern half of the site drains in a northeasterly direction. The southern half of the site drains towards an existing detention basin on the southeast corner of the site. The average slope within the property is approximately 2%. The parcel is part of the approved Lorentzen P.U.D. and carries an underlaying light industrial zoning clasification. Singh Development Company is requesting that the underlying zoning be changed from LI to Medium Density Residential (MDR). Overall PUD plan and detailed site plan has been prepared as part of the site plan submittal.

The existing utilities abutting the site include water main and sanitary along Grand River Avenue on the southeast side of the site.

Adjacent properties include: To the east a vacant parcel, to the southeast corner an existing restaurant, to the southwest corner a proposed First National bank site, to the west Detroit Edison/Consumer Power corridor, to the north a proposed Hampton Ridge development.

C. Impact on natural features: A written description of the environmental characteristics of the site prior to development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.

As described in earlier section, drainage pattern of the property is divided into two areas. Northern half drains towards northeast and southern half drains towards existing detention basin in southeast corner.

A review of the U.S.D.A. Soil Conservation Service Soil Survey of Livingston County, Michigan, Sheet 26, indicates that the on-site soils consists of the following six soil types.

1

- 1. MIAMI LOAM (MoB), Miami Loams are typically well-drained soils found on nearly level to very steep till plains and moraines. Permeability is more moderate, and the available water capacity and fertility are high. MoB soil slopes vary from 2-6%. The surface runoff is slow for MoB soil, and the soil erosion hazard is slight.
- 2. MIAMI LOAM (MoC), These soils are similar to MoB except, soil slopes vary from 6 to 12%. The surface runoff is medium and soil erosion hazard is moderate.
- BRONSON LOAMY SAND (BwA), The Bronston series consist of nearly level, moderately well drained soils on valley trains and outwash plains with slope 0 to 2%. Permeability is moderately rapid and surface runoff is slow.
- CONOVER LOAM (CvA), This soil is on till plains and basin like depressions in the hilly moraines. Soil slope vary from 0 to 2%. The surface runoff is slow and permeability is moderately slow.
- 5. HILLSDALE SANDY LOAM(HID), This soil exist along natural drainage ways on till plains and in small areas on moraines. Surface runoff is rapid and permeability is moderate.
- SPINKS-OAKVILLE LOAMY SANDS (SvB), The Spinks series consist of well drained, nearly level to very steep soil on till plains, outwash plains, and moraines. Slope varies from 0 to 6%. In these soils surface runoff is slow, permeability is moderately rapid with slight erosion hazard.

The soils map for the site area is presented in Figure 2.

Vegetation at the site consists mainly of fallow farmland except at the northwest corner of the site. Northwest corner is wooded with variety of trees and shrubs. Alogn the north and east property line there are some trees and shrubs, which act as a natural vegetative buffer.

# D. Impact on storm water management: description of soil erosion control measures during construction.

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence, pea stone filters, and seed and multch.

At the time of construction, there may be some temporary dust, noise, vibration and smoke, but these conditions will be of relatively short duration and shall be controlled by complying appropriate procedures to minimize the effects, such as watering if necessary for dust control.

# E. Impact on surrounding land use: Description of proposed usage and other man made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution which could negatively impact adjacent properties.

The applicant is proposing to construct a 264 unit apartment complex with clubhouse and community amenities including a swimming pool and tennis court. Under the existing Lorentzen P.U.D. agreement, the following types of usage could be developed

- 1. Business park
- 2. Research and development center
- 3. Light industrial Park

The applicant is requesting to amend the P.U.D. agreement and change underlying zoning to accommodate the proposed development. It is our belief that the proposed project contains significantly more open space than the above uses and will also result in less impact in such areas as noise, artificial light and truck traffic.

This development is proposed to contain residential apartment buildings, circulation drives, streets, and parking lots. The expected impact from the development will be minimized because of the following:

1. Significant features on the site will be disturbed only as necessary to construct the site improvement. Two detention basins will be located on the site. The basin in the northeast corner

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is designed to accommodate northwestern 2/3rd of the site, approximately 38.21 acres. The outlet discharge of 0.2 cfs will be discharged into the natural watercourse/wetlands on the north side of the site.

2. There is an existing detention basin on southeast corner of the site. Currently this basin is designed to handle runoff from existing restaurant site and natural drainage from the project site. The outlet from this basin is designed to release storm water at a rate of 2.13 cfs (2.56-0.43 cfs for the Bank site) per McNamee ,Porter & Seeley's letter dated June 18, 1998 (included in Appendix C). This basin will be expanded to accommodate/detained added surface runoff from the proposed development, keeping the outlet discharge the same. The outlet pipe discharges into the M.D.O.T. storm drainage system along Grand River Avenue.

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- 3. The layout was prepared taking into account the natural features of the site so as to preserve the existing lay of the land. The wooded area to the northwest and along property boundary of the site will be preserved as a natural landscape buffer. In addition, the site will be landscaped in accordance with Genoa Township Standards and to provide an aesthetically pleasing site.
- Soil erosion control measures such as silt fence, straw bale filters, and pea stone filters at the catch basins will be utilized during construction to control siltation and sedimentation from entering the wooded areas.
- 5. Grand River Avenue is a major service road in this area and presently experiences a large volume of traffic along with the associated noise level. It is unlikely that this development will significantly change that. Since the site is located along a primary commuting route, it is anticipated that most of the traffic generated will account for a very small percentage of the traffic already traveling in the area.

# F. Impact on public facilities and services: Description of number of residents, employees, patrons, and impact on general services, i.e., schools, police, fire.

Based on the SEMCOG 2020 Regional Development Forecast, Summary Report, dated December 1995, average household size in the region continues to drop and in 1990 it was 2.66 per household. Therefore with the total planned density of 264 apartment units, the projected population for this site will be 702 people.

Impact from this residential development will be on the local school system. Using the school system's potential population of 0.5 students per family unit, this project may result in a school population of 132 students. In an effort to aid the Howell school system in future planning, plans of this development will be submitted for their use.

# G. Impact on public utilities: Description of public utilities serving the project, i.e., water, sanitary sewer, and storm drainage system. Expected flows projected in residential units.

Total projected sanitary sewage flow from the site will be 264 residential equivalent units (R.E.U.s) in addition to flows created from a clubhouse facility. The property is located within the community water district and the Genoa/Oceola sewer district. Under the executed P.U.D. agreement for the Lorenzten P.U.D. each residential parcel/user must connect to the community water system if such system is available at the time of development. Such connection shall require payment of all proportionate and applicable fees, charges, and assessments.

As described above two detention basins will be designed to collect storm water runoff from the site. Storm water will be released at an agricultural runoff rate to the appropriate natural/designed storm water systems.

All other utilities, including gas, electric, and telephone are also available adjacent to or near the site.

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H. Storage or handling of any hazardous materials: Description of any hazardous materials used, stored, or disposed of on-site.

Since the proposed development is residential, there will be no hazardous materials used or disposed of on this site.

I. Impact on traffic and pedestrians: Description of traffic volumes to be generated and their effect on the area.

Consideration was given to the amount of traffic generated from the Lorentzen P.U.D. development and the impact it would have on the existing public road network. Since that time, there have been significant improvements to Grand River Avenue and additional improvements are currently being planned. Not only is M.D.O.T. planning additional improvement, both roadway and signalization improvements are being proposed.

Using the Institute of Transportation Engineers publication, TRIP GENERATION MANUAL, 5<sup>th</sup> edition, traffic flow information was generated for the proposed site. A comparison of traffic volume between existing and proposed underlying new zoning is presented in Appendix A. This study shows that the traffic volume generated from proposed development (264 units) will be less than other usage of the site per current zoning.

#### J. Special provisions: Deed restrictions, protective covenants, etc.

A Planned Unit Development Agreement for the Lorentzen P.U.D. dated April 12, 1996, was entered into between the property owner, Birgit Lorentzen and the Genoa Township Board. The applicant would like to amend this P.U.D. agreement with underlying zoning changes as requested.

K. Description of all sources:

Genoa Township's Submittal Requirements For Impact Assessment/Impact Statement

Genoa Township Zoning Ordinances

Soil Survey of Livingston County, Michigan, U.S.D.A. Soil Conservation Service

National Wetland Inventory Plan, United States Department of the Interior, Fish and Wildlife Service

Brooks Williamson and Associates, Inc. letter dated December 6, 1991 detailing results of wetland inspection

Trip Generation manual, 5<sup>th</sup> edition, Institute of Transportation Engineers

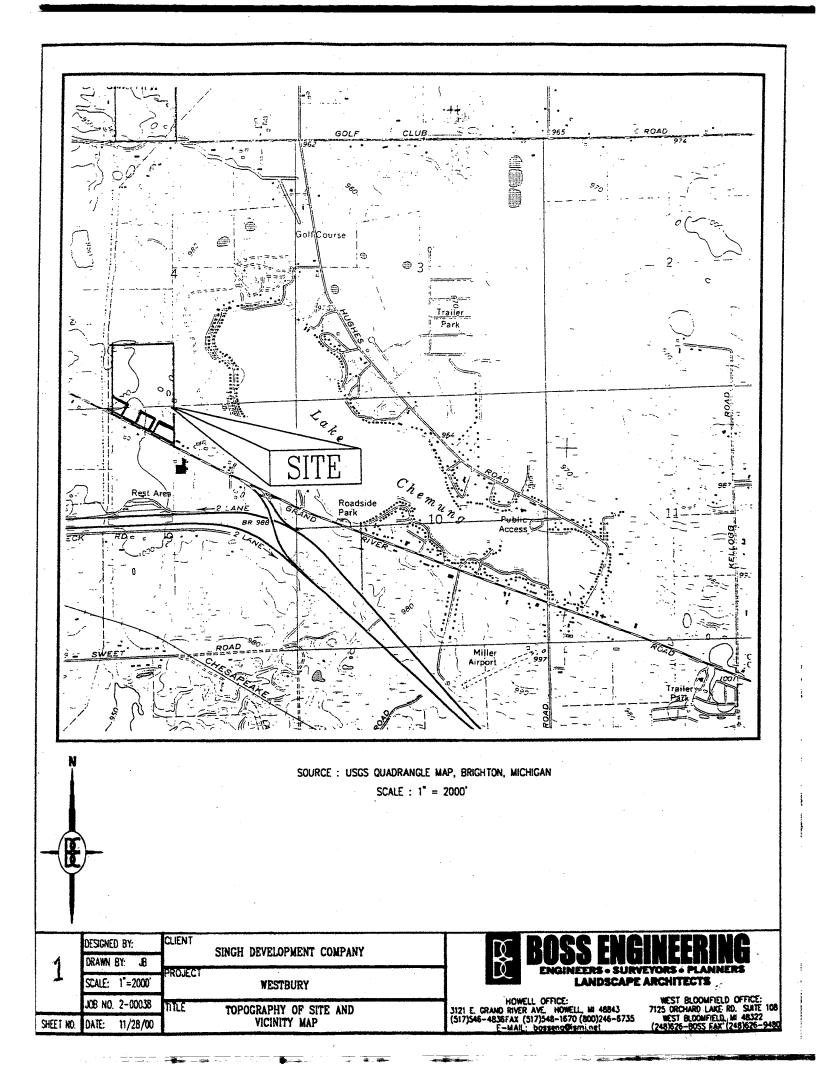
A Planned Unit Development Agreement for the Lorentzen P.U.D. dated April 12, 1996 (Appendix B)

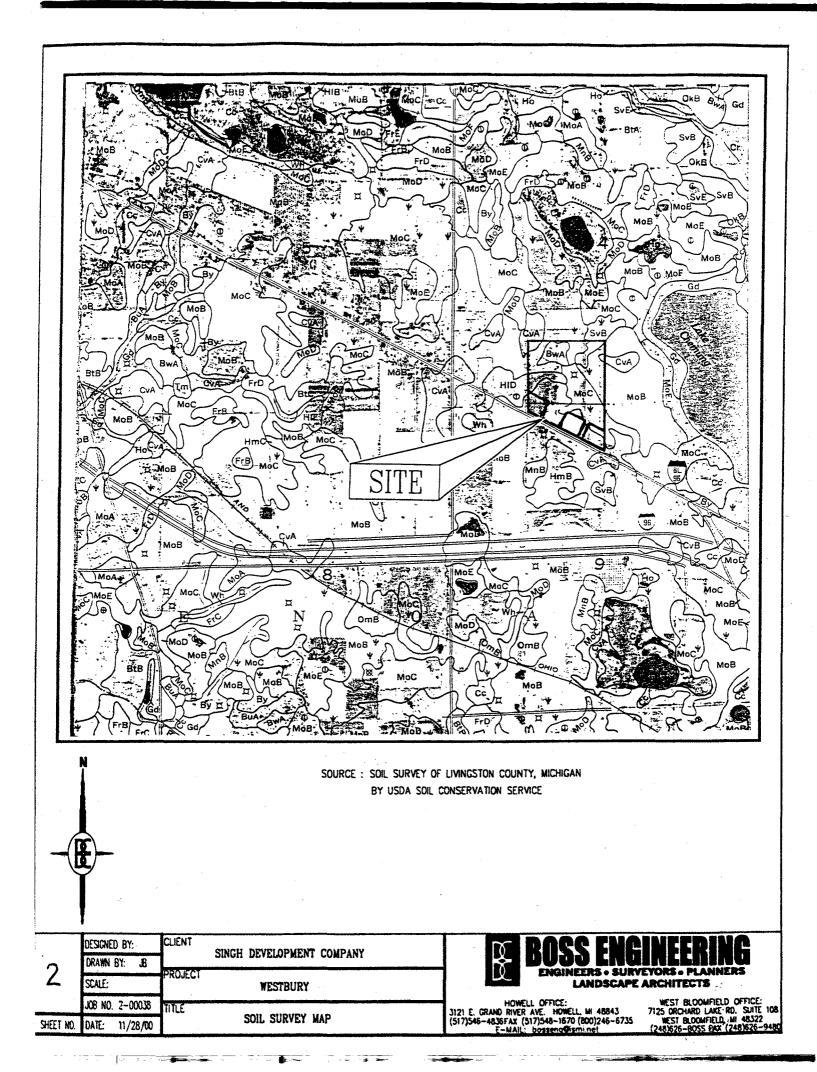
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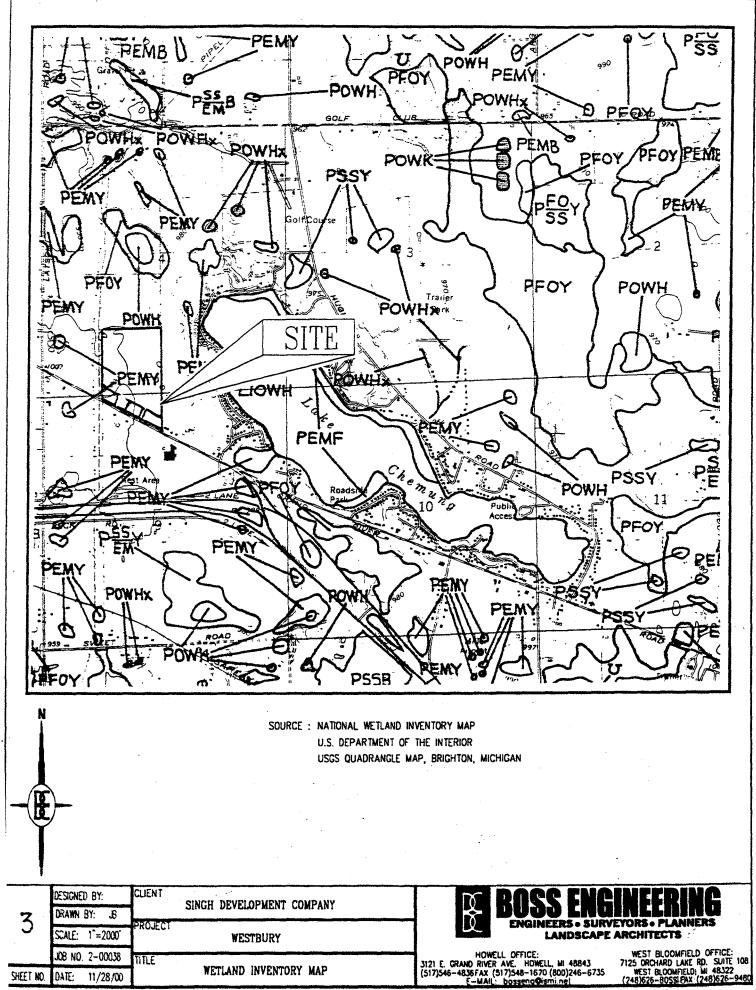
2020 Regional Development Forecast, Summary Report, dated December 1995, SEMCOG

#### L. previously submitted environmental assessments

None







# Lorentzen PUD Trip Generation Comparison 43 +/- Acre Light Industrial Parcel

#### **Existing Zoning**

Business Park (Land Use Code # 770) Weekday Trips = 43 Ac x 159.75 = 6869 Vehicles A.M. Peak = 43 Ac x 20.14 = 866 Vehicles P.M. Peak = 43 Ac x 17.96 = 772 Vehicles

Research and Development Center (Land Use Code # 760) Weekday Trips = 43 Ac x 79.6 = 3422 Vehicles A.M. Peak = 43 Ac x 16.8 = 722 Vehicles P.M. Peak = 43 Ac x 15.4 = 662 Vehicles

Industrial Park (Land Use Code # 130) Weekday Trips = 43 Ac x 62.9 = 2705 Vehicles A.M. Peak = 43 Ac x 8.29 = 356 Vehicles P.M. Peak = 43 Ac x 8.67 = 372 Vehicles

#### **Proposed Zoning**

Single Family Development (Land Use Code # 210) Weekday Trips = 189 Units x 9.55 = 1805 Vehicles A.M. Peak = 189 Units x .76 = 144 Vehicles P.M. Peak = 189 Units x 1.02 = 193 Vehicles

Apartment Development (Land Use Code # 221) Weekday Trips = 264 Units x 6.59 = 1740 Vehicles A.M. Peak = 264 Units x .51 = 135 Vehicles P.M. Peak = 264 Units x .62 = 164 Vehicles

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Page 1 of 2

#### **Definitions**

Business Park -

Business parks consist of a group of flex-type or incubator one or two story buildings served by a common roadway system. The tenant space is flexible to house a variety of uses; the rear side of the building is usually served by a garage door. The average mix is 20 to 30% office/commercial, and 70 to 80% industrial/warehousing.

Research and Development Center

Development Center- Research and development centers are facilities or groups of facilities devoted nearly exclusively to research and development activities. They may also contain offices and light fabrication areas.

Insustrial Park-

Industrial parks are areas containing a number of industrial or related facilities. They are characterized by a mix of manufacturing, service, and warehouse facilities with a wide variation in the proportion of each type of use from one location to another

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		PLANNED UNIT DEVELOPMENT AGREEMENT	

THIS PLANNED UNIT DEVELOPMENT AGREEMENT is made and entered into on this  $12^{TH}$  day of  $\Delta per L$ , 1996, by BIRGIT LORENTZEN, 388 Au Sable Place, Ann Arbor, Michigan 48104 (referred to as "Owner"), and the TOWNSHIP OF GENOA, a Michigan municipal corporation, 2980 Dorr Road, Brighton, Michigan 48116 (referred to as "Township").

#### RECITATIONS:

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The Owner possesses fee title to certain real property situated in the Township of Genoa, County of Livingston, State of Michigan, more particularly described on attached Schedule A (referred to as the "Property"), some of which Property is currently under binding agreement of sale. At the closings on such agreements of sale, purchasers will acknowledge that their respective portions of the Property shall be bound by this Agreement.

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The Owner does not have a site specific development the Property. However, in view of the size and plan for the Property. However, in view of the size and strategic location of the Property, Township desires the establishment of a general land use plan setting forth authorized land uses, and Owner likewise desires to establish a plan setting forth the manner in which Owner's transferees are they are ready to proceed with development.

The Owner has submitted a proposal for a general land use plan for the future development of the Property. Township has reviewed and revised such plan, requiring, among other things, reduced intensity of land uses, reduced residential use density and fewer access points along Grand River Avenue and Latson Road.

The Township Planning Commission and Township Board, in strict compliance with the Township Zoning Ordinance and with Act 184 of the Public Acts of 1943, as amended, reclassified the Property as Mixed Use Planned Unit Development District, finding that such classification properly achieved the purposes of Article 10 of the Genoa Township Zoning Ordinance, including the encouragement of innovation in land - ase, the preservation of open space in areas adjacent to Latson. Road in order to achieve compatibility with adjacent land uses, the promotion of efficient provision of public services and sutilities, the reduction of adverse traffic impacts, and the provision of adequate housing and employment.

TO: VGOWA TOWNSHIP 2980 DORR RAD BAGHTON, MICH. 4816

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The Township has found and concluded that the uses and future development plans and conditions shown on the approved PUD Concept Plan, attached as Schedule B ("PUD Plan"), are reasonable and promote the public health, safety and welfare of the Township, and that they are consistent with the plans and objectives of the Township and consistent with surrounding uses of land.

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NOW, THEREFORE, OWNER AND TOWNSHIP, in consideration of the mutual promises contained in this Agreement, HEREBY AGREE AS FOLLOWS:

#### ARTICLE I. GENERAL TERMS OF AGREEMENT

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\_ 1.1 The Township and the Owner acknowledge and represent that the recitations set forth above are true, accurate and binding.

1.2 The Township acknowledges and represents that this Agreement may be relied upon for future land use and development of the Property by Owner's heirs, assigns and transferees.

1.3 The PUD Plan, attached as Schedule B, has been duly approved by Township in accordance with all applicable Township ordinances, and depicts the land uses which will be permitted and which may be developed on the Property. All formal actions necessary or expedient to carry out this Agreement shall be taken by the parties without undue delay.

1.4 Except as specifically provided for in this Agreement, final site plans will comply with applicable Zoning Ordinance requirements. However, at the time of review of respective site plans for the development of various portions of the Property, deviations from ordinance regulations may be agreed upon by the Township and the ultimate developers of the Property.

1.5 The PUD Plan identifies the location and configuration of the authorized land uses that may be developed on the Property.

A. All uses authorized in the respective zoning Classifications of the Genoa Township Zoning Ordinance on the date of this Agreement are authorized, provided, however, that east of Latson Road, between Latson Road and the Detroit Edison/Consumer's Power Corridor, in the areas which are designated GC\*, the uses specified on attached Schedule C are authorized.

B. The Owner shall be permitted without further approval of Township to adjust the size or shape of the various parcels provided the adjustment does not alter the land use

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designation for any area of the Property or increase the intensity and/or density of use, provided, all development shall be subject to Final PUD Site Plan and land division approval. In addition:

1. The Owner shall not be entitled to make a modification which substantially increases the impact upon adjoining properties or facilities without the approval of Township.

2. The size, shape, entrance location and open space/buffer with respect to the 25.5 acre GC - Retail parcel shall not be modified without the approval of Township.

3. The Owner shall not be entitled to make other substantial changes without the approval of Township.

C. The sizes of the various parcels within the land use designations shall be subject to modification under the applicable regulations of the Zoning Ordinance and state law.

D. In those instances in which the Owner desires to obtain a modification of the PUD Plan, Township shall review the proposed change for the purpose of determining whether the change would have a material adverse impact upon surrounding land uses, services, transportation systems and/or facilities, and if such adverse impact would result, the Township may deny or impose mitigating conditions upon the proposed modification.

1.6 This Agreement, including the uses approved on the PUD Plan, are for the benefit of the Property, and shall run with the Property, and shall bind and inure to the benefit of the heirs, successors, assigns and transferees of the parties to this Agreement.

#### ARTICLE II. LAND USE AUTHORIZATION

2.1 The Planned Unit Development shall include a land use authorization for the following uses, as set forth on the PUD Zoning Plan:

GC	General Commercial
nsd	Meighborhood Service District
OSD	Office Service District
HDR	High Density Residential
IND	Light Industrial
MOR	Medium Density Residential

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2.2 The Property is intended to be developed in 2.2 The Property is intended to be developed in stages or phases. More detailed planning for the development of the Property shall be undertaken on a parcel-by-parcel basis, subject to the intent and obligation to coordinate development of the Property as a whole, as specified hereinafter. The Owner, as dictated by the Owner's transferees, shall determine the timing and order of development. At the time the Owner, and the Owner's assigns and transferees, are prepared to develop each portion or-phase of the Property, a plan prepared in the form required by applicable ordinance and law, including impact assessments required by the Township, and consistent with this Agreement, shall be submitted for review and approval. The Township shall review each of such plans within a reasonable time. Site plan and other review requirements shall not be subject to any subsequent enactments or amendments of the Zoning Ordinance which are inconsistent with this Agreement unless the concept plan as set forth herein is materially altered at the request of the Owner or her successors and assigns.

2.3 The number of residential units to be permitted on the residential component of the Property shall be as specified on the PUD Plan. Single family subdivision and site condominium lots, with detached housing, shall be a minimum of 18,000 square feet in area. The number of residential units shown on the PUD Plan may be reduced if required due to wetland considerations.

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2.4 The Industrial use authorization shown òn Schedule B shall include all permitted uses in the industrial adistrict, however, the only special land uses which shall be permitted are for urgent care and day care uses.

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2.5 If a use suthorized under the Genoa Township Zoning Ordinance as a special land use is proposed on the Property, queh was must be applied for and authorized as provided in the Zoning Ordinance.

#### CURB CUTS AND OFF-SITE TRANSPORTATION IMPROVEMENTS ARTICLE III.

3.1 The establishment of curb cuts and driveways to public thoroughfares from the PUD property shall be limited and restricted for the purpose of reducing the number of turning. movements to and from the property. Therefore, the number and general location of entrances to the site from adjacent public thoroughfares shall be fixed in the manner specified on the PUD Plan.

3.2 Off-site Improvements in Public Right of Way.

off-site has been determined that certain エヒ improvements to the adjoining state highway, Grand River Avenue. and Latson Road, would be desirable at such time as more

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intense development occurs on the Property, as specified in the following subparagraphs. Identification of the entity undertaking the surveying, engineering and construction with regard to Grand River Avenue improvements shall be determined by MDOT in the future based upon the MDOT access permit process. Identification of the entity undertaking the surveying, engineering and construction with regard to Latson Road improvements shall be determined by the Livingston County Road Commission, or MDOT, in the future. Owner's transferees shall participate financially in the improvements outlined herein, however, the extent of such financial participation shall take into consideration applicable law, and, such participation shall not be required if and to the extent the Michigan Department of Transportation and/or the Livingston County Road Commission has scheduled such improvements using other funding.

A. Grand River west of Latson: A center turn lane shall be constructed along Grand River Avenue to complete a continuous center turn lane from the western end of the Property to the Latson Road intersection approach. It is contemplated that such improvements, including traffic signal(s), will be constructed at such time in the future as more than fifty percent of the Grand River frontage on the Property, west of Latson Road, is developed or seeking development approval, or upon the development of the larger GC-Retail area, whichever occurs first in time.

1.1.2.1.1.1

B. Grand River Avenue east of Latson: A center turn lane must be constructed according to the plans and specifications, including length, established by the Michigan Department of Transportation. It is contemplated that such improvements would be undertaken at such time as: (1) the users on the Grand River frontage on the Property, east of Latson Road, would be reasonably anticipated to generate at least fifty peak hour left turns from Grand River into such portion of the Property; or (2) 50% of the acreage or frontage on the Property east of Latson Road is approved for development and is reasonably anticipated to begin generating traffic; whichever occurs first in time.

C. Latson Road, adjacent to non-residential: Turning lanes, mutually agreeable right-of-way and other improvements, as may be required by the Livingston County Road Commission, are to be constructed.

D. Latson Road, adjacent to residential: A turning lane for any access point from Latson Road is to be constructed prior to the occupancy of the twentieth unit to be served primarily by that access point, or as required by the Livingston County Road Commission. Passing lanes shall be constructed when a sufficient number of units are developed to warrant the requirement of a passing lane based upon Livingston County Road Commission standards.

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#### ARTICLE IV. INTERNAL ROAD NETWORK

4.2 In residential areas:

A. The Owner's transferees shall have the right to determine whether roads shall be public or private, provided applicable ordinances are met. If private roads are constructed, a private road maintenance agreement, subject to approval by the Township, providing for ongoing maintenance shall be adopted.

B. In the interest of efficient circulation and adequate access for emergency vehicles, the Township may as part of site plan approval, require street connections with land to the west or north of the residential component of the PUD on the Property, provided all rights relating to private streets shall be respected and observed. Owner's transferees shall construct such streets as reasonably required by the Township and/or the Board of Road Commissioners of Livingston County.

4.3 Permission for shared access east of Latson Road.

It is anticipated that Owner's transferees shall ultimately develop a vehicular traffic lane or road providing access to Latson Road at the northern end of the property on the east side of Latson Road. Immediately north of Owner's Property, the Township has approved a planned unit development which includes a multiple family residential component not yet constructed. Owner shall authorize the developer of the multiple family project to have common use of the traffic lane or road on the north end of Owner's Property following construction of the traffic lane or road so as to allow access from the multiple family residential component to Latson Road, provided that Owner and the developer of the multiple family property reach a mitually satisfactory agreement with respect to the use, location of connection, construction and maintenance of the traffic lane or road providing access to Latson Road, and providing to Owner and Owner's transferees a release with respect to liability in connection with the design

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and use thereof. The Owner and Owner's transferees shall not unreasonably negotiate relative to this right of access.

4.4 The developer of the Retail portion of the Property shall construct a service drive or traffic lane to the west Property line and provide a shared access easement for the connection to the adjacent property on which there are currently Kroger's and Walmart shopping facilities. This service drive shall be designed at a grade to allow eventual connection, however, the developer of such Retail area shall not be required to complete any service drive construction or provide any easement off of the Property.

4.5 If the then owner of the eastern portion of the Property and the developer of the land to the immediate east of the Property reach a mutually satisfactory agreement with respect to such things as construction, use, maintenance and liability, a service drive or traffic lane intersecting the east boundary of the Property, in the location determined in the discretion of the Owner (as dictated by Owner's stransferees), shall be constructed to provide a vehicular connection between the properties. The Owner shall not be required to undertake construction or provide an easement off of the Property.

#### ARTICLE V. DRAINAGE

5.1 The system of drainage on the Property, including drainage retention and detention, as applicable, shall be designed so as to be coordinated throughout the PUD and shall be subject to Township review and approval.

5.2 It is acknowledged by the Township that there is a cross-easement with the property to the west (which includes the WalMart store) for storm drainage purposes.

#### ARTICLE VI. SITE IMPROVEMENTS

6.1 There shall be a coordination of site improvements within the overall Property, with the objective of creating site improvements that are integrated and mutually supportive among the respective portions or phases of the development, including the utilities, landscaping and lighting.

5.2 The bermed buffer area adjacent to Latson Road on the GC-Retail parcel shall be landscaped as shown on attached Schedule D.

6.3 The PUD Plan shows a Connection to Existing Perking on the west of the site in the area of the existing Mendy's and Kroger uses on adjoining property. Such connection is intended to make available a connection for vehicles and pedestrians. Owner shall not be required to acquire an easement or make improvements in any area not on the Property.

-7-

LING 2038 NEC 046

5.4 A pedestrian network shall be constructed as each phase of development on the Property is constructed, with the intent of connecting all pedestrian components of the Planzad Unit Development on the Property, and connecting gedestrian walkways at the property line.

6.5 Unless the Township reasonably determines that it is not physically or economically feasible, development shall be undertaken with underground electrical service to the buildings on the Property.

#### ARTICLE VII. DESIGN OF BUILDINGS AND SIGNS

7.1 The architecture, building materials, colors and shapes of all non-residential buildings shall be in substantial conformity with the guidelines set forth in the Grand River Avenue Corridor Plan, as adopted, and as it may be reasonably amended. It is the intention of the parties to promote and encourage a development that incorporates varying building lines, natural earth tone construction materials and other elements contemplated to upgrade the appearance of the development overall in the interest of making it aesthetically pleasing. Flat front roof facades shall be discouraged. Large walls shall include varying building lines, setbacks, color accents, windows or other elements to upgrade appearance. Each site plan will include a narrative or illustration(s) that demonstrate the design will be consistent with, or complement, architecture of the other sites.

7.2 Signage: Free standing signs within the PUD shall be ground mounted (monument) signs. No pole signs shall be permitted. All free standing signs shall have a base constructed of materials that coordinate and are not inconsistent with the building, and other signs within the PUD. With regard to the area referenced on Schedule B as GC-Retail, there shall be not more than one free standing sign along Grand River Avenue and not more than one free standing sign along Latson Road advertising the uses on such property. The two signs for the GC-Retail area (one per frontage) shall be no taller than 15 feet and no larger than 72 square feet in area. All other lots within the PUD shall be limited to monument signs no taller than 6 feet and no larger than 60 signare feet in area. All wall signs shall have channel lettering (not panels). All free standing lighted signs shall be internally lit. Wall and other signs shall be permitted as authorized in the zoning ordinance.

7.3 Landscaping and site lighting: The landscaping within the PUD shall demonstrate consistency in terms of design and materials. Generally, site lighting shall be a uniform type and color.

-8-

#### uma 2038 Mar 0047

#### ARTICLE VIII. UTILITIES

8.1 All of the Property is located within the community water district area but is not included in the water special assessment district. Each commercial and residential parcel/uses must connect to the community water system if such system is available at the time of development. Such connection shall require payment of all proportionate and applicable fees, charges and assessments.

A. On the approximately 65 acres east of Latson Road designated for Industrial and NSD on Schedule B, connection to the public water system shall be made if a water main has been extended to and is available at the site, or, if a land area greater than 15 acres in size is proposed for development, connection shall be made to the system, provided that all boff-site easements necessary for extension of the main have the provided by the Township.

B. On the balance of the property, connection to the municipal water system shall be made at the time of construction of buildings.

8.2 All of the commercial, industrial and residential buildings constructed on the Property shall, as developed, be connected to and served by public sanitary sewer. The Township represents that there has been reserved for owner adequate municipal wastewater treatment capacity to service the reasonable development of the Property, and the adequacy of wastewater treatment capacity shall not limit the type of use for density of the reasonable development of the Property.

8.3 Fees, charges and costs for utilities shall be as set forth on attached Schedule E, which may be amended on a "district-wide basis from time-to-time.

#### ARTICLE IX. MISCELLANEOUS

9.1 This Agreement may not be modified, replaced, immended or terminated without the prior written consent of the parties to this Agreement. The Owner and the Township shall be entitled to modify, replace or amend this Agreement without the consent of any other person or entity, regardless of whether such person or entity now or hereafter has any interest in any part of the Property, including subsequent purchasers, or their tenants, mortgagees, or others.

9.2 While Owner possesses legal title to the Property, Owner does not intend to develop it. Rather, Owner intends to sell the Property in various parcels to others to develop. Accordingly, reference in this Agreement to activities by the Owner in relation to development is intended to mean Owner's transferees and assigns unless context dictates to the contrary.

-9-

<sup>،</sup>59

## um2038 mm0048

9.3 In the event of any direct conflict between the terms and provisions of this Agreement (including the attached FUD Plan) and the provisions of the Zoning Ordinance, or other Township ordinances, rules or regulations, the provisions of this Agreement shall control.

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9.4 In the event a portion of the Property is submitted for site plan approval, and such approval is denied, the party submitting such site plan shall be entitled to appeal such decision to the Zoning Board of Appeals as provided by law, and all parties shall agree to proceed expeditiously to final resolution.

9.5 The undersigned parties acknowledge that the conditions imposed upon the development of the property are reasonable conditions necessary to ensure that public services and facilities affected by the proposed land use or activity will be capable of accommodating increased service and facility loads caused by the land use or activity, to protect the natural environment and conserve natural resources and energy, ito ensure compatibility with adjacent uses of land, and to promote the use of land in a socially and economically desireable manner. Further, it is acknowledged that the iconditions meet all of the requirements of MSA 5.2963(16d)(2)(a)(b) and (c).

9.6 Until the Property is fully developed, each site plan applicant shall be responsible following Township approval of the respective site plan, plat and/or site condominium appresented to the Township, to superimpose the approved plan of indevelopment upon the overall PUD plan to clearly illustrate the final development plan for each portion of the Property.

APPROVED by Owner on this 12" day of April , 1995.

WITNESSES :

OWNER: Bisget Lasertin Bisget iscontrage

Terri K. Cempean

On this 12<sup>Th</sup> day of <u>Aprn</u>, 1996, before me, a notary public in and for Livingston County, personally appeared BIRGIT LORENTIZES to me known to be the person described in and who executed the Planned Unit Development Agreement, set forth above, and who acknowledged the same to be her free act and deed.

ADANNE & HANTON Molecy Public, Onlined County M My Comment Explan Jane 21, 1957

1m2038 ME0049 APPROVED BY THE TOWNSHIP BOARD FOR THE TOWNSHIP OF GENOA on the 15 day of March, 1996, at a meeting duly called and held. WITNESSES: TOWNSHIP OF GENOA: BY: Kreneicer Natur Krencicki Hary Mary Krene Skolarus On this <u>1</u> day of <u>Mark</u>, 1996, before me, a notary public in and for <u>Livingston</u> County, personally appeared <u>Kebret Marky</u> and <u>Activity Activity</u> to me known to be the Supervisor and Clerk, respectively, who were duly authorized by the Genoa Township Board to sign this Agreement on behalf of Genoa Township and who acknowledged the same to be their free act and deed. Notary Public & altofa with HNN Spiroff Livingston Co. Lipines 9/6/99 a witness 5114/JATWORK3 Drafted by: Gerald L. Fisher 30903 Northwestern Hwy. PO Box 3040 Farmington Hills MI 48333-3040 - • •

# 12038 NE0050 INDEX OF EXHIBITS Property Description Schedule A PUD Concept Plan Schedule B Schedule C Authorized Uses Schedule D Landscape Plan Fees, Charges and Costs for Utilities Schedule E Letter of March 18, 1996 Schedule F

# BOSS ENGINEERING ENGINEERS & SURVEYORS

EXHIBIT A

#### LORENTZEN PROPERTY WEST OF LATSON ROAD:

112038 HE0051

Part of the Southeast 1/4 of Section 5, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the Southeast Corner of Section 5; thence along the East line of Section 5 and being the centerline of Latson Road (66 foot wide Right of Way), N 02°11'26" E, 854.58 feet, to the POINT OF BRGINNING of the Parcel to be described; thence N 60°51'00" W, 287.02 feet; thence S 02°11'26" W, 306.09 feet; thence along the centerline of Grand River Avenue (100 foot wide right of Way), N 60°51'00" W, 950.60 feet; thence along the easterly property line, of a parcel as recorded in Livingston County Records, at Liber 1800 of Deeds, Fages 81-83, N 02°11'32" E, 420.61 feet; thence N 89°59'52" W, 181.99 feet; thence along the North-South 1/8 line, of Section 5, N 02°12'56" E, 1101.45 feet; thence along the East-West 1/4 line of Section 5, N 68°41'15" W, 1284.64 feet; thence along the North-South 1/4 line of Section 5, N 02°08'46" E, 1325.47 feet; thence S 89°09'44" E, 1286.03 feet; thence S 88°44'51" E, 1284.51 feet; thence along the centerline of Latson Road and the East line of Section 5, S 02°11'26" W, 1337.49 feet to the East 1/4 Corner of said Section; thence continuing along the centerline of Latson Road and the East line of Section 5, S 02°11'26" W, 1789.80 feet, to the POINT OF EEGINNING; Containing 127.22 acres, more or less, and subject to the rights of the public over the existing GRAND RIVER AVENUE & LATSON ROAD. Also subject to any other easements or restrictions of record.

Pile No. 94192d10

3.

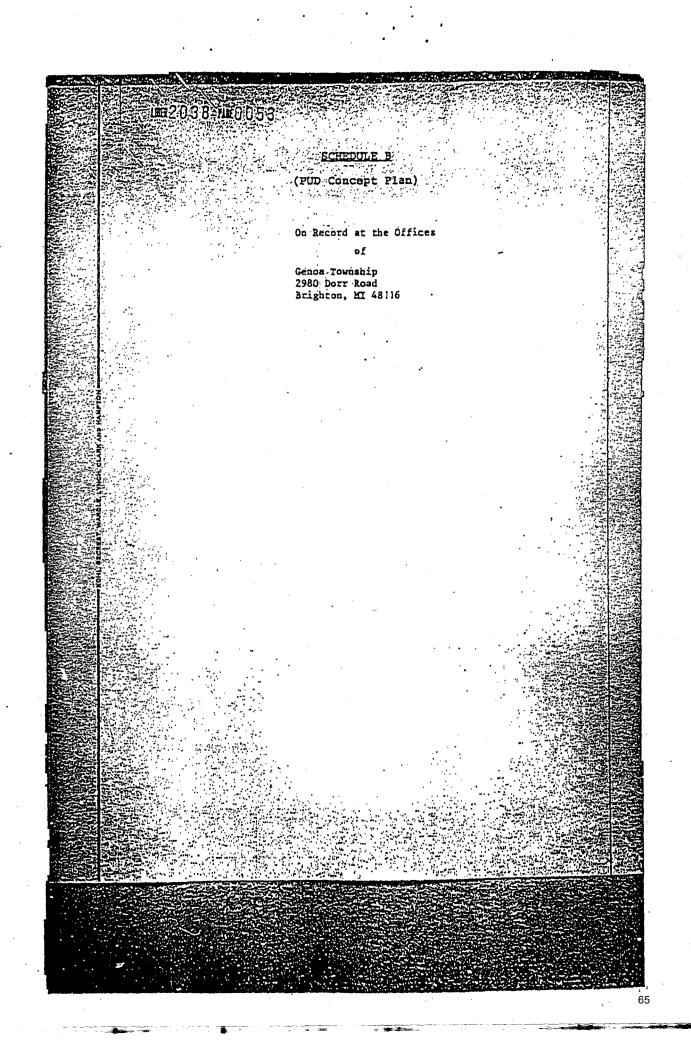
Boss Engineering Company • 3121 East Grant River • Havel, Michigan 48843 Prone (517) 546-4835 • Brighton (810) 229-4773 • Fax (517) 548-1670

# 12038 ME0052 EXHIBIT "Sheet LORENTZEN PROPERTY EAST OF LATSON ROAD: 2 of CERTIFICATE OF SURVEY Part of the South's of the Southwest % of Section 4, T2H-R5E GEnoa Township, Llvingston County, Michigan, described as follows: Beginning at the intersection of centerlines of Grand River Ave. Beginning at the intersection of centerlines of Grand River Ave. Tand Latson Road and on the West line of Section 4, NO2°11'26"E 548.49 feet from the Southwest corner of said Section 4; running thence NO2°11'26"E 773.70 feet along the centerline of Latson Road and the Section line; thence KE9°47'25"E 1095.65 feet; thence SO2°01'03"M 1340:43 feet; thence KE9°15'06"W 74.26 feet along the Section line; thence KE9°15'06"W 74.26 feet along the Section line; thence N60°42'38"W 584.16 feet along the center-line of Grand River Ave. (a 100 ft. wide R.O.W.); thence N60°51'00"W 565.97 feet along the centerline of Grand River Ave. (a 100 ft. wide R.O.W.) to the point of beginning. Containing 27.061 acres more or less, subject to highway easements and easements of record. and easements of record. Part of the South ½ of the Southwest ½ of Section 4 and that part of the East ½ of the Horthwest ½ of Section 9 lying Northerly of the centerline ofGrand River Ave., all in T2N-R5E, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the South ½ conrer of said Section 4; running thence SO1\*39'41"W 864:72 feet along the North-South ½ line: thence R60\*42'38"W 1483.05 feet along the centerline of Grand River Ave. (a 100 ft. wide R.O.W.); thence HO1\*39'09"E 156.04 feet along the West line of said East ½ of the Northwest ½ of Section 9; thence MO2\*01'03"E 1344.03 feet along the West line of the South-east ½ of the Southwest ½ of Section 4; thence H89\*47'23"E 1310.81 Teet along the North line of the Southeast ¼ of the Southwest ½ of Section 4; thence SO1\*50'59"W 1365.38 feet along the North-South ½ line of said Section 4 to the point of beginning. Containing 56.201 acres more or less, subject to highway easements and easements of record. West & conner Sec. 4, T2N-R5E, Set PK spike on straight line between SW cor. and NW corror Sec. 4 at a record distnace, N2°11'26"E 2644.38 feet from the SW cor, Sec. 4. No witness Ctr. Sec. 4, T2N-R5E, Comp-uced intersection of 1/4 lines points available. Southwest corner Sec. 4, T2N-R5E, Ed. PK spike Nu5\*E-48:58'-I. Pipe West-21:85'-ctr. 12" Oak S20\*E-41-85'-ctr. 12" Oak N54\*W-27:60'-ctr. 11" Oak S55\*W-31.68'-ctr. 8" Hick South & corner Sec. 4, T2N-R5E Fd. "t" iron East-4.7'-ctr. 48" oak East-59.4'-ctr. 15" llick North-88.3'-ctr. 36" Oak S2N-28.2'-ctr. 5" hick S30E-59.0'-NW cor. Pole Barn Cir. Sec. 9, T2N-R5E rd. Boat Spike N10°E-27.18'-ctr. 30" Dak S45°N-37.64'-ctr. 18" Hick

STAREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ADOVE TELENTED AND OR DESCRIBED AND THAT THE SURVEY COMPLES WITH THE

CHARLES E'GARLOCK

S



# 1112038=N110054

#### SCHEDULE C

IST OF PERMITTED USES EAST OF LATSON ROAD Between Latson & Power Lines

. <u>2</u>.

Child Care Center/Preschool Churches, Places of Worship

Bed and Breakfast Inns

Banks, S & L, Credit Unions

Business Services

Commercial Schools and Studios

Dry Cleaners/Laundry

Funeral Homes/Mortuary

• Hospitals

Bakeries

Banquet Halls

Medical Offices

Medical Centers/Urgent

Personal Service Establishments

Personal Service/Retail

Photographic/Art Studios

Professional and Corporate Offices

Vocational/Technical Training Facilities

Health Clubs, Gyms, Fitness Centers

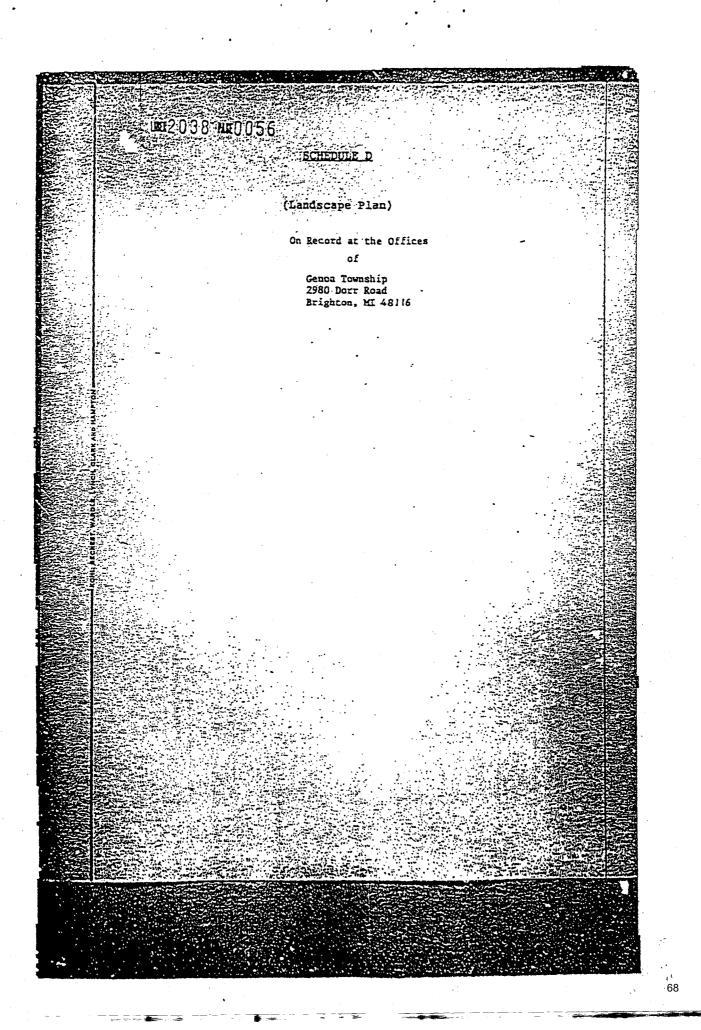
Food Establishment

Restaurant or Deli, Sit Down, no Drive Thru Taverns and Bars Without Dancing Taverns and Bars With Dancing

112038 NE0055 Video Rental

Convenience Stores without gas Lodging: Bed and Breakfast Lodging: Hotel, Motel Retail Indoor Business Lawn and Garden Centers Print Shops and Publishing

Research and Testing Laboratories and Facilities



# 9996 2038 Mg0057 "SCHEDULE E" LORENTZEN PUD AGREEMENT GENOA/OCEOLA PHASE I SEWER ASSESSMENT FORMULA UNDEVELOPED SEWER FEE FRONT FOOTAGE \$36.00 R.E.U. ACRE FRONT FOOTAGE ACRE R.E.U. \$3,200 \$3,100 \$3,100 0 ٥ GENOA/OCEOLA PH I WATER WATER ASSESSMENT FORMULA R.E.U. 1.2 R.E.U'S PER ACRE AT \$3,000. UNDEVELOPED \$1,300. PER ACRE When property developes, if the use exceeds the R.E.U per acre formula, an additional \$3,000. per R.E.U. will be charged. .

8-18-1998 0:18AM

AUG-18-78 99:56 AM

FROM NOUI EXPO CENTER 18103477720

BOD MURRAY

#14 227 5060

P.2

70

512 East Grand River Bighton, MI 48116 Texphene: (#10) 220-2112 Fac (\$10) 220-004

#### MENAMEE, PORTER & SEELEY, INC.

Ann Arbor - Brighton - Detroh - Escansba - Grand Rapids - Lansing

Ans'd

June 18, 1998

RECEIVED

Mr. Michael Archinal, Manager Genoa Township 2950 Dorr Road Brighton, MI 48126

JUN 1 9 1998

#### Re: Lorentzen PUD Drainage to Grand River

#### Dear Mr. Archinal:

As discussed, we have received a request from the developer's engineer for the above referenced property to determine the amount of flow the proposed storm sewer along Grand River was designed to accept. This property was allocated approximately 13 acres of drainage area based on existing contours during the design for the Grand River Avenue widening, which equates to an outlet rate of 2.56 cfs. It appears the petitioner is proposing to direct approximately 28 acres can of the utility corridor to the Grand River Avenue through a community detention basin. The basin would need to be sized to detain the flow to 0.9 cfs per acre to meet the design criteria. Since Grand River Avenue is a state road, approval from MDOT will be required for any discharge into the right of way.

We trust this meets your needs at this time. If you have any questions or comments, please call us.

Brown P.E

ins

Copy Robert Murray Jeanette Patterson, Boas Engineering Enenda O'Brien, MDOT

k:\mpe\letters\storm.doc

# **Received 8-29-19**

# DEVELOPER

SINGH DEVELOPMENT COMPANY 7125 ORCHARD LAKE ROAD, SUITE 200 WEST BLOOMFIELD, MICHIGAN 48334 PHONE (248) 865-1600

# ENGINEER

SOMAT ENGINEERING, INC. 7125 ORCHARD LAKE ROAD, SUITE 104 WEST BLOOMFIELD. MICHIGAN 48334 PHONE (313) 963-2721 FAX (313) 963-2736

F					
E					DRAWN BY: CP
D					
С					DESIGNED BY: JA
В	REVISED PER PC / STUDIO	US	VD	8/28/19	CHECKED BY: JA/US
А	REVISED PER TOWNSHIP REVIEW	US	VD	7/24/19	Checked B1. 3A03
	DESCRIPTION	CHK'D	APPROVED	DATE	
REVISION					APPROVED BY: US/VD

# PRELIMINARY SITE PLAN WESTBURY - PHASE II GENOA TOWNSHIP LIVINGSTON COUNTY, MICHIGAN

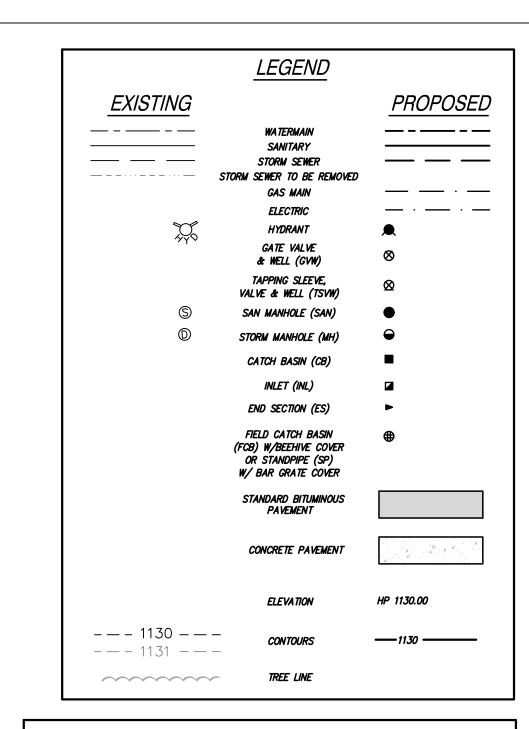


VICINITY MAP NOT TO SCALE



WESTBURY - II GENOA TOWNSHIP, T2N, R5E LIVINGSTON COUNTY, MICHIGAN

PRELIMINARY SITE PLAN



# LEGAL DESCRIPTION

PHASE II PARCEL AS SURVEYED

ON-SITE SOILS CONSIST MOSTLY OF MIAMI LOAMS, MOB, MOC, BWA, CVA, HID, AND SVB. WITH 0-65 SLOPES, BASED ON THE SOIL SURVEY OF LIVINGSTON COUNTY, MICHIGAN BY THE UNITED STATES DEPT. OF

PROPOSED SEWAGE SYSTEM = PUBLIC SANITARY SEWER SYSTEM WITH 20'

AGRICULTURE SOIL CONSERVATION SERVICE.

WIDE SANITARY EASEMENT

PROPOSED WATER SUPPLY = PUBLIC WATERMAIN WITH 25' WIDE WATER MAIN EASEMENT.

PROPOSED ELECTRICAL SUPPLY = UNDERGROUND DETROIT EDISON

PROPOSED GASE SERVICE = UNDERGROUND CONSUMERS ENERGY PROPOSED TELEPHONE SERVICE = UNDERGROUND AMERITECH

PROPERTY IS PART OF LORENTZEN P.U.D., REQUESTED UNDERLYING ZONING CHANGED TO MDR.

FINAL SANITARY AND WATER MAIN CONNECTIONS TO BE COORDINATED

INDIVIDUAL TRASH PICK-UP WILL BE PROVIDED.

MINIMUM ROAD CL RADIUS = 100' (PRIVATE) ALL ROADWAYS ARE TO BE PRIVATE.

NOTES

WITH GENOA TOWNSHIP DPW.

12. FLOORDRAINS SHALL NOT BE CONNECTED TO THE SANITARY SEWER. 3. ALL STORMWATER DETENTION/RETENTION SYSTEMS INCLUDING STORM SEWERS WITHIN THE PROJECT BOUNDARY WILL BE PRIVATE AND WILL BE MAINTAINED BY THE OWNER OF THE WESTBURY DEVELOPMENT. 4. ROAD DESIGN SHALL CONFORM TO GENOA TOWNSHIP PRIVATE ROAD

ORDINANCE. 5. EACH 2—UNIT BUILDING WILL BE 1840 SQUARE FEET PER UNIT AND WILL CONSIST OF THREE BEDROOMS, ONE BEING A FIRST FLOOR MASTER. EACH 4-UNIT BUILDING WILL HAVE TWO INTERIOR UNITS AT 1775 SQUARE FEET AND 1679 SQUARE FEET PER UNIT WITH TWO BEDROOMS AND TWO OUTER UNITS AT 1840 SQUARE FEET PER UNIT WITH THREE BEDROOMS,

ONE BEING A FIRST FLOOR MASTER. PROPOSED CONSTRUCTION IS IN A SINGLE PHASE. 17. CURRENT MASTER DEED & BY LAWS ALLOW USE OF CLUB HOUSE & POOL AREA FOR RECREATIONAL USE BY PROPOSED CONDOMINIUM OWNERS. 18. LOCATIONS OF CLUSTER / GANG MAIL BOXES WILL BE COORDINATED WITH

POST MASTER'S OFFICE. 9. PROPOSED LANDSCAPE SHALL MEET PREVIOUSLY APPROVED PUD AGREEMENT. DETAILED LANDSCAPE PLAN WILL BE SUBMITTED.

20. A TOTAL OF 29 BUILDINGS ARE PROPOSED. BUILDINGS #4, 12, 15, 20, & 24 ARE 2 UNITS EACH, (5x2=10 UNITS). BUILDINGS #1-3, 5-11, 13, 14, & 16–29 ARE 4 UNITS EACH, (24x4=96 UNITS). A TOTAL OF 106 UNITS ARE PROPOSED.

21. ADEQUATE SPACE IS PROVIDED FOR GARBAGE / REFUSE & RECYCLE BINS + TWO CARS IN GARAGES, SEE ARCHITECTURAL SCHEMATIC FLOOR PLAN. 22. THE PROPOSED HEIGHT OF THE STRUCTURE FROM THE MIDPOINT OF GABLE TO IMMEDIATE GRADE IS 28 FEET. THE PROPOSED HEIGHT OF THE STRUCTURE FROM THE RIDGE TO IMMEDIATE GRADE IS 34 FEET. 23. IMPROVEMENTS TO THE EXISTING STRETCH OF ARUNDELL AVENUE WILL BE

INCLUDED IN THE CONSTRUCTION PLANS. 24. WATER METERS WILL BE PLACED IN A DEDICATED CLOSET PER MHOG DESIGN STANDARDS.

25. EACH BUILDING SHALL INCLUDE THE BUILDING ADDRESS IN 4 INCH MIN. HEIGHT NUMBERS OF CONTRASTING COLORS AND WILL BE CLEARLY VISIBLE FROM THE STREET.

26. A MINIMUM VERTICAL CLEARANCE OF 13.5 FEET SHALL BE MAINTAINED THROUGHOUT THE SITE. THIS INCLUDES FUTURE GROWTH OF PLANTINGS AND TREES.

PART OF THE SOUTHWEST 1/4 OF SECTION 4 AND PART FOTHE NORTHWEST 1/4 OF SECTION 9, TO2N-RO5E, GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIPED AS FOLLOW: BEGINNING AT THE NORTH ¼ CORNER OF SAID SECTION 9. ALSO BEING THE SOUTH " CORNER OF SAID SECTION 4;

THENCE, ALONG THE NORTH SOUTH QUARTER LINE OF SAID SECTION 9, S 01° 46' 49 E FOR A DISTANCE OF 457.82 FEET TO THE SOUTH ROW OF WHITE HORSE LANE. THENCE, ALONG SAID SOUTH ROW LINE N 64° 07' 56" W FOR A DISTANCE OF 401.50 FEET TO THE EAST ROW LINE OF ARUNDELL DRIVE.

THENCE, ALONG SAID EAST ROW LINE OF ARUNDELL DRIVE S 25° 47' 50" W FOR A DISTANCE OF 310.35 FEET TO A POINT ON THE NORTHERLY ROW OF GRAND RIVER

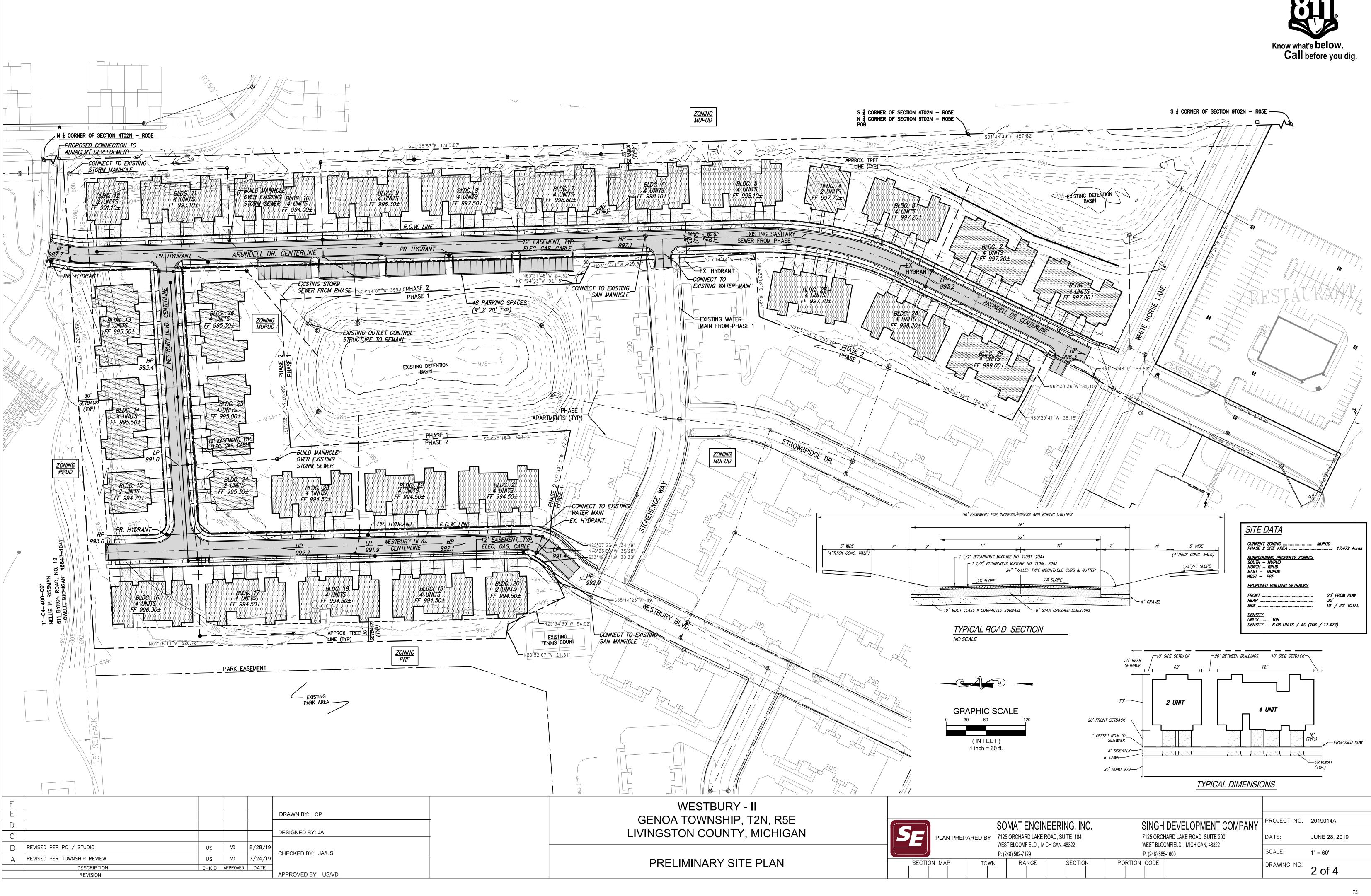
THENCE, ALONG SAID NORTHERLY ROW OF GRAND RIVER AVE. N 64" 09' 31" W FOR A DISTANCE OF 66.00 FEET TO A POINT ON THE WESTERLY ROW OF ARUNDELL DRIVE. THENCE, ALONG SAID WESTERLY ROW OF ARUNDELL, N 25° 49' 23" E FOR A DISTANCE OF 310.12 FEET TO A POINT ON THE SOUTHERLY LINE OF WHITE HORSE DRIVE. THENCE THE FOLLOWING EIGHTEEN CALLS ALONG THE BOUNDARY OF PHASE I OF WESTRIRY (WESTRIRY APARTMENTS).

WESTBURT (WESTBURT APARIMENTS):
THENCE, N 31° 13' 48" E FOR A DISTANCE OF 153.62 FEET TO A POINT.
THENCE, N 62° 38' 36" W FOR A DISTANCE OF 81.10 FEET TO A POINT.
THENCE, N 59° 29' 41" W FOR A DISTANCE OF 38.18 FEET TO A POINT.
THENCE, N 22° 51' 39" E FOR A DISTANCE OF 156.67 FEET TO A POINT.
THENCE, N 21° 57' 24" E FOR A DISTANCE OF 255.26 FEET TO A POINT.
THENCE, N 86° 32' 02" E FOR A DISTANCE OF 95.34 FEET TO A POINT.
THENCE, N 03" 19' 14" W FOR A DISTANCE OF 20.22 FEET TO A POINT.
THENCE, N 03" 15' 41" W FOR A DISTANCE OF 229.67 FEET TO A POINT.
THENCE, N 63° 31' 48" W FOR A DISTANCE OF 34.62 FEET TO A POINT.
THENCE, N 01° 54' 53" W FOR A DISTANCE OF 52.16 FEET TO A POINT.
THENCE, N 03" 14' 09" W FOR A DISTANCE OF 399.95 FEET TO A POINT.
THENCE, S 86° 07' 36" W FOR A DISTANCE OF 223.17 FEET TO A POINT.
THENCE, S 03° 25' 16" E FOR A DISTANCE OF 423.20 FEET TO A POINT.
THENCE, N 77° 39' 12" W FOR A DISTANCE OF 132.29 FEET TO A POINT.
THENCE, N 85° 07' 23" W FOR A DISTANCE OF 34.49 FEET TO A POINT.
THENCE, N 48° 25' 29" W FOR A DISTANCE OF 35.28 FEET TO A POINT.
THENCE, S 33° 48' 12" W FOR A DISTANCE OF 30.30 FEET TO A POINT.
THENCE, S 65° 14' 25" W FOR A DISTANCE OF 49.11 FEET TO A POINT.
THENCE, N 25° 34' 39" W FOR A DISTANCE OF 94.52 FEET TO A POINT.
THENCE, N 80° 52' 07" W FOR A DISTANCE OF 21.51 FEET TO THE EAST LINE OF THE
PARK AREA OF WESTBURY.
THENCE, ALONG SAID EAST LINE N 01° 26' 11" W FOR A DISTANCE OF 620.78 FEET TO
THE SOUTH LINE OF HAMPTON RIDGE PHASE II.
THENOL ALONO CAR COUTH LINE N. 86" 10' 77" F. A. DISTANOF OF 770 SE FEET TO

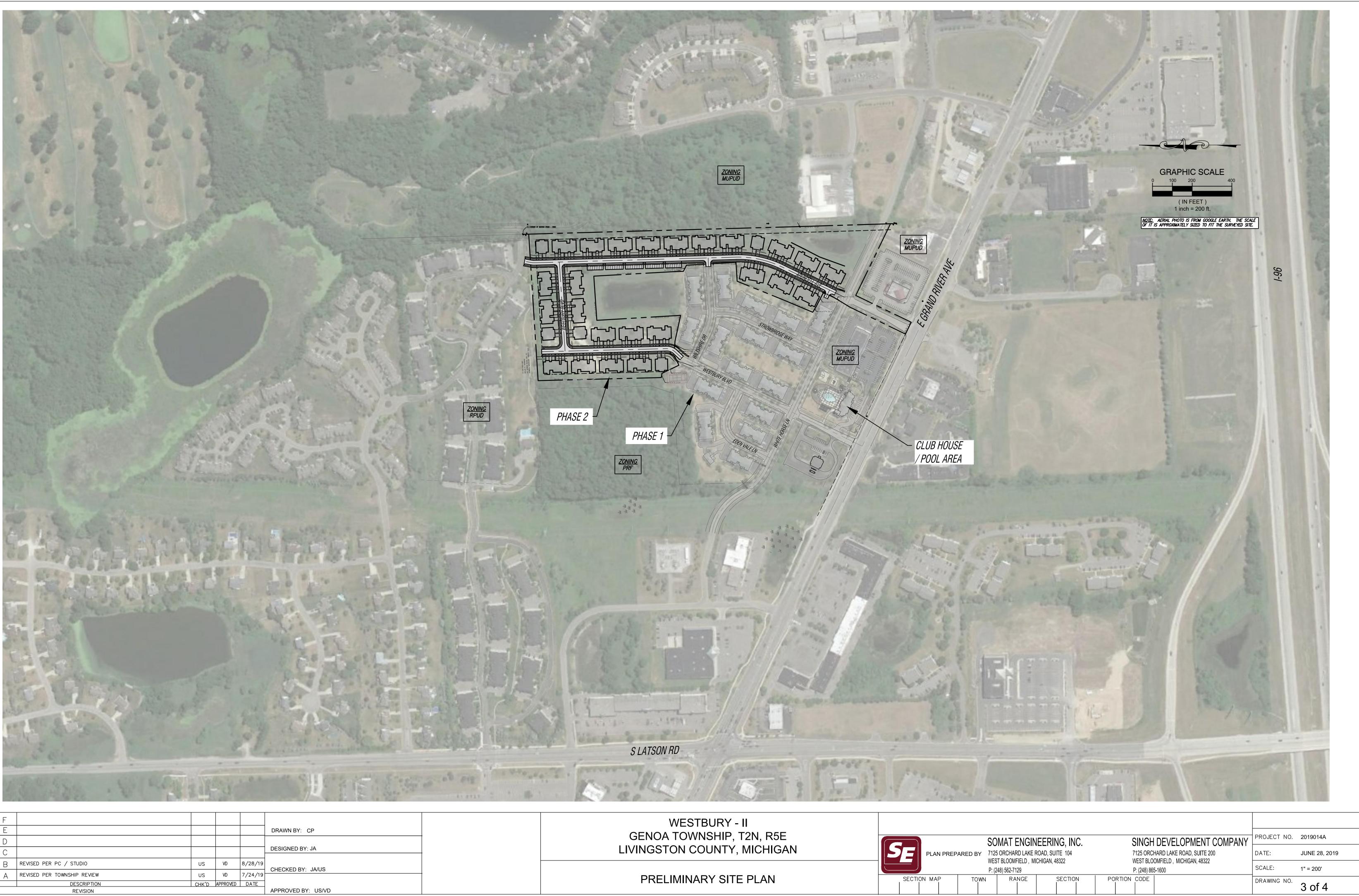
THENCE, ALONG SAID SOUTH LINE N 86° 19' 33" E A DISTANCE OF 739.65 FEET TO THE WEST LINE OF PROPOSED SUMMERFIELD POINT AND THE NORTH SOUTH 1/4 LINE AS PREVIOUSLY SURVEYED AND MONUMENTED BY BOSS ENGINEERING.

THENCE, ALONG SAID NORTH SOUTH 1/4 LINE S 01° 35' 53" E FOR A DISTANCE OF 1365.87 FEET TO THE POINT OF BEGINNING; CONTAINING 17.472 ACRES MORE OR LESS AND SUBJECT TO THE RIGHTS FO THE PUBLIC OVER THE EXISTING GRAND RIVER AVENUE (100 FEET WIDE). ALSO, SUBJECT TO AND INCLUDING THE USE OF EASEMENT B AS RECORDED IN LIBER 2580 PG 0194-0205, EASEMENT A AND THE WHITE HORSE DRIVE EASEMENT AS RECORDED IN LIBER 3623 PG 0768-0778. ALSO, SUBJECT TO ANY EASEMENTS, RIGHTS-OF-WAY, AND RESTRICTIONS OF RECORD.

#### APPROVALS NEEDED • LIVINGSTON COUNTY ROAD COMMISSION LIVINGSTON COUNTY DRAIN COMMISSION LIVINGSTON COUNTY SOIL EROSION AND SEDIMENTATION CONTROL MHOG – WATER MAIN • EGLE - WATER MAIN Know what's **below**. **Call** before you dig. GENOA TOWNSHIP - SANITARY SEWER PROJECT NO. 2019014A SOMAT ENGINEERING, INC. SINGH DEVELOPMENT COMPANY PLAN PREPARED BY 7125 ORCHARD LAKE ROAD, SUITE 104 7125 ORCHARD LAKE ROAD, SUITE 200 DATE: JUNE 28, 2019 WEST BLOOMFIELD, MICHIGAN, 48322 WEST BLOOMFIELD, MICHIGAN, 48322 SCALE: P: (248) 865-1600 P: (248) 562-7129 PORTION CODE RANGE SECTION TOWN DRAWING NO. 1 of 4

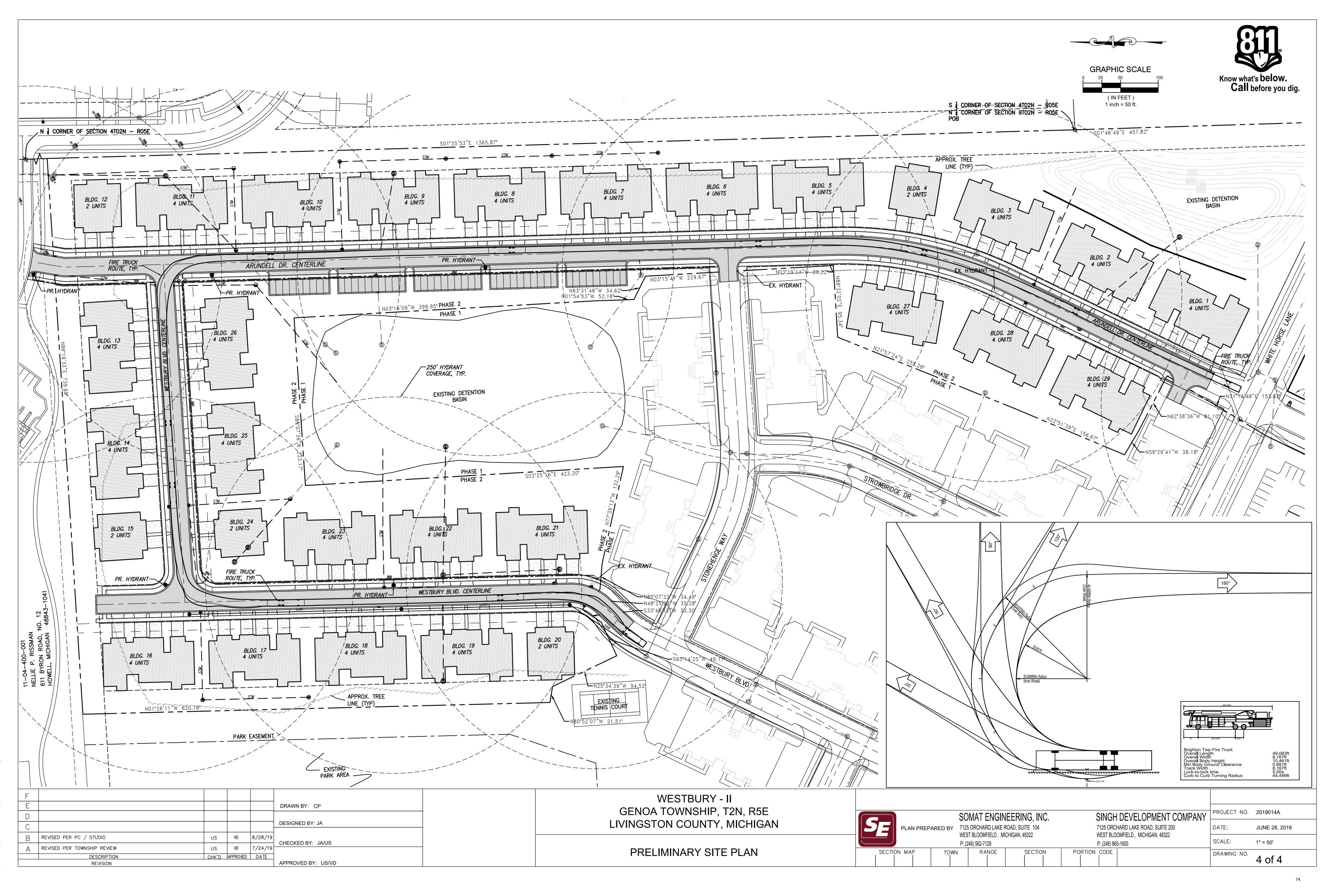






F					
Ε					DRAWN BY: CP
D					
С					DESIGNED BY: JA
В	REVISED PER PC / STUDIO	US	VD	8/28/19	
А	REVISED PER TOWNSHIP REVIEW	US	VD	7/24/19	CHECKED BY: JA/US
	DESCRIPTION	CHK'D	APPROVED	DATE	
	REVISION				APPROVED BY: US/VD





Received 8-29-19

### Singh Homes Proposed Westbury II Townhome Design 6-26-19 •





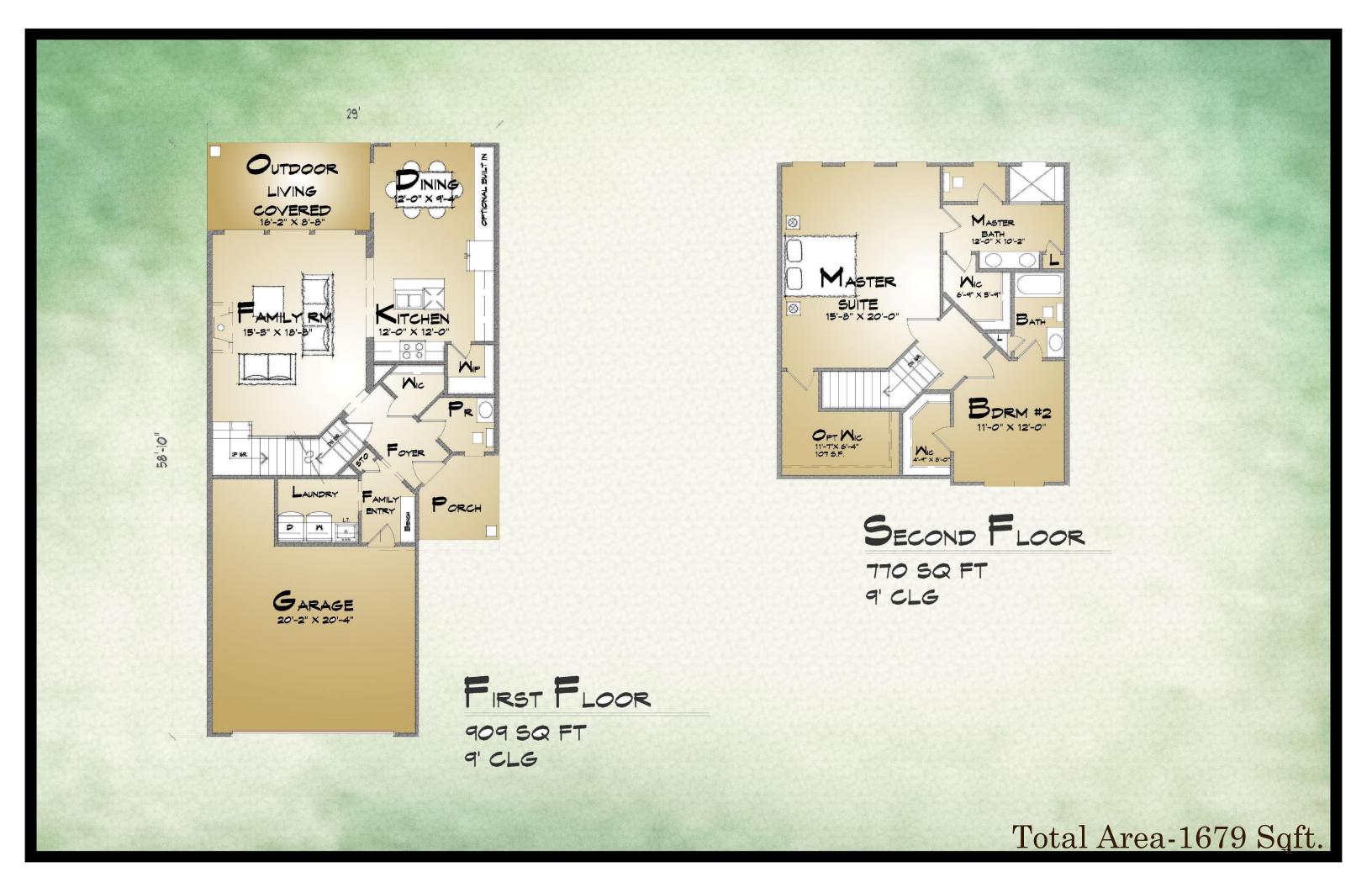


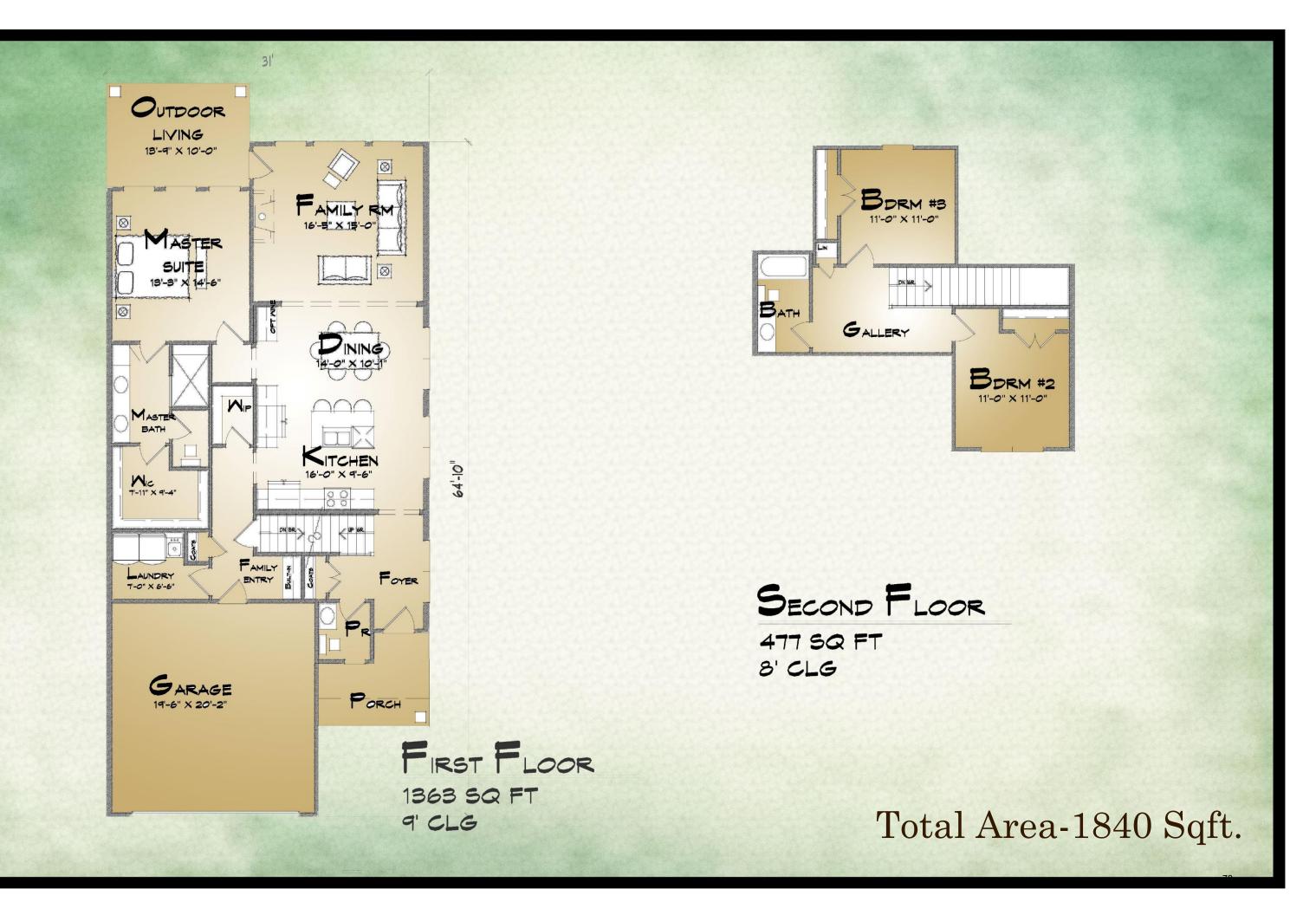


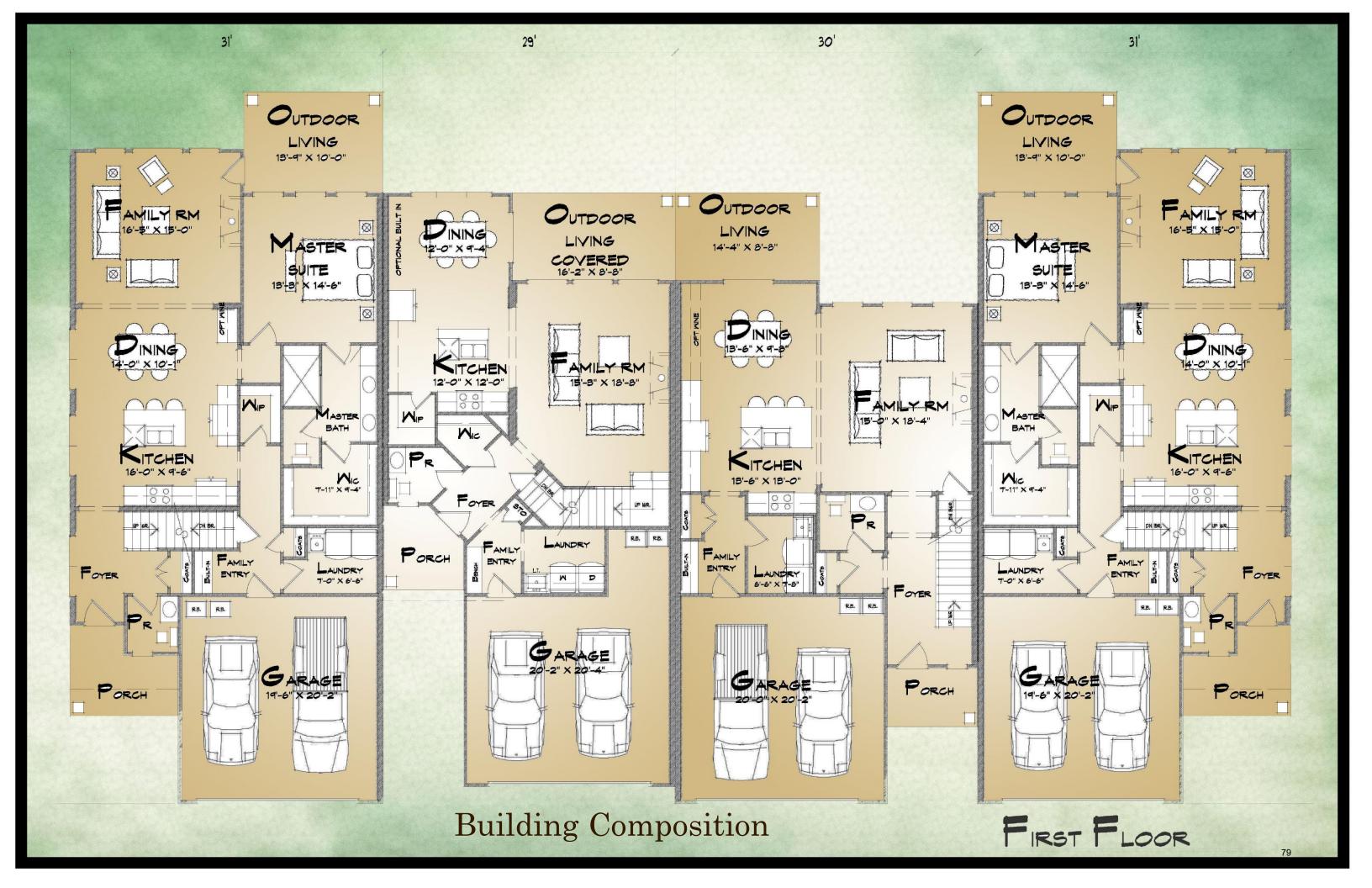
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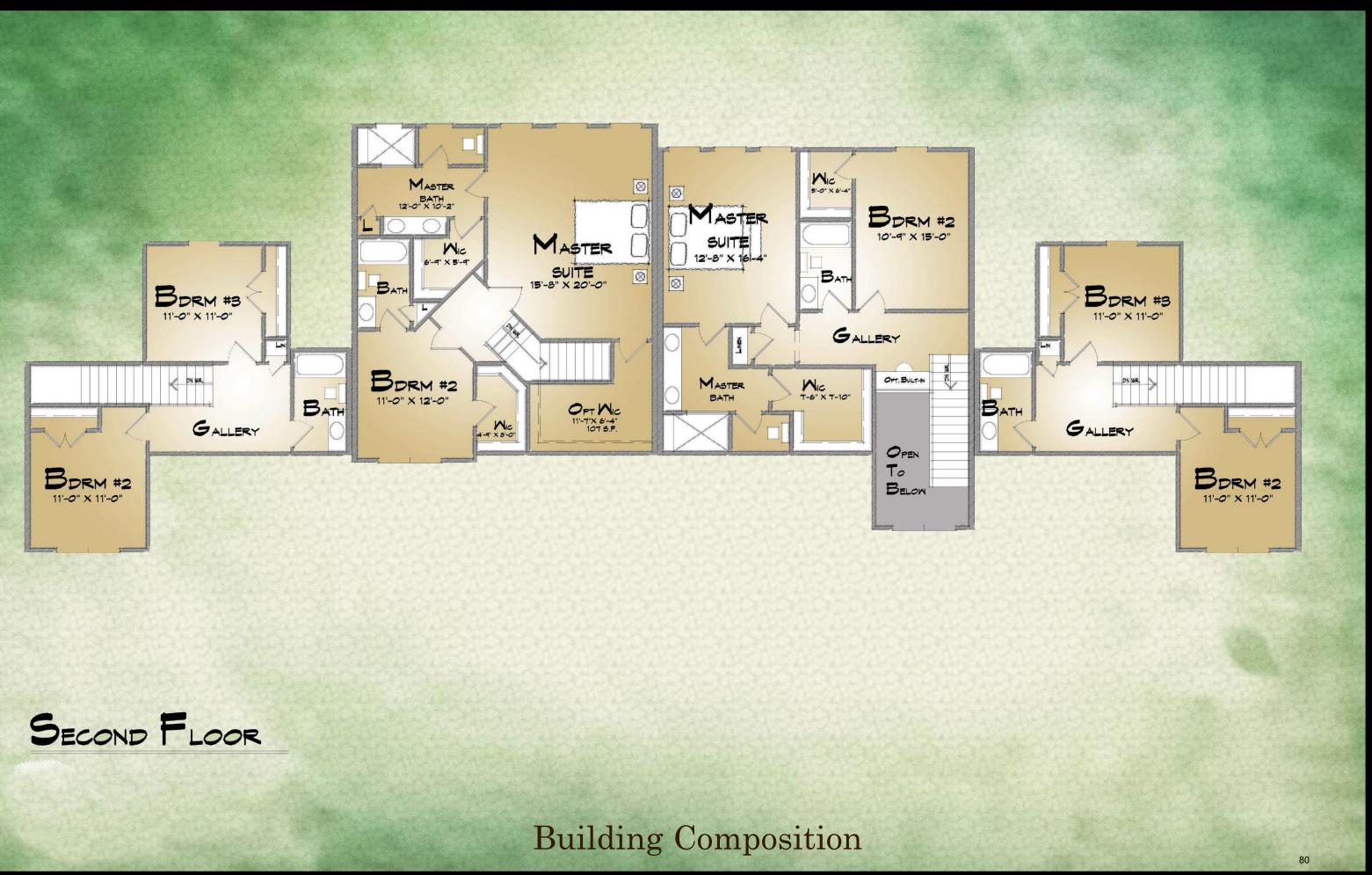


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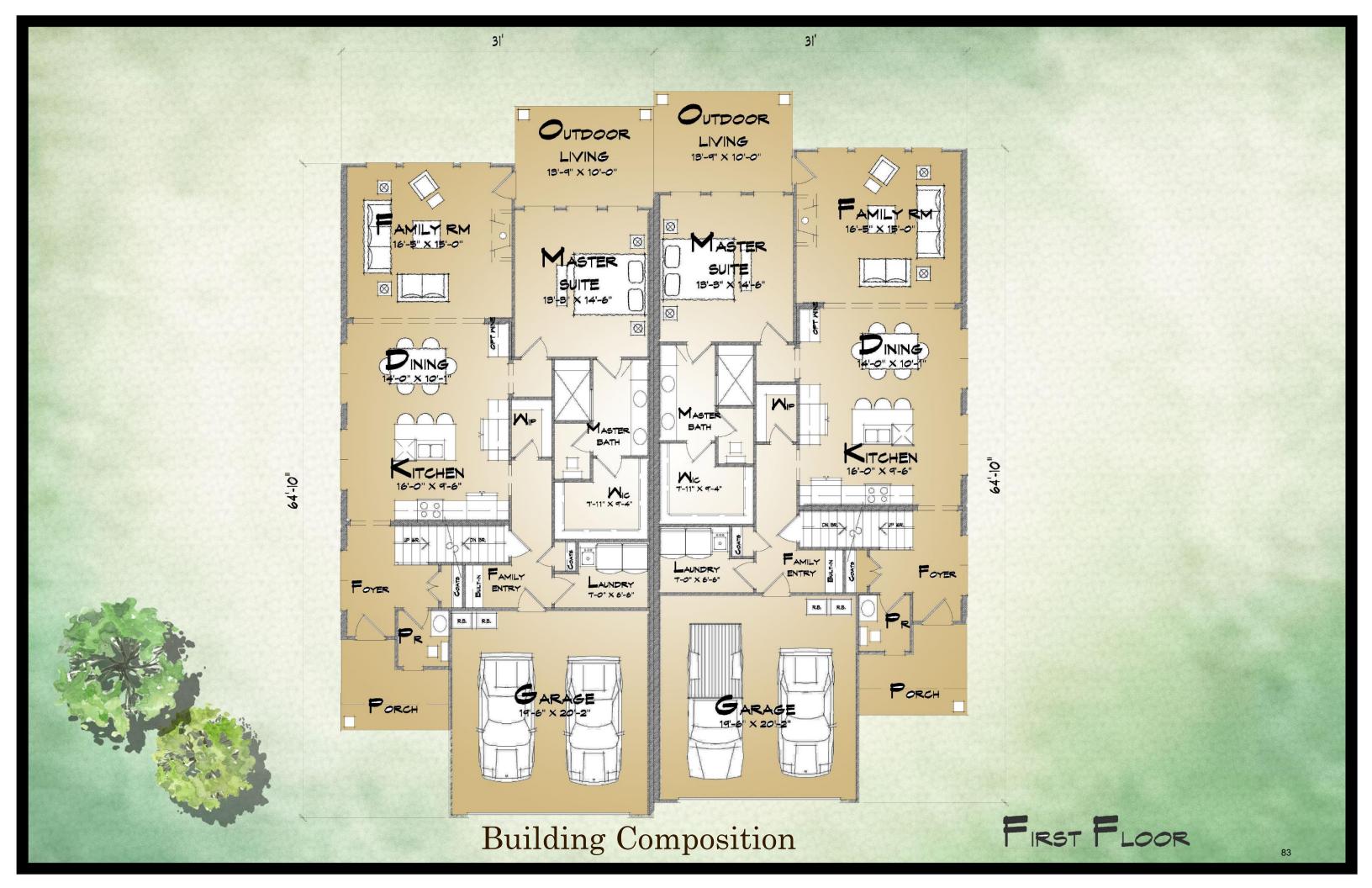
## Proposed Quadplex Rear Elevation



Proposed Quadplex Right Elevation



### Proposed Quadplex Left Elevation





## **Building Composition**



Proposed Duplex Front Elevation





Proposed Duplex Right Elevation



# Proposed Duplex Left Elevation



### MEMORANDUM

Honorable Board of Trustees

Brighton, MI 48116 810.227.5225 810.227.3420 fax genoa.org

TO:

2911 Dorr Road

FROM:	Kelly VanMarter, Assistant Township Manager/Community Development Director
DATE:	September 11, 2019
RE:	Brighton Area Fire Department Station #34 Addition
MANAGER'S F	REVIEW: 1ml Zam

Attached please find the project case file regarding an 11,000 square feet building addition and parking lot expansion for Brighton Area Fire Authority Station 34 located at 2755 Dorr Road, Brighton. The applicant requests approval for a 2,000 square foot addition to the north side of the existing building and a 9,000 square foot addition to the south side with an additional 33 parking spaces.

Procedurally, the Planning Commission has authority over the site plan and issues a recommendation to the Board regarding the Environmental Impact Assessment. The Planning Commission heard the case at the September 9, 2019 meeting. At the meeting, the Commission approved the site plan and recommended Board approval of the Impact Assessment. In this regard, please consider the following action:

SUPERVISOR

Bill Rogers

**CLERK** Paulette A. Skolarus

**TREASURER** Robin L: Hunt

TRUSTEES

Jean W. Ledford H. James Mortensen Terry Croft Diana Lowe

MANAGER Michael C. Archinal Moved by \_\_\_\_\_\_, Supported by \_\_\_\_\_\_ to approve the Environmental Impact Assessment received dated August 21, 2019 provided all conditions of the Planning Commission are satisfied.

Should you have any questions concerning this matter, please do not hesitate to contact me.



TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD: Partners in Architecture, PLC APPLICANT NAME & ADDRESS: <u>65 Market Street, Mount Clemens, MI 48043</u> *If applicant is not the owner, a letter of Authorization from Property Owner is needed.* Brighton Area Fire Department OWNER'S NAME & ADDRESS: <u>615 W Grand River Avenue, Brighton, MI 48116</u> SITE ADDRESS: <u>2755 Dorr Road, Genoa Township, MI 48116</u> PARCEL #(s): <u>4711-14-300-022 TRACT</u> "A" APPLICANT PHONE: (<u>586</u>) <u>469-3600</u> OWNER PHONE: (<u>810</u>) <u>229-6640</u>

OWNER EMAIL: mobrian@brightonareafire.com

LOCATION AND BRIEF DESCRIPTION OF SITE: Genoa Township fire station fronting Dorr Road

north of Crooked Lake Road, located on the southeast corner of Dorr Road and I-96.

BRIEF STATEMENT OF PROPOSED USE: A new addition to expand the capabilities of the existing

fire station located on the site and accommodate a Fire Academy.

THE FOLLOWING BUILDINGS ARE PROPOSED: An approximately 2,000 sq. ft. addition to the

north side of the existing fire station, and an approximately 9,000 sq. ft. addition to the south side.

### I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: Dan Gwozdz, AIA, NCARB

ADDRESS: 65 Market Street, Mount Clemens, MI 48043

**<u>Contact Information</u>** - Review Letters and Correspondence shall be forwarded to the following:

 1.) Dan Gwozdz, AIA, NCARB
 of
 Partners in Architecture, PLC
 at
 dgwozdz@partnersinarch.com

 Name
 Business Affiliation
 E-mail Address

FEE EXCEEDANCE AGREEMENT									
As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.									
SIGNATURE: DATE: 08/02/2019									
print name: Dan Gwozdz, AIA, NCARB phone: (586) 256-0869									
ADDRESS: 65 Market Street, Mount Clemens MI 48043									

**OPEN PUBLIC HEARING #3...**Review of a site plan and environmental impact assessment for a proposed 11,000 sq. ft. addition to an existing Brighton Area Fire Department building located at 2755 Dorr Road, Brighton. The request is petitioned by Partners in Architecture, PLC.

A. Recommendation of Environmental Impact Assessment (8-21-19)

B. Disposition of Site Plan (9-3-19)

Mr. Michael O'Brian, the BAFA Chief, provided a brief review of the proposed project. This addition will allow them to staff this building 24 hours a day, 7 days a week. This is the first upgrade to their stations as part of their recently-passed millage increase. They also received a grant that will help pay for this project.

Ms. Leslie Zawada of Civil Engineering Solutions, Inc., and Lauren Lee of Partners in Architecture were present. Ms. Lee provided details of the proposed addition. She explained how they will be addressing the comments in the consultant's letters. She showed a colored site plan, floor plan, and colored renderings of the building.

Mr. Borden stated that many of his concerns have been addressed. He noted that the applicant must follow the standards for Electronic Changeable Message (ECM) signs; however, he is concerned about an ECM sign being located immediately across the street from a residence. Ms. Lee stated they can revisit the location of the sign and place it in a location that would not interfere with the neighbor.

Mr. Markstrom reviewed his letter dated September 3, 2019.

- 1. The plans should include more dimensioning of the proposed drive and parking lot including widths and radii of the drive.
- 2. The site plan should show the existing on-site sanitary sewer, as the building addition will interfere with the current connection and grinder pump location. The plans note that the existing grinder pump will be relocated, and the plans should show where the grinder pump will be relocated.
- 3. The demolition plan shows the removal/relocation of a sanitary manhole on the east corner of the property. If this manhole is to be relocated it should be shown on the plans.
- 4. The plans note that a new well will be designed for the fire station. The plans should show the proposed location and isolation radius of the well on the plans and should clearly show what will happen to the existing well. The applicant will need to provide approval from the Livingston County Health Department of the proposed well to the Township prior to approval. If it is decided that adequate

well production will not be able to be achieved by the proposed well, the applicant may need to utilize a water tank instead and if so, the tank will need to be shown on the plans.

5. The proposed parking lot should include curb and gutter around the entire parking lot and drive, not just on the southern portion of the drive. The edge of the future training pad does not need to be curbed, but the training pad will need curb when it is eventually constructed.

Mr. Markstrom noted that these items can be addressed during the construction phase of the project.

All of the outstanding concerns of the Brighton Area Fire Authority have been met.

The call to the public was made at 7:37 pm with no response.

**Moved** by Commissioner Grajek, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Environmental Impact Assessment dated August 21, 2019 for the Brighton Area Fire Authority with the removal of any reference to a septic system. **The motion carried unanimously**.

**Moved** by Commissioner Grajek, seconded by Commissioner Rickard, to approve the Site Plan Dated September 3, 2019 for the Brighton Area Fire Authority subject to the applicant complying with all conditions listed in the Township Planner's and Engineer's letters. **The motion carried unanimously**.

**OPEN PUBLIC HEARING #4...**Review of a sketch plan for proposed renovations to an existing 11,968 sq. ft. industrial building including new parking, truck well, and waste receptacle enclosure located at 830 Grand Oaks Drive, Howell for Johnstone Supply. The request is petitioned by Ren Rushing.

A. Disposition of Sketch Plan. (8-21-19)

Mr. Jeffrey Sheehan, owner of the property, Karl Vollmar of Pucci & Vollmar Architects, and Brent LaVanway of Boss Engineering were present.

Mr. LaVanway and Mr. Vollmar provided a review of the proposed improvements to the site. They showed the site plans, the sign details, and landscape and elevation details.

Mr. Borden reviewed his letter dated September 3, 2019.

September 3, 2019

Planning Commission Genoa Township 2911 Dorr Road Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP			
	Planning Director and Assistant Township Manager			
<b>Subject:</b> Brighton Area Fire Authority – Site Plan Review #2				
Location:	2755 Dorr Road – east side of Dorr Road, between Herbst and Crooked Lake Roads			
Zoning:	PRF Public and Recreational Facilities District			

Dear Commissioners:

At the Township's request, we have reviewed the revised site plan submittal for a building expansion of the existing Township Fire Station on Dorr Road (plans dated 8/21/19).

#### A. Summary

- 1. If the land-banked parking is constructed, 1 additional barrier-free space will be required.
- 2. Once completed, the applicant must submit the lighting plan, including fixture cut sheets and photometric readings.
- 3. Once completed, the applicant must submit a more detailed landscape plan.
- 4. The proposed sign appears to be located in the Dorr Road right-of-way, which is not permitted.
- 5. Sign details must be provided.
- 6. The applicant must follow the standards for electronic changeable message (ECM) signs.
- 7. We are concerned about an ECM sign being located immediately across the street from a residence.

#### B. Proposal/Process

The applicant proposes approximately 11,000 square feet of addition to the existing Fire Station building on Dorr Road. The proposal also includes improvements to other exterior site elements (parking, landscaping, lighting, signage, etc.).

Township buildings are permitted by right in the PRF. As such, the proposal requires only site plan review/approval by the Planning Commission.

### C. Site Plan Review

1. **Dimensional Requirements.** Dimensional standards in the PRF District (Section 6.03) are tied to the most restrictive requirement of an adjacent land use/zoning. In this instance, the property across Dorr Road to the west is zoned LDR, while the properties to the southeast, and adjacent to the other side of the Township Hall property, are zoned AG.

The property contains approximately 8.1 acres of lot area and the proposed building exceeds minimum setback requirements from each lot line, as well as from existing wetlands. Proposed building heights are also well within that allowed by Ordinance.



Aerial view of site and surroundings (looking east)

2. Building Materials and Design. The revised building elevation drawings include color renderings, as well as building material calculations. The proposed building utilizes several materials, including brick, metal panels, fiber cement siding, plain CMU, split-face CMU and cast stone.

The building is predominantly brick and the calculations provided demonstrate compliance with the standards of Section 12.01.

The Planning Commission has review/approval authority over building design, including materials and colors.

**3.** Pedestrian Circulation. A 7-foot wide concrete sidewalk is depicted around 3 sides of the main (south of the apparatus bay) building, providing connections between the parking lot and building entrances.

Public sidewalks are not currently provided, nor are they required (Section 12.05) or planned (Pathway Plan), along this portion of Dorr Road.

**4. Vehicular Circulation.** The property will retain the existing curb cut and a 2<sup>nd</sup> is proposed 195 feet to the north. The existing drive will provide access to the entire site, while the new drive will primarily be intended for emergency vehicles to quickly exit the site.

Drive aisles throughout the site exceed minimum Ordinance standards and a turning radius plan has been included demonstrating that larger emergency vehicles can adequately navigate the site.

**5. Parking.** The parking calculations included with the submittal indicate that 43 spaces are required. The plan provides 43 spaces and 9 land-banked spaces.

The layout of the proposed parking meets or exceeds the dimensional standards of Section 14.06, and the revised plan incorporates double-striped spaces.

If the land-banked parking is constructed, the lot will need to provide 1 additional barrier-free space to remain in compliance with Ordinance standards. The applicant has acknowledged this requirement.

**6. Exterior Lighting.** The site plan identifies 6 parking lot light poles. There are 2 additional poles associated with the land-banked parking between Dorr Road and the building. The Impact Assessment also notes that wall mounted fixtures will be provided.

The cover letter included with the revised submittal indicates that a full lighting plan is being prepared, though the Impact Assessment notes that the proposed lighting includes LED fixtures that are downward directed and shielded. Parking lot light poles are noted at a height of 25 feet, which complies with Section 12.03.

7. Landscaping. The site contains large, tightly spaced rows of evergreen trees along the Dorr Road and I-96 frontages. The plan preserves the vast majority of these existing trees, although the area between the driveways will be cleared and replanted with 5 trees.

The plan also depicts 4 trees in the landscaped areas between the building and parking lot. The cover letter included with the revised submittal indicates that a more detailed landscape plan is being prepared.

**8.** Signage. The site plan identifies a proposed monument/electronic sign along Dorr Road; however, no details are provided. For the applicant's reference, Table 16.01 provides the conventional regulations for monument signs, while Section 16.07.02 provides specific requirements for electronic changeable message signs.

The sign appears to be located in the Dorr Road right-of-way, which is not allowed.

Additionally, understanding the potential benefit of an electronic changeable message sign for a municipal facility, we are somewhat concerned over this type of sign being located directly across the street from an existing single-family residence.

**9. Impact Assessment.** The submittal includes a revised Environmental Impact Assessment (dated August 21, 2019). In general, the document states that the proposed project is not expected to adversely impact natural features, public services/utilities, traffic or surrounding land uses.

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at <u>bborden@safebuilt.com</u>.

Respectfully, **SAFEBUILT STUDIO** 

Brian V. Borden, AICP Planning Manager

September 3, 2019

Ms. Kelly Van Marter Genoa Township 2911 Dorr Road Brighton, MI 48116

### Re: Brighton Area Fire Department Addition Site Plan Review No. 2

Dear Ms. Van Marter:

Tetra Tech conducted a second site plan review of the Brighton Area Fire Department Addition site plan last dated September 3, 2019. The plans were prepared by Partners in Architecture, PLC on behalf of Brighton Area Fire Department. The property includes 8.1 acres located on Dorr Road just south of I-96. The petitioner is proposing a 2,000 square foot addition to the north side of the existing fire station, and a 9,000 square foot addition to the south side. We offer the following comments:

### **GENERAL NOTES**

1. Overall the plans should include more dimensioning of the proposed drive and parking lot including widths and radii of the drive.

### SANITARY AND WATER SERVICES

- 1. The site plan should show the existing on-site sanitary sewer, as the building addition will interfere with the current connection and grinder pump location. The plans note that the existing grinder pump will be relocated, and the plans should show where the grinder pump will be relocated.
- 2. The demolition plan shows the removal/relocation of a sanitary manhole on the east corner of the property. If this manhole is to be relocated it should be shown on the plans.
- 3. The plans note that a new well will be designed for the fire station. The plans should show the proposed location and isolation radius of the well on the plans and should clearly show what will happen to the existing well. The Petitioner will need to provide approval from the Livingston County Health Department of the proposed well to the Township prior to approval. If it is decided that adequate well production will not be able to be achieved by the proposed well, the Petitioner may need to utilize a water tank instead and if so, the tank will need to be shown on the plans.

### **DRAINAGE AND GRADING**

1. The proposed parking lot should include curb and gutter around the entire parking lot and drive, not just on the southern portion of the drive. The edge of the future training pad does not need to be curbed, but the training pad will need curb when it is eventually constructed.

We recommend the Petitioner address the above comments and resubmit the site plan for review and approval.

Please call or email if you have any questions.

Sincerely,

Gary J. Markstrom, P.E. Vice President

Shelby Scherdt

Shelby Scherdt Project Engineer

**BRIGHTON AREA FIRE AUTHORITY** 



615 W. Grand River Ave. Brighton, MI 48116 o: 810-229-6640 f: 810-229-1619

August 29, 2019

Kelly VanMarter Genoa Township 2911 Dorr Road Brighton, MI 48116

RE: BAFA Fire Station 34 2755 Dorr Road Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 22, 2019, and the drawings are dated August 21, 2019. The project is based on an existing S-2 Occupancy used as a fire station. The current structure is located on an approximately 8.105-acre parcel. The site plan calls for two additions to the existing structure, one to the north and one to the south. The north addition will be approximately 2,00 square feet and the south addition will be approximately 9.000 square feet. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

- 1. The area is not provided with municipal water, therefore, an alternative means of fire flow will be provided through a fire suppression tank. The location, size, and details of the tank shall be provided and approved by the fire authority. This item has been addressed in the review comments paperwork included in the latest submittal. Future submittals will be made referencing the addition of a 20,000 gallon onsite water supply.
- 2. The building shall be provided with an automatic sprinkler system in accordance with NFPA 13, Standard for the Installation of Automatic Sprinkler Systems. This item has been addressed and the building will be equipped with an automatic sprinkler system.

IFC 903

- A. The FDC shall be located on the front of the building (Dorr Rd). **FDC has been noted to be placed on the Dorr Rd side of the building.**
- 3. The building shall include the building address on the building. The address shall be a <u>minimum of 6"</u> high letters of contrasting colors and be clearly visible from the street. The location and size shall be verified prior to installation. **Updated plan set shows 2 proposed** address locations. Final design is currently in progress.

IFC 505.1

4. The access roads are provided are compliant with width requirements. The building side to the north shall be marked as a fire lane. Include the location of the proposed fire lane signage and include a detail of the fire lane sign in the submittal. Access roads to the site shall be provided and maintained during construction. Access roads shall be constructed to be capable of supporting the imposed load of fire apparatus weighing at least 84,000 pounds. This has been addressed in review comments letter.

IFC D 103.6 IFC D 103.1 IFC D 102.1



August 29, 2019 Page 2 BAFA Station 34 2755 Dorr Rd. Site Plan Review

IFC D 103.3

5. Access around building shall provide emergency vehicles with an inside turning radius of 30-feet and an outside radius of 50-feet. Provide an emergency vehicle circulation based on the provided details. An apparatus turning radius plan has been added to the site submittal package. The radius plan shows the access from the south drive into the parking lot and into the apparatus bay. There is currently no vehicle circulation shown for the drives on the north side of the property.

IFC 506.1

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

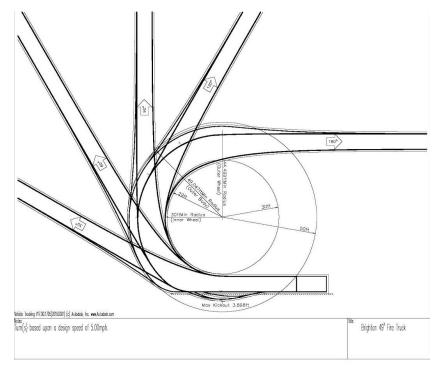
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Derrick Bunge Captain Fire Inspector

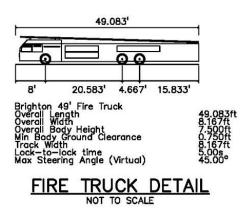
### **BRIGHTON AREA FIRE AUTHORITY**



August 29, 2019 Page 3 BAFA Station 34 2755 Dorr Rd. Site Plan Review



FIRE TRUCK TURNING RADII



### **BRIGHTON AREA FIRE AUTHORITY**



August 29, 2019 Page 4 BAFA Station 34 2755 Dorr Rd. Site Plan Review

### **IMPACT ASSESSMENT**

GENOA TOWNSHIP FIRE STATION SW ¼, SECTION 14, T2N-R5E, GENOA TOWNSHIP, LIVINGSTON COUNTY

> Prepared for: **Genoa Township** 2911 Dorr Road Brighton, Michigan 48116 (810) 227.5225

Prepared by: **Partners in Architecture, PLC** 65 Market Street Mount Clemens, Michigan 48043 (586) 469-3600

August 21, 2019

### INTRODUCTION

The purpose of this Impact Assessment (IA) report is to show the effect that this proposed construction may have on various factors in the general vicinity of the subject parcel. Potential items of concern will be noted in this report along with the proposed methods for addressing each noted item. The format used for the preparation of this IA report conforms to the Submittal Requirement for Impact Assessment/Impact Statement guidelines in accordance with Section 13.05 of the published Zoning Ordinance for Genoa Township, Livingston County, Michigan.

### A. Name and address of person responsible for preparation of the Impact Assessment and a brief statement of the qualifications.

Prepared by: Partners in Architecture, PLC Dan Gwozdz, AIA, NCARB 65 Market Street Mount Clemens, Michigan 48043 (586) 469-3600

Prepared for: GENOA TOWNSHIP 2911 Dorr Road Brighton, Michigan 48116 (810) 227-5225

### B. Description of the site, including existing structures, manmade facilities and natural features, all-inclusive to within 10' of the property boundary.

The site is located at the east side of Dorr Road, north of Crooked Lake Road and south of 1-96 in the west  $\frac{1}{2}$  of the southwest  $\frac{1}{4}$  of Section 14, T2N-R5E, Genoa Township, Livingston County, Michigan. The proposed construction will be an approximately 11,000 sq. ft. addition to the existing fire station located at the northwest corner of a 8.1± acre parcel just north of the Genoa Township Hall site. The area between the two parcels is wetland. The area proposed for the fire station addition slopes from the north, elevation 990, to the wetlands to the south, elevation 957. The wetland drains through a culvert under Dorr Road.

Dorr Road is a 2-lane paved public road with ditches. A pine tree row exists parallel to the east side of Dorr Road; however, a portion of pine tree row prohibits a street presence for the Fire Station. It is proposed to eliminate a portion of the pine tree row between the existing curb cut and new to allow a visual connection between the public and Station 34. There is also a pine tree row parallel to 1-96 and the northerly property line extending from the northwest property corner 700' southeasterly. Several other species of trees dot the perimeter of the parcel, the interior of the parcel is open field.

C. Impact on Natural Features: A written description of the environmental characteristics of the site prior to development and following development, i.e., topography, soils, vegetative cover, drainage, streams, creeks or ponds.

As mentioned, the site slopes from elevation 990 at the northwest corner south to the wetlands at elevation 957. As shown on the U.S.DA Soil Conservation service "Soil Survey of Livingston County, Michigan", the on-site soils consist of:

<u>Miami Loam (MOB)</u> - Typically well-drained soils found on till plains and moraines; with soil slopes of 2-6%. Surface runoff is slow, permeability is moderate and soil erosion hazard is slight.

<u>Miami Loam (MOC)</u> - Typically well-drained soils found on till plains and moraines, with soil slopes of 6-12%. Surface runoff is medium, permeability is moderate and soil erosion hazard is moderate.

<u>Fox-Boyer Complex (FrB)</u> - Typically well-drained soils found on outwash plains, valley trains and moraines with slopes of 2-6%. Surface runoff is slow, permeability is moderate and soil erosion hazard is slight.

<u>Carlisle Muck (Cc)</u> - Typically very poorly drained soils found in depressed areas of till plains, moraines, glacial drainage ways and lake plains. Surface runoff is slow to ponded, permeability is moderately rapid and the hazard of soil blowing is severe.

The National Wetlands Inventory Plan prepared by the United States Department of the Interior, Fish and Wildlife Service indicates there is (1) Palustrine open water wetland near the center of the 46±acre parcel. All building construction and grading will be north of this wetland. The west and northerly property lines are lined by pine tree rows mixed with several other species. The balance of the site is open grassland. Stormwater drains from north to south by sheet flow and the ditch parallel to Dorr Road to the on-site wetland and through the culvert under Dorr Road. A retention pond is being utilized to control runoff per the Livingston County Drain Commission standards.

### D. Impact on Stormwater Management: Description of Soil Erosion Control Measures During Construction.

Surface runoff during periods of construction will be controlled by proper methods set forth by the Livingston County Drain Commissioner, including silt fence and seed and mulch.

# E. Impact on Surrounding Land Use: Description of proposed usage and other man-made facilities; how it conforms to existing and potential development patterns. Effects of added lighting, noise or air pollution, any proposed phasing.

The proposed usage will be an approximately 11,000 sq. ft. addition to the existing Township fire station. The proposed use is consistent with the Genoa Township Master Plan. In addition to the building, this fire station addition is proposed to contain an expanded parking lot and circulation drives and aisle ways and the expected impact will be minimized because of the following:

1. There are no major woodlands or other significant features on the site to be disturbed as is necessary to construct the site improvements.

2. The layout was prepared taking into account the topography to minimize the amount of earthwork required for the buildings and parking areas that will preserve the existing lay of the land. The site will be landscaped in accordance with Genoa Township standards and to provide an aesthetically pleasing site.

3. Soil erosion control measures such as silt fence and straw bale filters will be utilized during construction to control siltation and sedimentation from entering the wetland area.

The fire department is a paid-on-call service. During fire runs and drills there will be an increase in noise as volunteers arrive and fire vehicles leave. The station will be manned by full-time staff sometime in the future. The station will also house a training facility for academy recruits. During training there will be an increase in noise as trainees enter and exit the site and during outdoor training sessions.

The parking lighting will be 25' high poles with LED luminaries. Exterior building lights will be LED luminaries mounted on the building face. All lights will be shielded and directed down to eliminate glare off-site.

### F. Impact on Public Facilities and Services: Description of number of residents, employees, patrons and the impact on general services, i.e., schools, police, fire.

No impact is anticipated on public facilities. To the contrary, this development will be an improvement to the existing public facilities and services.

### G. Impacts on Public Utilities: Description of all public utilities serving the project, i.e., water, sanitary sewer and storm drainage control. Expected flows projected in residential equivalents.

The fire station addition will be serviced by a private well and the public sewer. The existing septic system will be modified as necessary to accommodate the additional needs and code requirements. The retention pond located south of the proposed building collects runoff from the site in accordance with the Livingston County Drain Commission standards.

### H. Storage or Handling of Any Hazardous Materials: Description of any hazardous materials used, stored or disposed of on-site.

No hazardous materials are to be stored on-site.

### I. Impact on Traffic and Pedestrians: Description of traffic volumes to be generated and their effect on the area.

Traffic impact aside from fire runs and drills will be minimal. During fire runs and drills, traffic will be temporarily halted to allow volunteers to enter and emergency vehicles to exit.

### J. Special Provisions: Deed restrictions, protective covenants, etc.

None.

### K. Description of all Sources

- GENOA TOWNSHIP ZONING ORDINANCE
- "SOIL SURVEY OF LIVINGSTON COUNTY, MICHIGAN", SOIL CONSERVATION SERVICE, U.S.D.A
- NATIONAL WETLANDS INVENTORY, U.S. DEPARTMENT OF INTERIOR FISH AND WILDLIFE SERVICE TRIP GENERATION, 5TH EDITION, INSTITUTE OF TRANSPORTATION ENGINEERS

DRIGHION FIRE STATION



25	

Recd @ PC Mtg
Recd @ PC Mtg 9 9 19

### Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.



**Specifications** 

EPA:

Length:

Width:

Height H1:

Height H2:

Weight

(max):

1.01 ft<sup>2</sup>

(0.09 m<sup>-</sup>)

33"

13"

(33.0 cm)

7-1/2"

3-1/2"

27 lbs

(12.2kg

(190cm)

(83.8 cm)

### Ordering Information

#### EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series LEDs		Color temperature	Distribution	Voltage Mou	Mounting		
DSX1 LED	Forward optics           P1         P4         P7           P2         P5         P8           P3         P6         P9           Rotated optics         P101         P121           P111         P133         P131	<b>30K</b> 3000 K 40K 4000 K 50K 5000 K	T1S     Type I short     TSVS     Type V very short       T2S     Type II short     TSS     Type V short       T2M     Type II medium     TSM     Type V medium       T3S     Type III nedium     TSM     Type V wide       T3M     Type III medium     BLC     Backlight control I       T4M     Type IV medium     LCCO     Left corner cutoff I       TFTM     Forward throw     RCCO     Right corner cutoff I	120 4         SPA           208 4         RP/           240 4         WB           277 4         SPL           347 4.5         RPL           480 4.5         Shi	A Round pole mounting		

Control options				Other options		Finish courses	
Shipped installed         NLTAIR2       nLight AIR generation 2 enabled <sup>5</sup> PIRBN       Network, high/low motion/ambient sensor <sup>8</sup> PER       NEMA twist-lock receptade only (controls ordered separate) <sup>10</sup> PER5       Five-pin receptade only (controls ordered separate) <sup>10</sup> PER7       Seven-pin receptade only (controls ordered separate) <sup>10</sup> PER7       Seven-pin receptade only (controls ordered separate) <sup>10</sup> DMG       0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) <sup>10</sup> D5       Dual switching <sup>12,18+</sup>	PIR PIRH PIR1FC3V PIRH1FC3V FAO	High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 5 fc <sup>11,54</sup> High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 5 fc <sup>11,11</sup> High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 1 fc <sup>15,16</sup> Bi-level, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 1 fc <sup>15,16</sup> Field adjustable output <sup>14</sup>	HS SF DF L90 R90	ped installed House-side shield <sup>17</sup> Single fuse (120, 277, 347V) <sup>1</sup> Double fuse (208, 240, 480V) <sup>4</sup> Left rotated optics <sup>1</sup> Right rotated optics <sup>1</sup> ped separately Bird spikes <sup>11</sup>	DDBXD DBLXD DNAXD DWHXD DDBTXD DBLBXD DNATXD DWHGXD	Dark bronze Black Natural aluminum White Textured dark bronze Textured black Textured black Textured natural aluminum Textured white	



### **Ordering Information**

#### Accessories

Ordered and shipped separately		Ordered	and	shipped	separatel
--------------------------------	--	---------	-----	---------	-----------

DLL127F1.5 JV	Photocell - SSI, twist-lock (120-277V) *
DLL347F1.SCULJU	Photocell - SSL twist-lock (347Y) *
DLLANOF 1.5 CULJU	Photocell - SSL twist-lock (400V) *
DSHORT SBK U	Shorting cap "
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5"
DSX1HS 40C U	House-side shield for P6 and P7"
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 <sup>#</sup>
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) <sup>20</sup>
KMAR DOBXD U	Mast ann mounting bracket adaptor (specify finish)*

For more control options, visit DTL and ROAM online.

NOTES

- WD IES

   1
   P10, P11, P12 or P13 and rotated optics (1.90, R90) only available together,

   2
   Not available with HS.

   3
   MVOCIT driver operates on any line voltage from 120-277V (50/60 Hz).

   4
   Single lices 65P require 120V 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.

   5
   Not available in P1 or P10.

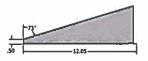
- Not available in P1 or P10.
  Universal mounting brackets internded for retrofit on existing, pre-chilled poles only. 1.5 G vibration load rating per ANCI C136.31.
  Universal mounting brackets internded for retrofit on existing, pre-chilled poles only. 1.5 G vibration load rating per ANCI C136.31.
  Must be ordered with PIDHL Sensor cover available only in dark boroze, black, white and natural eluminum colors.
  Must be ordered with NIZAR2. For more information on nUght Air 2 vest the Ink.
  Di Photocell ordered with NIZAR2. For more information on nUght Air 2 vest the Ink.
  Di Photocell ordered and shipped as a separate alter item from Acxity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
  11 If ROAM<sup>4</sup> node required, it must be ordered and shipped as a separate line item from Acxity Brands Controls. Node with integral demning.
  12 Provides SUSSidicture operation via (2) independent drivers. Not available with PER, PERS, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
  13 Requires (2) separately avathed circuits with oolstad neutrol. See Outdoor Control Technical Guide for details.
  14 Reference Motion Senior table on page 4.
  16 Reference controls options table on page 4.
  17 Not available with BLC, LCCO distribution. Also available as a separate accessory; see Accessories information.
  18 Must is ordered with focus for factory pre-chilling.
  19 Must is ordered with focus for factory pre-chilling.

- 18 Must be ordered with facture for factory pre-drilling. 19 Requires Juminaire to be specified with PER, PERS or PER7 option. See PER Table on page 3. 20 For retrofit use only.

Options

#### **EGS - External Glare Shield**

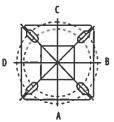




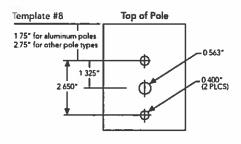


### Drilling

#### HANDHOLE ORIENTATION



Handhole



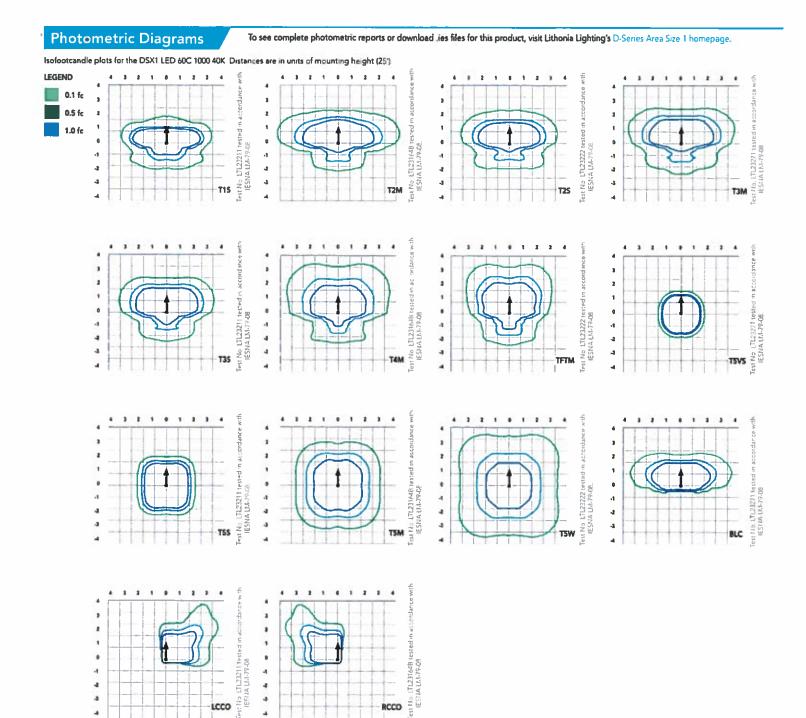
#### **Tenon Mounting Slipfitter\*\***

Tenon O.D.	Mounting	Single Unit	2 a 180	2 a 90	3 a 120	3 @ 90	4 @ 90
	SPA/RPA	AS3-5 190	A\$3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5490
2-3/8"	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
	SPA/RPA	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
2-7/8"	SPUMBA	AST25-190	AST25-280		AST25-320		
	RUPUMBA	AST25-190	AST25-280		AST25-320		
	SPA/RPA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
4*	SPUMBA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	RUPUMBA	AST35-190	AST35-280		AST35-320		

		-		Ľ.		Y	+
Mounting Option	<b>Drilling Template</b>	Single	2@180	2@90	3@90	3@120	4@90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	88	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

SPA	Drilling Template	Minimum Acceptable Outside Pole Dimension					
		2-7/8"	2-7/8*	3.5"	3.5"	3"	3.5"
RPA	18	2-7/8"	2-7/8*	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	<b>4</b> "	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5°	5"	3.5"	5"







### **Performance Data**

### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Amt	lient	Lumen Multiplier
0"C	32"F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68*F	1.01
25°C	77°F	1.00
30°C	86°7	0.99
35°C	95°F	0.98
40°C	104"F	0.97

### **Projected LED Lumen Maintenance**

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED tasting (tasted per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

		Motion Ser	isor Default S	ettings					
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time			
PIR or PERH 3V (37%) 10V (100%) Enabled @ SFC 5 min 3 sec 5 min									
PPR1FC3V or 3V (37%) 10V (100%) PIRH1FC3V Output Output Enabled @ 1FC 5 min 3 sec 5 min									

							Curre	nt (A)		
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
	P1	30	530	54	0.45	0.26	0.23	0.19	0,10	0,12
	12	30	700	70	0.59	0.34	0.30	0.25	0.20	0,10
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
Forward Optics (Non-Rotated)	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.25
•	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	PB	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
Rotated Optics	P11	60	700	137	1,15	0.67	0.60	0.53	0.42	0.32
(Requires L90 or R90)	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

		Controls Options	فليرد فالمعاد	
Nomenclature	Descripton	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the lumiaire; wired to the driver dimming leads.	Allows the lumiaire to be manually dimmed, effectively trimming the light output.	FAD device	Cannot be used with other controls options that need the D-10V leads
DS	Drivers wired independantly for 50/50 Iuminaire operation	The luminaire is wired to two separate circuits, allowing for SO/SO operation.	Independently wired drivers	Requires two seperately switched circuits. Consid nLight AR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell recepticle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10Y dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBOR	Also available with PIRH1FC3V when the senso photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nlight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Edypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commiss from the ground using the CLAIRity Pro app.

**Electrical Load** 



### **Lumen Output**

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

				Constant of the local division of the local			30K					40K			1		50K						
D Count	Drive Current	Power Package	System Watts	Dist. Type			) K, 70 CRI				(4000	40K K, 70 CRI	)			(5000	K. 70 CRI	1					
	Current	rackage	Hatts		Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	ļl				
				115 T25	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	1				
				T2M	6,450 6,483	1	0	2	119	6,949 6,984	2	0	2	129	7,037 7,073	2	0	2					
				135	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2					
				T3M	6,468	1	0	2	120	6,967	1.	0	2	129	7,056	1	0	2					
				T4M	6,327	t	0	2	117	6,816	1	0	2	126	6,902	1	0	2					
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2					
30	530	1	54W	TSVS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	1-				
				155	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1					
- 0		3		T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	$\uparrow$				
				TSW	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2					
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2					
				1000	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2					
		2-61-52-14	_	RCCD	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	1				
	-			T15	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	+				
				T25	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	4.				
				TZM T3S	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	╞				
				T3M	8,021 8,263	2	0	2	115 118	8,641 8,901	2	0	2	123	8,751 9,014	2	0	2	╀				
				T4M	8,083	2	0	2	115	8,708	2	0	2	127	8,818	2	0	2	╈				
25.2	2.22	1.0 1	0.72	TETM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	╀				
30	700	P2	70W	1575	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	┢				
				155	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	+				
				TSM	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	┢				
				TSW	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	ϯ				
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	t				
				LCCD	5,038	1	0	2	$\overline{n}$	5,427	1	0	2	78	5,496	1	0	2					
				RCCO	5,038	1	0	2	12	5,427	1	0	2	78	5,496	1	0	2					
				T15	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3					
				125	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3					
- 19				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2					
0				T35	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	╀				
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	╀				
				T4M TFTM	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	╄				
30	1050	P3	102W	TSVS	11,673 12,140	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	+-				
				T55	12,140	3	0	1	119	13,078 13,089	3	0	1	128	13,244 13,254	3	0	1	┝				
								TSM	12,119	4	0	2	119	13,055	4	0	2	128	13,224	4	0	2	╀╴
							TSW	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	┢	
					BLC	9,570	1	0	2	94	10,310	$\frac{1}{1}$	0	2	101	10,440	1	0	2	-			
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	┢				
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	t				
1.0				T15	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	T				
				T25	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	T				
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3					
				T35	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3					
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2					
	1			T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	Ð	3	-				
30	1250	P4	125W	TETM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	+-				
92.5	SE 338963	1 100	122.526	<u>15VS</u>	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	+				
				TSS TSM	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	+				
			20	TSW	13,963 13,872	4	0	2	112 111	15,042	4	0	23	120	15,233	4	0	2	+				
			3	BLC	13,872	4	0	2	68	<u>14,944</u> 11,879	4	0	2	120 95	15,133	4	0	3	+-				
			3	LCCO	8,205	1	0	3	66	8,839	$\frac{1}{1}$	0	3	71	12,029 8,951	1	0	- 4	+				
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951 8,951	1	0	3	+-				
	20.849.00			TIS	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	┢				
				125	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	╋				
		1495	T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	┢					
				135	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	t				
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3					
				T4M	14,384	2	0	1	104	15,496	3	0	3	112	15,692	3	0	3					
30	1400		138W	TETM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3					
10	1400	P5	12044	TSVS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1					
				T55	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1					
				TSM	15,257	4	D	2	111	16,435	4	0	2	119	16,644	4	0	2					
				ISW	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	Γ				
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2					
				1000	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3					
1.1		1		ACCD	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3					



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### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

D Count	Drive	Power	System	Dist.		(300/	30K K, 70 CRI			40K (4000 K. 70 (RI)						50K (5000 K, 70 CRI)					
o count	Current	Package	Watts	Туре	Eumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LP		
	1012 Xer	1	1	TIS	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	1		
				T25	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	1		
		2		T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	1		
				BS	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	1		
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3			
				TAM	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4			
40	1250	P6	163W	TFTM TSVS	17,672 18,379	3	0	3	108 113	19,038	3	0	4	117	19,279	3	0	4			
			(	155	18,394	4	0	2	113	19,800 19,816	4	0	1	121 122	20,050 20,066	4	0	1	╋		
				TSM	18,348	4	0	2	113	19,766	4	0	2	122	20,000	4	0	2	╈		
				TSW	18,228	5	0	3	112	19,636	5	0	3	120	19,685	5	0	3	┢		
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	┢		
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	┢		
				RCCO	10,781	1	0	3	66	11,614	1	ŭ	3	71	11,761	2	0	3	1-		
				TIS	19,227	3	0	Ĵ	105	20,712	3	0	3	113	20,975	3	0	3	$\uparrow$		
1				125	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	1-		
				TZM	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3			
				135	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	$\uparrow$		
				MET	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	$\top$		
				T4M	16,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	T		
40	1400	P7	183W	TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	T		
**	·		TTLGI	TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	Γ		
				155	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	Ι		
1				TSM	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3			
				TSW	19,852	S	0	3	108	21,386	5	0	3	117	21,656	5	0	3			
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	-		
				1000	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	1		
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	+		
						<u>T15</u>	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	+-
						125	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	+
			2	T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	-		
				T3S T3M	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	+		
				T4M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	+		
				TFTM	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	+-		
60	1050	P8	207W	TSVS	23,415	5	0	1	113	24,253	5	0	_	-	24,560	3	0	4	+		
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		155	23,434	- 3- 4-	0	2	113	<u>25,224</u> 25,244	4	0	1	122 122	25,543	5	0	1 2	╞		
				TSM	23,374	5	0	3	113	25,244	5	0	3	122	25,564 25,499	4	0	3			
				T5W	23,221	5	0	4	112	25,016	5	0	4	122	25,332	5	0	4	┢		
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	┢─		
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	┢		
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	+		
	The second second		-	TIS	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	+		
				125	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	$\uparrow$		
			1 3	T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	$\uparrow$		
				735	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	┢		
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	1		
			4	14M	25,061	1	0	4	104	26,997	3	0	4	112	27,339	3	Ō	4			
10	1370	8.0		TFTM	25,602	3	Ō	4	106	27,580	3	0	4	114	27,929	3	0	4	1-		
60	1250	P9	241W	TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	1		
				155	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	1		
				TSM	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3			
				TSW	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4			
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3			
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	1		
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4			



### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

ED Count	Drive	Pawer	System	Dist		12005	30K K, 70 CRI	1				40K K, 70 CRI					50K 0 K, 70 CRI							
o count	Current	Package	Watts	Туре	Lumens	B	U	G	LPW	Lumens	(4000 B	U	G	LPW	Lumens	B	U U	G	LP					
				TIS	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	13					
				125	12,967	- 4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	1					
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	Û	3	13					
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	1					
		5		T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	12					
				T4M	12,944	4	D	4	122	13,945	4	O	4	132	14,121	4	0	4	1					
60	530	P30	106W	TFTM	13,279	4	0	4	125	14,305	4	Û	4	135	14,486	4	0	4	1					
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	1					
				TSS TSM	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	1					
				TSW	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	1					
				BLC	13,137 10,906	3	0	3	124	14,153	4	0	3	134	14,332	4	0	3	1					
				LCCO	7,789	1	0	3	103 73	11,749	3	0	3	111	11,898	3	0	3	1					
				RCCO	7,779	4	0	4	73	8,391 8,380	- 4	0	3	79 79	8,497	1	D	3	1					
				TIS	16,556	3	0	3	121	17,835	3	0	3	130	8,486	4	0	4	+!					
				125	16,461	4	0	4	120	17,733	4	0	4	129	18,061 17,957	4	0	4	$\frac{1}{1}$					
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	+ i					
				TBS	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	1					
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	+ i					
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4						
10		1 1 1 1 1 1		TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	i					
60	700 P	P11	137W	TSVS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	1					
				TSS	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	1					
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	1					
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	i					
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	1					
				LCCD	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	1					
					RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	7				
	_								T15	22,996	4	0	4	111	24,773	4	Û	- 4	120	25,087	4	0	4	1
								T25	22,864	4	0	4	_110	24,631	5	0	5	119	24,943	5	0	5	1	
										1				T2M	23,277	4	0	4	112	25,075	4	0	4	121
				T35	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	1					
				MET	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	1					
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	1					
60	1050	P12	207W	TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	1					
~	0.000	SEARS 8		TSVS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	1					
				155	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	1					
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	1					
				TSW BLC	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	1					
				LCCD	13,734	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	1					
				RCCO	13,716	4	0	3	66	14,796 14,776	2	0	4	71	14,983	2	0	4	1					
				TIS	25,400	4	0	4	66 110	27,363	4	0 0	4	71 118	14,963	4	0	4	7					
			-	125	25,254	5	0	5	109	27,205	5	0	4	118	27,709	4	0	4	1					
			1	T2M	25,710	4	0	4	111	27,696	3	0	3		27,550	5	0	5	1					
			1	T3S	24,862	5	0	5	108	26,783	5	0	5	120 116	28,047 27,122	4	0	4	1					
			6	T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	1 1					
			1	TAM	25,210	5	0	5	109	27,000	5	0	5	120	24,031	5	0	5	1.					
				TETM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	1					
60	1250	P13	231W	TSVS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	2						
				TSS	25,824	4	0	2	112	27,819	5	0	2	121	28,172	5	0	2	t t					
		. 1		TSM	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	1					
				TSW	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	1					
			6	BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	- 3	0	4	1					
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	7					
			1	RCCO	15,150	5	0	5	66	16,321	S	0	5	71	16,527	5	0	5	1					



### \*\*\* Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM<sup>®</sup> or XPoint<sup>™</sup> Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background

To learn more about A+,

visit www.acuitybrands.com/aplus

- See ordering tree for details.
- 2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

### FEATURES & SPECIFICATIONS

### **INTENDED USE**

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

### CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft<sup>2</sup>) for optimized pole wind loading.

### FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes

### OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED<sup>®</sup> and Green Globes™ criteria for eliminating wasteful uplight.

### ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metalcore circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

### STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.



### **nLIGHT AIR CONTROLS**

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

### INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

### LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated, Rated for -40°C minimum ambient, U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product.

Not all versions of this product may be DLC Premium qualified or DLC. qualified. Please check the DLC Qualified Products List at www.designlights org/OPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

### WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrand.com/CustomerRejources/Terms and conditions aspx

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

# **FIRE STATION #34**

# **BRIGHTON AREA FIRE AUTHORITY**

## PARTNERS



### Architect: Partners in Architecture, PLC 65 Market Street Mount Clemens, MI 48043 (Phone) 586-469-3600

Owner:

### Brighton Area Fire Authority 615 W Grand River Avenue Brighton, MI 48116 (Phone) 810-229-6640

Landscape Architect: J Eppink Partners, Inc. 9336 Shashabaw Road Clarkston, MI 48348

Structural Engineer: Shymanski & Associates, LLC. 33426 Five Mile Road Livonia, MI 48154

# Surveyor:

Civil Engineer: Civil Engineering Solutions, Inc. 1150 Corporate Office Drive, Suite 210 Milford, MI 48381

### LEGAL DESCRIPTION:

The site is located at the east side of Dorr Road, north of Crooked Lake Road and south of 1-96 in the west ½ of the southwest ¼ of Section 14, T2N-R5E, Genoa Township, Livingston County, Michigan. The proposed construction will be an approximately 11,000 sq, ft, addition to the existing fire station located at the northwest corner of a  $8.1\pm$  acre parcel just north of the Genoa Township Hall site. The area between the two parcels is wetland. The area proposed for the fire station addition slopes from the north, elevation 990, to the wetlands to the south, elevation 957. The wetland drains through a culvert under Dorr Road.



### **3D VIEW - SOUTHWEST**

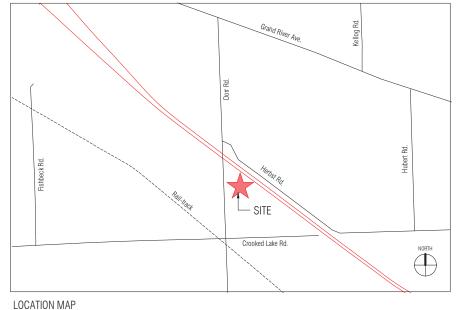


**3D VIEW - SOUTHEAST** 

Zone:	PRF	Public & Recreational Facilities district
Land Use:	Governmental	Township Building
Area:	The area or parcel of land for a permitted public facility shall be not less than required to provide adequate space for the principal and accessory buildings, off-street parking and other accessory uses, yards and open spaces to accommodate the facility and maintain the character of the neighborhood.	Parcel is 8, 105 acres
Max height:	35 ft or 2 stories	
Setback (Body of Water):	75 ft from wetlands	Building to be served by public sewer
Front Yard:	Equals most restrictive adjacent zoning	75 ft Agricultural (AG)
Side & Rear Yard:	Governmental	75 ft
	Wetlands	25 ft
	ROW	20 ft
Parking area setbacks:	Property lines	10 ft
Supplementary height regulations:	Flag poles	40 ft
	North	Rural Residential
	South	PRF
	East	Agricultural (AG)
Zoning adjacencies	West	Low Density Residential (LDR)
		1 per 250 sq. ft.
		Gross floor area minus Apparatus Bay = 10,555 sq ft.
Parking totals:	Munincipal office building	10555/250 = 42 22 = 43







LOCATION MAP

A0-00S - COVER SHEET 1 - TOPOGRAPHICAL SURVEY C1 - LEGEND C2 - DEMOLITION PLAN C3 - LAYOUT AND UTILITY PLAN C4 - PAVING AND GRADING PLAN C5 - STORMWATER MANAGEMENT PLAN C6 - STORM SEWER PROFILES C7 - SOIL EROSION AND SEDIMENTATION CONTROL PLAN C8 - MISCELLANEOUS DETAILS C9 - ADJACENT ZONING PARCEL MAP L1-01 - LANDSCAPE PLANTING PLAN A2-01 - ARCHITECTURAL SITE PLAN A2-02 - TRUCK TURNING RADIUS PLAN A3-01 - GROUND FLOOR PLAN A3-02 - MEZZANINE FLOOR PLAN A5-01 - EXTERIOR ELEVATIONS A5-02 - EXTERIOR ELEVATIONS

### PARTNERS



### PARTNERS in Architecture, PLC

65 Market Street Mount Clemens, MI 48043 P 586.469.3600 F 586.469.3607

#### Statement of Int

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Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 4811

PROJECT NO.

19-128

### ISSUES / REVISION

SITE PLAN REVIEW SITE PLAN REVIEW

DRAWN BY DJG

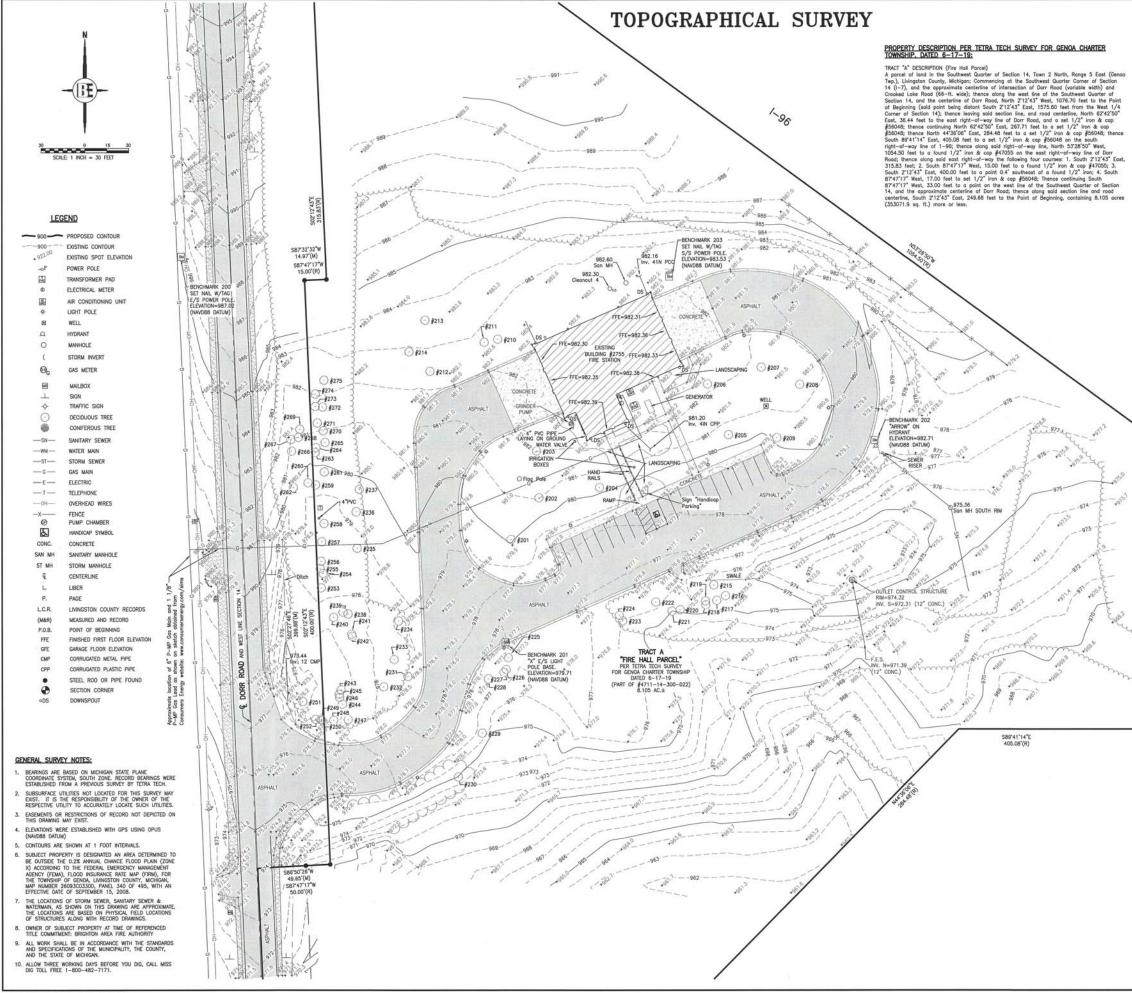
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APPROVED BY

SHEET NAME

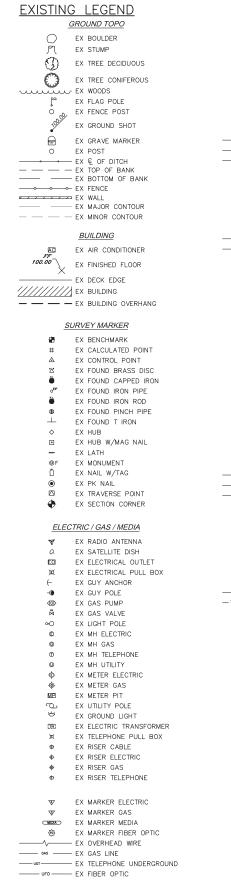
Site Plan Approval Cover Sheet

A0-00S 114



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Bit Cont       TOT TO SCALE         Tot To SCALE       Tot SCALE         Tot To SCALE       Status Scale         <	Internet and	C DORR ROAD AND WEST LINE SECTION 14	(b),58752732 (c),58752732 (c),58752732 (c),58752732 (c),58752732 (c),58752732 (c),58752732 (c),587527 (c),	Jun and a start of the start of	589'41'14 405.08'(F	7 <u></u> 0	THE LOCATION AND ELE SHOWN ON THESE DAY ETHER EXPRESSED OR THERE'S THE CONTROL	NO THE DAVIT LOCATION A PRACTOR SHULL NOTIFY THE FORCING SHULL NOTIFY THE COR # THE LOCATION OR D	CALL MISS
Loop       The Statical Name       Common Name       Size DBH Condition       The Statical Name       Size DBH Condition       Size DBH C		SEC	COR	NOT TO SCALE					
1213       Utimus americana       Americana Bim       2*       Bat         1214       Monus alba       Americana Bim       2*       Bat         1215       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1218       Propulus delicides       Cottonwood       6*       good         1219       Propulus delicides       Cottonwood       6*       good         1210       Propulus delicides       Cottonwood       6*       good         1211       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       9*       good         1210       Propulus delicides       Cottonwood       9*       fair<	Ļ	()-(	07)					a difference	02
1213       Utimus americana       Americana Bim       2*       Bat         1214       Monus alba       Americana Bim       2*       Bat         1215       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1218       Propulus delicides       Cottonwood       6*       good         1219       Propulus delicides       Cottonwood       6*       good         1210       Propulus delicides       Cottonwood       6*       good         1211       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       9*       good         1210       Propulus delicides       Cottonwood       9*       fair<								LE AN	167
1213       Utimus americana       Americana Bim       2*       Bat         1214       Monus alba       Americana Bim       2*       Bat         1215       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1218       Propulus delicides       Cottonwood       6*       good         1219       Propulus delicides       Cottonwood       6*       good         1210       Propulus delicides       Cottonwood       6*       good         1211       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       9*       good         1210       Propulus delicides       Cottonwood       9*       fair<				Crabapple	6,4,3"	good		R A	545
1213       Utimus americana       Americana Bim       2*       Bat         1214       Monus alba       Americana Bim       2*       Bat         1215       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1218       Propulus delicides       Cottonwood       6*       good         1219       Propulus delicides       Cottonwood       6*       good         1210       Propulus delicides       Cottonwood       6*       good         1211       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       9*       good         1210       Propulus delicides       Cottonwood       9*       fair<		204	Alnus glutinosa 'Rassmatazz'	Variegated Alder	6-1/2"	good	E	SIVE SI	. 48
1213       Utimus americana       Americana Bim       2*       Bat         1214       Monus alba       Americana Bim       2*       Bat         1215       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1216       Propulus delicides       Cottonwood       6*       good         1218       Propulus delicides       Cottonwood       6*       good         1219       Propulus delicides       Cottonwood       6*       good         1210       Propulus delicides       Cottonwood       6*       good         1211       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       8*       good         1210       Propulus delicides       Cottonwood       8*       good         1220       Propulus delicides       Cottonwood       9*       good         1210       Propulus delicides       Cottonwood       9*       fair<		206	Malus spp	Crabapple	6*	poor		ND ND	, MI
1213       Utimus americana       Americana Bim       2*       fair         1213       Minus americana       Black Locust       9.9,77*       poor         1214       Mourus alta       White Muberry       5*       good         1215       Populus detoides       Cottonwood       6*       good         1216       Populus detoides       Cottonwood       6*       good         1218       Populus detoides       Cottonwood       6*       good         1219       Populus detoides       Cottonwood       6*       good         1220       Populus detoides       Cottonwood       6*       good         1211       Populus detoides       Cottonwood       6*       good         1220       Populus detoides       Cottonwood       8*       good         1231       Populus detoides       Cottonwood       8*       good         1232       Populus detoides       Cottonwood       9*       good         1231       Populus detoides       Cottonwood       9*       good         1232       Populus detoides       Cottonwood       9*       good         1233       Populus detoides       Cottonwood       9*       fair								E AND	ELL,
121       United antimination       2       fair         121       Minus americana       Americana film       2       fair         121       Minus americana       Black Locust       9.9,77       poor         121       Monus alta       Cottomwood       6'       good         121       Populus deticides       Cottomwood       6'       good         121       Populus deticides       Cottomwood       6'       good         121       Populus deticides       Cottomwood       6'       good         122       Populus deticides       Cottomwood       6'       good         123       Populus deticides       Cottomwood       6'       good         123       Populus deticides       Cottomwood       8'       fair         124       Populus deticides       Cottomwood       9'       fair         125       Populus deticides       Cottomwood       9'       fair         126 <t< td=""><td></td><td>209</td><td>Malus spp</td><td>Crabapple</td><td>6"</td><td>good</td><td></td><td>L Man</td><td>10W</td></t<>		209	Malus spp	Crabapple	6"	good		L Man	10W
121       Moros alba       White Muberry       52.17       Pool         121       Populus deticides       Cottonwood       67       good         122       Populus deticides       Cottonwood       67       good         123       Populus deticides       Cottonwood       67       good         124       Populus deticides       Cottonwood       67       good         125       Populus deticides       Cottonwood       87       good         126       Populus deticides       Cottonwood       87       good         127       Populus deticides       Cottonwood       97       good         128       Populus deticides       Cottonwood       97       fair         129       Populus deticides       Cottonwood       97       fair         120       Populus deticides       Cottonwood       97       fair		211	Ulmus americana	American Elm	4"	fair		Sun 2121	+ 546
215       Populus deticidés       Cottonwood       6"       good         216       Populus deticidés       Cottonwood       6"       good         217       Populus deticidés       Cottonwood       6"       good         218       Populus deticidés       Cottonwood       6"       good         219       Populus deticidés       Cottonwood       6"       good         210       Populus deticidés       Cottonwood       6"       good         211       Populus deticidés       Cottonwood       6"       good         212       Populus deticidés       Cottonwood       6"       good         212       Populus deticidés       Cottonwood       6"       good         212       Populus deticidés       Cottonwood       8"       good         212       Populus deticidés       Cottonwood       8"       good         213       Populus deticidés       Cottonwood       9"       good         213       Populus deticidés       Cottonwood       10"       good         213       Populus deticidés       Cottonwood       10"       fair         214       Populus deticidés       Cottonwood       10"       fair <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ineers</td><td>512</td></t<>								ineers	512
ATTACK       Contonwood       6''       good         212       Populus deltoides       Cottonwood       6''       good         213       Populus deltoides       Cottonwood       6''       good         214       Populus deltoides       Cottonwood       6''       good         215       Populus deltoides       Cottonwood       6''       good         216       Populus deltoides       Cottonwood       6''       good         217       Populus deltoides       Cottonwood       6''       good         218       Populus deltoides       Cottonwood       6''       good         219       Populus deltoides       Cottonwood       6''       good         210       Populus deltoides       Cottonwood       8''       good         211       Populus deltoides       Cottonwood       14''       good         212       Populus deltoides       Cottonwood       14''       good         213       Populus deltoides       Cottonwood       14''       good         214       Populus deltoides       Cottonwood       10''       fair         215       Populus deltoides       Cottonwood       10''       fair			Morus alba	White Mulberry	5"	good		Eng	
228       Populus deticidas       Cottonwood       6°       good         220       Populus deticidas       Cottonwood       6°       good         221       Populus deticidas       Cottonwood       6°       good         221       Populus deticidas       Cottonwood       6°       good         221       Populus deticidas       Cottonwood       8°       good         222       Robinia pseudoaccia       Black Locust       13°       fair         223       Populus deticidas       Cottonwood       8°       good         224       Populus deticidas       Cottonwood       8°       good         225       Populus deticidas       Cottonwood       8°       good         228       Populus deticidas       Cottonwood       9°       good         230       Populus deticidas       Cottonwood       9°       good         231       Populus deticidas       Cottonwood       12°       good         232       Populus deticidas       Cottonwood       12°       good         233       Populus deticidas       Cottonwood       12°       good         234       Populus deticidas       Cottonwood       17°       fair		216	Populus deltoides	Cottonwood	6"	good			
220.       Populus deticides       Cottonwood       6"       good         221.       Populus deticides       Cottonwood       8"       good         222.       Robina pseudoacada       Black Looust       13"       fair         223.       Populus deticides       Cottonwood       6"       good         224.       Populus deticides       Cottonwood       6"       fair         225.       Populus deticides       Cottonwood       8"       good         228.       Populus deticides       Cottonwood       8"       good         230.       Populus deticides       Cottonwood       9"       good         231.       Populus deticides       Cottonwood       9"       good         232.       Populus deticides       Cottonwood       9"       good         233.       Robina pseudoacaia       Black Locust       14"       fair         234.       Populus deticides       Cottonwood       10"       good         237.       Populus deticides       Cottonwood       10"       fair         241.       Populus deticides       Cottonwood       7"       fair         233.       Populus deticides       Cottonwood       7"       fair									-
221.       Populus detioides       Cottonwood       6"       good         222.       Robina pseudoacada       Black tooust       13"       fair         223.       Populus detioides       Cottonwood       6"       fair         224.       Populus detioides       Cottonwood       6"       fair         225.       Robina pseudoacada       Black tooust       6.5.4"       fair         226.       Populus detioides       Cottonwood       8"       good         227.       Populus detioides       Cottonwood       8"       good         228.       Populus detioides       Cottonwood       8"       good         230.       Populus detioides       Cottonwood       8"       good         231.       Populus detioides       Cottonwood       14"       good         232.       Populus detioides       Cottonwood       10"       good         233.       Populus detioides       Cottonwood       10"       good         234.       Populus detioides       Cottonwood       10"       fair         241.       Populus detioides       Cottonwood       6"       fair         232.       Populus detioides       Cottonwood       7									
223       Populus deltoides       Cottonwood       8'       good         224       Populus deltoides       Cottonwood       6'       fair         226       Robina pseudoacaia       Black Locust       6.5,4''       fair         227       Populus deltoides       Cottonwood       8''       good         228       Populus deltoides       Cottonwood       8''       good         229       Populus deltoides       Cottonwood       8''       good         230       Populus deltoides       Cottonwood       8''       good         231       Populus deltoides       Cottonwood       9''       good         232       Populus deltoides       Cottonwood       14''       good         233       Populus deltoides       Cottonwood       12''       good         234       Robina pseudoacaia       Black Locust       14''       good         235       Populus deltoides       Cottonwood       12''       good         236       Populus deltoides       Cottonwood       7''       fair         241       Populus deltoides       Cottonwood       7''       fair         233       Populus deltoides       Cottonwood       7''       fa		221	Populus deltoides	Cottonwood	6"	good			1
225       Robinia pseudoacaća       Black Locust       6,5,4*       fair         226       Populus deltoides       Cottonwood       9*       good         227       Populus deltoides       Cottonwood       8*       good         228       Populus deltoides       Cottonwood       8*       good         230       Populus deltoides       Cottonwood       8*       good         231       Populus deltoides       Cottonwood       9*       good         233       Populus deltoides       Cottonwood       14*       good         234       Robina pseudoacaća       Black Locust       9*       fair         235       Populus deltoides       Cottonwood       14*       good         236       Populus deltoides       Cottonwood       10*       good         237       Populus deltoides       Cottonwood       7*       fair         238       Populus deltoides       Cottonwood       7*       fair         240       Populus deltoides       Cottonwood       7*       fair         242       Populus deltoides       Cottonwood       7*       fair         243       Populus deltoides       Cottonwood       7*       fair     <				Cottonwood	8*				1
226       Populus deltoides       Cottonwood       9"       good         227       Populus deltoides       Cottonwood       8"       good         228       Populus deltoides       Cottonwood       14"       good         230       Populus deltoides       Cottonwood       9"       good         231       Populus deltoides       Cottonwood       9"       good         232       Populus deltoides       Cottonwood       9"       good         233       Robinia pseudoacada       Black Locust       9"       good         236       Populus deltoides       Cottonwood       10"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       10"       good         239       Populus deltoides       Cottonwood       10"       fair         241       Populus deltoides       Cottonwood       10"       fair         243       Populus deltoides       Cottonwood       7       fair         244       Populus deltoides       Cottonwood       7       fair         250       Populus deltoides       Cottonwood       7       fair								2	
235       Populus deltoides       Cottonwood       14"       good         236       Populus deltoides       Cottonwood       12"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       17"       fair         239       Populus deltoides       Cottonwood       6"       fair         240       Populus deltoides       Cottonwood       6"       fair         241       Populus deltoides       Cottonwood       7"       good         242       Populus deltoides       Cottonwood       7"       good         243       Populus deltoides       Cottonwood       7"       good         244       Populus deltoides       Cottonwood       7"       good         245       Populus deltoides       Cottonwood       6"       fair         246       Populus deltoides       Cottonwood       6"       fair         250       Populus deltoides       Cottonwood       7"       fair         253       picea pungens       Blue Spruce       8'/2"       fair         254       picea pungens       Blue Spruce       9'/12"       fair	1	226	Populus deltoides	Cottonwood	9"	good		E	
235       Populus deltoides       Cottonwood       14"       good         236       Populus deltoides       Cottonwood       12"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       17"       fair         239       Populus deltoides       Cottonwood       6"       fair         240       Populus deltoides       Cottonwood       6"       fair         241       Populus deltoides       Cottonwood       7"       good         242       Populus deltoides       Cottonwood       7"       good         243       Populus deltoides       Cottonwood       7"       good         244       Populus deltoides       Cottonwood       7"       good         245       Populus deltoides       Cottonwood       6"       fair         246       Populus deltoides       Cottonwood       6"       fair         250       Populus deltoides       Cottonwood       7"       fair         253       picea pungens       Blue Spruce       8'/2"       fair         254       picea pungens       Blue Spruce       9'/12"       fair		228	Populus deltoides	Cottonwood	8"			N N N	
235       Populus deltoides       Cottonwood       14"       good         236       Populus deltoides       Cottonwood       12"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       17"       fair         239       Populus deltoides       Cottonwood       6"       fair         240       Populus deltoides       Cottonwood       6"       fair         241       Populus deltoides       Cottonwood       7"       good         242       Populus deltoides       Cottonwood       7"       good         243       Populus deltoides       Cottonwood       7"       good         244       Populus deltoides       Cottonwood       7"       good         245       Populus deltoides       Cottonwood       6"       fair         246       Populus deltoides       Cottonwood       6"       fair         250       Populus deltoides       Cottonwood       7"       fair         253       picea pungens       Blue Spruce       8'/2"       fair         254       picea pungens       Blue Spruce       9'/12"       fair			Contraction of the second s				19	Ē	1º
235       Populus deltoides       Cottonwood       14"       good         236       Populus deltoides       Cottonwood       12"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       17"       fair         239       Populus deltoides       Cottonwood       6"       fair         240       Populus deltoides       Cottonwood       6"       fair         241       Populus deltoides       Cottonwood       7"       good         242       Populus deltoides       Cottonwood       7"       good         243       Populus deltoides       Cottonwood       7"       good         244       Populus deltoides       Cottonwood       7"       good         245       Populus deltoides       Cottonwood       6"       fair         246       Populus deltoides       Cottonwood       6"       fair         250       Populus deltoides       Cottonwood       7"       fair         253       picea pungens       Blue Spruce       8'/2"       fair         254       picea pungens       Blue Spruce       9'/12"       fair						good	lõ	DA .	S
235       Populus deltoides       Cottonwood       14"       good         236       Populus deltoides       Cottonwood       12"       good         237       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       10"       good         238       Populus deltoides       Cottonwood       7"       fair         239       Populus deltoides       Cottonwood       6"       fair         241       Populus deltoides       Cottonwood       7"       foir         242       Populus deltoides       Cottonwood       7"       good         243       Populus deltoides       Cottonwood       7"       good         244       Populus deltoides       Cottonwood       7"       fair         245       Populus deltoides       Cottonwood       6"       fair         246       Populus deltoides       Cottonwood       7"       fair         250       Populus deltoides       Cottonwood       7"       fair         251       picea pungens       Blue Spruce       8'/2"       fair         256       picea pungens       Blue Spruce       8'/2"       fair      <				Black Locust	9*		1 1 1 1 1	LI SUCER	1.0
241.       Populus deltoides       Cottonwood       9"       fair         242.       Populus deltoides       Cottonwood       10"       fair         243.       Populus deltoides       Cottonwood       9"       good         244.       Populus deltoides       Cottonwood       9"       good         245.       Populus deltoides       Cottonwood       6"       fair         246.       Populus deltoides       Cottonwood       6"       fair         247.       Pseudotsuga menciesi       Douglas fir.       7"       fair         248.       Populus deltoides       Cottonwood       6"       fair         249.       Populus deltoides       Cottonwood       6"       fair         250.       Populus deltoides       Cottonwood       7"       fair         251.       Picce pungens       Blue Spruce       10"       good         252.       Picce pungens       Blue Spruce       10".       fair         253.       picce pungens       Blue Spruce       10".       fair         254.       picea pungens       Blue Spruce       10".       fair         255.       picea pungens       Blue Spruce       10".       fair			Populus deltoides				1 H	AND 1 48	N
241.       Populus deltoides       Cottonwood       9"       fair         242.       Populus deltoides       Cottonwood       10"       fair         243.       Populus deltoides       Cottonwood       9"       good         244.       Populus deltoides       Cottonwood       9"       good         245.       Populus deltoides       Cottonwood       6"       fair         246.       Populus deltoides       Cottonwood       6"       fair         247.       Pseudotsuga menciesi       Douglas fir.       7"       fair         248.       Populus deltoides       Cottonwood       6"       fair         249.       Populus deltoides       Cottonwood       6"       fair         250.       Populus deltoides       Cottonwood       7"       fair         251.       Picce pungens       Blue Spruce       10"       good         252.       Picce pungens       Blue Spruce       10".       fair         253.       picce pungens       Blue Spruce       10".       fair         254.       picea pungens       Blue Spruce       10".       fair         255.       picea pungens       Blue Spruce       10".       fair							15	T GR.	IЦ
241.       Populus deltoides       Cottonwood       9"       fair         242.       Populus deltoides       Cottonwood       10"       fair         243.       Populus deltoides       Cottonwood       9"       good         244.       Populus deltoides       Cottonwood       9"       good         245.       Populus deltoides       Cottonwood       6"       fair         246.       Populus deltoides       Cottonwood       6"       fair         247.       Pseudotsuga menciesi       Douglas fir.       7"       fair         248.       Populus deltoides       Cottonwood       6"       fair         249.       Populus deltoides       Cottonwood       6"       fair         250.       Populus deltoides       Cottonwood       7"       fair         251.       Picce pungens       Blue Spruce       10"       good         252.       Picce pungens       Blue Spruce       10".       fair         253.       picce pungens       Blue Spruce       10".       fair         254.       picea pungens       Blue Spruce       10".       fair         255.       picea pungens       Blue Spruce       10".       fair	-	_	Populus deltoides	Cottonwood	7*	fair		RIGHT RIGHT	
247       Pseudotsuga menzesii       Douglas hir       7       Tair         248       Populus deltoides       Cottonwood       9,5-1/2"       Tair         249       Populus deltoides       Cottonwood       6"       Tair         250       Populus deltoides       Cottonwood       6"       Tair         251       Populus deltoides       Cottonwood       10"       good         252       Pinus strobus       White Pine       17"       good         253       picea pungens       Blue Spruce       10"       good         254       picea pungens       Blue Spruce       9".71/2"       Tair         255       picea pungens       Blue Spruce       9".71/2"       Tair         256       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         260       picea pungens       Blue Spruce       10"       fair	-						2	<b>A</b> 515 B15	I₹
247       Pseudotsuga menzesii       Douglas hir       7       Tair         248       Populus deltoides       Cottonwood       9,5-1/2"       Tair         249       Populus deltoides       Cottonwood       6"       Tair         250       Populus deltoides       Cottonwood       6"       Tair         251       Populus deltoides       Cottonwood       10"       good         252       Pinus strobus       White Pine       17"       good         253       picea pungens       Blue Spruce       10"       good         254       picea pungens       Blue Spruce       9".71/2"       Tair         255       picea pungens       Blue Spruce       9".71/2"       Tair         256       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         260       picea pungens       Blue Spruce       10"       fair							22	NO	5
247       Pseudotsuga menzesii       Douglas hir       7       Tair         248       Populus deltoides       Cottonwood       9,5-1/2"       Tair         249       Populus deltoides       Cottonwood       6"       Tair         250       Populus deltoides       Cottonwood       6"       Tair         251       Populus deltoides       Cottonwood       10"       good         252       Pinus strobus       White Pine       17"       good         253       picea pungens       Blue Spruce       10"       good         254       picea pungens       Blue Spruce       9".71/2"       Tair         255       picea pungens       Blue Spruce       9".71/2"       Tair         256       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         260       picea pungens       Blue Spruce       10"       fair		243	Populus deltoides	Cottonwood	7*	good	N	H	0
247       Pseudotsuga menzesii       Douglas hir       7       Tair         248       Populus deltoides       Cottonwood       9,5-1/2"       Tair         249       Populus deltoides       Cottonwood       6"       Tair         250       Populus deltoides       Cottonwood       6"       Tair         251       Populus deltoides       Cottonwood       10"       good         252       Pinus strobus       White Pine       17"       good         253       picea pungens       Blue Spruce       10"       good         254       picea pungens       Blue Spruce       9".71/2"       Tair         255       picea pungens       Blue Spruce       9".71/2"       Tair         256       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         250       picea pungens       Blue Spruce       10"       fair         260       picea pungens       Blue Spruce       10"       fair		245	Populus deltoides	Cottonwood	7*	fair		SIG	o
248       Populus deltoides       Cottonwood       9,5-1/2"       fair         250       Populus deltoides       Cottonwood       6"       fair         251       Populus deltoides       Cottonwood       7"       fair         252       Pinus strobus       White Pine       10"       good         253       picea pungens       Blue Spruce       10"       good         254       picea pungens       Blue Spruce       10"       good         255       picea pungens       Blue Spruce       10"       fair         256       picea pungens       Blue Spruce       8-1/2"       fair         257       picea pungens       Blue Spruce       10"       fair         258       picea pungens       Blue Spruce       10"       fair         259       picea pungens       Blue Spruce       10"       fair         260       picea pungens       Blue Spruce       10"       fair         261       Piepulus deltoides       Cottonwood       16"       fair         263       Pinus strobus       White Pine       7"       fair         264       Pinus strobus       White Pine       10"       fair         266 </td <td>-</td> <td></td> <td>Pseudotsuga menziesii</td> <td></td> <td>7*</td> <td></td> <td></td> <td>B</td> <td>F</td>	-		Pseudotsuga menziesii		7*			B	F
250         Populus deltoides         Cottonwood         7'         fair           251         Populus deltoides         Cottonwood         10"         good           252         Pinus strobus         White Pine         17"         good           253         picea pungens         Blue Spruce         10"         good           254         picea pungens         Blue Spruce         12,7"         fair           255         picea pungens         Blue Spruce         8,1/2"         fair           256         picea pungens         Blue Spruce         9,7-1/2"         fair           257         picea pungens         Blue Spruce         9,7-1/2"         fair           258         picea pungens         Blue Spruce         9,7-1/2"         fair           259         picea pungens         Blue Spruce         10"         fair           260         picea pungens         Blue Spruce         10"         fair           261         Pinus strobus         White Pine         14"         poor           262         Populus deltoides         Cottonwood         16"         fair           264         Pinus strobus         White Pine         7"         fair           <			Populus deltoides	Cottonwood					
1252         Pinus strobus         White Pine         17"         good           253         picea pungens         Blue Spruce         10"         good           254         picea pungens         Blue Spruce         12,7"         fair           255         picea pungens         Blue Spruce         9,7-1/2"         fair           255         picea pungens         Blue Spruce         9,7-1/2"         fair           257         picea pungens         Blue Spruce         9,7-1/2"         fair           255         picea pungens         Blue Spruce         13,15"         fair           258         picea pungens         Blue Spruce         10"         fair           259         picea pungens         Blue Spruce         10"         fair           260         picea pungens         Blue Spruce         12"         good           261         Pinus strobus         White Pine         14"         poor           263         Picea pungens         White Pine         7"         fair           264         Pinus strobus         White Pine         7"         good           265         Pinus strobus         White Pine         7"         good           270	1	250	Populus deltoides	Cottonwood	7*	fair		3G	
253         picea pungens         Blue Spruce         10°         good           254         picea pungens         Blue Spruce         12.7"         fair           255         picea pungens         Blue Spruce         9.7-1/2"         fair           256         picea pungens         Blue Spruce         8-1/2"         fair           256         picea pungens         Blue Spruce         8-1/2"         fair           257         picea pungens         Blue Spruce         8'-1/2"         fair           258         picea pungens         Blue Spruce         9''         fair           259         picea pungens         Blue Spruce         10°'         fair           260         picea pungens         Blue Spruce         10°'         fair           261         Pinus strobus         White Pine         14''         poor           263         Pinus strobus         White Pine         7''         fair           264         Pinus strobus         White Pine         7''         fair           266         carya glabra         Pigmut Hickory         9'''         good           270         Pinus strobus         White Pine         7'''         good           2	1	252	Pinus strobus	White Pine	17"			50 E	
256         pice pungens         Blue Spruce         8-1/2"         fair           257         pice pungens         Blue Spruce         13,15"         fair           258         pice pungens         Blue Spruce         13,15"         fair           259         pice pungens         Blue Spruce         14"         fair           259         pice pungens         Blue Spruce         10"         fair           259         pice pungens         Blue Spruce         10"         fair           259         pice pungens         Blue Spruce         10"         fair           260         pice pungens         Blue Spruce         12"         good           261         Pinus strobus         White Pine         14"         poor           262         Populus deltoides         Cotonwood         16"         fair           263         Pinus strobus         White Pine         7"         fair           266         carya glabra         Pignut Hickory         2"         good           267         Pinus strobus         White Pine         7"         good           270         Pinus strobus         White Pine         7"         good           271         Pin				Blue Spruce			OLEC	EPAR	Ц
257         picea pungens         Blue Spruce         13,15*         fair           258         picea pungens         Blue Spruce         9"         fair           259         picea pungens         Blue Spruce         10"         fair           260         picea pungens         Blue Spruce         12"         good           261         Pinus strobus         White Pine         14"         poor           262         Populus deltoides         Cotonwood         16"         fair           263         Pinus strobus         White Pine         9"         fair           264         Pinus strobus         White Pine         7"         fair           265         Pinus strobus         White Pine         7"         good           266         carya glabra         Pignut Hickory         9"         good           266         Pinus strobus         White Pine         12"         good           270         Pinus strobus         White Pine         12"         good           271         Pinus strobus         White Pine         7"         good           271         Pinus strobus         White Pine         7"         good           272         picea pu	1	255	picea pungens	Blue Spruce	9,7-1/2"	fair	and and a	а <u>я</u>	E.
259         pices pungens         Blue Spruce         10°         fair           260         picea pungens         Blue Spruce         12°         good           261         Pinus strobus         White Pine         14°         poor           262         Populus deltoides         Cottonwood         16°         fair           263         Pinus strobus         White Pine         7°         fair           264         Pinus strobus         White Pine         7°         fair           263         Pinus strobus         White Pine         7°         fair           266         carya glabra         Pignut Hickory         2°         good           267         carya glabra         Pignut Hickory         2°         good           268         Pinus strobus         White Pine         1°         good           270         Pinus strobus         White Pine         7°         good           271         Pinus strobus         White Pine         7°         good           272         picea pungens         Blue Spruce         4,6,7°         fair           273         picea pungens         Blue Spruce         4,6,6°         fair           275         Pi	1	257	picea pungens	Blue Spruce	13,15"	fair			, E
260         pices purgens         Blue Spruce         12"         good           261         Pinus strobus         White Pine         14"         poor           262         Populus deltoides         Cottonwood         16"         fair           263         Pinus strobus         White Pine         9"         fair           264         Pinus strobus         White Pine         9"         fair           265         Pinus strobus         White Pine         8"         fair           266         carya glabra         Pignut Hickory         9"         good           266         carya glabra         Pignut Hickory         12"         good           266         Pinus strobus         White Pine         7"         good           270         Pinus strobus         White Pine         12"         good           271         Pinus strobus         White Pine         7"         good           273         picea pungen									2
262         Populus detoides         Cotonwood         15"         fair           263         Pinus strobus         White Pine         9"         fair           264         Pinus strobus         White Pine         9"         fair           265         Pinus strobus         White Pine         8"         fair           266         Carya glabra         Pigut Hickory         9"         good           267         Carya glabra         Pigut Hickory         1"         good           268         Pinus strobus         White Pine         7"         good           269         Pinus strobus         White Pine         12"         good           271         Pinus strobus         White Pine         7"         good           271         Pinus strobus         White Pine         7"         good           271         Pinus strobus         White Pine         7"         good           272         picea pungens         Blue Spruce         9.6"         fair           273         picea pungens         Blue Spruce         9.6"         fair           275         Pinus strobus         White Pine         8"         dead           275         Pinus strobus<			picea pungens	Blue Spruce					
263     Prinus strubus     Write Prine     9     Jair       264     Prinus strubus     Write Prine     7"     fair       265     Prinus strubus     Write Prine     8"     fair       266     Carya glabra     Pignut Hickory     9"     good       267     Carya glabra     Pignut Hickory     1"     1"       268     Pinus strubus     Write Pine     7"     good       269     Pinus strubus     Write Pine     12"     good       270     Pinus strubus     Write Pine     12"     good       271     Pinus strubus     Write Pine     7"     good       272     picea pungens     Blue Spruce     9.6"     fair       273     picea pungens     Blue Spruce     9.6"     fair       274     Pinus strubus     Write Pine     8"     dead       274     Pinus strubus     Write Pine     8"     dead       274     Pinus strubus     Write Pine     8"     dead       275     Pinus strubus     Write Pine     15"     dead		262	Populus deltoïdes	Cottonwood	16"	fair			9
Loss         Carly glatra         Primut Hickory         J2*         good           268         Prinus strobus         White Pine         7*         good         1         1           269         Prinus strobus         White Pine         12*         good         1         1         1           270         Pinus strobus         White Pine         12*         good         1		264	Pinus strobus	White Pine	7*	fair			
267         carya glabra         Pignut Hickory         12*         good           268         Pinus strobus         White Pine         7*         good         1         1           269         Pinus strobus         White Pine         12*         good         1         1         1           270         Pinus strobus         White Pine         12*         good         1									
269         Pinus strobus         White Pine         12"         good           270         Pinus strobus         White Pine         12"         good         1         1           271         Pinus strobus         White Pine         7"         good         1         1         1           272         Picea pungens         Blue Spruce         4,6,7"         fair         DESIGNED BY:           273         Picea pungens         Blue Spruce         9.6"         fair         DRAWN BY:         TG           274         Pinus strobus         White Pine         8"         dead         CHECKED BY:         275		267	carya glabra	Pignut Hickory	12"	good			
271         Pinus strobus         White Pine         7"         good           272         picea pungens         Blue Spruce         4,6,7"         fair         DESIGNED BY:           273         picea pungens         Blue Spruce         9,6"         fair         DRAWN BY:         TG           274         Pinus strobus         White Pine         8"         dead         CHECKED BY:           275         Pinus strobus         White Pine         15"         poor         CHECKED BY:		269	Pinus strobus	White Pine	12 <sup>n</sup>	good			_
272         picea pungens         Blue Spruce         4,6,7"         fair         DESIGNED         BY:           273         picea pungens         Blue Spruce         9,6"         fair         DRAWN BY:         TG           274         Pinus strobus         White Pine         8"         dead         CHECKED BY:         ZFS           275         Pinus strobus         White Pine         15"         poor         CHECKED BY:         CHECKED BY:									1
274         Pinus strobus         White Pine         8"         dead         CHECKED BY:           275         Pinus strobus         White Pine         15"         poor         CHECKED BY:		272	picea pungens	Blue Spruce		fair	_		TG
275 Pinus strobus White Pine 15" poor			Pinus strobus	White Pine	8"	dead			
					1 107	noor			
			Pinus strobus	white Pine		1001	JOB	NO. 19-2	64
DATE 8-20-19 SHEET NO. BOS			Pinus strobus	White Pine		poor	JOB DATE	NO. 19-20-	64 19



**IS** 

CIVIL ENGINEERING SOLUTIONS, Inc.

	STORM
	EX CATCH BASIN
•	EX CATCH BASIN (BEEHIVE)
@ %	EX CATCH BASIN (ROUND) EX CLEAN OUT (STORM)
DS	EX DOWN SPOUT
Ø	EX END SECTION
	EX INLET
¢	EX OVERFLOW STRUCTURE
0	EX STORM MANHOLE EX HEADWALL/WINGWALL
	EX Q OF SPILLWAY
	EX STORM PIPE
itr	EX STORM LEAD
	SANITARY
ಕ	EX CLEAN OUT
0	EX LIFT STATION
0	EX SANITARY MARKER
S	EX SANITARY MANHOLE EX SANITARY LINE
	EX SANITARY SERVICE
	WATER
Ŷ	EX FIRE DEPT CONNECTION
XI	EX HYDRANT VALVE BOX
¥	EX HYDRANT
-@-	EX IRRIGATION CONTROL VALVE EX METER (WATER)
ψr ©	EX POST INDICATOR VALVE
S T	EX STAND PIPE
*	EX SPRINKLER HEAD
۲	EX MARKER (WATER)
14	.00
mGATLE 10	EX GATE VALVE
M . MELOC	o <sup>0</sup> EX GATE VALVE & WELL
C RIME .	0 EX WATED WELL
WELL TOC	EX WATER WELL
· Pile IEP	
1/00.00	EX WATER ELEVATION
	EX WATER EDGE
	EX WATER MAIN EX WATER SERVICE
	EX INTER SERVICE
	NIRONMENTAL
Mar 100	S EX MONITORING WELL
*	EX WETLAND FLAG
	EX SOIL BORING
×	EX SOIL BORING
<u> </u>	EX RIP-RAP EDGE EX WETLAND EDGE
_ w w w	EX WEILAND EDGE

PAVEM	ENT	ROADS / WALKS
	_,,,	NO/IDO/ WILLING
gur:100.00	ΕX	GUTTER
è.	ΕX	HANDICAP MARKER
1	ΕX	TURN ARROW LEFT
Ċ	ΕX	TURN ARROW RIGHT
+	ΕX	TRAFFIC ARROW
E	EX	TRAFFIC CONTROL BOX
JP#100.9	EX	TOP OF PAVEMENT
10019	ΕX	TOP OF CONCRETE
estation	FY	TOP OF GRAVEL
		MAILBOX
en e		PARKING METER
0		BOLLARD
.ot	LA	BOLLAND
1/00,00	ΕX	TOP OF BRICK
1,100,00	ΕX	TOP OF WALK
ĉ	ΕX	CROSS-WALK SIGNAL
		TRAFFIC LIGHT
1000000	ΕX	DETECTABLE WARN DEVICE
	ΕX	SIGN
	ΕX	PARKING BUMPER
	ЕΧ	ROAD &
	ЕΧ	BACK OF CURB (STANDARD)
	ΕX	BACK OF CURB (REVERSE)
	ΕX	GUARDRAIL
		MAILBOX ROW
	ΕX	CROSSWALK
	ΕX	ASPHALT
	ΕX	CONCRETE
	ΕX	RIP-RAP
	SU	BJECT PROPERTY LINE
	AD	JACENT PROPERTY LINE

ROPOSED LEGEND	
SURVEY MARKER	STORM
<ul> <li>PR BENCHMARK</li> <li>CALCULATED POINT</li> <li>PR CONTROL POINT</li> <li>PR CAPPED IRON</li> <li>PR HUB</li> <li>PR HUB W/MAGNETIC NAIL</li> <li>PR LATH</li> <li>PR NAIL W/TAG</li> <li>PR TRAVERSE POINT</li> </ul>	PR CATCH BASIN PR CATCH BASIN (BE PR CATCH BASIN (BE PR CATCH BASIN (RC PR CLEAN OUT (STOF PR END SECTION PR INLET PR OVERFLOW STRUC PR STORM MANHOLE PR STORM LINE PR STORM LINE PR STORM LINE
ABBREVIATIONS	SANITARY
EXISTING Q. CENTER LINE PROPOSED CO CLEAN OUT MAGNETIC RR RAIL ROAD CAPPED IRON GU GUTTER FOUND IRON TB TOP OF BANK	PR CLEAN OUT PR SANITARY MH SAN PR SANITARY LINE PR SANITARY SERVIC
SECTION BB BOTTOM OF BAN MAGNETIC NAIL TC TOP OF CURB WITH EM EDGE OF METAL FINISH FLOOR FG FINISH GRADE MANHOLE INV INVERT END SECTION	<ul> <li>WATER</li> <li>PR HYDRANT VALVE</li> <li>₩ PR HYDRANT</li> <li>PR POST INDICATOR</li> <li>PR STAND PIPE</li> <li>PR VALVE</li> </ul>
	PR GATE VALVE & W
PR FINISHED FLOOR PR BUILDING PR BUILDING OVERHANG ENVIRONMENTAL	→ WM → PR WATERWAIN → PR WATER SERVICE Ø PR WELL
X PR SOIL BORING PR RIP-RAP EDGE X PR SILT FENCE PR SILT SACK	
CROUND TOPO     PR ELEVATION     PR © OF DITCH     PR TOP OF BANK     PR BOTTOM OF BANK     PR FENCE     PR MAJOR CONTOUR     PR MIN CONTOUR <u>VEGETATION</u> PR TREE DECIDUOUS	
	PR BENCHMARK  CALCULATED POINT PR CALCULATED POINT PR CALCULATED POINT PR CAPPED IRON PR HUB PR HUB W/MAGNETIC NAIL PR HUB W/MAGNETIC NAIL PR LATH PR LATH PR LATH PR LATH PR TRAVERSE POINT PR TRAVERSE POINT  ABBREVIATIONS EXISTING PR FK NAIL PR TRAVERSE POINT  ABBREVIATIONS EXISTING CAPPED IRON GU CUTTER POUND IRON TB TOP OF BANK SECTION BB BOTTOM OF BANK SECTION BUILDING PR FINISHED FLOOR PR FINISHED FLOOR PR BUILDING PR RIP-RAP EDGE PR SULT FENCE PR SULT FENCE PR SOTICA PR BOTTOM OF BANK GROUND TOPO PR FINISH FLOOR PR SULT FENCE PR SULT FENCE PR SULT FENCE PR SOTICA PR BOTTOM OF BANK PR BOTTOM OF BANK PR FENCE PR MAJOR CONTOUR VEGETATION VEGETATION VEGETATION VEGETATION VEGETATION

PR TREE CONIFEROUS

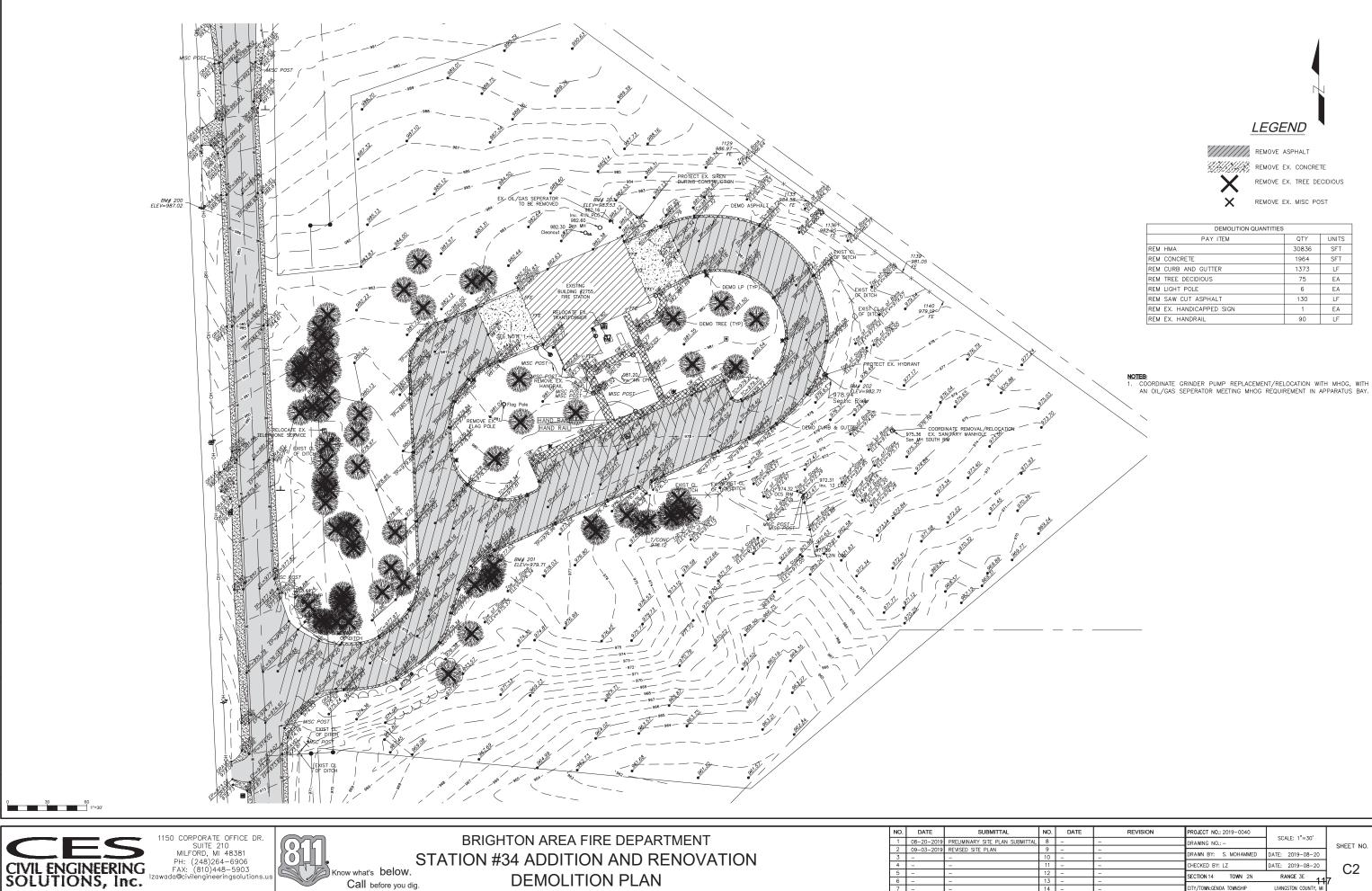
R BUSH

1150 CORPORATE OFFICE DR. SUITE 210 MILFORD, MI 48381 PH: (248)264-6906 FAX: (810)448-5903 Izawada@civilengineeringsolutions.us	Know what's below. Call before you dig.	BRIGHTON AREA FIRE DEPARTMENT STATION #34 ADDITION AND RENOVATION LEGEND
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NO.	DATE	SUBMITTAL
1	08-20-2019	PRELIMINARY SITE PLAN SUBM
2	09-03-2019	REVISED SITE PLAN
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-

	PAVEM	ENT ROADS / WALKS
(BEEHIVE)	è.	PR HANDICAP MARKER
(ROUND) TORM)	1	PR TURN ARROW LEFT
	r	PR TURN ARROW RIGHT
UCTURE _E	GU=100.00	PR TRAFFIC ARROW
OW	`×	PR GUTTER GRADE
Ξ	TP=100.00	PR TOP OF PAVEMENT GRADE
	TC=100.00	PR TOP OF CONCRETE GRADE
	TW=100.00	PR TOP OF WALK GRADE
/ICE	T/BRICK 100.00	PR TOP OF BRICK GRADE
NOL	T/WALL 100.00	PR TOP OF WALL GRADE
E BOX	B/WALL 100.00	PR BOTTOM OF WALL GRADE
R VALVE	T/BANK 100.00	PR TOP OF BANK
	0	PR BOLLARD
WELL	ሮ ሰ	PR MAILBOX PR CROSS-WALK SIGNAL
-		PR DETECTABLE WARN DEVICE
-		PR SIGN
		PR HANDICAP PARKING SIGN
		PARKING BUMPER BLOCK
		PR BACK OF CURB (STANDARD)
		PR BACK OF CURB (REVERSE)
	<u> </u>	PR GUARDRAIL
	OOO	PR HANDRAIL
		PR CROSSWALK
		PR ASPHALT
		PR CONCRETE
		PR EASEMENT LINE
	— · — · —	PR GRADING LIMIT LINE
		PR CLEARING LIMITS
	oo-	PR CONSTRUCTION SNOW FENCE

	NO.	DATE	REVISION	PROJECT NO .: 2019-0040	00415 1170	
IITTAL	8	-	-	DRAWING NO.: -	SCALE: NTS	SHEET NO.
	9	-	-		DATE 0040 00 00	SHEET NO.
	10	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	
	11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C1
	12	-	-	SECTION 14 TOWN 2N	RANGE 3E	
	13	-	-		RAINGE JE 11	6
	14	-	-	CITY/TOWN:GENOA TOWNSHIP	LIVINGSTON COUNTY, MI	-



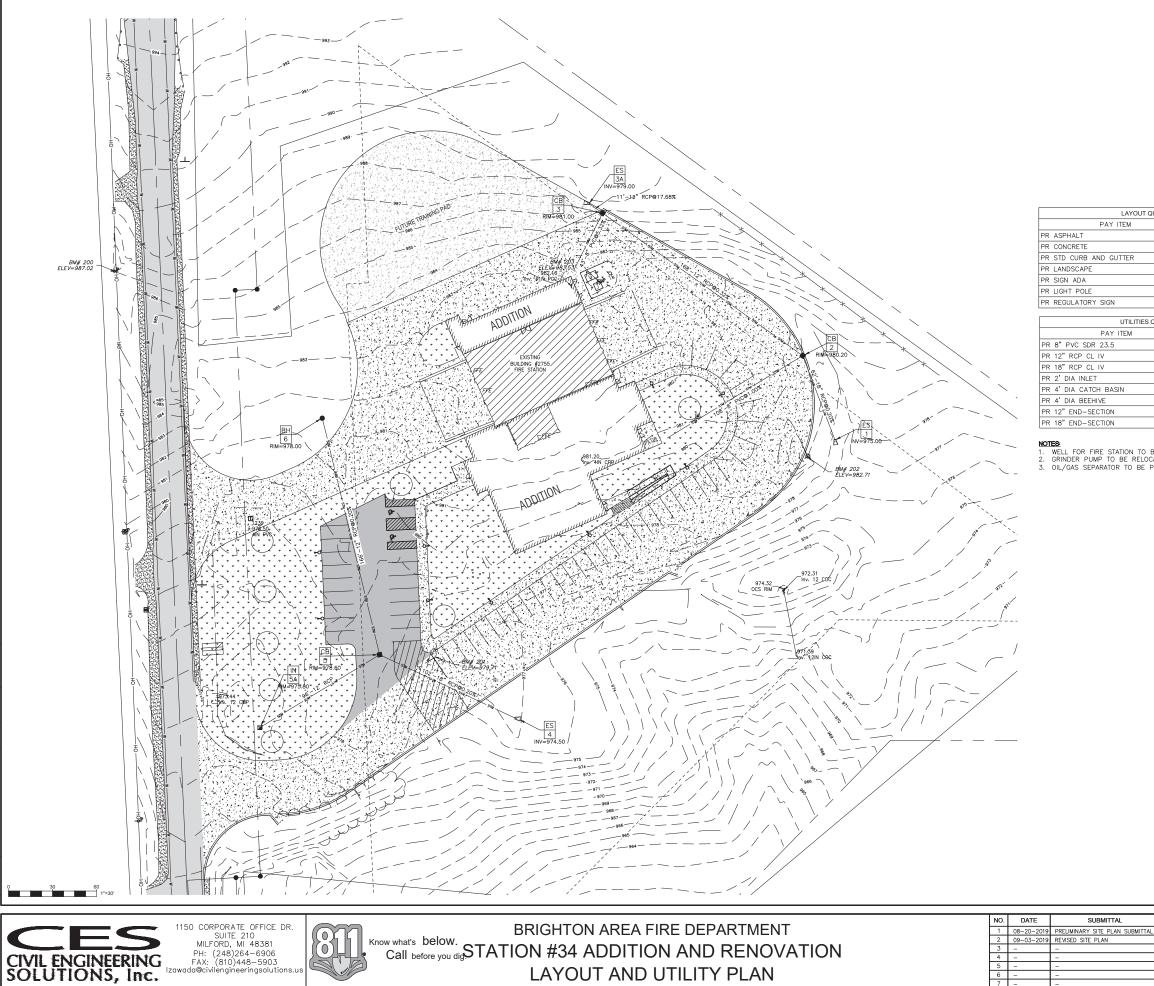




REMOVE EX. CONCRETE REMOVE EX. TREE DECIDIOUS REMOVE EX. MISC POST

DEMOLITION QUANTITIES										
QTY	UNITS									
30836	SFT									
1964	SFT									
1373	LF									
75	EA									
6	EA									
130	LF									
1	EA									
90	LF									
	30836 1964 1373 75 6 130 1									

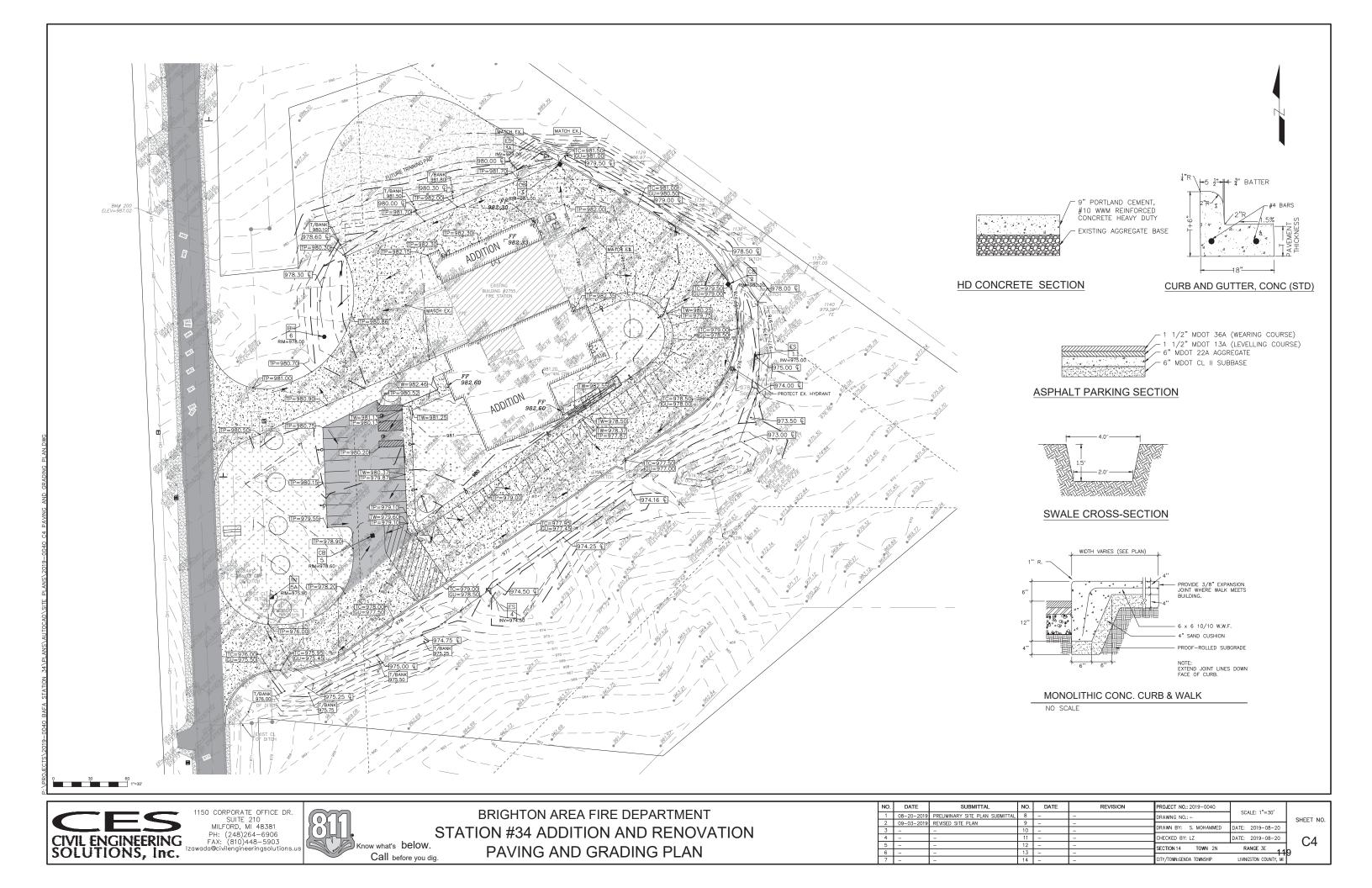
NO.	DATE	REVISION	PROJECT NO .: 2019-0040	00415 47 70	
8	-	-	DRAWING NO.: -	SCALE: 1 = 30	SHEET NO.
-	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	SHEET NO.
11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	<u></u>
12	-	-	SECTION 14 TOWN 2N	RANGE 3E	_ C2
	-	-	CITY/TOWN-GENOA TOWNSHIP		1
	8 9 10 11	8 - 9 - 10 - 11 - 12 - 13 -	8 9 10 11 12 13	8         -         -         DRAWING NO.: -           9         -         -         DRAWING NO.: -           10         -         -         DRAWN BY: S. MOHAMMED           11         -         -         CHECKED BY: LZ           12         -         -         CHECKED BY: LZ           13         -         -         SECTION 14         TOWN 2N	8         -         -         DRAWING NO         SCALE: 1°=30'           9         -         -         DRAWING NO         DATE: 2019-08-20           10         -         -         DRAWN BY: S. MOHAMMED         DATE: 2019-08-20           11         -         -         CHECKED BY: LZ         DATE: 2019-08-20           12         -         -         SECTION 14         TOWN 2N         RANGE 3E           13         -         -         -         11         TOWN 2N         RANGE 3E

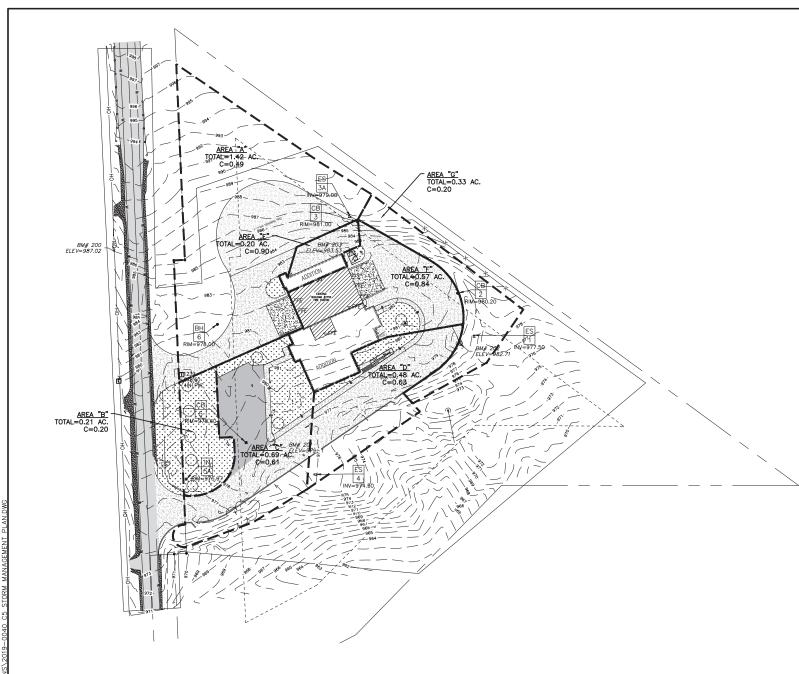


QTY	UNITS
7564	SFT
50394	SFT
756	LF
26306	SFT
3	EA
9	EA
2	EA
QTY	UNITS
151	LF
430	LF
162	LF
1	EA
3	EA
1	EA
1	EA
2	EA
	7564 50394 756 26306 3 9 2 2 2 0TY 151 430 162 1 1 3 1 1

NOTES: 1. WELL FOR FIRE STATION TO BE DESIGNED BY FIRE SUPRESSION/ MECHANICAL ENGINEER. 2. GRINDER PUMP TO BE RELOCATED BY MHOG. 3. OIL/GAS SEPARATOR TO BE PROPOSED ON APPARATUS BAY PLUMBING LINE PRIOR TO GRINDER PUMP.

	NO.	DATE	REVISION	PROJECT NO .: 2019-0040	SCALE: 1"=30'	
TTAL	8	-	-	DRAWING NO.: -	SCALE: 1 = 30	SHEET NO.
	9 10	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	SHEET NO.
	11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C3
	12	-	-	SECTION 14 TOWN 2N	RANGE 3E	
	13 14	-	-	CITY/TOWN:GENOA TOWNSHIP	LIVINGSTON COUNTY, MI	8





### STORMWATER MANAGEMENT PLAN:

EXISTING PAVEMENT :0.87 AC. EXISTING BUILDING :0.12 AC. EXISITNG POND :0.11 AC.

EXISTING TRIBUTARY AREA:2.65 AC. (PER RECORD DRAWINGS) C-FACTOR :0.49 CFS/ACRE

PROPOSED BUILDING ADDITION :0.23 AC. PROPOSED PAVEMENT :1.50 AC. PROPOSED PAVEMENT(FUTURE) :0.33 AC. PROPOSED OPEN SPACE :1.89 AC. EXISTING POND :0.11 AC.

PROPOSED TRIBUTARY AREA :3.91 AC. C-FACTOR :0.59 CFS/ACRE

			Existing			
	Tribu	tary Area [A] =	2.65			
Compo	und Run-off C	pefficient [C] =	0.5 (At	tach comput	ations)	
1	Design Consta	nt [K1] = A X C =	1.33			
A	llowable Outfl	ow Rate [Q <sub>0</sub> ] =	0.3975 cfs			
[1]	· [2] •	[3] 🗸	[4] 🗸	[5] 🗸	[6] 🖌	[7]
Duration	Duration	Intensity (100- vr storm)	ol. #2 x Col. Inf		Outflow Volume = Col.	Storage Volume =

Duration (Minutes)	Duration (Seconds)	Intensity (100- yr storm) (In/Hr)		Inflow Volume = Col. #4 x K <sub>1</sub> (FT <sup>3)</sup>	Outflow Volume = Col. #2 x Q <sub>0</sub> (FT <sup>3)</sup>	Storage Volume = Col. #5 - Col. #6 (FT <sup>3</sup> )	Duration (Minutes)	Duration (Seconds)	Intensity (100- yr storm) (In/Hr)	COI. #2 X COI.	Inflow Volume = Col. #4 x K <sub>1</sub> (FT <sup>3)</sup>	Outflow Volume = Col. #2 x Q <sub>0</sub> (FT <sup>3)</sup>	Storage Volume = Col. #5 - Col. #6 (FT <sup>3</sup> )
5	300	9.17	2751	3645.08	119.25	3525.83	5	300	9.17	2751	6508.59	180.45	6328.14
10	600	7.86	4716	6248.70	238.50	6010.20	10	600	7.86	4716	11157.58	360.90	10796.68
15	900	6.88	6192	8204.40	357.75	7846.65	15	900	6.88	6192	14649.65	541.35	14108.30
20	1,200	6.11	7332	9714.90	477.00	9237.90	20	1,200	6.11	7332	17346.78	721.80	16624.98
30	1,800	5	9000	11925.00	715.50	11209.50	30	1,800	5	9000	21293.10	1082.70	20210.40
60	3,600	3.24	11664	15454.80	1431.00	14023.80	60	3,600	3.24	11664	27595.86	2165.40	25430.46
90	5,400	2.39	12906	17100.45	2146.50	14953.95	90	5,400	2.39	12906	30534.31	3248.10	27286.21
120	7,200	1.9	13680	18126.00	2862.00	15264.00	120	7,200	1.9	13680	32365.51	4330.80	28034.71
180	10,800	1.34	14472	19175.40	4293.00	14882.40	180	10,800	1.34	14472	34239.30	6496.20	27743.10

Note: Figures in Columns (3) and (4) are valid where the intensity is computed by the formula I = 275/t + 25 (i.e, 100-yr curve), appropriate revisions shall be made for geographical areas where this formula does not apply.

\* Allowable outflow rate  $Q_0$  to be one of the following: Case 1:  $Q_0$  = capacity of existing discharge conduit or channe

EXISTING SEDIMENT FOREBAY VOLUME:

Q0 = q x A where q = Permissible Discharge Rate per Acre of Tributary Area = 0.15 cfs/Acre

SEDIMENT FOREBAY VOLUME CALCULATIONS: (5% OF 100 YR) EXISTING VOLUME : 15,264 X 0.05 =763 CU.FT. PROPOSED VOLUME : 28,035 X 0.05 =1402 CU.FT. (REQUIRED)

<u>VOLUME</u> 3789.5 2134.0

DIFFERENCE BET. VOL. = PROPOSED VOL. - EXISTING VOL. = 28,034.71 - 15,264 = 12,770.71 CF DETENTION CURRENTLY STORED IN WELTAND: WATER SURFACE ELEVATION = 957.40 (PER BOSS PLAN DATED 9/16/02) WATER SURFACE AREA = 291,092.4 SFT

SUBMITTAL

IMINARY SITE PLAN SUBMIT

REVISED SITE PLAN

EXISTING FOREBAY VOLUME = 5923.5 CU.FT. (MEETS REQUIREMENT)

												CE	<u>s</u>																Design of swale a Prepared by: S. N
I =	275/(t+25) Brighton Area Fir	e Authority Stati	C=	0.55	T-	15	JOB NO.	201	9-0040			COMMUNITY:	SHEET	I Genoa Towns	- OF	1	COUNTY	Liv		06/20/19 09/03/19									Checked by: Lesl As of 8/30/19
STRU	CTURE		en un die miter	C	EQUIV. AREA	TOTAL	T TIME	1 (IN	Q=CIA C.F.S.	CAPAC- ITY OF	DIAM. OF	LENGTH	SLOPE OF	MIN HG BASED	HGFOR 2.5 FPS	ACTUAL	VEL. FLOW	TIME		LIC GRADE DOWN	INVERT I	LEVATION	RIM I	LEVATION DOWN	UPPER	OVER LOWER	HW CL UPPER	EARANCE LOWER	t = A= area of drain
UP STREAM	DOWN STREAM	AREA	ACRES		100% ACRES CA	100% ACRES SUM CA	(MIN.)	PER HOUR)	FLOW	SEWER (C.F.S.)	PIPE (IN.)	LINE (FT.)	PIPE (%)	ON "Q" (%)	GIVEN *D* (%)	(%)	FULL (FT./ SEC.)	FLOW (MIN.)	STREAM	STREAM	and the second second second	STREAM	STREAM	STREAM	COVER	COVER	CLEAR	CLEAR	Impervious are C- factor =
BH 6	CB 5	AREA	1.42	0.49	0.70	0.70	15.00	4.33	3.01	2.17	12	166	0.37	0.71	0.30	0.71	2.8	1.00	976.69	975.50	975.03	974.70	978.00	978.50	1.80	2.63	1.31	3.00	Design is based I = 275/(t + 25) =

Q = CIA = IN 5A 0.21 0.20 0.04 0.04 15.00 1.13 12 96 0.10 0.00 0.30 0.00 1.4 1.11 975.50 975.50 974.80 974.70 975.80 978.60 0.00 0.30 3.10 CB 5 4.33 0.18 2.73 в CB 5 2.7 0.64 975.91 975.70 974.70 ES 4 0.69 0.61 0.42 1.16 17.1 4.08 4.73 4.70 18 102 0.20 0.20 0.18 0.20 974.50 978.60 NA 2.19 NA 2.69 NA Q = VA = 0.21 976.71 DS CB 3 0.20 0.90 0.18 0.18 0.42 976.53 976.43 976.00 981.00 NA 4.19 NA 4.47 0.42 0.52 NA 1.00 CB 3 0.57 0.84 0.48 0.48 15.2 0.33 2.6 1.09 976.56 975.74 975.20 980.20 4.10 3.83 4.44 4.20 CB 2 4.30 2.06 2.02 12 168 0.32 0.33 0.30 976.00 981.00 width of top of c 4.17 0.33 0.20 0.07 0.72 16.30 3.37 3.02 4,70 0.18 0.08 2.7 0.39 976.25 976.20 975.12 975.00 CB 2 ES 1 G 18 62 0.20 0.08 980.20 NA NA 3.95 NA Swale provided - w = 2', d = 1.5', and width at top = 4' 

NO. DATE 1150 CORPORATE OFFICE DR. SUITE 210 MILFORD, MI 48381 **BRIGHTON AREA FIRE DEPARTMENT** 08-20-20 81 09-03-2019 STATION #34 ADDITION AND RENOVATION PH: (248)264-6906 FAX: (810)448-5903 awada@civilengineeringsoluti CIVIL ENGINEERING SOLUTIONS, Inc. ST. now what's below. 5 STORMWATER MANAGEMENT PLAN Call before you dig.

I	Proposed + Future	
Tributary Area [A] =	4.01	
Compound Run-off Coefficient [C] =	0.59 (Attach computations)	
Design Constant [K <sub>1</sub> ] = A X C =	2.37	
Allowable Outflow Rate [Q <sub>0</sub> ] =	0.6015 cfs	
[1] 🖌 [2] 🖌 [3] 🖌	[4] 🖌 [5] 🖌 [6] 🖌	[7
Intensity (100-	Outflow	

71 🗸

Note: Figures in Columns (3) and (4) are valid where the intensity is computed by the formula I = 275/t + 25 (i.e, 100-yr curve), appropriate revisions shall be made for geographical areas where this formula does not apply.

\* Allowable outflow rate  $Q_0$  to be one of the following: Case 1:  $Q_0$  = capacity of existing discharge conduit or channel. Q0 = q x A where q = Permissible Discharge Rate per Acre of Tributary Area = 0.15 cfs/Acre

DETENTION VOLUME REQUIRED

THEREFORE, THE ADDITIONAL DETENTION FOR EXPANSION WOULD CAUSE 0.04FT. = 0.48" RISE.

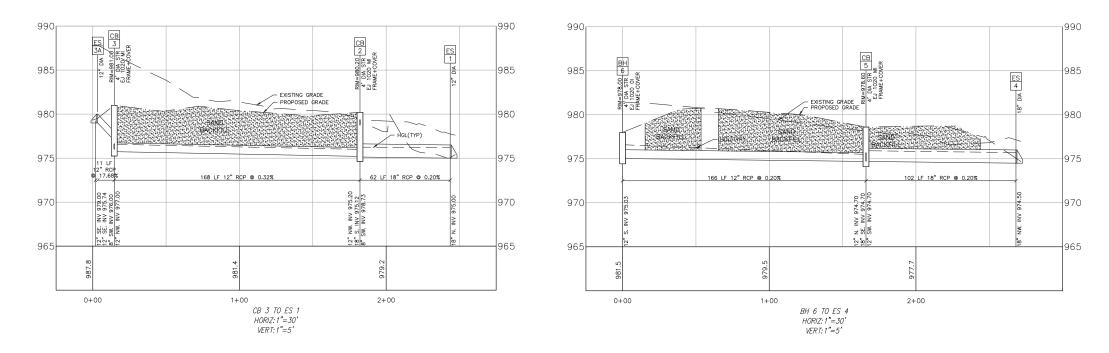
Design of swale along south side of fire station

Mohammed

slie Zawada, P.E.

	DRAIN	AGE AREA D+(A+B+C)
	15	
age district =	121968 SF =	2.8 Ac
a =	56192 SF =	1.289991
		0.460711
on a 100 yr stor	m event	
	6.8	75
		8.868687 cfs
	(1.00/n)A(R^(2/3))	*SQ RT SLOPE n =0.025 for natural channel
	8.869 =	(0.025/1)*(w^2/2)*(w/4)^(2/3) * SQ RT 0.07
	4.223 =	w^8/3
	1.716 at the b	pottom of ditch
	0.858	
ditch =	3.433	

	NO.	DATE	REVISION	PROJECT NO .: 2019-0040	00415 47 001	
TTAL	8	-	-	DRAWING NO.: -	SCALE: 1"=60'	SHEET NO.
	9 10	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	SHEET NO.
_	11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C5
	12	-	-	SECTION 14 TOWN 2N	RANGE 3E 10	
	13	-	-	CITY/TOWN:GENOA TOWNSHIP	12 LIVINGSTON COUNTY, MI	
	14	-	-	CITT/TOWN:GENUA TOWNSHIP	LIVINGSION COUNTY, MI	

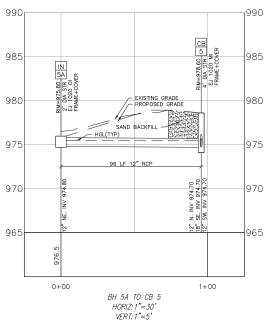




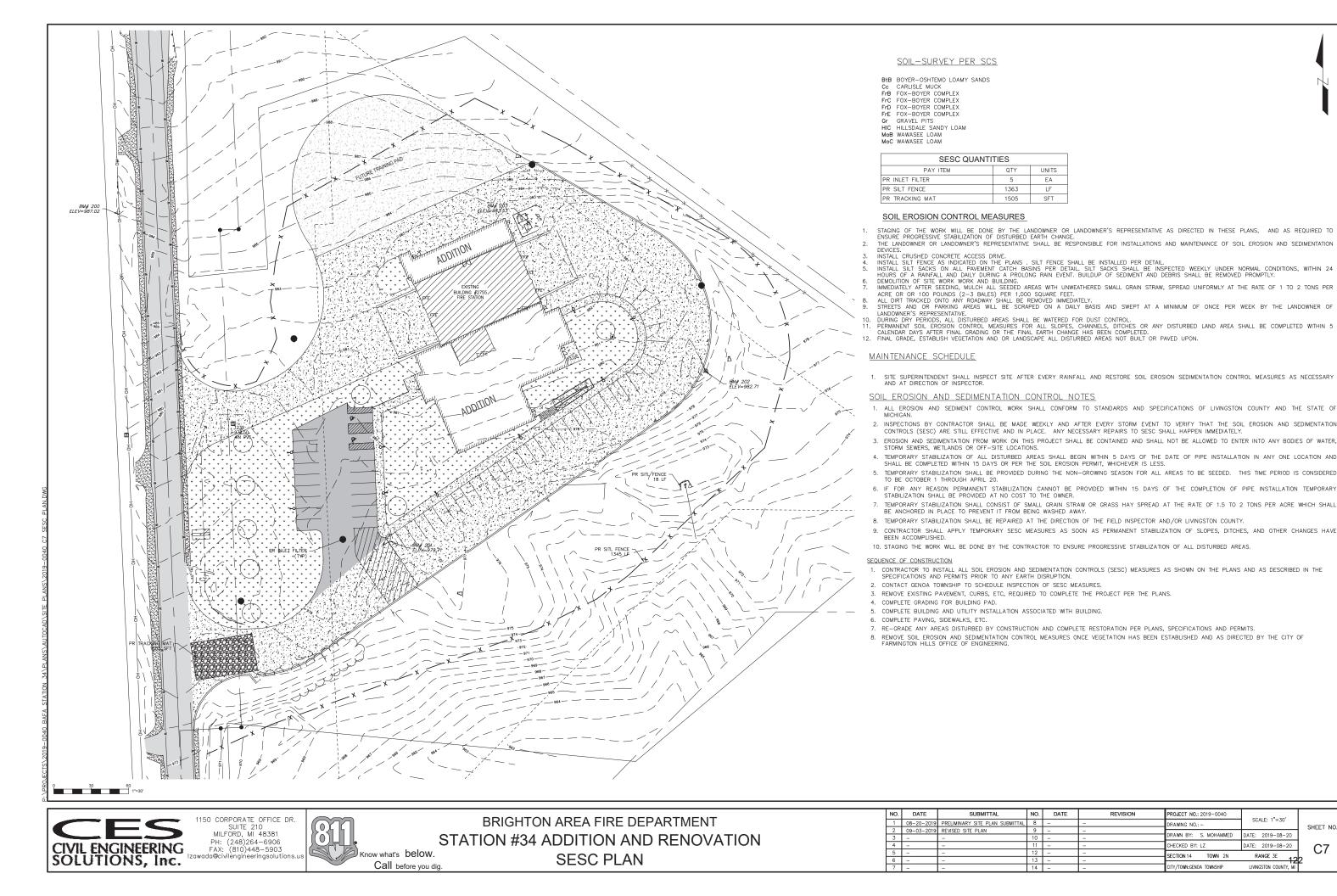


BRIGHTON AREA FIRE DEPARTMENT STATION #34 ADDITION AND RENOVATION STORM SEWER PROFILES

NO.	DATE	SUBMITTAL
1	08-20-2019	PRELIMINARY SITE PLAN SUBMITT
2	09-03-2019	REVISED SITE PLAN
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
-	-	- - -



	NO.	DATE	REVISION	PROJECT NO .: 2019-0040	00415 47 70	
TTAL	8	-	-	DRAWING NO.: -	SCALE: 1"=30'	SHEET NO.
	9	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	ONLET NOT
	10	-	-	DIAMIN DI. S. MOITAMMED	DAIL. 2019-00-20	
	11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C6
	12	-	-	SECTION 14 TOWN 2N	RANGE 3E	
	13	-	-		12	1
	14	-	-	CITY/TOWN:GENOA TOWNSHIP	LIVINGSTON COUNTY, MI	



	UNITS
	EA
5	LF
;	SFT

QTY 5

1363 1505

STAGING OF THE WORK WILL BE DONE BY THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE AS DIRECTED IN THESE PLANS, AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHANGE.

ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHANGE. THE LANDOWNER OR LANDOWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSTALLATIONS AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION DEVICES. INSTALL CRUSHED CONCRETE ACCESS DRIVE. INSTALL SILT FENCE AS INDICATED ON THE PLANS . SILT FENCE SHALL BE INSTALLED PER DETAIL. INSTALL SILT FENCE AS INDICATED ON THE PLANS . SILT FENCE SHALL BE INSTALLED PER DETAIL. INSTALL SILT SACKS ON ALL PAVEMENT CATCH BASINS PER DETAIL. SILT SACKS SHALL BE INSPECTED WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF A RAINFALL AND DAILY DURING A PROLONG RAIN EVENT. BUILDUP OF SEDIMENT AND DEBRIS SHALL BE REMOVED PROMPTLY. DEMOLITION OF SITE WORK WORK KAND BUILDING. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW, SPREAD UNIFORMLY AT THE RATE OF 1 TO 2 TONS PER ACRE OR DO 100 POINDS (2-3 PAILES) PER 1000 SOIL DE SEED MAREAS WITH UNWEATHERED SMALL GRAIN STRAW, SPREAD UNIFORMLY AT THE RATE OF 1 TO 2 TONS PER ACRE OR DO 100 POINDS (2-3 PAILES) PER 1000 SOIL OR DE SEET

ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF LIVINGSTON COUNTY AND THE STATE OF MICHIGAN.

. INSPECTIONS BY CONTRACTOR SHALL BE MADE WEEKLY AND AFTER EVERY STORM EVENT TO VERIFY THAT THE SOIL EROSION AND SEDIMENTATION CONTROLS (SESC) ARE STILL EFFECTIVE AND IN PLACE. ANY NECESSARY REPAIRS TO SESC SHALL HAPPEN IMMEDIATELY. 3. EROSION AND SEDIMENTATION FROM WORK ON THIS PROJECT SHALL BE CONTAINED AND SHALL NOT BE ALLOWED TO ENTER INTO ANY BODIES OF WATER TEMPORARY STABILIZATION OF ALL DISTURBED AREAS SHALL BEGIN WITHIN 5 DAYS OF THE DATE OF PIPE INSTALLATION IN ANY ONE LOCATION AND SHALL BE COMPLETED WITHIN 15 DAYS OR PER THE SOIL EROSION PERMIT, WHICHEVER IS LESS.

TEMPORARY STABILIZATION SHALL BE PROVIDED DURING THE NON-GROWING SEASON FOR ALL AREAS TO BE SEEDED. THIS TIME PERIOD IS CONSIDERED

. IF FOR ANY REASON PERMANENT STABILIZATION CANNOT BE PROVIDED WITHIN 15 DAYS OF THE COMPLETION OF PIPE INSTALLATION TEMPORARY STABILIZATION SHALL BE PROVIDED AT NO COST TO THE OWNER. TEMPORARY STABILIZATION SHALL CONSIST OF SMALL GRAIN STRAW OR GRASS HAY SPREAD AT THE RATE OF 1.5 TO 2 TONS PER ACRE WHICH SHALL BE ANCHORED IN PLACE TO PREVENT IT FROM BEING WASHED AWAY.

8. TEMPORARY STABILIZATION SHALL BE REPAIRED AT THE DIRECTION OF THE FIELD INSPECTOR AND/OR LIVINGSTON COUNTY. 9. CONTRACTOR SHALL APPLY TEMPORARY SESC MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER CHANGES HAVE BEEN ACCOMPLISHED.

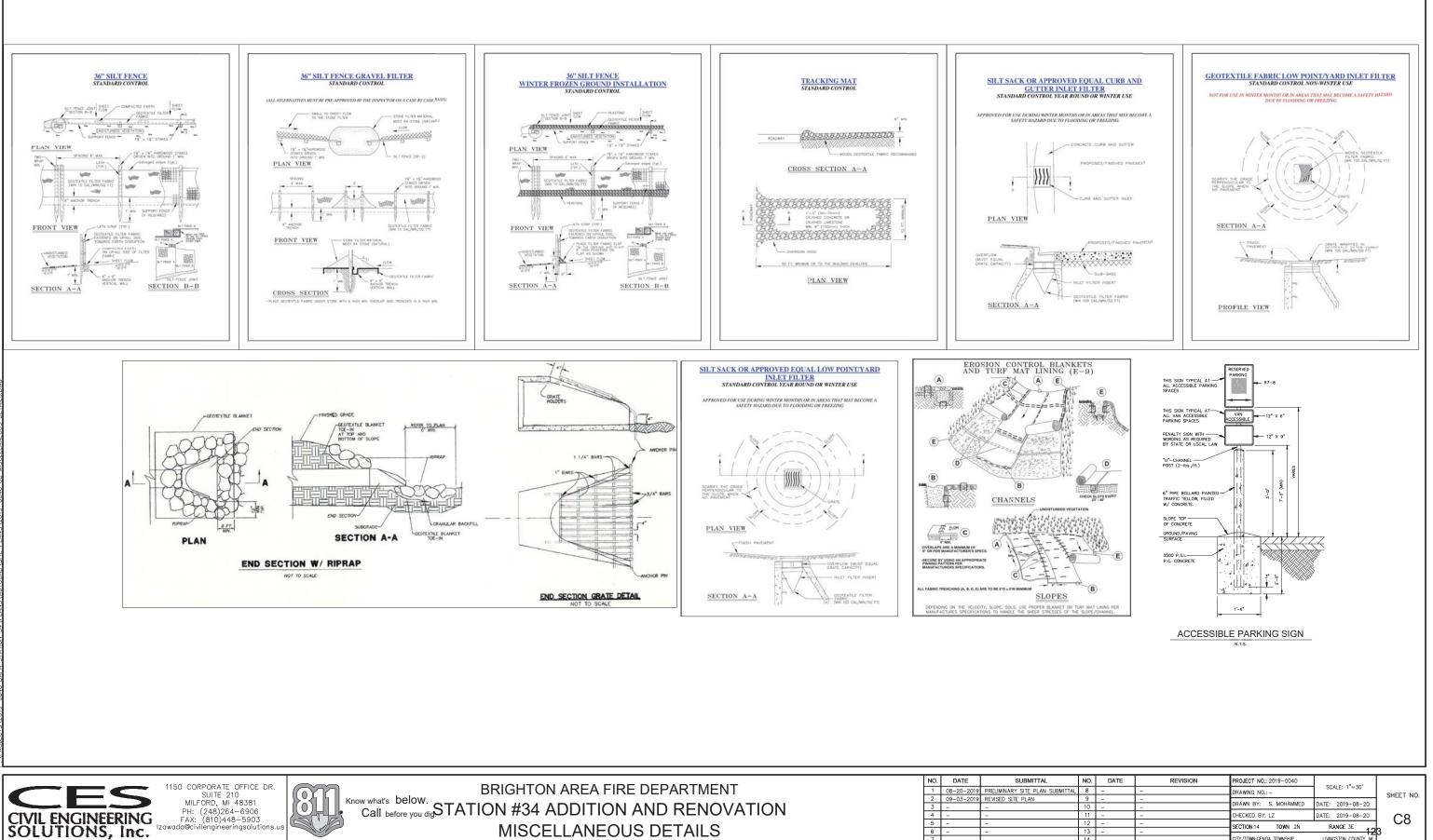
10. STAGING THE WORK WILL BE DONE BY THE CONTRACTOR TO ENSURE PROGRESSIVE STABILIZATION OF ALL DISTURBED AREAS.

1. CONTRACTOR TO INSTALL ALL SOIL EROSION AND SEDIMENTATION CONTROLS (SESC) MEASURES AS SHOWN ON THE PLANS AND AS DESCRIBED IN THE SPECIFICATIONS AND PERMITS PRIOR TO ANY EARTH DISRUPTION.

3. REMOVE EXISTING PAVEMENT, CURBS, ETC, REQUIRED TO COMPLETE THE PROJECT PER THE PLANS.

7. RE-GRADE ANY AREAS DISTURBED BY CONSTRUCTION AND COMPLETE RESTORATION PER PLANS, SPECIFICATIONS AND PERMITS. 8. REMOVE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED AND AS DIRECTED BY THE CITY OF FARMINGTON HILLS OFFICE OF ENGINEERING.

NO.	DATE	REVISION	PROJECT NO .: 2019-0040	00415 47 70	
8	-	-	DRAWING NO.: -	SCALE: 1 = 30	SHEET NO.
-	-	-	DRAWN BY: S MOHAMMED	DATE: 2019-08-20	SHEET NO.
	-	-			
	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C7
	-	-	SECTION 14 TOWN 2N	RANGE 3E 10	<u>,                                    </u>
	_	-	CITY/TOWN:GENOA TOWNSHIP	LIVINGSTON COUNTY, MI	۷
		8 - 9 - 10 - 11 - 12 - 13 -	8     -     -       9     -     -       10     -     -       11     -     -       12     -     -       13     -     -	B         -         -         DRAWING NO.: -           9         -         -         DRAWING NO.: -           10         -         -         DRAWING NO.: -           11         -         -         DRAWING NO.: -           12         -         -         CHECKED BY: LZ           13         -         -         SECTION 14         TOWN 2N	B         -         -         DRAWING NO.:-         SCALE: 1"=30'           9         -         -         DRAWING NO.:-         DATE: 2019-08-20           10         -         -         DRAWIN BY: S. MOHAMMED         DATE: 2019-08-20           11         -         -         CHECKED BY: LZ         DATE: 2019-08-20           12         -         -         SECTION 14         TOWN 2N         RANGE 3E           13         -         -         -         T2         -





ar'i

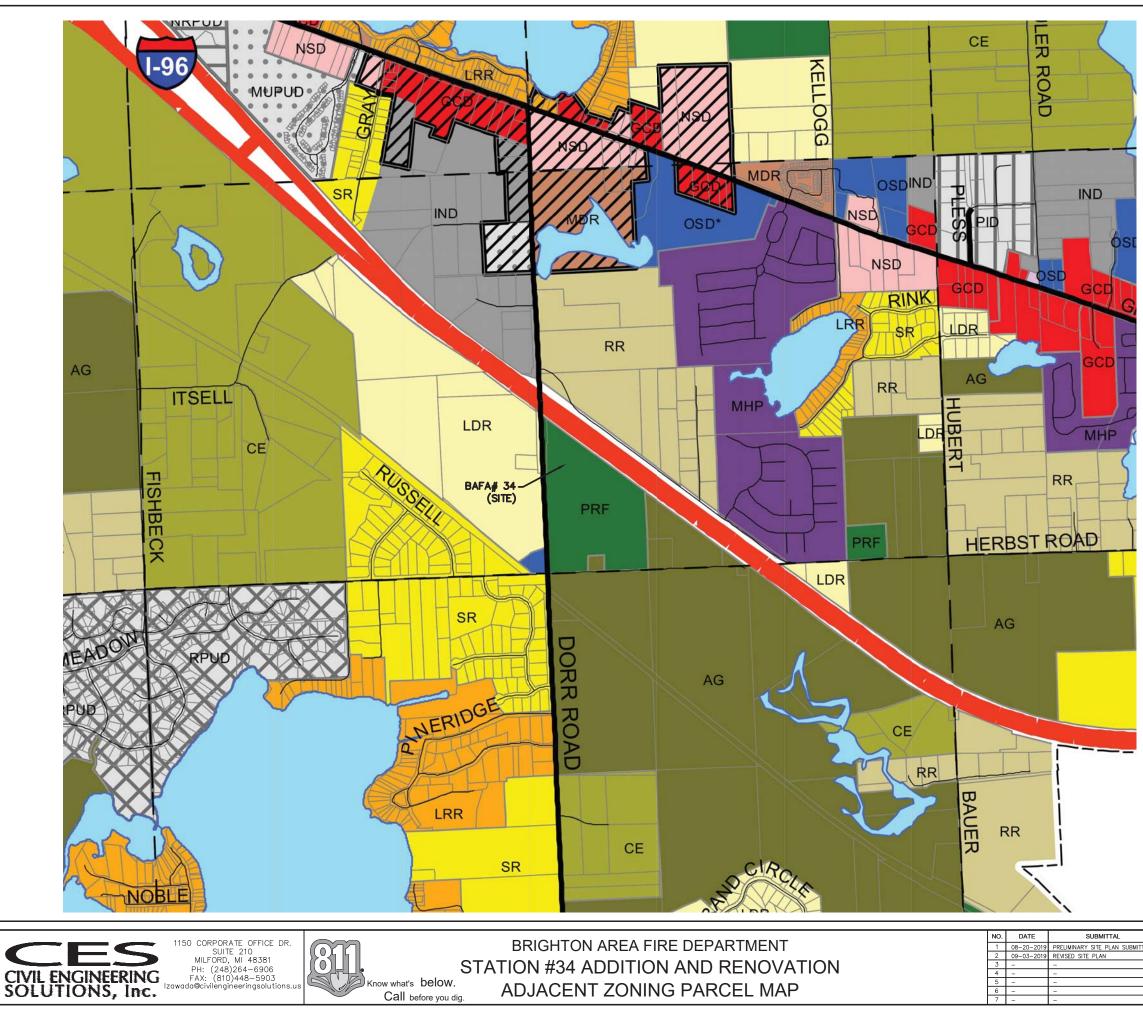
**MISCELLANEOUS DETAILS** 

NO.	DATE	SUBMITTAL
1	08-20-2019	PRELIMINARY SITE PLAN SUBMIT
2	09-03-2019	REVISED SITE PLAN
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-

14

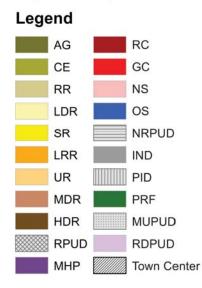
SECTION 14 TOWN 2N ITY/TOWN:GENOA TOWNSHIP

LIVINGSTON COUNTY, M





Genoa Charter Township Livingston County, Michigan

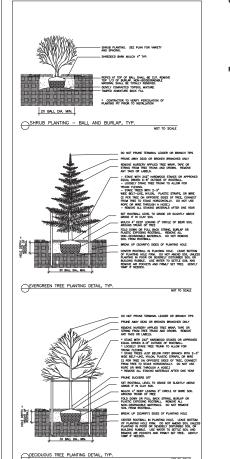


	NO.	DATE	REVISION	PROJECT NO.: 2019-0040		
ITAL	8	-	-	DRAWING NO.: -	SCALE: 1"=30'	SHEET NO.
	9 10	-	-	DRAWN BY: S. MOHAMMED	DATE: 2019-08-20	0.1221 1101
	11	-	-	CHECKED BY: LZ	DATE: 2019-08-20	C9
	12 13	-	-	SECTION 14 TOWN 2N	RANGE 3E 12	
	14	-	-	CITY/TOWN:GENOA TOWNSHIP	LIVINGSTON COUNTY, MI	+

#### PLANTING NOTES:

- Contractor shall be responsible for contacting and coordinating with all perfinent utility comparises 72 hours in advance of any digging to make themselves familiar with all underground utilities, pipes and autolates. Contractor shall take sole responsibility for a incurred due to damage of said utilities or structures.
- Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist. Such conditions shall immediately be brought to the attention of the Owner's Representative. The contractor shall assume the asponsibility for all necessary revisions due to failure to give such notification.
- Any discrepancies between dimensioned layout and actual field conditions shall be reported to the Owner's Representative. Failure to make such discrepancies known will result in contractor's responsibility and lability for any changes and associated costs.
- Contractor shall be responsible for any coordination with subcontractors as required to accomplish construction installation operations.
- 5. Contractor shall provide and maintain positive surface drainage.
- 6. Contractor shall be responsible for any existing materials that are damaged during construction
- 7. See Plant & Material List and Planting Details for planting requirements, materials and
- 8. All trees shall have a clay loam or clay root bail. Trees with sand root bails will not be accepted.
- All tree varieties and substitutions to be approved by he Owners Representative prior to being delivered to site. Any plant material delivered to site not previously approved may be rejected and are the sole responsibility of the contractor.
- The location of all plant material shall be scaled from drawings or interpreted from plant list. Final location of all plant material shall be subject to approval from the Owner's Representat
- 11. The contractor shall "water in" and fertilize all plants immediately after planting.
- Contractor shall install 2 4" of screened Top Soil on all planting areas and all new lawn areas. Contractor shall install Hvdro-Seed at all lawn areas as depicted on drawings.
- 13. Contractor shall install 4" depth Shredded Hardwood Mulch in all shrub and tree planting bed unless otherwise indicated. Peat Moss is to be installed in all annual flower, perennial flowe and ground cover planting beds. Such beds shall have no shredded mulch, typ.
- 14. The contractor shall guarantee all trees, shrubs, ground cover and other plant materials for one year from the date of acceptance, including labor and removel and disposal of dead material. Project owner shall be responsible maintenance program.
- All plant material shall be nursery grown. All trees and plant material shall meet the current standards of the American Society of Nurseryman.
- Landscape Contractor shall install an automated irrigation system for all soci lawn and planting bed areas on a Design/Build basis. A complete design, materials list, and cost estimate is required as part of the original bid proposal.
- All diseased, damaged, or dead material shown on the site plan shall be replaced by the end of the following growing season. Property owner shall be responsible to maintain plant material in healthy condition and/or replace dead plant material for the life of the project.
- Contractor shall achieve to all soil erosion prevention methods as directed within chil engineering drawings and within the municipal Continence including maintaining all feocing and ensuring that soil, all and other debris is prevented from leaving alle or entering area drains, sever links, reades or natural areas.

#### PLANTING DETAILS:



NOT TO SCALE



# Contractor shall install an automated imigation system throughout Hydroseed Lawn and Landscope Planting Bods All work shall be in compliance with local, stale and federal codes and orthopost.

ordinances. 3. Contractor shall be responsible to obtain all related permits and inspections

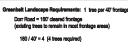
### GENERAL LANDSCAPE NOTES:

- Al unpaved areas within development zones to be hydro-seed lawn, mulch beds or groundcover as shown, typ.
   Ryverson Skeel edging to be installed at all planting bed lines adjacent to lawn
   arease them

- Hydroxio toble doging to certainance are parametry used into support an exercit areas, typ. Overse shall maintain all landscape and lasm messo in a weakly or bi-weakly basis during the purphing seaso. Over shall chair more from parking areas and sidewalks, including public sidewalks, as needed. Contractor shall protect esting trees throughout construction with the instabilition of temporary snow france public on construction with the instabilition of temporary snow france public on construction with the instabilition of temporary snow france public on construction with the treatabilities of temporary snow france public on construction with the protection of temporary snow france public on construction with the treatabilities of temporary snow france public on construction with the

QTY.	DESCRIPTION	SIZE / ROO
4	Acer x freemanii 'Jeffsred' Autumn Blaze Maple	3° cal., B&B
2	Betula nigra River Birch (multi-slem)	8', B&B
2	Quercus bicolor Swamp While Oak	3ª cal., B&E
3	Tilia cordata Little Leaf Linden	3º cal., B&B
4	Gleditsia triacanthos f. inermis Skyline Locust	3º cal., B&E
3	Pyrus calleryana Cleveland Select Pear	3º cal., B&E
1	Acer platanoides Crimson King Maple	3° cal., B&B
1	Cornus florida Flowering Dogwood (multi-stem)	5', B&B
19	Taxus densaforma 'Everlow' Everlow Yew	24-30", B&I
4	Spirea japonica 'Anthony Waterer' Anthony Waterer Spirea	18-24", Contai
6	Syringa pubescens Miss Kim Lilac	24-30", B&I
53	Euonymus alata 'Compacta' Dwarf Burning Bush	24-30", B&I
4	Hydrangea arborescens Annabelle Hydrangea	36-42°, Con
7	Rosa radrazz 'Sunny Yellow' Knock Out Rose 'Sunny Yellow'	2 gal., Con
9	Calamagrostis acutifolia 'Karl Foester' Karl Foerster Reed Grass	2 gal., Coni
1	Pennisetum alopecurides Dwarf Fountain Grass	2 gal., Con
3	Hosta, spp. Variegated Hosta	2 gal., Coni

### LANDSCAPE REQUIREMENTS:



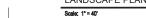
4 Greenbelt Trees Required 4 Greenbelt Trees Provided

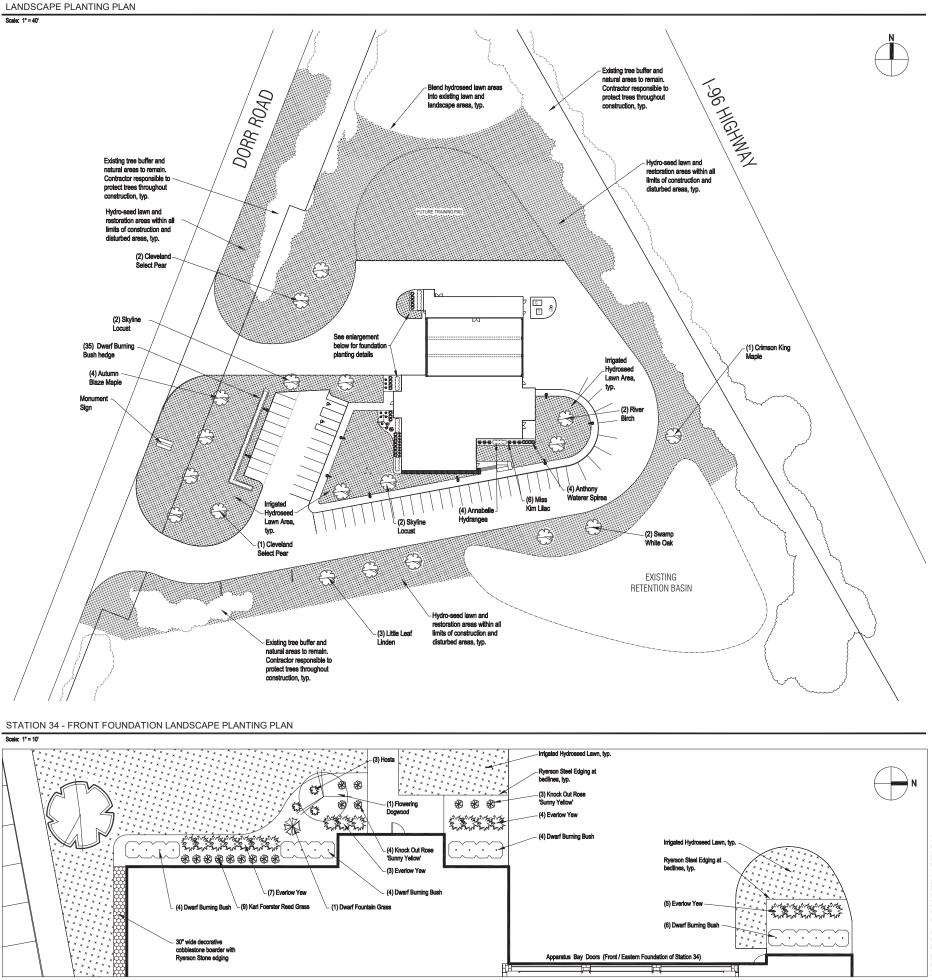
mis: 1 tree per 10 parking spaces Parking Lot Landscape Reg

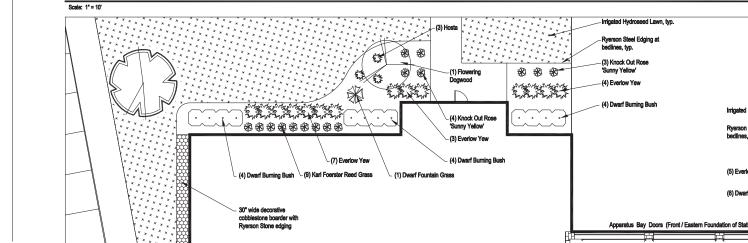
- 53 total proposed parking space 53 / 10 = 5.3 (6 trees required 6 Parking Lot Trees Required 6 Parking Lot Trees Provided

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG -800-482-7171

FOR THE LOCATION OF







### PARTNERS



### PARTNERS in Architecture, PLC

. wtarket Street Mount Clemens, MI 48043 P 586.469.3600 F 586.469.3607

Statement of Intellectual Property

The ideas, concepts, drawings and thoug are the intellectual property of icture, PLC, 65 Market Street, 1 (P586.469.3600). This set of

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### J EPPINK PARTNERS INC KEY PLAN

**BRIGHTON AREA FIRE** DEPARTMENT

PROJECT NAME

Station # 34 Addition & Renovation

2755 Dorr Road

Genoa, Township, MI 48116

PROJECT NO

19-128

ISSUES / REVISIONS SITE PLAN REVIEW 08/29/19

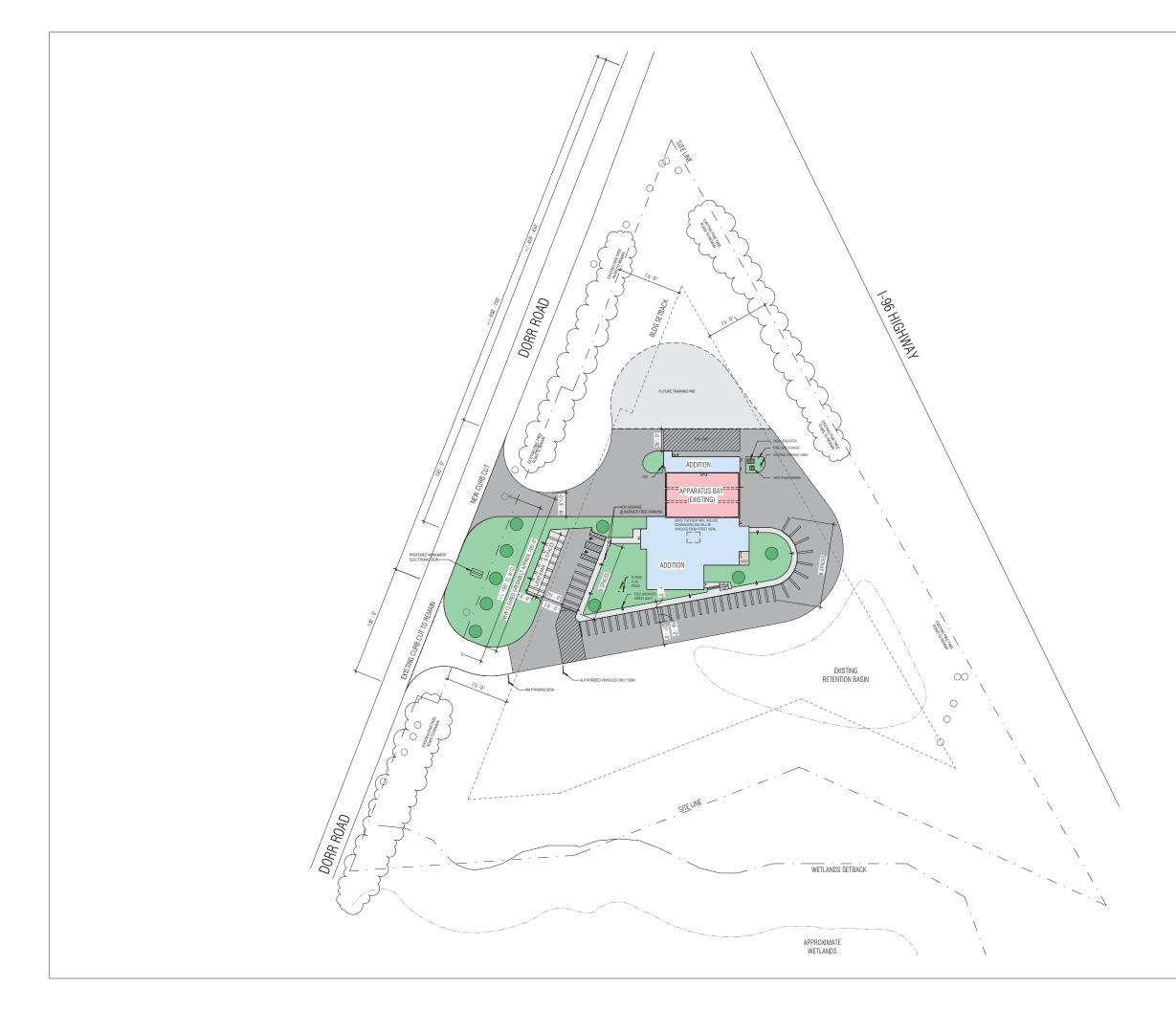
DRAWN BY

JTE CHECKED BY

APPROVED BY

SHEET NAME LANDSCAPE PLANTING PLAN

SHEET NO. L1251



### SITE PLAN KEYNOTES

### BUILDING AND LOT COVERAGE (TABLE 4.05.01)

BUILDING: 15,323 SQ. FT. / LOT: 352,836 SQ. FT. = **4.3%** 

IMPERVIOUS SURFACES: 72,725 SQ. FT. / LOT: 352,836 SQ. FT. = **20.6%** 

### PARTNERS



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65 Market Street Mount Clemens, MI 48043 P 586.469.3600 F 586.469.3607

#### Statement of Inte

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CONSULTANT



OWN

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 48116

PROJECT NO.

19-128

### ISSUES / REVISIONS

SITE PLAN REVIEW SITE PLAN REVIEW SITE PLAN REVIEW

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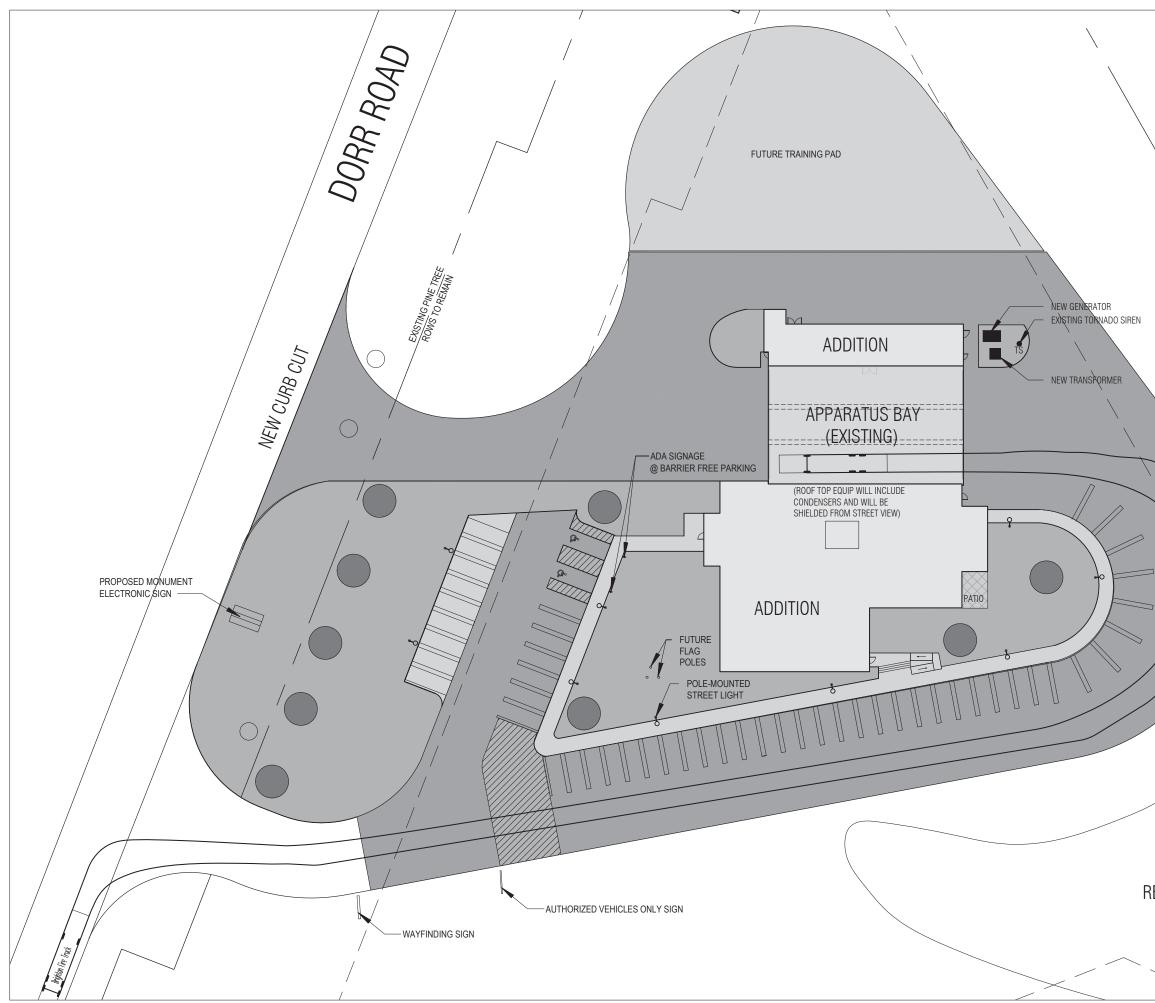
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DJG CHECKED BY

APPROVED BY

SHEET NAME

Architectural Site Plan



EXISTING PINE TREE ROWS TO REMAIN	
	``\`,
EXISTING RETENTION BASIN	CONSTRUCTION
1 TRUCK TURNING RADIUS PLAN 1" = 20-0"	NOT FOR (

### PARTNERS



#### PARTNERS in Architecture, PLC 65 MARKET STREET MOUNT CLEMENS, MI 48043 P 566, 469, 3600 F 366, 469, 3607

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CONSULTANT

KEY PLAN

OWNER

### BRIGHTON AREA FIRE AUTHORITY

PROJECT NAME STATION #34

2755 DORR RD. BRIGHTON, MI 48116

PROJECT NO.

19-128

ISSUES / REVISIONS
SITE PLAN REVIEW 08-21-2019

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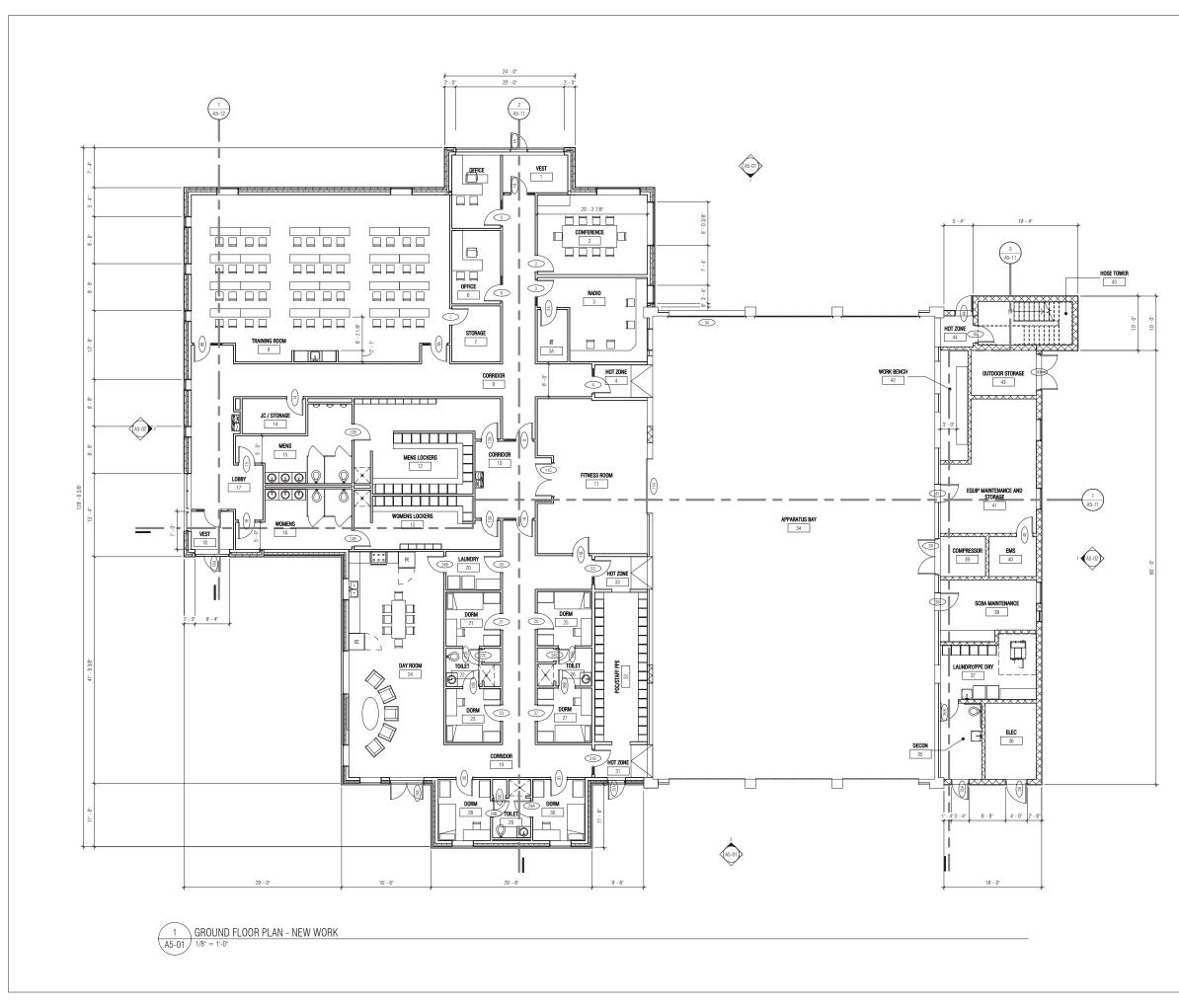
CHECKED BY

APPROVED BY

SHEET NAME

### TRUCK TURNING RADIUS PLAN

SHEET NO. A2-02 127



### FLOOR PLAN KEYNOTES

### PARTNERS



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CONSULTANT

KEY PLAN

#### WNEF

### BRIGHTON AREA FIRE DEPARTMENT

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 48116

PROJECT NO.

19-128

### ISSUES / REVISIONS

 SITE PLAN REVIEW
 08/02/19

 SITE PLAN REVIEW
 08/21/19

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DRAWN BY

CHECKED BY

APPROVED BY

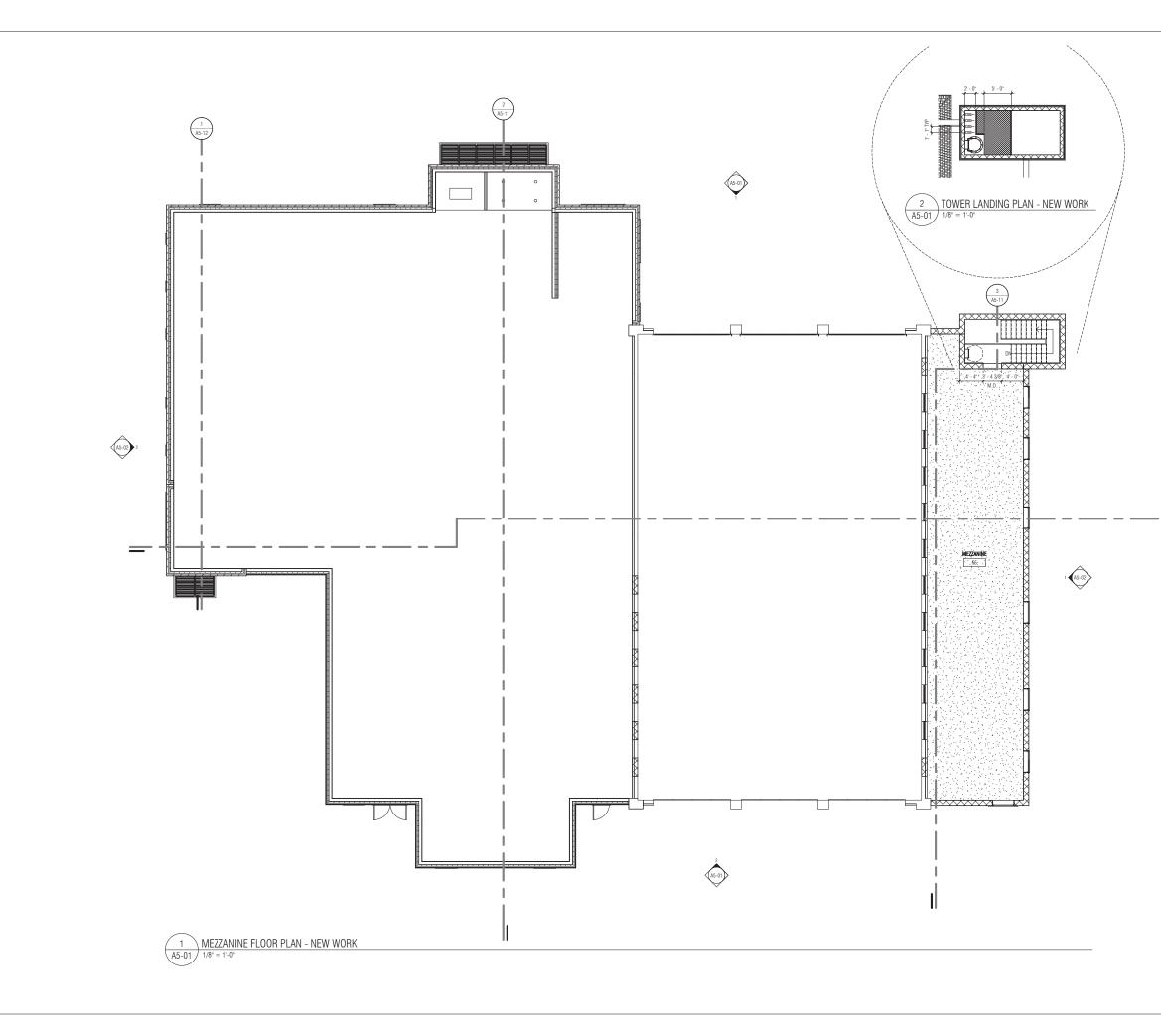
### SHEET NAME

Ground Floor Plan -New Work

SHEET NO.

NOT

A31-28



### FLOOR PLAN KEYNOTES

(1) (A5-11)

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KEY PLAN

#### OWNER

# BRIGHTON AREA FIRE DEPARTMENT

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 48116

PROJECT NO.

19-128

### ISSUES / REVISIONS

SITE PLAN REVIEW 08/21/19

DRAWN BY DJG

CHECKED BY

APPROVED BY

### SHEET NAME

NOT FOR CONSTRUCTION

Mezzanine Floor Plan - New Work

SHEET NO.

A3**⊢2**93

WEST ELEVATION - 2,154 sq. ft.					
Building Material	Proposed Addition	Max % Allowed (PRF			
Brick	54.1%	100%			
Metal Wall Panel/Fiber Cement Siding	11.2%	25%			
Plain CMU w/ Integral Color	20.4%	25%			
Split face/Ground face CMU	8.3%	25%			
Cast Stone	4.8%	100%			
Metal Coping and Frieze	1.2%	25%			
SOUTH ELEVATION - 1.854 sq. ft.					
Building Material	Proposed Addition	Max % Allowed (PRF			
Brick	52.3%	100%			
Metal Wall Panel/Fiber Cement Siding	25%	25%			
Split face/Ground face CMU	11.7%	25%			
Cast Stone	5.7%	100%			
		25%			



EX	EXTERIOR ELEVATION KEYNOTES		
1	EXISTING METAL FASCIA AND GUTTER TO REMAIN		
2	EXISTING ROOF TO REMAIN		

2	EXISTING ROOF TO REMAIN
3	EXISTING BRICK - DARK
4	EXISTING BRICK - LIGHT
5	ASPHALT SHINGLE ROOF
6	CAST STONE HEADER
7	CAST STONE COPING
8	PAINTED METAL FRIEZE
9	PAINTED METAL COPING
10	EXTERIOR LIGHT FIXTURE
11	ALUM. DOOR & FRAME WITH INSUL. GLASS
12	EXPOSED FASTENER METAL WALL PANEL - RED
13	EXPOSED FASTENER METAL WALL PANEL - GRAY
14	SPLIT FACE OR GROUND FACE MASONRY BLOCK WITH INTEGRAL COLOR
15	CAST STONE SILL
16	ALUM. WINDOW WITH INSUL. GLASS
17	HALF HEIGHT MASONRY BLOCK WITH INTEGRAL COLOR
18	GRADE
19	HALF HEIGHT GLAZED CMU - RED
20	BRICK
22	ALUM. STOREFRONT WITH INSUL. GLASS
23	ALL-GLASS OVERHEAD DOOR TO MATCH EXISTING
24	BUILDING SIGNAGE LOCATION
25	PAINTED CANOPY SUPPORT ROD
28	PAINTED METAL WINDOW HEADER
29	PAINTED METAL CANOPY
30	PAINTED METAL FASCIA AND GUTTER
31	CMU BOND BEAM WITH INTEGRAL COLOR
	<ol> <li>3</li> <li>4</li> <li>5</li> <li>6</li> <li>7</li> <li>8</li> <li>9</li> <li>10</li> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>22</li> <li>23</li> <li>24</li> <li>25</li> <li>28</li> <li>29</li> <li>30</li> </ol>

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CONSULTANT

KEY PLAN

NORTH  $\bigcirc$ 

### OWNER

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 48116

PROJECT NO. 19-128

### ISSUES / REVISIONS

SITE PLAN REVIEW SITE PLAN REVIEW SITE PLAN REVIEW 08/02/1 08/21/19 09/03/19

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DJG CHECKED BY

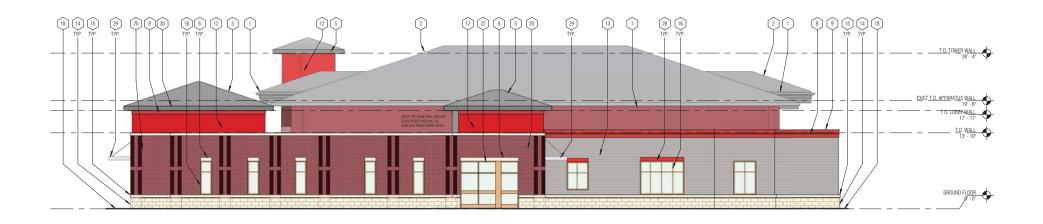
APPROVED BY

SHEET NAME

Exterior Elevations

SHEET NO. A5-01 130

WEST ELEVATION - 2,154 sq. ft. Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	54.1%	100%
Metal Wall Panel/Fiber Cement Siding	11.2%	25%
Plain CMU w/ Integral Color	20.4%	25%
Split face/Ground face CMU	8.3%	25%
Cast Stone	4.8%	100%
Metal Coping and Frieze	1.2%	25%
SOUTH ELEVATION - 1,854 sq. ft. Building Material	Proposed Addition	Max % Allowed (PRF)
Brick	52.3%	100%
Metal Wall Panel/Fiber Cement Siding	25%	25%
Split face/Ground face CMU	11.7%	25%
Cast Stone	5.7%	100%
Metal Coping and Frieze	4.7%	25%







### EXTERIOR ELEVATION KEYNOTES

1	EXISTING METAL FASCIA AND GUTTER TO REMAIN
2	EXISTING ROOF TO REMAIN
3	EXISTING BRICK - DARK
4	EXISTING BRICK - LIGHT
5	ASPHALT SHINGLE ROOF
6	CAST STONE HEADER
7	CAST STONE COPING
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29	PAINTED METAL CANOPY
30	PAINTED METAL FASCIA AND GUTTER

31 CMU BOND BEAM WITH INTEGRAL COLOR

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KEY PLAN

NORTH  $\bigcirc$ 

### OWNER

Brighton Area Fire Department

PROJECT NAME

Station #34 Addition and Renovation

2755 Dorr Road, Genoa Township, MI 48116

PROJECT NO. 19-128

### ISSUES / REVISIONS

SITE PLAN REVIEW SITE PLAN REVIEW SITE PLAN REVIEW 08/02/1 08/21/

\_\_\_\_\_ \_\_\_\_

DRAWN BY

DJG

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CHECKED BY

APPROVED BY

SHEET NAME

Exterior Elevations

SHEET NO. A5-02 131



2911 Dorr Road Brighton, MI 48116 810.227.5225 810.227.3420 fax genoa.org

TO:

FROM:	Kelly VanMarter, Assistant Township Manager/Community Development Director	
DATE:	September 11, 2019	
RE:	The Ridge (previously known as "Moretti Estates") Final Site Condominium	
MANAGERS REVIEW: 1. Can		

Honorable Board of Trustees

MEMORANDUM

In consideration of the approval recommendation by the Township Planning Commission on September 9, 2019 please find the attached project case file for "The Ridge". The applicant is seeking final approval for a 19-unit site condominium on 30.8 acres. The property is located on the west side of Bauer Road north of White Pines Drive. The proposed residential development complies with the existing Low Density Residential (LDR) standards with minimum 1-acre lots along a new private road.

Procedurally, Section 12.07 requires both preliminary and final approval for condominium plans. Both reviews go through the Planning Commission for a recommendation to the Township Board which has approval authority. Based on the conditions established within the Planning Commission final approval recommendation, I offer the following for your consideration:

Moved by \_\_\_\_\_\_, to approve the Impact Assessment dated June 13, 2019 related to final site condominium approval for "The Ridge" with the condition that the revisions requested by the Planning Commission be incorporated, submitted and approved by Township staff prior to issuance of a land use permit for construction.

Moved by \_\_\_\_\_\_, to approve the final site condominium plan for "The Ridge" dated August 20, 2019, subject to the following:

 Revised landscape plans shall be provided and approved by Township staff. This shall include the addition of the cluster mailboxes and relocation of the landscaping shown off-site or in road right-of-way.

SUPERVISOR

Bill Rogers

**CLERK** Paulette A. Skolarus

TREASURER Robin L. Hunt

**TRUSTEES** Jean W. Ledford H. James Mortensen Terry Croft Diang Lowe

MANAGER Michael C. Archinal September 11, 2019 The Ridge - Final Condominium Page 2 of 2

- 2. If trees are to remain in the Bauer Road right-of-way, road commission approval must be provided.
- 3. The entrance sign will require staff review and approval of a land use permit. Walls are not permitted.
- 4. Applicant shall provide for approval by the Township Attorney a construction and maintenance easement for the entrance in regard to the landscaping, cluster mailbox and roadway. This easement shall be recorded prior to issuance of any land use permits for home construction.
- 5. The applicant will make an effort to obtain a formal letter of approval from the
- 1. postmaster for the mailbox cluster.
- 2. The shared driveway easement related to the metes and bounds parcels not included in the subdivision shall be revised to eliminate the Township requirement to settle disputes and shall instead indicate an arbitration agency. The final easement agreement shall be approved by the Township Attorney prior to being recorded. The easement shall be recorded prior to the land division for the subdivision.
- 3. The Exhibit B drawings shall be updated to match the final site condominium plans.
- 4. The Master Deed, Bylaws, Exhibit B Drawings and any other private restrictions shall be reviewed and approved by the Township Attorney prior to land division.
- 5. All requirements of the Township Engineer in their letter dated August 26, 2019 shall be met. This includes submittal of all final approval letters from the Livingston County Health, Drain Commissioner and Road Commission.
- 6. Construction plan review will be required for the private road.
- 7. All requirements of the Brighton Area Fire Department shall be complied with.
- 8. Site plan review fee overages associated with exceeding the allocated number of reviews and meetings must be paid prior to issuance of a land use permit for road construction.

Should you have any questions concerning this matter, please do not hesitate to contact me.

Sincerely,

Kelly VanMarter U Assistant Township Manager/Community Development Director



## GENOA CHARTER TOWNSHIP Application for Site Plan Review

### TO THE GENOA TOWNSHIP PLANNING COMMISSION AND TOWNSHIP BOARD:

APPLICANT NAME & ADDRESS: John Moretti, 4242 Bauer Road, Brighton, Michigan 48116 If applicant is not the owner, a letter of Authorization from Property Owner is needed.

OWNER'S NAME & ADDRESS:\_\_\_\_\_\_\_ John Moretti, 4242 Bauer Road, Brighton, Michigan 48116

APPLICANT PHONE: (810)217-4581 OWNER PHONE: (810)217-4581

OWNER EMAIL: mrmconstruction2244@yahoo.com

LOCATION AND BRIEF DESCRIPTION OF SITE: 1,500 feet south of the Challis Road and Bauer Road intersection. 40.042 Acres. Partially wooded.

On the south side of "Mudd Lake".

BRIEF STATEMENT OF PROPOSED USE: Site Condominium consisting of 19 lots and a Private Road.

THE FOLLOWING BUILDINGS ARE PROPOSED: 19 dwellings

I HEREBY CERTIFY THAT ALL INFORMATION AND DATA ATTACHED TO AND MADE PART OF THIS APPLICATION IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY. Monument Engineering Group Associates

ADDRESS: 298 Veterans Drive, Fowlerville, Michigan 48836

Contact Information - Review Letters and Correspondence shall be forwarded to the following:

Monument Engineering Group Associates, Inc, Philip A. Rasor, Jr. PE praso: @monumentengineering.com 1.) at

Name

**Business Affiliation** 

E-mail Address

### **FEE EXCEEDANCE AGREEMENT**

As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.

SIGNATURE: SEE HARDCOPY

DATE \_

PRINT NAME: John Moretti

PHONE: (810) 217-4581

ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

### GENOA TOWNSHIP APPLICATION FOR PRIVATE ROAD 2911 Dorr Road, Brighton MI 48116 (810) 227-5225

GENOA TOWNCHIP

EEB 2 0

A private road requiring approval of the Township shall be any road providing access 18 more than four dwelling units or two non-residential principal buildings. This does not include drives within a multiple family complex or parking lot aisles, but does include collector type roadways within such a development.

APPLICANT: John Moretti

OWNER ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

SITE ADDRESS: 4242 Bauer Road, Brighton, Michigan 48116

### APPLICABILITY OF PUBLIC VS. PRIVATE ROAD STANDARDS

All private roads in Genoa Township shall be constructed to the standards of the Livingston County Road Commission unless the Planning Commission and Township Board determine your road qualifies under the following ordinance criteria:

1. Explain how there will be no need for the roadway to be dedicated as a public road in the future.

The private road is intended to serve 19 residential lots and intersects Bauer Road. Building the road to the public road standards would result in the removal of more trees more disturbance to the natural topography.

2. Explain how dedication of the road as a public street would not result in continuity in the public street system at the present time or in the future.

There is no connection to Brighton Estates Subdivision. No continuity is available to this roadway system.

3. What uses (number of lots, number of residential units, number of buildings, etc) will have access from the private road. Will the expected traffic volumes along the roadway be below three hundred vehicles per average weekday, based on accepted trip generation figures? There are 19 Lots to utilize this road, and they generate less than 50 trips per day.

Are there any significant natural features such as mature trees, natural slopes, wetlands or 4. other water bodies would be preserved through construction and maintenance as a private road?

The site has natural sloping topography and is partially wooded. Design attempts to minimize

impact to trees and natural topography.

5. What financial and administrative mechanisms will be provided to ensure maintenance of the private road?

A private road easement, maintenance agreement and funding requirement will be part of the Deed Documents for this PUD.

### AFFIDAVIT

The undersigned says that they are the Owner (owner, lessee, or other specified interest) involved in this petition and that the foregoing answers and statements herein contained and the information herewith submitted are in all respects true and correct to the best of his/her knowledge and belief.

By: JOHN MORETTI

Address: 4242 Bauer Road

\_\_\_\_Phone: 810-217-4581

Contact Information - Review Letters and Correspondence shall be forwarded to the following:				
1.) Philip A. Rasor, Jr. PE	of Monument Engineering Group Associates, Inc.	at_()		
Name	Business Affiliation	Fax No.		
<u></u>	prasor@mo	onumentengineering.com		

FEE EXCEEDANCE AGREEMENT				
As stated on the site plan review fee schedule, all site plans are allocated two (2) consultant reviews and one (1) Planning Commission meeting. If additional reviews or meetings are necessary, the applicant will be required to pay the actual incurred costs for the additional reviews. If applicable, additional review fee payment will be required concurrent with submittal to the Township Board. By signing below, applicant indicates agreement and full understanding of this policy.				
PROJECT NAME: Moretti Estates				
PROJECT LOCATON & DESCRIPTION: 4242 Bauer Road Genoa Township				
Livingston County, MI 21 Lots being developed as a LRD/PUD on 40 acres				
SIGNATURE: SEE HARDCOPY	DATE:			
	PHONE: 810-217-4581			
COMPANY NAME & ADDRESS: John Moretti-4242 Bauer Road, Brighton, MI 48116				

### GENOA CHARTER TOWNSHIP PLANNING COMMISSION PUBLIC HEARING SEPTEMBER 9, 2019 6:30 P.M. MINUTES

<u>CALL TO ORDER</u>: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Marianne McCreary, Jim Mortensen, Chris Grajek, Eric Rauch, Jeff Dhaenens, and Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of SafeBuilt Studio, and Gary Markstrom of Tetra Tech. There were 14 audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

### APPROVAL OF AGENDA:

Chairman Brown read a letter from Home Depot requesting an extension of 30 days to allow them to work with staff to address the outstanding issues.

**Moved** by Commissioner Dhaenens, seconded by Commissioner Mortensen, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

### OLD BUSINESS:

**OPEN PUBLIC HEARING #1...**Review of a site plan and impact assessment requesting final site condominium approval for a proposed 19 unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

A. Recommendation of Environmental Impact Assessment (8-14-19)

B. Recommendation of Final Site Condominium Plan (8-20-19)

Mr. Bruce Silver, representing Mr. Morretti, and Mr. Allan Pruss from Monument Engineering were present.

Mr. Pruss reviewed the changes / additions that were made since the last Planning Commission Meeting. They believe that all of the previous concerns of the Township's

consultants have been met with this revised plan. The items noted in the review letters from this week will be addressed.

Mr. Borden reviewed his letter of September 5.

- 1. He agreed that the mailbox cluster/drive has been put on the site plan; however, it must be put on the landscape plan
- 2. A landscape easement must be obtained from the adjacent property owner to the north. Mr. Pruss stated the landscaping will no longer encroach onto the neighboring property.
- 3. Road Commission approval must be obtained for the six trees depicted in the Bauer Road right-of-way. Mr. Silver stated he has obtained this approval.
- 4. The revised submittal still does not include details of the residential entrance signage/decorative wall, though walls are not permitted and a sign permit must be obtained. Mr. Silver stated the sign will comply with the ordinance.
- 5. The applicant must ensure that the entrance easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.

Mr. Markstrom stated that the last set of plans have addressed their concerns; however, he noted that letters from the Livingston County Health Department, Livingston County Road Commission, and Livingston County Drain Commissioner must be obtained. Ms. VanMarter advised that these have been received. Other items will be reviewed when the private road construction plan is submitted.

Commissioner Mortensen noted some revisions needed to the Environmental Impact Assessment. The applicant will make the changes noted.

The call to the public was made at 6:49 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Grajek, to recommend to the Township Board approval of the Environmental Impact Assessment dated August 14, 2019 for The Ridge, subject to the following:

- Approvals being sought from various governmental agencies noted on Pages 3, 4, and 5 of the Impact Assessment have been obtained according to the developer and this Impact Assessment should be updated to reflect that, with copies provided to Township Staff.
- On Page 4, the language that states "Access will be controlled by vehicle activated gates, egress will always be available to any The Ridge resident or visitor without need for access code or key card" shall be eliminated.

The motion carried unanimously.

**Moved** by Commissioner Mortensen, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Final Site Condominium Plan for The Ridge dated August 20, 2019, subject to the following:

- The landscape plan incorporating the mailbox cluster/drive will require staff review when completed.
- The landscaping shown encroaching onto the property to the north will be relocated to the condominium's property.
- Road Commission approval must be obtained for the six trees depicted in the Bauer Road right-of-way.
- The residential entrance signage and decorations will require staff review and walls are not permitted.
- The applicant must ensure that the entrance easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.
- The applicant will make an effort to obtain a formal letter of approval from the postmaster for the mailbox cluster.
- On Page 2 of the Master Deed, the suggestion that the Township would arbitrate disputes on roadway maintenance shall be eliminated and replaced with some other appropriate outside firm or agency.
- The Township Attorney shall review the Master Deed and other rules.
- The requirements of the Township Engineer's letter dated August 26 and the Brighton Area Fire Authority's letter dated August 29, 2019 will be met.
- The Exhibit B documents in the Master Deed shall be updated to match the Site Plan.

### The motion carried unanimously.

**OPEN PUBLIC HEARING #2**... Review of a special use, site plan and environmental impact assessment for outdoor sales, storage and display for Home Depot. The property in question is located at 3330 E. Grand River, Howell. The request is petitioned by Scott A. Mommer.

- A. Recommendation of Special Use Application.
- B. Recommendation of Environmental Impact Assessment. (8-8-19)
- C. Recommendation of Site Plan. (8-7-19)

**Moved** by Commissioner Dhaenens, seconded by Commissioner Grajek, to postpone Open Public Hearing #2 until the next regularly-scheduled Planning Commission meeting of October 15, 2019 at the applicant's request. **The motion carried unanimously**.

### NEW BUSINESS:

### GENOA CHARTER TOWNSHIP PLANNING COMMISSION PUBLIC HEARING AUGUST 12, 2019 6:30 P.M. MINUTES

<u>CALL TO ORDER</u>: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Marianne McCreary, Jim Mortensen, Chris Grajek, Eric Rauch, Jeff Dhaenens, and Jill Rickard. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of SafeBuilt Studio, and Gary Markstrom of Tetra Tech. There were seven audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

**Moved** by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

NEW BUSINESS:

**OPEN PUBLIC HEARING #1...** Review of a site plan for a proposed 19-unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

A. Recommendation of Environmental Impact Assessment (6-13-19)

B. Recommendation of Final Site Condominium Plan (7-22-19)

Mr. John Moretti and Mr. Bruce Silver, operations manager, were present. Mr. Moretti provided a brief review of the project. It is a site condominium consisting of 19 one-acre plus lots. He has made some changes since he was last before the Planning Commission. The 10-acre parcel is now two five-acre parcels and the detention pond is larger. He noted that the two five-acre parcels will be participating in the association as it relates to road maintenance, but they will not be part of the association.

Commissioner Mortensen noted that both lots will require easements to the proposed private road. Mr. Moretti agreed. There was a discussion on how the enforcement of

the payments for the road maintenance will be handled. The Township's attorney will work with Mr. Moretti's attorney to ensure the enforcement language is recorded and included in the road easement.

Mr. Borden reviewed his letter of August 6, 2019.

- The applicant must comply with any conditions included with outside agency approvals, such as the Road Commissioner, Drain Commissioner's Office, etc.
- The applicant must address any comments provided by the Township Attorney with respect to the condominium documents.
- Tree protection fencing must be provided around the existing wooded and natural areas to be preserved prior to the beginning of construction.
- Sample building elevations should be provided.
- Details of the residential entrance signage must be provided and a permit shall be obtained from the Township.
- He is suggesting that the cluster mailbox be separated from the private road via an access drive so that residents accessing their mailbox do not disrupt traffic flow. Mr. Moretti stated they have some flexibility to possibly move it further into the development. He will need to check with the post office to see if they prefer it on one side or the other. Ms. VanMarter stated that the Brighton Postmaster is requiring cluster mailboxes for all residential developments.
- The Impact Assessment still refers to the development as Moretti Estates, as opposed to The Ridge.

Mr. Markstrom reviewed his letter of August 5, 2019.

- The proposed private road is not in the middle of the proposed ROW, and at the entryway, some of the proposed road improvements on the north side of the drive are not within the road ROW. Also, the landscaping plan includes proposed landscaping that is not inside the road ROW. Any proposed landscaping improvements for the entryway should be within a dedicated easement or road easement. There was a discussion that perhaps a landscape easement can be granted for the condominiums by the property to the east.
- The petitioner is proposing to install an asphalt pavement sidewalk. He suggests concrete sidewalks, which will allow for the installation of ADA approaches and approach warning devices. Mr. Moretti agrees.
- The on-site road pavement section shown on the plans should match the road pavement design required in the Genoa Township Engineering Standards. There are other locations where road cross sections are not consistent.
- Over 100 feet of Mountain Ridge Drive is at a 10-percent grade and around 300 feet of Ridge Lake Court is at an 8-percent grade. The maximum grade for local roads is noted as 6 percent in the Genoa Township Engineering Standards and

this deviation from the standard road grades will need to be approved by the Township.

- After site plan approval, the petitioner will need to submit private road construction plans for review and approval.
- The well placement in Lot 1 is within the storm easement for the infiltration structure. This is a concern due to the possibility of having standing water around the well head. The well should be relocated and additional approval from the LCHD should be obtained for this lot. Mr. Moretti agrees to relocate it.
- Instead of running the storm sewer easement through front yards, the petitioner should consider running the storm sewer north through the proposed cul-de-sac and then turning east when the storm sewer reaches the shared drive. This will permit easier access for maintenance and not encumber the lots with additional easements in their front yards.
- The culvert under the driveway in Lot 3 should be designed for the non-typical flow it will see from both Mountain Ridge Drive and the backyard drainage from Lots 4 through 7. This flow suggests that a standard 12-inch culvert will be overwhelmed and block the flow in the ditch line. The petitioner should look at all driveway culverts to ensure they are properly sized.
- The catch basin diameters are not consistent on the plans.
- The plans should be updated to reflect that a storage tank will be used for fire suppression.

Mr. Markstrom noted that these are minor changes and should be corrected before this item goes before the Township Board for approval.

Commissioner Rauch noted that the storm sewer line is encroaching into the required 25-foot setback requirement of the regulated wetland. Mr. Markstrom agrees and Mr. Moretti will make the change.

Commissioner Mortensen noted that the Health Department's letter states that Lot #8 is unbuildable. Mr. Moretti stated this lot did not perk and it will need an engineered field; however, he will not be able to have this information before he goes before the Township Board. Ms. VanMarter stated the Township does not create lots that are not buildable. Commissioner Rickard is not comfortable recommending this item for approval if this lot is not buildable.

He also noted that the by-laws state that two lots can be combined, and one home can be built, but that property owner will only pay road maintenance for one lot. Mr. Moretti stated he will change the document to state that if this occurs, that owner will pay the road maintenance amount equivalent for two lots. Commissioner Mortensen would like the Master Deed to state that the ordinances of Genoa Township shall override what is in the document, if the Township's is stricter.

Commissioner Rickard is concerned about the road ROW at the entrance and that the plans are shown with landscaping out of the ROW. She would like the applicant's engineer to address the Township engineer's concerns before the Planning Commission makes a recommendation to the Township Board. Commissioner Rauch agrees. He would like to see a clean set of plans before making a recommendation for approval.

Mr. Moretti stated the biggest issue is with Lot #8, but the other items are easy to address.

The call to the public was made at 7:45 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Rickard, to postpone Agenda Item #1 for The Ridge Subdivision to allow the petitioner to address the following items:

- The need for easements at the entry
- Location of the cluster mailbox
- Storm sewer location
- Buildability of Lot #8

### The motion carried unanimously.

**OPEN PUBLIC HEARING #2**... Review of a site plan and environmental impact assessment for 106 attached residential units within 29 buildings for Westbury Phase II. The property in question is located north of the intersection of Whitehorse Drive and Arundell Drive. This property is located within the Lorenzen Planned Unit Development and was previously approved for 137 apartment units. The request is petitioned by Singh Development Company.

- B. Recommendation of Environmental Impact Assessment. (6-28-19)
- C. Recommendation of Preliminary Site Condominium Plan (7-24-19)

Mr. Vipul Desai, the engineer, and Sunny Grewal from Singh Development, were present. Mr. Desai provided a brief review of the project. It is Phase II of Westbury Development, which is 107 units of attached condominiums for sale. Phase I is apartments.

They received the consultant's comments and addressed their concerns. They are aware that there are additional review letters.

follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Lowe and supported by Ledford to increase application fees for the Zoning Board of Appeals from \$125.00 to \$215.00 for residential, and from \$300.00 to \$395.00 for commercial, with signs \$300.00. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Hunt and supported by Croft to amend the 2018/2019 budgets for funds 101, 212, 261, 264, 270, and 271 as recommended by the Skolarus. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Moved by Lowe and supported by Mortensen to approve budgets 101, 212, 261, 264, 270, and 271 for the fiscal year beginning April 1, 2019 and ending March 31, 2020 as recommended by the Skolarus. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

# 6. Request for approval of the following Debt Service Fund Budgets for the Fiscal Year ending March 31, 2020: Fund 852, 857-859, 870, 872, and 873 as provided by Treasurer Hunt.

Moved by Skolarus and supported by Ledford to approve Debt Service Funds 852, 857, 859, 870, 872, and 873 as recommended by Hunt. The motion carried unanimously

7. Consideration of a recommendation for approval of a preliminary site condominium plan and impact assessment for a proposed 19 unit site condominium called Moretti Estates. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (parcel # 4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

### A. Disposition of Environmental Impact Assessment (02/19/2019)

Moved by Lowe and supported by Ledford, to approve the Impact Assessment dated February 19, 2019 related to preliminary site condominium approval for Moretti Estates. The motion carried unanimously.

### **B.** Disposition Recommendation of Preliminary Site Condominium Plan (02/20/2019)

Moved by Skolarus and supported by Hunt, to approve the preliminary site condominium plan for Moretti Estates dated February 20, 2019, subject to the following:

- 1. The following documents will be required with a final submittal:
  - a. Condominium documents (Master Deed and By-Laws);
  - b. A detailed landscape plan;
  - c. Building designs/renderings; and
  - d. A detail of the residential entrance signage.
- 2. With regard to the landscape plan, additional plantings shall be provided to create a buffer north of the entrance drive for the existing home located immediately north of the entrance, which is not part of the condominium
- 3. The Township attorney shall review the condominium documents.
- 4. The condominium documents shall include:
  - a. A caution to the homeowners about the extra sensitivity to environmental factors affecting the drainage into Mudd Lake.

- b. Language ensuring protection of the wetlands, natural feature setback and undisturbed wooded areas.
- c. Private Road Maintenance provisions including the financial and maintenance assurances required by Ordinance.
- d. Inclusion of the remainder parcel which is not part of the condominium in regard to the private road. The remainder land shall be included in access, maintenance and financial obligations associated with the road. The documents shall also provide for future development of the remainder parcel to be included in the condominium.
- 5. An easement regarding access, maintenance and financial obligations for the remainder property giving them rights to the private road.
- 6. The petitioner shall provide approval by the Health Department regarding the location of the existing septic field on the north property that is to remain relative to its potential impact on Lot #15's well and septic field.
- 7. The petitioner should review the landscaping plan to ensure that trees planted will not interfere with septic fields.
- 8. The petitioner shall provide approval by the Road Commission regarding the location of the entrance.
- 9. The petitioner will follow recommendations made by the Township engineer in the letter dated February 25, 2019 and the Brighton Area Fire Authority letter dated March 4, 2019.
- 10. Determination on how refuse will be handled before the petitioner returns for approval of the final site plan.

The motion carried unanimously.

# **8.** Request to enter into a closed session pursuant to state statute MCL. 15.268 (e) for pending litigation regarding Genoa Charter Township vs. Healy Homes.

Moved by Croft and supported by Ledford to move to closed session at 7:05 p.m. to discuss pending litigation. The motion carried by roll call vote as follows: Ledford, Croft, Hunt, Lowe, Mortensen, Skolarus and Rogers. Nays – None. Absent – None.

Move by Ledford and supported by Croft to move to open session at 8:01 p.m. The regular meeting of the Board was opened and adjourned by a motion from Hunt and supported by Croft at 8:02 p.m.

Respectfully submitted,

Paulette A. Skolarus, Clerk Genoa Charter Township Board

### GENOA CHARTER TOWNSHIP PLANNING COMMISSION PUBLIC HEARING MARCH 11, 2019 6:30 P.M. MINUTES

<u>CALL TO ORDER</u>: The meeting of the Genoa Charter Township Planning Commission was called to order at 6:30 p.m. Present were Chairman Doug Brown, Chris Grajek, Jeff Dhaenens, Jill Rickard, Marianne McCreary, and Jim Mortensen. Absent was Eric Rauch. Also present was Kelly VanMarter, Community Development Director/Assistant Township Manager, Brian Borden of Safebuilt Studio, and Gary Markstrom of Tetra Tech. There were twenty seven audience members present.

PLEDGE OF ALLEGIANCE: The pledge of allegiance was recited.

APPROVAL OF AGENDA:

**Moved** by Commissioner McCreary, seconded by Commissioner Grajek, to approve the agenda as presented.

CALL TO THE PUBLIC: The call to the public was made at 6:31 pm with no response.

**OPEN PUBLIC HEARING # 1...** Review of a site plan and impact assessment requesting preliminary site condominium approval for a proposed 19 unit site condominium. The property in question is located on approximately 30.8 acres at 4242 Bauer Road (Parcel #4711-26-200-002) on the west side of Bauer Road, between White Pines Drive and Challis Road. The request is petitioned by John Moretti.

- A. Recommendation Environmental Impact Assessment (1-25-19)
- B. Recommendation of Preliminary Site Condominium Plan (2-20-19)

Mr. John Moretti, Jr., representing his father, John Moretti, and Mr. Philip Rasor, the engineer, were present.

Mr. Rasor showed the proposed site plan, which will include 19 dwellings. They have revised the access drives and provided a fire suppression system that now meets the requirements of the Brighton Area Fire Authority.

If they receive preliminary site plan approval, they will work with the Livingston County Drain Commissioner so they can use Mudd Lake for storm-water runoff and the Livingston County Road Commission for the placement of the private road off of Bauer Road.

Mr. Borden stated that the applicant has addressed all of his concerns. He noted that there are additional items that will need to be submitted when the final site plan is presented for review.

Commissioner Mortensen questioned how the owner, whose home is adjacent to this property but not part of the development, will access his property. Mr. Rasor stated he will obtain an easement granting access to the private road and he will pay his share of the condominium maintenance fees.

Ms. Rickard noted that because the owner's home is located on a large lot, there should be a note in the master deed and bylaws that there may be a time when that property may be divided and developed further and those property owners may need access via the private drive as well.

Mr. Markstrom reviewed his February 25, 2019 letter. He stated that the applicant will address his concerns by working with the Livingston County Health Department, Road Commission, and Drain Commissioner.

Chairman Brown reviewed the Brighton Area Fire Department letter dated March 4, 2019.

- The applicant is proposing three different alternatives for the 12,000-gallon tank under the cul-de-sac island. All three options are acceptable to the fire authority; the applicant needs to commit to one through further research. The Maintenance requirements for the alternative water supply shall be included in the Condominium By-Laws.
- 2. The dimensions of the roadway need to be reflected along the road and not just the construction detail. Each side of the one-way entrance shall be a minimum of 20-feet wide and the roadway a minimum of 26-feet wide. When scaled, neither meet this dimension.

Chairman Brown noted a letter was submitted to the Township this morning from Mr. Krebs of 7917 Goldwin Drive. He is concerned with the site distance of the access drive on Bauer Road. Mr. Rasor reiterated that once they receive preliminary site plan approval, they will work with the Livingston County Road Commission to confirm the site distance is acceptable. If it does not meet their approval, they will relocate the driveway. The call to the public was made at 6:54 pm.

Mr. Todd Krebs of 7917 Goldwin Drive owns the property directly north of this site. He reiterated his concern regarding the site distance of the proposed drive. He is requesting a landscape buffer be placed between his property and the northernmost road of the access drive. He thinks the houses are going to be very nice.

Mr. Bill Rockwell of 4346 Argenta Drive stated that Mudd Lake flows into a stream that runs through his property. He noted that the applicant stated the development will not have a "significant" impact on the flow of Mudd Lake. He wants to make sure that the flow will not increase and possibly wash out the edges of the stream or the trees. He is also concerned that the lawns in this development will be treated with fertilizer and mosquito repellant and that will flow into the lake and then into the stream. He does not want the flow to decrease either.

Mr. Rasor explained their proposal for the storm water control. Most of the drainage on the site currently drains into the lake. He noted that the Drain Commissioner will not approve a proposal that will alter the flow of the stream.

Mr. Richard Kettle of 4384 Argenta Drive would also be impacted by any changes to the stream. Two thirds of his property is a wetland and he wants to make sure that there will not be additional flow, or possible surges caused by heavy rains, due to this development. He is also concerned with the access drive off of Bauer Road. There is a lot of traffic on this road and people drive very fast.

Mr. Brian Dunleavy of 6701 Quaint Ridge Trail questioned if there will be an impact on the aquifer's water table due to the additional homes. Mr. Rasor stated they had four test wells done and it was determined that there is adequate water on this site; however, they are waiting for the final approval from the Livingston County Health Department. Mr. Dunleavy would like a stewardship program in the by-laws to notify homeowners that what they put on their lawns will flow into the lake.

Mr. Don Baker of 6899 White Pines Drive borders the south side of this property. He noted that one of his neighbor's driveway is on the applicants property. Mr. Moretti stated the roadway doesn't enter onto the property but the ROW does. The applicant will be putting a landscape buffer along this ROW to eliminate the homeowner from accessing their property from White Pines Drive.

He asked if the sediment ponds will hold water. Mr. Rasor stated they will hold water during a rain event; however, they are required to be designed to drain within 72 hours.

They are not permanently water filled. Mr. Baker stated there is an economic downturn anticipated in 18 months and he does not want half built houses and piles of dirt on this property in his backyard.

Mr. Steve Tousignant 6712 White Pines stated he agrees with his neighbors. They want to ensure that everything is done correctly. He is also concerned with pulling into and out of the subdivision. He does not want anything that is done on this site to further hinder their site lines exiting off of White Pines Drive. There was a discussion between Mr. Tousignant, the Planning Commission, and Mr. Rasor regarding a possible drop lane into White Pines Drive as well as onto the road entering into the proposed project.

Mr. Kratz questioned if it would be possible to lower the speed limit on Bauer Road. Ms. VanMarter stated it is the Livingston County Road Commission that determines the speed limit.

The call to the public was closed at 7:29 pm.

**Moved** by Commissioner Grajek, seconded by Commissioner Rickard, to recommend to the Township Board approval of the Environmental Impact revised and dated 2/19/19 as presented. **The motion carried unanimously**.

**Moved** by Commissioner Mortensen, seconded by Commissioner Dhaenens, to recommend to the Township Board approval of the Preliminary Site Condominium Plan dated 2/20/19 for 4242 Bauer Road, conditioned upon the following:

- The following documents will be required with a final submittal:
  - Condominium documents (Master Deed and By-Laws);
  - A detailed landscape plan;
  - Building designs/renderings
  - A detail of the residential entrance signage
- With regard to the landscape plan, consideration should be given for a buffer on the drive between the entrance drive and the house immediately to the north of the entrance, which is not part of the condominium
- The Township attorney shall review the condominium documents.
- It is recommended that the condominium by-laws include a caution to the homeowners about the extra sensitivity to environmental factors affecting the drainage into Mudd Lake.
- The applicant shall include language ensuring protection of the wetlands, natural feature setback and undisturbed wooded areas.
- The applicant must provide a Private Road Maintenance Agreement, including the financial and maintenance assurances required by Ordinance and the

agreement will cover the access road fro for the property at the north, which is not part of the condominium development.

- The master deed and/or by-laws should spell out that because of the road easement for the property to the north, future development on that property to the north may occur.
- The petitioner should request review by the Health Department regarding the location of the septic field on the property to the north of the development relative to its location next to Lot #15's well and septic field.
- The petitioner should review the landscaping plan to ensure that trees planted will not interfere with septic fields.
- The petitioner will follow recommendations made by the Township engineer in his letter dated February 25, 2019 and the Brighton Area Fire Authority letter dated March 4, 2019.

### The motion carried unanimously.

Commissioner Dhaenens stated he appreciates the applicant listening to the comments made by the Planning Commission and the consultants and presenting a revised plan that was more fitting.

**OPEN PUBLIC HEARING # 2...** Review of a rezoning application, PUD application, PUD agreement, impact assessment, and conceptual PUD plan for a proposed planned industrial development with a new 67,000 sq. ft. indoor climate controlled storage building. The rezoning requested is from GCD to IND with a Planned Industrial District (PID) overlay located at 2528 Harte Drive, Brighton consisting of 10.62 acres on Parcel #4711-13-300-009. The request is petitioned by James Pappas of Fusco, Shaffer and Pappas, Inc.

- A. Recommendation of Rezoning and PUD Applications GCD to IND (PUD)
- B. Recommendation of PUD Agreement (2-22-19)
- C. Recommendation of Environmental Impact Assessment (January 2019)
- D. Recommendation of Conceptual Site Plan (2-22-19)

Mr. Jim Pappas, the engineer, and Mr. Harte, the property owner, were present. They are proposing to building a climate controlled storage building with a sales office. There will also be a residential unit on the second story of the building for the caretakers of the storage facility. Mr. Pappas showed the site plan, building elevations, and proposed building materials. He reviewed the drainage plan, landscape plan, site access, and the proposed ground sign.

RECEIVED By Amy Ruthig at 12:44 pm, Aug 22, 2019

August 19, 2019

MEGA Project No. 18-025

Ms. Kelly VanMarter, AICP Assistant Township Manager/Community Development Director Genoa Charter Township 2911 Dorr Road Brighton, MI 48116

### RE: Final Site Plan for The Ridge Response Letter a 19 Unit Residential Development on Bauer Road Genoa Township-Parcel No. 4711-26-200-02

Dear Ms. VanMarter:

Monument Engineering Group Associates, Inc. (MEGA) understands there were additional revisions requested by the Township Planning Commission (PC) at the PC meeting on Monday August 12, 2019. We offer the following responses to changes made to the plan set.

- Enclosed is a metes and bounds legal description of parcels 26-200-036 & 037. Both parcels will have an access easement for access off of Mountain Ridge Drive. The Master Deed has been updated to include maintenance of Mountain ridge Drive.
- Due to sight distance requirements the current road alignment (offset in the proposed ROW) is the ONLY location that will meet the Livingston County Road Commission's (LCRC) requirements. This alignment has already been approved and permitted by the LCRC. In as such, an easement for offsite improvements (landscaping, drainage, and mailboxes) has been shown.
- A landscape easement has been provided for lot 9.
- A mailbox bank has been provided near the entrance off the development off of Mountain Ridge Drive. This location provides gentler slope for vehicles to pull off and retrieve mail. This location has been coordinated with the local post office and approved by such.
- The walk on either side of Mountain Ridge Drive has been updated to be concrete.
- The Environmental Impact Assessment (EIA) has been updated with the current development name. Attached herein.
- The landscape plan has been adjusted to locate all proposed trees within the common easement along Bauer Road.
- The size of CB-1 has been coordinated amongst the sheets and shown as a 6' dia. structure.

- The well on lot 1 has been relocated to be outside the infiltration easement.
- The storm sewer has been realigned to be out of the front yards of the lots it crosses. The storm sewer and corresponding easement are mostly outside of the building setbacks of the lots it crosses.
- The culvert for the driveway of lot 3 is called out as being a 24" dia. culvert. The final location and size will be determined when a specific plot plan for this lot is submitted.
- A proposed 12,000-gallon fire protection tank has been shown in the center island of the cul-de-sac in place of the previously proposed well. Details of the tank will be submitted to the township and fire department for approval and permitting.
- The cover for all pipes and structures is sufficient. The previously shown storm sewer design has been reviewed and fully approved and permitted by the Livingston County Drain Commission (LCDC).
- The storm sewer has been realigned to be outside of the 25' wetland setback.
- The onsite road cross section has been updated to meet the Township engineering standards.
- A new soils evaluation has been performed on lot 8. Soils suitable for a traditional on-site disposal system has been found. The plans have been updated accordingly. A letter from the Livingston County Health Department (LCHD) has been provided indicating lot 8 as a buildable lot.
- The master deed has been updated to indicate the following:
  - Water softeners will not be required.
  - Genoa Township ordinances will be applicable.
  - Each lot to pay association dues on a per lot basis.
- Construction plans will be submitted for review and approval along with a \$5,000 escrow fee.

Enclosed please find \_\_revised plan sets for review and approval.

Sincerely,

Monument Engineering Group Associates, Inc.

Allan W Pruss, PE, PS President September 5, 2019

Planning Commission Genoa Township 2911 Dorr Road Brighton, Michigan 48116

Attention:	Kelly Van Marter, AICP
	Planning Director and Assistant Township Manager
Subject:	The Ridge (formerly Moretti Estates) – Final Condominium Plan Review #3
Location:	4242 Bauer Road – west side of Bauer Road, between Brighton and Challis Roads
Zoning:	LDR Low Density Residential District

Dear Commissioners:

At the Township's request, we have reviewed the revised final condominium plan submittal (plans dated 8/21/19) for The Ridge, a 30.8-acre site on the west side of Bauer Road. The applicant proposes a 19-unit residential development with minimum 1-acre lots along a new private road.

We have reviewed the proposal in accordance with the applicable provisions of the Genoa Township Zoning Ordinance.

### A. SUMMARY

- 1. The landscape plan must be amended to incorporate the mailbox cluster/drive.
- 2. A landscape easement must be obtained from the adjacent property owner to the north.
- 3. Road Commission approval must be obtained for the 6 trees depicted in the Bauer Road right-of-way.
- 4. The revised submittal still does not include details of the residential entrance signage/decorative wall, though walls are not permitted.
- 5. The applicant must obtain a sign permit prior to installation of any signage.
- 6. The applicant must ensure that the entrance easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.
- 7. The Township may wish to request a more formal approval letter for the mailbox cluster.
- 8. The applicant must address any comments provided by the Township Engineer and/or Brighton Area Fire Authority.

### B. PROPOSAL/PROCESS

The applicant proposes a 19-unit site condominium development along a new private road. The project includes lots that meet or exceed the minimum dimensional standards of the LDR District (1-acre lot area and 150 feet of lot width).

Section 12.07 requires both preliminary and final approval for condominium plans. Procedurally, both reviews go through the Planning Commission for a recommendation to the Township Board, who has final approval authority.

A final condominium plan was presented to the Commission at their August 12, 2019 meeting. Following discussion, the plan was tabled so the applicant could address several issues, including easements, mailbox cluster location, storm sewer location and the buildability of proposed Unit 8.

The current plan was prepared in response to the Commission's tabling.



Aerial view of site and surroundings (looking north)

### C. CONDOMINIUM PLAN REVIEW

1. Outside Agencies. The materials included with the previous submittal indicated that outside agency approvals have been obtained from the Livingston County Road Commission, Drain Commissioner and Health Department. However, a condition of the Health Department approval was that Unit 8 was deemed unbuildable (at that time) due to soil conditions.

The revised submittal includes a new report from the Health Department indicating that additional soil evaluations were conducted, and that Lot 8 is no longer deemed unbuildable.

- 2. Condominium Documents. The cover letter included with the revised submittal indicates that the condominium documents were updated to include comments previously provided by the Township Attorney.
- **3. Dimensional Requirements.** The final condominium plan matches the approved preliminary plan with respect to density, dimensions and lot layout.
- 4. **Private Road/Shared Residential Driveways.** The final condominium plan matches the approved preliminary plan with respect to the private roadway and the two shared driveway extensions.

As required by Ordinance, the master deed includes a Private Road Maintenance Agreement demonstrating that necessary financial and maintenance assurances are provided.

The revised submittal also includes an updated roadway cross section (Sheet C-10.0), per comments provided by the Township Engineer.

**5.** Landscaping. The current submittal includes a revised landscape plan. Similar to the previous submittal, the plan depicts tree, shrub and decorative plantings throughout the site, including at the entranceway, along the private road and along both Bauer Road and White Pines Drive.

However, the revised plan does not incorporate the mailbox cluster now proposed along the north side of the private road. The presence of the mailbox will impact the landscaping depicted.

Additionally, some of the plantings proposed are not within the roadway easement. This includes encroachment onto Lot 9, as well as the adjacent residential property to the north. Easements are proposed in both instances; however, failure to obtain an easement from the adjacent resident will also impact the landscape plan.

The landscape plan must be amended to reflect the changes made to the site condominium plan and an easement must be obtained from the adjacent property owner.

Lastly, Road Commission approval must be obtained for the 6 trees depicted in the Bauer Road rightof-way.

- 6. **Buildings.** As previously discussed, the condominium documents include architectural controls and requirements (Section 11.1 of the Master Deed), though sample elevation drawings have not been provided.
- 7. Entrance Features. The landscape plan identifies a proposed entrance wall on each side of the driveway accessing Bauer Road and notes that signage is included; however, the revised plan still does not provide details. Furthermore, the walls are not allowed by Ordinance.

The applicant should be aware that 1 residential entry sign per driveway is allowed. Such signs are limited to 6 feet in height and 36 square feet in area. A sign permit must also be obtained from the Township prior to installation.

8. Mailboxes. The revised submittal includes a mailbox cluster along the north side of the private road, within the entrance easement for Parcels B and C. The design includes room for 1 vehicle to pull off the road, so as to not disrupt traffic. The applicant must ensure that the easement language incorporates a provision for the mailbox cluster/drive, as well as its maintenance.

A separate mark-up of the plan indicates that this location was approved by the Brighton Postmaster. The Township may wish to request a more formal approval letter.

- **9.** Grading, Drainage, and Utilities. We defer to the Township Engineer for review and comment on the site engineering elements of the proposal.
- **10. Impact Assessment.** The revised submittal includes a revised Impact Assessment (dated June 13, 2019). The Assessment is now consistent in terms of the development name (The Ridge as opposed to Moretti Estates).

Should you have any questions concerning this matter, please do not hesitate to contact our office. I can be reached by phone at (248) 586-0505, or via e-mail at <u>bborden@safebuilt.com</u>.

Respectfully, SAFEBUILT STUDIO

Brian V. Borden, AICP Planning Manager

August 26, 2019

Ms. Kelly Van Marter Genoa Township 2911 Dorr Road Brighton, MI 48116

### Re: The Ridge (Formerly Moretti Estates) Final Site Plan Review No. 3

Dear Ms. Van Marter:

Tetra Tech conducted a third site plan review of the Ridge Site Condominium (formally Moretti Estates) final plans last dated August 21, 2019. The plans were submitted by Monument Engineering Group Associates, Inc. on behalf of John Moretti. The development includes 30.84 acres located on the west side of Bauer Road, 1,500 feet south of Challis Road. The petitioner is proposing to develop 19 lots as a site condominium with a private road.

The site plan dated August 21, 2019 addressed all comments from our letter dated August 5, 2019. We have no further engineering related concerns for the proposed site plan. The applicant should confirm that approval letters from the LCHD, LCDC, and LCRC are submitted and on file with the Township.

The next review will be of the private road construction plans once the applicant receives final site plan approval. The provided site plan notes that further detail is forthcoming for the proposed fire protection tank in the cul-desac. Those details should be provided along with the private road construction plans for review and approval.

Please call or email if you have any questions.

Sincerely,

Gary J. Markstrom, P.E. Vice President

helby Schordt

Shelby Scherdt Project Engineer

**BRIGHTON AREA FIRE AUTHORITY** 



615 W. Grand River Ave. Brighton, MI 48116 o: 810-229-6640 f: 810-229-1619

August 29, 2019

Kelly VanMarter Genoa Township 2911 Dorr Road Brighton, MI 48116

RE: The Ridge Site Condominiums A.K.A. Moretti Estates 4242 Bauer Road Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Department has reviewed the above-mentioned site plan. The plans were received for review on August 22, 2019, and the latest revised drawings are dated August 21, 2019. The project is based on an existing 40.042 acre parcel to be subdivided into a 20-lot site condo development (19 new homes).

The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

The developer has agreed to replace the proposed fire protection well with a 12,000-gallon underground storage tank equipped with adapters for the fire department to draft water from. Location of underground storage tank has been identified on sheet C-1.0. Further submittals for tank specifications have been submitted separately.

Additional comments will be given during the building plan review process (specific to the building plans and occupancy). The applicant is reminded that the fire authority must review the fire protection systems submittals (sprinkler & alarm) prior to permit issuance by the Building Department and that the authority will also review the building plans for life safety requirements in conjunction with the Building Department. If you have any questions about the comments on this plan review please contact me at 810-229-6640.

Cordially,

Derrick Bunge Captain Fire Inspector



### Livingston County Health Department

Environmental Health Division 2300 E. Grand River - Suite 200 - Howell, MI 48843

Fax (517) 546-9853 - Phone (517) 546-9858 www.lchd.org

Soils Evaluation For Sub-Surface Sewage Disposal System

PSEV2019-00296 Case No.

> 11-26-200-002 Current Desc. #

Genoa Township Township

Location: BAUER RDLot:Subdivision:Acerage: 1.636Parcel: 8ApplicantOwnerMORETTI JOHNMORETTI JOHN4242 BAUER RD4242 BAUER RDBRIGHTON MI 48116BRIGHTON MI 48116(810) 217 4581(810) 217 4581

### **Soil Description**

Boring #	Soil Type	Soil Desc	Beg Depth	End Depth	SWT Depth	WT Depth
01	Clay Loam	Topsoil	0.00	0.50	None	None
01	Clay Loam		0.50	6.00	None	None
01	Medium Sand	Dry	6.00	10.00	None	None
02	Sandy Clay Loam	Topsoil	0.00	0.50	None	None
02	Sandy Clay Loam		0.50	3.00	None	None
02	Fine Sand		3.00	7.00	None	None
02	Medium Sand	Dry	7.00	11.00	None	None
	01 01 01 02 02 02 02	01Clay Loam01Clay Loam01Medium Sand02Sandy Clay Loam02Sandy Clay Loam02Fine Sand	01Clay LoamTopsoil01Clay Loam0101Medium SandDry02Sandy Clay LoamTopsoil02Sandy Clay Loam0202Fine Sand	01Clay LoamTopsoil0.0001Clay Loam0.5001Medium SandDry6.0002Sandy Clay LoamTopsoil0.0002Sandy Clay Loam0.5002Fine Sand3.00	01         Clay Loam         Topsoil         0.00         0.50           01         Clay Loam         0.50         6.00           01         Medium Sand         Dry         6.00         10.00           02         Sandy Clay Loam         Topsoil         0.00         0.50           02         Sandy Clay Loam         Topsoil         0.00         0.50           02         Sandy Clay Loam         Topsoil         0.50         3.00           02         Fine Sand         3.00         7.00	01Clay LoamTopsoil0.000.50None01Clay Loam0.506.00None01Medium SandDry6.0010.00None02Sandy Clay LoamTopsoil0.000.50None02Sandy Clay LoamTopsoil0.503.00None02Fine Sand3.007.00None

#### Within 800 of a potential or known source of contamination: No

### Suitable with Special Restrictions

Alternative Review: No

Oversize: No

### Conditions:

Soil evaluation for Lot # 8 at "The Ridge" Site Condominium.

Locate the system in the exact area of the approved soil borings # 1 & # 2.

100% cutdown to sand at +/- 6 ft., then backfill with a clean sharp sand, then lay stone and tile. Max. cover 24", Min. cover 12".

\*\*Note: Maintain enough area for a future replacement septic area.

Install a septic tank filter on the outlet end of the septic tank.

Aaron Aumock Environmental Health Representative

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

1/3

This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewaggedisposal sytem will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.

	1	R
1		
1	2	

### Livingston County Health Department

PSEV2019-00296 Case No.

Environmental Health Division 2300 E. Grand River - Suite 200 - Howell, MI 48843

Fax (517) 546-9853 - Phone (517) 546-9858

11-26-200-002 Current Desc. #

www.lchd.org Soils Evaluation For Sub-Surface Sewage Disposal System Genoa Township Township

Location: BAUER RD Lot: Subdivision: Acerage: 1.636 Parcel: 8

A soil evaluation is conducted by the Environmental Health Division of the Livingston County Health Department to determine the suitability of utilizing onsite subsurface sewage treatment for a particular parcel of property. Comments might be made regarding the utilization of an onsite water well supply based on historical information in the general area, but in no instance can the information on this evaluation be specific for any particular parcel. We advise any prospective buyer to contact a licensed well driller, familiar with the area, for more specific information on water quality, yield, depth of wells, etc. The following discussion describes those factors which are evaluated during a soil evaluation and their effect on the operation of subsurface sewage treatment systems.

1. Soil type and permeability is a quality of a soil that enables it to transmit water or air. Slow permeable soils, such as clays and silts, are not suitable for utilizing onsite subsurface sewage treatment. Wetland soils such as muck and marl are poorly drained and therefore unsuitable for subsurface sewage treatment.

2. Highest known groundwater evaluation is an important consideration in determining if a site is suitable for the utilization of subsurface sewage treatment. In addition to the problems associated with saturated conditions, bacteria and viruses can survive if allowed to move in a water medium. Groundwater is our drinking water and must be protected from contamination by maintaining adequate isolation distances. Where the highest zone of groundwater saturation is less than 24 inches below the original ground surface the site will be considered unsuitable.

- 3. Deep excavations or cut-down systems can only be accepted under the following conditions:
- a. Adequate and suitable material is within 20 ft. of the original grade.
- b. The soils encountered shall not be saturated.
- c. The drinking water aquifer will not become contaminated as a result of the wastewater discharge.
- 4. Other considerations evaluated during a soils evaluation include but are not limited to:
- a. Adequate suitable area for a replacement system.
- b. Isolation distances to water well supplies, surface waters, severe slopes, and property lines.
- c. If the site is subject to flooding.

A determination of "suitable" soils does not guarantee that this property will be approved for development. It is the responsibility of the owner/purchaser to perform their due diligence with respect to other local, county, state, or federal requirements and/or restrictions that may impact the development potential of this property. These requirements and/or restrictions may void or restrict this soil evaluation.

This soil evaluation is valid for a specific building site. Any change in the legal description or a division of the original parcel into smaller parcels may void the original soils evaluation. A suitable soils evaluation does not necessarily mean that a permit to construct a subsurface sewage treatment system will automatically be issued. Some factors that might change the rating for permit approval include:

a. Revisions to the current Sanitary Code Requirements for Permit Approval. This soils evaluation was conducted under the criteria for Permit Approval stated in the Livingston County Sanitary Code effective April 1, 2009.

b. Grading, filling or excavation on the parcel.

c. Construction on neighboring properties where location of water wells and/or sewage treatment systems encroach on required isolation distances.

d. A soils evaluation for commercial property is only valid if specific wastewater flow is stated.

e. Should some other condition of the property become known after the date of this soil evaluation that could impact the feasibility of development, or impact the quality of drinking water due to the discovery of a previously unknown source of contamination, the potential development of the property could be impacted. These discoveries may void or restrict this soil evaluation.

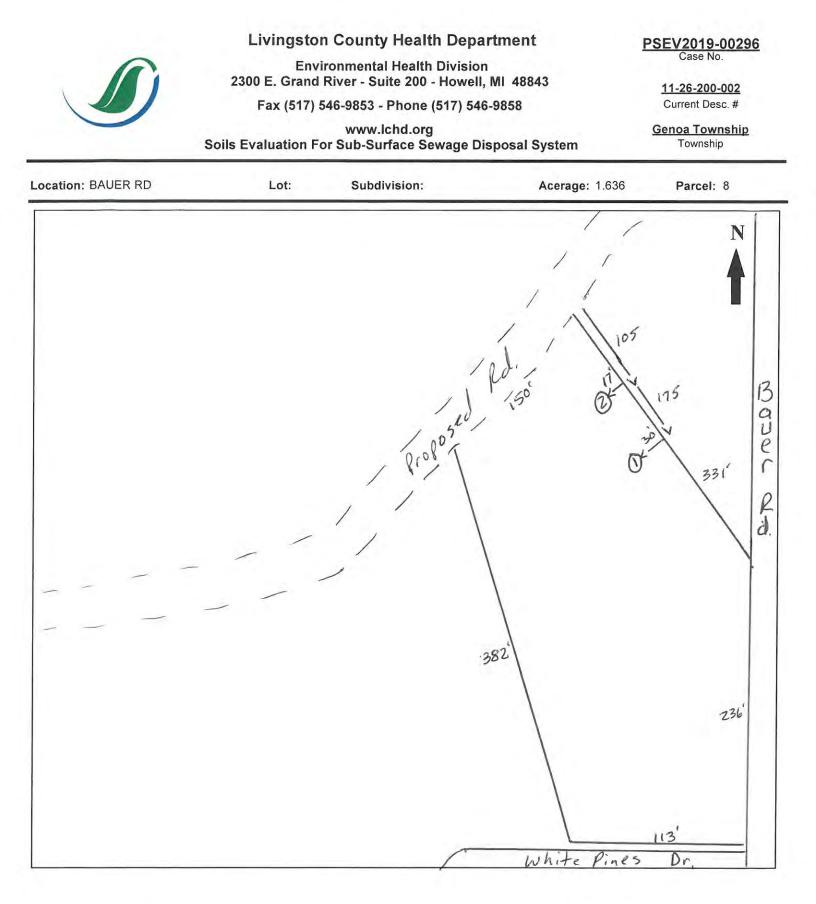
SWT - Seasonal Water Table	LEGEND - Soil Description			
GW - Ground Water	MOT GRE	Mottled Grev	SAT	Saturated Light
WT - Water Table	HEA	Heavy	DRY	Dry
	WET	Wet		

<u>Aaron Aumock</u> Environmental Health Representative 08/15/2019 Date

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

2/3

This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewageodisposal sytem will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.



<u>Aaron Aumock</u> Environmental Health Representative 08/15/2019 Date

3/3

Soils Evaluation based on criteria stated in Livingston County Sanitary Code, effective January 4th, 1993.

This is NOT a permit. A suitable soils rating is NOT a guarantee that a permit to construct an on-site subsurface sewagerdisposal sytem will be granted. Changing conditions that might result in a permit denial are explained in more detail on the reverse side.

### LIVINGSTON COUNTY HEALTH DEPARTMENT

2300 East Grand River Avenue, Suite 102 Howell, Michigan 48843-7578 (517) 546-9850 <u>www.lchd.org</u>

PERSONAL/PREVENTIVE HEALTH SERVICES P: (517) 546-9850 F: (517) 546-6995 ENVIRONMENTAL HEALTH SERVICES P: (517) 546-9858 F: (517) 546-9853

August 1, 2019

Monument Engineering Group Associates, Inc. Attn.: Allan W. Pruss, P.E 298 Veterans Drive Fowlerville, MI 48836

RE: Preliminary Approval for "The Ridge" Site Condominium Community located in Section 26, Genoa Township, Livingston County, Michigan.

Dear Mr. Pruss:

In accordance with Section 71A of Act 59, P.A. 1978 as amended, and the Environmental Health Division of the Livingston County Health Department (LCHD) has reviewed the information submitted for onsite sewage treatment and onsite water supply for the above mentioned site condominium and is granting preliminary Health Department approval in accordance with the restrictions included in this letter.

The proposed "The Ridge" Site Condominium consists of 19 single-family units with a minimum size of 43,560 sq. ft. per unit. There is no availability to sanitary waste disposal or community water supply system proposed at this time and none in the foreseeable future. Therefore, each unit will be entirely dependent upon individual onsite water and sewage treatment for long-term use. At the time of this letter, unit # 8 does not have a suitable soil evaluation and is therefore considered unbuildable at this point in time.

The site report and soil data has been submitted, reviewed, and soil conditions confirmed on site. The soil conditions encountered were predominantly sandy clay loam to coarse sand soil conditions, which is acceptable for the disposal of onsite wastewater.

Monument Engineering Group Associates, Inc. have provided the water supply information to us with an assessment of the aquifer proposed to serve the individual wells. As indicated in their report, a total of 3 test wells were drilled on proposed units 8 and 11 and 1 located on parcel # 47-11-26-200-037.

Based on information obtained on the test well records along with neighboring well logs, the wells will most likely be completed at depths ranging between 114 and 138 ft. in strata identified as gray sand. Therefore, the wells within this development shall be drilled to a depth that will penetrate a minimum of 10 ft. thick impervious layer if possible and the well shall be drilled to a depth that will maintain a minimum of 50 ft. from the static water level to the bottom of the casing or top of the screen in an unconfined aquifer.

In addition, water samples have been received from the test wells indicating no coliform bacteria present and nitrates were well below the acceptable State limits. Water analysis revealed objectionable manganese, iron and hardness results and serious consideration should be given to installing a filtering and/or water softener system.

Therefore, pursuant to Section 71A of Act 59 of P.A. 1978, as amended, the proposed "The Ridge" Site Condominium located in Section 26, Genoa Township is granted preliminary approval by this Department contingent upon the following restrictions:

### \* Represents all issues that shall be submitted prior to final master deed approval.

- 1. No unit shall be used for other than a single-family dwelling.
- 2. There shall be no future subdividing of any building units, which would utilize individual onsite sewage treatment and/or water supply systems.
- "The Ridge" Site Condominium has been approved for 19 individual units as described in Monument Engineering Group Associates, Inc., Project # 18-025 site plan dated January 2, 2019, last revision dated July 22, 2019.
- 4. The wells and septic systems shall be located in the exact area as indicated on the preliminary site plan. There shall be no deviations to these locations due to the potential of making neighboring building sites within this development un-buildable. In the future and ensuring the approvals included in this letter; if for any reason modifications to the originally approved septic areas are considered necessary a written request along with an application for soil evaluation and the associated fees shall be submitted to LCHD for review and approvals.
- 5. All wells shall be drilled by a Michigan licensed well driller and be drilled to a depth that will penetrate a minimum of a 10 ft. impervious clay layer and/or shall maintain a minimum of 50 ft. from the static water level to the bottom of the casing or top of the screen in an unconfined formation.
- 6. The water softener and/or water conditioning discharge waters shall not be connected or discharged into the onsite sewage treatment system.
- The test wells used to determine onsite water supply adequacy have been drilled on Units 8 & 11 and 1 located on parcel # 47-11-26-200-037. Prior to Final Master Deed

<u>Approval</u>, any test well not to be used, as the potable water supply system shall be properly abandoned in according to Part 127, Act 368 of the Groundwater Quality Control Act.

- 8. Due to the geology encountered onsite, there does not appear to be sufficient clay to protect the underlying unconsolidated aquifer. Therefore, all wells shall maintain a minimum setback of 75 ft. to all onsite sewage treatment systems.
- 9. The individual unit owners shall be responsible for the maintenance and repair of their individual potable water supply and onsite sewage treatment systems.
- 10. The reserve septic locations as designated on the preliminary plan on file at the Livingston County Health Department must be maintained vacant and accessible for future sewage treatment uses.
- 11. There shall be no underground utility lines located within the areas designated as active and reserve sewage treatment system areas.
- 12. Unit 8 does not have a suitable soil evaluation and therefore is considered unbuildable until demonstrated otherwise.
- 13. The onsite sewage treatment systems for Units 6, 7, 9, 10, 12 16, & 18 will require the excavation of slow permeable soils to a more permeable soil ranging between 3.5 to 10 ft. in depth. Due to the fact that unsuitable soils will be excavated in the area and replaced with clean, sharp sand, the cost of the system may be higher than a conventional sewage treatment system.
- 14. Units 3 & 4 will require the bottom of the stone bed to be no deeper than the highest original grade.
- 15. Units 1, 3, 4, 13, & 17 will require an enlarged onsite sewage treatment system due to the heavy soil structure witnessed on these units. Please refer to the soil conditions on file at LCHD.
- 16. The engineer must give written certification that any additional grades, filling and/or land balancing that has taken place, as part of the construction of the development has not affected the placement for either the active or reserve sewage treatment systems. This certification must be given stating that there have been no changes on any units affected **prior to master deed approval**.
- 17. <u>Prior to master deed approval</u>, written engineer certification must be given which indicates that all storm drains which are within 50 ft. (greater than 25 ft.) to the proposed active or reserve sewage treatment areas have been sealed with a watertight premium joint material. All onsite sewage treatment systems shall maintain no less than 50 ft. from any detention/retention pond

- 18. A 1400 sq. ft. area has been designated on each unit for the active and reserve sewage treatment systems to accommodate a typical three bedroom single family home. Proposed homes exceeding three bedrooms must show that sufficient area exists for both the active and reserve sewage treatment systems, which meet all acceptable isolation distances.
- 19. There shall be no activity within the regulated wetlands unless permits have been obtained from the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- 20. All restrictions placed on "The Ridge" Site Condominium by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department.

All deed restrictions along with a copy of the Final Master Deed and Bylaws shall be submitted to the Livingston County Health Department for review and approval prior to being submitted to the Livingston County Register of Deed.

All restrictions established by the Livingston County Health Department must be incorporated into the Deeds for recording. <u>Any changes within this development from what has been</u> reviewed by the Livingston County Health Department will make this approval null and void.

If you have any further questions, please do not hesitate to contact me at (517) 552-6873.

Sincerely,

Aaron Aumock, REHS, PEM Field Program Coordinator

cc: EGLE, Attn.: Dale Ladouceur Genoa Township Zoning Genoa Township Engineer Developer, John Moretti From: Ken Recker [mailto:KRecker@livgov.com]
Sent: Wednesday, July 31, 2019 4:58 PM
To: Kelly VanMarter
Cc: johnm@mrmconstruction.com; 'John Moretti'; Al Pruss; pjlewsley@envengrs.com; Robert Quigley; Shelly Messing; Gary.Markstrom@tetratech.com
Subject: RE: 18-025 The Ridge

Kelly,

We have reviewed revised plans submitted by MEGA with a revision date of July 22, 2019, received July 25, 2019.

The plans address our previous review comments, as outlined in a letter from our consultant dated July 23, 2019.

We hereby grant approval of the construction plans for The Ridge Site Condominium. As mentioned previously, an agreement adding the lands in this development to the Brighton Estates Drainage District will be required prior to the sale of lots within the condominium.

If you have any questions regarding this email please give me a call.

Sincerely,

Kenneth E. Recker, II, P.E. Chief Deputy Drain Commissioner

From: Al Pruss [mailto:apruss@monumentengineering.com]
Sent: Tuesday, July 23, 2019 2:22 PM
To: pjlewsley@envengrs.com; Ken Recker <KRecker@livgov.com>
Cc: johnm@mrmconstruction.com; 'John Moretti' <mrmconstruction2244@yahoo.com>
Subject: [EXT] RE: 18-025 The Ridge

"The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin."

Ken

Any chance of getting an approval for storm water and soil erosion on this ?

We'll address the changes asap.

Thanks

Allan W Pruss, PE, PS President Monument Engineering Group Associates, Inc. (MEGA) A Service Disabled Veteran Owned Small Business (SDVOSB) 298 Veterans Drive

### Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628 Internet Address: www.livingstonroads.org

June 24, 2019

Allan Pruss, P.E. Monument Engineering Group Associates 298 Veterans Drive Fowlerville, MI 48836

Re: Mountain Ridge Drive, The Ridge Site Condominium, Genoa Township, Section 26 LCRC# P-19-04

Dear Mr. Pruss:

I have completed the review of the revised plans, dated June 21, 2019, for the abovereferenced project and have determined the plans to be in substantial compliance with our specifications.

The following road names have been reserved for this development:

- Mountain Ridge Drive
- Ridge Lake Court

Private road approach permits are valid for a six (6) month period. Please contact me when you are ready for the permit to be issued and allow for a minimum of two (2) business days for preparing the permit for signatures.

If you have any questions, please do not hesitate to contact me.

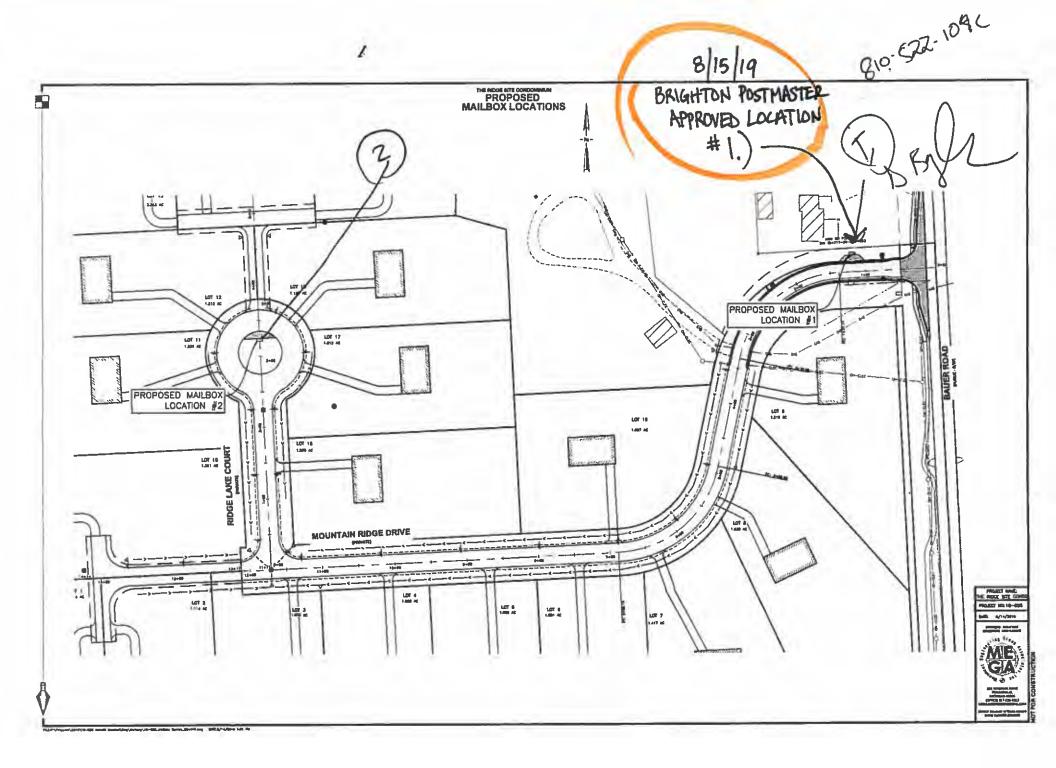
Sincerely,

Kun Hiller

Kim Hiller, P.E. Utilities and Permits Engineer

Cc: File

Amy Ruthig, Genoa Township (via email) Ken Recker, Livingston County Drain Commissioner's office (via email) John Moretti, Proprietor (via email)



## IMPACT ASSESSMENT FOR THE RIDGE SITE CONDOMINIUM GENOA CHARTER TOWNSHIP LIVINGSTON COUNTY, MICHIGAN

PREPARED BY

MONUMENT ENGIENERING GROUP ASSOCIATES, INC. 298 VETERANS DRIVE FOWLERVILLE, MI 48836 517-223-3512

> December 18, 2018 Revised January 25, 2019 Revised February 19, 2019 Revised June 13, 2019

Revised 8/14/19





In accordance with Genoa Charter Township Ordinance Section 18.07, this Impact Assessment has been prepared to assist the Township in their review of the Site Plan for this Project. This report will detail the required information and give a project overview of the development demonstrating its compliance with current Township regulations.

### **1. PARTY RESPONSIBLE FOR PREPARATION OF IMPACT STATEMENT:**

Prepared for John Moretti:

Moretti Construction Services 2244 Euler Road, Suite 102 Brighton, MI 48114 810-217-4581

Prepared by:

Monument Engineering Group Associates, Inc. 298 Veterans Drive Fowlerville, MI 48836 517-223-3512

Monument Engineering Groups Associates, Inc. (MEGA), has prepared this impact assessment. MEGA is a professional consulting services corporation offering land surveying, civil engineering, and site planning services throughout the State of Michigan and the mid-west. We are licensed to provide engineering and surveying services in Michigan, as well as in Ohio, Indiana, Pennsylvania, Florida and Virginia. We have been providing these services for nearly 40 years to both public and private sector clients.

### 2. PROJECT SITE LOCATION:

The subject site contains approximately 30.842 acres for The Ridge Site Condominium (The Ridge). The original single Parcel 4711-26-200-002 contains approximately 40.04 acres of land which will now be split into two parcels, the larger one for The Ridge and the other retained by the current owner. The original parcel that contains The Ridge site is in the S <sup>1</sup>/<sub>2</sub> of the NE <sup>1</sup>/<sub>4</sub> of Section 26, T2N-R5 of Genoa Chartered Township, Livingston County, Michigan. This parcel is located along the western side of Bauer Road between the intersections of Bauer Road with Brighton Road to the south, and Bauer Road and Challis Road to the north. To the north of this parcel, it is bordered by Mudd Lake and Parcel 4711-26-200-005, owned by the Livingston County Road Commission (LCRC) and Parcel 4711-26-200-012 a private residence. Along its eastern edge, it is predominantly bordered by Bauer Road and its right-of-way, again owned by LCRC and a private residence Parcel 4711-26-200-003. To the south and west, the subject site is bounded by Brighton Estates Subdivision, a platted subdivision.

Currently, the site is zoned as LDR (low density residential) and is immediately surrounded by LDR on the north, south and western boundaries. Across Bauer Road, a PRF zoning for Mt. Brighton Skiing Facility is present (PRF is public and recreational facilities). No change in zoning is required for this development.

Included in Exhibit A is a location map, Exhibit B is an aerial photograph, and Exhibit C is the Genoa Charter Township's current Zoning Map for this area. Exhibit D is the Soil Map for the area and Exhibit E is the Existing Drainage Characteristics Map. The final exhibit, Exhibit F, is the delineated Wetland's map for the site's area.

### 3. PROJECT IMPACT on NATURAL FEATURES:

The proposed site is 30.846 acres of mostly wooded land with about 25% of the land open grasslands. Bounded on the north by Mudd Lake, the east by Bauer Road and to the south and west by the existing Brighton Estates Subdivision, the developer is endeavoring to maintain as much natural vegetation and trees as possible. The regulated wetland along the shoreline of Mudd Lake (identified as Wetland A) will be maintained and not encroached upon, and the larger unregulated wetland (Wetland B) is no longer part of the subject parcel for The Ridge. Wetland C, upland, will be filled-in as part of this project and a permit is in process with MDEQ to allow for this construction. The developer is currently in process with obtaining the necessary permits and concurrence from both the Livingston County Drain Commissioner (LCDC) and MDEQ for these activities.

Soils on the site consist primarily of Fox Sandy Loam and Fox-Boyer Complex Loams. These are best described as very deep, well drained soils. A soil map is included as Exhibit D.

As illustrated in Exhibit E, the site tends to drain towards the north to Mudd Lake with only the southwestern corner of the parcel draining towards Brighton Estates Subdivision. Storm water from the roadway system and some areas will be collected and directed to on-site sedimentation forebays, with an outlet structure that conveys this water to Mudd Lake. As was noted earlier in this document, the proposed method for both water quality and detention is to use the sedimentation forebay and the lake as the detention basin. To this end, the Developer is working with both MDEQ and LCDC to accomplish this proposed method of treatment.

Landscape treatments will be utilized along the entrance to the site from Bauer Road and canopy trees will be provided to the individual lots that are not currently wooded themselves. In general, the developer intends to preserve much of the existing woodlands and the natural wetland features on the site. These will be used to enhance the natural aesthetic component of the proposed development.



### 4. PROJECT STORM WATER MANAGEMENT IMPACTS:

To effectively manage the proposed change to the stormwater pattern currently encountered on the site, the Developer is working with the Livingston County Drain Commissioner's (LCDC) Office to maintain the natural look and feel for this site. The site will be developed in accordance with the LCDC requirements for storm water management. All storm water will be conveyed either via roadside ditches or underground storm sewer. Water will flow into a sedimentation basin and overflow into a detention basin. The detention basin will discharge at the agriculture rate into Mudd Lake.

While the site is under construction, soil erosion and dust control measures will be implemented, and Best Management Practices followed. For dust control, water tankers will maintain the optimum moisture content of the soil to prevent dust from occurring to the greatest extent possible. For erosion control, silt fencing, check dams and inlet filter mechanisms will be installed and utilized during this time. Permanent restoration including top soiling and seeding with mulching and watering will occur after all mass grading and earthmoving activities are substantially complete.

For the Final Site Plan Submission, the Developer will also be securing LCDC's Soil Erosion and Sedimentation Control Permit to be in place prior to the start of any construction activities.

### 5. PROJECT IMPACT ON SURROUNDING LAND USES:

The development is in conformance with the future land use map and current zoning established for this portion of the township. The area is currently zoned for LDR and the proposed development meets this criterion with all lots exceeding 1.0 acre in area and minimum of 150 feet in width of the lot.

Access to this site has now been revised to allow use of the private roadway for residents and guests from Bauer Road on the eastern side of the property with the western side access via Brighton Estates' Quaint Ridge Trail's cul-de-sac. Access will be controlled by vehicle activated gates, egress will always be available to any The Ridge resident or visitor without need for access code or key card.

Noise Levels are expected to be typical of a single-family residential community and within Genoa Township Standards. No site lighting is proposed for this development.



### 6. PROJECT IMPACT ON PUBLIC FACILITIES and SERVICES:

The development proposes 19 single family residential lots after approval of the site plan. The addition of 19 new single-family homes is likely to have a mix of buyers due to the Developer's more upscale approach to managing the existing site and retaining woodlands and other natural features. Consequently, the anticipated mix will include empty nesters and those with no children in addition to families with children. The overall impact to public facilities, schools, police and fire service is expected to be minimal.

### 7. PROJECT IMPACT ON PUBLIC UTILITIES:

The development proposes all lots will be serviced by well and septic field systems. Soil Investigations for suitability of septic systems were performed in August of 2018 under the supervision of the Livingston County Health Department personnel and 3 test wells as required by LCHD standards were also drilled and tested. Final approval from the LCHD is anticipated soon for the use of well and septic within this development. Electric, Telephone and Natural Gas Services will be extended underground to the site from Bauer Road and provided for all lots within the development.

### 8. STORAGE and HANDLING of HAZARDOUS MATERIALS:

The storage and handling of hazardous materials within the site is not anticipated and will be noted as not permitted in the condominium documents for the development.

### 9. PROJECT IMPACT ON TRAFFIC:

The development proposed for The Ridge is to accommodate 19 lots in place of the current 1 large parcel with 1 residence. Bauer Road is an existing two (2) lane cross section with a north bound and a south bound lane. Using ITE Trip Generation Manual, 7th ed. for Single Family Detached Housing based on the number of proposed dwelling units, the calculated trip generation using the average rate for A.M. and P.M. peak hours of traffic is calculated herein:

### A.M. Peak Hour:

0.70 x (19 residences) + 12.05 = 25.35 trips Exiting is 74% so (.74 x 25.35) = 18.76 directional trips

### P.M. Peak Hour:

Ln(T)=0.89 x Ln (19 residences) + 0.61 = 3.23 e^ (3.32) = 25.27 trips x 64% (entering) = 16.17 directional trips

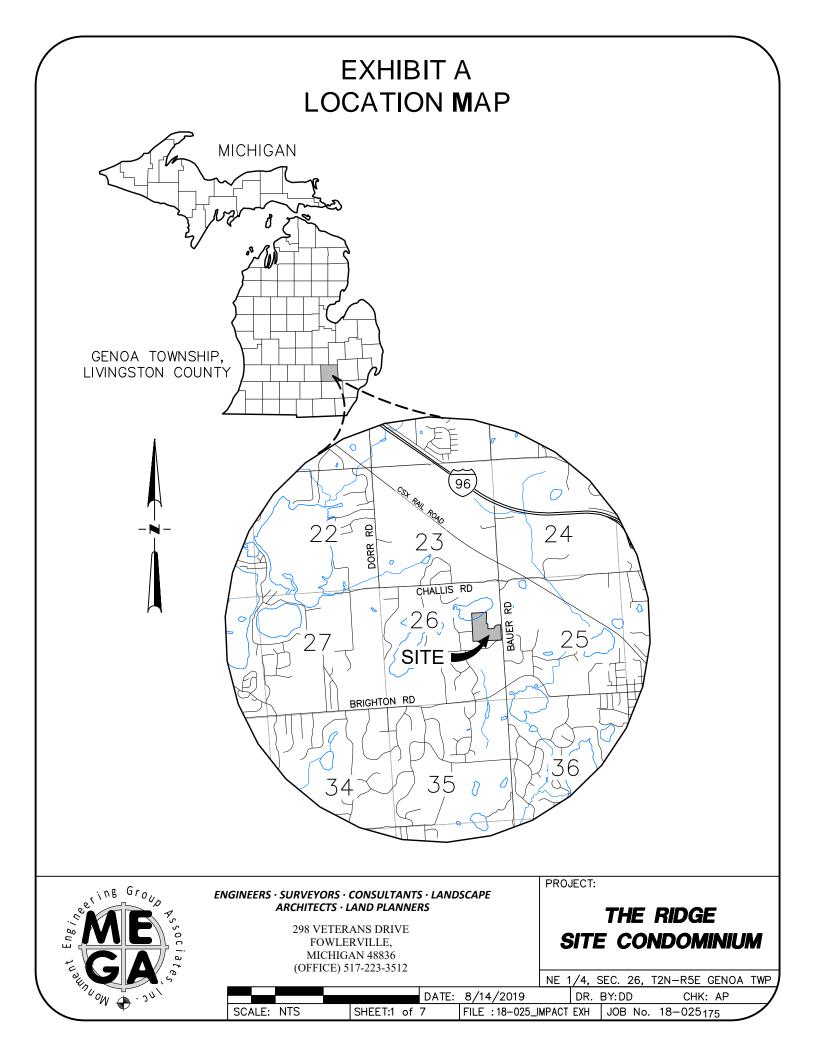
As shown from the above calculations, under fully developed conditions, this site will generate less than 20 directional trips in both A.M. and P.M. Peak Hours of Traffic. Reviewing the Township Zoning requirements of 18.07.09 with less than 50 directional trips during peak hour, no Traffic Impact Study is required.

### 10. PROJECT IMPACT ON HISTORICAL and CULTURAL RESOURCES:

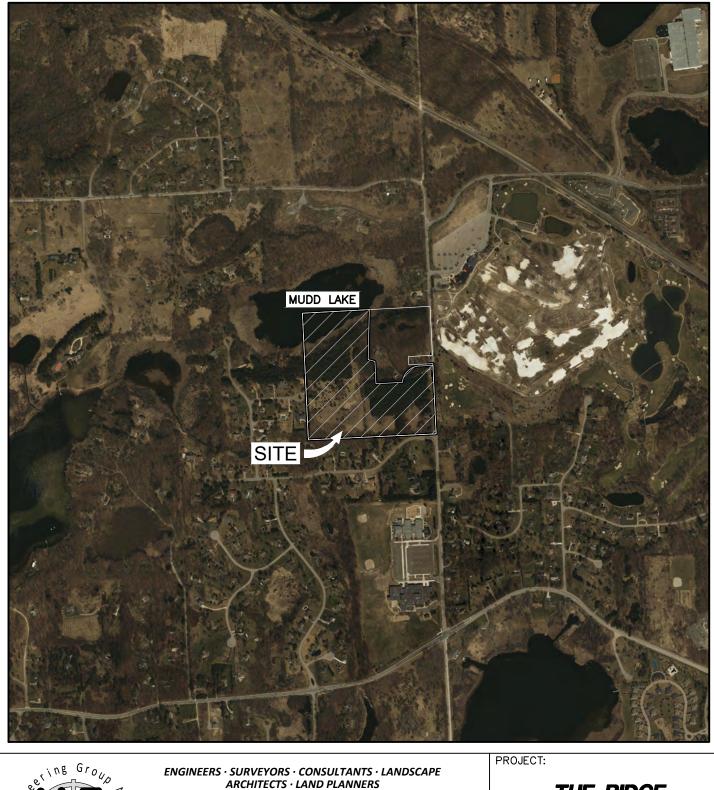
The development is not known to have any historic or cultural resources on this site, and it is not believed any historic or cultural resources will be affected by the proposed development. Mudd Lake is not a natural lake, so no anticipated cultural resources are expected around its shoreline.

### **11. SPECIAL PROVISIONS:**

The development will need no special provisions as part of its development.

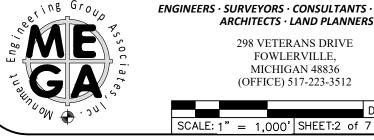


# EXHIBIT B AE**R**IAL



DATE: 1/25/2019

FILE : 18-025\_IMPACT EXH



THE RIDGE SITE CONDOMINIUM

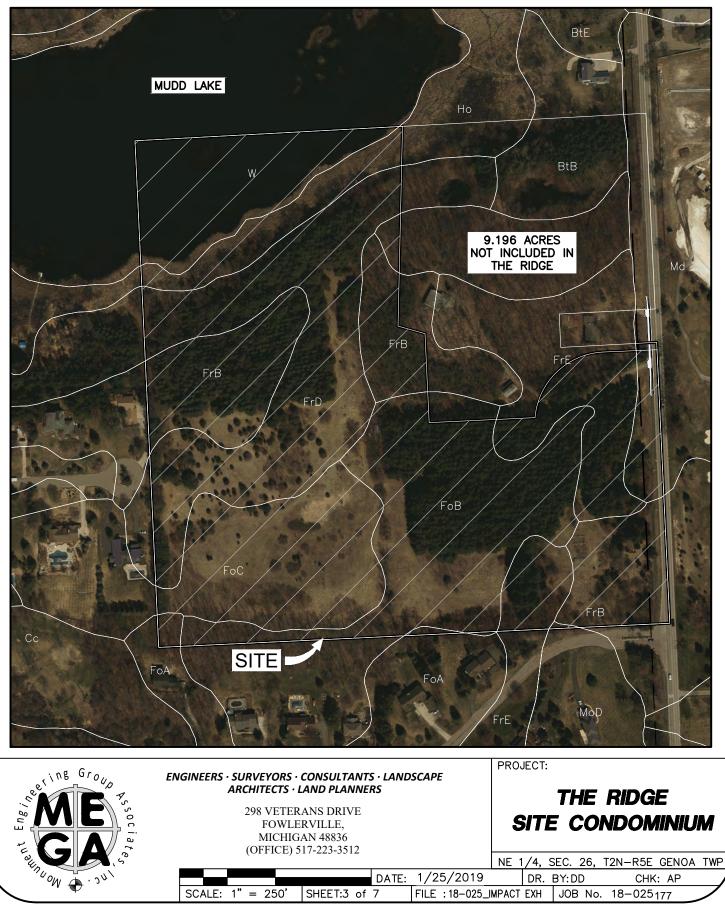
NE 1/4, SEC. 26, T2N-R5E GENOA TWP

JOB No. 18-025176

CHK: AP

DR. BY:DD

# EXHIBIT **D** SOIL **M**AP



# EXHIBIT **D** SOIL **M**AP UNIT LEGEN**D**

7.22

4.89

2.79

1.96

1.32

0.02

3.07

40.04

18.03%

12.20%

6.96%

4.89%

3.29%

0.04%

7.66%

100.00%

Map Unit	Map Unit	Acres in AOL			Fox-Boyer complex,
Symbol	Name		AOI	FrD	12 to 18
BtB	Boyer- Oshtemo Ioamy	1.75	4.38%		percent slopes
	sands, 2 to 6 percent slopes	1.75	4.30%	FrE	Fox-Boyer complex, 18 to 25
FoA	Fox sandy Ioam, 0 to	0.17	0.42%		percent slopes
	2 percent slopes	0.17	0.42/0	FrF	Fox-Boyer complex, 25 to 40
FoB	Fox sandy Ioam, 2 to	am, 2 to 6.56	16.39%		percent slopes
	6 percent slopes			Но	Houghton muck, 0 to 1 percent
FoC	Fox sandy Ioam, 6 to 12 percent slopes	4.12	10.30%		slopes
				Md	Made land
					Miami Ioam, 12 to
FrB	Fox-Boyer complex, 2 to 6	6.18	15.45%	MoD	18 percent slopes
				W	Water
	percent slopes			Totals fo Interest	r Area of



# EXHIBIT E EXISTING **DR**AINAGE



 (OFFICE) 517-223-3512

 NE 1/4, SEC. 26, T2N-R5E GENOA TWP

 DATE: 1/25/2019

 DR. BY:DD

 CHK: AP

 SCALE: 1" = 250'

 SHEET:5 of 7

 FILE :18-025\_IMPACT EXH

 JOB No. 18-025179

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# EXHIBIT F WETLAN**D M**AP





# **Kelly VanMarter**

From:	Cathy Riesterer <cathy@crlaw.biz></cathy@crlaw.biz>
Sent:	Thursday, August 15, 2019 5:59 PM
To:	Kelly VanMarter
Cc:	John Moretti
Subject:	The Ridge
Attachments:	MASTER DEED 8.15 marked.docx; Agree for shared driveway easement.docx
Follow Up Flag:	Follow up
Flag Status:	Flagged

Kelly,

Bruce Silver called me today to discuss certain changes that were required in the Master Deed for The Ridge Site Condominium Project pursuant to a recent planning commission meeting.

Essentially, he indicated that the Township wanted to see:

- 1. Removal of any requirement to soften water in a sprinkler system (this had been removed previously)
- 2. Clarity that if units were combined they still had to pay fees for each Unit. I added language in Section 5.2 to clarify this.
- 3. A specific statement that Genoa's ordinances apply I added this to the requirement to comply with all laws and ordinances in the into to Section XI

The other comment he passed along was a concern regarding the meets and bounds parcels and their contribution to the roads. This is covered in the easement section of the Master Deed, section 6.8. This will be made binding on the parcels through the recording of an easement document on their parcels that runs with the land that includes this obligation (Section 2) and clarifies that the Association can lien their property if they do not pay.

I have attached an updated Master Deed with the marked changes, along with a copy of the Easement Agreement for the metes and bounds parcels.

If I have missed anything or misunderstood anything, please let me know and I can make the additions/corrections.



Catherine A. Riesterer COOPER & RIESTERER PLC 810-227-3103 ext. 112 cathy@crlaw.biz

### SHARED DRIVEWAY EASEMENT

The undersigned, being all of the owners of the two Parcels of real estate described in EXHIBIT A, attached hereafter and incorporated by reference (referred to as a "Parcel" or the "Parcels"), situated in Genoa Township, Livingston County, Michigan and which each abut a Shared Driveway that is more fully described in EXHIBIT B, attached hereafter and incorporated by reference, hereby enter into the following agreement for maintenance of the Shared Driveway for the benefit of the Parcels and to acknowledge their obligations related to an access easement granted to them by an adjacent parcel of real property as described herein.

**Section 1: SHARED DRIVEWAY EASEMENT DECLARATION.** The parties hereto hereby grant, transfer, establish, and declare a nonexclusive, perpetual shared driveway easement for ingress and egress, improved or unimproved, and for the location of public and private utilities, over and across and for the benefit of the Parcels over the land described in EXHIBIT B, attached hereto and made a part hereof (the "Shared Driveway").

ROAD ACCESS EASMENT ACKNOWLEDGMENT. The Parcels are adjacent to a Section 2: condominium development known as The Ridge Site Condominium (the "Condominium Project"). The Developer of the Condominium Project has granted an ingress egress and public utility easement to the Parcels to allow them to have access from the road in the Condominium Project (the "Ridge Road Access"). This Ridge Road Access will be granted in the Master Deed recorded for the Condominium Project. In exchange, the Parcels will be required annually to pay a prorated share of the costs of the maintenance, repair and restoration of the roads in the Condominium Project. The Condominium Project shall initially be administered by the Developer of the Condominium Project, but will eventually be administered by the Association for the Condominium Project as set forth in the Bylaws for the Condominium Project. The Developer and the Association shall have sole control over the roads in the Condominium Project and the administration thereof and shall submit an annual statement to the Parcels setting forth their pro rata share of the cost for the roads. The cost shall be paid within thirty (30) days of receipt of the statement. The owners of the Parcels shall be entitled to see receipts establishing the costs incurred for the road. No Parcel will be required to pay more than a fractional share of the total costs which is one divided by the total number of units and Parcels. The Developer or Association shall be entitled to lien the Parcels for any unpaid costs in the same manner as they could lien units in the Condominium Project, as set forth in the Bylaws for the Condominium Project. The Parcels are not subject to any other provisions or restrictions in the Master Deed or Bylaws for the Condominium Project.

**Section 3: TERMS.** This agreement shall be a covenant running with all of the land comprising the Parcels described in EXHIBIT A, and shall irrevocably bind the Parcels and the heirs, assigns, or personal representatives of the undersigned with respect to all of this agreement's terms and obligations.

**Section 4: INTENT FOR SHARED DRIVEWAY.** It is the intent of this agreement to provide an effective and convenient mechanism for the afore described real estate owners to maintain the Shared Driveway in a reasonably safe condition suitable for safe and efficient travel by the undersigned, their guests, governmental agencies, emergency services providers and public utilities. It is the intent of this agreement to maintain the Shared Driveway in a reasonably suitable condition for travel. The undersigned agree that the driveway shall from time to time require maintenance that could include grading, paving, restoration of the gravel base, restoration of the crown, cleaning or replacement of drainage improvements, maintenance of Livingston County Road Commission approved sight distance, and removal of snow and other hazards to safe travel on the driveway.

**Section 5: VOTING.** Each Parcel of property covered by this agreement which has a separate tax code number, assigned by the Assessor for the Township of Genoa, Livingston County, Michigan, shall have one vote for any voting purposes pursuant to this agreement. The vote for each Parcel may be exercised by any owner of that property with preference given to the owner in possession. In the event of any dispute as to whom should properly exercise the vote for a Parcel, the Parcel shall have no vote until the contesting parties unanimously agree as to whom shall properly exercise the vote for the Parcel. In the event of a tie vote or other outcome so that a decision by the owners cannot be determined, the voting owners shall request the Township to make a determination regarding required maintenance. The township decision shall be final and shall bind the Parcel owners to proceed with maintenance as though the decision was made by the Parcel owners. Further, any costs associated with the Township's decision shall be shared among the Parcel owners.

Section 6: MAINTENANCE OF SHARED DRIVEWAY. In order to maintain the Shared Driveway in a safe condition suitable for safe and efficient travel by the undersigned, their guests, governmental agencies, emergency services providers and public utilities, each Parcel owner is responsible for maintaining and improving the Shared Driveway. It shall also be the responsibility of each Parcel owner to ensure that regular maintenance and improvements to the Shared Driveway intersection with the private road is maintained in a safe condition. All Parcels shall share equally the cost of maintaining the Shared Driveway. Such share of the cost shall be based upon the total number of Parcels of property where each Parcel shall have one vote, subject to the conditions and definitions established herein. Prior to any costs being incurred for normal maintenance or major improvements of the Shared Driveway, the owners shall agree to such normal maintenance being performed and the cost thereof. Major improvements are considered improvements with a cost exceeding \$5,000 (as adjusted for inflation). Normal maintenance costs should be expected by the parties. Any Parcel that does not respond to a written request for approval of normal maintenance costs within 30 days shall be deemed to have approved the maintenance. Cost alone shall not be a valid ground for objection to normal maintenance, provided the total costs for maintenance do not exceed \$5,000 in any twelve-month period. Any costs incurred for maintenance or other improvements of the Shared Driveway as described herein shall be a burden upon the land with a lien therefore against any Parcel for which the costs of maintenance or improvements have not been paid by the owner of such Parcel. Any such lien shall be attached upon the filing and recording of an affidavit by which the owners of the remaining Parcels which are subject to and liable for such cost. Such affidavit shall set forth the description of the Parcel or property against which the lien is claimed, what the expenditure is for, the total amount of the expenditure, the portion attributable to such Parcel or property, and the date or dates of expenditures. A copy of the affidavit shall be sent to the owner or owners of the Parcel against which the lien is claimed by regular mail, which postage prepaid, at the last known address of the owner.

**Section 8. DAMAGE.** The owner of each Parcel shall be separately responsible to repair and for the costs thereof, of any damage caused to the Shared Driveway due to extraordinary use. Extraordinary

use shall include, but is not limited to: movement of construction equipment, moving vans, commercial trucks, or other heavy loads; movement of recreational vehicles, or increased usage not ordinarily consistent with normal passenger vehicle automobile traffic. The owner of such Parcel or Parcels, whether improved or unimproved, shall not be responsible for repairs or costs until such time as said Shared Driveway is used by them or construction is commenced on their Parcel. In the event that any owner or their agents, employees or guests cause the type of damage described herein and fail to make the necessary repairs within ninety (90) days, the remaining Parcel owners may do so after notice to such owner, and any costs so expended shall be a burden upon the land of such owners with a lien enforceable as set forth herein.

**Section 9: SUBDIVISION.** If any Parcel is subdivided, all repairs and maintenance charges that would have been levied in respect to the Parcels shall be reallocated among all property abutting the Shared Driveway so that each existing and new Parcel shares equally in the cost of repair and maintenance. Any costs or expenses relating to the improvement or upgrading of the Shared Driveway and all other costs resulting from the subdivision shall be borne by the owners of the Parcel(s) being subdivided. It shall also be the responsibility of the Parcel owner to notify the Genoa Township officials, and all other agencies that may have specific requirements or review authority over the proposed subdivision in order to determine the appropriate procedures for subdivision of a Parcel.

**Section 10: ACCESS**. Any Parcel abutting and responsible for the Shared Driveway shall only access the Parcel from the Shared Driveway.

**Section 11: AMENDMENT.** With the exception of the provisions relating to the Ridge Road Access, the provisions of this agreement may be amended, but only with the consent of owners of all Parcels described in EXHIBIT A. The provisions relating to the Ridge Road Access may only be amended with the consent of the Association.

**Section 12: FILING WITH TOWNSHIP.** A copy of the executed and recorded agreement shall be filed with the Office of the Township of Genoa.

s/\_\_\_\_\_

print name:

s/\_\_\_\_\_ print name:

STATE OF MICHIGAN COUNTY OF LIVINGSTON

On this \_\_\_\_\_day of \_\_\_\_\_\_, 2019, before me, a notary public, personally came the above named \_\_\_\_\_\_ and \_\_\_\_\_, known to me to be the persons who executed the foregoing agreement and acknowledged the same to be their free act and deed.

Notary Public

Livingston County, MI My commission expires:

Drafted by and when recorded return to: Catherine A. Riesterer, Cooper & Riesterer 7900 Grand River Ave, Brighton, MI 48116

# MASTER DEED

# THE RIDGE SITE CONDOMINIUM

# A 19 UNIT SITE CONDOMINIUM PROJECT LOCATED IN GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

Tax ID #: 4711-26-200-002

#### MASTER DEED THE RIDGE SITE CONDOMINIUM

This Master Deed is made and executed on this \_\_\_\_\_ day of \_\_\_\_\_, 2019, by THE RIDGE AT BRIGHTON, LLC (hereinafter referred to as the "Developer"), whose office address is 2244 Euler Road, Ste. 102, Brighton, Michigan 48114, pursuant to the provisions of the Michigan Condominium Act (Act 59 of the Public Acts of 1978, as amended), hereinafter referred to as the "Act."

WHEREAS, the Developer desires by recording this Master Deed, together with the Bylaws attached hereto as Exhibit A, the Condominium Subdivision Plan attached hereto as Exhibit B (said exhibits are hereby incorporated herein by reference and made a part hereof), to establish the real property described in Article II below, together with the improvements located and to be located thereon, and the appurtenances thereto, as a residential site condominium project under the provisions of the Act.

NOW, THEREFORE, the Developer, by recording this Master Deed, hereby establishes The Ridge Site Condominium as a condominium project, as defined in Section 4 of the Act, and declares that The Ridge Site Condominium shall he held, conveyed, hypothecated, encumbered, leased, rented, occupied, improved, and otherwise utilized, subject to the provisions of the Act, and the covenants, conditions, restrictions, uses, limitations, and affirmative obligations set forth in this Master Deed and Exhibits A, B and C hereto, all of which shall be deemed to run with the land and be a burden and a benefit to the Developer, its successors, and its assigns, and any persons acquiring or owning an interest in the Condominium Premises and their grantees, successors, heirs, personal representatives, and assigns, together with the other governing documents as described herein.

#### ARTICLE I OVERVIEW

The Condominium Project shall be known as The Ridge Site Condominium, Livingston County Condominium Subdivision Plan No. \_\_\_\_\_. The Condominium Project is established in accordance with the Act. And in accordance with the laws of the Township of Genoa, the approved plans of which are on file with the Township. The Condominium Project is established in accordance with the Act as a site condominium. The Units contained in the Condominium Project, including the number, boundaries, dimensions, area, and volume of each Unit, are set forth completely in the Condominium Subdivision Plan attached to this Master Deed as Exhibit B. Each Unit is a residential building site capable of individual utilization by virtue of having its own entrance from and exit to either a public road or a General Common Element of the Condominium Project. Each Co-Owner in the Condominium shall have an exclusive right to the Unit owned by said Co-Owner and shall have an undivided and inseparable right to share with other Co-Owners in the General Common Elements of the Condominium Project.

#### ARTICLE II LEGAL DESCRIPTION

The land that comprises the Condominium Premises established by this Master Deed is located in Genoa Township, Livingston County, Michigan, and is described as follows:

SEC 26 T2N R5E BEG AT THE E 1/4 COR, TH S 89\*24'43"W 1332.50 FT, TH N00\*33'49"W 1320.93 FT, TH N 89\*02'01"E 1039.53 FT, TH N89\*02'01"E 293 FT TO C.L. BAUER RD, TH S00\*33'49"E 510.13 FT, TH S 89\*02'01"W 250 FT, S00\*33'49"E 87 FT, N 89\*02'01"E 250 FT, TH S00\*33'49"E 732.60 FT TO POB, CORRECTED LEGAL 6/17 40.04AC M/L

#### **Tax ID #:** 4711-26-200-002

Together with and subject to easements, restrictions, and governmental limitations of record, and the rights of the public or any governmental unit in any part of the subject property taken or used for road, street, or highway purpose. The obligations of the Developer under the foregoing instruments are or shall be assigned to, and thereafter performed by, the Association on behalf of the Co-Owners. Also subject to the easements and reservations established and reserved in Article VI.

#### ARTICLE III DEFINITIONS

Certain terms are utilized in this Master Deed and Exhibits A and B, and are or may be used in various other instruments such as, by way of example and not limitation, the Articles of Incorporation, Association Bylaws, and rules and regulations of the The Ridge Site Condominium Association, a Michigan nonprofit corporation, and various deeds, mortgages, land contracts, easements, and other instruments affecting the establishment or transfer of interests in The Ridge Site Condominium. Whenever used in such documents or any other pertinent Instruments, the terms set forth below shall be defined as follows:

Section 3.1 "<u>Act</u>" means the Michigan Condominium Act, Act 59 of the Public Acts of Michigan of 1978, as amended.

Section 3.2 "<u>Association</u>" means the The Ridge Site Condominium Association, which is the nonprofit corporation organized under Michigan law of which all Co-Owners shall be members and which shall administer, operate, manage, and maintain the Condominium Project in accordance with the Condominium Documents.

Section 3.3 "<u>Board of Directors" or "Directors</u>" shall mean the board of directors of the Association. The Board of Directors will initially be those individuals selected by the Developer and later it will be elected by the Co-Owners, as provided in the Association Bylaws.

Section 3.4 "<u>Bylaws</u>" means Exhibit A, attached to this Master Deed, which sets forth the substantive rights and obligations of the Co-Owners and which is required by Section 53 of the Act to be recorded as part of the Master Deed. The Bylaws shall also constitute the corporate

bylaws of the Association, as allowed under the Michigan Nonprofit Corporation Act.

Section 3.5 "<u>Common Elements</u>," where used without modification, means both the General Common Elements and Limited Common Elements described in Article IV below.

Section 3.6 "<u>Condominium Documents</u>" means this Master Deed and Exhibits A, B and C attached hereto, the Articles of Incorporation of the Association, and the rules and regulations, if any, of the Association, as any or all of the foregoing may be amended from time to time.

Section 3.7 "<u>Condominium Premises</u>" means the land described in Article II above, all improvements and structures thereon, and all easements, rights, and appurtenances belonging to The Ridge Site Condominium.

Section 3.8 "<u>Condominium Project," "Condominium," "Project," or "The Ridge Site</u> <u>Condominium</u>" are used synonymously to refer to The Ridge Site Condominium, as shown in the attached Exhibit B, and which is established by the recording of this Master Deed.

Section 3.9 "<u>Condominium Subdivision Plan</u>" means Exhibit B to this Master Deed. The Condominium Subdivision Plan depicts and assigns a number to each Condominium Unit and describes the nature, location, and approximate dimensions of certain Common Elements.

Section 3.10 "<u>Consolidating Master Deed</u>" means the amended Master Deed that shall describe The Ridge Site Condominium as a completed condominium project, as defined in Section 4 of the Act, and shall reflect all Units and Common Elements therein and the percentage of value applicable to each Unit as finally readjusted. Such Consolidating Master Deed, if and when recorded in the office of the Livingston County Register of Deeds, shall supersede this recorded Master Deed for the Condominium and all amendments thereto. In the event the Units and Common Elements in the Condominium are constructed in substantial conformance with the proposed Condominium Subdivision Plan attached as Exhibit B to this Master Deed, the Developer shall be able to satisfy the foregoing obligation by filing a certificate in the office of the Livingston County Register of Deeds confirming that the Units and Common Elements "as built" are in substantial conformity with the proposed Condominium Subdivision Plan and that no Consolidating Master Deed need be recorded.

Section 3.11 "<u>Construction and Sales Period</u>" means the period commencing with the recordation of this Master Deed and continuing during the period that the Developer owns (in fee simple, as a land contract purchaser, or as an optionee) any Unit in The Ridge Site Condominium.

*Section 3.12 "<u>Co-Owner</u>" means an individual, firm, corporation, partnership, association, trust, or other legal entity (or any combination thereof) who or which owns or is purchasing by land contract one or more Units in the Condominium. Unless the context indicates otherwise, the term "Owner," wherever used, shall be synonymous with the term "Co-Owner."* 

Section 3.13 "<u>Developer</u>" means The Ridge at Brighton, LLC, an organization that made and executed this Master Deed, and its successors and assigns. Both successors and assigns shall

always be deemed to be included within the term "Developer" whenever, however, and wherever such terms are used in the Condominium Documents. However, the word "successor," as used in this Section 3.13, shall not be interpreted to mean a "Successor Developer" as defined in Section 135 of the Act.

Section 3.14 "<u>First Annual Meeting</u>" means the initial meeting at which non-Developer Co-Owners are permitted to vote for the election of all Directors and upon all other matters that properly may be brought before the meeting.

Section 3.15 "<u>General Common Elements</u>" means those Common Elements of the Condominium described in Article IV, Section 4.1, of this Master Deed, which are for the use and enjoyment of all Unit Owners within the Condominium Project, subject to such charges as may be assessed to defray the cost of the operation thereof.

Section 3.16 "<u>Limited Common Elements</u>" means those Common Elements of the Condominium described in Article IV, Section 4.2, of this Master Deed, which are reserved for the exclusive use of the Co-Owners of a specified Unit or Units.

Section 3.17 "<u>Township</u>" means the Charter Township of Genoa, located in the County of Livingston, State of Michigan.

Section 3.18 "<u>Transitional Control Date</u>" means the date on which a Board of Directors of the Association takes office pursuant to an election in which the votes that may be cast by eligible owners within the Condominium Project unaffiliated with the Developer exceed the votes that may be cast by the Developer.

Section 3.19 "<u>Unit" or "Condominium Unit</u>" each mean a single condominium unit in The Ridge Site Condominium, as the same is described in Section 5.1 of this Master Deed and on Exhibit B hereto, and each shall have the same definition as the term "Condominium Unit" has in the Act. All structures and improvements now or hereafter located within the boundaries of the Unit, including, by way of illustration only, dwelling, water well, septic system, and appurtenances, shall be owned in their entirety by the Co-Owner of the Unit within which they are located and shall not, unless otherwise expressly provided in the Condominium Documents, constitute Common Elements.

Wherever any reference is made to one gender, the reference shall include a reference to any and all genders where the same would be appropriate; similarly, whenever a reference is made to the singular, a reference shall also be included to the plural where that reference would be appropriate, and vice versa.

#### ARTICLE IV COMMON ELEMENTS

The Common Elements of the Condominium described in Exhibit B to this Master Deed and the respective responsibilities for maintenance, decoration, repair, replacement, restoration, or renovation thereof are as follows: Section 4.1 <u>General Common Elements</u>. All General Common Elements for the Condominium Project will be maintained by the Association, and an easement for the use and enjoyment of all General Common Elements of the Condominium will be granted to the Association for the use and benefit of such General Common Elements by all Co-Owners. The General Common Elements for the Project include:

(a) The private roadway leading from Bauer Road into the Condominium Project (the Condominium Roadway"), together with the entrance area depicted on the Condominium Subdivision Plan attached as Exhibit B, if any, and all signage installed by the Developer and/or the Association in connection therewith; all easement interests appurtenant to the Condominium Project, including, but not limited to, easements for ingress, egress, and utility installation over, across, and through non-Condominium Project property or individual Units in the Condominium Project; and the lawns, trees, shrubs, and other improvements not located within the boundaries of a Unit in the Condominium Project. There is no obligation on the part of the Developer to install an entrance gate or other limited access facility at the entrance of the Condominium Project, but Developer reserves the right to do so in its sole discretion. Any entrance gate or other limited access facility needs to be approved by the Township and by the Brighton Area fire Authority before it is constructed. Any entrance area facilities, including any facilities limiting access, shall be maintained, repaired, and replaced by the Association.

(b) The electrical transmission mains and wiring throughout the Condominium Project up to the point of lateral connection for Unit service, which is located at the boundary of the Unit, together with common lighting for the Condominium Project, if any, installed by the Developer or Association in its/their sole discretion. There is no obligation on the part of the Developer to install any particular common lighting, but Developer reserves the right to do so, either within the Common Elements or within any one or more Units. Any common lighting installed within a Unit and designated as such by the Developer shall be maintained, repaired, and replaced by the Association, except that the costs of electrical power consumption therefor shall be paid by each Co-Owner to whose Unit such designated common light is metered. Any street light of other lighting installed within the General Common Elements shall be metered to and paid by the Association unless the Developer determines otherwise.

(c) The telephone system throughout the Condominium Project up to the ancillary connection for Unit service, which is located at the boundary of the Unit.

(d) The gas distribution system throughout the Condominium Project, if and when it may be installed, up to the point of lateral connection for Unit service, which is located at the boundary of the Unit, but excluding the gas meter for each Unit.

(e) The cable television and any other telecommunications systems throughout the Condominium Project, if and when it may be installed, up to the point of the ancillary connection for Unit service, which is located at the boundary of the Unit.

*(f)* The sidewalks, bike paths, and walking paths (collectively, "Walkways"), if any, installed by the Developer or the Association.

(g) The storm water drainage system throughout the Condominium Project, including open-ditch drainage, below-ground and above-ground drainage systems, retention ponds, and detention ponds, if any, up to the point of Unit service, which is located at the boundary of the Unit.

(h) The landscaped islands, within the roads in the Condominium Project, including all items installed within such islands, subject, however, to the rights therein of the public and any governmental unit.

*(i)* The community fire suppression well to be installed within the Condominium Project for easy access by the local fire authority.

*(j)* All easements (if any) that are appurtenant to and that benefit the Condominium Project pursuant to recorded easement agreements, reciprocal or otherwise.

Such other elements of the Condominium Project not designated as a (k)Common Element that are not enclosed within the boundaries of a Unit and that are intended for common use or are necessary for the existence, upkeep, or safety of all Co-Owners within the Condominium Project. Developer reserves the right to establish such mailbox system as Developer may elect or as may be required to be installed by a public authority or service agency having jurisdiction and, to that end, may establish an individual mailbox system or may consolidate or cluster the same in such manner as Developer may deem appropriate. If the mailboxes are clustered or consolidated, the Developer or the Association may designate individual compartments in the clustering structure or structures as Limited Common Elements or may assign or reassign the same from time to time for use by Co-Owners on an equitable basis without such designation. Developer may elect, however, to require that Co-Owners install individual mailboxes of a nature and design as required by Developer, and that the same be installed by each Co-Owner at such Co-Owner's personal expense. Developer also reserves the right, in its sole discretion, to install street signs, traffic control signs, street address signs, and other signage at any location or location as Developer deems appropriate within the General Common Element road rights of way.

Section 4.2 <u>Limited Common Elements</u>. Limited Common Elements shall be subject to the exclusive use and enjoyment of the Co-Owner of the Unit to which the Limited Common Elements are appurtenant. The Limited Common Elements are:

(a) <u>Driveways</u>. The shared "T" driveways connecting certain Units to the Condominium Roadway shall be a Limited Common Element limited in use to the Units of corresponding number using such shared driveways to access their Units as depicted and designated in the Condominium Subdivision Plan attached as Exhibit B to this Master Deed. In addition, any portion of a driveway leading from the Condominium Roadway to a Unit that extends into the Condominium Roadway shall be a Limited Common Element limited in use to such Unit.

*Section 4.3 <u>Responsibilities</u>*. The respective responsibilities for the installations within and the maintenance, decoration, repair, replacement, renovation, and restoration of the Units and Common Elements are as follows:

*(a)* Co-Owner Responsibility for Units and Express Exceptions for Limited Common Elements. It is anticipated that a separate residential dwelling (including attached garage) will be constructed within each Unit depicted on Exhibit B. The responsibility for and the costs of maintenance, decoration, repair, and replacement of each dwelling and any additional appurtenances constructed or contained therein, including driveways, the well water and water distribution system and the septic system, and all other improvements thereto, shall be borne by the Co-Owner of such Unit; provided, however, that the exterior appearance of the dwellings within the Units, to the extent visible from any other dwelling within a Unit or Common Element within the Project, shall be subject at all times to the approval of the Association and to reasonable aesthetic and maintenance standards prescribed by the Association in duly adopted rules and regulations. Each Co-Owner shall be responsible for paying all costs in connection with the extension of utilities from the mains or such other facilities, as are located at the boundary of the Common Element appurtenant to such Co-Owner's Unit to the dwelling or other structures located within the Unit. All costs of electricity, telephone, natural gas, storm drainage, cable television, other telecommunications system, and any other utility services shall be borne by the Co-Owner of the Unit to which the services are furnished. All utility meters, laterals, leads, and other such facilities located or to be located within the Co-Owner's Unit shall be installed, maintained, repaired, renovated, restored, and replaced at the expense of the Co-Owner whose Unit they service, except to the extent that such expenses are borne by a utility company or a public authority, and the Association shall have no responsibility with respect to such installation, maintenance, repair, renovation, restoration, or replacement. In addition, certain Units shall be accessed by shared driveways as depicted in the Condominium Subdivision Plans. Such Units utilizing the shared driveways shall be jointly responsible for the maintenance of such shared driveways. The Association, acting through its Board of Directors, may (but has no obligation to) undertake the maintenance, repair, renovation, restoration, or replacement of the shared driveways to the extent that said Co-Owners cannot agree upon appropriate maintenance or have not performed such obligations, and the cost thereof shall be assessed against said Co-Owner's using the shared driveway. In connection with any amendment made by the Developer pursuant to Article VII of this Master Deed, the Developer may designate additional Limited Common Elements that are to be installed, maintained, decorated, repaired, renovated, restored, and replaced at Co-Owner expense or, in proper cases, at Association expense.

(b) <u>Association Responsibility for Units and Common Elements</u>. Except as provided for in Section 4.3(c), the Association, acting through its Board of Directors, shall undertake regularly recurring, reasonably uniform, periodic exterior maintenance, repair, renovation, restoration, and replacement functions with respect to General Common Elements, as it may deem appropriate. All responsibilities undertaken by the Association in accordance with this section shall be charged to any affected Co-Owner on a reasonably uniform basis and collected in accordance with the assessment procedures established under Article II of the Bylaws. The Developer, in the initial maintenance budget for the Association, shall be entitled to determine the nature and extent of such services and reasonable rules and regulations may be promulgated in connection therewith. It is also anticipated that certain improvements and structures appurtenant to each such dwelling will or may also be constructed within the Unit and may extend into the General Common Elements appurtenant to the Unit, which improvements and structures (collectively, "Appurtenances") may include, but are not limited to, a driveway. The Association, acting through its Board of Directors, may also (but has no obligation to) undertake any maintenance, repair, renovation, restoration, or replacement obligation of the Co-Owner of a Unit with respect to said Unit, and the dwelling, Appurtenances, and other Limited Common Elements associated therewith, to the extent that said Co-Owner has not performed such obligation, and the cost thereof shall be assessed against said Co-Owner. The Association in such case shall not be responsible for any damage thereto arising as a result of the Association performing said Co-Owner's unperformed obligations.

(c) <u>Residual Damage</u>. Except as otherwise specifically provided in this Master Deed, any damage to any Unit or the dwelling, Appurtenances, or other Limited Common Elements associated therewith arising as a result of the Association undertaking its rights or responsibilities as set forth in this Section 4.3 shall be repaired at the Association's expense.

Section 4.4 <u>Use of Units and Common Elements</u>. No Co-Owner shall use its Unit or the Common Elements in any manner inconsistent with the purposes of the Condominium or in any manner that will interfere with or impair the rights of any other Co-Owner in the use and enjoyment of its Unit or the Common Elements.

# ARTICLE V UNIT DESCRIPTION AND PERCENTAGE OF VALUE

Section 5.1 <u>Description</u>. Each Unit in the Condominium is described in the Condominium Subdivision Plan attached to this Master Deed as Exhibit B. Each Unit shall consist of the area contained within the Unit boundaries as shown on Exhibit B and delineated with heavy outlines, together with all Appurtenances located within such Unit boundaries. Detailed architectural plans for the Condominium Project will be placed on file with the Township of Genoa, Livingston County, Michigan.

Section 5.2 <u>Condominium Percentage of Value</u>. The Percentage of Value for each Unit within the Condominium shall be equal. The determination that the Percentages of Value should be equal was made after reviewing the comparative characteristics of each Unit in the Condominium and concluding that there are no material differences among the Units that affect the allocation of Percentages of Value. The percentage of value assigned to each Unit shall be determinative of each Co-Owner's respective share of the General Common Elements of the Condominium Project, the proportionate share of each respective Co-Owner in the proceeds and expenses of administration and the value of such Co-Owner's vote at meetings of the Association. The total value of the Condominium is 100%. <u>This Percentage of Value shall not change even in the event one Co-Owner owns two or more Units and occupies them for one single family home.</u>

If the Condominium convertible space is converted, and this expectation becomes untrue with respect to additional Units, or if a substantial disparity in size exists, the Percentages of Value may be readjusted by the Developer, in its discretion, so long as reasonable recognition is given to the method of original determination of Percentages of Value for the Condominium. All of the Co-Owners and mortgagees of Units and other persons interested or to become interested in the Condominium from time to time shall be deemed to have unanimously consented to such amendment or amendments to this Master Deed to effectuate the foregoing and, subject to the limitations set forth herein, proportionate reallocation of Percentages of Value of existing Units that Developer or its successor may determine necessary in conjunction with such amendment or amendments. All such interested persons irrevocably appoint Developer or its successors as agent and attorney for the purpose of execution of such amendment or amendments to this Master Deed and all other documents necessary to effectuate the foregoing.

#### ARTICLE VI EASEMENTS AND RESERVATIONS

Section 6.1 Easement for Utilities and Maintenance of Encroachment. In the event any portion of a Unit (or dwelling or Appurtenances constructed therein) or Common Element (or Appurtenances constructed therein) encroaches upon another Unit or Common Element due to shifting, settling, or moving of the dwelling or the Appurtenances or other Limited Common Elements associated therewith, or due to survey errors, construction deviations, replacement, restoration, or repair, or due to the requirements of the Livingston County Health Department or the Township, reciprocal easements shall exist for such encroachment, and for the installation, maintenance, repair, restoration, and replacement of the encroaching property, dwelling, and/or Appurtenances or other Limited Common Elements associated therewith. In the event of damage or destruction, there shall be easements to, through, under, and over those portions of the land, dwellings, and Appurtenances and other Limited Common Elements associated therewith for the continuing maintenance, repair, renovation, restoration, and replacement of all utilities in the Condominium. One of the purposes of this Section is to clarify that Co-Owners have the right to maintain these Appurtenances and other Limited Common Elements that project into the Common Elements surrounding each Unit.

#### Section 6.2 *Easements Retained by Developer*.

(a) Utility and Ingress/Egress Easements. The Developer reserves for itself and its agents, employees, representatives, guests, invitees, independent contractors, successors, assigns, the Township, and all future owners of any land contiguous to the Condominium, easements to enter upon the Condominium Premises to utilize, tap, tie into, extend and enlarge, and otherwise install, maintain, repair, restore, renovate, and replace all utility improvements located within the Condominium Premises, including, but not limited to, gas, storm drains (including retention and detention ponds), telephone, electrical, and cable television and other telecommunications, and all improvements, as identified in the approved final site plan for the Condominium Project and all plans and specifications approved in writing by the Township, as well as any amendments thereto approved in writing by the Township. The Developer also reserves for itself and its agents, employees, representatives, guests, invitees, independent contractors, successors, and assigns a perpetual, non-exclusive easement for ingress and egress for pedestrian and vehicular use, including construction machinery and equipment, over certain private roadways within the Condominium Project depicted as the "Developer's Easement" in the attached Exhibit B. If any portion of the Condominium Premises shall be disturbed by reason of the exercise of any of the rights granted to Developer, its successors, or its assigns under this Section 6.2(a) or Section 6.2(b), Developer shall restore the disturbed portion of the Condominium Premises to substantially the condition that existed prior to the disturbance.

(b) Additional Easements. The Developer reserves for itself, its successors, and its assigns the right, at any time prior to the expiration of the Construction and Sales Period, to reserve, dedicate, and/or grant public or private easements over, under, and across the Condominium Premises for the installation, utilization, repair, maintenance, decoration, renovation, restoration, and replacement of rights-of-way, walkways, the storm water drainage system, including retention or detention ponds, a water system, a sanitary sewer system, electrical transmission mains and wiring, telephone system, gas distribution system, cable television and other telecommunication system, and other public and private utilities, including all equipment, facilities, and Appurtenances relating thereto, as identified in the approved final site plan for the Condominium Project, and all plans approved in writing by the Township, as well as any amendments thereto approved by the Township. The Developer reserves the right to assign any such easements to governmental units or public utilities or, as to the storm water drainage system, Co-Owners of affected Units, and to enter into maintenance agreements with respect thereto. Any of the foregoing easements or transfers of title may be conveyed by the Developer without the consent of any Co-Owner, mortgagee, or other person who now or hereafter shall have any interest in the Condominium by the recordation of an appropriate amendment to this Master Deed and Exhibit B hereto. All of the Co-Owners and mortgagees of Units and other persons now or hereafter interested in the Condominium from time to time shall be deemed to have unanimously consented to any amendments of this Master Deed to effectuate the foregoing easements or transfers of title. All such interested persons irrevocably appoint the Developer as agent and attorney to execute such amendments to the Master Deed and all other documents necessary to effectuate the foregoing.

Section 6.3 <u>Grant of Easements by Association</u>. The Association, acting through its Board of Directors, shall be empowered and obligated to grant such easements, licenses, rightsof-entry, and rights-of-way over, under, and across the Condominium Premises as are reasonably necessary or advisable for utility purposes, access purposes, or other lawful purposes, subject, however, to the approval of the Developer during the Construction and Sales Period and subject to the written approval of the Township. No easements created under the Condominium Documents may be modified, nor may any of the obligations with respect to such easements be varied, without the consent of each person benefited or burdened thereby.

Section 6.4 <u>Grant of Easements and License to Association</u>. The Association, acting through its Board of Directors, and all Co-Owners are hereby granted easements, licenses, rights-of-entry, and rights-of-way to and over, under, and across the Common Elements and the Condominium Premises for such purposes as are reasonably necessary or advisable for the full use and enjoyment and the construction, maintenance, repair or replacement of the Common Elements for the benefit of all Co-Owners. No easements created under the Condominium Documents may be modified, nor may any of the obligations with respect to such easements be varied, without the consent of each person benefited or burdened thereby.

Section 6.5 <u>Easements for Maintenance, Repair, Restoration, Renovation, and</u> <u>Replacement</u>. The Developer, the Association, the Township, and all public and private utilities and public authorities responsible for publicly dedicated roads shall have such easements over, under, and across the Condominium, including all Units and Common Elements, as may be necessary to fulfill any installation, maintenance, repair, decoration, renovation, restoration, or replacement responsibilities that are required or permitted to perform under the Condominium Documents, by law, or as may be necessary to respond to any emergency. The foregoing easements include, without limitation, the right of the Association to obtain access during reasonable hours and upon reasonable notice, for purposes of inspecting the dwelling constructed on a Unit and/or other Limited Common Elements and/or Appurtenances constructed therein to ascertain that they have been designed and constructed in conformity with standards imposed and/or specific approvals granted by the Developer (during the Construction and Sales Period) and thereafter by the Association.

Section 6.6 Telecommunications Agreements. The Association, acting through its Board of Directors and subject to the Developer's approval during the Construction and Sales Period, shall have the power to grant such easements, licenses, and other rights-of-entry, use, and access, and to enter into any contract or agreement, including wiring agreements, right-of-way agreements, access agreements, and multi-unit agreements, and, to the extent allowed by law, contracts for sharing of any installation or periodic subscriber service fees, as may be necessary, convenient, or desirable to provide for telecommunications, videotext, broad band cable, satellite dish, earth antenna, and similar services to the Condominium or any Unit therein. Notwithstanding the foregoing, in no event shall the Association, through its Board of Directors, enter into any contract or agreement or grant any easement, license, or right-of-entry or do any other act that will violate any provision of any federal, state, or local law or ordinance. Any and all sums paid by any telecommunications or other company or entity in connection with such service, including fees, if any, for the privilege of installing any telecommunications related equipment or improvements or sharing periodic subscriber service fees shall be receipts affecting the administration of the Condominium within the meaning of the Act and shall be paid over to and shall be the property of the Association except for funds previously advanced by Developer, for which the Developer has a right of reimbursement from the Association.

Section 6.7 <u>School Bus, Refuse Collection Vehicles, and Emergency Vehicle Access</u> <u>Easement</u>. Developer reserves for the benefit of the Township, any private or public school system, refuse collection service, and any emergency service agency an easement over all roads in the Condominium for use by the Township, private or public school busses, refuse collection vehicles, and/or emergency vehicles. Said easement shall be for purposes of ingress and egress to provide, without limitation, school bus services, fire and police protection, ambulances, refuse collection vehicles, and rescue services, and other lawful governmental or private emergency services to the Condominium Project and Co-Owners thereof. The foregoing easement shall in no way be construed as a dedication of any streets, roads, or driveways to the public. In addition, the Developer specifically grants all emergency service agencies access to any fire suppression wells that may have been constructed within the Condominium Project. All such wells will be maintained by the Association in accordance with the rules and requirements of the local fire department or emergency services agency, including all required inspections.

Section 6.8 <u>Road Easement</u>. The Developer has granted an ingress egress and public utility easement to two parcels of real property located adjacent to the Condominium Project for the roads in the Project (the "Outlot Parcels"). The Outlot Parcels are depicted on Exhibit B as

Parcels B and C and have tax identification numbers \_\_\_\_\_\_ and \_\_\_\_\_ respectively. The Outlot Parcels will have access to the roads in the Condominium Project for ingress/egress including recreational access for biking or walking. In exchange, the Outlot Parcels will be required annually to pay a prorated share of the costs of maintenance, repair and restoration of the roads in the Condominium Project, based upon one share per parcel or Unit. The Association shall send the Outlot Parcels a statement of these costs annually, payable in thirty (30) days. The Association shall be entitled to collect these costs from the Outlot Parcels and to lien them for any unpaid costs in the same manner as the Units, as set forth in the Bylaws. The Outlot Parcels are not subject to any other provisions or restrictions in the Master Deed or Bylaws.

Section 6.9 <u>Association Assumption of Obligations</u>. The Association, on behalf of the Co-Owners, shall assume and perform all of the Developer's obligations under any easement pertaining to the Condominium Project or Common Elements.

Section 6.10 <u>Termination of Easements</u>. Developer reserves the right to terminate and revoke any utility or other easement granted in or pursuant to this Master Deed at such time as the particular easement has become unnecessary. (This may occur, by way of illustration only, when a utility easement is relocated to coordinate development of property adjacent to the Condominium Project.) No easement for a utility may be terminated or revoked unless and until all Units served by it are adequately served by an appropriate substitute or replacement utility. Any termination or relocation of any such easement shall be affected by the recordation of an appropriate termination instrument or, where applicable, amendment to this Master Deed in accordance with the requirements of the Act, provided that any such amendment is first approved in writing by the Township.

# ARTICLE VII DEVELOPER'S RIGHT TO USE FACILITIES

The Developer, its agents, representatives, employees, successors, and assigns may, at all times that Developer continues to own any Units, maintain offices; model Units, parking, storage areas, and other facilities within the Condominium; and engage in such other acts as it deems necessary to facilitate the development and sale of the Condominium. Developer shall have such access to, from, and over the Condominium as may be reasonable to enable the development and sale of Units in the Condominium. In connection therewith Developer shall have full and free access to all Common Elements and unsold Units.

# ARTICLE VIII CONTRACTABILITY OF CONDOMINIUM

Section 8.1 <u>Limit of Unit Contraction</u>. The Project established by this Master Deed consists of 19 Units and may, at the election of the Developer, be contracted to any number of Units Developer so desires, in Developer's sole discretion.

Section 8.2 <u>Withdrawal of Land</u>. The number of Units in the Project may, at Developer's option, from time to time within a period ending not later than six years after the recording of this Master Deed, be decreased by the withdrawal of all or any portion of the lands described in

Article II. However, no Unit that has been sold or is the subject of a binding purchase agreement may be withdrawn without the consent of the Co-Owner or purchaser and the mortgagee of the Unit. Developer may also, in connection with any contraction, readjust the Percentages of Value for Units in the Project in a manner that gives reasonable recognition to the number of remaining Units, based on the method of original determination of the Percentages of Value. Other than as provided in this Section 9.2, there are no restrictions or limitations on Developer's right to withdraw lands from the Project or on the portion or portions of land that may be withdrawn, the time or order of the withdrawals, or the number of Units or Common Elements that may be withdrawn. However, the lands remaining shall not be reduced to less than that necessary to accommodate the remaining Units in the Project with reasonable access and utility service to the Units.

Section 8.3 <u>Contraction Not Mandatory</u>. There is no obligation on the part of Developer to contract the Project, nor is there any obligation to withdraw portions of the Project in any particular order or to construct particular improvements on any withdrawn lands. Developer may, in its discretion, establish all or a portion of the lands withdrawn from the Project as a separate condominium project (or projects) or as any other form of development. Any development on the withdrawn lands will not be detrimental to the adjoining condominium project.

Section 8.4 <u>Amendments to the Master Deed</u>. A withdrawal of lands from this Project by Developer will be given effect by appropriate amendments to the Master Deed which will not require the consent or approval of any Co-Owner, mortgagee, or other interested person. Amendments will be prepared by and at the sole discretion of Developer and may adjust the Percentages of Value assigned by Article V to preserve a total value of 100 percent for the entire Project resulting from any amendment.

Section 8.5 <u>Additional Provisions</u>. Any amendments to the Master Deed made by Developer to contract the Condominium may also contain provisions as Developer determines are necessary or desirable (i) to create easements burdening or benefiting portions or all of the parcel or parcels being withdrawn from the Project and (ii) to create or change restrictions or other terms and provisions, including designations and definition of Common Elements, affecting the parcel or parcels being withdrawn from the Project or affecting the balance of the Project, as reasonably necessary in Developer's judgment to preserve or enhance the value or desirability of the parcel or parcels being withdrawn from the Project.

#### ARTICLE IX CONVERTIBLE AREAS

Notwithstanding any other provision in this Master Deed or the Bylaws, Developer retains and may exercise its right of convertibility in accordance with Section 31 of the Act, any applicable local ordinances and regulations, and this Article IX; such changes in the affected Units and/or Common Elements shall be promptly reflected in a duly recorded amendment or amendments to this Master Deed. No such changes shall be made, however, without the approval of the Township. Subject to approval of the Township, Developer reserves the sole right during the Construction and Sales Period and without the consent of any other Co-Owner or any mortgagee of any Unit to do the following:

Section 9.1 <u>Designation of Convertible Areas</u>. All Units and Common Element areas are hereby designated as "Convertible Areas" within which: (a) the individual Units may be expanded or reduced in size, otherwise modified, and/or relocated; (b) Common Elements may be constructed, expanded, or reduced in size, otherwise modified, and/or relocated. Only the Developer or such person or persons to whom it specifically assigns the rights under this Article may exercise convertibility rights hereunder, subject at all times to the approval of the Township.

Section 9.2 <u>The Developer's Right to Modify Units and/or Common Elements</u>. The Developer reserves the right in Developer's sole discretion, from time to time, during a period ending six years from the date of recording this Master Deed, to enlarge, add, extend, diminish, delete, and/or relocate Units, and to construct private amenities on all or any portion or portions of the Convertible Areas. The Developer shall also be entitled to convert General Common Element areas into Limited Common Elements or Units in such areas as it, in its sole discretion, may determine. The precise number, nature, size and location of Unit and/or Common Element extensions and/or reductions and/or amenities that may be constructed and designated shall be determined by Developer in its sole judgment or any other person to whom it specifically assigns the right to make such determination subject only to necessary public agency approvals. Any private amenity other than a dwelling extension may be assigned by the Developer as a Limited Common Element to an individual Unit.

Section 9.3 Additional Amenities. The Developer may, in its sole discretion, construct various amenities including, but not limited to, an entrance gate or other limited access structure (subject to the approval of the Township and the Brighton Area Fire Authority), pedestrian paths, lighting systems, gazebos, picnic areas, or other related or similar amenities (hereinafter called the "Amenities") and hereby reserves the right to do so anywhere within the General Common Element area described on the Condominium Subdivision Plan. Developer shall pay the costs of such amenities, if constructed pursuant to its sole election. The Developer and/or Association shall comply with all township ordinances before starting the construction of any amenities. Upon inclusion of the same in the Condominium, all Co-Owners and all future Co-Owners shall thereafter contribute to the maintenance, repair, and replacement of the Amenities as an expense of administration of the Condominium and the maintenance, repair, and replacement thereof shall be the responsibility of the Association at its expense. If a gated entrance is installed, the Developer and the Association shall provide to all Emergency Service Providers all keys and/or codes necessary to obtain entry to the Condominium Premises. Developer has no obligation to construct any Amenities or include the same in the Condominium except pursuant to its absolute discretionary election to do so. Final determination of the design, layout, and location of any such Amenities, if constructed, will be at the sole discretion of the Developer, subject to compliance with all Township ordinances. After the expiration of the Construction and Sales Period, the foregoing convertibility rights may be exercised by the Association pursuant to the affirmative vote of two-thirds (2/3) of all Co-Owners, which shall bind all Co-Owners to contribute equally to the costs of installation, maintenance, repair, and replacement of any Amenities that may be installed

Section 9.4 <u>Developer's Right to Grant Specific Right of Convertibility</u>. The Developer shall have the authority to assign to the Co-Owner of a particular Unit the right of future

convertibility for a specific purpose. Such assignment shall be by specific written authority duly executed by the Developer prior to the completion of the Construction and Sales Period and shall be granted only at the sole discretion of the Developer

Section 9.5 <u>Compatibility of Improvements</u>. All improvements constructed within the Convertible Areas described above shall be reasonably compatible with the development and structures on other portions of the Condominium Project, as determined by Developer in its sole discretion

Section 9.6 <u>Amendment of Master Deed</u>. The exercise of rights of modification and/or convertibility in this Condominium Project shall be given effect by appropriate amendments to this Master Deed in the manner provided by law, which amendments shall be prepared by and at the discretion of the Developer or its assigns. The Developer shall be obligated to amend the Condominium Subdivision Plan to show all changes in the Units resulting from exercise of convertibility rights pursuant to this Article IX. The Developer shall, however, have the right to close on the sale of a Unit, notwithstanding the fact that the Unit may not conform in size and/or shape to the depiction of the Unit on the Condominium Subdivision Plan, provided that a Consolidating Master Deed depicting the modified Unit is ultimately recorded as required by the Act and this Master Deed.

Section 9.7 <u>Redefinition of Common Elements</u>. Such amendments to the Master Deed shall also contain such further definitions and redefinitions of Common Elements as may be necessary to adequately describe and service the modified Units, dwellings and appurtenances being included in the Project under this Article IX. In connection with any such amendments, the Developer shall have the right to change the nature of any Common Element previously included in the Project for any purpose reasonably necessary to achieve the purposes of this Article IX. In the event a Co-Owner exercises the right of convertibility described herein subsequent to Developer's final recording of a Consolidating Master Deed or other final amendment to the Master Deed, such Co- Owner shall be responsible, at his expense, to cause the Association to prepare and record an amendment to the Master Deed depicting such changes made by Co-Owner to the Unit and/or Common Elements

Section 9.8 <u>Consent of Interested Persons</u>. All of the Co-Owners and mortgagees of Units and other persons interested or to become interested in the Project from time to time shall be deemed to have irrevocably and unanimously consented to such amendments to this Master Deed as may be proposed by the Developer to effectuate the purposes of this Article IX. All such interested persons irrevocably appoint the Developer as agent and attorney for the purpose of execution of such amendments to the Master Deed and all other documents necessary to effectuate the foregoing. Such amendments may be effected without the necessity of rerecording the entire Master Deed or the Exhibits hereto and may incorporate by reference all or any pertinent portions of this Master Deed and the Exhibits hereto.

# ARTICLE X MODIFICATION OF UNITS AND LIMITED COMMON ELEMENTS

Notwithstanding anything to the contrary contained in this Master Deed or the Bylaws,

the Units in the Condominium and other Common Elements may be modified and the boundaries relocated in accordance with Section 48 of the Act and this Article X; such changes in the affected Unit or Units and its/their appurtenant Appurtenances or other Common Elements shall be promptly reflected in duly recorded amendment or amendments to this Master Deed.

Section 10.1 Modification of Units and Common Elements. The Developer may, in its sole discretion and without being required to obtain the consent of any person whatsoever (including Co-Owners and mortgagees of Units), except for the Township, whose written consent must be obtained, modify the size, location, or configuration of Units or Limited Common Elements appurtenant or geographically proximate to any Units as described in the Condominium Subdivision Plan attached hereto as Exhibit B or any recorded amendment or amendments hereof. Any such modifications by the Developer shall be effective upon the recordation of an amendment to the Master Deed. In addition, the Developer may, in connection with any such amendment, re-adjust Percentages of Value for all Units in a manner that gives reasonable recognition to such Unit modifications or Limited Common Element modifications based upon the method by which Percentages of Value were originally determined for the Condominium. All of the Co-Owners and mortgagees of Units and all other persons now or hereafter interested in the Condominium from time to time (except the Township) shall be deemed to have irrevocably and unanimously consented to any amendment or amendments to this Master Deed recorded by the Developer to effectuate the purposes of this Section 10.1 and, subject to the limitations set forth herein, to any proportionate reallocation of Percentages of Value of existing Units that Developer determines are necessary in conjunction with any such amendments. All such interested persons (except the Township) irrevocably appoint the Developer as agent and attorney for the purpose of executing such amendments to the Master Deed and all other documents necessary to effectuate the foregoing.

Section 10.2 <u>Relocation of Boundaries of Units or Common Elements</u>. Subject to the written approval of the Township, the Developer reserves the right during the Construction and Sales Period, and without the consent of any other Co-Owner or any mortgagee of any Unit, to relocate any boundaries between Units. Such relocation of boundaries of Unit(s) and/or Appurtenances shall be given effect by an appropriate amendment or amendments to this Master Deed in the manner provided by law, which amendment or amendments shall be prepared by and at the sole discretion of Developer, its successors, or its assigns. In the event an amendment is recorded in order to accomplish such relocation of boundaries of Units and/or Appurtenances, the amendment shall identify the relocated Unit(s) and/or Appurtenances by Unit number(s) and, when appropriate, the Percentage of Value as set forth herein for the Unit(s) and/or Appurtenances that have been relocated shall be proportionately allocated to the adjusted Unit(s) in order to preserve a total value of one hundred (100%) percent for the entire Condominium following such amendment to this Master Deed. The precise determination of the readjustments and percentages of value shall be within the sole judgment of Developer. However, the adjustments shall reflect a continuing reasonable relationship among percentages of value based upon the original method of determining percentages of value for the Condominium. Any such amendment to the Master Deed shall also contain such further definitions of Common Elements as may be necessary to adequately describe the Units in the Condominium as modified. All of the Co-Owners and mortgagees of Units and all other persons now or hereafter interested in the Condominium from time to time (except the Township) shall be deemed to have irrevocably and

unanimously consented to any amendment or amendments to this Master Deed recorded by the Developer to effectuate the purposes of this Section 10.2 and, subject to the limitations set forth herein, to any proportionate reallocation of percentages of value of Units that the Developer determines are necessary in connection with any such amendment. All such interested persons (except the Township) irrevocably appoint the Developer as agent and attorney for the purpose of executing such amendments to the Master Deed and all other documents necessary to effectuate the foregoing. Any such amendments may be accomplished without re-recording the entire Master Deed or its Exhibits.

Section 10.3 <u>Limited Common Elements</u>. Limited Common Elements shall be subject to assignment and reassignment in accordance with Section 39 of the Act, to accomplish the rights to relocate boundaries described in this Article X, or for other purposes.

# ARTICLE XI RESTRICTIONS

In addition to any restrictions or requirements set forth by local, state or federal law, ordinance, rule or regulation, <u>including the ordinances of the Township</u>, all of the Units in the Condominium Project shall be held, used, and enjoyed subject to the following limitations and restrictions:

# Section 11.1. Architectural Design Requirements and Unit Restrictions.

Residential Use and Basic Design Control. Unless otherwise specifically herein (a) permitted, the only structure that may be constructed and maintained upon a Unit is a single family dwelling with an attached garage that complies with the terms of the Condominium Documents (a "Dwelling"). The architectural style of every Dwelling will be determined by the Developer in its sole discretion. Every Dwelling will otherwise be designed, developed, and constructed to be dignified and to be harmonious and complimentary with every other Dwelling; and the Condominium Project will be developed as a refined and exclusive residential community of the highest architectural, construction, and aesthetic standards. Any other building, structure, or improvement (any of these an "Improvement") may only be constructed or installed or maintained upon a Unit with the prior written consent of Developer, which Developer may withhold in its sole discretion. Generally, the Developer does not intend to allow Improvements, except for the Dwelling, structures necessary in connection with an approved inground pool, and one permanent detached building with a minimum of 400 square feet, if built on a proper concrete foundation and located behind the house within the building envelope for such Unit, with the exterior matching the exterior of the house, or other exterior approved by the Developer. Any improvement that is permitted by Developer will be designed, developed, and constructed to be dignified and to be harmonious and complimentary with every Dwelling and with every other Improvement in order that the Condominium will be developed as a refined and exclusive residential community of the highest architectural, construction, and aesthetic standards. Temporary buildings or structures may not be constructed or erected or installed or maintained upon any Unit and mobile homes, trailers, campers, tents, shacks, tool sheds, barns, tree houses, or any other similar structures may not be located or installed or maintained upon any Unit, whether temporarily or permanently. In addition to the basic requirements set forth

herein, at any time and from time to time, Developer may prepare and distribute architectural and detail guidelines regarding the design, development, and construction of Dwellings and Improvements. Every Dwelling and Improvement must be constructed, installed, and maintained according to the terms and conditions of the Final Approval for that Dwelling or Improvement, pursuant to the terms of *Section 11.2* below. The Developer may at any time appoint one or more agents to perform its reviews and provide its approvals as required in this Article XI.

(b) <u>Structural and Design Guidelines of Dwelling</u>. All buildings must comply with all state and local building requirements, regulations and ordinances, and to the extent not inconsistent with such state and local building requirements, regulations and ordinances:

(i) <u>*Height.*</u> The maximum height of any Dwelling is 30 feet, as determined by the Developer in its sole discretion. Developer will in its sole discretion establish the method to determine the height of any Dwelling or Improvement.

(ii) <u>Square Foot Requirements.</u> The minimum livable floor area of any Dwelling is 2,200 square feet for a one-story Dwelling and 2,600 for a one and a half or two-story Dwelling, with a minimum of 1,900 square feet on the first floor. The maximum livable floor area of any Dwelling is 8,000 square feet. If an Owner owns two contiguous Units that will be the location of single Dwelling, it shall be treated as one Unit. The number of square feet of livable floor area in a Dwelling will not include the number of square feet contained in any garages, patios, decks, open porches, entrance porches, terraces, basements, lower levels, or any other similar areas (as determined by the Developer), whether or not any of the foregoing areas are attached to a dwelling. The number of square feet of livable floor area in a Dwelling will include the number of square feet contained in an enclosed porch that is attached to that Dwelling, if the roof of that porch is an integral part of the rook line of that Dwelling.

(iii) <u>Garage</u>. A garage must be attached to the side of each Dwelling and Developer will determine in its sole discretion the side of each Dwelling to which a garage will be attached and the side of each garage that will be the entrance to the garage. Each garage must contain sufficient space for two and one-half cars but may not be large enough to accommodate more than three cars or to accommodate recreational vehicles that would not be accommodated in a standard size, two car garage.

(iv) <u>Building Envelopes.</u> The location upon a Unit of every Dwelling and every improvement must comply with the front, rear, side and 25 feet undisturbed natural features wetland setback requirements of any applicable zoning ordinance; but regardless of the requirements of any applicable zoning ordinance, a Dwelling (including without limitation any overhangs, porches, patios, decks or any other portion of any Dwelling) or any Improvement may not be constructed or installed or maintained in any of the setbacks that are described and depicted in respect of each Unit in the Condominium Subdivision Plan. Developer will in its sole discretion determine the side, rear, and front boundary lines of each Unit and the side, rear, and front of any Dwelling constructed on any Unit; but to the extent deemed appropriate by the Developer in its sole discretion, any requirements or restrictions pertaining to the front of any Unit will be deemed to apply to the rear or to the side of any Unit, in order that any unsightly or inappropriate conditions of any Unit will not be visible from any other Unit or from any road. Without the prior written approval of Developer, a Dwelling or any Improvement may not be constructed upon any Unit if the proposed location of that Dwelling or Improvement will unreasonably obstruct the view from any other Dwelling.

(v) <u>Walkways and Driveways</u>. Each Dwelling shall have a driveway and walkway adequate to provide access. Walkways shall be paved with brick or concrete. All driveways shall be constructed with hard surfacing of asphalt, stamped colored concrete, concrete or brick paving, and shall be installed prior to occupancy of the residence, weather permitting. If completion of the drive will be delayed by weather until after the owner occupies the premises, the driveway shall be complete by the following June 1. If it is not so completed, the Developer may complete the same and be reimbursed for the cost thereof from the Co-Owner.

(vi) <u>Roof elements.</u> The minimum pitch of the roof over any Dwelling or Improvement is six feet vertical for every 12 feet horizontal; but flat roofs may be installed over "Florida rooms" or porches or patios and with the prior written approval of Developer a flat roof may be installed over particular portions of multiple level dwellings or in certain approved contemporary styles. Green, red, white, silver, gray, or any other off-white or similar color (as determined by Developer in its sole discretion) roofs are prohibited. All roofs must be covered by cedar shake, slate, or asphalt shingles.

(vii) <u>Exterior Design.</u> The exterior of every Dwelling and of every Improvement must be primarily wood, stone or brick, with a minimum of 60% brick or stone on all sides, unless a lesser amount is approved by the Developer, and the color of the exterior of every Dwelling (which color may not be changed without approval of the Developer) is subject to the approval of Developer, which approval Developer may withhold in its sole discretion. The installation of vinyl or aluminum siding, Texture 1-11, or drivet on the exterior of any Dwelling or Improvement is not permitted. The exterior of any Dwelling or any Improvement may not be painted or stained (or repainted or restained) without the prior written approval of Developer. Aluminum or metal windows may not be installed in any Dwelling or Improvement. Chimneys (whether for fires or for furnaces) must have flues which are entirely lined with a standard clay lining or with other fire-resistant material.

(viii) <u>Air Conditioning Location.</u> Any of the components of any air conditioning or similar systems (including without limitation any compressors) that are installed outside of any Dwelling must be screened by a stone or masonry wall in order that those components will not be visible from any other Units or from any road in order that any noise created by those components will be contained within that Unit. Developer will determine at any time and from time to time whether any particular screening is sufficient. Air conditioning or any other heating or cooling or ventilation units may not be installed within any window or attached to the wall of any Dwelling or Improvement.

# (c) Additional Unit Restrictions.

(i) <u>Recreational Ramps.</u> Ramps, inclines, or other similar structures to facilitate skate-boarding, roller skating, roller blading, or similar activities (as determined by Developer in its sole discretion) may not be installed or maintained upon any Unit.

(ii) <u>Repellent Devices.</u> Bug lights, "bug zappers", or another bug elimination or repellent devices may not be installed or maintained upon any Unit; but with the prior written approval of Developer (which Developer may withhold in its sole discretion) these devices may

be installed and maintained upon a Unit for a temporary period of time if there is a demonstrated need for that device for a special occasion.

(iii) <u>*Pools.*</u> Above-ground swimming pools are prohibited. In-ground swimming pools and outdoor, above-ground jacuzzis, hot tubs, or any other similar facilities may not be constructed or maintained upon a Unit without prior written approval of Developer, which Developer may withhold in its sole discretion.

(iv) <u>Antennae and Dishes.</u> Outside radio or television aerials or antennae and satellite dishes or other reception or transmission may be construed or maintained upon a Unit, in a location that has been approved by Developer and that will not be visible from any other Unit or from any road, Developer will not establish any rules regarding the use or location of any satellite dishes, if those rules are prohibited by applicable law or regulation.

(v) <u>Mailboxes and Addresses.</u> Mailboxes and street address designations may not be installed upon any Unit without prior written approval of Developer. At any time and from time to time the Developer may elect that all of the mailboxes in the Condominium Project will be either the same uniform design, and/or clustered at a common location; and in this event all of the mailboxes in the Condominium Project will be installed according to plans and specifications determined by Developer and at a common location that is determined by Developer. The cost of installing these mailboxes will be paid by each Owner and the Association may levy an assessment against each Unit to pay for the cost of installing any of these mailboxes.

(vi) <u>*Tennis Courts.*</u> Tennis courts may not be constructed or maintained upon a Unit without the prior written approval of Developer, which Developer may withhold in its sole discretion.

(vii) <u>Lawn sculptures and Signs</u>. Lawn ornaments, sculptures, statues, and signs may not be installed or maintained upon any Unit (including without limitation any signs stating that any Unit is for rent or for sale or any signs identifying any architect, builder, contractor, landscaper or landscape architect) without the prior written approval of Developer, which Developer may withhold in its sole discretion.

(viii) <u>Fences</u>. No fence or wall shall be placed, erected or permitted to remain on any Unit without approval of the Developer. Fences which are required by local ordinance to enclose swimming pools shall be allowed provided they are kept in good condition and repair at all times. In general, black wrought iron, aluminum or similar looking fences, ornamental fences, garden walls and similar devices may be approved, provided that if more than two (2) feet above grade in height, they do not extend further toward the front of the Lot than the rear line of the house. No wooden or chain link perimeter fences will be permitted.

(ix) <u>Yards and Landscaping</u>. All Units in the Project, not owned by Developer, shall be kept neat, and free of debris. No Unit shall be used as a dumping ground and all rubbish, trash, garbage or other waste shall be kept in sanitary containers. All brush or other debris piles and accumulations on any Unit or Units must be removed within ninety (90) days of its accumulation. No dirt shall be removed from any parcel without approval from the Developer. All Units shall be landscaped in a suitable manner, including finish grading, seeding or sodding, ornamental planting, and an underground sprinkler system. A minimum of 40 feet from the road edge and running the length of the property frontage shall be grass routinely cut and maintained. Any fence, wall, tree, hedge, bush, shrub or other planting, or obstacle shall not be placed or maintained within twenty-five (25) feet of any roadway if the same would obstruct sight along the roadway or another roadway at elevations between three (3) and six (6) feet due to curvature of the roadway or intersection with another roadway. However, trees may be planted or maintained within this area if the foliage line is maintained at sufficient height to prevent such obstruction of sight. All Unit owners are encouraged to reduce the use of fertilizers, herbicides and pesticides in maintaining their landscape. Any Unit which includes regulated wetlands shall not grade the area and shall preserve it in its natural state and shall preserve the undisturbed 25 feet natural features setback as required by the Township Ordinances. No living trees greater than three inches in diameter shall be cut or removed from a parcel twelve (12) months after the residence is completed without review and approval of the Developer.

(x) <u>Grade changes</u>. The Units have been left in as natural a state as possible and as a result of the construction of roads, there are low spots and other areas in which water may accumulate and stand temporarily. Neither the Developer nor the Livingston County Drain Commissioner is under any obligation to correct any such condition. The grade of any Unit in the development may not be altered so as to increase or direct water runoff to any other Unit or the development's wetland areas. Surface water runoff shall be directed to the development's storm water system. All water retention areas shall be allowed to remain in a state of nature, except as required for maintenance to ensure function as designed. No structures shall be erected nor shall any bushes, trees or other plants be planted thereon or any fill or other material deposited or placed thereon. No soil or minerals shall be dredged or removed, nor shall any water be drained therefrom.

(xi) <u>Non-Disturbance of Wetlands and Natural Features Set-back.</u> Certain portions of the land within the Condominium contain wetlands which are protected by federal and state law. Any disturbance of a wetland by depositing material in it, dredging or removing material from it or draining water from the wetland may be done only after a permit has been obtained from the Department of Environmental Quality or its administrative successor. The penalties specified in the applicable laws are substantial. To avoid any possibility of violation of such laws and to preserve the inherent beauty and environmental quality of the wetlands for all Co-Owners, neither any Co-Owner nor the Association may disturb in any way (including by pedestrian traffic, chemical sprays or any other intrusion) any wetland depicted as such on the Condominium Subdivision Plan. Additionally, as required by Township Ordinance, there shall be no construction or other disturbance of land or vegetation permitted within 25 feet of the boundary of any wetland as the wetland boundaries have been depicted on the Condominium Subdivision Plan which additional areas shall serve as protective buffers for all wetlands located within the Condominium.

# (d) <u>Use Restrictions</u>.

(i) <u>Activities</u>. Use of the common areas shall be restricted to Unit owners and their guests. All Unit owners shall have the right and easement of enjoyment of the common areas and such easement shall be appurtenant to and shall pass with the title of every Unit in the

development. No immoral, improper, unlawful or offensive activity shall be carried on in any Unit or upon the General Common Elements, nor shall anything be done which may be or become an annoyance or a nuisance to the Co-Owners of the Condominium Project. No unreasonably noisy activity shall occur in or on the Common Elements or in any Unit at any time and disputes among Co-Owners, arising as a result of this provision which cannot be amicably resolved, shall be arbitrated by the Association. No Co-Owner shall conduct or permit any activity or keep or permit to be in his Unit or on the Common Elements anything that will increase the rate of insurance on the Condominium, without the written approval of the Association, and, if approved, the Co-Owner shall pay to the Association the increased insurance premiums resulting from any such activity. Activities which are deemed offensive and are expressly prohibited include, but are not limited to, any activity involving the use of firearms, air rifles, pellet guns, BB guns, bows and arrows, or other similar dangerous weapons, projectiles or devices.

(ii) <u>Aesthetics</u>. The Limited and General Common Elements shall not be used for the storage of supplies, materials, personal property or trash or refuse of any kind, except in accordance with the duly adopted rules and regulations of the Association. No unsightly condition shall be maintained on any porch, courtyard or deck and only furniture and equipment consistent with the normal and reasonable use of such areas shall be permitted to remain there during seasons when such areas are reasonably in use, and no furniture or equipment of any kind shall be stored thereon during seasons when such areas are not reasonably in use. Trash receptacles shall at all times be maintained within garages and shall not be permitted to remain elsewhere on the Common Elements except for such short periods of time as may be reasonably necessary to permit the periodic collection of trash. In General, no activity shall be carried on nor any condition maintained by a Co-Owner, either in his Unit or upon the Common Elements, which is detrimental to the overall appearance of the Condominium.

(iii) <u>Vehicle storage</u>. No commercial vehicles, house trailers, boat trailers, boats, camping vehicles or camping trailers may be parked on or stored on any Unit in the development for any period in excess of forty eight hours, unless stored, fully enclosed within an attached garage. Commercial vehicles and trucks shall not be parked in the development on any Unit therein, except while making deliveries or pickups in the normal course of business. This shall not apply to developer's vehicles and structures, or vehicles and equipment used in connection with and during the period of home construction.

(iv) <u>Pets</u>. No animals, livestock or poultry of any kind shall be raised, bred, trapped, injured or killed, or kept in any Unit or other Limited Common Elements, except dogs, cats or other common household pets, and except that a Co-Owner may trap or dispose of any animal which constitutes a nuisance or a threat to health or safety. No animal may be kept or bred for any commercial purpose and every permitted pet shall be cared for and restrained so as not to be obnoxious or offensive to other Co-Owners. If pets are allowed in the yard of a residence, the same shall be controlled and restrained by "invisible fencing." No animal may be permitted to run loose at any time upon the General Common Elements and an animal shall at all times be leashed and accompanied by some responsible person while on the General Common Elements. No dangerous animal shall be kept and any Co-Owner who causes any animal to be brought or kept upon the Condominium Premise shall indemnify and hold harmless the

Association for any loss, damage or liability which the Association may sustain as a result of the presence of such animal on the premises, whether or not the Association has given its permission No runs, pens or shelters for pets shall be permitted within a Unit or other Limited therefor. Common Elements unless such runs, pens or shelters do not exceed 150 square feet in area and are located adjacent to an exterior wall of a dwelling or garage on the opposite side of the Unit from the street. The run or pen shall be fenced and the exterior shall be landscaped or planted so as to screen the view of adjoining Units. No dog or dogs shall be allowed to reside outside of a dwelling or be allowed to remain outside of a dwelling unsupervised for extended periods of time (multiple hours). The Association may charge all Co-Owners maintaining animals a reasonable additional assessment to be collected in the manner provided in Article II of the Bylaws in the event that the Association determines such assessment is necessary to defray the Association's costs of accommodating animals within the Condominium. The Association shall have the right to require that any pets be registered with the Association and may adopt such additional reasonable rules and regulations with respect to animals as it deems proper. In the event of any violation of this Section, the Board of Directors of the Association may assess fines for such violation in accordance with the Bylaws and in accordance with its duly adopted rules and regulations.

(v) <u>*Trash Containers*</u>. Containers may be placed at the roadside for pick-up but shall not be left there for more than twenty-four (24) hours in any week. Any debris resulting from the damage or destruction of any improvement on a Unit shall be removed with all reasonable dispatch in order to prevent an unsightly or unsafe condition.

(vi) <u>Subletting and leasing.</u> If a Unit is leased or sublet, the Co-Owner shall provide the name and contact information of the tenant or tenants to the Association and shall at all times remain responsible for its tenants' compliance with the obligation of the Project and the Association.

# Section 11.2. <u>Design and Architectural Approvals for Dwellings or Improvements.</u>

(a) In order that every Dwelling and every Improvement will be designed and constructed and the Condominium will be developed in a manner that is consistent with the highest standards of a beautiful, serene, first-class, private, residential community, any Dwelling or any Improvement, as the case may be, may not be constructed or installed or maintained, unless Developer, or its designated agent, has granted "Final Approval" in respect of that Dwelling or Improvement. To obtain Final Approval:

(i) The Owner of the Unit upon which the Dwelling or Improvement is proposed to be constructed or installed must first obtain "Concept Approval". To obtain Concept Approval, that Owner (or an authorized representative of that Owner) must submit to Developer (A) a topographical survey of each Unit, prepared by a registered engineer or surveyor and depicting existing grades and the location of all trees having a diameter at ground level of three inches or more; (B) a conceptual site plan, depicting the location of any proposed Dwelling or Improvement; (C) a conceptual floor plan; (D) conceptual front and rear elevation drawings of the proposed Dwelling or Improvement; and (E) a description of all of the colors and types of exterior materials in respect of the Dwelling or Improvement. Concept Approval will be deemed to have been granted when Developer has approved in writing all of these submissions.

(ii) If an Owner has obtained Concept Approval, that Owner must then obtain
"Preliminary Approval". To obtain Preliminary Approval, that Owner (or any authorized representative of that Owner) must submit to Developer (A) a detailed site plan of the Unit, superimposed over the topographical survey described under subparagraph (i) above, depicting proposed grades (including without limitation detailed proposed final grades for landscaping),
(B) a dimensioned floor plan; (C) detailed drawings of every elevation, (D) actual samples of cedar shake, slate, or asphalt shingles and stain or paint materials and colors, (E) a conceptual landscape plan, if applicable, and (F) an exterior lighting plan. The location of any proposed Dwelling or Improvement must be staked on the Unit. Preliminary Approval will be deemed to have been granted when Developer has approved in writing all of the foregoing submissions and the location of the Dwelling and all of the proposed Improvements, as the case may be.

If an Owner has obtained Preliminary Approval, that Owner must then (iii) obtain "Final Approval". To obtain Final Approval, that Owner (or any authorized representative of that Owner) must submit to Developer (A) all prints, plans, and other matters that have been submitted or are required to be submitted to obtain a building permit for the Dwelling or Improvement from the appropriate governmental authority, (B) a dimensional site plan, sealed by a registered engineer and depicting all setbacks and all existing and all proposed elevations and all trees located on the Unit and having a diameter at ground level of three inches or more (and an identification of any tree that the Owner of that Unit intends to remove from that Unit), (C) complete building plans for the Dwelling or Improvement, sealed by a registered architect, (D) a final exterior lighting plan that will (without limitation) be designed (I) in order that any exterior lighting will not directly shine into any other Dwelling and (II) to include a timing system that will activate exterior lighting at dusk and deactivate exterior lighting at dawn (which activation system will include both a photo-sensitive activator and a clock activator), (E) a construction schedule specifying completion date for foundations, rough-in, the entire Dwelling or Improvement, and the installation of landscaping, as applicable, (F) a list of exterior materials and colors (including paint and stain colors), including actual samples if not already submitted, (G) the deposit described under Paragraph 10(f)(iii) below, if required by Developer, and (H) any other materials or information required by Developer. Final Approval will be deemed to have been granted when Developer has approved in writing all of the foregoing submissions.

(iv) Each instrument or document submitted to Developer must be accompanied by three copies of that instrument or document. After Final Approval has been granted, two of these copies will be returned to the Owner of the Unit in respect of which these instruments or documents were submitted and any remaining copies will be retained by and be the property of Developer. Any approval hereunder by Developer will not be effective unless that approval is in writing.

(b) Regardless of any other terms of the Condominium Documents, any Dwelling or Improvement (or any alteration, modification, or variance of any Dwelling or Improvement) that is not in strict compliance with the terms of these Bylaws may not be constructed or maintained upon any Unit unless the particular condition of that Dwelling or Improvement that does not comply with the terms of these Bylaws was identified to Developer in the submissions required under subparagraph (a) above, and unless that condition was specifically recognized by Developer and approved by Developer in writing. Every Dwelling or Improvement and every alteration, modification, or variance of any Improvement must be constructed and installed in strict compliance with the Final Approval for that Dwelling or Improvement or for an alteration, modification or variance or any Dwelling or Improvement.

(c) A Dwelling or an Improvement may not be altered or modified or varied in any manner (including without limitation the materials and colors that will be used in respect of the construction and installation of that Improvement) from the terms of the Final Approval for that Dwelling or Improvement; and Final Approval must be obtained from Developer to alter or modify or vary any Dwelling or Improvement (even if that alteration or modification or variance is required for reasons beyond the control of the Owner of that Dwelling or Improvement); but if a proposed alteration or modification or variance or any Dwelling or Improvement is Immaterial (as determined by Developer), Final Approval is not required in respect of that alteration, modification, or variance. Any Owner requesting Final Approval to alter, modify, or vary any Improvement will first submit to Developer any information requested by Developer (including without limitation material and color samples) to permit Developer to determine whether that alteration, modification, or variance is material or immaterial.

(d) The plans and specifications submitted hereunder to Developer to obtain Concept Approval must be accompanied by a \$500 payment to Developer. This payment will be retained by Developer in respect to any costs or fees incurred by Developer to review any plans or specifications submitted under this Section by the Owner. This payment is not refundable. If an agent is designated by the Developer, this fee may be split with the agent.

Section 11.3 <u>Transfer of Architectural and Design Review.</u> The Developer shall have sole architectural review control through the end of the Construction and Sales Period. At that time, the Developer shall assign all review rights and authority to the Association. Thereafter references to the Developer shall be deemed to be the Association. The Association may appoint an agent or form an architectural review committee to perform the functions set forth in Section 11.2 above. In addition to the rules set forth above, the Association may prescribe from time to time the procedures to be followed and the information to be submitted in conducting such architectural reviews. The committee may refuse to consider any request which does not follow the prescribed procedures. In the event, the Developer ceases to exist or ceases to respond to requests for approvals or perform required responsibilities hereunder, the rights shall have been deemed to be assigned to the Association.

Section 11.4 <u>Association</u>. An Association to administer the Condominium Project shall be created in accordance with the Act which shall operate in accordance with the Bylaws attached hereto as Exhibit A. All Co-Owners are members of the Association, which shall consist of and exist for the benefit of all persons who shall at any given time own Units in the Project. The Association shall have the authority to establish rules, regulations, voting procedures and policies for the betterment of the Association, including the authority to make and enforce regulations pertaining to the use and maintenance of the common areas. Upon establishment of the Association shall have the authority to enforce building and use restrictions on

the Units that have been sold.

Section 11.5 <u>Association Dues</u>. Co-Owners shall pay assessments to cover taxes, maintenance, improvements, insurance and other costs incurred against the common areas as set forth in the Bylaws. In addition, upon purchase of a Unit, each Co-Owner shall pay a one-time initial capital contribution of One Thousand Dollars \$1,000.00 to the Developer. The Developer is not required to pay association dues for any unsold Units. These initial funds shall be used by the Developer for the purpose of promoting the recreation, health, safety, and welfare of the residents and for the operation and maintenance of common areas.

Section 11.6 <u>Rules and Regulations</u>. It is intended that the Board of Directors of the Association may adopt rules and regulations from time to time to reflect the needs and desires of the majority of the Co-Owners in the Condominium. Reasonable regulations consistent with the Act, this Master Deed and the Bylaws concerning the use of the Common Elements may be adopted and amended from time to time by any Board of Directors prior to the Transitional Control Date. Copies of all such rules, regulations and amendments thereto shall be furnished to all Co-Owners and shall become effective thirty (30) days after mailing or delivery thereof to the designated voting representative of each Co-Owner. Any such regulation or amendment may be revoked at any time by the affirmative vote of greater than 50% of the Co-Owners in number and value, except that the Co-Owners may not revoke any regulations adopted by the Association shall not limit Developer's construction, sales or rental activities. Notwithstanding the foregoing, any amendment to such rules and regulations which would be inconsistent with the Conditional Zoning Agreement or the approved final site plan for the Condominium shall require the written approval of the Township.

Section 11.7 <u>Right of Access of Association</u>. The Association and its duly authorized agents shall have access to each Unit and other Appurtenances and improvements constructed on such Unit, and any other Limited Common Elements appurtenant thereto from time to time, during reasonable working hours, upon notice to the Co-Owner thereof, as may be necessary for the performance of the maintenance of the Common Elements. In addition, the Association and its agents shall at all times without notice have access to each Unit and Appurtenances, and other improvements constructed thereon, and any Limited Common Elements appurtenant thereto as may be necessary to make emergency repairs to prevent damage to the Common Elements or to another Unit. Each Co-Owner shall be obligated to provide the Association with a means of access to his Unit and other improvements constructed on such Unit and any Limited Common Elements appurtenant thereto during the Co-Owner's absence, and in the event such Co-Owner fails to provide a means of access thereto the Association may gain access in such manner as may be reasonable under the circumstances and shall not be liable to such Co-Owner for any necessary damage thereto or for the repair or replacement of any doors or windows damaged in gaining such access.

Section 11.8 <u>Livingston County Health Department Restrictions</u>. The following restrictions placed on \_\_\_\_\_\_ Site Condominium Community by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department.

(a) There shall be no future subdividing of any building Units which would utilize individual onsite sewage disposal and/or water supply systems.

(b) \_\_\_\_\_\_ Site Condominium Project has been approved for 19 individual Units as described in \_\_\_\_\_\_\_ site plan Job #\_\_\_\_\_\_ dated \_\_\_\_\_\_ 2019. The septics and wells shall be located in the area of the approved soil borings as indicated on said plan, which is on file at the Livingston County Health Department.

(c) All wells shall be drilled by a licensed Michigan well driller and be drilled to a depth that will penetrate a minimum of 10 foot protective clay barrier or be drilled to a depth of 100 feet if adequate clay protection is not encountered. The well shall be grouted the entire length of the casing.

(d) The test wells used to determine onsite water supply adequacy have been drilled on Units \_\_\_\_\_ and \_\_\_\_. If these wells are not intended for use as potable water supplies, they must be properly abandoned according to Part 127, Act 368 of the Groundwater Quality Control Act.

(e) There shall be no underground utility lines located within the areas designated as active and reserve septic systems areas.

(f) The reserve septic locations as designated on the preliminary plan on file at the Livingston County Health Department must be maintained vacant and accessible for future sewage disposal uses.

(g) A 2800 square foot area has been designated on each Unit for the active and reserve sewage disposal systems to accommodate a typical four bedroom single family home. Proposed homes exceeding four bedrooms must show that sufficient area exists for both active and reserve sewage systems which meet all acceptable isolation distances.

(h) All restrictions placed on the development by the Livingston County Health Department are not severable and shall not expire under any circumstances unless otherwise amended or approved by the Livingston County Health Department. [include any health dept restrictions]

Section 11.9 <u>Unit division</u>. No Unit may be divided, split or reduced in size by any method, without the proper approval of the Developer and compliance with all applicable local ordinances and state laws. Units may be enlarged by consolidation with one or more adjoining Units under one ownership. If more than one Unit is developed as a Unit, all restrictions shall apply as to a single Unit.

Section 11.10 Reserved Rights of Developer.

(a) <u>Developer's Rights In Furtherance of Development and Sales</u>. None of the restrictions contained in this Article XI shall apply to the commercial activities or signs

or billboards, if any, of the Developer during the Construction and Sales Period or of the Association in furtherance of its powers and purposes set forth herein and in the Articles of Incorporation, as the same may be amended from time to time. Notwithstanding anything to the contrary contained elsewhere in this Master Deed or the Bylaws, the Developer shall have the right, during the Construction and Sales Period, to maintain a sales office, a business office, a construction office, model units, construction and/or sales trailers, storage areas and parking incident to the foregoing and such access to, from and over the Project as may be reasonable to enable the development and sale of the entire Project. The Developer shall restore the areas utilized by the Developer to habitable status upon its termination of use.

(b) <u>Enforcement of Restrictions</u>. The Condominium Project shall at all times be maintained in a manner consistent with the highest standards of a beautiful, serene, private, residential community for the benefit of the Co-Owners and all persons interested in the Condominium. If at any time the Association fails or refuses to carry out its obligation to provide maintenance with respect to the Condominium Project in a manner consistent with such high standards, then the Developer, or any entity to which it may assign this right, may elect to provide such maintenance as required by this Master Deed or the Bylaws and to charge the cost thereof to the Association as an expense of administration. The Developer shall have the right to enforce this Master Deed and the Bylaws throughout the Construction and Sales Period regardless of whether or not it owns a Unit in the Condominium. The Developer's enforcement rights under this Section may include, without limitation, an action to restrain the Association or any Co-Owner from performing any activity prohibited by this Master Deed and/or the Bylaws.

(c) <u>Waiver of Restrictions.</u> The purpose of this Article XI is to assure the continued maintenance of the Condominium as a beautiful and harmonious residential development and shall be binding upon all Co-Owners. The Developer may, in the Developer's sole discretion, waive, at any time during the Construction and Sales Period, any part of the restrictions set forth in this Article XI due to unusual topographic, natural, or aesthetic considerations or other circumstances that the Developer deems compelling. Any such waiver must be in writing and shall be limited to the Unit to which it pertains and shall not constitute a waiver as to enforcement of the restrictions as to any other Unit. Developer's rights under this Article XI may, in Developer's discretion, be assigned to the Association or other successor to Developer. Developer may construct any improvements upon the Condominium Premises that Developer may, in Developer's sole discretion, elect to make without the necessity of prior consent from the Association or any other person or entity, subject only to the express limitations contained in the Condominium Documents.

### ARTICLE XII AMENDMENT

Except as otherwise expressly provided in this Master Deed or in the Act, the Condominium shall not be terminated, vacated, revoked, or abandoned except as provided in the

Act, nor may any of the provisions of this Master Deed or Exhibit B be amended (but Exhibit A hereto may be amended as therein provided) except as follows:

# Section 12.1 Amendments.

(a) <u>Without Co-Owner and Mortgage Consent</u>. The Condominium Documents may be amended by the Developer or the Association without the consent of Co-Owners or mortgagees for any purpose if the amendment does not materially alter or change the rights of a Co-Owner or mortgage. Amendments modifying the types and sizes of unsold Units and their appurtenant Common Elements, showing minor architectural variances and modifications to a Unit, correcting survey or other errors made in the Condominium Documents, or for the purpose of facilitating mortgage loan financing for existing or prospective Co-Owners and to enable the purchase or insurance of such mortgage Association, the Federal Home Loan Mortgage Association, the Veterans Administration, the Department of Housing and Urban Development, or by any other institutional participant in the secondary mortgage market that purchases or insures mortgages, shall be examples of amendments that do not materially alter or change the rights of a Co-Owner or mortgagee.

(b) <u>With Co-Owner and Mortgagee Consent</u>. An amendment may be made, even if it will materially alter or change the rights of the Co-Owners or mortgagees, with the consent of not less than two-thirds (2/3) of the votes of the Co-Owners entitled to vote as of the record date of such vote and two-thirds (2/3) of the votes of the mortgagees; provided, that a Co-Owner's Unit dimensions or Limited Common Elements may not be modified without its consent, nor may the formula used to determine Percentages of Value for the Project or provisions relating to the purpose of usage, ability, or terms under which a Unit currently is leased or may be rented be modified without the consent of the Developer and each affected Co-Owner and mortgagee. Rights reserved by the Developer herein, including without limitation, rights to amend for purposes of expansion and/or modification of Units, shall not be amended without the written consent of the Developer so long as the Developer or its successors or assigns continue to own or to offer for sale any Unit in the Project, have the right to create one or more additional Units, or continues to own any interest in the Condominium Premises. For purposes of this subsection, a mortgagee shall have one vote for each mortgage held.

(c) <u>Material Amendment By Developer</u>. A material amendment may also be made unilaterally by the Developer without the consent of any Co-Owner or mortgagee for the specific purpose(s) reserved by the Developer in this Master Deed. During the Construction and Sales Period, this Master Deed shall not be amended nor shall the provisions of this Master Deed be modified in any way without the written consent of the Developer or its successors or assigns.

*(d) <u>Developer's Reserved Amendments</u>.* Notwithstanding any contrary provision of the Condominium Documents, Developer reserves the right to amend materially this Master Deed or any of its exhibits for any of the following purposes:

i. To amend the Condominium Bylaws, subject to any restrictions on amendments stated therein;

ii. To correct arithmetic errors, typographical errors, survey or plan errors, deviations in construction or any similar errors in the Master Deed, Condominium Subdivision Plan, or Condominium Bylaws, or to correct errors in the boundaries or locations of improvements, including revising the Subdivision Plan to fully comply with the applicable regulations;

iii. To clarify or explain the provisions of this Master Deed or its exhibits;

iv. To comply with the Act or rules promulgated thereunder or with any requirements of any governmental or quasi-governmental agency or any financing institution providing mortgages on Units in the Condominium Premises;

v. To create, grant, make, define, or limit easements affecting the Condominium Premises;

vi. To record an "as built" Condominium Subdivision Plan and/or consolidating Master Deed and/or to designate any improvements shown on the Plan as "must be built," subject to any limitations or obligations imposed by the Act;

vii. To terminate or eliminate reference to any right which Developer has reserved to itself herein; and

viii. To make alterations described in this Master Deed, even if the number of Units in the Condominium would thereby be increased or reduced.

Amendments of the type described in this Subsection 7.1(d) may be made by the Developer without the consent of Co-Owners or mortgagees, and any Co-Owner or mortgagee having an interest in a Unit affected by such an amendment shall join with the Developer in amending this Master Deed.

(e) <u>Costs and Expenses; Notice</u>. A person causing or requesting an amendment to the Condominium Documents shall be responsible for costs and expenses of the amendment, except for amendments based upon a vote of the prescribed majority of Co-Owners and mortgagees, the costs of which are expenses of administration. The Co-Owners and mortgagees of record shall be notified of proposed amendments under this Section not less than ten (10) days before the amendment is recorded.

(f) <u>Developer Consent Required</u>. Articles II, IV, V, VI, VII, VIII, IX, X, XI, XII and XIII shall not be amended, nor shall the provisions thereof be modified by any other amendment to this Master Deed, without the written consent of the Developer, so long as the Developer continues to offer any Unit in the Condominium for sale or so long as there remains any Unit that may be created. Developer's reservation of easement rights for adjacent property and Developer's right to consent to all easements affecting the Condominium shall be perpetual and cannot be amended.

(g) <u>Charter Township of Genoa Consent Required</u>. No amendment of this Master Deed or the Condominium Documents may be made without the prior written consent of the Charter Township of Genoa, if such amendment would affect a right of the Charter Township of Genoa set forth or reserved with in this Master Deed or in the Condominium Documents.

Section 12.2 <u>Termination</u>. If there is a Co-Owner other than the Developer, the Condominium may be terminated only with consent of the Developer and not less than 80% of the Co-Owners and mortgagees, as follows:

(a) <u>Execution of Agreement</u>. Agreement of the required number of Co-Owners and mortgagees to termination of the Condominium shall be evidenced by their execution of the termination agreement or of ratifications thereof, and the termination shall become effective only when the agreement is so evidenced of record.

(b) <u>Ownership of Condominium</u>. Upon recordation of an instrument terminating the Condominium, the property constituting the Condominium shall be owned by the Co-Owners as tenants in common in proportion to their Condominium Percentage of Value immediately before recordation. As long as the tenancy in common lasts, each Co-Owner or the heirs, successors, or assigns thereof shall have an exclusive right of occupancy of that portion of the property, which formerly constituted the Unit.

(c) <u>Notice of Termination</u>. Notification of termination by first class mail shall be made to all parties interested in the Condominium, including escrow agents, land contract vendors, creditors, lienholders, and prospective purchasers who deposited funds.

#### ARTICLE XIII ASSIGNMENT

Subject to the provisions of any land contract or mortgage, any or all of the rights and powers granted or reserved to the Developer in the Condominium Documents or by law, including the power to approve or disapprove any act, use, proposed action, or any other matter or thing, may be assigned by the Developer to and be assumed by any other entity or the Association. Any such assignment or transfer shall be made by appropriate instrument in writing duly recorded in the office of the Livingston County Register of Deeds.

# ARTICLE XIV SEVERABILITY

If any provision of this Master Deed shall be determined to be invalid or unenforceable by a court of competent jurisdiction, such determination shall not render this entire Master Deed invalid or unenforceable, and the provisions of this Master Deed not subject to such determination shall survive, unaffected thereby.

#### ARTICLE XV CONTROLLING LAW

The provisions of the Act, and of the other laws of the State of Michigan, shall be applicable to and govern this Master Deed and all activities related hereto.

# IN WITNESS WHEREOF, the undersigned has executed this Master Deed as of the date first written above.

#### THE RIDGE AT BRIGHTON, LLC

By: John M. Moretti Its: Managing Member

### STATE OF MICHIGAN ) ) ss COUNTY OF LIVINGSTON)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2019, by John M. Moretti, Managing Member of The Ridge at Brighton, LLC, a Michigan limited liability company, on behalf of said company.

Catherine A. Riesterer, Notary Public Livingston County, Michigan My Commission Expires: 4/6/2021

DRAFTED BY AND WHEN RECORDED RETURN TO: Catherine A. Riesterer COOPER & RIESTERER, PLC 7900 Grand River Road Brighton, MI 48114 810-227-3103

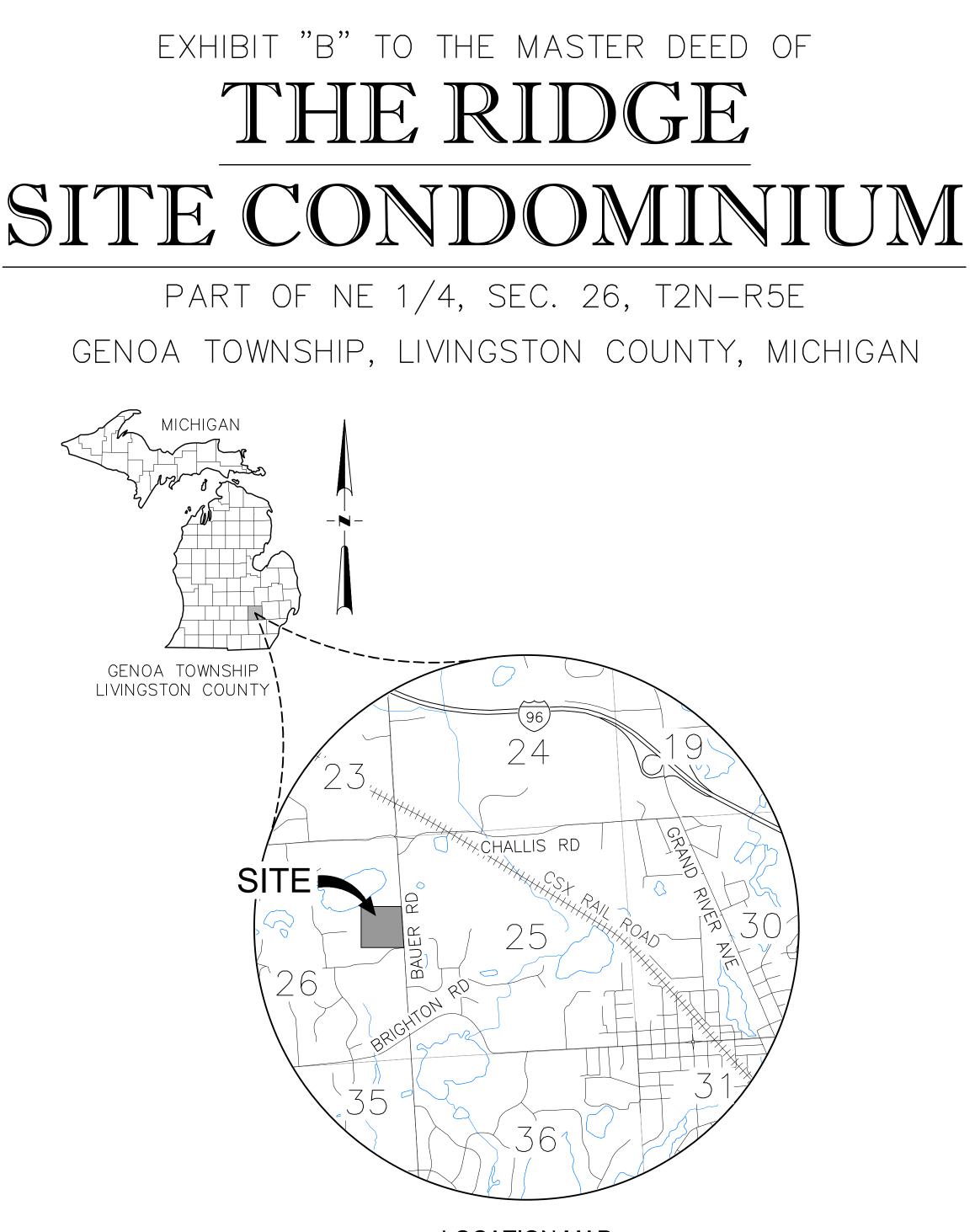
# LEGAL DESCRIPTION DEVELOPMENT PARCEL (AS SURVEYED)

A PART OF THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 2 NORTH, RANGE 5 EAST, GENOA TOWNSHIP, LIVINGSTON COUNTY, STATE OF MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE EAST 1/4 CORNER OF SAID SECTION 26, THENCE ALONG THE EAST-WEST 1/4 LINE OF SAID SECTION 26 (AS MONUMENTED) AND THE NORTH LINE OF BRIGHTON ESTATES SUBDIVISION AS RECORDED IN LIBER 23, PAGE 35 THRU 39 OF THE LIVINGSTON COUNTY RECORDS, S87°17'35"W, 1332.50 FEET; THENCE ALONG THE EAST LINE OF LOT 30 AND LOT 29 OF SAID BRIGHTON ESTATES SUBDIVISION, NO2°40'57"W, 1320.93 FEET TO THE NORTHEAST CORNER OF SAID LOT 29 OF BRIGHTON ESTATES SUBDIVISION; THENCE N86°54'53"E, 697.77 FEET; THENCE S01°17'52"W, 520.30 FEET; THENCE S74°19'35"E, 73.08 FEET; THENCE PARALLEL WITH SAID EAST LINE OF LOT 30 AND 29, S02°40'57"E, 231.96 FEET; THENCE N87°17'35"E, 275.70 FEET TO THE NORTH LINE OF A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT; THENCE ALONG SAID NORTH LINE OF A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT THE FOLLOWING THREE (3) COURSES: 1) N11°35'55"E, 25.22 FEET; 2) 242.46 FEET, ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAS A RADIUS OF 183.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS N49°33'17"E AT A DISTANCE OF 225.11 FEET; 3) N87°30'40"E, 91.61 FEET TO THE WEST RIGHT-OF-WAY LINE OF BAUER ROAD (PUBLIC - RIGHT-OF-WAY); THENCE ALONG SAID WEST RIGHT-OF-WAY LINE, NO2°40'58"W, 18.89 FEET: THENCE N86°54'53"E, 50.00 FEET TO THE EAST LINE OF SAID SECTION 26 AND CENTERLINE OF BAUER ROAD (PUBLIC - RIGHT-OF-WAY); THENCE ALONG SAID EAST LINE OF SECTION 26 AND CENTERLINE OF BAUER ROAD, SO4°40'58"E, 732.60 FEET TO SAID EAST 1/4 CORNER OF SECTION 26, SAID POINT ALSO BEING THE POINT OF BEGINNING CONTAINING 30.261 ACRES. SUBJECT TO A 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT AS DESCRIBED AS FOLLOWS: COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION 26; THENCE ALONG THE EAST LINE OF SAID SECTION 26 AND CENTERLINE BAUER ROAD (PUBLIC -RIGHT-OF-WAY), NO2°40'58"W, 647.18 FEET; THENCE S87°30'40"W, 50.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF SAID BAUER ROAD AS THE POINT OF BEGINNING OF 66 FOOT WIDE INGRESS/EGRESS & PUBLIC/PRIVATE UTILITY EASEMENT: THENCE CONTINUING S87°30'40"W. 91.83 FEET: THENCE 155.02 FEET, ALONG THE ARC OF A CURVE TO THE LEFT, SAID CURVE HAS A RADIUS OF 117.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS S49°33'17"W AT A DISTANCE OF 143.90 FEET: THENCE N78°24'05"W, 66.00 FEET; THENCE 242.46 FEET, ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAS A RADIUS OF 183.00 FEET, A CENTRAL ANGLE OF 75°54'45", AND A CHORD WHICH BEARS N49°33'17"E AT A DISTANCE OF 225.11 FEET: THENCE N87°30'40"E, 91.61 FEET TO SAID WEST RIGHT-OF-WAY LINE OF BAUER ROAD; THENCE ALONG SAID WEST RIGHT-OF-WAY LINE, SO2°40'58"E, 66.00 FEET TO THE POINT OF BEGINNING, ALSO SUBJECT TO THE RIGHTS OF THE PUBLIC OVER BAUER ROAD (PUBLIC - RIGHT-OF-WAY), ALSO SUBJECT TO ANY OTHER EASEMENTS OR RESTRICTIONS OF RECORD. DESIGN ENGINEER/SURVEYOR MONUMENT ENGINEERING GROUP ASSOCIATES, INC , ing Group INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE, FOWLERVILLE, MI 48836 PHONE: 517-223-3512

GA

40W - . 20



LOCATION MAP

## BEARING REFERENCE

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM: MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113, INTERNATIONAL FEET, GROUND.

## OWNER/DEVELOPER

## JOHN MORETTI

4242 BAUER ROAD BRIGHTON, MI 48116

## LANDSCAPE ARCHITECT

GREAT OAKS LANDSCAPE

28025 SAMUEL LINDEN COURT NOVI, MI 48377 PHONE: 248-349-8555

# COUNTY CONDOMINIUM SUBDIVISION PLAN NO.\_\_\_\_

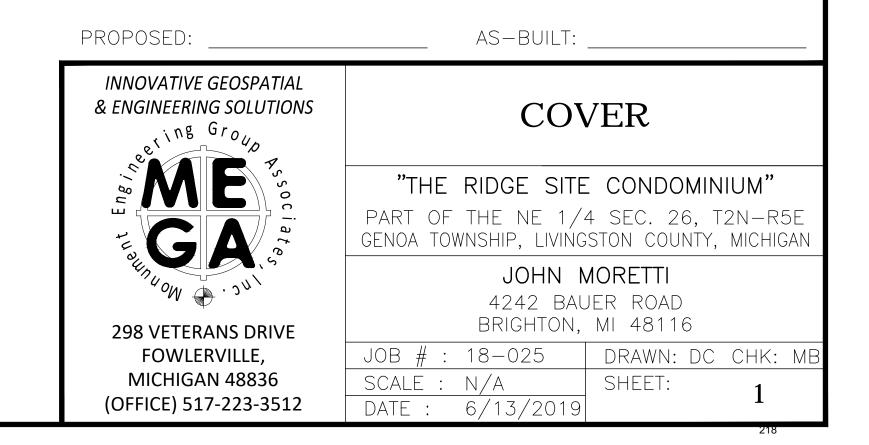
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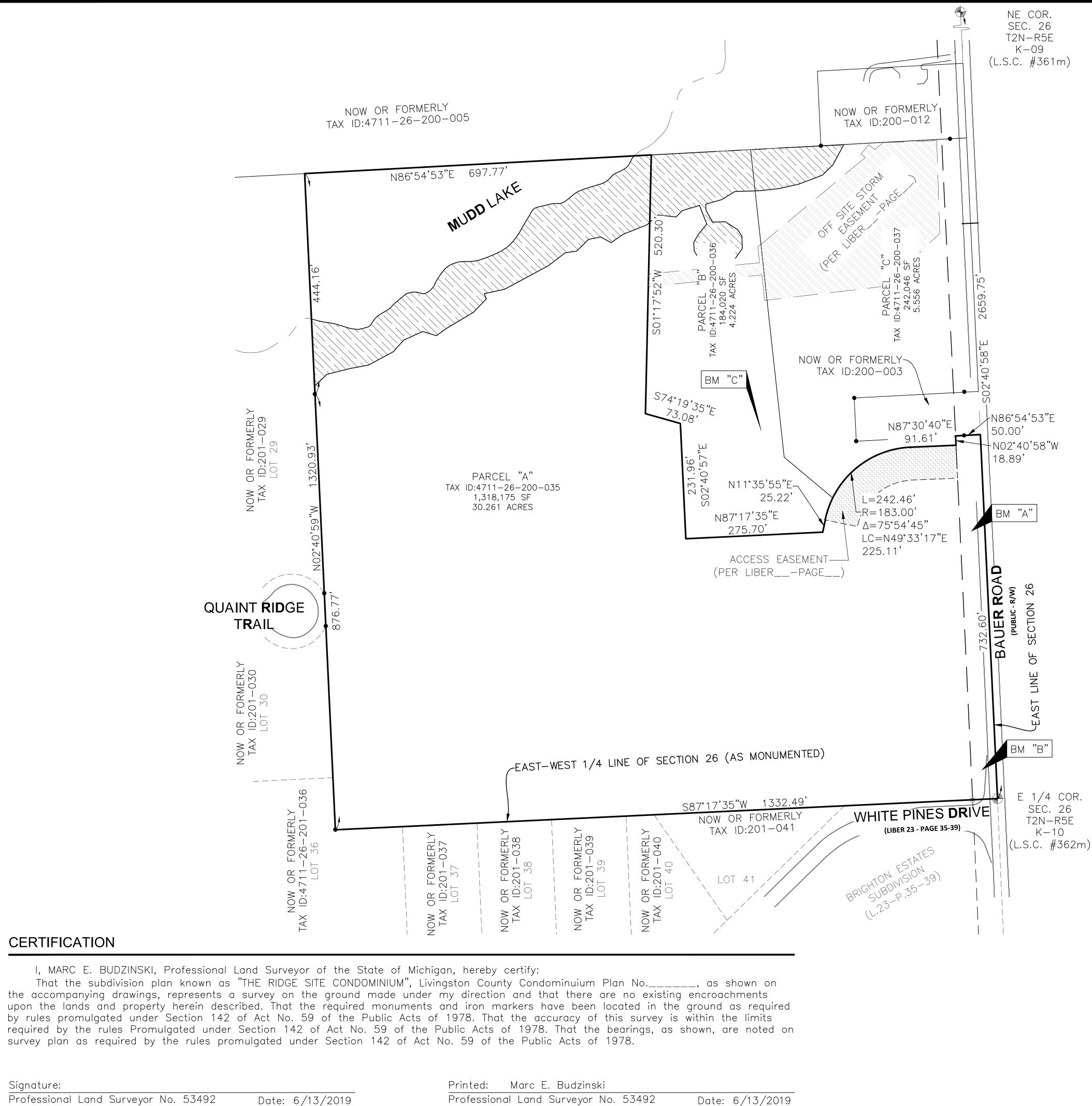
By Amy Ruthig at 11:30 am, Jun 17, 2019

		SHEET INDEX
SHEET	1	COVER SHEET
SHEET	2	SURVEY PLAN
SHEET	3	SITE PLAN COORDINATES
SHEET	4	UNIT PLAN
SHEET	5	UTILITY PLAN

# NOTE: ATTENTION COUNTY REGISTER OF DEEDS

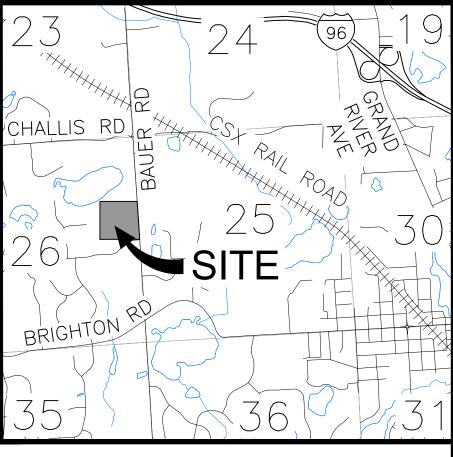
- THE CONDOMINIUM SUBDIVISION PLAN NUMBER MUST BE ASSIGNED IN CONSECUTIVE SEQUENCE. WHEN A NUMBER HAS BEEN ASSIGNED TO THIS PROJECT, IT MUST BE PROPERLY SHOWN IN THE TITLE, SHEET 1 AND THE SURVEYOR'S CERTIFICATE, SHEET 2.
- THIS CONDOMINIUM SUBDIVISION PLAN IS NOT REQUIRED TO CONTAIN DETAILED PROJECT DESIGN PLANS PREPARED BY THE APPROPRIATE LICENSED DESIGN PROFESSIONAL SUCH PROJECT DESIGN PLANS ARE FILED, AS PART OF THE CONSTRUCTION PERMIT APPLICATION, WITH THE ENFORCING AGENCY FOR THE STATE CONSTRUCTION CODE IN THE RELEVANT GOVERNMENTAL SUBDIVISION. THE ENFORCING AGENCY MAY BE LOCAL BUILDING DEPARTMENT OR THE STATE DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS.
- ALL ROADS AND DRAINAGE SYSTEMS SHOWN HAVE BEEN CONSTRUCTED OR MUST BE BUILT





Signature.		
Professional Land Surveyor No. 53492	Date:	6/13/2019
Monument Engineering Group & Associates Inc. 298 Veterans Drive Fowlerville, MI		

FILE:P:\Projects\2018\18-025 Moretti Estates\Dwg\Exhibit Bs\18-025\_Ex B-2\_Survey.dwg DATE:6/11/2019 5:39 AM



LOCATION MAP

## NO SCALE

## LEGEND

SECTION LINE, SECTION CORNER WETLANDS LIMIT LINE
GENERAL COMMON AREA
WETLANDS AREA
LIMITED COMMON ELEMENT
ON SITE STORM EASEMENT
OFF SITE STORM EASEMENT
ACCESS EASEMENT

## **BENCHMARKS**

DATUM: NAVD88

BM A:

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE. ELEV = 986.91

BM B:

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE. ELEV = 970.48

BM C: RAIL ROAD SPIKE IN WEST FACE UTILITY POLE,  $439'\pm$ WEST OF CENTERLINE OF BAUER ROAD & 565'± SOUTH FROM SUBJECT'S NORTH PROPERTY LINE. ELEV = 1013.57



INNOVATIVE GEOSPATIAL

& ENGINEERING SOLUTIONS

, ing Group

"40W . 2"

**ME** 

AS-BUILT:

# SURVEY PLAN

"THE RIDGE SITE CONDOMINIUM" PART OF THE NE 1/4 SEC. 26, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN JOHN MORETTI 4242 BAUER ROAD BRIGHTON, MI 48116

JOB # : 18-025

DATE : 6/13/2019

SCALE :

: 1"=100'

DRAWN: DC CHK: ME

2

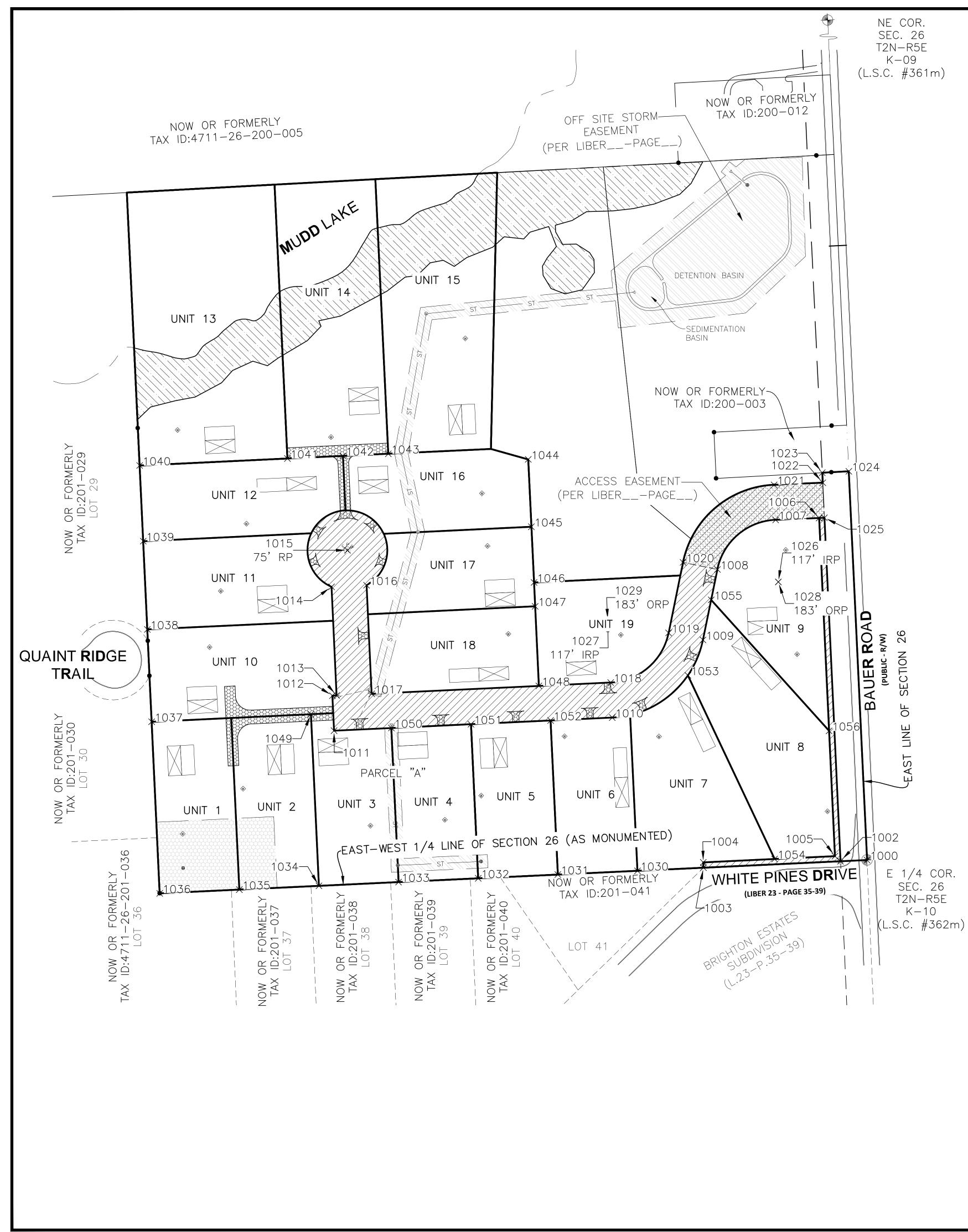
SHEET:

298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512

1" = 100'

200

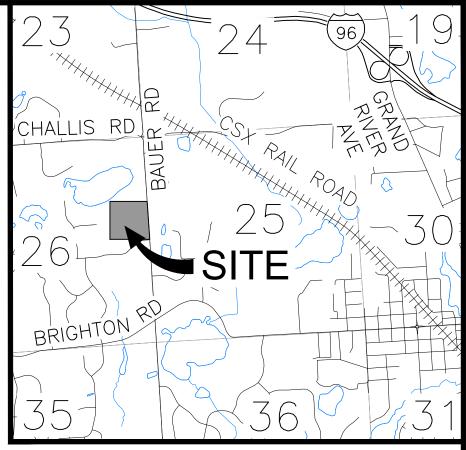
0 50 100



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COORDINATE LISTS		
NO.	NORTHING	EASTING
1000	378069.8908	13272637.0269
1002	378067.6755	13272587.0759
1003	378055.4846	13272329.2139
1004	378065.4735	13272328.7416
1005	378077.1936	13272576.6190
1006	378713.8760	13272546.7862
1007	378710.3561	13272465.0295
1008	378616.9898	13272355.4994
1009	378484.2026	13272328.2455
1010	378338.1997	13272157.6253
1011	378313.4409	13271634.0604
1012	378379.3709	13271630.9431
1013	378379.7454	13271638.9304
1014	378584.3340	13271629.3381
1015	378653.0609	13271659.3648
1016	378587.2170	13271695.2754
1017	378382.8657	13271704.8573
1018	378404.1260	13272154.5082
1019	378497.4722	13272263.5933
1020	378630.2593	13272290.8471
1021	378776.2938	13272462.1633
1022	378780.2720	13272553.6861
1023	378799.1430	13272552.8019
1024	378801.8342	13272602.7294
1025	378714.3440	13272556.7753
1026	378593.4665	13272470.1103
1027	378520.9955	13272148.9824
1028	378593.4665	13272470.1103

	COORDINATE	E LISTS
NO.	NORTHING	EASTING
1029	378520.9955	13272148.9824
1030	378049.6117	13272205.0027
1031	378042.5273	13272055.170
1032	378035.4429	13271905.3375
1033	378028.3586	13271755.5048
1034	378021.2742	13271605.6722
1035	378014.1898	13271455.8396
1036	378007.1059	13271306.0170
1037	378330.2549	13271290.8736
1038	378504.0641	13271282.7286
1039	378670.1944	13271274.9434
1040	378812.7259	13271268.2755
1041	378825.8724	13271546.3202
1042	378830.8140	13271650.8329
1043	378834.8460	13271736.1082
1044	378824.2301	13271999.5232
1045	378697.4141	13272005.4650
1046	378592.5292	13272010.3793
1047	378547.5785	13272012.4855
1048	378397.7429	13272019.5059
1049	378344.4233	13271590.5313
1050	378318.5402	13271741.9086
1051	378325.6246	13271891.7412
1052	378332.7094	13272041.5738
1053	378417.5443	13272299.9355
1054	378071.8235	13272463.0426
1055	378559.7262	13272343.7464
1056	378313.0671	13272565.5668



LOCATION MAP

NO SCALE

# LEGEND

SECTION LINE, SECTION CORNER WETLANDS LIMIT LINE
GENERAL COMMON AREA
WETLANDS AREA
LIMITED COMMON ELEMENT
ON SITE STORM EASEMENT
OFF SITE STORM EASEMENT
RETENTION/INFILTRATION EASEMENT
ACCESS EASEMENT

PROPOSED: AS-BUILT: INNOVATIVE GEOSPATIAL SITE PLAN & ENGINEERING SOLUTIONS COORDINATES ering Group ME "THE RIDGE SITE CONDOMINIUM" PART OF THE NE 1/4 SEC. 26, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN Ju GA JOHN MORETTI 4242 BAUER ROAD BRIGHTON, MI 48116 298 VETERANS DRIVE 1" = 100' 0 50 100 FOWLERVILLE, JOB # : 18-025 DRAWN: DC CHK: M MICHIGAN 48836 SCALE : 1"=100' DATE : 6/13/2019 SHEET: 3 2Ó0 (OFFICE) 517-223-3512



	UNIT CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA	CHORD
C 1	155.02'	117.00'	75°54'45"	N49°33'17"E 143.92'
C2	72.90'	183.00'	22°49'30"	N23°00'40"E 72.42'
С3	134.85'	183.00'	42°13'10"	N55°32'00"E 131.82'
C4	34.02'	183.00'	10°39'00"	N81°58'05"E 33.97'
С5	119.94'	75.00'	91°37'48"	S20°35'04"E 107.56'
C6	81.07'	75.00'	61°55'54"	S56°11'47"W 77.18'
C7	89.34'	74.96'	68°16'56"	N58°42'56"W 84.14'
C8	112.56'	75.00'	85°59'09"	N18°23'58"E 102.29'
С9	154.57'	117.00'	75°41'40"	S49°26'45"W 143.57'

MOUNTAIN RIDGE DR. LINE TABLE				
line #	BEARING	DISTANCE		
L1	S2°40'58"E	66.00'		
L2	S87°30'40"W	91.83'		
L3	S11°35'55"W	135.56'		
L4	S87°17'33"W	524.15'		
L5	N2°42'25"W	66.00'		
L6	N87°18'56"E	8.00'		
L7	N2°41'04"W	204.81'		
L8	S2°41'05"E	204.58'		
L9	N87°17'35"E	450.15'		
L10	N11°35'55"E	135.56'		
L11	N87°30'40"E	91.61'		

### MOUNTAIN RIDGE DR. CURVE TABLE

CHORD

S49°33'17"W 143.92'

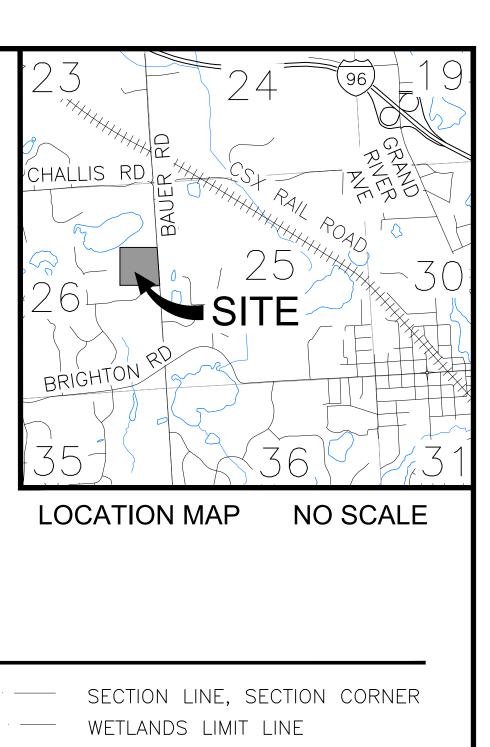
S49°26'42"W 224.56'

N87°29'47"E 66.00'

N49°26'45"E 143.57'

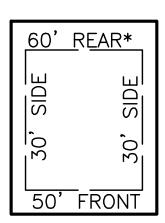
N49°33'18"E 225.11'

CURVE #	LENGTH	RADIUS	DELTA
C10	155.02'	117.00'	75°54'45"
C11	241.76'	183.00'	75°41'34"
C12	402.90'	75.00'	307°47'31"
C13	154.57'	117.00'	75°41'40"
C14	242.46'	183.00'	75°54'45"



GENERAL COMMON AREA
WETLANDS AREA
LIMITED COMMON ELEMENT
ON SITE STORM EASEMENT
OFF SITE STORM EASEMENT
RETENTION/INFILTRATION EASEMENT
ACCESS EASEMENT
35' ABOVE GRADE (2 STORIES)
GRADE

## TYPICAL UNIT SECTION NO SCALE

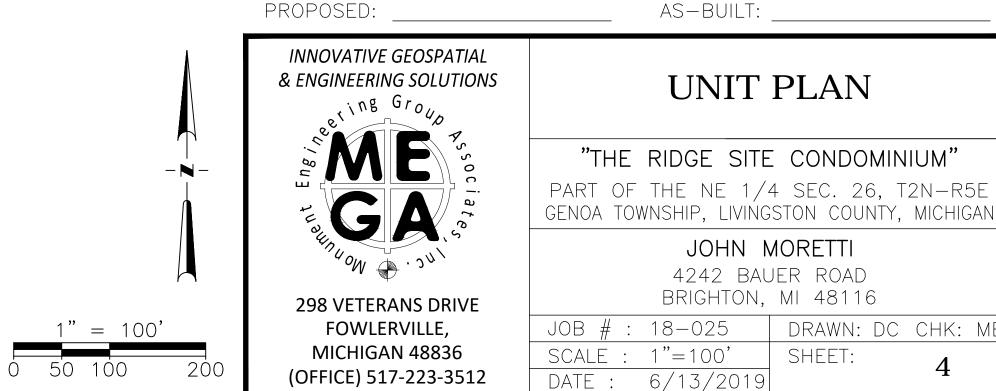


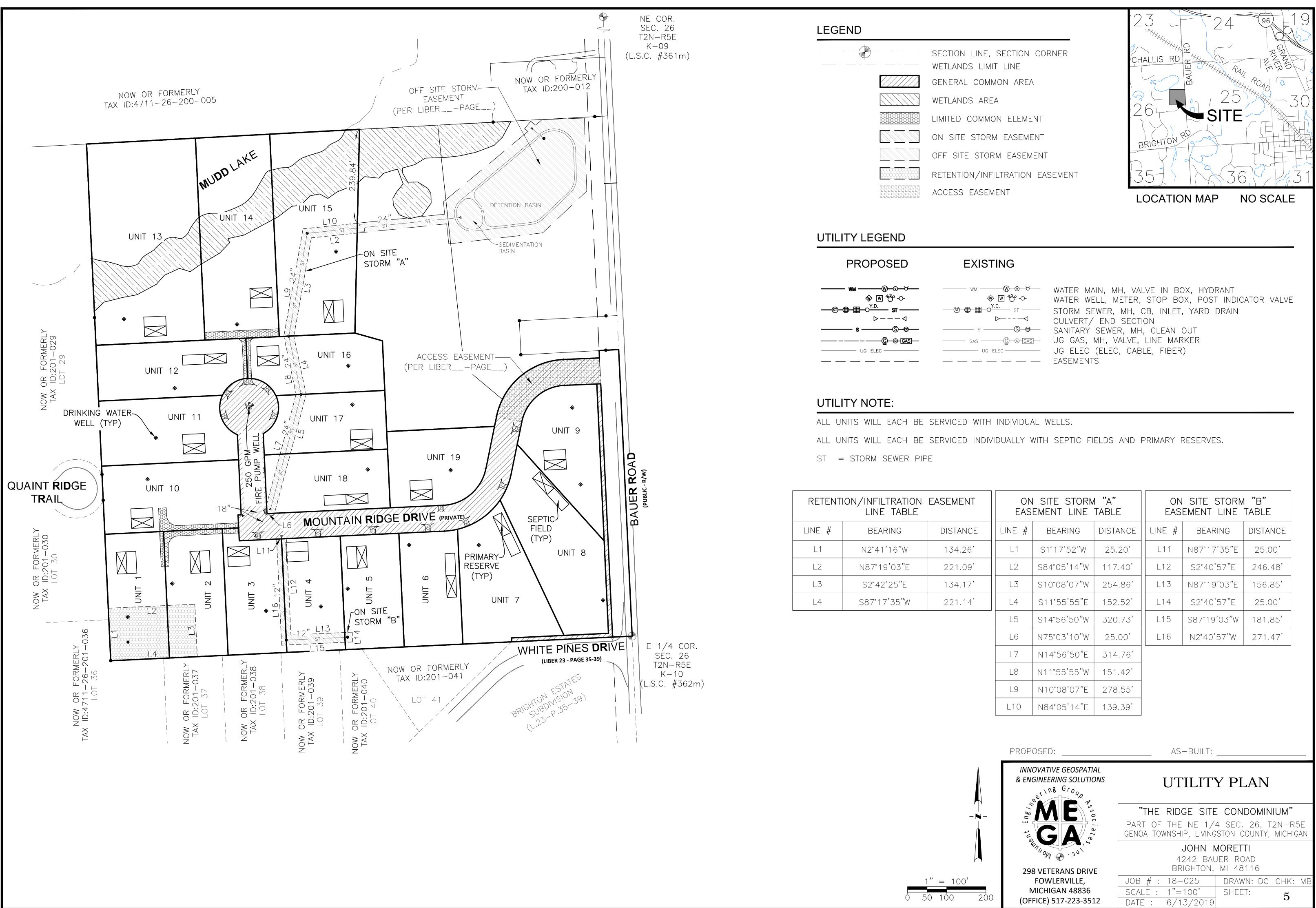
## UNIT SETBACKS, TYPICAL NO SCALE

\*REAR SETBACKS ALONG WETLANDS ARE 25'

PROPOSED:

LEGEND





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ATION ABLE	EASEMENT		I SITE STORM EMENT LINE			SITE STORM EMENT LINE	
3	DISTANCE	LINE #	BEARING	DISTANCE	LINE #	BEARING	DISTANCE
"₩	134.26'	L1	S1°17'52"W	25.20'	L11	N87°17'35"E	25.00'
3"E	221.09'	L2	S84°05'14"W	117.40'	L12	S2°40'57"E	246.48'
"Е	134.17'	L3	S10°08'07"W	254.86'	L13	N87°19'03"E	156.85'
5"W	221.14'	L4	S11°55'55"E	152.52'	L14	S2°40'57"E	25.00'
		L5	S14°56'50"W	320.73'	L15	S87°19'03"W	181.85'
		L6	N75°03'10"W	25.00'	L16	N2°40'57"W	271.47'
		L7	N14°56'50"E	314.76'			
		L8	N11°55'55"W	151.42'			
		L9	N10°08'07"E	278.55'			
		L10	N84°05'14"E	139.39'			

**RECEIVED** By Amy Ruthig at 11:29 am, Jun 17, 2019

### EXHIBIT A

### CONDOMINIUM BYLAWS

## THE RIDGE SITE CONDOMINIUM ASSOCIATION

#### **CONDOMINIUM BYLAWS**

#### THE RIDGE SITE CONDOMINIUM ASSOCIATION

#### ARTICLE I ASSOCIATION OF CO-OWNERS

Section 1.1 Formation; Membership. The Ridge Site Condominium (sometimes referred to herein as "Condominium Project"), a residential Condominium Project located in Genoa Township, Livingston County, Michigan, shall be administered by The Ridge Site Condominium Association, which shall be a non-profit corporation, hereinafter called the "Association," organized under the applicable laws of the State of Michigan. The Association shall be responsible for the management, maintenance (which term, for purposes of these Bylaws, shall also mean decoration, repair, renovation, restoration, and replacement, unless otherwise specified), operation, and administration of the Common Elements, easements, and affairs of the Condominium Project in accordance with the Condominium Documents and the laws of the State of Michigan. These Bylaws shall constitute both the Condominium Bylaws referred to in the Master Deed and required by Section 53 of the Act and the Association Bylaws provided for under the Michigan Non-Profit Corporation Act. Each Co-Owner shall be a member in the Association and no other person or entity shall be entitled to membership. Co-Owners are sometimes referred to as "Members" in these Bylaws. A Co-Owner's share of the Association's funds and assets cannot be assigned, pledged, or transferred in any manner except as an appurtenance to his Unit. The Association shall retain in its files current copies of the Master Deed, all amendments to the Master Deed, and other Condominium Documents for the Condominium Project, all of which shall be available at reasonable hours for review by Co-Owners, prospective purchasers, and prospective mortgagees of Units in the Condominium Project. All Co-Owners in the Condominium Project and all persons using or entering upon or acquiring any interest in any Unit therein or the Common Elements thereof shall be subject to the provisions and terms set forth in the Condominium Documents.

Section 1.2 <u>Definitions</u>. Capitalized terms used in these Bylaws without further definition shall have the meanings ascribed to such terms in the Master Deed or the Act unless the context dictates otherwise.

Section 1.3 <u>Conflicts of Terms and Provisions</u>. In the event there exists any conflict among the terms and provisions contained within the Master Deed or these Bylaws, the terms and provisions of the Master Deed shall control.

#### ARTICLE II ASSESSMENTS

Section 2.1 <u>Assessments Against Units and Co-Owners</u>. All expenses arising from the management, administration, and operation of the Association in accordance with the authorizations and responsibilities prescribed in the Condominium Documents and the Act shall be levied by the Association against the Units and the Co-Owners thereof in accordance with the provisions of this Article II.

Section 2.2 <u>Assessments for Common Elements; Personal Property Taxes Assessed Against</u> <u>the Association</u>. All costs incurred by the Association to satisfy any liability or obligation arising from, caused by, or connected with the Common Elements or the administration of the Condominium Project shall constitute expenditures affecting the administration of the Project, and all sums received as the proceeds of or pursuant to any policy of insurance securing the interest of the Co-Owners against liabilities or losses arising within, caused by, or connected with the Common Elements or the administration of the Condominium Project shall constitute receipts affecting the administration of the Condominium Project within the meaning of Section 54(4) of the Act.

*Section 2.3 <u>Determination of Assessments</u>*. Assessments shall be determined in accordance with the following provisions:

Budget. The Board of Directors of the Association shall establish an annual (a)budget ("Budget") in advance for each fiscal year and such Budget shall project all expenses for the ensuing year which may be required for the proper operation, management, and maintenance of the Condominium Project, including a reasonable allowance for contingencies and reserves. An adequate reserve fund for maintenance of the Common Elements that must be repaired or replaced on a periodic basis shall be established in the budget and must be funded by regular annual payments as set forth in Section 2.4 below, rather than by special assessments. At a minimum, the reserve fund shall be equal to 20% of the Association's current annual Budget on a non-cumulative basis. Since the minimum standard required by this subparagraph may prove to be inadequate for the Project, the Association of Co-Owners should carefully analyze the Condominium Project to determine if a greater amount should be set aside or if additional reserves should be established for other purposes from time to time. Upon adoption of a Budget by the Board of Directors, copies of the Budget shall be delivered to each Co-Owner and the assessment for said year shall be established based upon said Budget. The applicable annual assessments, as levied, shall constitute a lien against all Units as of the first day of the fiscal year in which the assessments relate. Failure to deliver a copy of the Budget to each Co-Owner shall not affect or in any way diminish such lien or the liability of any Co-Owner for any existing or future assessments. Should the Board of Directors at any time determine, in its sole discretion, that the assessments levied are or may prove to be insufficient: (1) to pay the actual costs of the Condominium Project's operation and management; (2) to provide for maintenance of existing Common Elements; (3) to provide additions, restoration, renovation, and replacement to the Common Elements not exceeding \$5,000.00 annually for the entire Condominium Project; or (4) in the event of emergencies, the Board of Directors shall have the authority to increase the general assessments and to levy such additional assessment or assessments as it shall deem to be necessary. The Board of Directors shall also have the authority, without Co-Owner or mortgagee consent, to levy assessments for repair, restoration, renovation, and replacement in the event of casualty, pursuant to the provisions of Section 5.4 below. The discretionary authority of the Board of Directors to levy assessments pursuant to this subparagraph shall rest solely with the Board of Directors for the benefit of the Association and its Members and shall not be enforceable by any creditors of the Association or its Members.

(b) <u>Special Assessments</u>. Special assessments, in addition to those required in Section 2.3(a) above, may be made by the Board of Directors from time to time, subject to Co-Owner approval as hereinafter provided, to meet other needs or requirements of the Association, including, but not limited to: (1) assessments for additions to the Common Elements of a cost exceeding \$5,000.00 for the entire Condominium Project per year; (2) assessments to purchase a Unit upon foreclosure of the lien for assessments described in Section 2.6 below; or (3) assessments

for any other appropriate purpose that could not be covered by the annual assessment. Special assessments referred to in this subparagraph (b) (but not including assessments referred to in Section 2.3(a) above, which shall be levied in the sole discretion of the Board of Directors) shall not be levied without the prior approval of the Co-Owners representing 60% or more of all Co-Owners. The authority to levy assessments pursuant to this subparagraph is solely for the benefit of the Association and its Members and shall not be enforceable by any creditors of the Association or its Members.

(c) <u>Remedial Assessments</u>. If any Co-Owner fails to provide proper maintenance of any Limited Common Element that is appurtenant to his Unit, which failure, in the opinion of the Board of Directors adversely affects the appearance of the Condominium Project as a whole or the safety, health, or welfare of the other Co-Owners of the Condominium Project, the Association may, following notice to such Co-Owner, take any actions reasonably necessary to provide such maintenance for the Unit, and the cost thereof shall be assessed against the Co-Owner who has the responsibility under the Master Deed or these Bylaws to maintain such Unit. The Association may also take the actions permitted under Section 4.3(b) of the Master Deed, and the cost(s) thereof shall be assessed as provided in said Section 4.3(b).

(d) <u>Working Capital Contribution</u>. Any Co-Owner who acquires a Unit from the Developer shall pay to the Association, on the date said Unit is conveyed to the Co-Owner, an amount equal to the then current annual assessment, which sum constitutes a one-time non-refundable contribution to the Association's working capital account.

(e) <u>Limitations on Assessments for Litigation</u>. The Board of Directors shall not have the authority under this Section 2.3 or any other provision of these Bylaws or the Master Deed to levy any assessment or to incur any expense or legal fees with respect to any litigation without the prior approval, by affirmative vote, of not less than two-thirds (2/3) of all Co-Owners entitled to vote. This subsection shall not apply to any litigation commenced by the Association to enforce collection of delinquent assessments pursuant to these Bylaws. In no event shall the Developer be liable for , nor shall any Unit owner by Developer be subject to any lien for, any assessment levied to fund the cost of asserting any claim against the Developer, whether by arbitration, judicial proceeding, or otherwise.

Section 2.4 <u>Apportionment of Assessments and Penalty for Default</u>. Unless otherwise provided in these Bylaws or in the Master Deed, all assessments levied against the Co-Owners to cover management, maintenance, operation, and administration expenses shall be apportioned among and paid by the Co-Owners in accordance with the respective Percentages of Value allocated to each Co-Owner's Unit in Article V of the Master Deed. Annual assessments determined in accordance with Section 2.3(a) above shall be paid by Co-Owners in one (1) installment, commencing with the acceptance of a deed to or a land contract vendee's interest in a Unit, or with the acquisition of fee simple title to a Unit by any other means. A Co-Owner shall be in default of his assessment obligations if he fails to pay any assessment installment when due. A late charge not to exceed \$25.00 per month shall be assessed automatically by the Association upon any assessments in default for ten (10) or more days until the assessment installment(s) together with the applicable late charges are paid in full. Each Co-Owner (whether one or more persons) shall be, and remain, personally liable for the payment of all assessments (including fines for late payments and costs of collection and enforcement of payment) relating to his Unit, which may be levied while such Co-Owner owns the Unit. Payments to satisfy assessment installments in default shall be applied as follows: first, to the costs of collection and enforcement of payment, including reasonable attorneys' fees; second, to any interest charges and fines for late payment on such installments; and third, to the installments in default in the order of their due dates.

Section 2.5 <u>Waiver of Use or Abandonment of Units</u>. No Co-Owner may exempt himself from liability for his assessment obligations by waiving the use or enjoyment of any of the Common Elements or by abandoning his Unit.

Section 2.6 <u>Liens for Unpaid Assessments</u>. The sums assessed by the Association that remain unpaid, including, but not limited to, regular assessments, special assessments, fines, and late charges, shall constitute a lien upon the Unit or Units in the Project owned by the Co-Owner at the time of the assessment and upon the proceeds of sale of such Unit or Units. Any such unpaid sum shall constitute a lien against the Unit as of the first day of the fiscal year in which the assessment, fine, or law charge relates and shall be a lien prior to all claims except real property taxes and first mortgages of record. All charges that the Association may levy against any Co-Owner shall be deemed to be assessments for purposes of this Section 2.6 and Section 108 of the Act.

### Section 2.7 Enforcement.

(a) Remedies. In addition to any other remedies available to the Association, the Association may enforce the collection of delinquent assessments by a suit at law or by foreclosure on the statutory lien that secures payment of assessments. In the event any Co-Owner defaults in the payment of any annual assessment installment levied against his Unit, the Association shall have the right to declare all unpaid installments of the annual assessment for the pertinent fiscal year to be immediately due and payable. The Association may also discontinue furnishing any utilities or other services to a Co-Owner in default upon seven (7) days' written notice to such Co-Owner. A Co-Owner in default shall not be entitled to utilize any of the General Common Elements of the Project and shall not be entitled to vote at any meeting of the Association until the default is cured; provided, however, this provision shall not operate to deprive any Co-Owner of ingress or egress to and from his Unit or the dwelling or other improvements constructed thereon or in the appurtenant Limited Common Element(s). In a judicial foreclosure action, a receiver may be appointed to collect a reasonable rental for the Unit from the Co-Owner thereof or any persons claiming under him. The Association may also assess fines for late payment or non-payment of assessments in accordance with the provisions of Section 17.4 of these Bylaws. All of these remedies shall be cumulative and not alternative.

(b) *Foreclosure Proceedings*. Each Co-Owner, and every other person who, from time to time, has any interest in the Project, shall be deemed to have granted to the Association the unqualified right to elect to foreclose the lien securing payment of assessments either by judicial action or by advertisement. The provisions of Michigan law pertaining to foreclosure of mortgages by judicial action and by advertisement, as the same may be amended from time to time, are incorporated herein by reference for the purposes of establishing the alternative procedures to be followed in lien foreclosure actions and the rights and obligations of the parties to such actions. In addition, each Co-Owner and every other person who from time to time has any interest in the Project, shall be deemed to have authorized and empowered the Association to sell or to cause to be sold the Unit with respect to which the assessment(s) is or are delinquent and to receive, hold and distribute the proceeds of such sale in accordance with the priorities established by applicable law. Each Co-Owner of a Unit in the Project acknowledges that at the time of acquiring title to such Unit,

he was notified of the provisions of this subparagraph and he voluntarily, intelligently and knowingly waived notice of any proceedings brought by the Association to foreclose any assessment liens by advertisement and waived the right to a hearing prior to the sale of the applicable Unit.

(c) Notices of Action. Notwithstanding the provisions of Section 2.7(b), the Association shall not commence a judicial foreclosure action or a suit for a money judgment or publish any notice of foreclosure by advertisements until the expiration of 10 days after mailing, by first class mail, postage prepaid, and addressed to the delinquent Co-Owner at his last known address, of a written notice that one or more assessment installments levied against the pertinent Unit is or are delinquent and that the Association may invoke any of its remedies under these Bylaws if the default is not cured within 10 days from the date of mailing. Such written notice shall be accompanied by a written affidavit of an authorized representative of the Association that sets forth: (i) the affiant's capacity to make the affidavit, (ii) the statutory and other authority for the lien, (iii) the amount outstanding (exclusive of interest, costs, attorney fees, and future assessments), (iv) the legal description of the subject Unit(s), and (v) the name(s) of the Co-Owner(s) of record. Such affidavit shall be recorded in the office of the Livingston County Register of Deeds prior to the commencement of any foreclosure proceeding. If the delinquency is not cured within the 10-day period, the Association may take such remedial action as may be available to it under these Bylaws and under Michigan law. In the event the Association elects to foreclose the lien by advertisement, the Association shall notify the delinquent Co-Owner of the Association's election and shall inform him that he may request a judicial hearing by bringing suit against the Association.

(d) *Expenses of Collection*. The expenses incurred by the Association in collecting unpaid assessments, including interest, costs, actual attorneys' fees (not limited to statutory fees), and advances for taxes or other liens paid by the Association to protect its lien, shall be chargeable to the defaulting Co-Owner and shall be secured by a lien on his Unit.

Section 2.8 <u>Liability of Mortgagees</u>. Notwithstanding any other provisions of the Condominium Documents, the lien holder of any first mortgage covering any Unit in the Project which comes into possession of the Unit pursuant to the remedies provided in the mortgage or by deed (or assignment) in lieu of foreclosure, and any purchaser at a foreclosure sale, shall take the property free of any claims for unpaid assessments or against the mortgaged Unit that accrue prior to the time such holder comes into possession of the Unit (except for claims for a pro rata share of assessments or charges resulting from a pro rata reallocation of assessments or charges to all Units, including the mortgaged Unit).

Section 2.9 <u>Developer's Responsibility for Assessments</u>. The Developer, although a Member of the Association, shall not be responsible at any time for the payment of Association assessments except with respect to Units owned by the Developer that contain a completed and occupied residential dwelling. A residential dwelling is complete when it has received a certificate of occupancy from Genoa Township and a residential dwelling is occupied if it is being utilized as a residence. In addition, in the event Developer is selling a Unit with a completed residential dwelling thereon by land contract to a Co-Owner, the Co-Owner shall be liable for all assessments and the Developer shall not be deemed the owner of the applicable Unit and shall not be liable for any assessments levied up to and including the date, if any, upon which Developer actually retakes possession of the Unit following extinguishment of all rights of the land contract purchaser in the Unit. However, the Developer shall at all times pay the maintenance expenses pertaining to the Units that it owns, together with a proportionate share of all current maintenance expenses actually

incurred by the Association (excluding reserves) for utility maintenance, landscaping, sign lighting, and snow removal, but excluding management fees and expenses related to the maintenance and use of Units in the Project that are not owned by the Developer. For purposes of the foregoing sentence, the Developer's proportionate share of such expenses shall be based upon the ratio of all Units owned by the Developer at the time the expense is incurred to the total number of Units then in the Project. In no event shall the Developer be responsible for assessments for deferred maintenance, reserves for maintenance, capital improvements, or other special assessments except with respect to Units that are owned by the Developer that contain completed and occupied residential dwellings. Any assessments levied by the Association against the Developer for other purposes, without the Developer's prior written consent, shall be void and of no effect. In addition, the Developer shall not be liable for any assessment levied in whole or in part to purchase any Unit from the Developer or to finance any litigation or claims against the Developer, any cost of investigating or preparing such litigation or claim, or any similar or related costs.

Section 2.10 <u>Property Taxes and Special Assessments</u>. All property taxes and special assessments levied by any public taxing authority shall be assessed in accordance with Section 131 of the Act.

Section 2.11 <u>Personal Property Tax Assessment of Association Property</u>. The Association shall be assessed as the person or entity in possession of any tangible personal property of the Condominium owned or possessed in common by the Co-Owners, and personal property taxes based thereon shall be treated as expenses of administration.

Section 2.12 <u>Construction Liens</u>. A construction lien otherwise arising under Act No 497 of the Michigan Public Acts of 1980, as amended, shall be subject to Section 132 of the Act.

Section 2.13 Statement as to Unpaid Assessments. The purchaser of any Unit may request a statement from the Association identifying the amount of any unpaid Association regular or special assessments relating to such Unit. Upon written request to the Association accompanied by a copy of the executed purchase agreement pursuant to which the purchaser holds the right to acquire a Unit, the Association shall provide a written statement identifying any existing unpaid assessments or a written statement that none exist, which statement shall be binding upon the Association for the period stated therein. Upon the payment of the sum identified in the statement within the period identified in the statement, the Association's lien for assessments as to such Unit shall be deemed satisfied; provided, however, if a purchaser fails to request such statement at least five (5) days prior to the closing of the purchase of such Unit, any unpaid assessments and the lien securing them shall be fully enforceable against such purchaser and the Unit itself to the extent provided by the Act. Under the Act, unpaid assessments constitute a lien upon the Unit and the sale proceeds thereof, which has priority over all claims except tax liens in favor of any state or federal taxing authority and sums unpaid on a first mortgage of record, except that past due assessments that are evidenced by a notice of lien, recorded pursuant to Section 2.7, have priority over a first mortgage recorded subsequent to the recording of the notice of the lien.

### ARTICLE III ARBITRATION

Section 3.1 <u>Scope and Election</u>. Disputes, claims, or grievances arising out of or relating to the interpretation or the application of the Condominium Documents, or any disputes, claims, or

grievances arising among or between the Co-Owners and the Association, upon the election and written consent of the parties to any such disputes, claims, or grievances (which consent shall include an agreement of the parties that the judgment of any circuit court of the State of Michigan may be rendered upon any award pursuant to such arbitration), and upon written notice to the Association, shall be submitted to arbitration, and the parties shall accept the arbitrator's decision as final and binding, provided that no question affecting the claim of title of any person to any fee or life estate in real estate is involved. The Commercial Arbitration Rules of the American Arbitration Association as amended and in effect from time to time shall be applicable to any such arbitration.

*Section 3.2 <u>Judicial Relief</u>.* In the absence of the election and written consent of the parties pursuant to Section 3.1 above, any Co-Owner or the Association may petition the courts to resolve any disputes, claims, or grievances.

*Section 3.3 <u>Election of Remedies</u>.* The election and written consent by the disputing parties to submit any dispute, claim, or grievance to arbitration shall preclude such parties from thereafter litigating such dispute, claim, or grievance in the courts. Nothing contained in this Article III shall limit the rights of the Association or any Co-Owner described in Section 144 of the Act.

### ARTICLE IV INSURANCE

Section 4.1 <u>Extent of Coverage</u>. The Association shall, to the extent appropriate in light of the nature of the General Common Elements of the Project, carry fire and extended coverage, vandalism and malicious mischief coverage, and liability insurance (in a minimum amount to be determined by the Developer or the Association in its discretion); officers' and directors liability insurance and workmen's compensation insurance, if applicable; and other insurance the Association may deem applicable, desirable, or necessary pertinent to the ownership, use, and maintenance of the General Common Elements, and such insurance shall be carried and administered in accordance with the following provisions:

(a) <u>Responsibilities of the Association</u>. All of the insurance referenced in this Section 4.1 shall be purchased by the Association for the benefit of the Association, the Co-Owners, and their mortgagees, as their interests may appear, and provision shall be made for the issuance of mortgagee endorsements to the mortgagees of Co-Owners.

(b) <u>Insurance of Common Elements</u>. All General Common Elements of the Condominium Project shall be insured against fire and other perils covered by a standard extended coverage endorsement in an amount equal to the current insurable replacement value, excluding foundation and excavation costs, if any, as determined annually by the Board of Directors of the Association in consultation with the Association's insurance carrier and/or its representatives, utilizing commonly employed methods for the reasonable determination of replacement costs.

(c) <u>*Premium Expenses*</u>. All premiums on insurance purchased by the Association pursuant to these Bylaws shall be expenses of administration.

(d) <u>Proceeds of Insurance Policies</u>. Proceeds of all insurance policies owned by the Association shall be received by the Association, held in a separate account and distributed to the

Association, and the Co-Owners and their mortgagees, as their interest may appear, provided, however, whenever repair, restoration, or replacement of any part of the Condominium shall be required as provided in Article V of these Bylaws, the proceeds of any insurance received by the Association as a result of any loss requiring same shall be retained by the Association and applied for such repair, restoration, or replacement, as applicable.

Section 4.2 <u>Authority of Association to Settle Insurance Claims</u>. Each Co-Owner, by ownership of a Unit in the Condominium Project, shall be deemed to appoint the Association as his true and lawful attorney-in-fact to act in connection with all matters concerning the maintenance of fire and extended coverage, vandalism and malicious mischief coverage, liability insurance, and workman's compensation insurance, if applicable, pertinent to the Condominium Project and the General Common Elements appurtenant thereto. Without limiting the foregoing, the Association shall have full power and authority to purchase and maintain such insurance, to collect and remit premiums thereunder, to collect insurance proceeds, and to distribute the same to the Association, the Co-Owners, and respective mortgagees, as their interest may appear (subject always to the Condominium Documents), and/or to utilize said proceeds for required repairs, restoration, or replacement, to execute releases of liability, and to execute all documents and to do all things on behalf of such Co-Owner and the Condominium as shall be necessary or convenient to accomplish the foregoing purposes.

Section 4.3 Co-Owner Responsibilities. Each Co-Owner shall be responsible for obtaining fire and extended coverage and vandalism and malicious mischief insurance with respect to the dwelling, appurtenances, and all other improvements constructed or to be constructed within the perimeter of his Unit, any Limited Common Elements appurtenant thereto, and for his personal property located therein or thereon or elsewhere in the Condominium Project. The Association shall have no responsibility whatsoever to provide such insurance. In addition, each Co-Owner shall be obligated to obtain insurance coverage for personal liability (and, where applicable, workmen's compensation insurance) for occurrences within the perimeter of his Unit and any other appurtenant Limited Common Elements, naming the Association and the Developer as additional insureds, and also for any other personal insurance coverage that the Co-Owner wishes to carry. Each Co-Owner shall deliver certificates of insurance to the Association from time to time to evidence the continued existence of all insurance required to be maintained by the Co-Owner under this Section 4.3. If a Co-Owner fails to obtain such insurance or to provide evidence of such insurance to the Association, the Association may, but is not obligated to, obtain such insurance on behalf of the Co-Owner, and the premiums for such insurance shall constitute a lien against the Co-Owner's Unit, which may be collected in the same manner that assessments may be collected Under Article II of these Bylaws.

Section 4.4 <u>Waiver of Subrogation</u>. The Association, as to all policies which it obtains, and all Co-Owners, as to all policies which they obtain, shall use their best efforts to see that all property and liability insurance carried by the Association and any Co-Owner shall contain appropriate provisions whereby the insurer waives its right of subrogation as to any claims against any Co-Owner or the Association.

*Section 4.5 <u>Indemnification</u>*. Each individual Co-Owner shall indemnify and hold harmless every other Co-Owner, the Developer, and the Association for all damages and costs, including attorney's fees, which the other Co-Owners, the Developer, or the Association may suffer as a result of defending any claim arising out of an occurrence on or within an individual Co-Owner's Unit. Each Co-Owner shall carry insurance to secure the indemnity obligations under this Section 4.5, if

required by the Association, or if required by the Developer during the Construction and Sales Period. This Section 4.5 is not intended to give any insurer any subrogation right or any other right or claim against any individual Co-Owner.

### ARTICLE V MAINTENANCE, RECONSTRUCTION, OR REPAIR

*Section 5.1 <u>Co-Owner Responsibility for Maintenance</u>.* Each Co-Owner shall be responsible for all maintenance of the dwelling, driveway, and all personal property within his Unit. If any damage to the dwelling or other improvements constructed within a Co-Owner's Unit adversely affects the appearance of the Condominium Project, the Co-Owner shall proceed to remove, repair, or replace the damaged property without delay.

Section 5.2 Association Responsibility for Maintenance. The Association shall be responsible for the maintenance of the Common Elements unless otherwise provided for in Section 4.3 of the Master Deed or these Bylaws. Immediately following a casualty to property for which the Association has such maintenance responsibility, the Association shall obtain reliable and detailed cost estimates to repair, restore, or replace, as applicable, the damaged property to a condition comparable to that existing before the damage. If the proceeds of insurance are not sufficient to defray the estimated costs of such repair, restoration, or replacement, or if at any time during such repair, restoration, or replacement, or upon completion of such repair, restoration, or replacement, there are insufficient funds for the payment of such repair, restoration, or replacement, the Association shall make an assessment against all Co-Owners for an amount, which when combined with available insurance proceeds, shall be sufficient to fully pay for the cost of such repair, restoration, or replacement of the damaged property. Any such assessment made by the Board of Directors of the Association shall be governed by Section 2.3(a) of these Bylaws. Nothing contained in this Section 5.2 is intended to require the Developer or the Association to replace mature trees and vegetation with equivalent trees or vegetation.

Section 5.3 <u>Timely Repair. Restoration, or Replacement</u>. If any damage to Common Elements or a Unit adversely affects the appearance of the Project, the Association or Co-Owner responsible for the maintenance thereof shall proceed to repair, restore, or replace, as applicable, the damaged property without delay, and shall use its best efforts to complete such action within 6 months from the date upon which the property damage occurred.

Section 5.4 <u>Eminent Domain</u>. Section 133 of the Act and the following provisions shall control in the event all or a portion of the Project is subject to eminent domain:

(a) <u>Taking of a Unit or Related Improvements</u>. In the event all or a portion of a Unit are taken by eminent domain, the award for such taking shall be paid to the Co-Owner of such Unit and the mortgagee thereof, as their interest may appear. If the entire Unit is taken by eminent domain, on the acceptance of such award by the Co-Owner and his mortgagee, they shall be divested of all interest in the Condominium Project.

(b) <u>*Taking of Common Elements.*</u> If there is a taking of any portion of the General Common Elements, the condemnation process relative to such taking shall be paid to the Co-Owners and their mortgagees in proportion to their respective undivided interest in the General Common

Elements unless pursuant to the affirmative vote of Co-Owners representing greater than 50% of the total votes of all Co-Owners qualified to vote, at a meeting duly called for such purpose, the Association is directed to repair, restore, or replace the portion so taken or to take such other action as is authorized by a majority vote of the Co-Owners. If the Association is directed by the requisite number of Co-Owners to repair, restore, or replace all or any portion of the General Common Elements taken, the Association shall be entitled to retain the portion of the condemnation proceeds necessary to accomplish the repair, restoration, or replacement of the applicable General Common Elements. The Association, acting through its Board of Directors, may negotiate on behalf of all Co-Owners for any condemnation award for General Common Elements and any negotiated settlement approved by the Co-Owners representing two-thirds (2/3) or more of the total votes of all Co-Owners qualified to vote shall be binding on all Co-Owners.

(c) <u>Continuation of Condominium After Taking</u>. In the event the Condominium Project continues after a taking by eminent domain, then the remaining portion of the Condominium Project shall be re-surveyed, the Master Deed amended accordingly, and, if any Unit shall have been taken, in whole or part, then Article V of the Master Deed shall also be amended to reflect such taking and to proportionately readjust the percentages of value of the remaining Units, based upon the continuing value of the Condominium Project being 100%. Such amendment may be affected by an officer of the Association duly authorized by the Board of Directors without the necessity of obtaining the signature or specific approval of any Co-Owner, mortgagee, or other person

(d) <u>Notification of Mortgagees</u>. In the event all or any portion of a Unit in the Condominium, or all or any portion of the Common Elements is made the subject matter of any condemnation or eminent domain proceeding or is otherwise sought to be acquired by a condemning authority, the Association shall notify each institutional holder of a first mortgage lien on any of the Units in the Condominium that is registered in the Association's book of "Mortgagees of Units" pursuant to Section 6.1 of these Bylaws.

*Section 5.5* <u>Notification of FHLMC</u>. In the event any mortgage in the Condominium is held by the Federal Home Loan Mortgage Corporation ("FHLMC") then, upon request therefor by FHLMC, the Association shall give FHLMC written notice, at such address as it may from time to time direct, of any loss to or taking of the Common Elements of the Condominium, if the loss or taking exceeds \$10,000.00 in amount or if the damage or taking relates to a Unit covered by a mortgage purchased in whole or in part by FHLMC and exceeds \$1,000.00.

*Section 5.6 <u>Priority of Mortgagee Interests</u>.* Nothing contained in the Condominium Documents shall be construed to give a Co-Owner, or any other party, priority over any rights of first mortgagees of Units pursuant to their mortgages with respect to any distribution to Co-Owners of insurance proceeds or condemnation awards for losses to or a taking of Units and/or Common Elements.

### ARTICLE VI MORTGAGES

Section 6.1 <u>Notice to Association</u>. Any Co-Owner who mortgages his Unit shall notify the Association of the name and address of the mortgagee, and the Association shall maintain such information in a book entitled "Mortgages of Units." The Association may, at the written request of a mortgagee of any such Unit, report any unpaid assessments due from the Co-Owner of such

Unit. The Association shall give to the holder of any first mortgage covering any Unit written notification of any default in the performance of the obligations of the Co-Owner of such Unit that is not cured within 60 days.

*Section 6.2 <u>Insurance</u>.* The Association shall notify each mortgagee appearing in the book referenced in Section 6.1 of the name of each company insuring the Condominium Project against fire, perils covered by extended coverage, and vandalism and malicious mischief coverage, and the amounts of such coverage.

*Section 6.3 <u>Notification of Meetings</u>*. Upon request submitted to the Association, any institutional holder of a first mortgage lien on a Unit shall be entitled to receive written notification of every meeting of the Members of the Association and to designate a representative to attend such meeting.

### ARTICLE VII VOTING

*Section 7.1 <u>Vote</u>.* Except as otherwise specified in those Bylaws, each Co-Owner shall be entitled to one vote for each Condominium Unit owned.

Section 7.2 <u>Eligibility to Vote</u>. No Co-Owner, other than the Developer, shall be entitled to vote at any meeting of the Association until he has presented to the Association evidence that the Co-Owner owns a Unit. Except as provided in Section 10.2 of these Bylaws, no Co-Owner, other than the Developer, shall be entitled to vote prior to the date of the First Annual Meeting of Members held in accordance with Section 10.2. The vote of each Co-Owner may be cast only by the individual representative designated by such Co-Owner in the notice required in Section 7.3 below or by a proxy given by such individual representative. The Developer shall be the only person entitled to vote at a meeting of the Association until the First Annual Meeting of Members and shall be entitled to vote during such period notwithstanding the fact that the Developer may own no Units at some time or from time to time during such period. At the First Annual Meeting and thereafter, the Developer shall be entitled to vote for each Unit which it owns.

Section 7.3 Designation of Voting Representative. Each Co-Owner shall file with the Association a written notice designating the individual representative who shall vote at meetings of the Association and receive all notices and other communications from the Association on behalf of the Co-Owner. If a Co-Owner designates himself as the individual representative, he need not file any written notice with the Association. The failure of any Co-Owner to file any written notice shall create a presumption that the Co-Owner has designated himself as the voting representative. The notice shall state the name and address of the individual representative designated, the address of the Unit or Units owned by the Co-Owner, and the name and address of each person, firm corporation, partnership, association, trust, or other entity who is the Co-Owner. The notice shall be signed and dated by the Co-Owner. An individual representative may be charged by the Co-Owner at any time by filing a new notice in accordance with this Section 7.3. In the event a Unit is owned by multiple Co-Owners who fail to designate an individual voting representative for such Co-Owners, the Co-Owner whose name first appears on record title shall be deemed to be the individual representative authorized to vote on behalf of all the multiple Co-Owners of the Unit(s), and any vote cast in person or by proxy by said individual representative shall be binding upon all such multiple Co-Owners.

Section 7.4 <u>Quorum</u>. The presence in person or by proxy of Co-Owners representing 51% of the total number of votes of all Co-Owners qualified to vote shall constitute a quorum for holding a meeting of the Members of the Association, except for voting on questions specifically required by the Condominium Documents to require a greater quorum. The written vote of any person furnished at or prior to any duly called meeting at which said person is not otherwise present in person or by proxy shall be counted in determining the presence of a quorum with respect to the question upon which the vote is cast.

*Section 7.5 <u>Voting</u>.* Votes may be cast in person or by proxy by a writing duly signed by the designated voting representative not present at a given meeting in person or by proxy. Proxies and any written votes must be filed with the secretary of the Association at or before the appointed time of each meeting of the Members of the Association. Cumulative voting shall not be permitted.

*Section 7.6 <u>Majority</u>.* When an action is to be authorized by vote of the Co-Owners of the Association, the action must be authorized by a majority of the votes cast at a meeting duly called for such purpose, unless a greater percentage vote is required by the Master Deed, these Bylaws, or the Act.

#### ARTICLE VIII MEETINGS

Section 8.1 <u>Place of Meeting</u>. Meetings of the Association shall be held at the principal office of the Association or at such other suitable place convenient to the Co-Owners as may be designated by the Board of Directors. Meetings of the Association shall be conducted in accordance with generally recognized rules of parliamentary procedure that are not in conflict with the Condominium Documents or the laws of the State of Michigan.

Section 8.2 <u>First Annual Meeting</u>. The First Annual Meeting of Members of the Association may be convened by the Developer in its discretion at any time prior to the date the First Annual Meeting is required to be convened pursuant to this Section 8.2. Notwithstanding the foregoing, the First Annual Meeting must be held (i) within 120 days following the conveyance of legal or equitable title to non-developer Co-Owners of 75% of all Units; or (ii) 54 months from the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit, whichever is the earlier to occur. The Developer may call meeting of Members for informative or other appropriate purposes prior to the First Annual Meeting of Members. The date, time, and place of such meeting shall be set by the Board of Directors, and at least 10 days written notice thereof shall be given to each Co-Owner's individual representative.

Section 8.3 <u>Annual Meetings</u>. Annual meetings of Association Members shall be held not later than May 30 of each succeeding year following the year in which the First Annual Meeting is held at a time and place determined by the Board of Directors. At each annual meeting, the Co-Owners shall elect members of the Board of Directors in accordance with Article X of these Bylaws. The Co-Owners may also transact at annual meetings such other Association business as may properly come before them.

*Section 8.4 <u>Special Meeting</u>.* The President shall call a special meeting of Members as directed by resolution of the Board of Directors or upon presentation to the Association's Secretary of a petition signed by Co-Owners representing one-third (1/3) of the votes of all Co-Owners qualified to vote. Notice of any special meeting shall state the time and place of such meeting and the purposes thereof. No business shall be transacted at a special meeting except as stated in the notice.

Section 8.5 <u>Notice of Meetings</u>. The Secretary (or other Association officer in the Secretary's absence) shall provide each Co-Owner of record or, if applicable, a Co-Owner's individual representative with notice of each annual or special meeting, stating the purpose thereof and the time and place where it is to be held. A notice of an annual or special meeting shall be served at least 10 days, but not more than 60 days, prior to each meeting. The mailing, postage prepaid, of a notice to the individual representative of each Co-Owner at the address shown in the notice filed with the Association under Section 7.3 of these Bylaws shall be deemed properly served. Any Co-Owner or individual representative may waive such notice by filing with the Association a written waiver of notice signed by such Co-Owner or individual representative.

Section 8.6 <u>Adjournment</u>. If any meeting of Co-Owners cannot be held because a quorum is not in attendance, the Co-Owners who are present may adjourn the meeting to a time not less than 48 hours from the time the original meeting was called. When a meeting is adjourned to another time or place, it is not necessary to give notice of the adjourned meeting if the time and place to which the meeting is adjourned are announced at the meeting at which the adjournment is taken and only such business is transacted at the adjourned meeting as might have been transacted at the original meeting. However, if after the adjournment, the Board of Directors fixes a new record date for the adjourned meeting, a notice of adjourned meeting shall be given to each Co-Owner or Co-Owner's individual representative.

If a meeting is adjourned in accordance with the provisions of this Section 8.6 due to the lack of a quorum, the required quorum at the subsequent meeting shall be two thirds (2/3) of the required quorum for the meeting that was adjourned, provided that the Board of Directors provides each Co-Owner (or Co-Owner's individual representative) with notice of the adjourned meeting in accordance with Section 8.5 above and provided further the subsequent meeting is held within sixty (60) days from the date of the adjourned meeting.

Section 8.7 <u>Action Without Meeting</u>. Any action required or permitted to be taken at a meeting of Members may be taken without a meeting, without prior notice, and without a vote if all of the Co-Owners (or their individual representatives) entitled to vote thereon consent thereto in writing. If the Association's Articles of Incorporation so provide, any action required or permitted to be taken at any meeting of Members may be taken without a meeting, without prior notice, and without a vote if a written consent setting forth the actions so taken is signed by the Co-Owners (or their individual representatives) having not less than the minimum number of votes that would be necessary to authorize or take the action at a meeting at which all Co-Owners entitled to vote thereon were present and voted. Prompt notice of any action that is taken without a meeting by less than unanimous written consent shall be given to the Co-Owners who have not consented in writing.

Section 8.8 <u>Electronic Participation in a Meeting</u>. A Co-Owner may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other if such option is available. If there is a cost

to this option, the Co-Owner(s) utilizing this option shall bear the cost. Participation in a meeting pursuant to this Section 8.8 constitutes presence at the meeting.

#### ARTICLE IX ADVISORY COMMITTEE

Within one year after the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit in the Condominium Project or within 120 days following the conveyance to non-Developer Co-Owners of one-third (1/3) of the total number of Units that may be created, whichever first occurs, the Developer shall cause to be established an Advisory Committee consisting of at least three non-Developer Co-Owners. The Committee shall be established in any manner the Developer deems advisable. The purpose of the Advisory Committee shall be to facilitate communications between the temporary Board of Directors and the non-Developer Co-Owners and to aid in the transition of control of the Association from the Developer to Co-Owners. The Advisory Committee shall automatically cease to exist when a majority of the Board of Directors of the Association is elected by non-Developer Co-Owners. The Developer may at any time remove and replace, at its discretion, any member of the Advisory Committee.

### ARTICLE X BOARD OF DIRECTORS

Section 10.1 <u>Number and Qualification of Directors</u>. The Board of Directors shall initially be comprised of three Directors. At such time as the non-Developer Co-Owners are entitled to elect two members of the Board of Directors in accordance with Section 10.2 below, the Board shall automatically be increased in size from three to five persons. At such time as the Board of Directors is increased in size to five persons, all Directors must be Co-Owners (or officers, partners, trustees, or employees of Co-Owners that are entities). In the event that the Association cannot locate five Co-Owners who are willing to serve as Directors, the Board may operate with less than five persons, and such reduced size shall not affect the validity of any decision made by the Board.

### Section 10.2 *Election of Directors*.

(a) <u>First Board of Directors</u>. Until such time as the non-Developer Co-Owners are entitled to elect one of the members of the Board of Directors, the Developer shall select all of the Directors, which persons may be removed or replaced by Developer in its discretion.

(b) <u>Appointment of Non-Developer Co-Owners to Board Prior to First Annual</u> <u>Meeting</u>. Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 25% of the Units that may be created, one member of the Board of Directors shall be elected by non-Developer Co-Owners. The remaining Members of the Board of Directors shall be selected by Developer. Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 50% of the Units that may be created, the Board of Directors shall be increased to five Members and two of the five Directors shall be elected by non-Developer Co-Owners. The remaining Members of the Board of Directors shall be selected by Developer. When the required percentage levels of conveyance have been reached, the Developer shall notify the non-Developer Co-Owners and request that they hold a meeting to elect the required number of Directors. Upon certification by the Co-Owners to the Developer of the Director or Directors elected, the Developer shall immediately appoint such Director or Directors to the Board, to serve until the First Annual Meeting of Co-Owners, unless he is removed pursuant to Section 10.7, he resigns, or he becomes incapacitated.

### (c) Election of Directors at and after First Annual Meeting

(i) Not later than 120 days following the conveyance to non-Developer Co-Owners of legal or equitable title to 75% of the Units that may be created, the non-developer Co-Owners shall elect all of the Directors on the Board, except that the Developer shall have the right to designate at least one Director so long as the Developer owns and offers for sale at least 10% of the Units in the Condominium Project or as long as the Units that remain to be created and sold equal at least 10% of all Units that may be created in the Project. Whenever the 75% conveyance level is achieved, a meeting of Co-Owners shall promptly be convened to effectuate this provision, even if the First Annual Meeting has already occurred.

(ii) Regardless of the percentage of Units which have been conveyed, upon the elapse of 54 months after the first conveyance to a non-Developer Co-Owner of legal or equitable title to a Unit on the Project, and if title to not less than 75% of the Units that may be created has not been conveyed, the non-Developer Co-Owners have the right to elect a number of members of the Board of Directors in proportion to the percentage of Units they own, and the Developer has the right to elect a number of members of the Board of Directors in proportion to the percentage of Units that are owned by the Developer and for which assessments are payable by the Developer. This election may increase, but shall not reduce, the minimum election and designation rights otherwise established in Section 10.2(b) or 10.2(c)(i) above. Application of this subsection does not require a change in the size of the Board of Directors.

(iii) If the calculation of the percentage of members of the Board of Directors that the non-Developer Co-Owners have the right to elect under subsection (ii) above, or if the product of the number of members of the Board of Directors multiplied by the percentage of Units held by the non-Developer Co-Owners under subsection (b) results in a right of non-Developer Co-Owners to elect a fractional number of members of the Board of Directors, then a fractional election right of 0.5 or greater shall be rounded up to the nearest whole number, which number shall be the number of members of the Board of Directors that the non-Developer Co-Owners have the right to elect. After application of this formula, the Developer shall have the right to elect the remaining members of the Board of Directors. Application of this subsection shall not eliminate the right of the Developer to designate one director as provided in subsection (c)(i), above.

(iv) At such time as the non-Developer Co-Owners are entitled to elect all of the Directors, three Directors shall be elected for a term of two years and two Directors shall be elected for a term of one year. At such meeting, all nominees shall stand for election as one slate and the three persons receiving the highest number of votes shall be elected for a term of two years and the two persons receiving the next highest number of votes shall be elected for a term of one year. At each annual meeting held thereafter, either two or three Directors shall be elected depending upon the number of Directors whose terms expire, and the term of office of each Director shall be two years. The Directors shall hold office until their successors have been elected and hold their first meeting.

Section 10.3 <u>Powers and Duties</u>. The Board of Directors shall have the powers and duties necessary for the administration of the affairs of the Association and may do all acts and things as

are not prohibited by the Condominium Documents or specifically required to be exercised and done by the Co-Owners.

Section 10.4 <u>Specific Powers and Duties</u>. In addition to the duties imposed by these Bylaws or any further duties which may be imposed by resolution of the Co-Owners of the Association, the Board of Directors shall have the following powers and duties:

(a) To manage and administer the affairs of and maintain the Condominium Project and the Common Elements.

(b) To collect assessments from the Co-Owners and to expend the proceeds for the purposes of the Association.

(c) To carry insurance and collect and allocate the proceeds thereof.

(d) To reconstruct or repair improvements after casualty.

(e) To contract for and employ persons, firms, corporations, or other agents to assist in the management, operation, maintenance, and administration of the Condominium Project.

(f) To acquire, maintain, and improve, and to buy, operate, manage, sell, convey, assign, mortgage, or lease any real or personal property (including any Unit in the Condominium Project and easements, rights-of-way, and licenses) on behalf of the Association in furtherance of any of the purposes of the Association.

(g) To borrow money and issue evidences of indebtedness in furtherance of any or all of the purposes of the Association, and to secure the same by mortgage, pledge, or other lien on property owned by the Association; provided, however, that any such action shall also be approved by the affirmative vote of the Co-Owners (or their individual representatives) representing 75% of the total votes of all Co-Owners qualified to vote.

(h) To establish rules and regulations for the General Common Elements.

(I) To establish such committees as the Board of Directors deems necessary, convenient, or desirable, and to appoint persons thereto for the purpose of implementing the administration of the Condominium Project and to delegate to such committees any functions or responsibilities that are not by law or the Condominium Documents required to be exclusively performed by the Board.

(j) To enforce the provisions of the Condominium Documents.

Section 10.5 <u>Management Agent</u>. The Board of Directors may employ for the Association a professional management agent (which may include the Developer or any person or entity related thereto) at a reasonable compensation established by the Board to perform such duties and services as the Board shall authorize, including, but not limited to, the duties listed in Sections 10.3 and 10.4, and the Board may delegate to such management agent any other duties or powers that are not by

law or by the Condominium Documents required to be exclusively performed by or have the approval of the Board of Directors or the Members of the Association.

Section 10.6 <u>Vacancies</u>. Vacancies in the Board of Directors that occur after the Transitional Control Date caused by any reason other than the removal of a Director by a vote of the Co-Owners of the Association shall be filled by vote of the majority of the remaining Directors, even though they may constitute less than a quorum, except that the Developer shall be solely entitled to fill the vacancy of any Director whom it is permitted in the first instance to designate. Each person so elected shall be a Director until a successor is elected at the next annual meeting of the Association. Vacancies among non-Developer Co-Owner elected Directors that occur prior to the Transitional Control Date may be filled only through election by non-Developer Co-Owners and shall be filled in the manner as specified in Section 10.2(b).

Section 10. 7 <u>Removal</u>. At any regular or special meeting of the Association duly called with due notice of the removal action proposed to be taken, any one or more of the Directors elected by the non-Developer Co-Owners may be removed with or without cause by the affirmative vote of the Co-Owners (or their individual representatives) who represent greater than 50% of the total votes of all Co-Owners qualified to vote, and a successor may then and there be elected to fill any vacancy thus created. Any Director whose removal has been proposed by a Co-Owner shall be given an opportunity to be heard at the meeting. The Developer may remove and replace any or all of the Directors selected by it at any time or from time to time in its sole discretion. Any Director selected by the non-Developer Co-Owners to serve before the First Annual Meeting may also be removed by such Co-Owners before the First Annual Meeting in the manner described in this Section 10.7.

*Section 10.8 <u>First Meeting</u>*. The first meeting of the elected Board of Directors shall be held within 10 days of election at a time and place fixed by the Directors at the meeting at which such Directors were elected, and no notice shall be necessary in order to legally convene such meeting, provided a majority of the Board shall be present.

Section 10.9 <u>Regular Meetings</u>. Regular meetings of the Board of Directors may be held at such times and places as shall be deemed from time to time by a majority of the Directors, but at least two such meetings shall be held during each fiscal year of the Association. Notice of regular meetings of the Board of Directors shall be given to each Director, personally, by mail, telephone, or telegraph at least 10 days prior to the date named for such meeting.

*Section 10.10 <u>Special Meetings</u>.* Special meetings of the Board of Directors may be called by the President on 3 days' notice to each Director, given personally, by mail, telephone, or telegraph, which notice shall state the time, place, and purpose of the meeting. Special meetings of the Board of Directors shall be called by the President or Secretary in like manner on the written request of two or more Directors.

Section 10.11 <u>Quorum and Required Vote of Board of Directors</u>. At all meetings of the Board of Directors, a majority of the members of the Board of Directors then in office shall constitute a quorum. The vote of the majority of Directors at a meeting at which a quorum is present constitutes the action of the Board of Directors, unless a greater plurality is required by the Michigan Non-profit Corporation Act, the Articles of Incorporation, the Master Deed, or these Bylaws. If a quorum is not present at any meeting of the Board of Directors, the Directors present at such meeting

may adjourn the meeting from time to time without notice other than an announcement at the meeting, until the quorum shall be present.

Section 10.12 <u>Consent in Lieu of Meeting</u>. Any action required or permitted to be taken at a meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent in writing. The written consent shall be filed with the minutes of the proceedings of the Board of Directors. The consent has the same effect as a vote of the Board of Directors for all purposes.

Section 10.13 <u>Electronic Participation in a Meeting</u>. A Director may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting pursuant to this Section 10.13 constitutes presence at the meeting.

*Section 10.14 <u>Fidelity Bonds</u>*. The Board of Directors may require that all officers and employees of the Association handling or responsible for Association funds furnish adequate fidelity bonds. The premiums on such bonds shall be expenses of administration.

*Section 10.15 <u>Compensation</u>*. The Board of Directors shall not receive any compensation for rendering services in their capacity as Directors, unless approved by the Co-Owners (or their individual representatives) who represent 60% or more of the total votes of all Co-Owners qualified to vote.

### ARTICLE XI OFFICERS

Section 11.1 <u>Selection of Officers</u>. The Board of Directors, at a meeting called for such purpose, shall appoint a president, secretary, and treasurer. The Board of Directors may also appoint one or more vice-presidents and such other officers, employees, and agents as the Board shall deem necessary, which officers, employees, and agents shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors. Two or more offices, except that of president and vice-president, may be held by one person who may also be a Director. An officer shall be a Co-Owner (or shareholder, officer, director, employee, or partner of a Co-Owner that is an entity).

Section 11.2 <u>Term, Removal, and Vacancies</u>. Each officer of the Association shall hold office for the term for which he is appointed until his successor is elected or appointed, or until his resignation or removal. Any officer appointed by the Board of Directors may be removed by the Board of Directors with or without cause at any time. Any officer may resign by written notice to the Board of Directors. Any vacancy occurring in any office may be filled by the Board of Directors.

*Section 11.3 <u>President</u>.* The President shall be a Member of the Board of Directors and shall act as the chief executive officer of the Association. The President shall preside at all meetings of the Association and of the Board of Directors. He shall have all of the general powers and duties which are usually vested in the office of the President of an Association, subject to Section 11.1 above.

Section 11.4 <u>Vice President</u>. The Vice President shall take the place of the President and his duties whenever the President shall be absent or unable to act. If neither the President nor the Vice President is able to act, the Board of Directors shall appoint some other member of the Board to do so on an interim basis. The Vice President shall also perform such other duties as shall from time to time be imposed upon him by the Board of Directors.

*Section 11.5 <u>Secretary</u>.* The Secretary shall keep the minutes of all meetings of the Board of Directors and the minutes of all meetings of the Co-Owners of the Association. He shall have charge of the corporate seal, if any, and of such books and papers as the Board of Directors may direct; and he shall, in general, perform all duties incident to the office of the Secretary.

Section 11.6 <u>Treasurer</u>. The Treasurer shall have responsibility for the Association funds and securities and shall be responsible for keeping full and accurate accounts of all receipts and disbursements in books belonging to the Association. He shall be responsible for the deposit of all monies and other valuable effects in the name and to the credit of the Association, in such depositories as may, from time to time, be designated by the Board of Directors.

#### ARTICLE XII SEAL

The Association may (but need not) have a seal. If the Board determines that the Association shall have a seal, then it shall have inscribed thereon the name of the Association, the word "corporate seal," and the word "Michigan."

### ARTICLE XIII FINANCE

Section 13.1 Records. The Association shall keep detailed books of account showing all expenditures and receipts of administration, which shall specify the maintenance and repair expenses of the Common Elements and any other expenses incurred by or on behalf of the Association and the Co-Owners. Such accounts and all other Association records shall be open for inspection by the Co-Owners and their mortgagees during reasonable working hours. The Association shall prepare and distribute to each Co-Owner at least once a year a financial statement, the contents of which shall be determined by the Association. The books of account shall be audited at least annually by qualified independent auditors; provided, however, that such auditors need not be certified public accountants nor does such audit need to be a certified audit, unless the annual revenues of the Association exceed \$20,000. In the event the annual revenues of the Association exceed \$20,000, then the annual audit shall be performed by a certified public accountant unless a majority of the Members vote to opt out of this requirement. Upon request, any institutional holder of a first mortgage lien on any Unit in the Condominium shall be entitled to receive a copy of such annual audited financial statement within 90 days following the end of the Association's fiscal year. The costs of any such audit and any accounting expenses shall be expenses of administration.

Section 13.2 <u>Fiscal Year</u>. The fiscal year of the Association shall be an annual period commencing on the date initially determined by the Directors. The Association's fiscal year may be changed by the Board of Directors in its discretion.

Section 11.3 <u>Bank Accounts</u>. The Association's funds shall initially be deposited in such bank or savings association as may be designated by the Directors. All checks, drafts, and order of payment of money shall be signed in the name of the Association in such manner and by such person or persons as the Board of Directors shall from time to time designate for that purpose. The Association's funds may be invested from time to time in accounts or deposit certificates of such bank or savings association that are insured by the Federal Deposit Insurance Corporation of the Federal Savings and Loan Insurance Corporation and may also be invested in interest-bearing obligations of the United States Government.

#### ARTICLE XIV INDEMNIFICATION OF OFFICERS AND DIRECTORS

Section 14.1 Third Party Actions. To the fullest extent permitted by the Michigan Non-Profit Corporation Act, the Association shall, subject to Section 14.5 below, indemnify any person who was or is a party defendant or is threatened to be made a party defendant to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, or investigative (other than an action by or in the right of the Association) by reason of the fact that he is or was a Director or officer of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise, against expenses (including actual and reasonable attorney fees), judgments, fines, and amounts reasonably paid in settlement actually and reasonably incurred by him in connection with such action, suit, or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Association or its members, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption (a) that the person did not act in good faith and in a manner which he reasonably believed to be not opposed to the best interests of the Association or its members, and (b) with respect to any criminal action or proceeding, that the person had reasonable cause to believe that his conduct was unlawful.

Section 14.2 Actions in the Right of the Association. To the fullest extent permitted by the Michigan Non-profit Corporation Act, the Association shall, subject to Section 14.5 below, indemnify any person who was or is a party defendant to or is threatened to be made a party defendant of any threatened, pending, or completed action or suit by or in the right of the Association to procure a judgment in its favor by reason of the fact that he is or was a Director or officer of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including actual and reasonable attorney fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit and amounts reasonably paid in settlement if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Association or its members, except that no indemnification shall be made in respect of any claim, issue, or matter as to which such person shall have been adjudged to be liable to the Association unless, and only to the extent that the court in which such action or suit was brought shall determine upon application that, despite the indication of liability but in view of all circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses that such court shall deem proper.

Section 14.3 <u>Insurance</u>. The Association may purchase and maintain insurance on behalf of any person who is or was a Director, employee, or agent of the Association, or is or was serving at the request of the Association as a Director, officer, employee, or agent against any liability asserted against him and incurred by him in any such capacity or arising out of his status as such, whether or not the Association would have power to indemnify him against such liability under Sections 14.1 and 14.2 above. In addition, the Association may purchase and maintain insurance for its own benefit to indemnify it against any liabilities it may have as a result of its obligations of indemnification made under Sections 14.1 and 14.2 above.

Section 14.4 <u>Expenses of Successful Defense</u>. To the extent that a person has been successful on the merits or otherwise in defense of any action, suit, or proceeding referred to in Sections 14.1 and 14.2 above, or in defense of any claim, issue, or matter therein, or to the extent such person incurs expenses (including actual and reasonable attorney fees) in successfully enforcing the previsions of this Article XIV, he shall be indemnified against expenses (including attorney fees) actually and reasonably incurred by him in connection therewith.

Section 14.5 <u>Determination that Indemnification is Proper</u>. Any indemnification under Sections 14.1 and 14.2 above (unless ordered by a court) shall be made by the Association only as authorized in the specific case upon a determination that indemnification of the person is proper under the circumstances because he has met the applicable standard of conduct set forth in Sections 14.1 or 14.2 above, whichever is applicable. Notwithstanding anything to the contrary contained in this Article XIV, in no event shall any person be entitled to any indemnification under the provisions of this Article XIV if he is adjudged guilty of willful or wanton misconduct or gross negligence in the performance of his duties. The determination to extend such indemnification shall be made in any one (1) of the following ways:

(a) By a majority vote of a quorum of the Board of Directors consisting of Directors who were not parties to such action, suit, or proceeding; or

(b) If such quorum described in (a) is not obtainable, then by a majority vote of a committee of Directors who are not parties to the action, suit, or proceeding. The committee shall consist of not less than two (2) disinterested Directors; or

(c) If such quorum described in (a) is not obtainable (or, even if obtainable, a quorum of disinterested Directors, so directs), by independent legal counsel in a written opinion.

If the Association determines that full indemnification is not proper under Sections 14.1 or 14.2 above, it may nonetheless determine to make whatever partial indemnification it deems proper. At least 10 days prior to the payment of any indemnification claim which is approved, the Board of Directors shall provide all Co-Owners with written notice thereof.

Section 14.6 <u>Expense Advance</u>. Expenses incurred in defending a civil or criminal action, suit, or proceeding described in Sections 14.1 and 14.2 above may be paid by the Association in advance of the final disposition of such action, suit, or proceeding, as provided in Section 14.4 above, upon receipt of an undertaking by or on behalf of the person involved to repay such amount unless it shall ultimately be determined that he is entitled to be indemnified by the Association. At least 10 days prior to advancing any expenses to any person under this Section 14.6, the Board of Directors shall provide all Co-Owners with written notice thereof.

Section 14.7 <u>Former Representatives, Officers, Employees, or Agents</u>. The indemnification provided in this Article XIV shall continue as to a person who has ceased to be a Director, officer, employee, or agent of the Association and shall inure to the benefit of the heirs, executors, and administrators of such person.

Section 14.8 <u>Changes in Michigan Law</u>. In the event of any change of the Michigan statutory provisions applicable to the Association relating to the subject matter of this Article XIV, the indemnification to which any person shall be entitled hereunder arising out of acts or omissions occurring after the effective date of such amendment shall be determined by such changed provisions. No amendment to or repeal of Michigan law with respect to indemnification shall restrict the Association's indemnification undertaking herein with respect to acts or omissions occurring prior to such amendment or repeal. The Board of Directors are authorized to amend this Article XIV to conform to any such changed statutory provisions.

#### ARTICLE XV AMENDMENTS

Section 15.1 <u>By Developer</u>. In addition to the rights of amendment provided to the Developer in the various Articles of the Master Deed, the Developer may, within two years following the expiration of the Construction and Sales Period, and without the consent of any Co-Owner, mortgagee, or any other person, amend those Bylaws provided such amendment or amendments do not materially alter the rights of Co-Owners or mortgagees.

*Section 15.2 <u>Proposal</u>.* Amendments to these Bylaws may be proposed by the Board of Directors of the Association upon the vote of the majority of Directors or may be proposed by 1/3 or more in number of the Co-Owners by a written instrument signed by the applicable Co-Owners.

*Section 15.3 <u>Meeting</u>.* If any amendment to these Bylaws is proposed by the Board of Directors or the Co-Owners, a meeting for consideration of the proposal shall be duly called in accordance with the provisions of these Bylaws.

Section 15.4 <u>Voting</u>. These Bylaws may be amended by the Co-Owners at any regular meeting or a special meeting called for such purpose by an affirmative vote of 66-2/3% or more of the total votes of all Co-Owners qualified to vote. No consent of mortgagees shall be required to amend these Bylaws unless such amendment would materially alter or change the rights of such mortgagees, in which event the approval of 66-2/3% of all mortgagees of Units shall be required. Each mortgagee shall have one vote for each mortgage held. Notwithstanding anything to the contrary contained in this Article XV, during the Construction and Sales Period, these Bylaws shall not be amended in any way without the Prior written consent of the Developer.

*Section 15.5 <u>Effective Date of Amendment</u>*. Any amendment to the Bylaws shall become effective upon the recording of such amendment in the office of the Livingston County Register of Deeds.

Section 15.6 <u>Binding Effect</u>. A copy of each amendment to the Bylaws shall be furnished to every member of the Association after its adoption; provided, however, that any amendment to these

Bylaws that is adopted in accordance with this Article XV shall be binding upon all persons who have an interest in the Project irrespective of whether such persons actually receive a copy of the amendment.

#### ARTICLE XVI COMPLIANCE

The Association or any Co-Owners and all present or future Co-Owners, tenants, future tenants, or any other persons acquiring an interest in or using the facilities of the Condominium Project in any manner are subject to and shall comply with the Act, as amended, and the mere acquisition, occupancy, or rental of any Unit or an interest therein or the utilization of or entry upon the Condominium Premises shall signify that the Condominium Documents are accepted and ratified. In the event the Condominium Documents conflict with the provisions of the Act, the Act shall govern.

### ARTICLE XVII REMEDIES FOR DEFAULT

Any default by a Co-Owner of its obligations under any of the Condominium Documents shall entitle the Association or another Co-Owner or Co-Owners to the following relief:

Section 17.1 <u>Legal Action</u>. Failure to comply with any of the terms or provisions of the Condominium Documents shall be grounds for relief, which may include, without limitation, an action to recover damages, injunctive relief, foreclosure of lien (if there is a default in the payment of an assessment), or any combination thereof, and such relief may be sought by the Association or, if appropriate, by an aggrieved Co-Owner or Co-Owners.

Section 17.2 <u>Recovery of Costs</u>. In any legal proceeding arising because of an alleged default by any Co-Owner, the Association, if successful, shall be entitled to recover the costs of the proceeding and such reasonable attorneys' fees (not limited to statutory fees) as may be determined by the court, but in no event shall any Co-Owner be entitled to recover such attorneys' fees. In addition, in the event of a default that does not result in a legal proceeding, the Association shall have a right to assess to any Co-Owner all costs and expenses incurred, including all attorneys' fees.

Section 17.3 <u>Removal and Abatement</u>. The violation of any of the provisions of the Condominium Documents shall also give the Association or its duly authorized agents the right, in addition to the rights set forth above, to enter upon the Common Elements, Limited or General, or into any Unit and the improvements thereon, where reasonably necessary, and summarily remove and abate, at the expense of the Co-Owner in violation, any structure or condition existing or maintained in violation of the provisions of the Condominium Documents. The Association shall have no liability to any Co-Owner arising out of the exercise of its rights under this Section 17.3.

Section 17.4 <u>Assessment of Fines</u>. The violation of any of the provisions of the Condominium Documents by any Co-Owner shall be grounds for the assessment by the Association, acting through its duly constituted Board of Directors, of monetary fines against the applicable Co-Owner. No fine shall be levied for the first violation. No fine shall exceed \$25.00 for the second violation, \$50.00 for the third violation, or \$100.00 for any subsequent violation. No greater fine may be assessed unless rules and regulations establishing such increased fines have first been duly

adopted by the Board of Directors of the Association and notice thereof given to all Co-Owners in the same manner as prescribed in Section 8.3 of these Bylaws. Fines may be assessed only upon notice to the offending Co-Owner and an opportunity for such Co-Owner to appear before the Board no less than seven days from the date of the notice and offer evidence in defense of the alleged violation. All fines duly assessed may be collected in the same manner as provided in Article II of these Bylaws.

Section 17.5 <u>Non-waiver of Rights</u>. The failure of the Association or of any Co-Owner to enforce any right, provision, covenant, or condition that may be granted by the Condominium Documents shall not constitute a waiver of the right of the Association or of any such Co-Owner to enforce such right, provision, covenant, or condition in the future.

Section 17.6 <u>Cumulative Rights, Remedies, and Privileges</u>. All rights, remedies, and privileges granted to the Association or any Co-Owner or Co-Owners pursuant to any of the terms, provisions, covenants, or conditions of the Condominium Documents shall be deemed to be cumulative and the exercise of any one or more of such rights or remedies shall not be deemed to constitute an election of remedies, nor shall it preclude the party exercising the same from exercising such other and additional rights, remedies, or privileges as may be available to such party under the Condominium Documents or at law or in equity.

Section 17.7 <u>Enforcement of Provisions of Condominium Documents</u>. A Co-Owner may maintain an action against the Association and its officers and Directors to compel such persons to enforce the terms and provisions of the Condominium Documents. A Co-Owner may maintain an action against any other Co-Owner for injunctive relief or for damages or any combination thereof for noncompliance with the terms and provisions of the Condominium Documents or the Act.

### ARTICLE XVIII RIGHTS RESERVED TO DEVELOPER

Any or all of the rights and powers granted or reserved to the Developer in the Condominium Documents or by law, including the right and power to approve or disapprove any act, use, or proposed action or any other matter, may be assigned by the Developer to any other entity or to the Association. Any such assignment or transfer shall be made by an appropriate written instrument in which the assignee or transferee evidences its consent to the acceptance of such powers and rights. Any rights and powers reserved or retained by Developer or its successors and assigns shall expire, at the conclusion of two (2) years following the expiration of the Construction and Sales Period, except as otherwise expressly provided in the Condominium Documents. The immediately preceding sentence dealing with the expiration and termination of certain rights and powers granted or reserved to the Developer are intended to apply, insofar as the Developer is concerned, only to Developer's rights to approve and control the administration of the Condominium and shall not under any circumstances, be construed to apply to or cause the termination and expiration of any real property rights granted or reserved to the Developer or its successors and assigns in the Master Deed or elsewhere (including, but not limited to, access easements, utility easements, and all other easements created and reserved in such documents, which shall not be terminable in any manner hereunder) and which shall be governed only in accordance with the terms of the instruments, documents, or agreements that created or reserved such property rights.

#### ARTICLE XIX SEVERABILITY

In the event that any of the terms, provisions or covenants of these Bylaws or the Condominium Documents are held to be partially or wholly invalid or unenforceable for any reason whatsoever, such invalidity shall not affect, alter, modify, or impair in any manner whatsoever any of the other terms, provisions or covenants of such documents or the remaining portions of any terms, provisions or covenants held to be partially invalid or unenforceable.

#### LEGAL DESCRIPTION PARENT PARCEL (AS PROVIDED)

(Per survey by: Boss Engineering, Job No.: 16-398, Dated: 12-05-16)

Parcel Tax Number: 4711-26-200-002

PARENT PARCEL

A part of the S 1/2 of the NE 1/4 of Section 26, T2N-R5E, Genoa Township, Livingston County, Michigan, described as follows: Beginning at the East 1/4 corner of said Section 26; thence S89°24'43"W, 1332.50 feet; thence N00°33'49"W, 876.77 feet to the traverse point"B"; thence continuing N00°33'49"W, 444.16 feet; thence N89°02'01"E, 1039.53 feet to traverse point "A", said point bearing N63°57'38"E, 1133.31 feet from traverse point "B"; thence continuing N89°02'01"E, 293.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 510.13 feet; thence S89°02'01"W, 250.00 feet; thence S00°33'49"E, 87.00 feet; thence N89°02'01"E, 250.00 feet to the East line of said Section and the centerline of Bauer Road; thence S00°33'49"E along said line 732.60 feet to the Point of Beginning, containing 40.04 acres more or less and subject to the rights of the public over the existing Bauer Road.

Also including the use of a 66 foot wide easement over part of White Pines Drive, as recorded in Liber 1115, Page 564, Livingston County Records

#### LEGAL DESCRIPTION DEVELOPMENT PARCEL (AS SURVEYED)

A part of the South 1/2 of the Northeast 1/4 of Section 26, Town 2 North, Range 5 East, Genoa Township, Livingston County, State of Michigan, more particularly described as follows:

BEGINNING at the East 1/4 corner of said Section 26, thence along the East-West 1/4 line of said Section 26 (As Monumented) and the North line of Brighton Estates Subdivision as recorded in Liber 23, Page 35 thru 39 of the Livingston County Records, S87\*17'35"W, 1332.50 feet;

thence along the East line of Lot 30 and Lot 29 of Said Brighton Estates Subdivision, N02\*40'57"W, 1320.93 feet to the Northeast corner of said Lot 29 of Brighton Estates Subdivision;

thence N86°54'53"E. 697.77 feet:

thence S01°17'52"W, 520.30 feet; thence \$74°19'35"F. 73.08 feet:

thence parallel with said East line of Lot 30 and 29, S02°40'57"E, 231.96 feet;

thence N87°17'35"E, 275.70 feet to the North line of a 66 Foot Wide Ingress/Egress & Public/Private Utility

thence along said North line of a 66 Foot Wide Ingress/Egress & Public/Private Utility Easement the following three (3) courses

1) N11°35'55"E, 25.22 feet;

2) 242.46 feet, along the arc of a curve to the right, said curve has a radius of 183.00 feet, a central angle of 75°54'45", and a chord which bears N49°33'17"E at a distance of 225.11 feet; 3) N87°30'40"E, 91.61 feet to the West Right-of-Way line of Bauer Road (Public - Right-of-Way);

thence along said West Right-of-Way line, N02°40'58"W, 18.89 feet;

thence N86°54'53"E. 50.00 feet to the East line of said Section 26 and centerline of Bauer Road (Public - Right-of-Way);

thence along said East line of Section 26 and centerline of Bauer Road, S04\*40'58"E, 732.60 feet to said East 1/4 corner of Section 26, said point also being the POINT OF BEGINNING containing 30.261 acres, also including the use of a 66 Foot Wide Easement over part of White Pines Drive, as recorded in Liber 1115, Page 564 of the Livingston County Records, also subject to a 66 Foot Wide Ingress/Egress & Public/Private Utility Easement as described as follows:

Commencing at the East 1/4 corner of said Section 26; thence along the East line of said Section 26 and centerline Bauer Road (Public - Right-of-Way), N02°40'58"W, 647.18 feet; thence S87"30'40"W, 50.00 feet to a point on the West Right-of-Way line of said Bauer Road as the POINT OF BEGINNING of 66 Foot Wide Ingress/Egress & Public/Private Utility Easement;

thence continuing S87'30'40'W, 91.83 feet; thence 155.02 feet, along the arc of a curve to the left, said curve has a radius of 117.00 feet, a central angle of 75°54'45", and a chord which bears S49°33'17"W at a distance of 143.90 feet; thence N78°24'05"W, 66.00 feet;

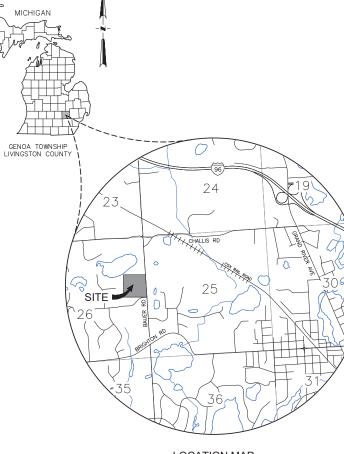
thence 24.2.46 feet, along the arc of a curve to the right, said curve has a radius of 183.00 feet, a central angle of 75°54'45", and a chord which bears N49°33'17"E at a distance of 225.11 feet; thence N87°30'40"E, 91.61 feet to said West Right-of-Way line of Bauer Road;

thence along said West Right-of-Way line, 502°40'58"E, 66.00 feet to the POINT OF BEGINNING, also subject to the rights of the public over Bauer Road (Public - Right-of-Way), also subject to any other easements or restrictions of record.

#### BEARING REFERENCE

BEARINGS ARE BASED ON PROJECT COORDINATE SYSTEM: MICHIGAN STATE PLANE COORDINATE SYSTEM, NAD83 (CONUS) (MOL) (GRS80), SOUTH ZONE 2113, INTERNATIONAL FEET, GROUND.

# FINAL SITE PLAN FOR THE RIDGE SITE CONDOMINIUM



LOCATION MAP

#### DESIGN ENGINEER/SURVEYOR

,ing Group

**Developing Lifelong** Relationshine

#### MONUMENT ENGINEERING GROUP ASSOCIATES, INC

ENGINEERS - SURVEYORS - CONSULTANTS LANDSCAPE ARCHITECTS - LAND PLANNERS

298 VETERANS DR., FOWLERVILLE, MI 48836 PHONE: 517-223-3512 OWNER

4242 BAUER RD BRIGHTON, MI 48116

#### GENERAL SHEET G-1.0 COVER SURVEY SHEET V-1.0 TOPOGRAPHI SHEET V-1.1 SITE AERIAL SHEET V-1.2 SOILS EVALU SHEET V-1.3 SOIL BORING SITE PLAN SHEET C-1.0 OVERALL SIT SHEET C-1.1 ENTRANCE D SHEET C-1.2 CUL-DE-SAG SHEET C-1.3 SHARED DRI VEHICLE CIR SHEET C-2.0 EMERGENCY GRADING, SC SHEET C-7.0 GRADING, SC SHEET C-7.1 GRADING, SC STORM WATE SHEET C-9.0 SITE STORM SHEET C-9.1 REGIONAL S SHEET C-9.2 STORM SEWE SHEET C-9.3 STORM SEWE SHEET C-9.4 STORM SEWE SHEET C-9.5 STORM WATE ROAD PLANS SHEET C-10.0 ROAD ALIGNM SHEET C-10.1 MOUNTAIN R SHEET C-10.2 MOUNTAIN RI SHEET C-10.3 MOUNTAIN R LANDSCAPE SHEET L-1 LANDSCAPE SHEET L-2 LANDSCAPE SHEET L-3 LANDSCAPE SHEET L-4 LANDSCAPE SPECIFICATIO SHEET C-11.0 SPECIFICATIO SHEET C-11.1 SPECIFICATIO

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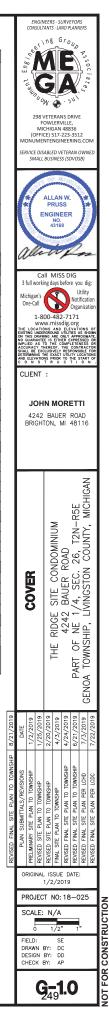
THE PROPOSED DRAINAGE SYSTEMS ARE PRIVATELY OWNED AND WILL BE PROPERLY MAINTAINED BY THE PROPERTY OWNER'S ASSOCIATION.

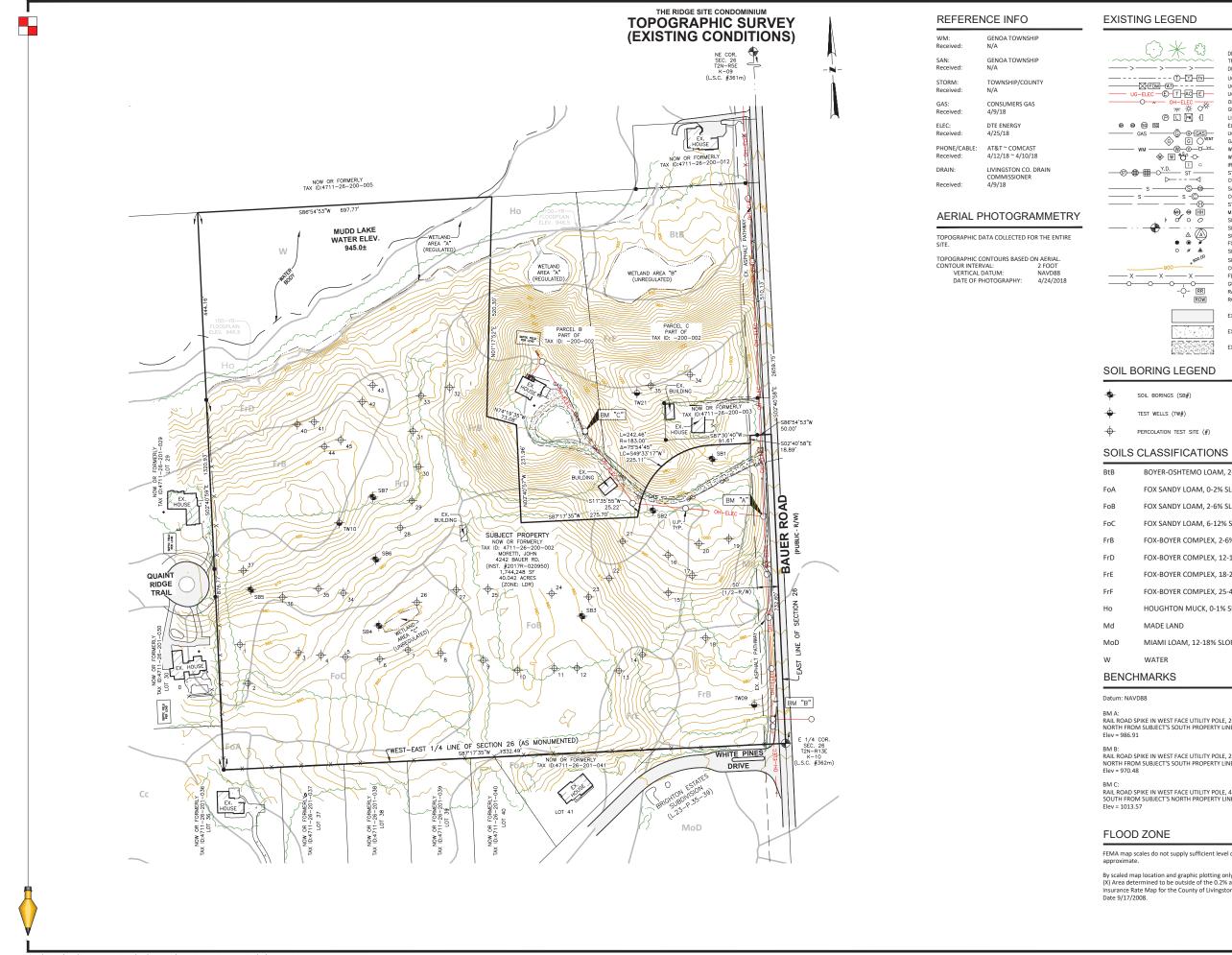
#### LANDSCAPE ARCHITECT

GREAT OAKS LANDSCAPE 28025 SAMUEL LINDEN COURT NOVI. MICHIGAN 48377 PHONE: 248-349-8555

## JOHN MORETTI

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SHEET INDEX	PRELIMINARY SITE PLAN TO TOWNSHIP	REVISED SITE PLAN TO TOWNSHIP	REVISED SITE PLAN TO TOWNSHIP	FINAL SITE PLAN TO TOWNSHIP	REVISED FINAL SITE PLAN PER LCHD	REVISED FINAL SITE PLAN PER LCDC	REVISED FINAL SITE PLAN TO TOWNSHIP			
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DECIDUOUS TREE, CONIFEROUS TREE, SHRUB TREE LINE/ CANOPY DITCH/ DRAINING COURSE

UG FIBER, PED, LINE MARKER, VAULT UG ELEC, MH, TRANSFORMER, AC UNIT, METER OH ELEC, UTIL POLE, GUY WIRE GROUND LIGHT, POLE, POLE W/ ARM LT

LIGHT MH, LT CTRL BOX, PH. BOOTH, PARK. METER ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX

WATER WELL, METER, STOP BOX, POST INDICATOR VALVE IRRIGATION CONTROL VALVE, SPRINKLER HEAD STORM SEWER, MH, CB, INLET, YARD DRAIN

UG GAS, MH, VALVE, LINE MARKER GAS WELL, METER, VENT WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC

UG TELE, MH, TELE PED, CABLE PED

CULVERT/ END SECTION

SPOT ELEVATION

RAILROAD SIGNAL, SIGNAL BOX ROW MARKER EX. ASPHALT

CONTOUR

FENCE GUARD RAIL

EX. CONCRETE

EX. GRAVEL

SANITARY SEWER, MH, CLEAN OUT COMBINED SEWER, MH

COMMINED SERVER, MH MISC. MANHOLE, HAND HOLE, HAND BOX SIGN, FLAG POLE, GUARD POST, ROCK SECTION LINE, SECTION CORNER SURVEY CONTROL POINT, BENCHMARK FOUND IGN ROD (SIR), SET PK, MAG NAIL

В	BOYER-OSHTEMO LOAM, 2-6% SLOPES
A	FOX SANDY LOAM, 0-2% SLOPES
В	FOX SANDY LOAM, 2-6% SLOPES
С	FOX SANDY LOAM, 6-12% SLOPES
3	FOX-BOYER COMPLEX, 2-6% SLOPES
D	FOX-BOYER COMPLEX, 12-18% SLOPES
E	FOX-BOYER COMPLEX, 18-25% SLOPES
F	FOX-BOYER COMPLEX, 25-40% SLOPES
)	HOUGHTON MUCK, 0-1% SLOPES
d	MADE LAND
οD	MIAMI LOAM, 12-18% SLOPES
	WATER

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE.

DM B. RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE. Elev = 970.48

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 439'± WEST OF CENTERLINE OF BAUER ROAD & 565'± SOUTH FROM SUBJECT'S NORTH PROPERTY LINE.

FEMA map scales do not supply sufficient level of detail to plot accurately. Zones if plotted herein are

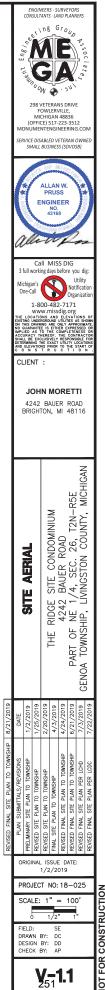
By scaled map location and graphic plotting only, the subject property appears to lie entirely in Zone (X) Area determined to be outside of the 0.2% annual chance flood plain according to the Flood Insurance Rate Map for the County of Livingston, Community Panel No. (26093C0340D), Effective Detero 0127 (2009)

	SEF	CONV CONV CONV CONV CONV CONV CONV CONV	E E DISSUERT	ALLER F F F F F F F F F F F F F F F F F F F	Constraints of the second seco	NS D VILLI 4488 2223 NEEE ETEK S (SI SS D SS D S D S D S D S D S D S D S D S	LAWIN LA	Lers S S S S S S S S S S S S S S S S S S S	ig: / tion tion	
1/2019	DATE	72/2019 TOPOGRAPHIC	/25/2019	2/20/2019	/3/2019 IHE KIUGE	4/24/2019 4242	6/21/2019 PART OF NE	7/3/2019 CENIOA TOWNISHIP	7/22/2019 001000 100000	
REVISED FINAL SITE PLAN TO TOWNSHIP 8/21/2019	PLAN SUBMITTALS/REVISIONS D.	PRELIMINARY SITE PLAN TO TOWNSHIP 1/2,	REVISED SITE PLAN TO TOWNSHIP 1/25	REVISED SITE PLAN TO TOWNSHIP 2/20	FINAL SITE PLAN TO TOWNSHIP 4/3.	REVISED FINAL SITE PLAN TO TOWNSHIP	REVISED FINAL SITE PLAN TO TOWNSHIP	REVISED FINAL SITE PLAN PER LCHD	REVISED FINAL SITE PLAN PER LCDC 7/22	
	PI S FI DI			1/2 T I 1	SUE 2/2 NO: 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	019 18 = C	ате 1-0	)25 )'	5	OT FOR CONSTRUCTION
		HEC		3Y:	A	, ,	0			OT EOP OC



#### AERIAL REFERENCE

FLOWN BY MONUMENT ENGINEERING GROUP ASSOCIATES 200' AGL. DATE OF PHOTOGRAPHY: 4/24/2018





34)	0 11			0 5	T
34)	05' .5' - 3'	Topsoil Sandy Loam	44)	05' .5' - 2'	Topsoil Sandy Clay Loam
	3'-9'	Loamy Sand		2' - 8'	Medium Sand
35)	05'	Topsoil	45)	05'	Topsoil
	.5' - 4'	Sandy Loam		.5' - 5'	Sandy Clay Loam
	4' - 7'	Sandy Clay Loam		5' - 8'	Medium Sand
	7' - 10'	Coarse Sand			
36)	05'	Topsoil	46)	05'	Topsoil
	.5' - 3'	Sandy Clay Loam		.5' - 5'	Sandy Clay Loam
	3' - 5'	Medium Sand		5' - 10'	Loam
	5'-9'	Sandy Loam		10'-11'	Coarse Sand (wet)
37)	05'	Topsoil		11' - 12' Seasonal W	Clay Loam ater Table at 9'
511	.5' - 4'	Sandy Clay Loam		Water Tabl	
	4'-9'	Loamy Sand			
			47)		Topsoil
38)	05'	Topsoil		.5' - 2'	Clay Loam
	.5' - 4' 4' - 8'	Clay Loam Coarse Sand		2'-10' 10'-11'	Loam
	4 - 0	Coarse Sand		10 - 11	Clay Loam
39)	05'	Topsoil	48)	05'	Topsoil
	.5' - 4'	Clay Loam		.5' - 4.5'	Loamy Sand
	4'-8'	Coarse Sand		4.5' - 8'	Fine Sand
40)	05'	Topsoil	49)	05'	Topsoil
40)	.5' - 6'	Clay Loam	431	.5' - 6'	Loamy Sand
	6'-9'	Fine Sand		6' - 8'	Fine Sand
	0.5		5.01	0.51	
41)	05' .5' – 4'	Topsoil Clay Loam	50)	05' .5' - 3'	Topsoil Sandy Clay Loam
	4'-8'	Sandy Loam		3'-9'	Fine Sand
42)	05'	Topsoil	51)	05'	Topsoil
	.5' - 4' 4' - 9'	Sandy Loam Fine Sand		.5' - 4' 4' - 9'	Sandy Clay Loam
	4 - 5	Fine Sand		4 - 9	Fine Sand
43)	05'	Topsoil			
	.5 - 3.5'	Sandy Loam			
	3.5' - 8'	Loamy Sand			
52)	05'	Topsoil			
	.5' - 5'	Sandy Clay Loam			
	5' - 9'	Sandy Loam			
	9' - 12'	Medium Sand			
53)	05'	Topsoil			
	.5' - 3.5'	Sandy Clay Loam			
	3.5' - 7'	Sandy Loam			
	7' - 10.5'	Medium Sand			
54)	05'	Topsoil			
	.5' - 3.5'	Sandy Loam			
	3.5' - 8'	Fine Sand			
55)	05'	Toppedi			
22)	.5' - 8'	Topsoil Sandy Loam			
	8' - 9'	Silt Loam (mottled)			
	Seasonal W	/ater Table @ 8'			
	0 51	Teesell			
56)	05' .5' – 2.5'	Topsoil Sandy Loam			
	2.5' - 8'	Medium Sand			
57)	05' .5' – 3'	Topsoil Sandy Clay Learn			
	.5' - 3' 3' - 8'	Sandy Clay Loam Medium Sand			
58)	05'	Topsoil			
	.5' - 6' 6' - 10'	Clay Loam Medium Sand			
	0 - 10	weatanti sana			
59)	05'	Topsoil			
59)	.5' - 3'	Sandy Clay Loam			
59)	.5' - 3' 3' - 7'	Sandy Clay Loam Fine Sand			
59)	.5' - 3'	Sandy Clay Loam			

\*No Seasonal or actual water table found at time of Soil Evaluation unless noted.

					REVISED FINAL SITE PLAN TO TOWNSHIP 8/21/2019	8/21/2019			
	DI DI			0	PLAN SUBMITTALS/REVISIONS	DATE		3 Mi O THEORY CL	м
	ELL RAW ESIC HEC			RIGI	PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019	SOILS EVALUATION		CON
V	(N I GN	)	JEC	NAL	REVISED SITE PLAN TO TOWNSHIP	1/25/2019		Canvorki an's all 11-8 WATIG UNDRAW AAST I EXC	
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	C D	-		019	REVISED FINAL SITE PLAN TO TOWNSHIP	4/24/2019	4242 BAUER ROAD	S D Defor	NS D /ILLI 488 223 NEE
2		10		ATE	REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019	PART OF NF 1/4, SFC, 26, T2N-R5F	IG ve ve UG ve ve UG orget UT1 orget Verserver	RIV
		ļ	)25		REVISED FINAL SITE PLAN PER LCHD	7/3/2019	CENDA TOWNSHIP I WINCSTON COLINTY MICHICAN	Du d Jtility ifical aniza	VERS
			5		REVISED FINAL SITE PLAN PER LCDC	7/22/2019	CENCY LOWINGING , ENVIRONMENT COONTY, MICHINGAN	ig: tion tion For to F	
DI FON	NOT FOR CONSTRUCTION	TOLIOT	NO.						

_	ULL & AMSOCIATES 6. Forman and & Hydrogeologic Services in Avama • Tandale, MI 48230	LOG OF SO BORING N					
- (244	1 199-100 . Due 12431 399-2157	PROJECT	S	oils Invest	igation		
INO.	18-350	LOCATION		roposed R			_
INV_			4	242 Bauer			
FACE	ELEV DATE1/20/2	C.B. Michael		righton, M	ichigan		_
	LOIL DESCRIPTION	Peretato Rows for 1		Natural WE P.C.F.	Dry Den Wit P.C.F.	Uhr: Corp. Drength PSF.	52
1.1	Moist dark brown sandy TOPSOIL						
0.6"	Sightly compact moist brown fine SAND with	-	-	-			-
	trace of gravel	2		-			
77	COLOR STORE STORE STORE STORE		13.7	-		-	-
	Enit most prown sitty CLAY with traces of san and cettores and moist fine sand seams	d 2			•	(1500)	
10.	and belook's and most and sand seams					101100	
1.0							_
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	pribbles and moist sit lenses	13	7.0	-	-	(6000)	-
E'D'			-	-		lassel	-
(6'D'		-					
	Extremely compact moist brown clayery SILT	12					
	with traces of sand and gravel.	14					
		16				-	_
8'6"				-			-
	Extremely stiff moist brown silty CLAY with san	d 11					
	and pebbles and occasional moist fine sand	16	-	-			-
10'6"	seams	16		-			_

GROUNE

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NOTE: Used track rig

Standard Penetration Test - Driving 2: CO Sampler 1: With 1456 Hardiner Fatting 33: Count Made at 6: Intervals

M	Ľ,	303	(24)	Emanuem III, A Hydrogeologie Services Avanue + Fyrmale, MI 48220 1995-2006 • Eve. (248) 399-2157 18-250	PROJ		Sc Pt	oposed R	oadways	_	
			FACEE	DATE 11/20	2018			ighton, Mi			_
ingle		1	ALES		In	NOR INC.	Maphre	Need	Do far	Unit, Cong.	1
tint	Lien	Sectors Sectors	1000	IOL DESCRIPTION	0	the star of the	5	WEP.C.F.	WLPCF.	Streigh PSF.	-
-	1	16 10	011	Moint gray CRUSHED STONE, fill Moint dark brown fine sandy TOPSOIL with		-			-		t
			-	vegetation					-		
1.1	2	mm	1'10"	*Compact moist brown fine SAND	_	3					
ş	3-	V////	2		- F	4	13.5	-		(84.84)	-
-	2	V////		Stiff moist brown silty CLAY with sand and	- F	5	-		-	(2500)	+
-	4	<i>V////</i>	1	pebbles and occasional moist fine sand sear	ns -		-	-			⊢
1.1	10.5	V////	-		10	6			-		+
s		THE FEE	50	Ciamparti misst brown clayey SILT with trace anno and gravel	s of	4	10.8				
_		1	20	mand and graver		4				8	
-	6	1 1		Very compact moist brown fine SAND with	-						
-	7			moist ailt aisens	-	8	-	-		-	+
5						9		-			+
-	8		7.6	Very compact moist brown fine to medium		14	-				t
		1	8'6"	SAND with trace of grave!							
1.1	0	Section.	00	Extremely compact moist brown fine SAND v	with L						
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THE	Dr SAUNT		HEMAR	*Calibrated Penetrometer			C#	OUND WAT	ER OBSERV	ATIONS	
LL ST MA	ENGLIST L BHGLIST I BHGLIST I BHGLIST I BHGI SPO	WER LIBE DON		Standard Panetvaton Test - Driving 2' OD Sampler I' With		GW 8	COUNTE	RED AT	FT FT FT	NS RS NS NS	

P	R	211	19.306.8 m 12.45	<ol> <li>Eusammerial, &amp; Hydrogeologic Services ar Arrima, + Frindale, MI 48220 198-2006 - Tav. (248) 399-2157 18-250</li> </ol>	PRO	ING NO. JECT	S	oils Invest	loadways	
			FACE					242 Bauer		
Armit	1	-	FALCE		1	Persebation	Mothere	1 Natural	DryDen	Unc. Com
17,00	COP!	Legent	-	SOIL DESCRIPTION Molta dark brown sandy TOPSOIL	-	Bows for 5"	5	WLP.C.F.	WL FICE	Strength P1
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	0			pebbles and occasional stones	-	-		-		
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쁥	JHOT UP DELET TO JPUT SPO HOX COR NETFOR	NER RE ON		Standard Penelration Test - Driving 2" OD Sanoler 115 1408 Hanser Failing 30" Court Made at 6" Intervals		GW EF GW AF GW AF	COUNTE TER CON TER COUNES	RED AT IPLETION HRS	ft ft ft ft	5 5 5

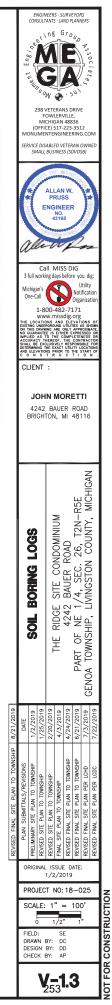
ľ	F	- 10 10	B NO	d, Certinemental, A lan Avenur + Pend I) Wei-2004 + Fact ( 18-350	11ydnageologid 5 Ide, MI 48220 248) 399-2157	DATE 11/20/2	PRO	RING NO. DJECT CATION	Si Pi 42	oils Invest	Road		_
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ATHER	1945	trpol	-		OL DESCRIPTION			Rows for 6"	A	W.P.C.F.	WE PEF	Dreigh PSF.	13
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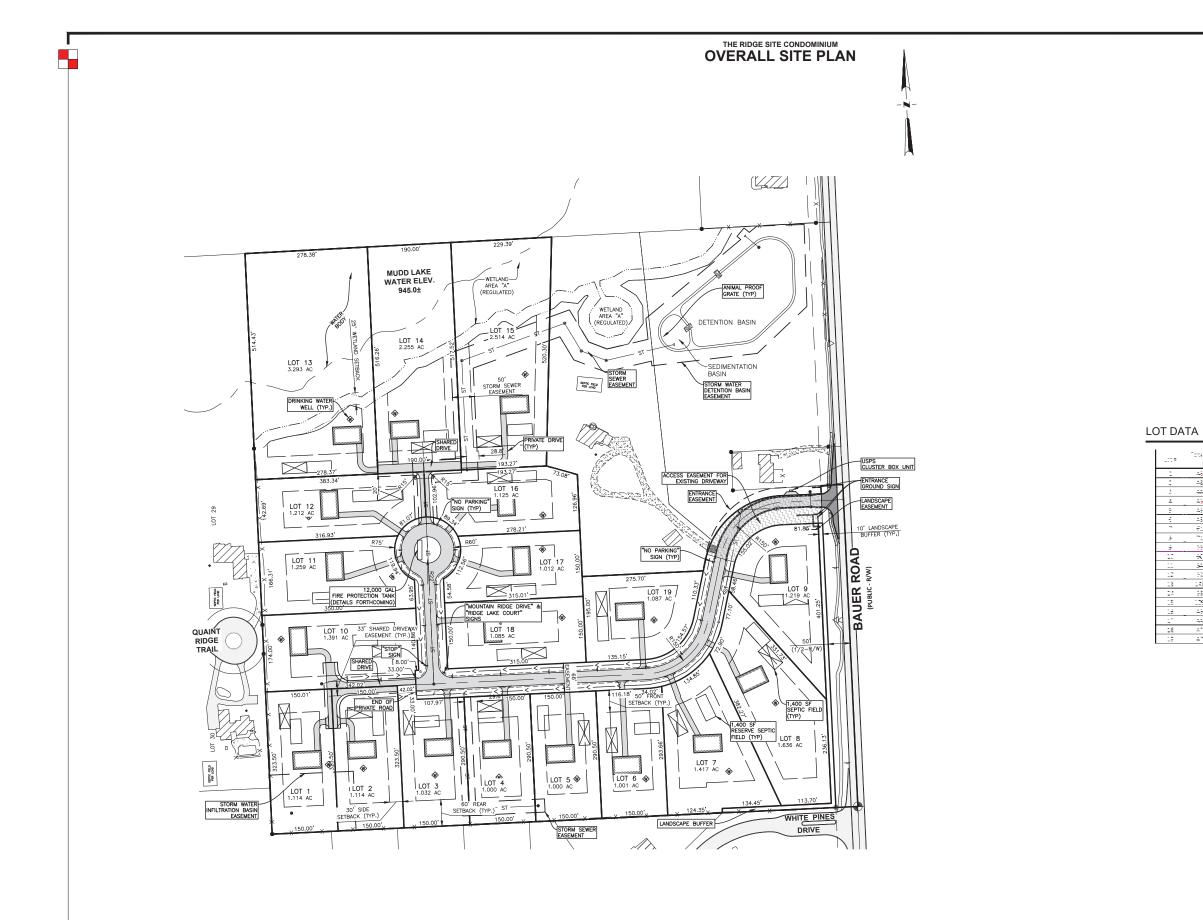
Y	E	201	9 Hands 17 (7-18)	Firstermonetaid, & D in Asterner • Ferndale 100-2560 • Fas. (24) 18-350	MI 48220		BORING NO. PROJECT LOCATION	P	oits Invest oposed R 42 Bauer	oadways.		
		SUR	FACEE	LEV.	DATE	11/20/20	18		ighton, M			
Zargia a Trije	ium.	Legend		101	DESCRIPTION		Pesesulos Bites for 6"	Noissee	Natural WLP.C.F.	Dry Den IM. P.C.F.	Uni: Cong. Skeegh PSF.	ļ
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		and the		Compact moist b	rown fine SAND						S	
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M	A	23333 Hard Thomas (248	J. Environmental. & Hydrogeologic Services nr Avenus. • Fundale, MI 48220 1499-5966 • Fus: (248) 399-2157 18-250	BORING NO PROJECT	\$	oils Invest toposed R	oadways		
						42 Bauer			_
		SURFACE	DATE 11/20/			righton, M		10.0	-
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	- 17	2	Moist dark brown sandy TOPSOIL						
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A	2			1	-			1.000	
58	-		SigNly compact moist brown silty fine to	1	8.1			_	
-	3		medium SAND with trace of gravel	1	-	-			-
	4	26	Medium compact moist brown fine SAND with	_	-				-
9	_	TAT	trace of gravel	2					
5S	5 V/	10		3	14.6				
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C.	1 1	10	Very Mill moist brown silly CLAY with send an	5					
88	- 11	112	pebbles	6					
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北日日日	SAINLE ISTURGED INDITLUNEN HILEN TUBE PUTSPOON ICOX.COME IS/AETROMETOR		*Calibrated Penetrometer     Standard Penetrometer Test - Driving 2' OD Sampler 1' With     Hot Harriser Failing 30' Court Marke at 5' Intervals	GWA	INCOUNTE INCOUNTE INCOUNTE	RED AT RED AT PLETION HRS	ER OBJERV FT. FT. FT. FT.	NS NS NS NS	

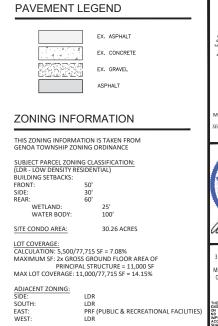
# THE RIDGE SITE CONDOMINIUM SOIL BORING LOGS

1 2 3 4 5 6 7 7 8 8 9 10		96° 106'	LEV DATE <u>11/20/20</u> SOLDESCRIPTION     SOLDESCRIPTION     Most date the three mandy TOPSOIL, fill     Sightly compact works to wet brown face SAND     NI     Soft musit brown sitip CLAY with wet fine sand     inneed, fill     Soft musit date brown clayey TOPSOIL with     arganica, fill     Sightly compact wet clayey brown fine SAND     with table of gravel, and wet fine sand lenses,     the     Soft most disk brown clayey MARL with some     ergance Medium compact wet gray fine SAND with trace     of gravel, and occasional stores	Pentadon Bios br f 2 1 1 1 2 2 2 2 1/112* 2/0* 2	82.9 19.0	ighton, Minus Hense He PCF	Chigan Orthe WithC3	0xc.Comp Iteoryth.Fo/ (500) (500)	
1 2 3 4 5 6 7 7 8 8 9 10 11	////	26 36 60 96	Modif dame lamon sandy TOPSOIL, fill Slightly compact moist to wet brown fee SAND and the sand stream site CLAY with wet fine sand inneed, fill Soft mini dak brown clayey TOPSOIL with organics, fill Slightly compact wet clayey brown fine SAND with tock of gravel, and wet fine sand lemes, fill Soft michi dak brown clayey MARL with some argument.	Boos be 0 2 1 1 3 2 2 2 1 1/12' 2 2 3 3	× 28.9 21.7 82.9	hited Htt PCF.	WPCF.	1keegit PDF.	
2 3 4 5 6 7 7 8 8 9 11	////	26 36 60 96	Slightly compact most to wet brown fee SAND NI Soft must breen sity CLAY with wet fire sand inneet, NI Soft must dak brown clayey TOPSOIL with slightly compact wet clayey brown fee SAND with face of gravel, and wet fire sand lenses, NI Soft most dak brown clayey MARL with some erganome. Mediam constact wet draw fee SAND with trace	2 1 1 2 2 2 2 1/12"  2/0"	21.7 82.9			(500)	
2 3 4 5 6 7 7 8 8 9 11		9.6° 9.0	All Soft must brewn sity CLAY with wet fine sand innees, 60 Soft must diak troom dayey TOPSOIL with organica, 66 Slipbilly compact wet clayey trown fine SAND with trace of gravel, and wet fine sand lenses, the Soft most diak brown clayey MARL with some arganese Mediam constact wet draw fine SAND with trace	2 1 1 2 2 2 2 1/12"  2/0"	21.7 82.9				
3 4 5 6 7 7 8 9 10 11 12		9.6° 9.0	Soft music limms sity CLAY with wet fine sand innees, 60	1 1 1 2 2 2 2 1/12' 2 2 0 6"	21.7 82.9		•		
4 5 7 8 9 10		9.6° 9.0	Innee, M Soft want dak brown clayey TOPSOIL with organica. Ne Singhily compact wet clayey brown fine SAND with tace of yavel, and wet fine sand lenses, Ne Soft most dark brown clayey MARL with some erganow Medium constact wet aray fire SAND with trace	1 3 2 2 2 1/12* 2/0* 2/0*	21.7 82.9		•		
4 5 7 8 9 10		96°	Innee, M Soft want dak brown clayey TOPSOIL with organica. Ne Singhily compact wet clayey brown fine SAND with tace of yavel, and wet fine sand lenses, Ne Soft most dark brown clayey MARL with some erganow Medium constact wet aray fire SAND with trace	3 2 2 2 1/12* 2)\$*	82.9				
5 6 7 8 8 9 10		96°	Soft were days troom caysey TOPSOIL with organics, the Sightly compact wet caysey brown fine SAND with these of pavet, and wet file sand lenses, the Soft most daiw brown caysey MARL with some argument. Medium constant wet aray fine SAND with trace	2 1/12* 2)0* 2	82.9			(500)	
6 7 8 8 10 11		96.	argania, M Scholip compact wat charey brown fine SAND with trace of gravel, and wet fine sand lenses, M Soft most disk brown clayey MARL with some erganize. Medium compact wet grav fine SAND with trace	2 1/12* 2)0* 2	82.9			(\$20)	
6 7 8 8 9 10 11		9.6-	with trace of gravel, and wet five sand lenses, the Soft model dark brown clayey MARL with some engance.	2 1/12* 2)0* 2	82.9			(500)	
7 8 9 10 11		9.6-	The Soft molifiel disk brown clayey MARL with some organize.	206" 2				(555)	
a 0 10 11		S	erganies Medium compact wet grav fine SAND with trace	206" 2				(528)	
9 10 11		S	erganies Medium compact wet grav fine SAND with trace	206" 2				(500)	
9 10 11		S	Medium compact wet gray fine SAND with trace	2	19.0		-	(800)	
1		S	Medium compact wet gray fine SAND with trace of gravel, and occasional stones		19.0				-
1		S	Medium compact wet gray fine SAND with trace of gravel, and occasional stones		19.0				-
1		10'6'	of gravel, and occasional stones		19(0				
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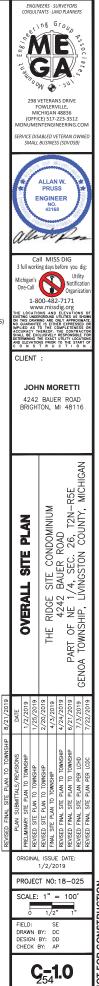
#### FILE:P:\Projects\2018\18-025 Moretti Estates\Dwg\Engineering\18-025\_C-1.0\_SitePlan.dwg DATE:8/20/2019 12:04 PM



#### NOTES

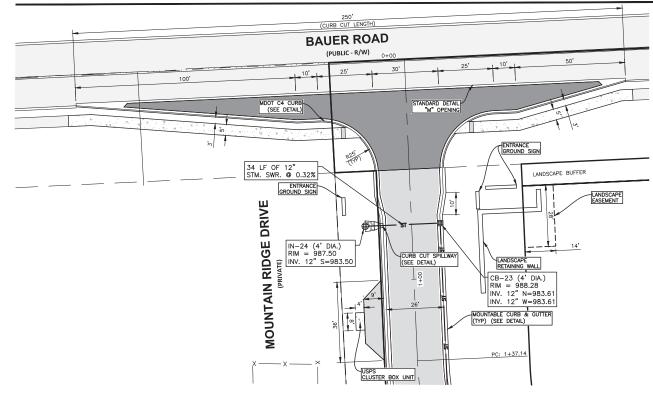
 FOR MORE DETAILED LOT DIMENSIONS, EASEMENTS, AND CONDOMINIUM ELEMENTS REFER TO SEPARATE EXHIBIT B DRAWINGS.

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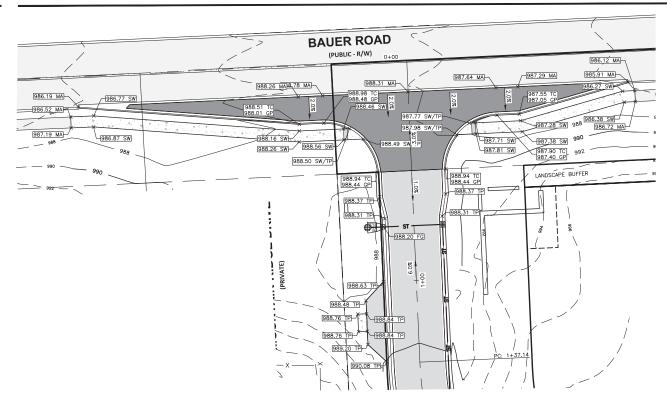


THE RIDGE SITE CONDOMINIUM ENTRANCE DETAILS

#### MOUNTAIN RIDGE DRIVE /BAUER ROAD PLAN



#### MOUNTAIN RIDGE DRIVE/BAUER ROAD. GRADING PLAN



#### ON-SITE ROAD PAVEMENT SECTION

1.5" BITUMINOUS WEARING COURSE MDOT MIX 36A
 0.10 GAL/SY BOND COAT

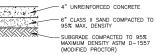
1.5" BITUMINOUS LEVELING COURSE MDOT MIX 13A

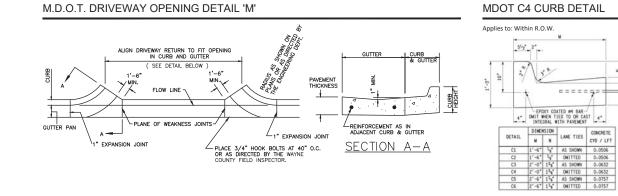
MOOT MIX 13A = \* MOOT 282F COMPACTED TO 95% MAX. DENSITY (ASTM D-1557) (OR MATCH EXISTING) = 10" MOOT CLASS II GRANULAR SUBBASE COMPACTED TO 95% MAXIMUM DENSITY ASTM D-1557 (MODIFIED PROCTOR)

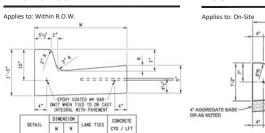
Applies to: On-Site

### CONCRETE SECTION

Applies to: USPS CLUSTER BOX UNIT PAD & SIDEWALK WITHIN ROW

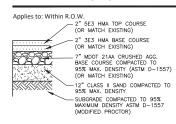




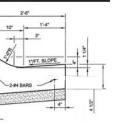


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### **RIGHT-OF-WAY** PAVEMENT SECTION

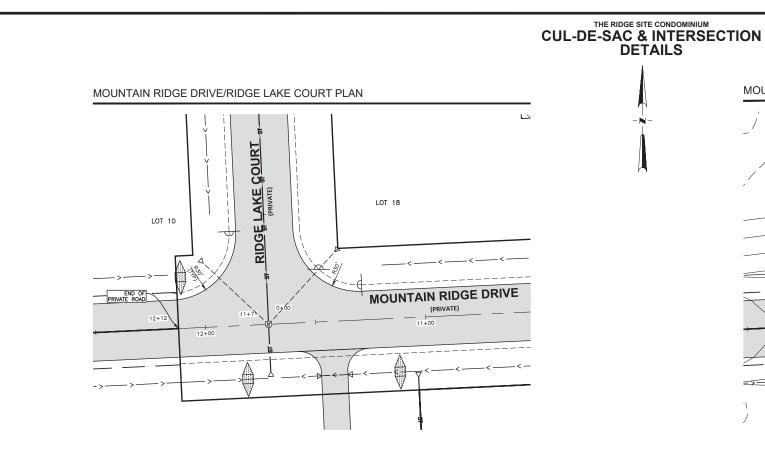


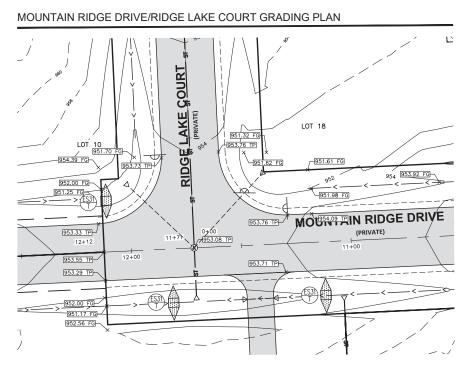
### MOUNTABLE CURB & GUTTER



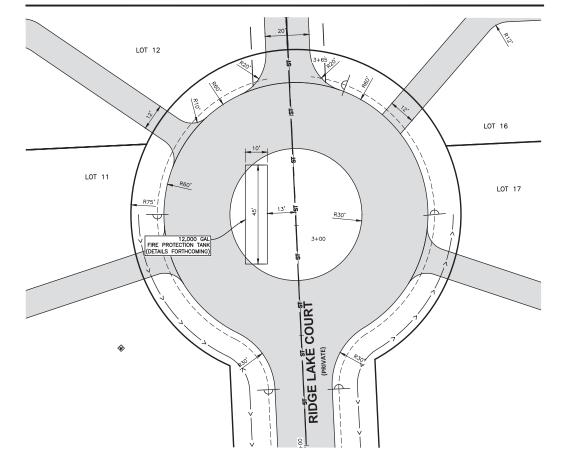
TYPE B MDOT DETAIL R-30-E - TYPE D

				REVISED FINAL SITE PLAN TO TOWNSHIP 8/21/2019	8/21/2019		
	FI DI DI			PLAN SUBMITTALS/REVISIONS	DATE		SEF
		RO. CA	RIGI	PRELIMINARY SITE PLAN TO TOWNSHIP	1/2/2019	ENTRANCE DETALS	
Ç	) N SN	LE:		REVISED SITE PLAN TO TOWNSHIP	1/25/2019		e ci alli e ci a
25	1 BY: BY: 3Y:	т I 1	1/2	REVISED SITE PLAN TO TOWNSHIP	2/20/2019		
5	/2 S D A	۰0» " :	/2	EINAL SITE PLAN TO TOWNSHIP	4/3/2019	IHE KIDGE SHE CONDOMINIUM	C C C C C C C C C C C C C C C C C C C
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1	1	-0 20		REVISED FINAL SITE PLAN TO TOWNSHIP	6/21/2019	PART OF NF 1/4, SFC, 26, T2N-R5F	Up U
		_		REVISED FINAL SITE PLAN PER LCHD	7/3/2019	CENDA TOWNSHIP I IVINGSTON COLINTY MICHICAN	Source and thilling the second
		, 		REVISED FINAL SITE PLAN PER LCDC	7/22/2019	OLIVOR TOWNSIIII, LIVINGSTON COONTI, MICHINGRA	ig: / tion tion
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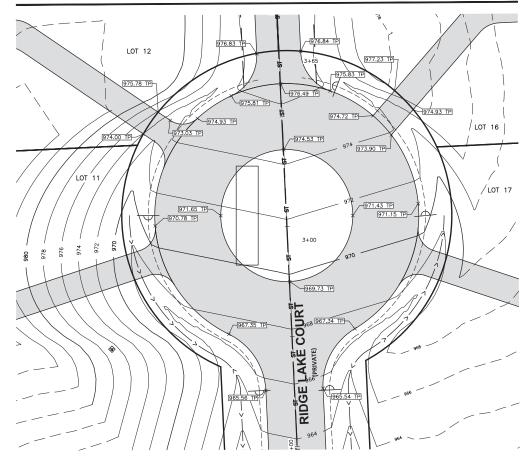


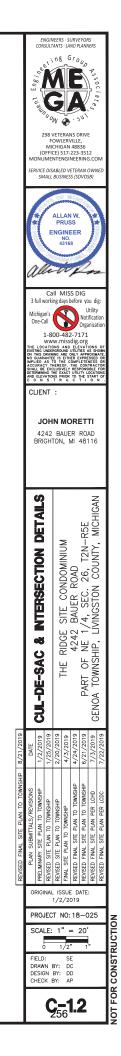


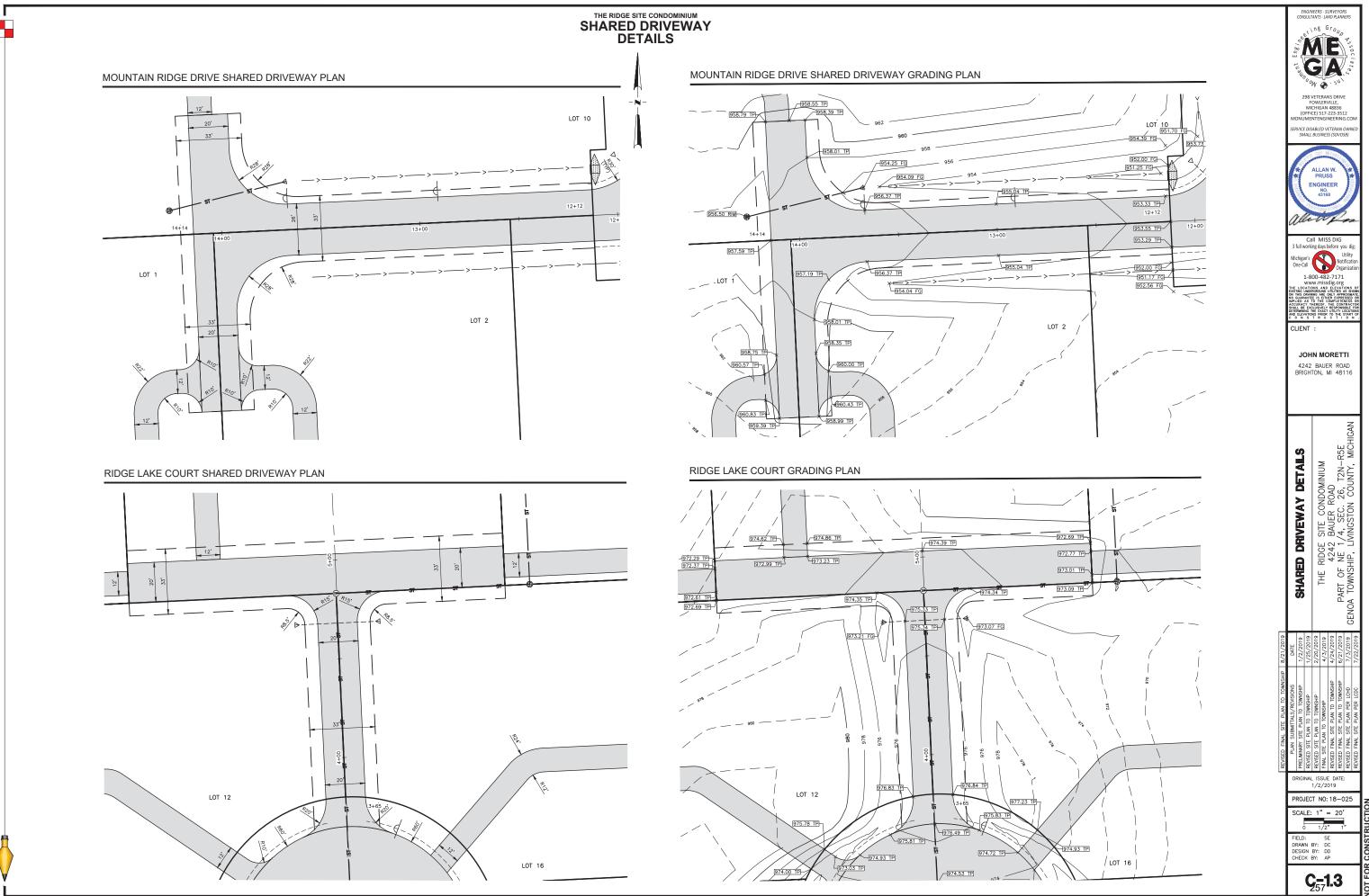
#### RIDGE LAKE COURT PLAN

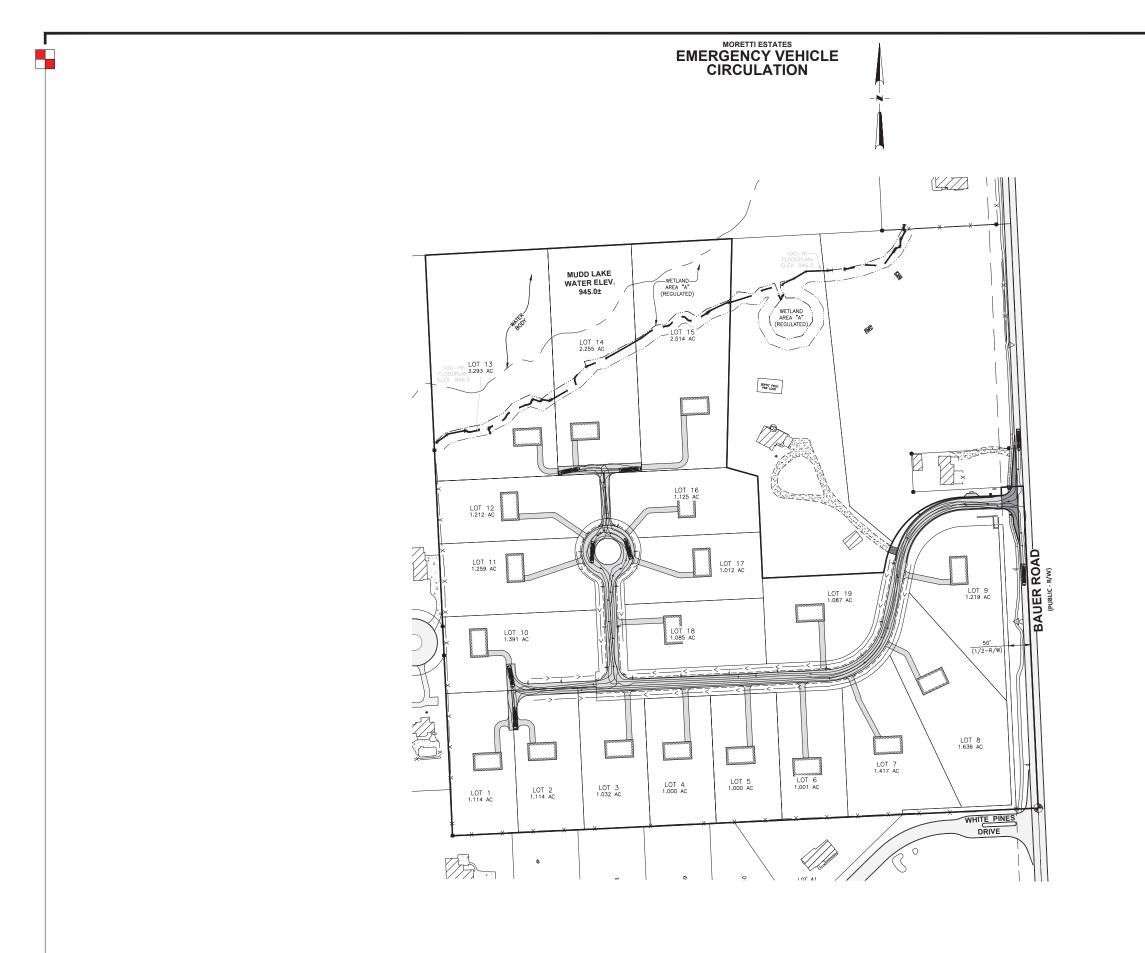


RIDGE LAKE COURT GRADING PLAN









ENGINEERS · SURVEYORS CONSULTANTS · LAND PLANNER EMERGENCY VEHICLE ing Group ME 49.083 ĜĀ 00 20.583' 4.667' 15.833 <sup>4</sup>°W 😛 · ͻ<sup></sup>ັ Brighton 49° Fire Truck Overall Length Overall Width Overall Body Height Min Body Ground Clearance Track Width 298 VETERANS DRIVE FOWLERVILLE, MICHIGAN 48836 (OFFICE) 517-223-3512 49.083 8.167ft 7.500ft 8.167ft 5.00s 45.00° Lock-to-lock time Max Steering Angle (Virtual) ERVICE DISABLED VETERAN OWN SMALL BUSINESS (SDVOSB) FIRE TRUCK DETAIL ALLAN W. PRUSS ENGINEER NO. 43168 Call MISS DIG 3 full working days before you di 3 full working days before you dig Michigan's One-call Working of the second second www.missdig.org Working the second second www.missdig.org Working the second second working the second seco CLIENT : JOHN MORETTI 4242 BAUER ROAD BRIGHTON, MI 48116 EMERGENCY VEHICLE CIRCULATION THE RIDGE SITE CONDOMINIUM 4242 BAUER ROAD PART OF NE 1/4, SEC. 26, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MICH 40 PRELIMINARY STIFE PLAN TO LUMINARY STIFE PLAN TO LUMINARY REVISED STIFE PLAN TO TOWNSHIP REVISED STIFE PLAN TO TOWNSHIP REVISED STIFE PLAN TO TOWNSHIP REVISED FINAL STIFE PLAN TO TOWN REVISED FINAL STIFE PLAN PER LC ORIGINAL ISSUE DATE: 1/2/2019 PROJECT NO: 18-025 SCALE: 1" = 100' 0 1/2" 1" FIELD: SE DRAWN BY: DC DESIGN BY: DD CHECK BY: AP **C-2.0** 

GAN

8'

#### SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

GRADING LEGEND

\_\_\_\_900\_\_\_\_

------------------------EXISTING CONTOUR

LIMITS OF DISTURBANCE

PROPOSED CONTOUR

- 1. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON APPROVED PLANS.
- REMOVE ALL TOPSOIL AND ORGANIC MATTER. TOPSOIL MAY BE STORED ON SITE IN DESIGNATED AREA TO BE USED FOR FUTURE PLANTING AND FILL AREAS. TRUCK REMAINING TOP SOIL OFFSITE AND PROPERLY DISPOSE.
- THE CONTRACTOR SHALL PROVIDE TREE PROTECTION FOR TREES OUTSIDE THE 3. LIMITS OF DISTURBANCE
- 4. ROUGH GRADE AND INSTALL NEW UNDERGROUND UTILITIES INCLUDING SEDIMENTATION FOREBAY. PLACE INLET FILTERS AT PROPOSED CATCH BASINS HROUGHOUT SITE
- 5. SEDIMENTATION FOREBAY SHALL BE EXCAVATED, TOP SOILED, AND SEEDED IMMEDIATELY AFTER DEMOLITION WORK IS COMPLETED.
- 6. CONSTRUCT ROAD.
- FINISH GRADE AROUND ROAD AND STABILIZE AS SOON AS POSSIBLE. STABILIZE 7 ALL DISTURBED AREAS WITH CLASS A SEED AND MULCH. IN AREAS OF SLOPES OF 1:4 OR STEEPER, CONTRACTOR TO SEED AND INSTALL PEGGED IN PLACE EROSION CONTROL BLANKETS
- 8. REPAIR/CLEAN INLET FILTERS AS REQUIRED.
- 9. INSTALL FINAL LANDSCAPING PER SEPARATE LANDSCAPE PLAN.
- 10. STONE AROUND OUTLET STANDPIPE STRUCTURE SHALL BE REFRESHED.
- 11. REMOVE TEMPORARY SOIL EROSION MEASURES ONCE SEEDED VEGETATION HAS ESTABLISHED. CLEAN ALL AFFECTED STORM STRUCTURES AS NECESSARY

#### BENCHMARKS

#### Datum: NAVD88

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 26'± WEST OF CENTERLINE OF BAUER ROAD & 539'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE. Elev = 986.91

NOT D RAIL ROAD SPIKE IN WEST FACE UTILITY POLE, 28'± WEST OF CENTERLINE OF BAUER ROAD & 58'± NORTH FROM SUBJECT'S SOUTH PROPERTY LINE. Elev = 970.48

RAIL ROAD SPIKE IN WEST FACE UTILITY POLE. 439'+ WEST OF CENTERLINE OF BAUER ROAD & 565'+ SOUTH FROM SUBJECT'S NORTH PROPERTY LINE. Elev = 1013.57

# THE RIDGE SITE CONDOMINIUM **GRADING. SOIL EROSION &** SEDIMENTATION CONTROL PLAN **AERIAL PHOTOGRAMMETRY**

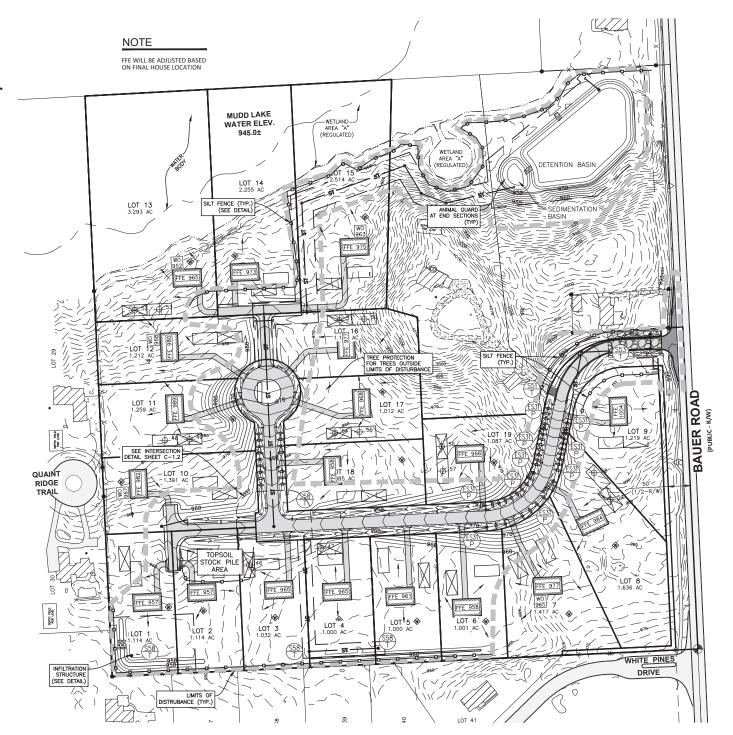
TOPOGRAPHIC CONTOURS BASED ON MEGA AFRIAL CONTOUR INTERVAL VERTICAL DATUM NAVD88 DATE OF PHOTOGRAPHY: 4/24/2018

#### SESC LEGEND

### SILT FENCE MUD MAT

### **EROSION CONTROL QUANTITIES**

Disturbed A	rea: 15.894	Acres
QTY	UNIT	ITEM
3,455	LF	SILT FENCE
4	EA	INLET FILTER
40	EA	CHECK DAM



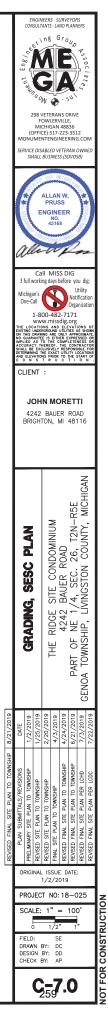
#### MDMB SOIL EROSION & SEDIMENTATION CONTROL MEASURES MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET (MDMB) EROSION CONTROLS KEY BEST MANAGEMENT PRACTICES SYMBOL WHERE USED FOR USE IN AREAS SUBJECT TO EROSIVE SURFACE FLOWS OR SEVERE WIND OR OF NEWLY SEEDED AREAS. F6 MULCH Marahastak STABILIZATION METHOD UTILIZED ON SIT WHERE EARTH CHANGE HAS BEEN F8 PERMANENT SEEDING SEDIMENT CONTROLS KEY BEST MANAGEMENT PRACTICES WHERE USED SYMBO E ADJACENT TO CRITICAL AREA PREVENT SEDIMENT LADEN SHI OW FROM ENTERING THESE ARE SILT FENCE USED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE STABILIZED CONSTRUCTION ACCESS AT THE OUTLET OF DISTURBED AREAS AND AT THE LOCATION A PERMANENT DETENTION BASI SEDIMENT BASIN USE AT STORMWATER INLETS, ESPECIALLY AT CONSTRUCTION 58 INLET PROTEC EROSION & SEDIMENT CONTROLS KEY BEST MANAGEMENT PRACTICES SYMBOL WHERE USED USED TO REDUCE SURFACE FLOW VELOCITIES WITHIN CONSTRUCTED AND EXISTING FLOW CORRIDORS. S31 CHECK DAM XX TEMPORARY

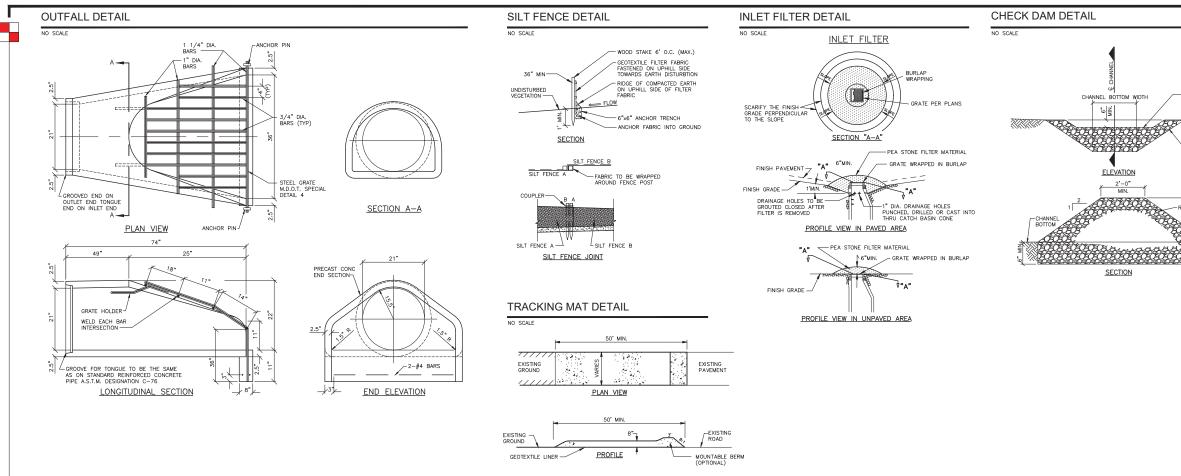
### **EROSION CONTROL STANDARDS**

- 1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE.
- 2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR FOR EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- 3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- 4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER CHANGES HAS BEEN ACCOMPLISHED.
- 5. STAGING OF THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLACES AND AS REQUIRED TO INSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS
- 6. 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 SILT OFF THE
- 7. A CERTIFIED STORM WATER OPERATOR WILL BE NAMED ON THE MDEQ NOTICE OF COVERAGE FOR NPDES AS REQUIRED

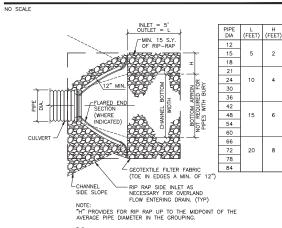
#### SOIL EROSION CONTROL MAINTENANCE SCHEDULE AND NOTES.

- 1. CONTRACTOR MUST OBTAIN A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT FROM LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE PRIOR TO COMMENCING WORK.
- 2. EARTHWORK SHALL BE LIMITED TO THE PROPOSED SITE AS SHOWN ON THE PLAN.
- 3. CONTRACTOR SHALL INSPECT THE SOIL EROSION/SEDIMENTATION CONTROL DEVICES ONCE A WEEK AND/OR WITHIN 24 HOURS OF A RAINFALL EVENT WHICH RESULTS IN A STORM WATER DISCHARGE FROM THE SITE. ANY DAMAGE TO EROSION CONTROL MEASURES MUST BE REPAIRED IMMEDIATELY.
- 4. ALL MUD OR DEBRIS TRACKED ONTO EXISTING PUBLIC ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR
- SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR RE-BACKFILL THE SILTATION FENCE SHOULD IT FAIL OR BE DAMAGED DURING CONSTRUCTION.
- 6. PERMANENT STABILIZATION BUST BE COMPLETED WITHIN 30 DAYS OF FINAL GRADING
- 7. ACCESS ROADS MUST BE MAINTAINED AS NECESSARY, TO KEEP THEM EFFECTIVE, NEW LAYERS OF STONE MAY BE ADDED AS OLD LAYERS BECOME COMPACTED. STEPS SHOULD ALSO BE TAKEN TO REPAIR THE ACCESS ROADS IF RUTS OR PONDING WATER APPEARS.
- 8. INLET FILTERS SHOULD BE INSPECTED FOR BUILDUP OF SILT AND OTHER DEBRIS. THIS IS EVIDENT IF GEOTEXTILE/SOD STRUCTURE IS CAUSING FLOODING MAINTENANCE WOULD CONSIST OF REMOVING OF SEDUMENTS WITH A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTER IS BEYOND THIS LEVEL OF REPAR, IT MAY BE NECESSARY TO REPLACE BOTH THE SOD AND GEOTEXTILE FILTER.
- 9. IF SOIL EROSION/SEDIMENT CONTROL MEASURES ARE INADEQUATE FOR THE SITE. THE PROPER EROSION CONTROL AUTHORITY MUST BE NOTIFIED.
- 10. HYDRO-SEEDING HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%. ON SLOPES OVER 1%, STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER, OR STRAW BLANKETS PEGGED IN PLACE.
- 11. STRAW MULCH 3" IN DEPTH, 1.5 TO 2 TONS PER ACRE (ALL MULCH MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)
- 12. FERTILIZER 150 LBS. PER ACRE
- 13. GRASS SEED 210 LBS. PER ACRE
- 14. TOP-SOIL 3 INCHES IN DEPTH.
- 15. ALL RIP-RAP MUST BE PLACED OVER KEYED IN GEO-FABRIC



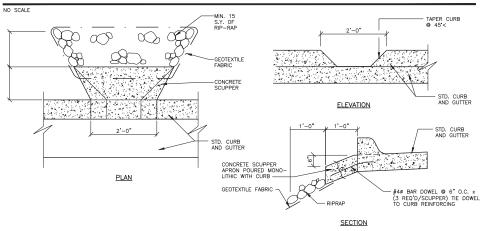


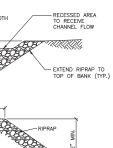
#### RIPRAP END TREATMENT DETAIL AT OUTFALL

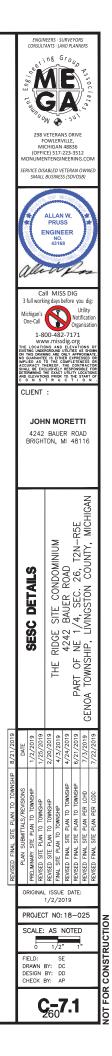


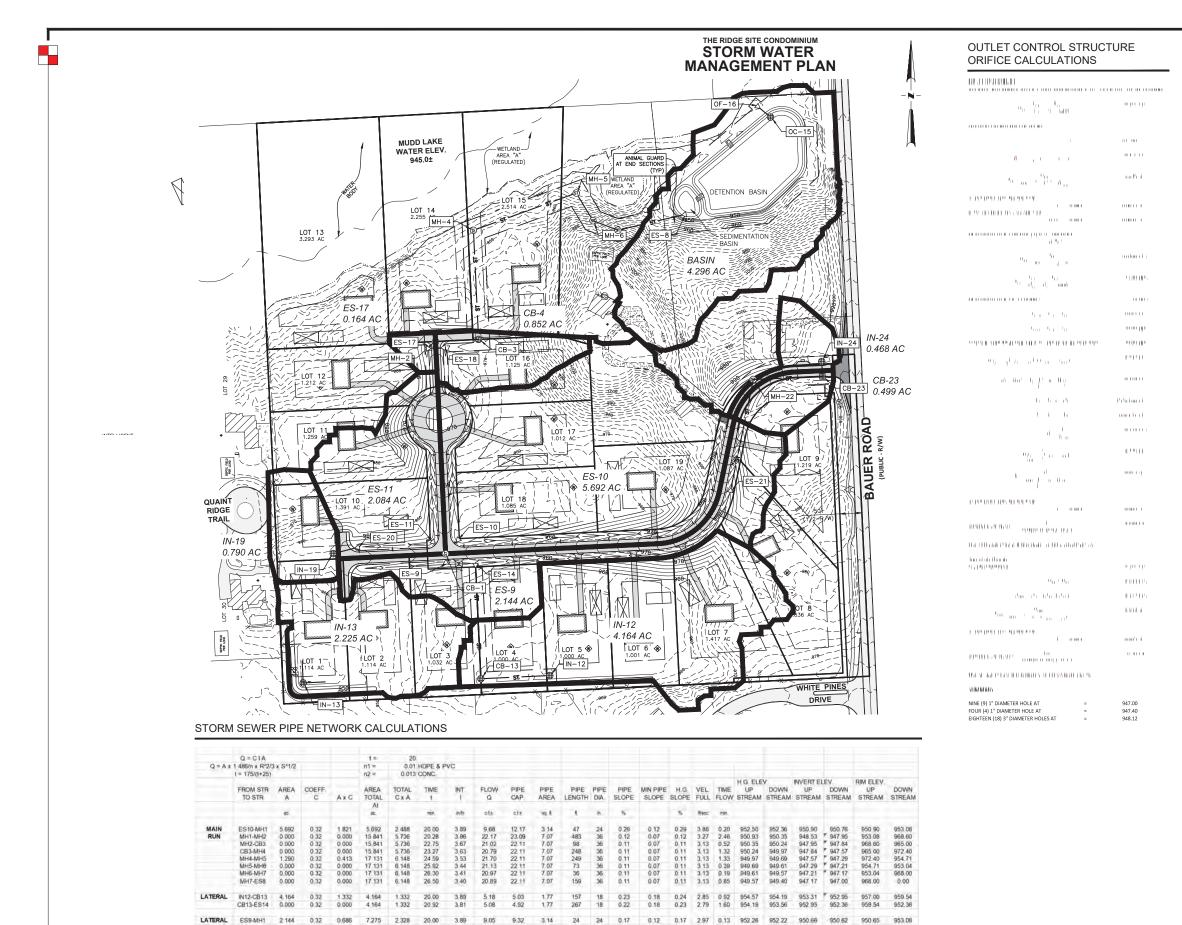
"L" FOLLOWS MINIMUM APRON LENGTHS BASED ON EMPIRICAL FORMULA U.S.E.P.A. 1976 L=30/D3/2 FOR TAILWATERS GREATER THAN 0.5D (D=DIAMETER).

### RIPRAP CURB CUT SPILLWAY DETAIL









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IN19-ES20 0.790 0.32 0.253 0.790 0.253 20.00 3.89 0.98 2.01 0.79

3.89

### DETENTION VOLUME CALCULATIONS

#### PROPOSED SITE DATA

Tributary Area (A):	23.39 Acres
Compound Runoff Coefficient (C):	0.32
Design Constant (K1):	7.37
Maximum Permission Unit Outflow Rate:	0.20 CFS/Acres
Allowable Outflow Rate (Q_):	4.68 CFS

#### PROPOSED COMPOUND RUNOFF COEFFICIENT

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#### REQUIRED DETENTION VOLUME (LIVINGSTON COUNTY METHOD)

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#### REQUIRED VOLUME SUMMARY

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#### PROVIDED SEDIMENTATION STORAGE VOLUME

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#### PROVIDED DETENTION STORAGE VOLUME

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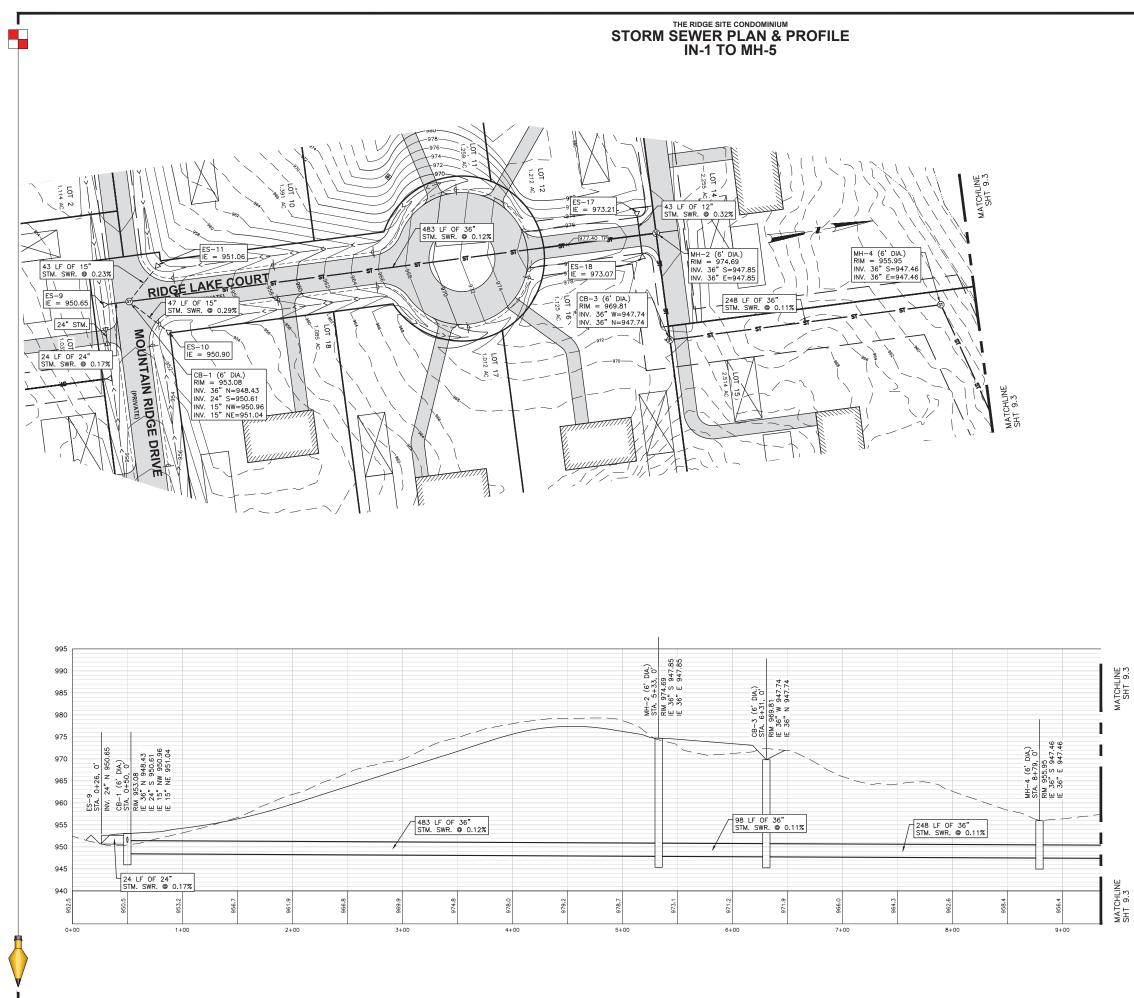
#### PROVIDED STORAGE ELEVATIONS First Flush Storage Elevation

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### NOTE:

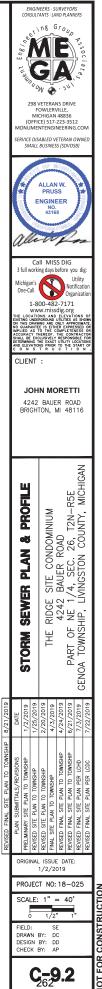
THE PROPOSED DRAINAGE SYSTEM IS PRIVATELY OWNED AND WILL BE PROPERLY MAINTAINED BY THE PROPERTY OWNER'S ASSOCIATION

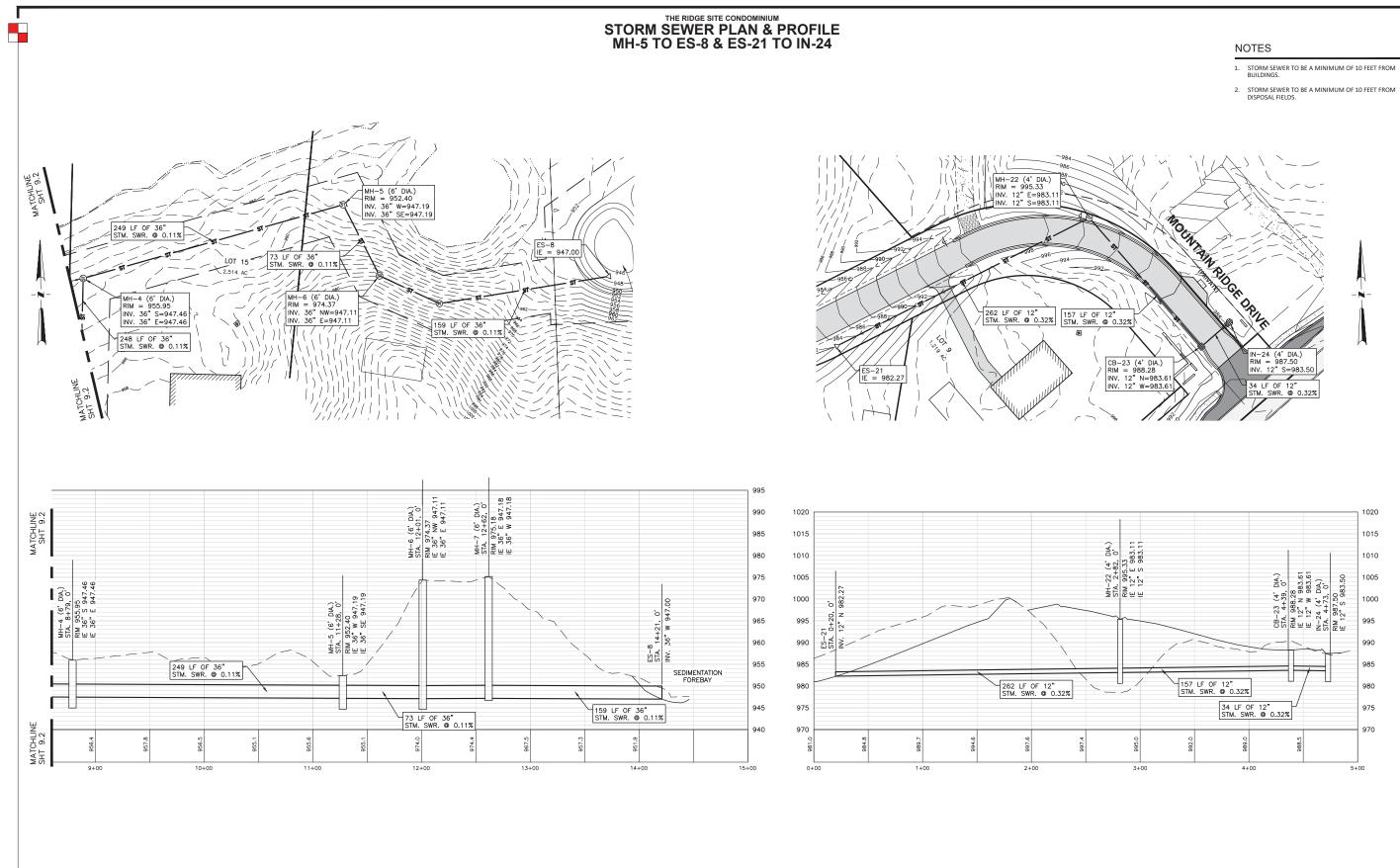
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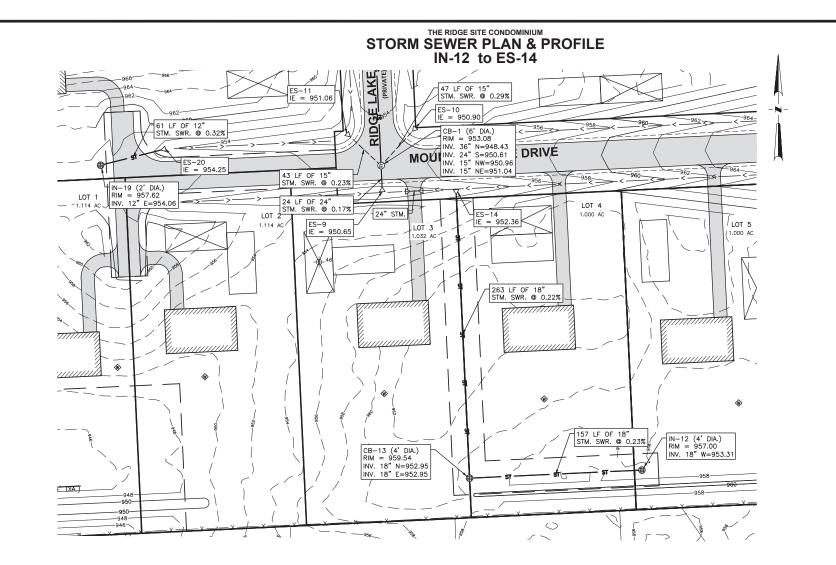
### NOTES

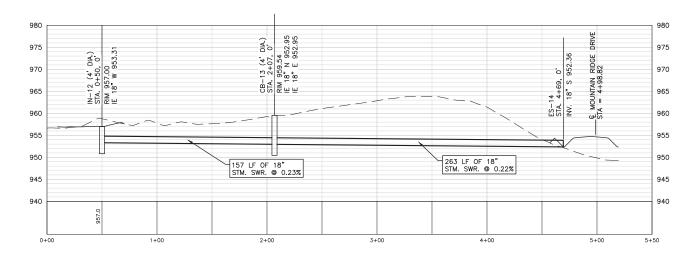
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- STORM SEWER TO BE A MINIMUM OF 10 FEET FROM DISPOSAL FIELDS.





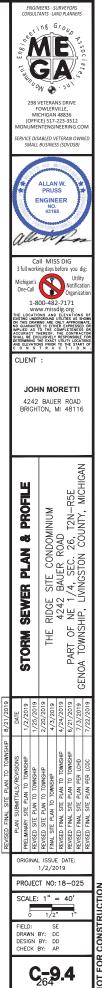
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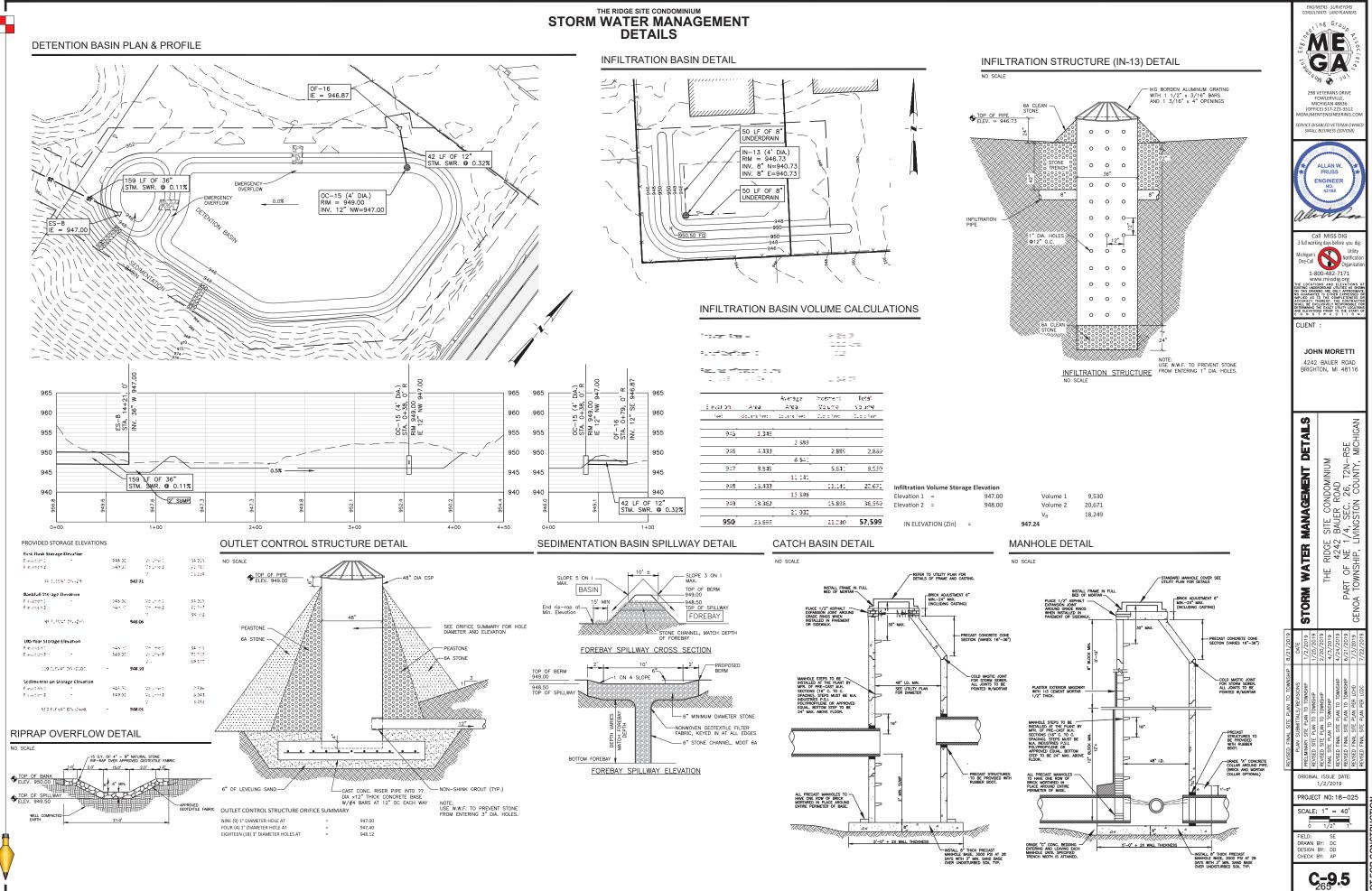


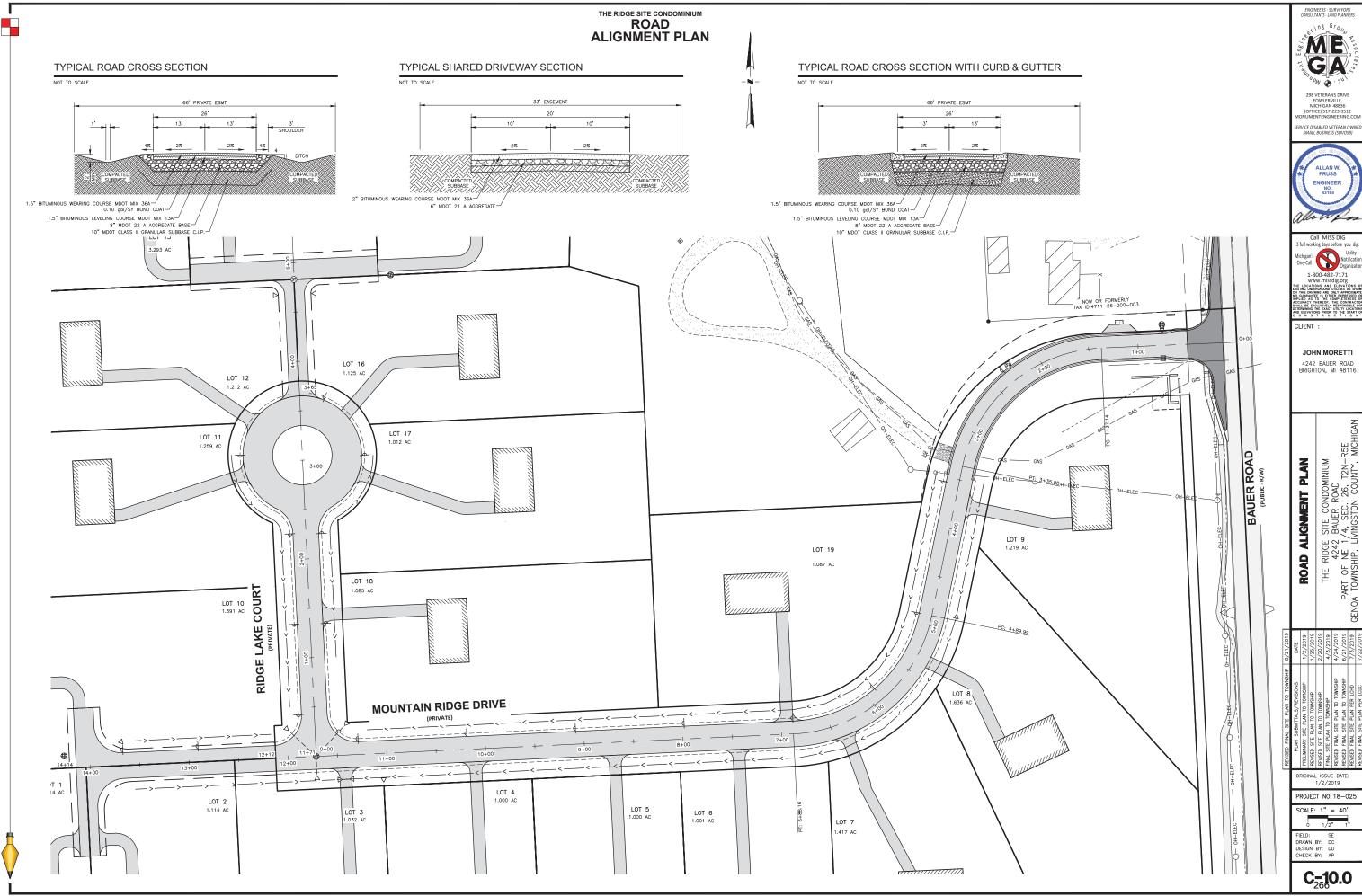
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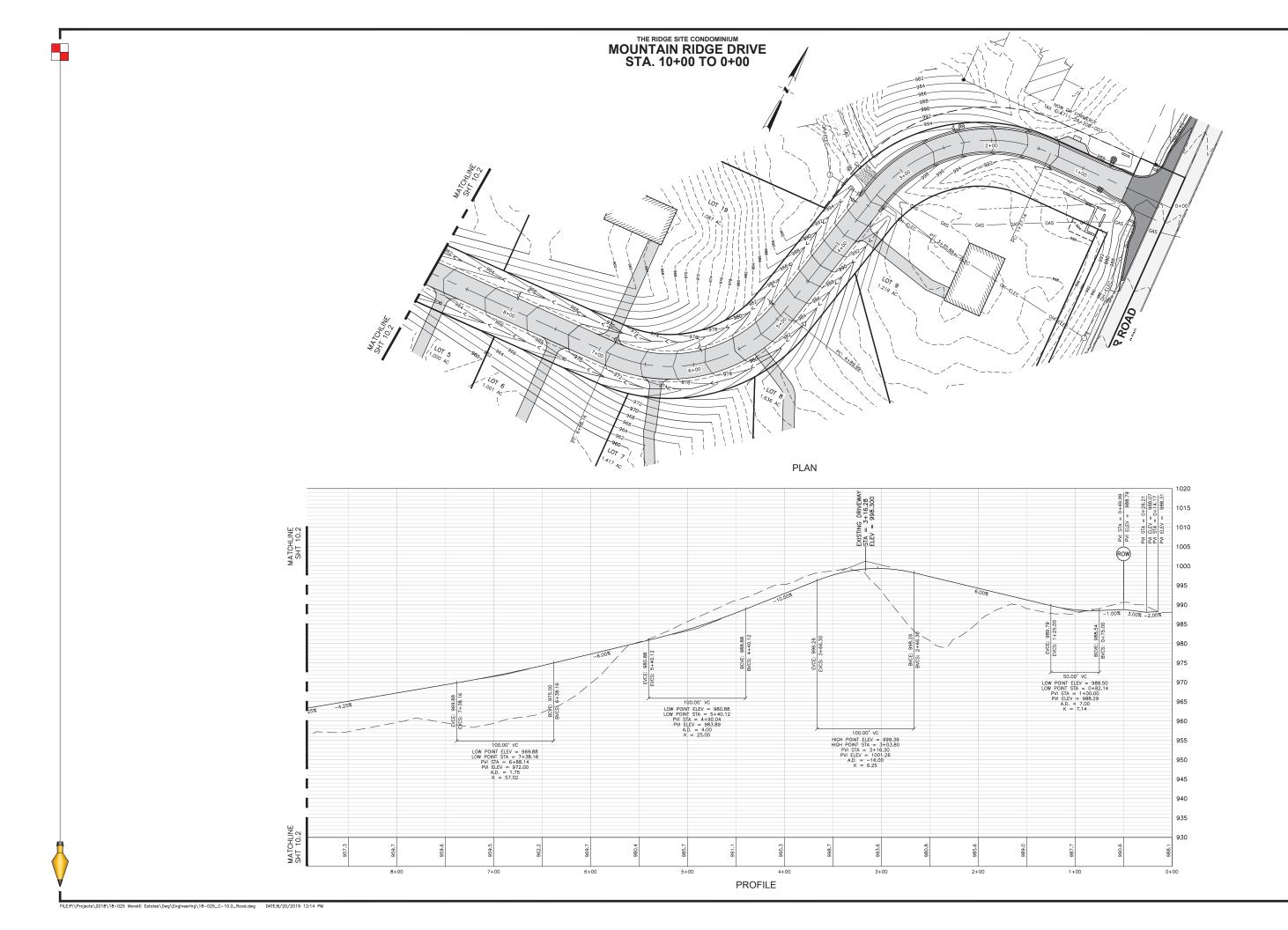
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- STORM SEWER TO BE A MINIMUM OF 10 FEET FROM DISPOSAL FIELDS.

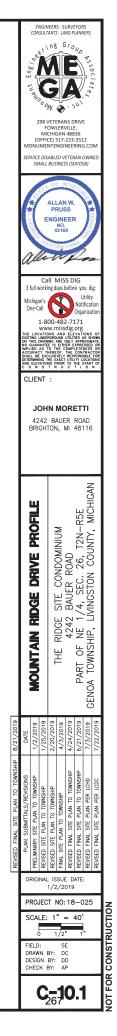


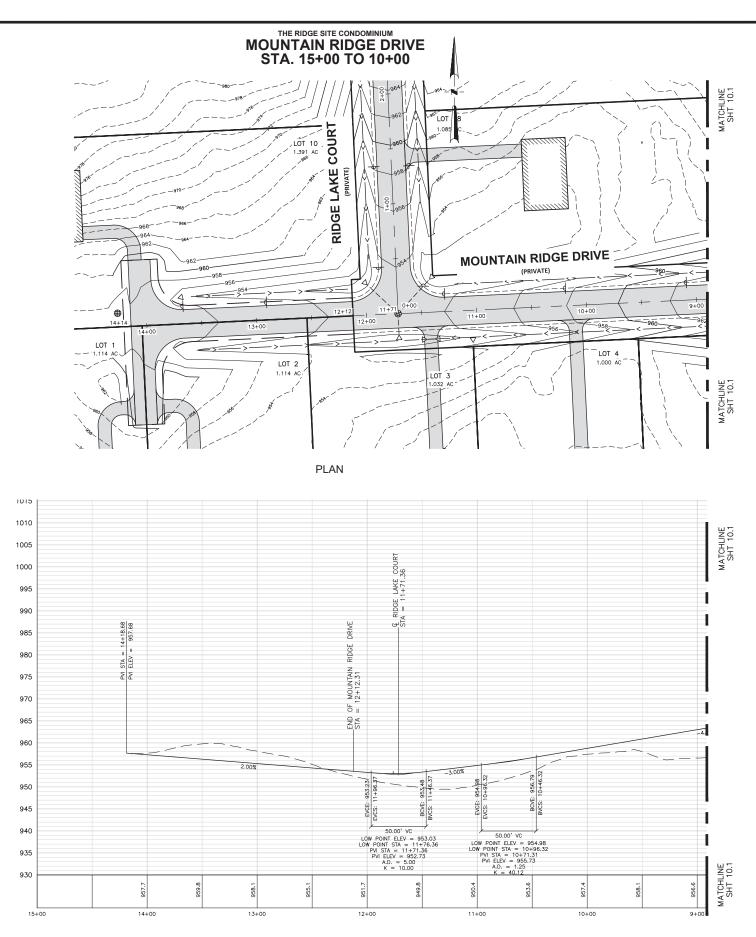




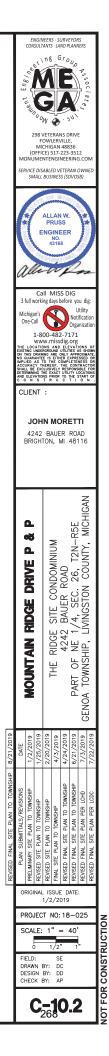


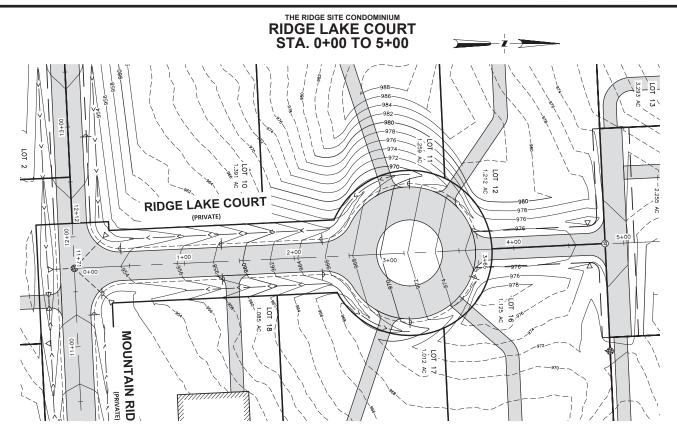




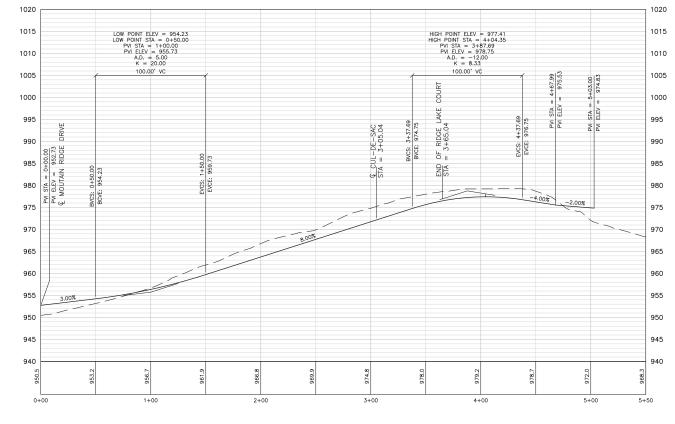


PROFILE

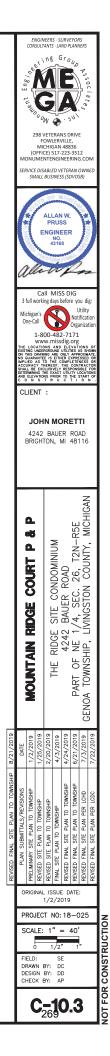




PLAN



PROFILE



#### **GENERAL NOTES**

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOLL MANIFORMATICY. THE COUNTY D.P.W., THE COUNTY DRAIN COMMISSIONER, DETROIT METRO WATER & SEVERACE DEPARTMENT, WORKSAN DEPARTMENT OF TRANSPORTATION, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, THE STATE OF MICHIGAN, AND THE COUNTY ROAD COMMISSION WHERE APPLICABLE.
- RULES, REGULATIONS OR LAWS OF ANY CONTROLLING GOVERNMENTAL AGENCY SHALL GOVERN, WHEN THEY ARE MORE STRINGENT THAN THE REQUIREMENTS OF THESE SPECIFICATIONS.
- SHOLLD THE CONTRACTOR ENCOUNTER A CONLECT BETWEEN THESE FLANS AND SECORCATIONS ETHER AMONG THENESLEVES OF WITH THE RECURRENTS OF AN AND ALL REVENING AND FERMIT-ISSUING AGENCIES, HE SHALL SEEK CLARFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE THE TYPE OF WORK WHICH IS BID, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, DETAILS AND THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE.
- UNITELY STEPRESENTATIVE. CONTRACTOR GARGES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE REPORTSBULTE FOR JOINT STEP CONDITIONS DURING THE SOL AND PROPERTY. THAT THIS REQUERENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FUETHER ACRESS TO DEFEND, INDERINFY AND HOUD DESIGN FORGESSIONAL HARMLESS FROM ANY AND ALL LUABILITY, FRALL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE WORK ON THIS FROLECT. EXCEPTING LUABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- ANY WORK WITHIN STREET OR HIGHWAY RIGHT-OF-WAYS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNMENTAL AGENCIES HA JURISDICTION AND SHALL NOT BEGIN UNTIL PERMITS HAVE BEEN ISSUED BY THESE GOVERNING AUTHORITIES.
- 7. ALL NECESSARY PERMITS, BONDS, INSURANCES, ETC., SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL ELEVATIONS SHOWN ARE BASED ON BENCHMARKS PROVIDED BY THE LOCAL MUNICIPALITY UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL ITEMS OF WORK NOT SPECIFICALLY INDICATED AS PAY ITEMS ON THE DRAWINGS OR IN THE BID PACKAGE SHALL BE CONSIDERED INCIDENTAL ITEMS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING THE PERIODS OF CONSTRUCTION.
- AT LEAST THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT MISS DIG (1-800-482-7171) TO VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK.
- 12. ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.
- 13. MANHOLE, CATCH BASIN, GATE WELL RIMS AND HYDRANT FINISH GRADE ELEVATIONS MUST BE AS-BUILT AND APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR'S WORK IS CONSIDERED COMPLETE. AGENCY REQUIREMENTS FOR RECORD DRAWINGS ALSO APPLY.
- 14. CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF-SITE ANY TREES, BRUSH, STUMPS, TRASH OR OTHER UNWARTED DEBRIS, AT THE OWNER'S DIRECTON, INCLUDING OLD BUILDING FOUNDATIONS AND FLOORS. THE BURNING OR BURYING OF TRASH, STUMPS OR OTHER DEBRIS WILL NOT BE ALLOWED.
- ALL REFERENCES TO M.D.O.T. SPECIFICATIONS REFER TO THE MOST CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 16. ALL CONTRACTORS BIDDING THIS PROJECT SHALL HAVE VISITED THE SITE TO BECOME THOROUGHLY FAMILIAR WITH THE SITE AND THE CONDITIONS IN WHICH THEY WILL BE CONDUCTING THEIR OPERATIONS. ANY VARIANCE FOUND BETWEEN THE PLANS AND EXISTING CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE DESIGN ENGNEER.
- 17. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR POISTING UNDERGEDUND FACILITIES ARE IN ACCORDINGE WITH AN ALABLE INFORMATION UNDERGEDUND FACILITIES ARE IN ACCORDINGE WITH AN ALABLE INFORMATION UNCOVERNME AND MEASURING. THE DESIGN DEVIDERS DES NOT CUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN.
- 18. THE OWNER MAY EMPLOY AND PAY FOR THE SERVICES OF A ENGINEER TO PROVIDE ON-STE INSPECTION AND VERIFY IN THE FIELD THAT ALL BACKFILL, PACHEMIST AND CONCENTE CURB AND UTTER HAVE BEEN PLACED AND COMPACTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. IF, IN THE OPHICIN OF THE ENGINEER. THE WORK DOES NOT WEET THE TECHNICAL OR DESIGN REQUIREMENTS STIPULATED FOR THE WORK, THE CONTRACTOR SHALL MAKE ALL NECKSSARY AUGUSTMENTS AND DEPECTION BY THE EVANCER. THE CONCINCT AND STIPULATED FOR THE WORK, THE CONTRACTOR SHALL MAKE ALL NECKSSARY AUGUSTMENTS AND DIRECTED BY THE EVANCER. THE CONCINCT SPECIFIC WRITTEN APPROVAL OF THE OWNER.
- ALL EXCAVATED MATERIAL REMOVED FROM THE SANITARY SEWER, STORM SEWER AND WATER MAIN TRENCHES UNDER, THROUGH AND WITHIN 3 FEET OF THE 45° ZONE OF INFLUENCE LING OF EXISTING OF RXPORSED PAVING, SIDEWALK AREAS AND PER PLANS, NOT SUITABLE FOR BACKFILL, SHALL BE REMOVED FROM THESE AREAS AND DISPOSED OF.
- 20. THE CONTRACTOR SHALL RESTORE TO THEIR PRESENT CONDITIONS ANY PAVEMENT OR PUBLIC RIGHTS-OF-WAY THAT IS DISTURBED BY THE OPERATIONS OF THE CONTRACTOR. ALL RESTORATION WORK IN PUBLIC RIGHTS-OF-WAY SHALL BE PERFORMED TO THE SATISFACTION OF THE GOVERNMENT AGENCIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE AND LIGHTS TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC, IN ACCORDANC WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
- 22. O.S.H.A. SAFETY REQUIREMENTS ALL WORK, WORK PRACTICE, AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL SAFETY, OCUPATIONAL, HEALTH AND ENVRONMENTAL REGULATIONS AND ALSO NFPA AND ANSI CODES AS APPLICABLE. ALL WORK INSIDE A CONFINED SPACE SUCH AS MANHOLES OR UNDERKROUND STRUCTURES SHALL BE COORDINATED WITH UTLITY OWNER AND ALL WORKER SAFETY REQUIREMENTS STRUCTLY ENFORCED. LAND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 23. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.
- 24. CONTRACTOR SHALL PROVIDE FOR THE CONTINUOUS OPERATION OF EXISTING FACILITES WITHOUT INTERRUPTION DURING CONSTRUCTION UNLESS SPECIFICALL' AUTHORIZED OTHERWISE BY THE RESPECTIVE AUTHORITY.
- 25. THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITES IN THE PROJECT PLANS, BACKFILL TRENCHES FOR EXISTING UTILITES SHALL BE EXAMINED CRITICALLY, ANY TRENCH WHICH, IN THE OPINION OF THE SOLIS ENOINER ARE FOUND TO BE SOFT, UNSTABLE, OR UNSUITABLE MATERIAL SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH UTILEL MATERIAL. SAND BACKFILL SHALL BE USED UNDER PAVEMENT OR WITHIN THE 1 ON 1 LAND INFLUENCE OF PAVEMENT OR STRUCTURES.

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- EROSION CONTROL STANDARDS
- ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL AGENCY UNDER PART 91 OF ACT 451 OF 1994 AS MULTICIDED AND ADDRESS AN
- 2. UNDER "MICHIGAN'S PERMIT-BY-RULE FOR CONSTRUCTION ACTIVITIES", PROMULGATED UNDER ACT 245, PUBLIC ACTS OF 1929 AS MAINDED, AN NPDES STORM WATER DISCHARGE COVERAGE PERMIT IS REQUIRED FOR ANY CONSTRUCTION ACTIVITY THAT DISTURBS 1 ACRES OR WORE OF LAND. A CERTIFIED STORM WATER OPERATOR IS REQUIRED FOR ANY THE SUPERVISION AND INSPECTION OF THE SOLL EROSION CONTROL MESSURES AT THE CONSTRUCTION SITE IN ACCORDANCE WITH THE PROVISION OF THESE RULES.
- DAILY INSPECTIONS SHALL BE MADE BY CONTRACTOR WHILE WORKING TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES. ANY INCESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY, ALL SOIL EROSION CONTROL PROVISIONS SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS, WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DICHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
- CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY WEASURES AS SOON AS PERMANENT STABILIZATION SLOPES, DITCHES, AND OTHER EARTH CHANGE AREAS HAVE BEEN COMPLETED.
- STAGING THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AND AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
- 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 SILT OFF THE SITE.
- 8. DUST SHALL BE CONTROLLED BY WATERING OR BY OTHER APPROVED MEANS THROUGHOUT ALL CONSTRUCTION OPERATIONS.
- 9. PERMANENT SOL EROSION CONTROL MEASURES FOR SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN S CALENDAR DAYS AFTER THAL, GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. THE THAL, GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED AND EARTH CHANGE HAS BEEN COMPLETED OR WHERE SOUTHCANT EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN S CALENDAR DAYS, ALL TEMPORARY SOL EROSION CONTROL MEASURES SHALL BE MAINTANED UNTL TEMPORARY SOL EROSION CONTROL MEASURES SHALL BE MAINTANED UNTL TEMPORARY SOL EROSION CONTROL MEASURES SHALL BE MAINTANED UNTL TEMPORARY SOL EROSION CONTROL MEASURES SHALL BE INVELED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
- STORM SEWER SPECIFICATIONS
- THESE SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE GENERAL SPECIFICATIONS AND THE SPECIFICATIONS AND DETAIL SHEETS OF THE GOVERNING AGENCIES. IF ANY CONTLOT IS FOUND BETWEEN THE SPECIFICATIONS, THE STRICTER SPECIFICATIONS SHALL BE FOLLOWED.
- CONTRACTOR SHALL FURNISH CERTIFIED EVIDENCE THAT ALL MATERIAL TESTS AND INSPECTIONS HAVE BEEN PERFORMED AND THAT THE PRODUCT HAS BEEN MANUPACTURED IN COMPLANCE WITH THE APPLICABLE SPECIFICATIONS.
- PROPER IMPLEMENTS, TOOLS AND FACILITIES SHALL BE PROVIDED AND USED FOR UNLOADING AND DISTRIBUTING MATERIALS ALONG THE LINE OF WORK. ANY PIPE OR FITTING DAMAGED IN TRANSPORTATION OR HANDLING SHALL BE REJECTED AND IMMEDIATELY REMOVED FROM THE JOB SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE STORAGE OF ALL MATERIAL INTENDED FOR THE WORK. HE SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO MATERIALS, EQUIPMENT AND WORK.
- 5. PIPE BEDDING, UNLESS OTHERWISE INDICATED, SHALL BE CL. II SAND, CRUSHED STONE OR ROUNDED GRAVEL. BEDDING MATERIAL SHALL HAVE 95% PASSING A 3/4\* SIEVE AND RETAINED ON A NO. 4 SIEVE
- 6. POROUS FILTER MATERIAL FOR PERFORATED SUBSURFACE DRAINS SHALL BE CRUSHED ROCK OR GRAVEL GRADED BETWEEN 1-1/2" AND 3/4" OR PER PLANS AND DETAILS.
- BACKFILL, UNLESS OTHERWISE NOTED, SHALL BE COARSE SAND, FINE GRAVEL OR EARTH HAVING A LOW PLASTICITY INDEX, FREE OF ROCKS, DEBRIS AND OTHER FOREIGN MATERIALS AND DEFINED AS ALL PASSING THROUGH A 3/6" SIEVE AND NOT MORE THAN 10% BY VOLUME PASSING THROUGH A 200-MESH SIEVE.
- STORM SEWER PIPING AND FITTINGS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL CONFORM TO THE FOLLOWING:
- A. POLYVINYL CHLORIDE (PVC) AND ACRYLONITRILE BUTADIENE STYRENE ABS FOR PIPE UP TO AND INCLUDING 10° IN DIAMETER, SHALL CONFORM TO ASTM J034, SDR 23.5 FOR PVC PIPE AND ASTM D2515 FOR ABS PIPE WITH ELASTOMETING GASKET JOINTS CONFORMING TO ASTM D3212 OR CHEWICALLY WELDED PIPE JOINTS CONFORMING TO ASTM F545.
- B. REINFORCED CONCRETE PIPE, FOR PIPE 12" IN DIAMETER AND UP, SHALL CONFORM TO ASTM C-76, CLASS IV UNLESS MODIFIED BY THE DRAWINGS. JOINTS SHALL BE MODIFIED GROOVED TORGUE WITH RUBBER GASKET CONFORMING TO ASTM C-443.
- C. PERFORATED SUBSURFACE DRAIN PIPE SHALL BE PVC CONFORMING TO ASTM D-2729 OR ADS PERFORATED, CORRUGATED POLYETHYLENE PIPE CONFORMING TO ASHTO M-294 OR CORRUGATED TSEL PIPE. JOINTS FOR PVC AND POLYETHYLENE PIPE SHALL BE PREFABRICATED COUPLING WITH SOLVENT WELD.
- 9. MANHOLES, CATCH BASINS, AND INLETS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS AND SHALL BE CONSTRUCTED OF THE FOLLOWING
- A. REINFORCED PRE-CAST CONCRETE MANHOLE SECTIONS INCLUDING CONCENTRIC OR ECCENTRIC CONES AND GRADE RINGS SHALL BE 4000 PSI CONCRETE AND CONFORM TO ASTM C-478-64T.
- B. BRICK SHALL BE SOUND, HARD-BURNED THROUGHOUT AND OF UNIFORI SIZE AND QUALITY AND SHALL BE IN ACCORDANCE WITH ASTM C-32, GRADE MS.
- C. CONCRETE MASONRY SHALL BE SOLID PRE-CAST SEGMENTAL UNITS CONFORMING TO ASTM C-139.
- 10. IRON CASTINGS SHALL CONFORM TO ASTM A-48, CLASS 30. BEARING SURFACES BETWEEN CAST IRON FRAMES, COVERS AND GRAFES SHALL BE MACHINED, FITTED TOGETHER AND MATCHED-MARKED TO PREVENT ROCKING. SYSTEM IDENTIFYING LETTERS 2" HIGH SHALL BE STAMPED OR CAST INTO ALL COVERS SO THAT THEY MAY BE FLAINLY VISIEN.
- 11. CASTINGS SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS, INC., NEENAH FOUNDRY COMPANY OR EQUAL.
- 12. CONCRETE AND MASONRY MATERIALS FOR CONSTRUCTION OF STORM DRAINAGE STRUCTURES SHALL CONSIST OF THE FOLLOWING:
  - A. PORTLAND CEMENT SHALL BE STANDARD BRAND OF PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE I OR IA.
- B. FINE AND COARSE AGGREGATES FOR CONCRETE SHALL BE PER ASTM C-33. C. AGGREGATE FOR CEMENT MORTAR SHALL BE CLEAN, SHARP SAND CONFORMING TO ASTM C-144.
- D. HYDRATED LIME SHALL COMPLY WITH ASTM C-207, TYPE S.
- E. WATER SHALL BE CLEAN AND FREE FROM DELETERIOUS MATERIALS.
- F. REINFORCING STEEL FOR CONCRETE SHALL BE INTERMEDIATE-GRADE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 40.
- 13. CONCRETE, UNLESS OTHERWISE NOTED, SHALL HAVE COMPRESSIVE STRENGTH AFTER 28 DAYS OF 3000 PSI MINIMUM WITH 3" MAXIMUM SLUMP.
- A. CONCRETE FILL BELOW GRADE MAY BE 2500 PSI AT 28 DAYS. B. CONCRETE, WHERE EXPOSED TO THE WEATHER, SHALL BE AIR-ENTRAINED. AIR ENTRAINMENT SHALL BE ACCOMPUSHED BY THE USE OF ADDITIVES CONFORMING TO ASTM C-260. AIR CONTENT SHALL BE 65 4 1% ADDITIVE SHALL BE USED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S PRINTED DIRECTIONS.
- C. READY-MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM

STORM SEWER SPECIFICATIONS, CONTINUED

- MORTAR SHALL BE SPECIFIED HEREINAFTER. USE METHOD OF MIXING MORTAR AT JOB SO THAT SPECIFIED PROPORTIONS OF MORTAR MATERIALS CAN BE CONTROLLED AND ACCURATELY MAINTAINED DURING WORK PROGRESS. MORTAR SHALL NOT BE MIXED IN GREATER QUANTITES THAN REQUIRED FOR IMMEDIATE USE AMOUNT OF WATER CONSISTENT WITH SATISFACTORY WORKABILITY. RE-TAMPERING OF MORTAR IS NOT PERMITTED.
- A. MORTAR FOR LAYING BRICK OR CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-270, TYPE M, AVERAGE COMPRESSIVE STRENGTH 2500 PSI MINIMUM AT 28 DAYS. MORTAR MIX SHALL BE PROPORTIONED BY VOLUME.
- B. MORTAR FOR PLASTERING SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 2-1/2 PARTS SAND.
- C. MORTAR FOR GROUTING OF RIP-RAP SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 3-1/2 PARTS SAND. PERFORM ALL EXCAVATING AND TRENCHING TO DIMENSIONS AND ELEVATIONS INDICATED ON DRAWINGS.
- 16. OPEN NO MORE TRENCH IN ADVANCE OF PIPE LAYING THAN IS NECESSARY TO EXPEDITE THE WORK.
- CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED ON DRAWINGS. WHERE EXCESSIVE OR UNAUTHORIZED EXCAVATION TAKES PLACE, THE OVERDEPTH SHALL BE BACKFILLED TO THE PROPER GRADE WITH COMPACTED BEDDING MATERIAL, AT NO EXPENSE TO THE OWNER.
- 18. WHERE UNSTABLE SOIL IS ENCOUNTERED, CONTRACTOR SHALL NOT PLACE PIPE UNTIL A SOLID BED HAS BEEN PROVIDED.
- EXCAVATION FOR DRAINAGE STRUCTURES SHALL EXTEND A SUFFICIENT DISTANCE FROM THE WALLS AND FOOTINGS TO ALLOWS FOR FORMS, CONSTRUCTION OF WALLS, CONNECTIONS AND FOR INSPECTION.
- 20. PROVIDE REQUIRED TIMBER SHEETING, BRACING AND SHORING TO PROTECT SIDES OF EXCAVATION. DO NOT BRACE SHEETING AGAINST PIPE. PROVIDE SUITABLE LADDERS FOR SAFE ENTRY TO AND EXIT FROM EXCAVATION.
- DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE PILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF TRENCHES TO AVOID OVERLOADING, AND TO PREVENT SUDES OR CAVE-INS.
- 22. WHEN WET EXCAVATION IS ENCOUNTERED, THE TRENCH SHALL BE DE-WATERED UNTIL THE PIPE HAS BEEN LAID AND BACKFILLED TO A POINT AT LEAST 1 FOOT ABOVE TOP OF PIPE
- 23. MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED OF BRICK, CONCRETE MASONRY UNITS OR PRE-CAST CONCRETE WITH CAST IRON FRAMES, COVERS AND MANHOLE STEPS.
- 24. THE WALL THICKNESS OF MANHOLES AND CATCH BASINS CONSTRUCTED OF VARIOUS MATERIALS AND SET AT VARIOUS DEPTHS SHALL MEET THESE MINIMUMS. ADHERE TO REQUIREMENTS OF THE GOVERNING AGENCY IF THEY EXCEED THESE THICKNESSES:
- DEPTH BRICK CONCRETE PRE-CAST CONCRETE
- 0' 10' 8" 6" 10' 16' 12" 8" 16' 25' 16" 12"
- 6" 8" 12" 25. WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER, TO CENTER, AROUND THE PERIPHERY OF OPENINGS TO CREATE A PLANE OF WEARNESS JOINT BEFORE BREAKING SECTION OUT.
- 26. MANHOLE STEPS SHALL BE BUILT INTO AND THOROUGHLY ANCHORED TO WALLS. STEPS SHALL BE FACTORY INSTALLED IN PRE-CAST STRUCTURES.
- 27. ALL PIPING ENTERING OR LEAVING DRAINAGE STRUCTURES SHALL BE ADEQUATELY SUPPORTED BY POURED IN-PLACE CONCRETE FILL FROM PIPE CENTER TO UNDISTURED GROUND.
- 28. SET FRAMES IN FULL BED OF STIFF MORTAR OR BITUMINOUS MASTIC JOINTING COMPOUND AT FINAL ELEVATION.
- ALL TIMBER SHEETING BELOW A PLANE 12" ABOVE TOP OF PIPE SHALL REMAIN IN PLACE IN ORDER NOT TO DISTURB PIPE GRADING. BEFORE BACKFILLING, REMOVE ALL OTHER SHEETING BRACING AND SHORING.
- 30. BEDDING USED FOR TRENCH BOTTOM SHALL BE EXTENDED UP THE SIDES AND BELDING USED FOR IREA BUTTON SHALL BE EXTERNED OF THE SUES AND CAREFULLY PLACED AROUND AND OVER PIE'N 6<sup>4</sup> MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS PER ASTM D-1557 (MODIFIED PROCTOR) UNTIL 12<sup>4</sup> OF COVER EXISTS OVER PIPE.
- 31. REMAINDER OF TRENCH SHALL BE BACKFILLED WITH SPECIFIED BACKFILL MATERIAL TO SPECIFIED SUBGRADE LEVATION. BACKFILLING SHALL BE COMPACTED TO 90% OF MAXIMUM DRY DENSITY PER ASTM D-1557.
- 32. IN STREETS, DRIVES, PARKING LOTS AND OTHER AREAS TO HAVE OR HAVING IMPROVED HARD SURFACES, BACKFILL SHALL BE MATERIAL SPECIFIED AND SHALL BE DEPOSITED IN 6° LOOSE LAVERS AT OPTIMUM MOISTURE CONTENT (±228). COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER ASTM D1557. (MODIFIED PROCTOR) SUITABLE MATERIALS FOUND ON SITE MAY BE USED.
- 33. BEFORE BACKFILING AROUND DRAINAGE STRUCTURES, ALL FORMS, TRASH AND DEBRIS SHALL BE REMOVED AND CLEARED AWAY. SELECTED EXCAVATED MATERIAL SHALL BE FLACED SYMMETINGCALLY ON ALL SDES IN 8<sup>th</sup> ANXBIUM LAYERS, ELAGI LAYER SHALL BE MOISTENED AND COMPACTED WITH MECHANICAL OR HAND TAMPERS.
- 34. AFTER INSTALLATION OF PIPES AND DRAINAGE STRUCTURES, CLEAN THEM, AND ADJUST TOPS TO FINISH GRADE. PIPE SHALL BE STRAIGHT BETWEEN STRUCTURES.
- 35. ENDS OF HEADWALL AND END SECTIONS SHALL BE FITTED WITH A #4 ROUND MINIMUM WELDED STEEL ROD GRATING, RODS SHALL BE SPACED 6° O.C. MAXIMUM, WELD ROD AT ALL INTERSECTIONS. GRATE SHALL BE REMOVABLE FOR ACCESS AND CLEANING.
- 36. RIP-RAP SHALL BE LAID FROM THE BOTTOM UPWARD; STONES SHALL BE LAID BY HAND WITH 8<sup>°</sup> MINIMUM DIMENSION PERPENDICULAR TO GRADE WITH WELL-BROKEN JOINTS, COMPACTED AS IT GOES, TRUE TO LINE. ALL JOINTS SHALL BE FILLED WITH CEMENT MORTAR. SURFACE STONE TO BE EXPOSED. CLEAN JOINTS WITH WIRE BRUSH.
- 37. THE CONTRACTOR SHALL DO ALL REQUIRED EXCAVATION AND TRENCHING WORK AND THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPLETON OF THE WORKS HEREIN RECORDLESS OF THE WORK. THE OWNER WILL NOT BE LIABLE FOR ANY COSTS WHATSOVER ASSOCIATED WITH, BOT NOT LIMITED TO, THE PRESENCE OF ROCK, PEAT, SUBTERRAMEAN STREAMS, EXCESSIVE WATER OR OTHER DIFFOLUT OF UNANTIONATED SUBTERRAMEAN STREAMS, EXCESSIVE WATER OR OTHER DIFFOLUT OF UNANTIONATED SUB-SUFFACE PHENOMENA.
- 38. ALL CONNECTIONS TO EXISTING SEWERS SHALL BE INCIDENTAL TO THE JOB.

**GRADING AND EARTHWORK** SPECIFICATIONS

- ATTOUGH A SUB-SUFACE INVESTIGATION MAY HAVE BEEN MADE BY THE OWNER, THE BIDDER AND ANY SUB-CONTRACTORS SHALL MAKE A PERSONAL INVESTIGATION OF STET AND EXISTING SUFACE AND SUB-SUFACE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE TO ACQUAINT HIMSELF WITH CONDITONS OF THE WORK AREA. THE CONTRACTOR IS ADVESTO TO DETERNINE THE SUB-SUFACE SOLI CONDITIONS AND GROUND WATER CONDITIONS TO HIS OWN SATISFACTION PRIOR TO BIDDING. ON MODIFICATIONS TO THE UNIT PRICES BID FOR ANY TEM WILL BE MADE DUE TO VARIABLE SUB-SUFACE CONDITIONS. DEWATERING, IF DETERMINED INCESSARY BY THE CONTRACTOR, BY WELL POINTING OR DEEP WELLS WILL BE INCIDENTAL TO THE INSTALLATION COST OF THE ITEM.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING DETERMINED TO HIS SATISFACTION PRIOR TO THE SUBMISSION OF HIS BID THE CONFIRMATION OF THE GROUND, THE CHARACTER AND QUALITY OF THE SUBSTRATA, THE TYPES AND QUANTITES OF MATERIALS TO BE ENCOUNTERED, THE NATURE OF THE GROUNDWATER CONDITIONS, THE PROSECUTION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS INCLUDING RECENT CLIMATIC CHANCES, THE TIME OF YEAR IN WHICH CONSTRUCTION WILL TAKE PLACE AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT.
- PRIOR TO COMMENCING THE EXCAVATION THE CONTRACTOR SHALLSUBMIT A PLAN OF HIS PROPOSED OPERATIONS AND TIME SCHEDULE TO THE OWNER & OWNERS REPRESENTATIVE FOR THEIR APPROVAL.
- 4. THE CONTRACTOR SHALL CONSIDER AND HIS PLAN FOR EXCAVATION SHALL REFLECT, THE CONTRACTOR SHALL CONSIDER AND HIS PLAN FOR EXCAVATION SHALL REFLECT, THE CONTRACTOR SHALL CONSIDER AND HIS PLAN FOR EXCAVATION HIGHLIGHT CONTRACTOR SHALL SHALL CONTRACT AND HIGHLIGHT AND HIGHLIGHT AND METHODS THE CONTRACT AND HIGHLIGHT CONTRACTOR SHALL SHALL THE OVERALL CONSTRUCTION SCHEDULE. THE PRICES ESTABLISHED IN THE PROPOSAL FOR THE WORK TO BE DONE SHALL REFLECT ALL COSTS PERTAINING TO THE WORK. NO CLAMIS FOR EXTRAS BASED ON SUBSTRAT OR GROUNDWATER TABLE CONDITIONS OR MOISTURE CONDITIONING WILL BE ALLOWED.
- 5. THE CONTRACTOR SHALL KEEP INFORMED AND THE OWNER'S REPRESENTATIVE INFORMED AT ALL TIMES AS TO A "FILL SURPLUS OR SHORTAGE" STUATION. SHORTAGE OR SURPLUS OF SUITABLE WATERUL AT THE CONCLUSION OF THE ORADING AND EARTHWORK OPERATION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HE WILL BE REQUIRED TO SUPPLY THE DEFICIENCY OR DISPOSE OF THE SURPLUS WITHOUT ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL REMOVE VEGETATION, DEBRIS, UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND OTHER DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO CUT OF FILL OPERATIONS.

MATERIALS FOR FILL OR BACKFILL REQUIRED TO GRADE THE SITE AND ACHIEVE DESION ELEVATIONS SHALL BE EITHER ON OR OFF-SITE SOLLS WHICH ARE FREE OF ORGANIC MATTER AND DEBRIS. NO TOPSOLI SHALL BE USED AS ENGINEERED

NO FILL MAY BE PLACED UNTIL THE EXPOSED SURFACES HAVE BEEN APPROVED BY THE GEOTECHNICAL ENGINEER: ALL FILL MATERIALS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.

IF ANY UNKNOWN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND DESIGN ENGINEER PRIOR TO PROCEEDING.

11. NO FROZEN MATERIAL SHALL BE USED AS FILL NOR WILL ANY FILL BE PLACED ON A FROZEN BASE.

12. NO ROCK OR SIMILAR MATERIAL GREATER THAN 6" DIAMETER SHALL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITED BY THE GOSTCHINCLA ENGINEER IN ADVANCE AND APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE.

13. COMPACT FILL MATERIAL TO AT LEAST THE FOLLOWING PERCENTAGE OF MAXIMUM

THE OWNER AND OWNER'S REPRESENTATIVE

FILL UNDER BUILDING (EXTENDING 5' BEYOND FOOTINGS AT A SLOPE OF 1 ON 1)

FILL IN THE UPPER 18" UNDER PAVEMENT OR SIDEWALKS

FILL PLACED UNDER OR BEHIND RETAINING WALLS

FILL AREAS

ALL OTHER FILL

DRY DENSITY, AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR). NO DEVAITION FROM THESE COMPACTION DENSITIES WILL BE ALLOWED UNLESS SPECIFICALLY RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY

14. ALL FILL MATERIAL SHALL BE PLACED AND COMPACTED IN LIFTS, THAT WILL NOT EXCEED THE DEPTH IN WHICH THE COMPACTION EQUIPMENT CAN ACHIEVE THE MAXIMUM DENSITY REQUIRED FOR THE ENTIRE DEPTH OF THE MATERIAL PLACED IN THE LIFT.

15. ALL AREAS WHERE FILL HAS BEEN PLACED OR THE EXISTING SOILS HAVE BEEN DISTURBED SHALL BE SUBJECT TO COMPACTION TESTING BY THE GEOTECHNICAL ENGINEER AND SHALL BE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER, OWNER AND OWNER'S REPRESENTATIVE.

FILL MATERIAL UNDER PAVEMENTS OR STRUCTURES SHALL BE FREE OF ORGANIC OR DELETERIOUS MATERIALS. IT SHALL BE SUITABLE FOR SUPPORTING PAVEMENTS AND STRUCTURES WITHOUT ADVERSE SHRINKING OR SWELLING.

SUPPORT GROWTH OF THE LANDSCAPING MATERIALS (TYPICAL FOR THE LOCAL CLIMATE) AND AS PROPOSED BY THE LANDSCAPE ARCHITECT.

8. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF, IN A LEGAL MANNER, ANY TREES, BRUSH OR DEBNIS THAT ARE WITHIN THE DESIGNATED CUTTING AND FILLING AREAS TO BRING THE SITE TO PROPOSED GRADES.

19. THE CONTRACTOR SHALL STOCKPILE EXCAVATED MATERIAL ONLY IN DESIGNATED AREAS AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

20. DURING THE PERFORMANCE OF SITE GRADING OPERATIONS, THE SUBGRADE SHALL BE EXAMINED CRITICALLY, AND ANY AREAS DISCOVERED WHICH, IN THE OPINION OF THE OWNER'S REPRESENTATIVE OR GEOTECHNICAL ENGINEER, ARE SOFT AND UNSTABLE, SHALL BE EXCAVATED TO SUCH DEPTHS AS MAY BE NECESSARY TO INSURE SATISACTORY SUPPORTING PROPERTIES AS DETERMINED BY THE GEOTECHNICAL ENGINEER. THESE AREAS OF EXCAVATION SHALL BE BACKHLED IMMEDIATLY AND SHALL BE BROGHT BACK TO THE ELEVATION OF THE SURROUNDING AREAS WITH FORCED UNATERIAL AND IN ACCORDANCE WITH THE EARTH FILL CONSTRUCTION PROCEDURE.

21. NEWLY GRADED AREAS SHALL BE PROTECTED FROM THE ACTION OF THE ELEMENTS. ANY SETTLEMENT, DISPLACEMENT, PONDING OR WASHING OUT THAT MAY OCCUP FRORT TO COMMENION THE NEXT PHASE OF CONSTRUCTION SHALL BE REPARED, AND GRADES REESTABLISHED TO THE REQUIRED ELEVATIONS AND SLOPES.

22. THE FINISHED SUBGRADE SURFACE SHALL BE SHAPED TO INDICATED PROFILES AND SHALL BE REASONABLY SWOOTH AND FREE FROM IRREGULAR SURFACE CHANGES AND SHALL BE NO MORE THAN 1 INCH ABOVE OR BELOW THE INDICATED SUBGRADE LEVATIONS.

23. THE GRADING CONTRACTOR SHALL BACKFILL ALL PARKING LOT PLANTERS AND LAWN AREAS TO WITHIN 2 INCHES OF THE TOP ADJACENT CURB GRADES. THE TOP 4 MORES MINIMUM SHALL BE TOPSOIL, FREE FROM DEBRIS AND STONES LARGER THAN 1 INCH IN DIAMETER.

24. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PUMPS, DITCHING, WELL POINT SYSTEMS AND OTHER MEANS FOR REMOVING WATER FROM EXCAVATIONS, TRENCHES, SUBGRADES AND OTHER PARTS OF THE WORK. THE CONTRACTOR SHALL CONTINUE DE-WATERING OPERATIONS UNTIL THE WATER HAS BEEN REMOVED ENTRELLY, UPON COMPLETION OF WATER REMOVAL THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO DRY THE SOILS, REGRADE TO PROPOSED ELEVATIONS AND COMPLETION THE SATISFACTION OF THE GEOTECHNICAL ENGINEER AND OWNER'S REPRESENTATIVE.

25. THE CONTRACTOR SHALL DISPOSE OF WATER IN A SAFE AND SANITARY WAY TO PREVENT FLODING OR INJURY TO PUBLIC OR PRIVATE PROPERTY AND SHALL OBTAIN APPROVAL OF THE LOCAL GOVERNING AUTHORITY BEFORE DISCHARGING RUN-OFF WATER TO THEIR SYSTEM.

THE CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING GRADES AND NEW GRADES.

17. FILL MATERIAL IN BERMS AND LANDSCAPE AREAS SHALL BE SUITABLE TO

% OF MAXIMUM DRY DENSITY

95%

95%

95%

90%

10. ALL FILL MATERIAL SHALL BE PLACED AND COMPACTED AT THE OPTIMUM MOISTURE CONTENT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

#### **BITUMINOUS PAVING SPECIFICATIONS**

1. REFERENCE SPECIFICATIONS WHERE APPLICABLE TO WORK UNDER THIS SECTION ARE REFERRED TO BY ABBREVIATION AS FOLLOWS: A. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

B. THE ASPHALT INSTITUTE (TAI)

5.

C. MICHIGAN DEPARTMENT OF TRANSPORTATION/ CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION (M.D.O.T.)

D. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM) CRUSHED ACGREGATE BASE COURSE (CABC) SHALL MEET THE REQUIREMENTS OF SECTION 8.02 OF THE MOOT STANDARD SPECIFICATION FOR CONSTRUCTION AND SHALL CONSIST OF 21AA CRUSHED AGGREGATE. THE USE OF SLAG IS PROHIBIED.

3. TACK COAT SHALL BE EMULSIFIED ASPHALT MEETING REQUIREMENTS OF AASHTO M140 AND TAI SS-1H.

AGGREGATE SHALL CONSIST OF CRUSHED STONE, CRUSHED GRAVEL, A MIXTURE OF UNCRUSHED GRAVEL WITH EITHER CRUSHED STONE OR CRUSHED GRAVEL, OR OTHER INERT MATERIAL HAVINO SMILLA CHARACTERISTICS. IT SHALL BE COMPOSED OF CLEAN, TOUCH, DURABLE FRAGMENTS FROM AN EXCESS OF FLAT OR ELONGATED PIECES, AND SHALL BE FREE OF ORGANIC MATTER AND DELETERIOUS SUBSTANCES AND MEET THE REQUIREMENTS OF MDO'T STANDARD SPECIFICATIONS, SECTION 8.02.

FINE AGGREGATE SHALL BE WELL GRADED FROM COARSE TO FINE AND CONSIST OF NATURAL SAND, STONE SCREENINGS, OR A BLEND OF NATURAL SAND AND STONE SCREENINGS, IT SHALL BE COMPOSED OF ROUGH SUFFACED AND ANGULAR GRAINS OF OUARTZ OR OTHER MARD DURABLE ROCK AND MEET THE REQUIREMENTS OF MOUT STANDARD SFEDIFICATIONS, SECTION 8.02.

ASPHALT CEMENT SHALL COMPLY WITH THE REQUIREMENTS OF AASHTO M226 (ASTM 3381) FOR BITUMINOUS CONCRETE SURFACE COURSE AND SURFACE TREATMENT.

BITUMINOUS CONCRETE SHALL COMPLY WITH MDOT SECTION 7.10 OF STANDARD SPECIFICATIONS FOR CONSTRUCTION.

8. BITUMINOUS LEVELING COURSE SHALL BE MDOT 1100L. 20AA MIX.

9. BITUMINOUS WEARING COURSE SHALL BE MDOT 1100T, 20AA MIX.

10. THE CONTRACTOR SHALL SUBMIT, TO THE OWNER, TWO COPIES OF MATERIALS CERTIFICATES SIGNED BY MATERIAL PRODUCER AND CONTRACTOR. CERTIFICATES SHALL STATE THAT EACH MATERIAL ITEM MEETS SPECIFIED REQUIREMENTS.

THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER, JOB-MIX FORMULAS FOR EACH REQUIRED ASPHALT AGGREGATE MIXTURE. MIX DESIGNS SHALL BE WITHIN ALLOWABLE TOLERANCES AS SPECIFIED FOR THE PARTICULAR APPLICATION.

12. SUBGRADE PREPARATIONS SHALL CONSIST OF THE FINAL MACHINING OF THE SUBGRADE IMMEDIATELY PRIOR TO FLACING THE BITUMINOUS BASE COURSE. THE SUBGRADE SHALL BE COMPACTED PER PLANS AND DETAILS. THE SUBGRADE SHALL BE TRUE TO LINE AND GRADE.

13. CRUSHED AGGREGATE BASE COURSE SHALL BE COMPACTED TO A DENSITY EQUAL TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 (MODIFIED PROCTOR).

BITUMINOUS CONCRETE PAVEMENT CONSTRUCTION METHODS SHALL CONFORM TO APPLICABLE PORTIONS OF SECTION 4.00 OF THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE CONTRACTOR SHALL NOT PLACE THE AGGREGATE BASE COURSE OR THE BITUMINOUS BASE COURSE PRIOR TO THE APPROVAL OF THE SUBGRADE BY THE GEOTECNICAL ENGINEER.

EACH LIFT AND COURSE OF BITUMINOUS CONCRETE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER, PRIOR TO THE PLACEMENT OF A SUCCEEDING COURSE OR LIFT.

17. APPLY BITUMINUUS TACK COATS ONLY WEEN TEMPERATURE HAS NOT BEEN BELOW TS DEGREES F. FOR 12 HOURS MIENTATELY PROMIT TO APPLICATION CONSTRUCT BITUMINOUS CONCRETE WEARING COURSE ONLY WEEN ATMOSPHERIC TEMPERATURE IS ABOVE 40-DEGREES F. AND PROCEEDING COURSE OF ULFT IS CLEAN AND DRY. BASE COURSE MAY BE LAD WHEN TEMPERATURE IS ABOVE 3 DEGREES F. AND RISING AND APPROVED BY THE COETCHINCAL ENGINEER.

18. THE BITUMINOUS CONCRETE SHALL BE TRANSPORTED FROM THE MIXING PLANT TO THE POINT OF USE IN VEHICLES CONFORMING TO THE REQUIREMENTS OF SECTION 4.00 OF THE MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. DELIVERIES SHALL BE SCHEDULED SO THAT SPREADING AND ROLLING OF ALL BITUMINOUS CONCRETE PREPARED FOR ONE DAY'S RUN CAN BE COMPLETED DURING DAYLIGHT, UNLESS ADEQUARE ARTIFICIAL LIGHTING IS PROVIDED. HAULUNG OVER FRESHLY USES ADEQUARE ARTIFICIAL LIGHTING IS SPROVIDED. HAULUNG OVER FRESHLY CONCRETE HAS BEED COMPACITED, AS SPECIFIED, AND ALLOWED TO COOL TO ATMOSPHERIC TEMPERATURE.

A IMUSPHIENC TEMPERATURE. 9. UPON ARRIVAL, THE BITUMINOUS CONCRETE SHALL BE SPREAD TO A THICKNESS NOT TO EXCEED 3-INCISE SAND TO THE FULL WIDTH BY AN APPROVED BEPTH THAT. WEEK THE WORK IS COMMETED, IT SHALL HAVE THE RECURED THICKNESS AND CONFORM TO THE GRADE AND CONTOUR TO NOICATED. THE SPEED OF THE FAVER SHALL BE RECULATED TO ELIMINATE FULLING AND TEARING OF THE BITUMINOUS MAT. UNLESS OTHERWISE DIRECTED, PLACEMENT OF THE BITUMINOUS CONCRETE SHALL BE PLACED IN CONSECUTIVE OF A CROWNED BITUMINOUS CONCRETE SHALL BE PLACED IN CONSECUTIVE ADJACENT STIFFS HANNIG A INMIKUM WIDTH OF 10 FEET, EXCEPT WHERE EDGE LANES REQUIRE LESS WIDTH TO COMPLETE THE AREA. TRANSVERS JOINTS IN ADJACENT LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES REQUIRE LESS HANNIG A WINNER WHERE INFORMATION TO THE FORM ADJACENT LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES REQUIRE LESS HANNIG A WINNER WHEN HORT OF 10 FEET, EXCEPT WHERE EDGE LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES ARED MALES SHALL BE OFFSET A MINIMUM OF 10 FEET, EXCEPT WHERE EDGE LANES ARED MALES SHALL BE OFFSET A MINIMUM OF 10 FEET, BEAM

20. ON AREAS WHERE IRREGULARITIES OR UNAVOIDABLE OBSTACLES MAKE THE USE OF MECHANICAL SPREADING AND FINISHING EQUIPMENT IMPRACTICAL, THE BITUMINOUS CONCRETE MAY BE SPREAD AND RAKED BY HAND TOOLS.

21. THE BITUMINOUS CONCRETE SHALL BE PLACED AT A TEMPERATURE OF NOT LESS THAN 250 NOR HIGHER THEN 350 DEGREES F OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

22. THE BITUMINOUS CONCRETE MIXTURE SHALL BE THOROUGHLY AND UNIFORMLY COMPACTED BY ROLLING. THE SURFACE SHALL BE ROLLED MEEN THE DISC SUPPORT OF THE SURFACE SHALL BE ADDRESS AND SHOWN. THE DOES NOT CAUSE UNDED EDSPLACEMENT, CORCING AND SHOWN. THE SEQUENCE OF ROLLING OPERATIONS SHALL BE AT THE DISCRETION OF THE CONTRACTOR.

23. THE SPEED OF THE ROLLER SHALL, AT ALL TIMES, BE SUFFICIENTLY SLOW TO AVOID DISPLACEMENT OF THE HOT BITUMINOUS CONCRETE. ANY DISPLACEMEN OCCURRING AS A RESULT OF REVERSING THE DIRECTION OF THE ROLLER, OR FROM ANY OTHER CAUSE, SHALL BE CORRECTED AT ONCE.

24. SUFFICIENT ROLLERS SHALL BE FURNISHED TO HANDLE THE OUTPUT OF THE PLANT. ROLLING SHALL CONTINUE UNTIL ALL ROLLER MARKS ARE ELIMINATED, THE SUFFACE IS OF UNIFORM TEXTURE AND TRUE TO GRADE AND CROSS-SECTION, AND THE REQUIRED FIELD DENSITY IS OBTAINED.

25. TACK COAT SHALL BE APPLIED TO THE SURFACE OF PREVIOUS LIFTS AND COURSES OF BITUMINOUS CONCRETE AND TO SURFACES ABUTTING OR PROJECTING INTO THE BITUMINOUS CONCRETE.

26. IMMEDIATELY BEFORE PLACING A SUCCEEDING LIFT OR COURSE OF BITUMINOUS CONCRETE THE PRECEDING LIFT OR COURSE SHALL BE CLEARED OF ANY DEBRIS BY APPROPRIATE METHODS.

27. TO PREVENT ADHESION OF THE BITUMINOUS CONCRETE TO THE ROLLER, THE WHEELS SHALL BE KEPT PROPERLY MOISTENED, BUT EXCESSIVE WATER WILL NOT BE PERMITTED.

28. IN AREAS NOT ACCESSIBLE TO THE ROLLER, THE BITUMINOUS CONCRETE SHALL BE THOROUGHLY COMPACTED WITH HOT HAND TAMPERS.

29. ANY BITUMINOUS CONCRETE THAT BECOMES LOOSE AND BROKEN, MIXED WITH DRT, OR IN ANY WAY DEFECTIVE SHALL BE REMOVED AND REPLACED WITH FRESH HOT BITUMINOUS CONCRETE AND IMBEDIATELY COMPACTED TO CONFORM TO THE SURROUNDING AREA. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. SKIN PATCHING SHALL NOT BE ALLOWED.

30. THE CONTRACTOR SHALL PROVIDE AT LEAST TWO ROLLERS FOR EACH PAVER OPERATING ON THE WORK. THE CONTRACTOR SHALL USE ADDITIONAL ROLLERS AS REQUIRED TO OBTIAN THE SPECIFIED PAVEMENT DENSITY.

					REVISED FINAL SITE PLAN TO TOWNSHIP 8/21/2019	HIP 8/21/2019		
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BITUMINOUS PAVING SPECIFICATIONS, CONTINUED

- THE CONTRACTOR SHALL CAREFULLY MAKE JOINTS BETWEEN OLD AND NEW PAVEMENTS, OR BETWEEN SUCCESSIVE DAYS' WORK, TO ENSURE A CONTINUOUS BOND BETWEEN ANJOINING WORK. CONSTRUCT JOINTS TO HAVE THE SAME TEXTURE, DENSITY AND SMOOTHNESS AS OTHER SECTIONS OF THE BITUINIOUS CONCRETE COURSE. THE CONTRACTOR SHALL CLEAN CONTACT SURFACES OF SAND, DIRT, OR OTHER OBJECTIONABLE MATERIAL BEFORE MAKING THE JOINT.
- 32. THE CONTRACTOR SHALL TEST THE FINISHED SURFACE OF EACH BITUINIOUS CONCRETE COURSE FOR SMOOTINHESS, USING A 10 FOOT STRAIGHTEDGE APPLIED PARALLEL WITH AND A TRIGHT ANGLES TO CENTRELINE OF PAVED AREA. SURFACE SHALL NOT BE ACCEPTABLE IF EXCEEDING THE FOLLOWING TOLERANCES FOR SMOOTINHESS.
  - A. LEVELING COURSE SURFACE: 1/4 INCH, PLUS OR MINUS 1/4 INCH.
  - B. SURFACE COURSE: 1/4 INCH
- 33. THE CONTRACTOR SHALL TEST CROWNED SURFACES WITH A CROWN TEMPLATE, CENTERED AND AT RIGHT ANGLES TO THE CROWN. SURFACES WILL NOT BE ACCEPTABLE IF THE FINSHED CROWN SURFACES VARY MORE THAN 1/4 INCH FROM THE CROWN TEMPLATE.
- 34. AFTER FINAL ROLLING, THE CONTRACTOR SHALL NOT PERMIT VEHICULAR TRAFFIC ON THE BITUMINOUS CONCRETE PAVEMENT UNTLI THAS COOLED AND HARDENED, AND IN NO CASE SOOMER THAN SIX HOURS OR AS DIRECTED BY THE GEDTECHNICAL ENGINEER.
- 35. THE AGGREGATE BASE MUST EXTEND A MINIMUM OF 1' BEHIND THE BACK-OF-CURB AROUND THE PERIMETER OF THE PARKING LOT AND DRIVES.

CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS

- THESE SPECIFICATIONS SHALL GOVERN THE CONSTRUCTION OF ALL PAVEMENTS. CURB AND GUTTER, SIDEWALKS, SERVICE WALKS, DRIVEWAY APPROACHES, AND LOADING DOCK AREAS, AS INDICATED ON THE DRAWINGS.
- 2. REFERENCE SPECIFICATIONS WHERE APPLICABLE TO WORK UNDER THIS SECTION ARE REFERRED BY ABBREVIATION AS FOLLOWS:
  - A. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
  - B. AMERICAN CONCRETE INSTITUTE (ACI)
  - C. MICHIGAN DEPARTMENT OF TRANSPORTATION/ CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION (M.D.O.T.)
  - D. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
- 3. THE FINE AGGREGATE SHALL MEET ALL REQUIREMENTS OF SECTION 8.02 OF OF MDOT SPECIFICATION FOR NO. 2NS NATURAL SAND.
- 4. THE COARSE AGGREGATE SHALL MEET ALL REQUIREMENTS OF SECTION 8.02 OF M.D.O.T. SPECIFICATIONS FOR NO. 6AA COARSE AGGREGATE.
- THE CONTRACTOR SHALL SUBMIT, TO THE OWNER, TWO COPIES OF MATERIALS CERTIFICATES SIGNED BY MATERIAL PRODUCER AND CONTRACTOR. CERTIFICATES SHALL STATE THAT EACH MATERIAL ITEM MEETS SPECIFIED REQUIREMENTS.
- THE CONTRACTOR SHALL SUBMIT, TO THE GEOTECHNICAL ENGINEER, JOB MIX-FORMULAS FOR EACH REQUIRED CEMENT-AGGREGATE MIXTURE. MIX DESIGNS SHALL BE WITHIN ALLOWABLE TOLERANCES AS SPECIFIED FOR THE PARTICULAR APPLICATION.
- 7. CONCRETE MIX SHALL BE AIR-ENTRAINED AND PROPORTIONED TO PROVIDE THE FOLLOWING:
  - A. COMPRESSIVE STRENGTH AT 28 DAYS: 3500 PSI MIN., OR AS INDICATED ON PLANS.
  - B. TOTAL AIR CONTENT BY VOLUME: 5% TO 8%. C. SLUMP 3 INCH MAXIMUM, OR AS INDICATED ON PLANS.
- THE CONTRACTOR SHALL AT HIS EXPENSE FURNISH SAMPLES OF FRESH CONCRETE AND PROVIDE SAFE AND SATISFACTORY FACILITIES FOR OBTAINING THE SAMPLES.
- 9. CONSTRUCT CONCRETE CURBING ONLY WHEN GROUND TEMPERATURE IS ABOVE 35 DEGREES F. AND BASE IS DRY.
- 10. ALL CEMENT USED IN CURB CONSTRUCTION SHALL BE PORTLAND CEMENT, TYPE I OR IA ASTM C-150.
- 11. WATER USED IN CONCRETE SHALL BE CLEAN, FREE FROM OIL, ACIDS, STRONG ALKALIS OR VEGETABLE MATTER AND POTABLE. IF MUNICIPAL WATER IS USED IN THE CONCRETE, ALL NECESSARY PERMITS SHALL BE OBTAINED FROM THE MUNICIPAL WATER DEPARTMENT.
- 12. AIR ENTRAINING ADMIXTURE SHALL BE IN ACCORDANCE WITH ASTM C-260.
- 1. ALL READY-MIXED CONCRETE SUPPLERS MUST BE APPROVED BY THE OWNER CONCRETE SHALL BE MANUFACTURED AND DELIVERED TO THE USE SITE BY A READY-MIXED CONCRETE MANUFACTURET THOROUGHLY EXPERIENCED IN READY-MIXED CONCRETE. IF REQUESTED BY THE OWNER, SUBMIT A WRITTEN DESCRIPTION OF PROPOSED READY-MIXED CONCRETE MANUFACTURER, GIVING OULLIFICATIONS OF FERSONAL, LOCATION OF BATCHING PLANT, LIST OF PROJECTS SMILLAR IN SCOPE OF SPECIFIED WORK, AND OTHER INFORMATION AS MAY BE REQUESTED BY THE OWNER.
- 14. THE CONTRACTOR SHALL SUBMIT A STATEMENT OF PURCHASE FOR READY-MIXED CONCRETE: PRIOR TO ACTUAL DELIVERY OF CONCRETE. SUBMIT TO THE GEOTECHNICAL ENGINEER FOUR COPIES OF STATEMENT OF PURCHASE, GIVING THE DRY WEIGHTS OF CEMENT AND SATURATED SURFACE DRY WEIGHTS OF FINE AND DRY WEIGHTS OF CEMENT AND SATURATED SUFFACE DRY WEIGHTS OF FINE AND COARSE AGGREGATES AND QUANTITIES, TYPE AND NAME OF ADMIXTURES (IF ANY) AND OF WATER PER CU.YD, THAT WILL BE USED IN THE MANUFACTURE OF THE CONCRETE: THE CONTRACTOR SHALL ALSO FURNISH EVDENCE SATISFACTORY TO THE GEOTECHNICAL ENGINEER THAT THE MATERIALS TO BE USED AND PROPORTIONS SELECTED MUL PRODUCE CONCRETE OF THE QUALITY SPECIFIED. WHATEVER STRENGTHS ARE OBTAINED. THE QUANTY SPECIFIED. WHATEVER STRENGTHS ARE OBTAINED. THE QUANTY OF CEMENT USED SHALL NOT BE LESS THAN THE MINIMUM SPECIFIED.
- READY-MIXED CONCRETE DELIVERY TICKETS: SUBMIT ONE COPY OF EACH DELIVERY TICKET TO THE GEOTECHNICAL ENGINEER AND CONTRACTOR IN ACCORDANCE WITH SECTION 16 OF ASTM C94.
- READY-MIXED CONCRETE SHALL BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH ASTM C94, AND COMPLY WITH ACI 304 "RECOMMENDED PRACTICE FOR MESSING, MIXING, TRANSPORTING AND PLACING CONCRETE," EXCEPT AS OTHERWISE SPECIFIED HEREIN.
- READY-MIXED CONCRETE SHALL BE MIXED AND DELIVERED TO THE POINT OF DISCHARGE AT THE JOB BY MEANS OF A READY MIX CONCRETE TRUCK.
- 18. NO WATER FROM THE TRUCK WATER SYSTEM OR ELSEWHERE SHALL BE ADDED AFTER THE INITIAL INITRODUCTION OF THE MIXING WATER FOR THE BATCH. UNI NO CIRCUMSTANCES SHALL THE APPROVED MAXIMUM WATER CONTENT BE EXCEEDED NOR SHALL THE SLUMP EXCEED THE MAXIMUM SPECIFIED. UNDER
- DISCHARGE OF THE CONCRETE SHALL BE COMPLETED WITHIN 1--1/2 HOURS OR BEFORE THE DRUM HAS REVOLVED 300 REVOLUTIONS, WHICHEVER COMES FIRST, AFTER THE INTRODUCTION OF THE MIXING WATER TO THE CEMENT AND AGGREGATES OR THE INTRODUCTION OF THE CEMENT TO THE AGGREGATES.
- 20. IN HOT WEATHER (AIR TEMPERATURE 80-DEGREES F. AND ABOVE) OR UNDER CONDITIONS CONTRIBUTING TO QUICK STIFFENING OF THE CONCRETE, THE TIME SHALL BE REDUCED TO ONE HOUR.
- 21. CONCRETE DELIVERED IN COLD WEATHER (AIR TEMPERATURE 45-DEGREES F. AND LOWER) SHALL HAVE A TEMPERATURE NOT LESS THAN 60-DEGREES F. AT THE POINT OF DISCHARCE AT THE JOB, AND IN COMPLIANCE WITH ACI JOB? COLD WEATHER CONCRETING?. CONCRETE PLACING WILL NOT BE PERMITTED WHEN THE AIR TEMPERATURE IS 35-DEGREES F. OR LOWER.
- 22. CONCRETE DELIVERED UNDER HOT WEATHER CONDITIONS CONTRIBUTING TO QUICK STIFFENING OF CONCRETE, OR IN AIR TEMPERATURE OF 80-DECRESS F. AND OVER, SHALL HAVE A TEMPERATURE BEWEREN 60- AND BO-DECREES F. AT THE POINT OF DISCHARGE AT THE JOB, AND IN ACCORDANCE WITH ACI 305R "HOT WEATHER CONCRETING".
- 23. IN NO CASE SHALL THE MIXER OR TRUCK BE FLUSHED OUT ONTO THE STREET PAVEMENT, IN A CATCH BASIN OR SEWER MANHOLE, OR IN ANY PUBLIC RIGHT-OF-WAY.
- 24. REINFORCEMENT BARS SHALL BE PER ASTM A615-84A, GRADE 60 DEFORMED BILLET STEEL BARS.
- 25. TIE WIRE SHALL BE BLACK, ANNEALED STEEL WIRE, NOT LESS THAN 16 GAUGE.

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CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS, CONTINUED

- 26. BAR SUPPORTS SHALL CONFORM TO "BAR SUPPORT SPECIFICATIONS" CONTAINED IN ACI "MANUAL OF STANDARD PRACTICE." PROVIDE CHAIRS, SPACERS AND OTHER DEVICES SUITABLE FOR PROPER SPACING SUPPORTING AND FASTENING REINFORCING BARS.
- 27. WHEN FORMS ARE USED AND THE CHORE RADIUS IS LESS THAN 200 FEET. THE EXPRESS ALLANGENT SHALL BE FORMED FOR BY EINER STANDARD STELE FORMS EXPLOYED WITH FLEXIBLE LINES OR BY FLEXIBLE FORMS. THE FORMS SHALL BE OF THE FULL DEFTH OF THE SECTION. CURB AND OUTER FORMS SHALL BE SO CONSTRUCTED AS TO PERMIT THE INSIDE OF THE FORMS TO BE SECURELY FASTENED TO THE OUTSIDE FORMS.
- 28. ALL NEW CURB SHALL BE PLACED ONLY ON A PREPARED SUBGRADE, SMOOTH AND LEVELED TO THE GRADES ESTABLISHED BY THE ENGINEER.
- 29. COMPACT AND CUT-TO-GRADE SUBGRADE UNDER FORMS SO THAT FORMS WHEN SET WILL BE UNFORMLY SUPPORTED FOR THE ENTRE LENGTH. SECURELY STAKE AND BRACE OR TIE FORMS TO PREVENT LEAKAGE OF MORTAR. BRACING WITH EARTH WILL NOT BE PERMITTED.
- 30. COAT SURFACES OF FORMS TO BE IN CONCRETE WITH A LIGHT CLEAR PARAFFIN OIL OR PARTING COMPOUND WHICH WILL NOT STAIN THE CONCRETE.
- THE INTERIOR SURFACES OF CONCRETE CONVEYING EQUIPMENT SHALL BE MAINTAINED FREE OF HARDENED CONCRETE, DEBRIS, WATER, SNOW, ICE AND OTHER DELETERIOUS MATERIALS.
- 32. CURBING MAY BE CONSTRUCTED EITHER BY USE OF FORMS OR BY A MECHANICAL CURB AND GUTTER PARTER, PROVIDED THE REQUIRED FINISH, AND CROSS-SECTION, PROVIDE ONE COURSE MONOLTHIC STRUCTURE WHOTH THE USE OF MORTAR TOPPING ONE COURSE MONOLTHIC STRUCTURE WHOTH THE USE OF MORTAR TOPPING ONE COURSE MONOLTHIC STRUCTURE WHOTH THE USE OF MORTAR TOPPING ONE SAND-CEMENT DRIFE, CONGRETE SHALL BE SPACED OR VIBRATED SUFFICIENTLY TO ENSURE SATISFACTORY CONSOLDATION.
- 33. PROVIDE REINFORGEMENT FOR CONCRETE OURS AS SHOWN ON THE DRAMINGS REINFORDINT SHALL BE CEPT CLEAN AND THE CONSCITUDENTS REINFORDINT SHALL BE ACCIDENT AND THE CONSCITUDE BEFORE FOR ENDER OF HIMS IN A REINFORMULT AND THE CONFECTED BEFORE FOR ALL REINFORCEMENT SHALL BE ACCIDENTLY LOCATED IN FORMS AND SECURELY HELD IN PLACE BEFORE AND DURING CONCRETE FLACING, BY SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE CONFECTE OF CONSTRUCTION.
- 34. THE CONCRETE CURB SURFACE SHALL BE STRUCK OFF THE REQUIRED CROSS-SECTION WITH A TEMPLATE. AFTER THE CONCRETE CURB HAS BEEN FLOATED OAN EVEN SURFACE. THE CONTRACTON JOINT SHALL BE CUT AND ALL SLAB EDGES ROUNDED WITH A 1/2 INCH RADIUS EDGING TOOL THAT WILL FNINSH TO A WIDTH OF ZUNCHES. AFTER THE CONCRETE HAS SUGHTY SET, A BROOM SHALL BE BRUSHED LIGHTLY ACROSS THE SURFACE PARALLEL TO FORM SO AS TO MMPART A ROUGH FNINSH.
- 35. CONTRACTION JOINTS SHALL BE CUT IN CONCRETE CURBING AT 10' INTERVALS. THE JOINT SHALL CUT 1/4 INCH WIDE BY 1/3 THE DEPTH OF THE CONCRETE CURB SECTION.
- 36. ISOLATION JOINTS SHALL BE PLACED IN CURBING AT TANGENT POINTS IN CURB RETURNS AT INTERSECTIONS, AT BOTH SIDES OF STRUCTURES LOCATED IN THE LINE AND IN RUNS OF CURB AT INTERVALS NOT EXCEEDING 400 FEET. ISOLATION JOINTS SHALL BE 1<sup>\*</sup> THICK PRE-FORMED JOINT FILLER STRIPS. THE STRIPS SHALL EXTEND THE FULL DEPTH OF THE CONCRETE CURB SECTION. ISOLATION JOINTS SHALL BE PLACED IN CURB AT THE END OF EACH DAYS POUR AND WHEN ABUTING REFLORUST POURED CURB.
- THE CURING COMPOUND SHALL BE WHITE MEMBRANE TYPE AND COMPLY WITH ASTM C-309. IT SHALL NOT ALLOW A MOISTURE LOSS OF MORE THAN 0.055 GR/SQ/CM WHEN APPLED AT 200 SQ/FT/GAL.
- ALL CONTRACTION JOINTS IN CONCRETE CURB SECTIONS SHALL BE SEALED WITH EITHER HOT POURED JOINT SEALER OR COLD APPLIED JOINT SEALER.
- SLIGHTLY UNDERFILL JOINT GROOVE WITH JOINT SEALER TO PREVENT EXTRUSION OF THE SEALER. REMOVE EXCESS JOINT SEALER MATERIALS AS SOON AFTER SEALING AS POSSIBLE.
- OF DESIGN IN FORMALL THE TEMPERATURE OF THE CONCRETE AT NOT LESS THAN 50 DEGREES F. NOR MORE THAN 80 DEGREES F. AND IR A MOST CONDITION CONTINUOUSLY FOR THE PERIOD OF TIME NECESSARY FOR THE CONCRETE TO CURE. CHANGES IN TEMPERATURE OF THE CONCRETE DIALE BE AS UNFORM AS POSSIBLE AND SHALL NOT EXEED 5 DEGREES F. IN ANY ONE HOUR, NOR 50 DEGREES F. IN ANY 24 HOUR PERIOD.
- COLD WEATHER PROTECTION: WHEN THE TEMPERATURE OF THE ATMOSPHERE IS 40-DEGREES F. AND BELOW, THE CONCRETE SHALL BE PROTECTED BY HEATING, INSULATION COVERING, OR COMBINATION THEREOF AS REQUIRED TO MAINTAIN THE TEMPERATURE OF THE CONCRETE AT OR ABOVE 50-DEGREES F. AND IN A MOIST COMDITION CONTINUOUSLY FOR THE CONCRETE CURKING PERIOD. COLD WEATHER PROTECTION SHALL MEET THE REQUIREMENTS OF ACI 306R "COLD WEATHER CONCRETING".
- 42. HOT WEATHER PROTECTION: WHEN THE TEMPERATURE OF THE ATMOSPHERE IS 90-DEGREES F. AND ABOVE, OR DURING OTHER CLIMATIC CONDITIONS WHICH WILL CAUSE TO RAPID DRIVING OF THE CONCRETE, THE CONCRETE SHALL BE PROTECTED BY WINDBREAKS, SHADING, FOG SPRAVING LIGHT COLORED MOISTURE RETAINING COVERING, OR A COMBINATION OF THEREOF AS REQUIRED TO MAINTAIN THE TEMPERATURE OF THE CONCRETE BELOW BO-DEGREE F. AND IN A MOIST CONDITION CONTINUOUSLY FOR THE CONCRETE BELOW BO-DEGREE F. AND IN A MOIST CONDITION CONTINUOUSLY FOR THE CONCRETE BELOW BO-DEGREE F. AND IN MAINTER PROTECTION SHALL MEET THE REQUIREMENTS OF ACI 305R "HOT WEATHER CONCRETING"
- 43. ALL FORMS, RAILS AND STAKES SHALL BE REMOVED WITHIN 24 HOURS AFTER PLACING THE CURB.
- 44. AFTER COMPLETION OF CONCRETE CURBING IN AN AREA, REMOVE ALL WEATHER PROTECTION MATERIALS, RUBBISH AND DEBRIS RESULTING FROM SPECIFIED WORK, SWEEP CONCRETE CURBS CLEAN, AND SEAL JOINTS.
- 45. ALL CEMENT USED IN SIDEWALK CONSTRUCTION SHALL BE PORTLAND CEMENT, TYPE I OR IA ASTM C-150.
- 46. ALL NEW WALKS AND CONCRETE PAVEMENTS SHALL BE PLACED ONLY ON A PREPARED SUBGRADE, SMOOTHED AND LEVELED TO THE GRADES ESTABLISHED BY THE ENGINEER. IN CLAY SOLIS THE SUBGRADE SHALL BE EXCAVATED 2-INCHES BELOW THE SIDEWALK BASE AND FILLED WITH APPROVED SAND MEETING MOOT CLASS II, SAND DESIGNATION.
- 47. CONSTRUCT CONCRETE SURFACE COURSE ONLY WHEN GROUND TEMPERATURE IS ABOVE 35 DEGREES F. AND BASE IS DRY.
- 48. SIDEWALKS SHALL PITCH TOWARD THE STREET OR AWAY FROM BUILDINGS WITH A REQUIRED CROSS SLOPE OF 1/4-INCH PER FOOT OF WIDTH. IN SOME EXTREME CASES, AS DETERMINED BY THE ENGINEER, THE CROSS-SLOPE MAY BEE INCREASED BUT IN NO CASE SHALL IT BE LESS THAN 3/16-INCH PER FOOT OF WIDTH.
- 49. PRIOR TO PLACING THE CONCRETE, ALL DEBRIS, STONES, DIRT, ETC., SHALL BE REMOVED FROM THE SUBGRADE. THE SUBGRADE SHALL BE MOISTENED WITH WATER IN SUCH A MANNER AS TO THOROUGHLY WE'T THE MATERIAL WITHOUT FORMING PUDDLES OR POCKETS OF WATER. NO CONCRETE SHALL BE PLACED ON FROZEN SUBGRADE.
- 5. FORMS SHALL BE METAL OR WOOD AND OF AN APPROVED SECTION. THEY SHALL BE STRAGHT, FREE FROM DISTORTION AND SHALL SHOW NO VERTICAL VARIATION GRAITER THAN 1/8-INCI IN 10-FOOT LENGTHS FROM THE TRUE PLANE SUFFACE ON THE TOP OF THE FORMS WHEN TESTED WITH A 10-FOOT STRAGHTEDGE, AND SHALL SHOW NO LATERAL VARIATION GRAITER THAN 1/4-INCI IN 10-FEET FROM THE TRUE PLANE SUFFACE OF THE LATERAL FACE OF THE FORM WHEN TESTED WITH A 10-FOOT STRAGHTEDGE. THEY SHALL BE OF THE DEPTH SECTIED FOR THE SDEWALK, OR CONCRETE PAYEMENT PER PLANE AND DETAILS, AND BE SECURELY HELD IN PLACE AND TRUE TO LIME AND GRADE.
- 51. THE CONCRETE SHALL BE DEPOSITED CONTINUOUSLY IN THE FORMS IN SUCH A MANNER AS TO AVOID SECREGATION AND IT SHALL BE THOROUGHLY TAMPED OF VIBRATED SO THAT THE FORMS ARE ENTIRELY FILLED AND THE CONCRETE THOROUGHLY CONSOLIDATED. THE SLABS SHALL BE PLACED IN SECTIONS OR BLOCKS IN ONE OFERATION AS A MONOUTH.
- 22. THE CONCRETE SUFFACE SHALL BE STRUCK OFF TO A PLANE SUFFACE WITH A STRAIGHTEDGE. AFTER THE CONCRETE HAS BEEN FLOATED TO AN EVEN SUFFACE, THE CONTRACTED JOINT SHALL BE CUT AND ALL SLAB EDGES ROUNDED WITH A 1/2-INCH RADIUS EDGING TOOL THAT WILL FINISH TO A WDTH OF Z-INCHES. AFTER THE CONCRETE HAS SUGHTY SET, A BROOM SHALL BE BRUSHED LICHTY ARROSS THE SUFFACE AT RIGHT ANGLES TO FORMS SO AS TO IMPART A ROUGH FINISH.
- 53. CONTRACTION JOINTS SHALL BE PLACED AT RICHT ANGLES TO THE EDGE OF THE SIDEWALK OR CONCRETE PAVENENT AND PERPENDICULAR TO THE SURFACE AND AT A DEPTH OF AT LEAST 1/4 THE SLAB THICKNESS WITH A MINIUM DEPTH OF 1-1/4-INCHES FOR SIDEWALKS AND 3-INCHES FOR CONCRETE PAVEMENT SLABS.
- 54. CONTRACTION JOINTS IN SIDEWALKS SHALL BE SPACED AT A MINIMUM OF EVERY 5-FEET, OR AS SHOWN ON THE PLANS.

#### CONCRETE CURB, SIDEWALK AND PAVEMENT SPECIFICATIONS, CONTINUED

- ISOLATION PAPERS SHALL BE OF THE PRE-MOLDED, NON-EXTRUDING, ASPHALT IMPREGNATED TYPE, NOT LESS THAN  $1/2-{\rm INCH}$  THICK. THE LENGTH SHALL BE EQUAL TO THE WDTH OF THE SLAB, AND THE DEPTH EQUAL TO THE THICKNESS OF THE SLAB PLUS 1-INCH.
- 56. ISOLATION JOINTS SHALL BE PLACED AT THE FOLLOWING LOCATION FOR SIDEWALKS AND CONCRETE PAVEMENTS:
- A. AT THE BACK OF THE CURB AND FRONT EDGE OF THE SIDEWALKS AND PAVEMENT SLABS ADJACENT TO EACH DRIVEWAY APPROACH AND SERVICE WALK.
- B. AT INTERVALS NOT TO EXCEED 50-FEET IN ALL PUBLIC SIDEWALKS.
- C. AT THE BACK OF THE CURB WHERE THE RAMPS EXTEND FROM THE KEY FLAG TO THE PAVEMENT.
- D. BETWEEN THE KEY FLAG AND THE RAMP IN ALL CASES, EXCEPT WHERE THERE ARE EXISTING EXPANSION JUINTS AT THE INTERSECTIONS OF THE SIDEWALKS AND THE KEY FLAG.
- E. AT ANY PLACE WHERE A SIDEWALK OR CONCRETE PAVEMENT ABUTS A BUILDING OR FIXED STRUCTURE. F. AT ANY OTHER LOCATIONS INDICATED ON THE PLAN
- 57. CONTRACTION JOINTS IN THE CONCRETE PAVEMENT IN THE LOADING AREA WILL BE AS FOLLOWS:
- A. TRANSVERSE JOINTS SHALL BE AT 10-FOOT INTERVALS OR AS SHOWN ON PLANS AND DETAILS.
- B. LONGITUDINAL JOINTS SHALL BE AT 12-FOOT INTERVALS OR AS SHOWN ON PLANS AND DETAILS.
- 58. PRIOR TO APPLYING JOINT SEALER, CLEAN JOINT GROOVE OF FOREIGN MATTER AND LOOSE PARTICLES, AND DRY SURFACE.

TRAFFIC LANE AND PARKING LOT MARKING

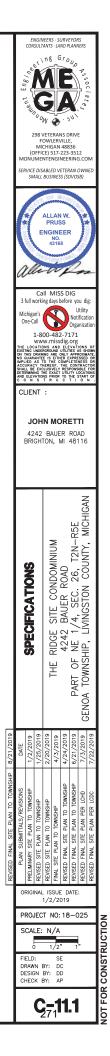
- PROVIDE ALL MATERIALS, LABOR, EQUIPMENT, AND SERVICES NECESSARY TO COMPLETE ALL TRAFFIC LANE AND PARKING LOT MARKINGS AS INDICATED IN THE CONSTRUCTION DOCUMENTS.
- WORK INCLUDES, BUT NOT LIMITED TO PAINTING OF LETTERS, MARKINGS, STRIPES AND ISLANDS ON THE PAREMENT SURFACE APPLIED IN ACCORDANCE WITH THIS SPECIFICATION AND AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. 2.
- THE PAINT SHALL MEET THE REQUIREMENTS OF FEDERAL SPECIFICATION TT-P-115C(3), WITH OR WITHOUT REFLECTORIZED BEADS AS REQUIRED ON THE
- 4. COLOR SHALL BE AS SPECIFIED ON THE PLANS OR AS FOLLOWS: A. TRAFFIC LANE STRIPING SHALL BE WHITE OR YELLOW REFLECTORIZED, AS SHOWN ON THE PLANS.
- B. TRAFFIC MARKING AND CURB FACES SHALL BE WHITE UNLESS NOTED OTHERWISE.
- C. PARKING LOT STRIPING SHALL BE WHITE, UNLESS NOTED OTHERWISE
- D. HANDICAP STALL STRIPING MEETING CURRENT ADA REQUIREMENTS SHALL BE BLUE UNLESS NOTED OTHERWISE.
- THE PAINTING SHALL BE PERFORMED ONLY WHEN THE EXISTING SURFACE IS DRY AND CLEAN, WHEN THE ATMOSPHERIC TEMPERATURE IS ABOVE 40-DEGREES F. AND WHEN THE WEATHER IS NOT EXCESSIVELY WINDY, DUSTY OR FOGGY.
- ALL EQUIPMENT FOR THE WORK SHALL BE APPROVED BY THE CONTRACTOR AND SHALL NOLLDE THE APPARATUS INCESSARY TO PROPERLY CLEAN THE EXISTING SURFACE. A MECHANICAL MARKING MACHINE, AND SUCH AUXILARY HAND PAINTING EQUIPMENT AS MAY BE NECESSARY TO SATISFACTORILY COMPLETE THE JOB.
- THE MECHANICAL MARKER SHALL BE AN APPROVED ATOMIZING SPRAY-TYPE MARKING MACHINE SUITABLE FOR APPLICATION OF TRAFFIC PAINT. IT SHALL PRODUCE AN EVEN AND UNFORM FILL THREVENES AT THE REQUIRED COVERAGE AND SHALL BE DESIGNED SO AS TO APPLY MARKINGS OF UNFORM CROSS-SECTIONS AND CLEAR-CUT EDGES WITHOUT RUNNING OR SPATTERING AND WITHIN THE LIMITS FOR STRAIGTINESS SET FORTH HEREIN. WHED NEEDED, A TATACHMENT TO THE MECHANICAL MARKER AND SUITABLE FOR DISPENSING THE REQUIRED QUANTITY OF REFLECTIVE BEADS.
- SUITABLE ADJUSTMENTS SHALL BE PROVIDED ON THE SPRAYER/SPRAYERS OF A SINGLE MACHINE OR BY FURNISHING ADDITIONAL EQUIPMENT FOR PAINTING THE WIDTH REQUIRED.
- INUTIO REGUMELY. IMMEDIATELY BEFORE APPLICATION OF THE PAINT, THE EXISTING SURFACE SHALL BE DRY AND ENTIRELY FREE FROM DIRT, GREASE, OLL, ACIDS, DEBRIS, OK OTHER FOREIGN MATTER WINCH WOULD REDUCE THE BOND BETWEEN THE COAT OF PAINT SWEEPING AND BLOWING AS FEQUILED TO REMOVE ALL DIRT, DEBRIS AND LOOSE MATERIALS. AREAS WHICH CANNOT BE SATISFACTORILY CLEANED BY BROOMING AND BLOWING SHALL BE SCRUBED AS DIRECTED WITH A WATER SOLUTION OF TRI-SODIUM PHOSPHATE (1078/ASPO4 BY WEIGHT) OR AN APPROVED EQUAL SOLUTION. ATTER SCRUBBION, THE SOLUTION SHALL BE RINSED OFF AND THE SOLUTION. ATTER SCRUBBION, THE SOLUTION SHALL BE RINSED OFF AND THE SULFACE DRIED PRIOR TO PAINTING.
- EXISTING MARKINGS OR STRIPES WHICH ARE TO BE ABANDONED OR REMOVED SHALL BE OBUITERATED OR OBSCURED BY THE BEST METHODS SUITED FOR THE PURPOSE AND TO THE SATISFACTION OF THE OWNER OR OWNERS REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR LAYING OUT A SAMPLE SECTION OF STRIPING WHICH IS TO BE APPROVED BY THE OWNER OR OWNERS REPRESENTATIVE AS TO QUALITY BEFORE THE CONTRACTOR MAY PROCEED WITH THE STRIPING. THE CONTRACTOR IS TO INSURE THAT ALL SUBSEQUENT STRIPIN MEETS THE QUALITY OF THE APPROVED SAMPLE APPLICATION.
- 12. ON THOSE SECTIONS OF PAVEMENTS WHERE NO PREVIOUSLY APPLIED FIGURES, MARKINGS, OR STRIPES ARE AVAILABLE TO SERVE AS A QUIDE, SUITABLE LAYOUTS AND LINES OF PROPOSED STRIPES SHALL BE SPOTED IN ADVANCE OF THE PAINT APPLICATION. CONTROL POINTS SHALL BE SPACED AT SUCH INTERVALS AS WILL ENSURE ACCURATE LOCATION OF ALL MARKINGS.
- 13. THE CONTRACTOR SHALL PROVIDE AN EXPERIENCED TECHNICIAN TO SUPERVISE THE LOCATION ALIGNMENT, LAYOUT, DIMENSIONS AND APPLICATION OF THE PAIN
- 14. MARKINGS SHALL BE APPLIED AT THE LOCATIONS AND TO THE DIRENS AND SPACING INDICATED ON THE PLANS OR AS SPECIFIED. PAINT SHALL NOT BE APPLIED UNIT. THE INDICATE ALIGNMENT IS LAID OUT AND THE CONDITIONS OF THE EXISTING SURFACE HAVE BEEN APPROVED BY THE OWNER OR OWNERS REPRESENTATIVE. 15. THE PAINT SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION. THE PAINT SHALL BE THOROUGHLY MIXED AND APPLIED TO THE SUFFACE OF THE PAVENETY WITH THE MARKING MACHIN AT ITS ORIGINAL CONSISTENCY WITHOUT THE ADDITION OF THINNER. IF THE PAINT IS APPLIED BY BRUSH, THE SUFFACE SHALL RECEIVE TWO (2) COATS; THE FIRST COAT SHALL BE THOROUGHLY DRY BEFORE THE SECOND COAT IS ADDITION.

16. A MINIMUM OF ONE (1) WEEK SHALL ELAPSE BETWEEN APPLICATION OF THE BITUMINOUS SEAL COAT, SLURRY SEAL OR THE PLACEMENT OF THE BITUMINOUS SUPFACE COURSE AND THE MARKING OF THE PAVEMENT. THE PAINT SMALL BLEED EXCESSIVELY, CURL, OR DISCOLOR WHEN APPLIED TO BITUMINOUS OR CONCRETE SUFFACES.

IN THE APPLICATION OF STRAIGHT STRIPES, ANY DEVIATION IN THE EDGES EXCEEDING 1/2-INCH IN 50-FEET SHALL BE OBLITERATED AND THE MARKING CORRECTED. THE WIDTH OF THE MARKINGS SHALL BE AS DESIGNATED WITHIN A TOLERANCE OF 5 PERCENT (5%). ALL PAINTING SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER OF OWNERS REPRESENTATIVE BY COMPETENT AND EXPERIENCED EQUIPMENT OPERATORS, LABORERS, AND ARTISANS IN A NEAT AND WORKMANLER MANNER.

PAINT SHALL BE APPLIED UNIFORMILY BY SUITABLE EQUIPMENT AT A RATE OF 0.0094 GAL\_/S.F. FOR STENCILS AND 0.00313 GAL\_/FT. FOR STRIPING. PAINT APPLICATION SHALL PRODUCE AN AVERAGE WET FILM THICKNESS OF 0.015-INCHES.

19. AFTER APPLICATIONS OF THE PAINT, ALL MARKINGS SHALL BE PROTECTED WHILE THE PAINT IS DRYING. THE FRESH PAINT SHALL BE PROTECTED FROM INJURY OR DAMAGE OF ANY KIND. THE CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE AND SHALL ERECT OR FLACE SUITABLE WARNING SIGNS, FLAGS, OR BARRICADES, PROTECTUE SCREENS OR COVERINGS AS REQUIRED. ALL SUFFACES SHALL BE PROTECTED FROM DISFIGURATION BY SPATTER, SPLASHES, SPILLAGE, DRIPPINGS OF PAINT OR OTHER MARTRIAL.

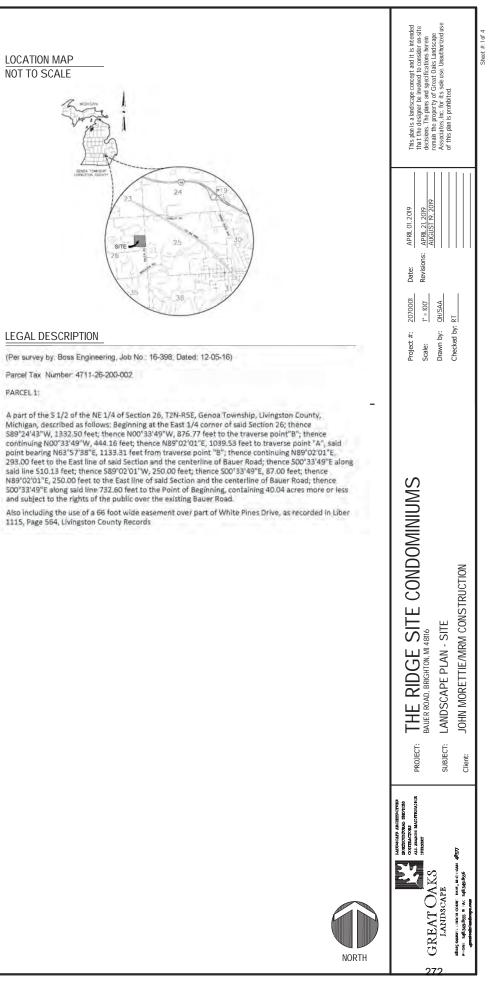


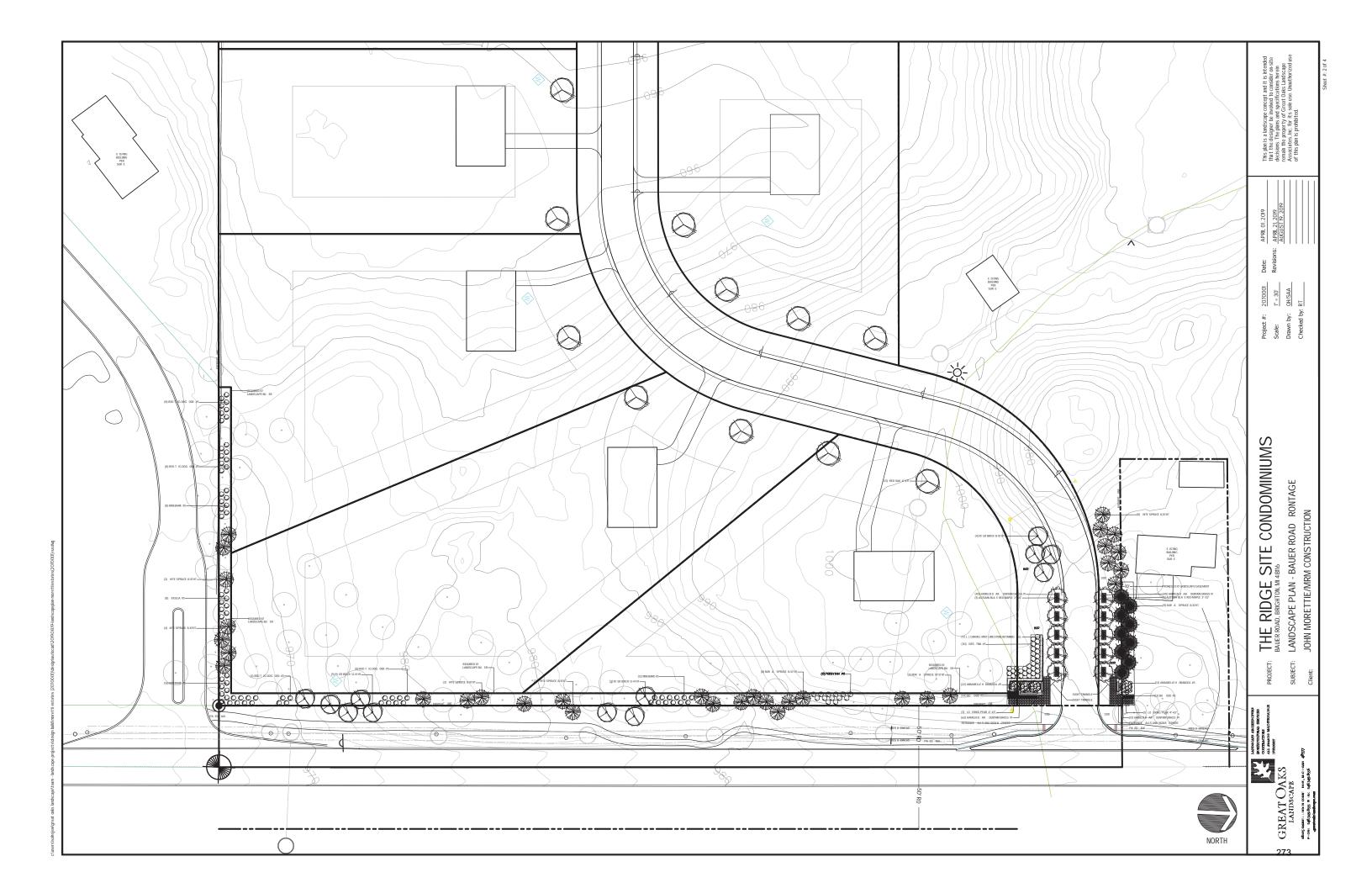


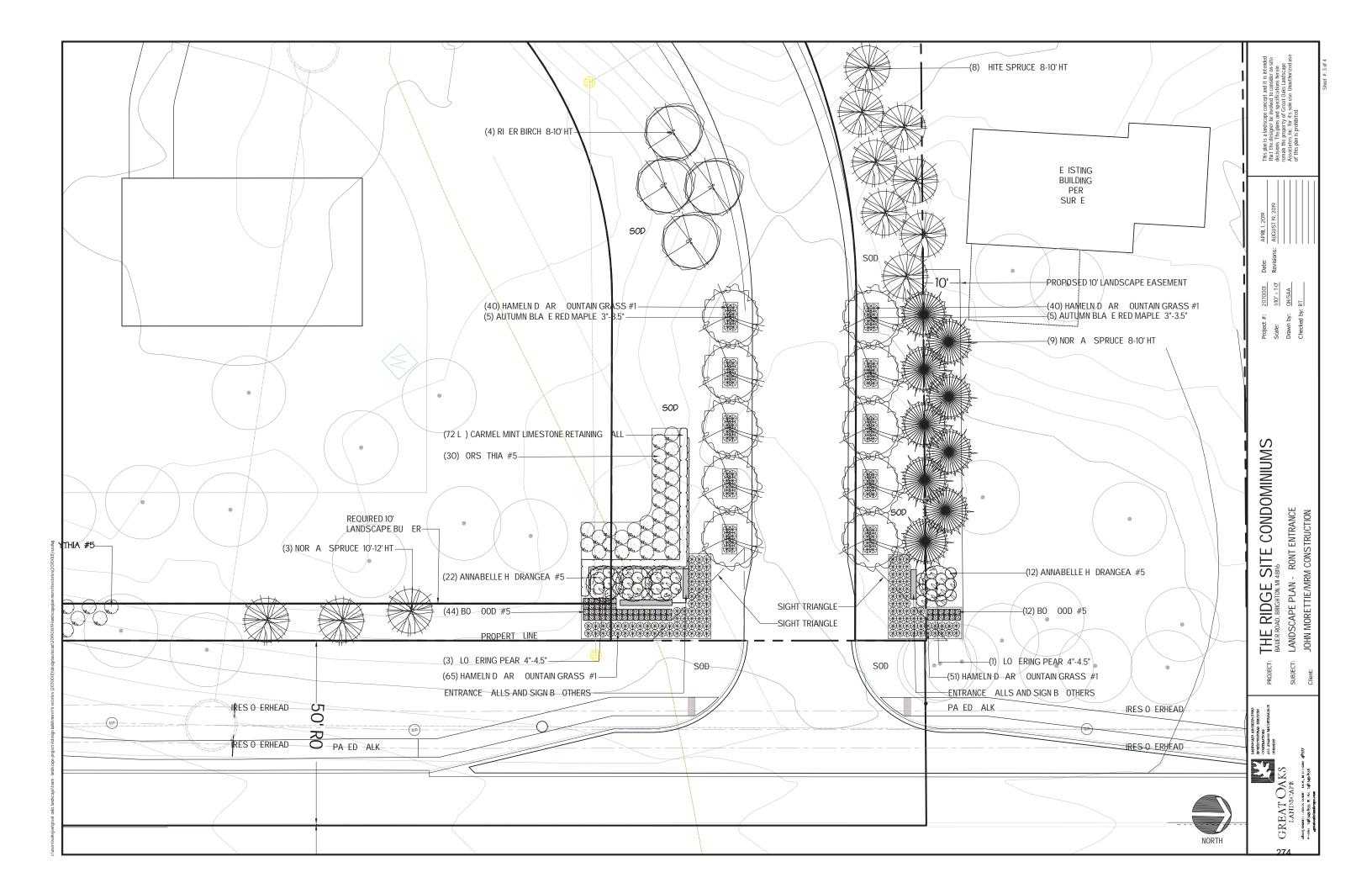


### LEGAL DESCRIPTION

Parcel Tax Number: 4711-26-200-002 PARCEL 1:







1. ALL CONSTRUCTION AND PLANT MATERIAL LOCATIONS TO BE ADJUSTED ON SITE 1 NECESSAR . 2. AN SUBSTITUTIONS 0 PLANT MATERIAL OR ALTERATION IN PLANT SI ES OR SPECI ICATIONS TO BE CON IRMED B THE LANDSCAPE

LANDSCAPE NOTES:

3. PLANT BEDS TO BE MULCHED AND DRESSED ITH SHREDDED HARD OOD BARK OR AS SPECI IED ON THE LANDSCAPE PLAN.

4. ALL PLANTINGS SHALL CON ORM TO GENOA TO NSHIP REQUIREMENTS/ORDINANCES.

5. REMO E ALL T INE AND IRE ROM AROUND TREE TRUNKS.

6. LA N TREES TO BE MULCHED ITH 48" IDE SHREDDED BARK RING.

7. PRO IDE SOD OR LA N SEED OR ALL NE LA N AREAS AS INDICATED.

8 INSTALLATION O. PLANT MATERIAL SHALL BE IN ACCORDANCE. ITH THE AMERICAN ASSOCIATION 0 NURSER MEN LANDSCAPE STANDARDS

9. PLANT MATERIAL, ESPECIALL E ERGREENS, TO BE PLANTED HIGHER THAN NORMAL HEN HEA SOIL CONDITIONS (CLA , ETC.) E IST.

10. CONTRACTOR SHALL BE RESPONSIBLE OR CONTACTING AND ID. CUMINAL TOK SMALL BE RESPONSIBLE OR COMINE ING AND COORDINATING IT HALL PERTINENT UTILIT COMPANES 72 ADURS IN AD ANCE 0 AN DIGGING TO MAKE THEMSEL ES AMULAR ITH ALL UNDERGROUND UTILITES, PIPES AND STIRCTURES LECTRIC, GAS, TELEPHONE CABLE TELE ISION MA BE LOCATED B CALLING MISS DIG (-800-482-TTI). AN DAMAGE OR INTERRUPTION 0 SER ICES SHALL BE THE RESPONSIBILIT 0 THE CONTRACTOR.

11. CONTRACTOR SHALL NOT ILL ULL PROCEED ITH CONSTRUCTION AS DESIGNED HEN IT IS OB 10US THAT UNKNO N DOBSTRUCTIONS AND/OR GRADE DL ERENCES E IST. SUCH CONDITIONS SHALL IMMEDIATEL BE BROUGHT TO THE ATTENTION O THEO NER'S REPRESENTATLE.

12 CONTRACTOR SHALL BE RESPONSIBLE OR COORDINATING ITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION INSTALLATION OPERATIONS

13. CONTRACTOR SHALL PRO IDE AND MAINTAIN POSITI E SUR ACE DRAINAGE

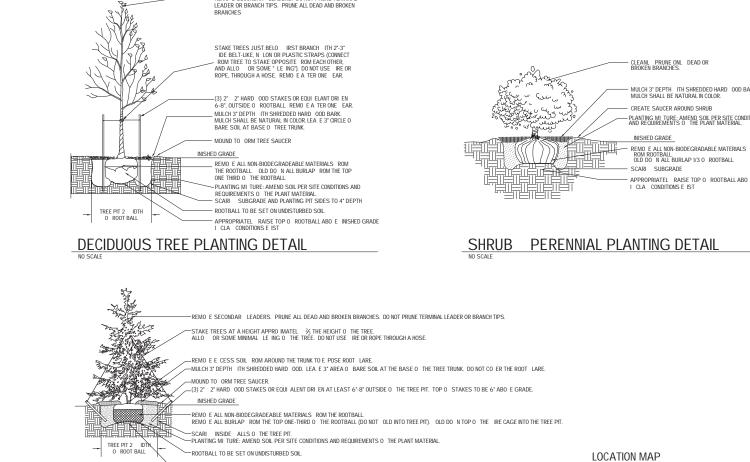
14. ALL TREES SHALL HA E A CLA LOAM OR CLA ROOT BALL TREES ITH SAND ROOT BALLS ILL NOT BE ACCEPTED.

15. LANDSCAPE CONTRACTOR SHALL ISIT SITE, INSPECT E ISTING SITE CONDITIONS AND RE IE PROPOSED PLANTING AND RELATED ORK. IN CASE O DISCREPANC BET EEN PLAN AND PLANT LIST, PLAN SHALL GO ERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT ITH AN CONCERNS.

16. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSER STOCK AND SHALL SATIS AMERICAN ASSOCIATION O NURSER MEN STANDARDS OR NURSER STOCK. ALL LANDSCAPE MATERIALS SHALL BE NORTHERN GRO N - NO. 1 GRADE.

17. ENTRANCE LANDSCAPE TO BE IRRIGATED ITH AN AUTOMATIC IRRIGATION S STEM.

18. LANDSCAPE BU ER TO BE PLANTED IN ACCORDANCE TO SECTION 12.02.03 0 GENOA TO NSHIP ONING ORDINANCE



REMO E SECONDAR LEADERS, DO NOT PRUNE TERMINA

# E ERGREEN TREE PLANTING DETAIL - GREATER THAN 8' HEIGHT

- APPROPRIATEL RAISE TOP 0 ROOTBALLABO E INISHED GRADE



DENÓA TOMASP

### PLANT SCHEDULE

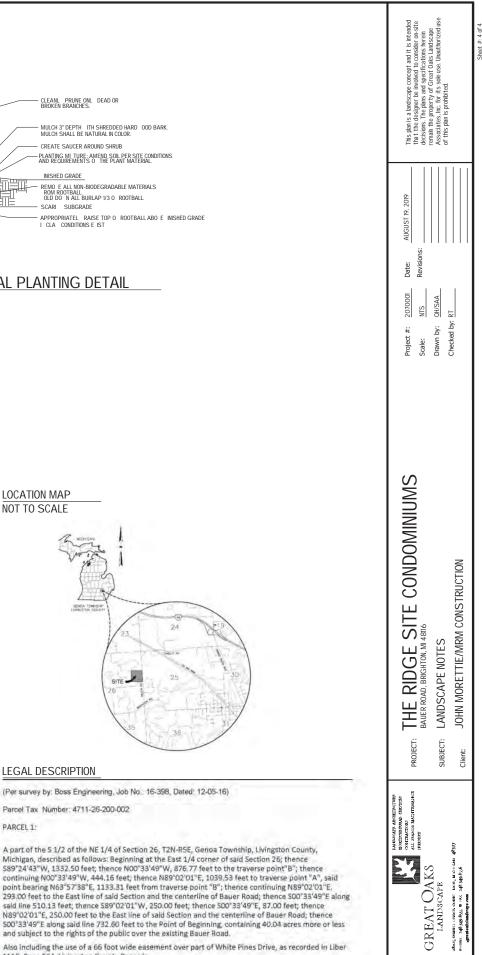
QUANTITI	BOTANICAL NAME	COMMON NAME	SIZE	TYPE
				1
FRONT EN				
10	Acer x fremanii 'Jeffsred'	Autumn Blaze Red Maple	3"-3.5"	B&B
4	Betula nigra	River Birch	12-14'	Muli-Trun
56	Buxus x 'Green Mountain'	Boxwood	#5	containe
30	Forsythia x intermedia	Forsythia	#5	containe
34	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	#5	containe
116	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	#1	containe
9	Picea abies	Norway Spruce	8-10'	B&B
8	Picea glauca	White Spruce	8'-10'	B&B
4	Pyrus calleryana 'Cleveland Select'	Flowering Pear	4"-4.5"	B&B
LANDSCAP	E BUFFER**		-	-
8	Betula nigra	River Birch	12-14	B&B
28	Cornus sericea 'Cardinal'	Red Twig Dogwood	#5	containe
13	Forsythia x intermedia	Forsythia	#5	containe
28	Physocarpus opulifolius	Ninebark	#5	containe
11	Picea abies	Norway Spruce	8-10'	B&B
13	Picea glauca	White Spruce	8-10'	B&B
16	Weigela florida 'Alexandra' Can	Weigela	#5	containe
STREET TH	REES			
33	Quercus rubra	Red Oak	4"-4.5"	B&B

LEGAL DESCRIPTION

Parcel Tax Number: 4711-26-200-002

PARCEL 1:

1115, Page 564, Livingston County Records



275

### Resolution #1 – Elmhurst Drive Road Improvement Special Assessment Project (Summer 2020)

### **GENOA CHARTER TOWNSHIP**

At a regular meeting of the Township Board of the Genoa Charter Township, Livingston County, Michigan, (the "Township") held at the Township Hall on September 16, 2019, at 6:30 p.m., there were

### PRESENT:

ABSENT:

The following preamble and resolution were offered by \_\_\_\_\_ and seconded by

\_\_\_\_·

### Resolution to Proceed with the Project and Direct <u>Preparation of the Plans and Cost Estimates</u>

WHEREAS, the Clerk reported that petitions have been filed with her for the Elmhurst Drive Road Improvement Project (the "Project") under the authority of Act No 188, Michigan Public Acts of 1954, as amended;

WHEREAS, the Supervisor and the Clerk reported that they had checked the signatures on the petitions by record owners of land within the Township contained within the district described above and had prepared and filed a report setting forth the percentage of record owners of lands by frontage within the district who signed the petitions which amounted to more than fifty percent (50%); and

WHEREAS, the creation of a Special Assessment District for the Elmhurst Drive Road Improvement Project is appropriate pursuant to Section 2 of Act No. 188, Michigan Public Acts of 1954.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. In accordance with Act No. 188, Michigan Public Acts of 1954, as amended, and the laws of the State of Michigan, the Township Supervisor is directed to have plans prepared illustrating the Project, the location of the Project, and an estimate of the cost of the Project.

2. The plans and estimates identified in paragraph 1, when prepared, shall be filed with the Township Clerk.

A vote on the foregoing resolution was taken and was as follows:

YES: NO: ABSENT:

### **CLERK'S CERTIFICATE**

The undersigned, being the duly qualified and acting Clerk of the Township, hereby certifies that (1) the foregoing is a true and complete copy of a resolution duly adopted by the Township Board at a meeting of the Township Board on September 16, 2019, at which meeting a quorum was present and remained throughout; (2) the original thereof is on file in the records in my office; (3) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended); and (4) minutes of such meeting were kept and will be or have been made available as required thereby.

Paulette A. Skolarus, Clerk Genoa Charter Township

### Resolution #2 – Elmhurst Drive Road Improvement Special Assessment Project (Summer 2020)

### GENOA CHARTER TOWNSHIP

At a regular meeting of the Township Board of Genoa Charter Township of Livingston County, Michigan (the "Township") held at the Township Hall on September 16, 2019 at 6:30 p.m. there were

### PRESENT:

### ABSENT:

The following preamble and resolution were offered by and seconded by .

### Resolution to Approve the Project, Scheduling the First Hearing <u>And Directing the Issuance of Statutory Notices</u>

WHEREAS, the Board of Trustees of the Township has approved the Elmhurst Drive Road Improvement Project (Summer 2020) within the Township as described in Exhibit A (the "Project");

WHEREAS, preliminary plans and cost estimates for the Project have been filed with the Township Clerk;

WHEREAS, the Board of Trustees of the Township has determined to proceed with the Project in accordance with Act No. 188, Michigan Public Acts of 1954, as amended;

WHEREAS, the Board of Trustees of the Township has determined to advance the costs of the Project from Township funds and to use special assessments to raise the money necessary to reimburse the Township in advance of such funds;

WHEREAS, the special assessment district for the Project has been tentatively determined by the Township and is described in Exhibit B;

NOW, THEREREFORE, BE IT RESOLVED THAT:

- 1. The Board of Trustees of the Township hereby tentatively declares its intention to proceed with the Project.
- 2. The Board of Trustees of the Township hereby declares its intention to make the improvement and tentatively designates the special assessment district against which the cost of the improvement and maintenance is to be assessed as described in Exhibit B.
- 3. In accordance with Act No. 188, Michigan Public Acts of 1954, as amended, and the laws of the State of Michigan, there shall be a public hearing on the Project and the proposed Special Assessment District for the Project which is known as the "Elmhurst Drive Road Improvement Special Assessment District (Summer 2020)."
- 4. The public hearing will be held on October 7, 2019 at 6:30 p.m., at the offices of Genoa Charter Township, Livingston County, Michigan.

- 5. The Township Manager is directed to mail, by first class mail, a notice of the public hearing to each owner of or party in interest in property to be assessed, whose name appears upon the last Township tax assessment records. The last Township tax assessment records means the last assessment roll for ad valorem tax purposes which has been reviewed by the Township Board of Review, as supplemented by any subsequent changes in the names or addresses of such owners or parties listed thereon. The notice to be mailed by the Township Manager shall be similar to the notice attached as Exhibit C and shall be mailed by first class mail on or before September 20, 2019. Following the mailing of the notices, the Township Manager shall complete an affidavit of mailing similar to the affidavit set forth in Exhibit D.
- 6. The Township Manager is directed to publish a notice of the public hearing in the Livingston County Daily Press & Argus, a newspaper of general circulation within the Township. The notice shall be published twice, once on or before September 22, 2019 and once on or before September 29, 2019. The notice shall be in a form substantially similar to the notice attached as Exhibit C.

A vote on the foregoing resolution was taken as was as follows:

YES:

NO:

ABSENT:

### **CLERK'S CERTIFICATE**

The Undersigned, being duly qualified and acting Clerk of the Township, hereby certifies that (1) the foregoing is a true and complete copy of a resolution duly adopted by the Board of Trustees at a meeting of the Township Board (September 16, 2019), at which meeting a quorum was present and remained throughout; (2) the original thereof is on file in the records of my office; (3) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act. No. 267, Public Acts of Michigan, 1976, as amended); and (4) minutes of such meeting were kept and will be or have been made available as required thereby.

Paulette A Skolarus Genoa Charter Township Clerk September 16, 2019

### EXHIBIT A

### ELMHURST DRIVE ROAD IMPROVEMENT PROJECT (Summer 2020)

### DESCRIPTION OF PROJECT A SEVEN-YEAR SPECIAL ASSESSMENT DISTRICT WITH PROJECTED COSTS AS FOLLOWS:

- Total cost of the project: \$59,950.00
- Total parcels: 18
- Homeowners representing 63.39% of road frontage have signed petitions
- Total amount per parcel:

		PER PARCEL	\$3,330.56		
			то	то	
	YEAR	PAYMENT	INTEREST	PRINCIPAL	OUTSTANDING
1	2020	\$542.40	\$66.61	\$475.79	\$2,854.76
2	2021	\$532.89	\$57.10	\$475.79	\$2,378.97
3	2022	\$523.37	\$47.58	\$475.79	\$1,903.17
4	2023	\$513.86	\$38.06	\$475.79	\$1,427.38
5	2024	\$504.34	\$28.55	\$475.79	\$951.59
6	2025	\$494.83	\$19.03	\$475.79	\$475.79
7	2026	\$485.31	\$9.52	\$475.79	\$0.00
		\$3,597.00	\$266.44	\$3,330.56	

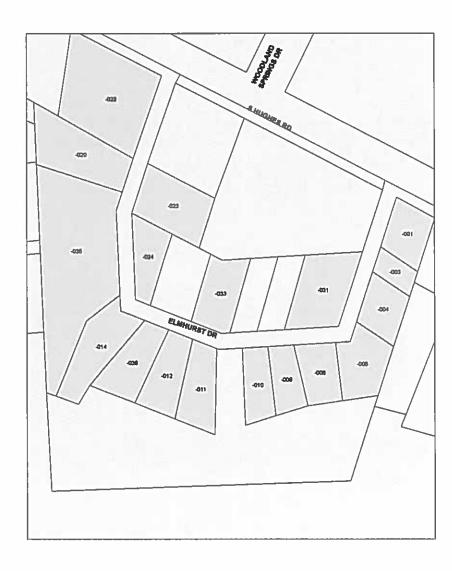
The project (the "Project") will consist of:

- Regrade gravel roadway
- Install approximately 100 tons of 21AA crushed concrete to existing gravel surface
- Place 4" of MDOT 1100 asphalt t-2 ½" of base course and 1 ½" of wearing
- Place 2 ft. of asphalt back to drives
- Remove and replace cross culvert
- Adjust structures to grade

### **EXHIBIT B**

The Project (Elmhurst Drive Road Improvement Summer 2020) is being designed to serve the properties in the Special Assessment District, which district is illustrated on the map (included) and includes the specific properties that are identified by the following permanent parcel numbers:

11-10-202-001	11-10-202-003	11-10-202-004	11-10-202-006
11-10-202-008	11-10-202-009	11-10-202-010	11-10-202-011
11-10-202-012	11-10-202-014	11-10-202-020	11-10-202-022
11-10-202-023	11-10-202-024	11-10-202-031	11-10-202-033
11-10-202-035	11-10-202-038		



### EXHIBIT C

## GENOA CHARTER TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN NOTICE OF PUBLIC HEARING UPON A PROPOSED <u>ELMHURST DRIVE ROAD IMPROVEMENT PROJECT</u> AND SPECIAL ASSESSMENT DISTRICT (Summer 2020)

### **NOTICE IS HEREBY GIVEN:**

(1) The Township Board of Genoa Charter Township, Livingston County, Michigan, in accordance with the laws of the State of Michigan, will hold a Public Hearing on October 7, 2019 at 6:30 p.m., at the Genoa Charter Township Offices, 2911 Dorr Road, Brighton, Michigan 48116, to review the following proposed special assessment district and to hear any objections thereto and to the proposed project.

## GENOA CHARTER TOWNSHIP – ELMHURST DRIVE ROAD IMPROVEMENT PROJECT AND SPECIAL ASSESSMENT DISTRICT (Summer 2020) (A seven-year program with costs as follows)

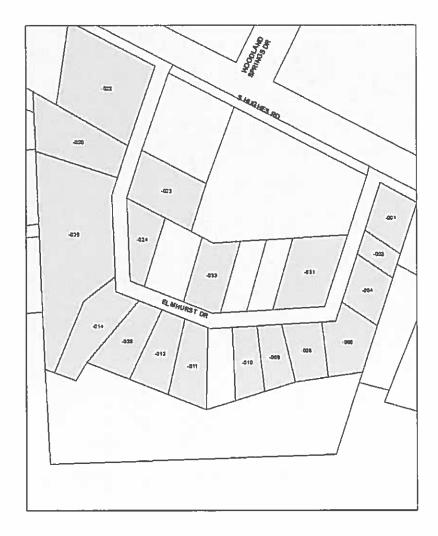
- Total cost of the project \$59,950.00
- Total parcels 18
- Homeowners representing 63.39% of road frontage have signed petitions
- Total amount per parcel :

		PER PARCEL	\$3,330.56		
			ТО	то	
	YEAR	PAYMENT	INTEREST	PRINCIPAL	OUTSTANDING
1	2020	\$542.40	\$66.61	\$475.79	\$2,854.76
2	2021	\$532.89	\$57.10	\$475.79	\$2,378.97
3	2022	\$523.37	\$47.58	\$475.79	\$1,903.17
4	2023	\$513.86	\$38.06	\$475.79	\$1,427.38
5	2024	\$504.34	\$28.55	\$475.79	\$951.59
6	2025	\$494.83	\$19.03	\$475.79	\$475.79
7	2026	\$485.31	\$9.52	\$475.79	\$0.00
		\$3,597.00	\$266.44	\$3,330.56	

The project (the "Project") will consist of:

- Regrade gravel roadway
- Install approximately 100 tons of 21AA crushed concrete to existing gravel surface
- Place 4" of MDOT 1100 asphalt t-2 ½" of base course and 1 ½" of wearing
- Place 2 ft. of asphalt back to drives
- Remove and replace cross culvert
- Adjust structures to grade
- (2) The Project is being designed to serve the properties in the Special Assessment District, which district is illustrated on the map and includes the specific properties that are identified by the following parcel numbers:

11-10-202-001	11-10-202-003	11-10-202-004	11-10-202-006
11-10-202-008	11-10-202-009	11-10-202-010	11-10-202-011
11-10-202-012	11-10-202-014	11-10-202-020	11-10-202-022
11-10-202-023	11-10-202-024	11-10-202-031	11-10-202-033
11-10-202-035	11-10-202-038		



- (3) The Township plans to impose special assessments on the properties located in the Special Assessment District to pay for the costs of the Project.
- (4) The preliminary plans and cost estimates for the proposed project and the boundaries of the Special Assessment District are now on file in the office of the Township Clerk for public inspection. The Township Board has received petitions signed by more than 50 percent of property owners within the proposed district. Pursuant to the provisions of Public Act 188 of 1954, record owners of land have the right to file written objections to the Project with the Township Board. Any person objecting to the proposed Project or the proposed Special Assessment District shall file an objection in writing with the Township Clerk before the close of the October 7, 2019 hearing or within such further times as the Township Board may grant.

This notice is given by order of the Genoa Township Board.

Dated: September 16, 2019

Michael C. Archinal Genoa Township Manager

(Press/Argus 9/22/19-9/29/19)

### EXHIBIT D

### AFFIDAVIT OF MAILING

### STATE OF MICHIGAN

### COUNTY OF LIVINGSTON

MICHAEL C. ARCHINAL, being first duly sworn, deposes and says that he personally prepared for mailing, and did on September 20, 2019, send by first-class mail, the notice of public hearing, a true copy of which is attached hereto, to each record owner of or party in interest in all property to be assessed for the improvement described therein, as shown on the last local tax assessment records of Genoa Charter Township; that he personally compared the address on each envelope against the list of property owners as shown on the current tax assessment rolls of the Township; that each envelope contained therein such notice and was securely sealed with postage fully prepaid for first-class mail delivery and plainly addressed; and that he personally placed all of such envelopes in a United States Post Office receptacle on the above date.

Michael C. Archinal Genoa Charter Township Manager September 20, 2019

# **Livingston County Road Commission**

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628 Internet Address: www.livingstonroads.org

August 19, 2019

MEMORANDUM TO:	Genoa Township Board of Trustees	a.AL
FROM:	Genoa Township Board of Trustees Steven J. Wasylk, Managing Director	apr
SUBJECT:	Project Agreement, Timberbend and C	)ld Hickory

The enclosed project agreement has been prepared for your review and approval. Once approved, please have all copies signed by the Supervisor and Clerk and returned to our office marked for the attention of Cheryl Szpaichler, Administrative Assistant. <u>PLEASE</u> <u>DO NOT DATE THE DOCUMENT(S)</u>.

After submittal to the Board of County Road Commissioners for their approval, a dated fully executed copy will be returned to you for your files.

SW/cls

enc:

cc: Jodie Tedesco, County Highway Engineer

# PROJECT AGREEMENT

## JOB NUMBER:

This Agreement made and entered into this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2019 by and between the TOWNSHIP of GENOA, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

### WITNESSETH

The Township has selected the following road to be improved as described below:

### TIMBERBEND AND OLD HICKORY ROAD APPROXIMATELY 0.98 MILES OVERBAND CRACK SEALING, ALTOGETHER WITH THE NECESSARY RELATED WORK

The parties agree as follows:

- The Township shall pay the Road Commission 100% of the cost of the project, as follows: \$7000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
- 2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
- 3. The Road Commission shall hold the Township harmless from any liability arising from the work performed pursuant to this contract.
- 4. The work will be completed within the current contract year, unless the parties otherwise so agree.
- 5. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

**TOWNSHIP OF GENOA** 

BY:\_\_\_\_\_ BILL ROGERS, SUPERVISOR

PAULETTE A. SKOLARUS, CLERK

### BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

TERRY PALMER, ACCOUNTING SUPERVISOR



August 6, 2019

Genoa Charter Township 2911 Dorr Rd Brighton, MI 48116

#### METRO ACT RIGHT OF WAY PERMIT EXTENSION

Dear Genoa Charter Township:

We, KEPS Technologies, Inc. dba ACD.net; would like to extend the existing METRO Act we have with your municipality. Our current agreement expires on 8/11/2019. We would like to extend the agreement to 8/11/2024.

If you agree with this extension, please sign both copies of this agreement on the lines provided below and return within 30 days to KEPS Technologies, Inc. dba ACD.net at the address listed on the letterhead. ACD will countersign both and return one copy for your files.

Additional information regarding this renewal request and other METRO Act information, may be found at http://www.michigan.gov/mpsc/.

If you have any questions, please contact the Permitting Department at 517-999-9999.

Thank you for your time and cooperation in this matter that both benefits you and your constituents.

Agreed to on behalf of Genoa Charter Township:

Date:\_\_

Name:	

Signature:	<u> </u>
------------	----------

KEPS Technologies, Inc. dba ACD.net acknowledges receipt of this Permit Extension

Name: Signature: Date:

KEPS Technologies, Inc. d/b/a ACD.net 1800 N. Grand River Ave. Lansing, MI 48906 517.999.9999



2911 Dorr Road
Brighton, MI 48116
810.227.5225
810.227.3420 fax
genoa.org

#### MEMORANDUM

TO: Honorable Board of Trustees

FROM: Adam VanTassell

DATE: September 16, 2019

RE:

Township Hall roof replacement

Manager's Review: //

The Township Hall roof has sustained significant damage over the last two decades. The roof has been repaired a number of time, most recently as 2017. However, it is now reaching a point where repairs are not effective. The Hall is beginning to experience water leaks into the first floor of the building. Staff has received three bids to replace the current Township roof.

#### **Recommended Motion**

Moved by \_\_\_\_\_\_, Supported by \_\_\_\_\_\_ to approve the proposal from Renovations Roofing for the roof replacement for \$56 205.00.

#### **SUPERVISOR**

**Bill Rogers** 

**CLERK** Paulette A. Skolarus

TREASURER Robin L: Hunt

#### TRUSTEES

Jean W. Ledford H. James Mortensen Terry Croft Diana Lowe

MANAGER

Michael C<sub>1</sub> Archinal

RENOVATIONS	350 W. Wardlow • P.O. Box 0511 • Highland, MI 48357 FAX (248) 889-9874 • (810) 227-9792 • (248) 889-5164 (734) 665-7833 • (248) 647-3114 • (248) 477-2777
Roofing and Remodeling, Inc.	www.renovationsroofing.com
Proposal Submitted To:	Date: 8-14-19
Name: GENOA TOWNShip HAll	Date: 8-14-19 Home Phone 8/6 2275225
Address: 2911 DORR RD	Work Phone:
Address: 2911 OORR RO City: Beighten MI 48114	Fax Number:
Job Address	

We Hereby propose to furnish the materials and labor for completion of the following:

- Pull building permits as required
- Strip existing 🗾 layer(s) of roofing and inspect deck for rotten or delaminating wood (Additional layers, if found will be an extra charge)
- Replace wood as necessary for an additional charge of \$ 56 per 4x8 sheet of 7/16 OSB or \$\_\_\_\_\_ per lineal foot of 1x6 roofboard.
- Install wide face Aluminum drip edge around complete perimeter color\_\_\_\_\_
- Install Ice and Water Shield Membrane to meet code (2 feet above outside wall in heated areas of home, generally 3 feet off eaves and 3 feet in all valleys). TOFF EUE'S FULL UALLEYS • Install 15# Felt Paper over remainder of roof deck.
- Replace all soil stack flashings.
- Install aluminum step flashings as necessary.
- Re-Flash / Re-Apron chimneys as required.
- Install a total of \_\_\_\_\_ can vents or fill openings and install [ feet of ridge vent.
- Install starter row of shingle.

• Install a So year shingle, Style Der ATIONS, Color Manufactured by OWENS Convin

• Thoroughly clean grounds and properly dispose of roofing related debris

Shingle Warranty:	.50	Years	Labor Warranty:	Years	
Additional Work/Con	iments:				
<u></u>			-		
		en de la composition			
~					
. <u> </u>		· · · · · · · · · · · · · · · · · · ·			
	and the		1 9		·
Total Prices: \$ 560	<u>.00 ( FI</u>	<u>F17 S1X T</u>	hastand Two hurse.	ED FILE LOJA	Dollars)
¢		Down Balance	navable in full upon complet	ion of the job	

Down, Balance payable in full upon completion of the job.

\*Structural work and/or wood replacement to be billed in addition to this estimate except or as noted above\*

Any changes from the above specified proposal involving extra costs will be executed upon the completion of written and signed orders only and will become an extra charge over and above this proposal. Property owner is to carry homeowners insurance on above work. Workmen's Compensation and Public Liability Insurance will be in force and carried by Renovations Roofing and Remodeling AKA Law Enterprise.

#### ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. Renovations is authorized to do the work specified. 1 (WE) understand that this document is a legally binding contract. Payment is to be made in accordance with the above conditions.

SIGNATURI	E:_
-----------	-----

\_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE:

DATE:\_\_\_











#### **Tru**Definition **DURATION**<sup>®</sup> Shingles with Patented SureNail Technology **Bold contrast. Deep dimension. TruDefinition.**

TruDefinition' Duration' Shingles are specially formulated to provide great contrast and dimension to any roof. Through the use of multiple granule colors and shadowing, TruDefinition\* Duration\* Shingles offer a truly unique and dramatic effect. This exclusive combination of color and depth is what makes TruDefinition' Duration' Shingles like no other.

TruDefinition<sup>®</sup> Duration<sup>®</sup> Shingles are available in popular colors with bold, lively contrast and complementing shadow lines for greater dimension. They feature a Limited Lifetime Warranty\*\*\* (for as long as you own your home) and a 130-MPH Wind Resistance Limited Warranty\*. TruDefinition<sup>4</sup> Duration<sup>4</sup> Shingles are produced with StreakGuard" Protection to inhibit the growth of airborne blue-green algae" that can cause unsightly dark streaks on your roof. Owens Corning provides a 10-year Algae Resistance Limited Warranty.\* Beyond the outstanding curb appeal and impressive warranty coverage, they also come with the advanced performance of patented SureNail Technology.





fastening during installation.

#### The SureNail\* Difference-A technological breakthrough in roofing. The innovative features of Owens Corning\* TruDefinition\* Duration\* Shingles with

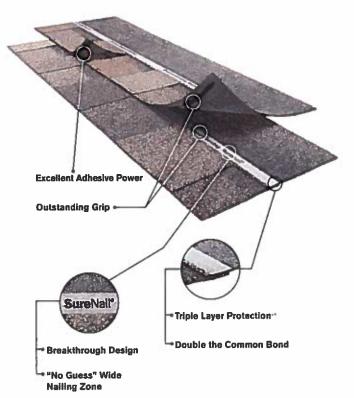
patented SureNail' Technology offer the following: Breakthrough Design. Featuring a tough, woven engineered reinforcing fabric to deliver consistent

Triple Layer Protection." A unique "triple layer" of reinforcement occurs when the fabric overlays the common bond of the shingle laminate layers that offers excellent fastener holding power.

Outstanding Grip. Our enhanced Tru-Bond" sealant grips tightly to the engineered fabric nailing strip on the shingle below.

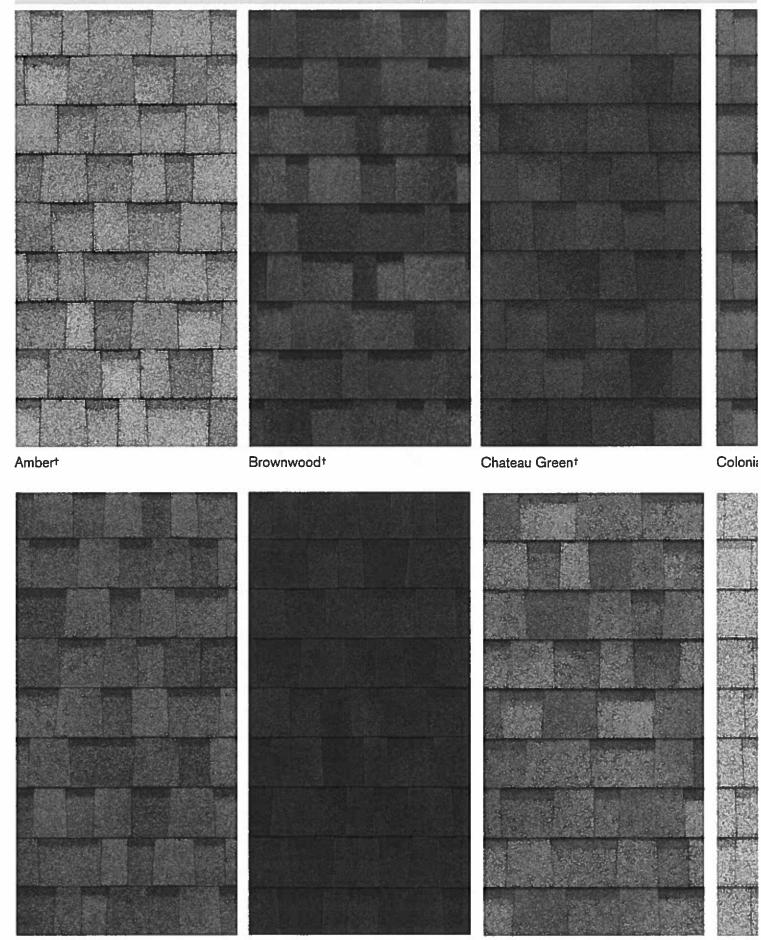
Excellent Adhesive Power. Specially formulated, wide adhesive bands help keep shingle layers laminated together.

Exceptional Wind Resistance. Engineered to deliver 130-MPH\* wind warranty performance with only 4 nails. Fewer nails required can mean fewer deck penetrations.



Teakt

#### COLORS AVAILABLE IN ALL SERVICE AREAS - see map below



Harbor Blue<sup>†</sup>

Onyx Black<sup>†</sup>

Quarry Gray<sup>†</sup>

294

Shasta



White<sup>†</sup>

Sierra Gray<sup>†</sup>

Teak<sup>†</sup>



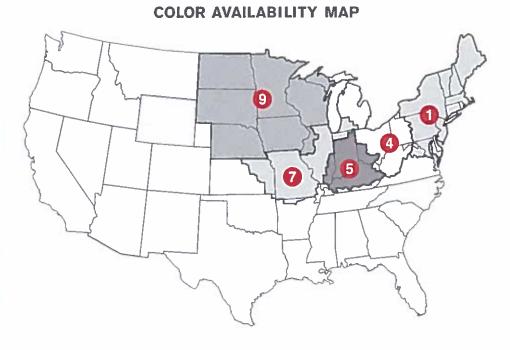
#### ADDITIONAL COLORS AVAILABLE BY SERVICE AREA - see map below





àray†





#### ENERGY STAR IS FOR ROOFS TOO



Similar to the energy-efficient appliances in your home, roofing products can help provide

energy-saving qualities. Owens Corning\* ENERGY STAR\* qualified shingles can help reduce your heating and cooling bills when installed properly. These shingles reflect solar energy, helping to decrease the amount of heat transferred to a home's interior — and the amount of air conditioning needed to keep it comfortable. Actual savings will vary based on geographic location and individual building characteristics. Call 1-800-GET-PINK\* or 1-888-STAR-YES for more information.

#### **Product Attributes**

#### Warranty Length\*

Limited Lifetime\* (for as long as you own your home)



Algae Resistance Limited Warranty\*

Wind Resistance Limited Warranty\*

10 Years

130 MPH

TRU PROtection" Non-Prorated Limited Warranty\* Period

10 Years

#### TruDefinition\* Duration\* Shingles Product Specifications

Nominal Size	13¼" × 39%"		
Exposure	5%"		
Shingles per Square	64		
Bundles per Square	3		
Coverage per Square	98.4 sq. ft.		

#### **Applicable Standards and Codes**

ASTM D228
ASTM D3018 (Type 1)
ASTM D3161 (Class F Wind Resistance)
ASTM D3462
ASTM D7158 (Class H Wind Resistance)
ASTM E108/UL 790 (Class A Fire Resistance)
CC-ES AC438*
PRI ER 1378E01
Shasta White color meets ENERGY STAR' requirements for initial

Shasta White color meets ENERGY STAR' requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15; 2013 California Building Energy Efficiency Standards, Title 24, Part 6 requirements; rated by the Cool Roof Rating Council (CRRC).

+ The amount of Triple Layer Protection\* may vary on shingle-to-shingle basis.

\* Tru-Bond\* is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing and Asphalt, LLC.

## 40-Year Limited Warranty on commercial projects.

Owens Corning Roofing Preferred Contractors are independent contractors and are not an affiliate of Owens Corning Roofing and Asphalt, LLC, or its affiliated companies. For patent information, please visit www.owenscorning.com/patents.

SureNail\* Technology is not a guarantee of performance in all weather conditions.

SureNail" Technology is available only on Owens Corning" Duration" Series Shingles.

ENERGY STAR and the ENERGY STAR mark are registered trademarks of the U.S. Environmental Protection Agency.

# International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

\* Excludes non-Owens Corning\* roofing products such as flashing, fasteners, pipe boots and wood decking.

<sup>\*</sup> See actual warranty for complete details, limitations and requirements.

<sup>\*\* 2018</sup> Roofing Brand Awareness Study by Owens Corning Roofing and Asphalt, LLC.

<sup>†</sup> Owens Coming Roofing strives to accurately reproduce photographs of shingles. Due to manufacturing variances, the limitations of the printing process and the variations in natural lighting, actual shingle colors and granule blends may vary from the photo. The pitch of your roof can also impact how a shingle locks on your home. We suggest that you view a roofing display or several shingles to get a better idea of the actual color. To accurately judge your shingle and color choice, we recommend that you view it on an actual roof with a pitch similar to your own roof prior to making your final selection. Color availability subject to change without notice. Ask your professional roofing contractor for samples of colors available in your area.





# HOME SWEET HOME

Your home is your sanctuary. It's the place where you want to feel the most comfortable. Safe. Protected. But no matter how much you love your house, it seems the work is never completely done. And if purchasing a new roof is on your to-do list, it may seem like a daunting task — especially if your roof is already damaged or leaking. Since a roof plays such an important role in protecting you and your family from the elements, you realize that you can't let the damage get out of hand.

Don't worry, we know that a roof replacement project is a big, important decision. You can feel confident about choosing our roofing products — Owens Corning has been a recognized leader in the building industry for over 75 years. In fact, we're America's most trusted roofing brand.\*\* Not only can we help you choose the right shingle and roofing system components, we can also help you select the right contractor for the job — an Owens Corning Roofing Preferred Contractor. Together we can make this a positive experience — an opportunity, really. This is your chance to choose a roof that not only has outstanding performance, but also has exceptional beauty. So for years to come, you'll feel great every time you pull in the driveway.

Protected. Proud. Home.



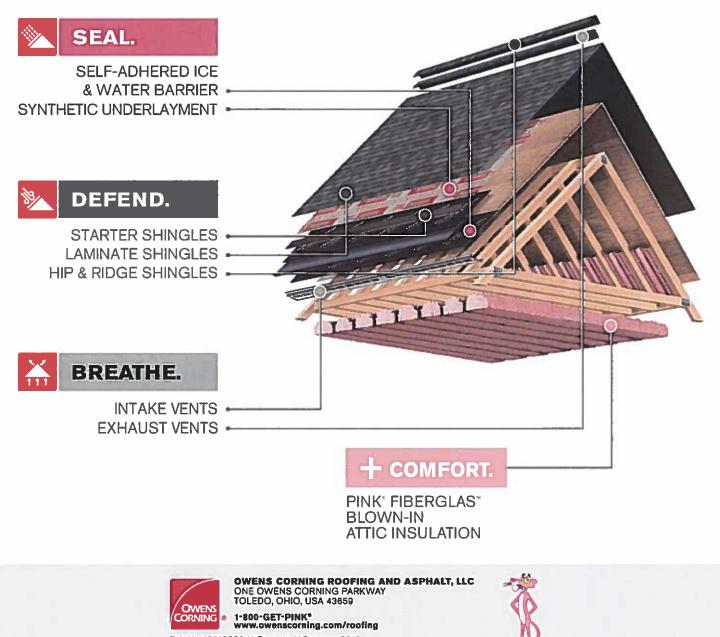


# **Total Protection Roofing System**\*\*

#### TOTAL PROTECTION SIMPLIFIED"



Owens Corning<sup>\*</sup> Total Protection Roofing System<sup>\*</sup>^ integrates engineered Owens Corning<sup>\*</sup> components that work together to address these three primary performance areas, critical to a high-performance roof, while also making it easy to understand the importance of each. **With Owens Corning, it's easy to confidently deliver total protection, beauty and peace of mind.** 



Pub. No. 10013980-H. Printed in U.S.A. June 2019. THE PINK PANTHER & 0 1964-2019 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved. The color PINK is a registered trademark of Owens Corning. © 2019 Owens Corning. All Rights Reserved.

(Brookville, Kearny, Medina, Minneapolis, Summit)

#### Adam VanTassell

From: Sent: To: Cc: Subject: Dana Shaw <dana@renovationsroof.com> Monday, September 09, 2019 3:15 PM Adam VanTassell Jack Law Area Project Roofing References

Hello Adam,

Here are a few larger roofing projects in the Livingston County area. I have additional addresses that we have completed if you would like to see more or are looking for different color ideas.

Cortland Place Condominiums	3733 Cortland Ave Brighton	(GAF Barkwood)	
Mainstreet Crossing Condominiums	205 Madison St Brighton	(Certainteed Barkwood)	
Woodbury Park Condominiums	217 Newbury Howell	(Owens Corning Driftwood)	
Hampton Rdg. Condominiums -ongoin	g 4007 Hampton Ridge Howell	(Owens Corning Onyx Black)	
Hickory Meadows Condominiums	2639 Kerria Howell	(Owens Corning Driftwood)	
First United Methodist Church	400 E. Grand River Brighton	(Owens Corning Brownwood)	
St Patrick Catholic Church	711 Rickett Rd Brighton	(Owens Corning Brownwood)	
Salvation Army Buildings- Howell, Royal Oak, Ann Arbor, Leonard, Farmington Hills, Plymouth, Ypsilanti, Grand Blanc,			
Macomb, Wayne, Saginaw, Flint, Fraser, Dearborn Heights, Detroit, Warren, Waterford			

Thank You,

Dana Shaw

Renovations Roofing & Remodeling, Inc. (248) 889-5164 <u>dana@renovationsroof.com</u>

Ethical Exteriors			
Building RelationshipsOr	ne Roof at a Time!	Date	Estimate #
10071 Colonial Industrial Dr. 4/11/2018		3462	
South Lyon, MI 48178 Phone: (517) 404-7606 Fax: (248) 573-0398			
Billing Address	Worksite	Address	
Genoa Township Hall 2911 Dorr Rd. Brighton, MI 48116	SAME AS BILLING ADDRESS Contact: Adam VanTassell (810) 227-5225 adam@genoa.org		
All material is guaranteed to be as specified. All work will b accordance with the drawings and specifications provided. S completed in an ethical, substantial, workmanlike manner to	Services will be	Project	
all states the states of the states down to a		180409 Full Roof Re	placement
Descriptio	on		Total
<ul> <li>FULL ROOF REPLACEMENT - 186 SQ.</li> <li>* Ethical Exteriors will attempt to complete a portion of the work during weekend days to reduce the activity at the Township Hall during the work week.</li> <li>1. Obtain permit, as required by the Township</li> <li>2. Stage grounds to maintain integrity of Township Hall property; designate work area with caution tape and provide a grounds/safety monitor to ensure safe entry and exit areas for foot traffic</li> <li>3. Stage roof for fall protection</li> <li>4. Complete tear off and removal of debris: (1) layer, 186 sq. (includes all starter, field and cap shingles with a 15% waste factor)</li> <li>5. Inspect 3/4" tongue-and-groove plywood decking and replace as necessary (included in estimate)</li> <li>6. Install wide-lip drip edge on entire perimeter (Color: Wicker, to match fascia)</li> <li>7. Install 6 feet of CertainTeed WinterGuard™ Sand ice and water shield on all eave edges, valleys, vertical walls and projections (soil pipes, damper vents)</li> <li>8. Install GAF Tiger Paw™ Synthetic Roof Deck Protection on remaining decking</li> <li>9. Install GAF Pro-Start&amp; or CertainTeed SwiftStart&amp; Starter Strip Shingles on all eave and rake edges</li> <li>10. Install 40-Year, GAF Timberline® ArmorShield™ II SBS, Impact-Resistant Dimensional Shingles or 50-Year, CertainTeed NorthGate&amp; SBS, Impact-Resistant Dimensional Shingles (Color: Customer's Choice)</li> <li>12. Step flash vertical walls</li> <li>13. Install all applicable soil pipe flashings</li> <li>14. Install all applicable soil pipe flashings</li> <li>14. Install all applicable soil pipe ArmorShield™ SBS Modified IR Ridge Cap Shingles or CertainTeed NorthGate&amp; Ridge ArmorShield™ SBS Modified IR Ridge Cap Shingles or CertainTeed NorthGate&amp; Ridge Shingles on all peaks</li> </ul>			69,750.00
All of us at Ethical Exteriors thank you for the opportunity to	quote these services!	Total	
IMPORTANT: * All vehicles must be cleared from driveway and immediate are material. All pets must be indoors or secured by rope or fence a to crew members. Unfortunately, due to recurrences of the abov noncompliance. We appreciate your understanding.	nd clear from the immed	iate working area to avoid harr	n to pets or harm

\*\* This estimate is valid 60 days after origination date-additional material and/or labor costs may apply after 60 days.

\*\*\*Work performed does not ensure ice dam prevention. Warranty does not cover ice dam removal should they occur. Ice dams develop as a result of heat loss and/or improper ventilation. Best practices will be performed to deter water infiltration.

Customer Signature Approving Project:

www.ethicalexteriors.com

Date: \_\_\_\_\_\_ toddwilson@ethicalexteriors.com

Ethical Exteriors				
Building RelationshipsOne Roof at a Time!			Date	Estimate #
10071 Colonial Industrial Dr.       4/11/2018         South Lyon, MI 48178       4/11/2018         Phone: (517) 404-7606 Fax: (248) 573-0398       4/11/2018			4/11/2018	3462
Billing Address	Worksite	Address		
Genoa Township Hall 2911 Dorr Rd. Brighton, MI 48116				
All material is guaranteed to be as specified. All work will be perform accordance with the drawings and specifications provided. Services with the drawings and specifications provided.			Project	
completed in an ethical, substantial, workmanlike manner to the state the event that unforeseen conditions are realized during the project,	d price. In	18040	Project 09 Full Roof Replacement	
Ethical Exteriors will notify the owner and provide an estimate for an additional material and/or labor cost requirements.	iy			
Description	-			Total
<ul> <li>10-Year Workmanship Warranty from Ethical Exteriors, Inc.</li> <li>GAF System Plus, Upgraded Manufacturer's Warranty (included in est This upgrade provides 40-year labor coverage to tear off existing shing coverage to install new shingles. Does not include cost for disposal. P</li> <li>40-year limited transferable warranty against manufacturing defects o</li> <li>10-year limited warranty against algae discoloration</li> <li>Wind warranty to 130 mph</li> <li>CertainTeed SureStart Manufacturer's Warranty:</li> <li>50-year limited transferable warranty against manufacturing defects o</li> <li>15-year StreakFighter® algae-resistance warranty</li> <li>10-year SureStart™ protection</li> <li>Wind warranty to 130 mph</li> <li>TERMS:</li> <li>No Money Down</li> <li>50% Due at 50% Job Completion</li> <li>Balance Due Upon Job Completion</li> <li>6 to 7 Day Job Completion (Weather Permitting)</li> </ul>	gles and 40-yea Prorating begins on commercial a	after the first applications		
All of us at Ethical Exteriors thank you for the opportunity to quote the	ese services!		Total	\$69,750.00
IMPORTANT: * All vehicles must be cleared from driveway and immediate area for dun material. All pets must be indoors or secured by rope or fence and clear l to crew members. Unfortunately, due to recurrences of the above, Ethica	from the immed	iate working a	rea to avoid harr	n to pets or harm

noncompliance. We appreciate your understanding.

\*\* This estimate is valid 60 days after origination date--additional material and/or labor costs may apply after 60 days.

\*\*\*Work performed does not ensure ice dam prevention. Warranty does not cover ice dam removal should they occur. Ice dams develop as a result of heat loss and/or improper ventilation. Best practices will be performed to deter water infiltration.

Customer Signature Approving Project:

www.ethicalexteriors.com

Date: \_\_\_\_\_\_toddwilson@ethicalexteriors.com

Hello Mr. VanTassell,

Thank you for your call regarding Re-roofing the Genoa Township Building. I will honor the pricing on the April 11, 2018 estimate with the installation of the CertainTeed "NorthGate" Impact-Resistant Shingles.

Please let us know if you require any additional information for your board meeting.

We look forward to the opportunity to work with you again!

Sincerely, Todd Wilson Ethical Exteriors, Inc. 10071 Colonial Industrial Dr. South Lyon, MI 48178 Office: (517) 404-7606 Mobile: (517) 672-2912 Fax: (248) 573-0398 Ethical Exteriors

Building Relationships...One Roof at a Time!

# SEAL-A-RIDGE® Protective Ridge Cap Shingles



The Perfect Finishing Touch For Your New Roof Should Be A Protective Ridge Cap Shingle

### Seal-A-Ridge<sup>®</sup> Protective Ridge Cap Shingles Will Help:

- Protect high-stress areas of your roof (the hips and ridges)
- Provide a high-quality and less labor-intensive alternative to using cut-up strip shingles as your ridge cap

Seal-A-Ridge® Protective Ridge Cap Shingles are a key part of the GAF Lifetime Roofing System,\* and have even earned the prestigious Good Housekeeping Seal (applicable in U.S. only; see reverse).







gaf.com

# SEAL-A-RIDG Protective Ridge Cap Shingles

#### Homeowner's Best Choice

- The Right Colors... Factory-designed to complement the color of your GAF shingles (unlike cut-up 3-tab strip shingles). See specifications for details.
- Stays In Place... Dura Grip™ Adhesive seals each piece tightly and reduces the risk of shingle blow-off.
- Uniform Look... Machine-cut design provides a much cleaner finished look than cut-up 3-tab strip shingles.
- StainGuard<sup>®</sup> Protection... Helps ensure the beauty of your ridge cap shingles against unsightly blue-green algae.\*



• Peace of Mind... Eligible for up to a Lifetime ltd. warranty when installed on Lifetime Shingle roofs.\*

#### Professional's Best Choice

- *Efficient...* Pre-scored design eliminates the need for difficult or time-consuming cuts.
- Excellent Quality... Micro Weave™ Core provides a strong foundation that helps to resist cracking and splitting.

#### Also Available... Seal-A-Ridge® ArmorShield™ SBS Modified IR Ridge Cap Shingles

Extra Protection... Made with our proprietary SBS modified asphalt to help protect your home from extreme weather conditions. Seal-A-Ridge® ArmorShield<sup>™</sup> SBS Modified IR Ridge Cap Shingles may also qualify for insurance discounts.<sup>+</sup>

LIFETIME

SHINGLES

<sup>+</sup> May qualify for insurance discounts when used with certain GAF shingles. See specifications for details. Insurance discounts may not be available in your area. Where available, insurance discounts may vary. Contact your insurance provider (arcitecterized). for information.

**Note:** See gaf.com/ridgecapavailability for regional availability

#### Nom. Product Specifications Standard Seal-A-Ridge® Ridge Cap Shingles

 For use with GAF Timberline HD<sup>®</sup> Timberline<sup>®</sup> Natural Shadow,<sup>®</sup> Timberline Ultra HD,<sup>®</sup> and Timberline<sup>®</sup> American Harvest<sup>®</sup> Shingles

- 96° -

HIAHIBAGECOUNTY

- 167 1914 m

- Fiberglass asphalt design
- 6 2/3" (169 mm) exposure
- Approx. 12" (305 mm) wide
- 4 bundles cover approx. 100 lineal feet (30 lm)
- Approx. 45 pieces per bundle
- Approx. 2 nails per piece
- UL Listed to ANSI/UL 790 Class A
- Meets ASTM D3462<sup>11</sup>
- ICC-ES ESR-1475 and ICC-ES ESR-3267
- Miami-Dade County Product Control Approved
- State of Florida approved

#### Seal-A-Ridge<sup>®</sup> ArmorShield<sup>™</sup> SBS Modified IR Ridge Cap Shingles

- For use with GAF Timberline<sup>®</sup> ArmorShield<sup>™</sup> II, Grand Sequoia<sup>®</sup> ArmorShield, and Glenwood® Shingles
- SBS-modified asphalt design
- Passes UL 2218 Class 4 (highest rating)
- 5" (127 mm) exposure
- Approx. 12" (305 mm) wide
- 4 bundles cover approx. 100 lineal feet (30 lm)
- Approx. 60 pieces per bundle
- Approx. 2 nails per piece
- UL Listed to ANSI/UL 790 Class A
- Meets ASTM D3462<sup>th</sup>

STARTER STRIP

SHINGLES

ICC-ES ESR-1475 and ICC-ES ESR-3267

th Periodically tested by independent and internal tabs to ensure compliance with ASTM D3462 at time of manufacture.

RIDGE CAP

SHINGLES



COBRA ATTIC

VENTILATION

ROOF DECK LEAK

PROTECTION BARRIER



See GAF Shingle & Accessory Ltd. Wanzniy for complete coverage and restrictions. The word "Lifelime" releves to the length of coverage provided by the GAF Shingle & Accessory Ltd. Wanzniy and means as long as the original individual owner(s) of a single-kamily delached residence (so ithe second owner(s) in catiain octation residence for rife second owner(s) in cartain circumstances) owns the property where the sbingles and accessories are installed. For owners/situctures not meeting the above criteria, L letime Coverage is not applicable. Lifetime ltd, warranty on accessories requires the use of at least three qualifying GAF accessories and the use of Lifetime Shingles.





The GAF Lifetime Roofing System has carned the prestigious Good Housekeeping Seal, which means that Good Housekeeping standid behind the products in this system. (Refer to Good Housekeeping Magazue for its consumer protection policy. Applicable in U.S. only.)

 Non-prorated coverage for the first 10 years\*

A Lifetime ltd, warranty on your shingles and all qualifying GAF accessories!

More Than Just Coverage

Get Automatic

Roofing System!

When you install any GAF Lifetime Shingle and at least

3 qualifying GAF accessories, you'll automatically get:

Lifetime Protection On Your Entire GAF

**On Your Shingles!** 



ta ime

#### **Technical Data Sheet**

NorthGate® SBS Modified Asphalt Shingles

#### **PRODUCT INFORMATION**

NorthGate SBS modified asphalt shingles reflect the same high manufacturing standards and superior warranty protection as the rest of CertainTeed's line of roofing products. NorthGate shingles are built with the industry's toughest fiber glass mat base, and their strict dimensional tolerance assures consistency. Complex granule color blends and subtle shadow lines produce a distinctive color selection.

Diends and subtle shadow lines produce a distinctive color selection. NorthGate SBS polymer modified shingles are <u>produced with the unique NailTrak® nailing feature.</u> <u>Please see the installation instruction section below for important information regarding NailTrak.</u>

NorthGate algae-resistant (AR) shingles have the additional attribute of resisting the growth of algae especially in damp regions.

Colors: Please refer to the product brochure or CertainTeed website for the colors available in your region.

Limitations: Use on roofs with slopes greater than or equal to 2" per foot. Low-slope applications (2" to 4" per foot) require additional underlayment. In areas where icing along eaves can cause the back-up of water, apply CertainTeed WinterGuard® Waterproofing Shingle Underlayment, or its equivalent, according to application instructions provided with the product and on the shingle package.

Product Composition: NorthGate is an SBS polymer modified Landmark style shingle and is composed of a fiber glass mat base. Ceramic-coated mineral granules are tightly embedded in carefully refined, water-resistant asphalt. Two pieces of the shingle are firmly laminated together in a special tough asphaltic cement. All CertainTeed produced shingles have self-sealing adhesive strips for wind uplift resistance.

#### **Applicable Standards**

ASTM D3018 Type I ASTM D3462 ASTM E108 Class A Fire Resistance ASTM D3161 Class F Wind Resistance ASTM D7158 Class H Wind Resistance UL 790 Class A Fire Resistance UL 2218 Class 4 Impact Resistance CSA Standard A123.5 ICC-ES ESR-1389 ICC-ES ESR-3537 (Portland only) Florida Product Approval # FL5444 Meets TDI Windstorm Requirements

#### **Technical Data:**

Weight/Square (approx.) Dimensions (overall) Shingles/Square (approx.) Weather Exposure 270 lb. (out of Portland) / 249 lb. (out of Shakopee) 13 1/4" x 38 3/4" 66 5 5/8"

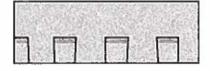
#### **INSTALLATION**

The following is a general summary of the installation methods. Detailed installation instructions are supplied on each bundle of NorthGate shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

Roof Deck Requirements: Apply shingles to minimum 3/8" thick plywood, minimum 7/16" thick nonveneer (e.g. OSB), or minimum 1" thick (nominal) wood decks. The plywood or non-veneer decks must comply with the specifications of APA-The Engineered Wood Association.

Ventilation: Provisions for ventilation should meet or exceed current HUD Standards. To ensure adequate balance ventilation, use a combination of continuous ridge ventilation (using CertainTeed Ridge Vent products, or a comparable product with an external baffle) combined with soffit venting.





Valleys: Valley liner must be applied before shingles. The Closed-Cut valley application method is recommended, using CertainTeed WinterGuard Waterproofing Shingle Underlayment or its equivalent to line the valley prior to being fully covered by the shingles.

#### Underlayment:

On slopes 4" per foot or greater, CertainTeed recommends one layer of DiamondDeck® Synthetic Underlayment or Roofers' Select® High-Performance shingle underlayment, or shingle underlayment meeting ASTM D226, D4869 or ASTM D6757. Always ensure sufficient deck ventilation, and take particular care to do so when DiamondDeck or other synthetic underlayment is installed. For UL fire rating, underlayment may be required. Corrosion-resistant drip edge is recommended and should be placed over the underlayment at the rake and beneath the underlayment at the eaves. Follow manufacturer's application instructions.

On low slopes (2" up to 4" per foot), one layer of CertainTeed's WinterGuard Waterproofing Shingle Underlayment (or equivalent meeting ASTM D1970) or two layers of 36" wide felt shingle underlayment (Roofers' Select High-Performance Underlayment or product meeting ASTM D226, D4869 or ASTM D6757) lapped 19" must be applied over the entire roof, ensure sufficient deck ventilation. When DiamondDeck or other synthetic underlayment is installed, weather-lap at least 20" and ensure sufficient deck ventilation. When WinterGuard is applied to the rake area, the drip edge may be installed under or over WinterGuard. At the eave, when WinterGuard does not overlap the gutter or fascia, the drip edge should be installed under WinterGuard. When WinterGuard overlaps the fascia or gutter, the drip edge or other metal must be installed over it. Follow manufacturer's application instructions.

#### Fastening (NailTrak):

Make certain that all nails are seated flush with the granule surface of the shingles. Set pneumatic air pressure properly to ensure nails do not over-penetrate the shingle when installing Northgate. Nail into double layer in hot weather conditions if needed; as outdoor temperature increases, pneumatic air pressure should decrease.

Low & Standard Slopes: On low and standard slopes, four nails are required per shingle. There are three nail lines on NailTrak shingles. Position nails vertically between the upper and lower nailing-guide lines. It is acceptable to nail between either the middle and lower lines or between the upper and middle lines. Nails must be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. They are to be located 1" and 12" in from each side of the shingle (see instructions on product wraps.) Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads.

Steep Slopes: On slopes greater than 21" per foot, fasten each shingle with six nails and four spots of roofing cement placed under each shingle according to application instructions provided on the shingle package. Fasteners must penetrate the two-layer common bond area that is indicated by the middle and lower NailTrak lines, also illustrated on the shingle package.

Application: The recommended application method is the 'Five-Course, Diagonal Method' found on each bundle of shingles. In this method, shingle course offsets are 6" and 11". Instructions also may be obtained from CertainTeed. These shingles may be used for new construction or for reroofing over existing Metric-sized shingles.

Flashing: Use corrosion-resistant metal flashing.

Hips and Ridges: For capping hip and ridge, apply CertainTeed's NorthGate® Ridge (regional) or NorthGate® Accessory (regional) of a like color.

#### Technical Data Sheet (Continued) NorthGate SBS Modified Asphalt Shingles

#### MAINTENANCE

These shingles do not require maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

#### WARRANTY

NorthGate carries a lifetime limited, transferable warranty to the consumer against manufacturing defects. In addition, NorthGate Shingles carry 10-years of SureStart™ Protection, 15-years of algae resistance and 15-years of 110mph wind-resistance. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at <u>www.certainteed.com</u>).

#### **TECHNICAL SERVICE**

Complete technical support and assistance is available through CertainTeed's Technical Service Department at 800-345-1145 or your local Territory Manager.

#### FOR MORE INFORMATION

Sales Support Group: 800-233-8990 Web site: <u>www.certainteed.com</u> See us at our on-line specification writing tool, CertaSpec, at <u>www.certainteed.com/certaspec</u>.

**CertainTeed Roofing** 20 Moores Road Malvern, PA 19355

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Corporate Office		American Metal Roc	ofs, Inc.
Fint Showroom 6140 Taylor Dr.		"Stunning, Permanent Metal RoofsCustom C	
Fänt, MI 46507 (600) 267-0677 Fax: (610)762-5411	ANAR	Project Address	Date: 8-10-19
Charlotte Showroom	Grand Tori	NSHIP	
1875 Lansing Rd. Charlotte, Mi 48813	Names of Owners, Co-Owner		11 48116
(517) 541-0284 Service	2911 Darer 12 Street Address	0 SRIGHTON /	State Zip Code
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Contractor is licensed as a Residential Builder under	Home Telephone Number		1 · · · · · · · · · · · · · · · · · · ·
Michigan Linv #2102158513 Website	Cell Phone (Hit)	Cell Phone (Heis)	Work Phone
www.americanmetalroofs.com	Malling Address	Mailing Address	Mailing Address
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18. American Metal Roofs will n	ot be responsible for leaks due to ice build	lupInitial	
19. Workmanship warranty - AN Commercial buildings 20 yea	IR warrants the workmanship to the origin ars. All products will be installed to manuf	acturers specifications and in accordance to loc	al building codes
20. Manufacturers warranty		pproval; weather permitting; Install early if po	
21. Installation Approximately _ 22. Prices determined off of prir	<u><u><u></u> to <u></u> <u></u>weeks from corporate a ts or drawings will be recalculated by actu</u></u>	pproval; weather permitting; install early it po- ial field measurements and the price will be ad	ljusted accordingly.
23. Customer to paint or stain a	s needed.		
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See the attached notice	of cancellation form for an explan	ation of this right. Additionally, the se	eller is prohibited from having an
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# The Most Important Decision You Will Make is...

The Company You Choose To Do Business With. Our Values:

### We are:

- Licensed as a Builder
- Manufacturer Certified
- EPA Lead Safe Certified Firm
- Trained in Home Ventilation

- God First
- Family Second
- Business Third

We provide a written 100% Lifetime Product and Workmanship warranty

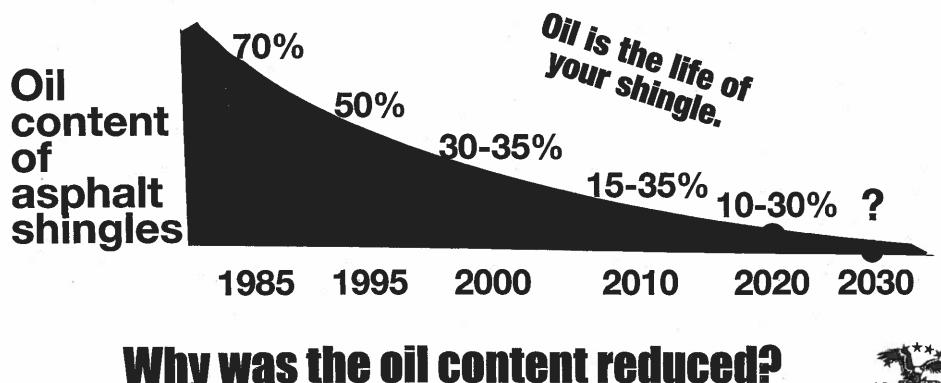
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# 10-12 Years-Oil Content of Today's Modern Shingles has Decreased Over the Years.





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# Reducing the Oil Content Reduced the Cost of Modern Asphalt Shingles!

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# Understand Fifteen Key Components and You Will Not Be Taken Advantage Of!

- 1. Should You Do a Tear Off?
- 2. The Ventilation
- 3. The Underlayment
- 4. The Ice and Water Shield
- 5. The Sealant
- 6. The Metal
- 7. How the Roof is Attached
- 8. The Style
- 9. How the Panels Fit Together
- 10. How Transitions are Handled
- 11. How the Chimney, Walls, Pipes and Skylights are Flashed
- 12. Are the Trims Designed for Your Snow Load?
- 13. The Finish
- 14. Walkability
- 15. Understanding Warranties

### Contractors prey on your lack of knowledge to get you a low price!



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# Sealants

#### Latex caulk

- Inexpensive interior caulk
- Water soluble not for outdoor use
- 2-10 year life expectancy
- \$1 per tube

#### Butyl caulk

- Inexpensive exterior caulk
- 8-10 year life expectancy
- 1 week cure time

### Talon Seal:

Silyl terminated Polyether Sealant

- Structural Industrial Sealant
- Non Toxic Eco friendly
- Expandable and flexible 200%
- Used on skyscraper construction
- 100 year life expectancy
- Permanent bond to Teflon and Kynar finish
- Expensive \$20 per tube

# It costs \$150°° more on an average roof to use the right sealants Which do you want?

### Acrylic latex caulk

- Inexpensive outdoor caulk
- 10 -15 year life expectancy
- \$3 per tube

#### Silicone caulk

- Moderately priced interior or exterior caulk
- 10-25 year life expectancy
- Adheres poorly to Teflon and Kynar finishes
- \$5 per tube

# Aluminum

# **The Eco Friendly Metal!**

- Soft like copper
- Reduces heat gain 34% Lower air conditioning cost
- Great ROI
- Costs less than copper and 15% more than steel









PFEFFER • HANNIFORD • PALKA Certified Public Accountants

John M. Pfeffer, C.P.A. Patrick M. Hanniford, C.P.A. Kenneth J. Palka, C.P.A. Members: AICPA Private Practice Companies Section MACPA 225 E. Grand River - Suite 104 Brighton, Michigan 48116-1575 (810) 229-5550 FAX (810) 229-5578

August 9, 2019

Board of Trustees Charter Township of Genoa 2911 Dorr Road Brighton MI 48116

Dear Honorable Board of Trustees:

In planning and performing our audit of the financial statements of the Charter Township of Genoa as of and for the year ended March 31, 2019, in accordance with auditing standards generally accepted in the United States of America, we considered the Charter Township of Genoa's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Township's internal control. Accordingly, we do not express an opinion on the effectiveness of the Township's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and therefore there can be no assurance that all such deficiencies have been identified. However, as discussed below, we identified deficiencies in internal control that we consider to be material weaknesses:

A deficiency in internal control exists when the design or operation of control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency or combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the following deficiency in the Charter Township of Genoa's internal control to be a material weakness.

1. . .

#### 1. Establish Control over the Financial Reporting Process

Management is responsible for establishing and maintaining internal controls, including monitoring, and for the fair presentation in the financial statements of financial position, results of operations, and cash flows, including the notes to financial statements, in conformity with U.S. generally accepted accounting principles.

At times, management may choose to outsource certain accounting functions due to cost or training considerations. Such accounting functions and service providers must be governed by the control policies and procedures of the Township. Management is as responsible for outsourced functions performed by a service provider as it would be if your personnel performed such functions. Specifically, management is responsible for management decisions and functions: for designating an individual with suitable skill, knowledge, or experience to oversee any outsourced services; and for evaluating the adequacy and results of those services and accepting responsibility for them.

As part of the audit, management requested us to prepare a draft of your financial statements, including the related notes to financial statements. Management reviewed, approved, and accepted responsibility for those financial statements prior to their issuance; however, management did not perform a detailed review of the financial statements. The absence of this control procedure is considered a material weakness because the potential exists that a material misstatement of the financial statements could occur and not be prevented or detected by the Company's internal control.

The existence of significant deficiencies or material weaknesses may already be known to management and may represent a conscious decision by management or those charged with governance to accept that degree of risk because of cost or other considerations. Management is responsible for making decisions concerning costs and the related benefits. We are responsible to communicate significant deficiencies and material weaknesses in accordance with professional standards regardless of management's decisions.

#### **Response by Management**

Management believes the perceived benefit of more control over the financial reporting process does not exceed the related cost. Therefore, management has chosen to continue to request the auditors to prepare the financial statements. However, management has read, reviewed, understands and takes responsibility of the financial statements.

#### Charter Township of Genoa Page 3

#### **Conclusion**

ł,

Thank you for your assistance and hospitality toward our firm while conducting the audit of the Charter Township of Genoa.

If you should have any questions, comments or concerns please do not hesitate to call us.

This communication is intended solely for the information and use of management, Township Board of Trustees, and others with the organization, and is not intended to be and should not be used by anyone other than the specified parties.

Pfeffer, Hanniford & Palka, P.C.

PFEFFER, HANNIFORD & PALKA Certified Public Accountants

#### CHARTER TOWNSHIP OF GENOA

#### FISCAL YEARS 2020, 2021, 2022, 2023, AND 2024

PFEFFER, HANNIFORD & PALKA, Certified Public Accountants, registered to practice in the State of Michigan (hereinafter referred to as CERTIFIED PUBLIC ACCOUNTANTS) and CHARTER TOWNSHIP OF GENOA, A municipal corporation, of the State of Michigan (hereinafter referred to as (TOWNSHIP) contract on this \_\_\_\_\_\_ day of \_\_\_\_\_\_ 2019, as follows:

1. For the fiscal years ending March 31, 2020, 2021, 2022, 2023 and 2024 the **CERTIFIED PUBLIC ACCOUNTANTS** shall conduct an audit of the financial statements of the **TOWNSHIP** for each year. The financial statements are the responsibility of the **TOWNSHIP BOARD**. Our responsibility is to express an opinion on the financial statements based on our audits. We will conduct our audits in accordance with auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the **TOWNSHIP** as well as evaluating the overall financial statement presentation.

2. The CERTIFIED PUBLIC ACCOUNTANTS' audit shall meet the requirements of Act No. 2, P.A. 1968, or as amended, and the related Bulletin for Audits of Local Units of Government in Michigan, dated June 1, 1968, or as amended, which is available from the State Treasurer.

3. If the **TOWNSHIP** receives federal financial assistance, grants, or other contracts, we may be required to, not only conduct the audit in accordance with auditing standards, but also in accordance with Government Auditing Standards and (or) in accordance with the Single Audit Act Amendments of 1996, OMB A-133. The testing of compliance and other fieldwork would be increased substantially because of the aforementioned. We would issue a separate engagement letter and fee proposal for the additional work to complete the audit in accordance with Government Auditing Standards and (or) the Single Audit Act Amendments of 1996, OMB A-133.

4. The reports on financial statements, as required by Act 2 of Public Acts of 1968, or as amended, shall contain an unqualified opinion by the **CERTIFIED PUBLIC ACCOUNTANTS** or such other opinion as he must render under the circumstances when he is unable to express an unqualified opinion.

5. The audit shall begin as soon after the signing of this contract as shall be convenient to the **CERTIFIED PUBLIC ACCOUNTANTS** and shall be completed with the Certified Public Accountant's reports issued not later than six (6) months after the conclusion of the fiscal year.

6. The **TOWNSHIP** shall have closed and balanced all funds and bank accounts, agencies and operations to be examined by the **CERTIFIED PUBLIC ACCOUNTANTS**.

7. The estimated audit fee for the years ended March 31, 2020, 2021, 2022, 2023, and 2024 will be \$28,500, \$28,750, \$29,000, \$29,250, and \$29,500 respectively. Additional services outside the scope of the audit will be billed at \$115 per hour.

8. The **TOWNSHIP** authorizes the **CERTIFIED PUBLIC ACCOUNTANTS** to immediately disclose any and all findings of suspected fraud, and/or embezzlement to the Deputy State Treasurer in charge of the Local Audit Division of the State Department of Treasury.

9. The **CERTIFIED PUBLIC ACCOUNTANTS** shall provide a reasonable number of reports for each of the funds to the **TOWNSHIP** officials.

10. This contract may be terminated by either party upon a ninety day (90) advance written notice.

Pfeffer, Hanniford & Palka, PC.

PFEFFER, HANNIFORD & PALKA Certified Public Accountants

CHARTER TOWNSHIP OF GENOA

# Board Correspondence

#### **Mike Archinal**

From:Shannon Mathew <Mathew.Shannon@zf.com>Sent:Monday, September 09, 2019 7:45 AMTo:Mike Archinal; Shannon MathewSubject:RE: Trash Pickup

Michael,

Thank you so much for your help. Yes they came back and picked everything up.

Thanks,

Mat

From: Mike Archinal <<u>Mike@genoa.org</u>> Sent: Friday, September 6, 2019 3:26 PM To: Shannon Mathew <<u>Mathew.Shannon@zf.com</u>> Subject: RE: Trash Pickup

Matthew,

Sorry you are experiencing difficulties. I drove by this afternoon and did not notice any large items at the curb. Unless you moved it back in the garage it looks like it got handled. If there is still an issue let me know. Also, in the future, do not hesitate to contact me directly if you are not satisfied with Advanced. Operationally they are doing pretty well but issues arise from time to time and I am happy to help.

Michael C. Archinal, AICP MPA Manager Genoa Charter Township 810.227.5225 mike@genoa.org



From: Shannon Mathew [mailto:Mathew.Shannon@zf.com] Sent: Friday, September 06, 2019 11:54 AM To: Mike Archinal Subject: Trash Pickup Mike,

Hi let me introduce myself my name is Mat Shannon and I live at 5460 Glenway Drive here in Brighton. I have had big issues with the new trash people. I had an old couch I have had on the street for almost 2 weeks. I have called advance disposal 3 times (waited on hold for at least 20 minutes each time) and they told me that they take 1 large item... This morning the large item was 1 cushion for the 3 pc sectional...I asked if I can pay more to get this couch removed and they said yes but they don't off that service. When we switched over to these guys they wouldn't unload the old garbage cans until I taped \$20 and a note to them, they literally sat out there 4 pickup days. I don't know what else to do here. I need help.

Mathew Shannon Operations Manager Braking Systems

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