

**GENOA CHARTER TOWNSHIP BOARD**  
**Regular Meeting and Public Hearing**  
**March 19, 2018**  
**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: March 5, 2018
3. Request to approve a proposal from Green Oak Gutter for the purchase of a new gutter system and removal of the old system at a cost not to exceed \$6,914.00.

**Approval of Regular Agenda:**

4. Request for approval of amendments to the General Fund Budgets for the Fiscal Year ending March 31, 2018 related to the following funds: 101, 212, 261, 264, 270, and 271 as requested by Skolarus.
  - A. Call to the Public.
  - B. Disposition of budgets.
5. Request for approval of the General Fund budgets for the Fiscal Year beginning April; 1, 2018 through March 31, 2019 related to the following funds: 101, 212, 261, 264, 270, and 271 as requested by Skolarus
  - A. Call to the Public.
  - B. Disposition of budgets.
6. Request for approval of the following Debt Service Fund Budgets for the Fiscal Year ending March 31, 2019: Fund 852, 857-859, 870, 872, 873 and 875 as provided by Treasurer Hunt.
  - A. Call to the Public.
  - B. Disposition of budgets as requested.
7. Request for approval of an amendment to the Genoa Charter Township Depository Resolution.
8. Consideration of a request for approval of an environmental impact assessment for a proposed 2,254 sq. ft. addition to the existing ALDI Food Market located at 2260 E. Grand River Avenue, Howell. The request is petitioned by ALDI Inc.
  - A. Disposition of Environmental Impact Assessment (2-23-18)
9. Request to approval the proposal from K/E Electric Supply for the purchase of new lighting fixtures at a cost not to exceed \$17,603.11.

10. Consider approval of an agreement to provide water service to Shepherd of the Lakes.

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: March 19, 2018

TOWNSHIP GENERAL EXPENSES: Thru March 19, 2018	\$1,382,049.91
March 9, 2018 Bi Weekly Payroll	\$88,201.71
OPERATING EXPENSES: Thru March 19, 2018	\$122,890.58
TOTAL:	<u>\$1,593,142.20</u>

Check Register Report For Genoa Charter Township  
 For Check Dates 03/09/2018 to 03/09/2018

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
03/09/2018	FNBCK	12624	RASSEL, GREGORY J.	168.00	148.00	0.00	Open
03/09/2018	FNBCK	12625	ROCKWELL, WILLIAM E	168.00	155.14	0.00	Open
03/09/2018	FNBCK	EFT201	FLEX SPENDING (TASC)	1,495.77	1,495.77	0.00	Open
03/09/2018	FNBCK	EFT202	INTERNAL REVENUE SERVICE	19,884.10	19,884.10	0.00	Open
03/09/2018	FNBCK	EFT203	PRINCIPAL FINANCIAL	2,751.00	2,751.00	0.00	Open
03/09/2018	FNBCK	EFT204	PRINCIPAL FINANCIAL	1,313.44	1,313.44	0.00	Open
<b>Totals:</b>				25,780.31	25,747.45	0.00	
Total Physical Checks:				2	Dir. Dep.		
Total Check Stubs:				4	62,454.26		
					<del>88,201.71</del>		

Check Date	Check	Vendor Name	Amount
<b>Bank FNBCK CHECKING ACCOUNT</b>			
02/28/2018	34266	AT&T	29.36
02/28/2018	34267	DELTA DENTAL	3,547.44
02/28/2018	34268	GUARDIAN	2,382.34
02/28/2018	34269	NETWORK SERVICES GROUP, L.L.C.	300.00
02/28/2018	34270	PERFECT MAINTENANCE CLEANING	565.00
03/01/2018	34271	DYKEMA GOSSETT, PLLC	2,158.10
03/01/2018	34272	EHIM, INC	7,787.19
03/01/2018	34273	K & J ELECTRIC, INC.	64,307.00
03/01/2018	34274	MICHIGAN MUNICIPAL EXECUTIVES	130.00
03/01/2018	34275	PAULETTE SKOLARUS	39.00
03/01/2018	34276	TERRY CROFT	53.41
03/05/2018	34277	CLEARY UNIVERSITY	289.05 V
		Void Reason: POLLY SAID SHE DIDN'T NEED IT	
03/05/2018	34278	CLEARY UNIVERSITY	289.05 V
		Void Reason: POLLY SAID TO VOID	
03/05/2018	34279	DESINE INC.	300.00
03/06/2018	34280	CONTINENTAL LINEN SERVICE	119.07
03/06/2018	34281	DTE ENERGY	158.18
03/06/2018	34282	FEDERAL EXPRESS	155.57
03/06/2018	34283	FIRST IMPRESSION PRINT & MARKETING	2,413.81
03/06/2018	34284	GFL ENVIRONMENTAL USA INC.	79,383.15
03/06/2018	34285	GORDON FOOD SERVICE	133.32
03/06/2018	34286	KELLY VANMARTER	64.95
03/06/2018	34287	LIVINGSTON COUNTY TREASURER	32,458.91
03/06/2018	34288	SAFEBUILT STUDIO	4,869.48
03/08/2018	34289	BRIGHTON GARAGE DOOR	75.00
03/08/2018	34290	PRINTING SYSTEMS	1,067.41
03/12/2018	34291	BS&A SOFTWARE	7,000.00
03/12/2018	34292	COMCAST	963.75
03/12/2018	34293	ETNA SUPPLY COMPANY	4,130.00
03/12/2018	34294	OFFICE EXPRESS INC.	110.13
03/12/2018	34295	SEWARD PECK & HENDERSON PLLC	8,286.00
03/12/2018	34296	TAMMY LINDBERG	203.29
03/12/2018	34297	COOPER'S TURF MANAGEMENT LLC	8,049.50
03/12/2018	34298	GENOA TWP FUTURE ROADS #261	500,000.00
03/12/2018	34299	GENOA TWP ROAD PROJECTS #264	150,000.00
03/12/2018	34300	GENOATWP-FUT PATHS,PKS & REC	500,000.00
03/13/2018	34301	BULLSEYE TELECOM	405.47
03/13/2018	34302	CONSUMERS ENERGY	404.08
<b>FNBCK TOTALS:</b>			
Total of 37 Checks:			1,382,628.01
Less 2 Void Checks:			578.10
Total of 35 Disbursements:			1,382,049.91

Check Date	Check	Vendor Name	Amount
<b>Bank 503FN DPW-UTILITIES #503</b>			
02/28/2018	4247	MWEA	70.00
03/06/2018	4248	PORT CITY COMMUNICATIONS, INC.	146.00
03/07/2018	4249	TRACTOR SUPPLY CO.	529.24
03/09/2018	4250	FASTENAL COMPANY	398.73
03/09/2018	4251	HOWELL TRUE VALUE HARDWARE	28.00
03/09/2018	4252	LOWE'S	977.83
03/09/2018	4253	OHM ENGINEERING ADVISORS	2,695.00
03/09/2018	4254	RED WING SHOE STORE	570.48
03/09/2018	4255	ROY'S AUTOWORKS CORP	154.21
03/09/2018	4256	VICTORY LANE QUICK OIL CHANGE	43.48
03/09/2018	4257	WINDSTREAM	41.33
03/13/2018	4258	CHASE CARD SERVICES	1,739.81
03/13/2018	4259	STAPLES CREDIT PLAN	157.97
03/13/2018	4260	WEX BANK	2,941.69
<b>503FN TOTALS:</b>			
Total of 14 Checks:			10,493.77
Less 0 Void Checks:			0.00
Total of 14 Disbursements:			10,493.77

Check Date	Check	Vendor Name	Amount
<b>Bank 592FN OAK POINTE OPERATING FUND #592</b>			
02/28/2018	4203	BRIGHTON ANALYTICAL , L.L.C.	301.00
03/06/2018	4204	DTE ENERGY	1,741.61
03/07/2018	4205	CONSUMERS ENERGY	808.21
03/07/2018	4206	DTE ENERGY	2,298.62
03/09/2018	4207	AT&T LONG DISTANCE	55.63
03/09/2018	4208	BUSINESS IMAGING GROUP	128.76
03/09/2018	4209	GENOA TOWNSHIP D.P.W. FUND	37,788.18 V
		Void Reason: DIDN'T BREAK OUT ACCOUNTS RIGHT	
03/09/2018	4210	MICHIGAN.COM	150.00
03/09/2018	4211	NORTHERN PUMP & WELL	8,298.00
03/09/2018	4212	UTILITIES INSTRUMENTATION SERVICE	330.00
03/12/2018	4213	GENOA TOWNSHIP D.P.W. FUND	37,788.18
03/13/2018	4214	DTE ENERGY	366.05
<b>592FN TOTALS:</b>			
Total of 12 Checks:			90,054.24
Less 1 Void Checks:			37,788.18
Total of 11 Disbursements:			52,266.06

Check Date	Check	Vendor Name	Amount
<b>Bank 593FN LAKE EDGEWOOD OPERATING FUND #593</b>			
03/05/2018	3340	BRIGHTON ANALYTICAL , L.L.C.	67.00
03/05/2018	3341	MIDWEST POWER SYSTEMS, INC	29,250.00
03/07/2018	3342	BRIGHTON ANALYTICAL , L.L.C.	469.00
03/07/2018	3343	DTE ENERGY	4,143.72
03/12/2018	3344	GENOA OCEOLA DEBT EXPANSION	4,218.56 V
		Void Reason: USED WRONG VENDOR	
03/12/2018	3345	GENOA TOWNSHIP D.P.W. FUND	10,721.59
03/12/2018	3346	HOWELL TRUE VALUE HARDWARE	33.02
03/12/2018	3347	HUBBELL, ROTH & CLARK, INC	7,772.54
03/12/2018	3348	MICHIGAN.COM PRESS & ARGUS	50.00
03/12/2018	3349	MIDWEST POWER SYSTEMS, INC	3,200.00
03/12/2018	3352	GENOA OCEOLA SEWER	4,218.56
03/13/2018	3353	BRIGHTON ANALYTICAL , L.L.C.	67.00
03/13/2018	3354	CONSUMERS ENERGY	138.32
<b>593FN TOTALS:</b>			
Total of 13 Checks:			64,349.31
Less 1 Void Checks:			4,218.56
Total of 12 Disbursements:			60,130.75

**GENOA CHARTER TOWNSHIP BOARD**

**Regular Meeting**

**March 5, 2018**

**MINUTES**

Supervisor Rogers called the regular meeting of the Genoa Charter Township Board to order at 6:30 p.m., with the Pledge of Allegiance. The following members were present constituting a quorum for the transaction of business: Bill Rogers, Paulette Skolarus, Robin Hunt, Jim Mortensen, Terry Croft, Diana Lowe and Jean Ledford. Also present were Township Manager, Michael Archinal; Township Attorney, Joe Seward; and three persons in the audience.

A Call to the Public was made with no response.

**Approval of Consent Agenda:**

Moved by Hunt and supported by Ledford to approve the payment of bills and move the Minutes to the Regular Agenda for further consideration. The motion carried unanimously.

**1. Payment of Bills.**

**Approval of Regular Agenda:**

Moved by Ledford and supported by Lowe to approve for action all items listed under the regular agenda. The motion carried unanimously.

**2. Request to Approve Minutes: February 19, 2018**

Moved by Mortensen and supported by Ledford to approve the minutes with the following corrections: The flat rate sewer charge for Lake Edgewood is \$133.90 per 1,000 gallons; pg. 4 adding planned unit development "agreement" and township zoning "ordinance"; adding other enterprises "protected" by Federal "Law". The corrected minutes were voted and approved unanimously.

**3. Request to approve the proposal from BS&A Software to purchase the Building Department.NET application to be used for project management and tracking, permitting, enforcement, and planning and zoning processes at a cost not to exceed \$33,465.00 plus annual service fees of \$3,570.00 which may be increased by no more than the yearly CPI.**

Moved by Skolarus and supported by Lowe to approve the software purchase as requested by VanMarter. *Note: This purchase will interface with County Departments.* The motion carried unanimously.

**4. Discussion regarding Latson Road water and sewer funding options.**

Township DPW Director Greg Tatara addressed the board. Development of the area south of I-96 along Latson Road is predicated on municipal services. Before moving forward with development, water and sewer will need to be provided. To accommodate existing demands as well as future needs along Latson Road the Genoa-Occola Waste Water plant will need to be expanded. *This is independent of Latson Road.* It is estimated that the cost to bring water and sewer to this portion of the township along Latson Road will be in excess of 3 million dollars. The developer will front 50% of the cost up front. The township will provide bonding for the

balance of the development, which will also be debt incurred by the developer and levied on the tax bill over the next 20 years. No objections were raised by the board.

- Correspondence:  
Concerns were raised concerning a risk to the township in signing solicitor licenses. Attorney Joe Seward advised the board that the Township does not face civil liability if notices are or are not signed. There is no exposure to the township. The township will continue with the existing policy.
- Greg Tatara provided a notice of copper monitoring action level exceedance at Oak Pointe. Notices will be mailed to all residents of the Oak Pointe Water System advising them that copper sampling found copper exceeding the limit of 1.3 parts per million in two of 10 samples collected. It was recommended that homeowners flush their tap water by running their tap water for 15 second before drinking. This action is only recommended after water has been left in the copper piping without use for a minimum of six hours.
- Archinal advised the board that vapor intrusion concerns near Brighton Road and Seventh Street were being addressed with the State and County Health Departments. It is their intention to install mitigation systems to address the problem. The meeting is scheduled for March 20, 2018. *Note: Vapor intrusions sometimes occur where chemicals were spilled, leaked, or dumped onto the ground and filter down into the ground water. The vapor intrusion can cause the air in your home to be unsafe to breathe. Please refer to the [www.michigan.gov/vaporintrusion](http://www.michigan.gov/vaporintrusion) for further information.*
- Hunt advised the board that tax collections received were just under 98% for summer and winter taxes.

The regular meeting of the Genoa Charter Township Board was adjourned at 7:30 p.m.



Paulette A. Skolarus, Clerk  
Genoa Charter Township





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:** March 19, 2018  
**RE:** Proposed Township Hall Gutter System Replacement

Manager's Review: \_\_\_\_\_

Recently, the 20 year old gutter system for the Township Hall has been experiencing increasing maintenance issues. There are leaks in several places around the building's current gutter system which are beginning to cause water issues in the basement and foundation.

### Recommended Motion

Moved by \_\_\_\_\_, Supported by \_\_\_\_\_ to approve the proposal from Green Oak Gutter for the purchase of a new gutter system and removal of the existing gutter system for \$6, 914.00

#### 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. Archinal

Green Oak Gutter Inc.  
 10188 Colonial Industrial Dr.  
 South Lyon, MI. 48178  
 Phone # 248-437-9700  
 Fax # 248-437-3390

License #2104088573

# Estimate

LICENSED AND INSURED  
 www.greenoakgutter.com  
 info@greenoakgutter.com

Date	Estimate #
2/26/2018	25697

THERE WILL BE A 2% FEE ADDED TO PRICE ON ANY  
 PAYMENT MADE BY CREDIT CARD

<b>Bill To</b>	<b>Job Location</b>
ADAM VANTASSELL 2911 DORR ROAD BRIGHTON, MI 48116	JOB: GENOA TOWNSHIP HALL (810 )227-5225 adam@genoa.org

P.O. Number	Terms	Job scheduled	Color / Size / Metal
VANTASSELL	UPON COMPLETION		TBD/6"

Quantity	Item Code	Description	Price Each	Total
	1	REMOVE THE OLD SYSTEM AND HAUL AWAY ALL DEBRIS (no charge for this service with a new gutter installation) AND TO INSTALL LARGER (6") SEAMLESS ALUMINUM K-STYLE GUTTERS ON COMPLETE BUILDING TO INSTALL LARGER (3" X 4") ALUMINUM DOWNSPOUTS ON THIS NEW SYSTEM WITH 3' EXTENSIONS OR CONNECT INTO UNDERGROUND DRAIN TILES * GUTTERS ARE HUNG WITH SCREW MOUNTED HIDDEN HANGERS * CORNERS ARE CUSTOM HAND MITERED WITH ONLY (1) SEAM AND INCLUDES SPLASH GUARDS AS NEEDED * WARRANTY: 5 YEARS LABOR / 15 YEARS MATERIALS COLOR: TO BE DETERMINED (#224 BUCKSKIN, #791 NORWOOD, OR #713 WICKER)	6,067.00	6,067.00
	1	6" GUTTERS WITH 3" X 4" DOWNSPOUTS ON DETACHED GARAGE	847.00	847.00

If you have any questions, or if you would like us to do this work for you, please let us know.	<b>Total</b>	\$6,914.00
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I accept the quoted price and color as proposed.

\*prices good for 60 days

VISA, MASTER CARD, DISCOVER, AMERICAN EXPRESS ARE ACCEPTED  
 WITH AN ADDITIONAL 2% FEE ADDED TO PRICE

Signature \_\_\_\_\_

Friday 3-2-18

Andy

# LIVINGSTON GUTTER

517-548-0134

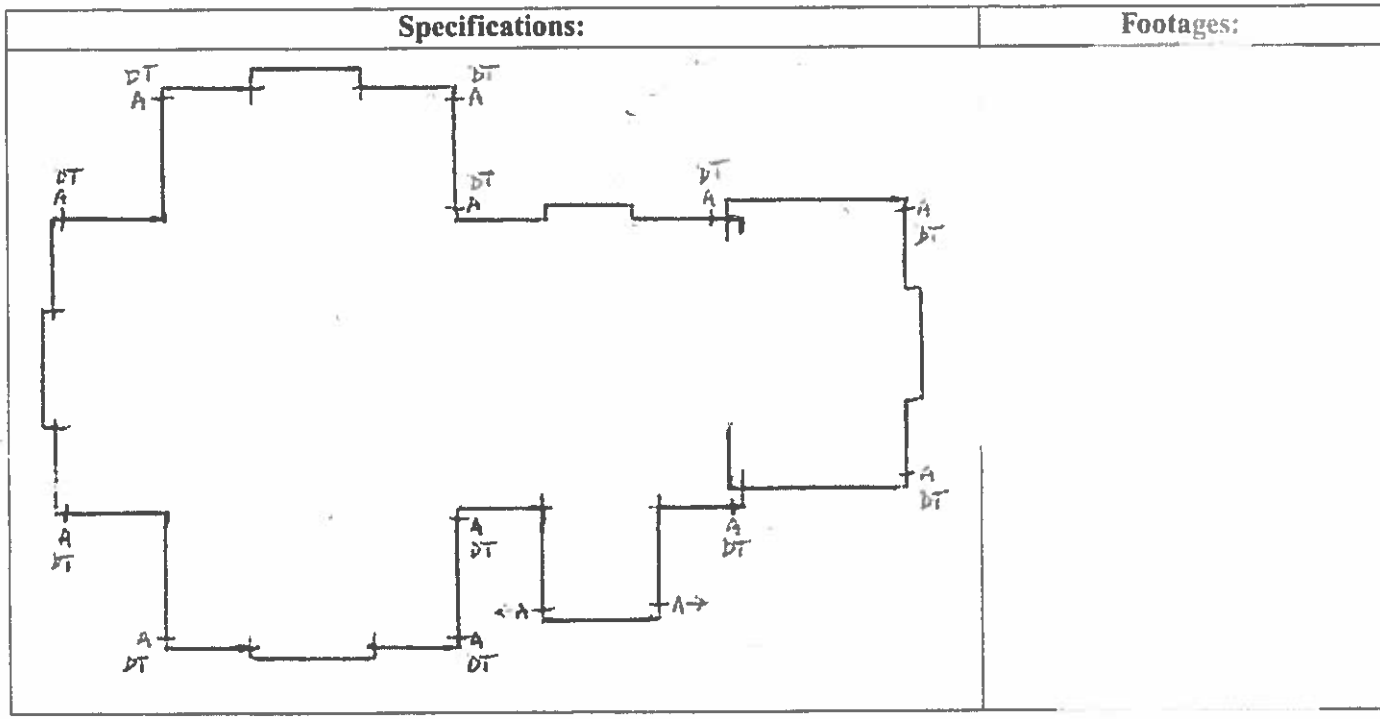
2723 E. Grand River  
Howell, MI 48843  
(810) 227-7053  
Fax: (517) 548-1113

Customer: Dereca Township Date: 3-1-18  
Job Address: 2911 Park Rd Brighton  
Home Phone: \_\_\_\_\_ Work/Cell Phone: 810-227-5225  
Invoicing Address: \_\_\_\_\_ Colan Ventressell  
Email: \_\_\_\_\_

Gutter color: 224 Black  
 Downspout color: \_\_\_\_\_  
 5"  Wedges  
 6"  
 2X3  
 3X4  
 Spike/Ferrule  
 Hidden Hangers  
 Vampire Hangers  
 Power Available?: Yes  No  
 Power Location: \_\_\_\_\_

Flashing  
 Fascia  
 Soffit  
 Siding  
 Drip Edge  
 Copper:  
 Bay  
 Roof  
 Flashing  
 Gutters

Screens  
 Covers  
 Additional Special Instructions:  
Estimate  
Buttons Dis  
on Township  
Bldg.



All material is guaranteed for 10 years and labor for 5 years, and the above work to be performed in accordance with the drawings and specifications submitted for above work and completed in a substantial workmanlike manner for the sum of FIVE THOUSAND SIX HUNDRED FIFTY-FIVE <sup>50</sup>/<sub>100</sub> Dollars (\$ 5685.50) 5" w/ 3x4 downs

With payments to be made as follows: • CHECK • MASTERCARD • VISA • AMERICAN EXPRESS 717.50 6" w/ 3x4 downs

Any alteration or deviation from above specifications involving extra costs will be executed only upon written order, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Purchaser shall and does hereby agree to pay any and all attorney fees and court costs as a result of non-payment.

Respectfully submitted 3-2-18  
Per Andy Wallace  
Customer Acceptance \_\_\_\_\_

\*Note: This proposal may be withdrawn by us if not accepted within \_\_\_\_\_ days

# LIVINGSTON GUTTER INC

## 517-548-0134

<b>ATTN:</b> Adam Vantassell	<b>PROJECT NAME:</b> Genoa Township Hall
<b>CONTRACTOR:</b>	<b>PROJECT LOCATION:</b> 2911 Dorr Rd. Brighton, MI 48116
<b>PHONE &amp; EMAIL:</b> (810) 227-5225 adam@genoa.org	<b>INVOICING ADDRESS:</b> 2911 Dorr Rd. Brighton, MI 48116

<b>COLOR(S): #224 Buckskin</b>	
<b>Option 1: Installation of 5" Seamless Aluminum Gutters with 3" x 4" Downspouts</b>	<b>\$5,685.50</b>
<b>Option 2: Installation of 6" Seamless Aluminum Gutters with 3" x 4" Downspouts</b>	<b>\$7,217.50</b>

**We hereby promise to furnish labor and materials, completed in accordance with above specifications in a timely workman-  
like manner for the sum of:           TBD           with payment as follows:           50% Due at Signing            
Any alteration or deviation from above specifications involving extra costs will be performed upon written order and will  
become an extra charge over and above the proposal estimate. All agreements are contingent upon strikes, accidents, or  
delays beyond our control. Purchaser shall and does agree to pay any and all attorney fees and court costs as a result of non  
payment. Livingston Gutter, Inc is not responsible for damage to driveways if given permission to drive on.  
Any project is void if not kept clean and free of debris.**

**Authorization:** Jeri L. Tunell                Jeri L. Tunell                **Date:**           3/6/2018          

**Acceptance of Proposal:**  
**The above prices, specifications and conditions are satisfactory and accepted for Livingston Gutter, Inc to complete the  
project as stated above. Payment will be made as stated above.**

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

2723 E Grand River Howell, MI 48843  
[www.LivingstonGutter.com](http://www.LivingstonGutter.com)

**Fax:** (517) 548 1113  
**Phone:** (517) 548 0134

# MICHIGAN ALUMINUM CORPORATION

Wholesale Supplier of Aluminum Rainware, Coil & Building Products

Wayland 800-358-8128 • Farmington Hills 248-476-3200

					
002 Linen	102 Pearl Gray	105 Antique Ivory	108 Sun	111 Heather	112 Tuxedo Gray
					
130 Low Gloss White	138 Shell	140 Almond A/R	173 Olive Green	175 Pewter	177 Sandy Beige
					
200 Black	202 Royal Brown	204 Grecian Green	209 Scotch Red	214 Woodland Green	219 Almond Cream
					
223 Imperial Brown	224 Buckskin	238 Clay	250 Musket Brown	253 Light Bronze	255 Cypress
					
301 Dark Gray	325 Sandstone Beige	327 Desert Tan	339 Dark Bronze	355 Light Maple	360 Terratone
					
700 Galvalume 26 gauge	712 Wicker	713 Wicker	780 Coppertone	791 Norwood	793 Sand
					
794 Almond	810 Shale	817 Cream	819 Herringbone	820 Cranberry	821 Ivy Green
					
822 Pacific Blue	827 Champagne	841 Buckskin	900 Copper	901 Ivory	

Not Shown  
180 White

Please call for availability of colors and fixtures. These color samples are as close as possible to actual colors offered, within the limits of color chip reproduction.

	11.75" Coil	15" Coil	6" 1/2 Round	2 x 3 Downspout	3 x 4 Downspout	4 x 5 Downspout	3" & 4" Round Downspout	Smooth Trim Coil	PVC Trim Coil	Soffit Facia
002 Linen	•		•	•						
102 Pearl Gray	••	•	•	•	•	•	•	•		•
105 Antique Ivory	••	•	•	•	•	•				
108 Sun	•		•	•						
111 Heather	•		•	•	•			•		•
112 Tuxedo Gray	•	•	•	•	•			•		•
130 Low Gloss White	••	•	•	•	••	•	•	•	•	•
138 Shell	•		•	•	•			•		•
140 Almond A/R	••	•	•	•	•		•			
173 Olive Green	•		•	•						
175 Pewter	•		•	•						
177 Sandy Beige	•		•	•						
180 High Gloss White	•	•	•	•	•					
200 Black	••	•	•	•	•	•	•	•		•
202 Royal Brown	••	•	•	•	••	•	•	•	•	•
204 Grecian Green	••	•	•	•	•		•	•		•
209 Scotch Red	•	•	•	•	•					
214 Woodland Green	•		•	•				•		•
219 Almond Cream	••	•	•	•	•	•				
223 Imperial Brown	•		•	•				•		•
224 Buckskin	•	•	•	•	•					
238 Clay	••	•	•	•	••	•	•	•		•
250 Musket Brown	••	•	•	•	•	•	•	•		•
253 Light Bronze	••	•	•	•	•	•	•			
255 Cypress	•		•	•						
301 Dark Gray	•		•	•	•					
325 Sandstone Beige	•		•	•				•		•
327 Desert Tan	•		•	•				•		•
339 Dark Bronze	•	•	•	•	•	•	•	•		•
355 Light Maple	•		•	•				•		•
360 Terratone	•		•	•				•		•
700 Galvalume 26 gauge	•		•				•			
712 Wicker	••	•	•	•	•					
713 Wicker	••	•	•	•	•	•	•	•	•	•
780 Coppertone	••	•	•	•	•		•	•		
791 Norwood	••	•	•	•	•			•		•
793 Sand	•		•	•	•			•		•
794 Almond	•		•	•						
810 Shale	•		•	•				•		
817 Cream	•		•	•				•		•
819 Herringbone	••	•	•	•	•			•		•
820 Cranberry	•		•	•				•		•
821 Ivy Green	•		•	•				•		•
822 Pacific Blue	•		•	•				•		•
827 Champagne	•		•	•				•		
841 Buckskin	•		•	•				•		•
900 Copper	•	•	•	•	•		•			
901 Ivory	•		•	•				•		•

\*Some 4 x 5 and Round colors may vary slightly.

.027 x 11.75" is the standard size. •• colors are also available in .032 x 11.75".

•• colors for the 3x4 Downspout are also available in .024.

3151 10th St.  
PO Box 402  
Wayland, MI 49348  
269-792-0202  
FAX 269-792-0108



1-800-358-8128

24004 Haggerty Rd.  
Farmington Hills, MI 48335  
248-476-3200  
FAX 248-476-3244

03/13/2018

## BUDGET REPORT FOR GENOA TOWNSHIP

General Fund #101

Amended 2017-18

Approved 2018-19

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/13/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
ESTIMATED REVENUES									
101-000-403-000	CURRENT REAL PROP TAX/INTEREST	805,572	820,731	845,920	858,935	866,000	871,032	872,000	870,000
101-000-407-000	DELINQ TAX - PERSONAL & REAL	8,906	7,414	6,088	10,489				
101-000-423-000	COLLECT FEES/EXCESS OF ROLL	295,138	296,125	299,329	322,582	340,400	336,075	340,400	345,000
101-000-423-100	COLLECTION FEE - SCHOOLS	28,410	24,771	24,897	25,282				
101-000-423-200	SET FEES COLLECTED	218	188	195	195				
101-000-445-000	PENALTIES & INTEREST ON TAXES	138	128						
101-000-476-000	LICENSES & PERMITS	15,488							
101-000-476-100	LICENSE/PERMIT/CABLE FRANCHISE	336,385	371,686	399,976	412,994	420,000	408,082	420,000	425,000
101-000-477-000	METRO ACT REVENUE	11,212	9,579	9,579	17,697	13,000		13,000	13,000
101-000-477-001	LCSA-PPT REIMBURSEMENT				17,418		18,565	18,565	
101-000-480-000	TRAILER FEES	3,310	2,707	3,003	5,354	3,500	3,577	3,600	3,500
101-000-574-000	STATE SHARED REVENUE	1,477,501	1,571,139	1,575,600	1,590,988	1,650,000	1,700,046	1,700,000	1,700,000
101-000-608-000	CHARGES FOR SERV-APPL FEES	28,732	60,727	68,666	37,739	60,000	39,664	45,000	60,000
101-000-631-000	REFUSE COLLECTION FEES	762,623	767,616	782,652	802,947	844,000	822,210	844,000	850,000
101-000-664-000	INTEREST	7,083	6,671	9,444	3,928	10,000	4,274	5,000	10,000
101-000-676-000	ADMIN FEE/UTILITY-OPERATING	50,000	51,500	53,000	54,100	54,550	44,485	54,550	54,550
101-000-676-100	ADM FEE LIQUOR LAW	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
101-000-678-300	TAXES ON LAND TRANSFER	122,869	127,905	142,699	148,885	134,000	3,632	116,000	118,000
101-000-695-000	OTHER/CEMETERY/ SCHOOLS	10,888			1,762				
101-000-699-001	MISC/SCHOOL/CEMETERY/ELECTI	14,098	14,073	37,540	69,049	15,000	14,652	15,000	15,000
101-000-699-002	MMRMA REIMBURSEMENT				24,658		17,305	17,305	10,000
101-000-699-505	TRANSFER IN FROM SELCRA	1,862							
TOTAL ESTIMATED REVENUES		3,983,951	4,136,460	4,262,088	4,408,502	4,413,950	4,287,099	4,454,920	4,477,550

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/13/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
APPROPRIATIONS									
101-101-703-000	SALARIES/TRUSTEES	27,705	24,730	26,766	23,436	30,000	28,364	30,000	30,000
101-171-703-000	SALARIES/TWP SUPERVISOR	51,479	52,500	53,400	53,400	54,500	52,358	54,500	55,862
101-191-703-000	SALARIES/ELECTION	25,046	50,923	69,749	69,353	15,000	500	1,000	70,000
101-209-703-000	CONTRACTUAL SALARIES	337,860	338,842	357,790	348,382	378,000	340,928	378,000	387,450
101-210-801-000	PROF.CONTR./LEGAL	107,757	73,424	99,355	65,412	100,000	59,729	75,000	65,000
101-215-703-000	SALARIES/TWP CLERK	50,500	51,500	52,400	52,400	53,500	51,396	53,500	54,862
101-223-801-000	PROF. CONTR. AUDITOR	17,600	21,100	22,375	20,600	25,000	20,235	25,000	25,000
101-241-801-000	PROF.CONSULTING/ENG/PLANNING	42,272	11,454	21,998	22,246	50,000	17,242	30,000	50,000
101-247-703-000	BD OF REVIEW SALARIES	2,675	2,250	2,000	2,150	5,000	450	2,500	3,000
101-247-964-000	REFUNDS & CHARGEBACKS	15,682	6,336	4,090	2,028	10,000	697	2,500	10,000
101-253-703-000	SALARIES/TWP TREASURER	50,500	51,500	52,400	52,400	53,500	51,396	53,500	54,862
101-265-775-000	REPAIRS & MAINTENANCE	146,599	86,257	100,754	115,969	125,000	141,675	150,000	125,000
101-265-910-000	INSURANCE BC/BS & MCM	259,377	262,144	248,964	281,904	328,000	266,855	328,000	340,000
101-265-911-000	WELLNESS IQ REIMBURSE				519	10,000	3,842	4,500	10,000
101-265-920-000	UTIL:ELECTRICITY & NAT.GAS	22,719	20,126	20,314	18,624	22,000	18,411	22,000	22,000
101-284-703-000	SALARIES	308,655	313,275	260,546	281,503	296,000	301,811	315,000	323,000
101-284-704-000	RETIREMENT	95,298	92,938	87,850	83,953	110,000	80,266	110,000	115,000
101-284-715-000	EMPLOYER'S SHARE FICA	67,543	70,839	68,190	64,111	80,000	64,164	80,000	80,000
101-284-720-000	M.E.S.C.	61				20,000			20,000
101-284-727-000	PRINTG, POSTAGE, OFC SUPPLIES	86,219	92,671	83,863	79,333	95,000	55,937	65,000	95,000
101-284-728-000	ECONOMIC DEVELOPMENT	20,000	20,000	21,500	22,000	23,500	22,000	23,500	24,500
101-284-850-000	TELEPHONE	21,775	18,056	19,452	19,756	25,000	22,001	25,000	25,000
101-284-861-000	MILEAGE & TRAVEL EXPENSE	17,996	14,497	12,269	11,589	15,000	10,252	15,000	15,000
101-284-957-000	DUES	17,622	19,702	17,124	21,236	20,000	15,155	20,000	20,000
101-284-958-000	MEETING FEES & MISC. EXPENSES	13,194	17,941	20,944	31,428	25,000	12,324	15,000	25,000
101-284-958-001	692 RED OAKS DR				5,335				
101-284-959-000	APPL FEES EXPENSES	28,800	42,233	59,987	44,613	60,000	37,124	50,000	60,000



GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/13/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
101-284-959-001	PLANNING /ZBA SALARIES	29,754	30,016	31,437	28,545	32,000	24,318	28,000	32,000
101-301-703-000	SALARY/ORDINANCE/ ZONING ADMIN	44,105	50,165	68,572	81,725	88,000	74,060	88,000	90,200
101-336-999-001	FIRE SUB STATION EXPENSES-DORR	359		1,435					
101-441-801-010	ROAD IMPROVEMENT	194,572	224,361						
101-441-803-000	REFUSE MAINTENANCE	931,751	970,891	967,656	956,602	1,015,000	1,006,992	1,015,000	1,100,000
101-441-804-000	DUST CONTROL/CHLORIDE	55,621	55,861						
101-751-881-000	RECREATION	128,324	131,426						
101-916-962-000	DRAIN AT LARGE	24,908	25,912	30,055	28,421	30,000	32,459	32,459	30,000
101-929-977-000	CAPITAL OUTLAY	88,266	28,079	94,020	88,953	125,000	117,632	125,000	125,000
101-966-999-010	TRANS OUT FUTURE RD IMPR #261	250,000	250,000	426,000	150,000	250,000	500,000	500,000	500,000
101-966-999-013	ADV FOR ROAD PROJECTS #264	500,000	250,000	450,000	600,000	300,000	150,000	150,000	150,000
101-966-999-027	FUT DEV PARKS & REC.#270	250,000	350,000	592,500	300,000	300,000	500,000	500,000	500,000
101-966-999-028	TRANS TO RESERVE BLDG/GRD #271	200,000		75,000	20,000	50,000	50,000	50,000	50,000
101-966-999-110	CONTINGENCIES					50,000			50,000
TOTAL APPROPRIATIONS		4,532,594	4,121,949	4,520,755	4,047,926	4,269,000	4,130,573	4,416,959	4,732,874
NET OF REVENUES/APPROPRIATIONS - FUND 101		(548,643)	14,511	(258,667)	360,576	144,950	156,526	37,961	(255,324)
BEGINNING FUND BALANCE		2,562,403	2,013,761	2,028,270	1,777,795	2,138,369	2,138,369	2,138,369	2,176,330
FUND BALANCE ADJUSTMENTS				8,190					
ENDING FUND BALANCE		2,013,760	2,028,272	1,777,793	2,138,371	2,283,319	2,294,895	2,176,330	1,921,006

03/12/2018

BUDGET REPORT FOR GENOA TOWNSHIP

Liquor Law fund #212

Amended 2017-18

Approved 2018-19

GL NUMBER

DESCRIPTION

2013-14  
ACTIVITY

2014-15  
ACTIVITY

2015-16  
ACTIVITY

2016-17  
ACTIVITY

2017-18  
ORIGINAL  
BUDGET

2017-18  
ACTIVITY  
03/12/2018

2017-18  
AMENDED  
BUDGET

2018-19  
REQUESTED  
BUDGET

ESTIMATED REVENUES

212-000-570-000

STATE SHARED REV LIQUOR LAW

12,328

13,034

13,660

13,833

13,900

14,942

15,000

15,500

TOTAL ESTIMATED REVENUES

12,328

13,034

13,660

13,833

13,900

14,942

15,000

15,500

APPROPRIATIONS

212-000-956-000

MISC EXPENSE

200

212-330-702-000

LIQUOR LAW ENF WAGES

8,240

8,240

8,240

8,240

8,240

6,180

8,240

8,240

212-330-704-000

RETIREMENT

824

824

824

824

824

618

824

824

212-330-715-000

EMPLOYER'S SHARE FICA

700

700

640

640

640

473

640

640

212-330-716-000

LIQUOR LAW ADM FEE/GENOA TWP.

3,500

3,500

3,500

3,500

3,500

2,625

3,500

3,500

212-330-717-000

AUDITING EXPENSE

300

300

200

200

200

200

TOTAL APPROPRIATIONS

13,564

13,564

13,404

13,404

13,404

9,896

13,404

13,404

NET OF REVENUES/APPROPRIATIONS - FUND 212

(1,236)

(530)

256

429

496

5,046

1,596

2,096

BEGINNING FUND BALANCE

2,180

944

415

671

1,100

1,100

1,100

2,696

ENDING FUND BALANCE

944

414

671

1,100

1,596

6,146

2,696

4,792

03/12/2018

## BUDGET REPORT FOR GENOA TOWNSHIP

Future Roads Fund 261

Amended 2017-18

Approved 2018-19

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/12/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
<b>ESTIMATED REVENUES</b>									
261-000-664-000	INTEREST	520	801	612	130	800	1,360	1,450	800
261-000-674-000	NEW ACCOUNT	139,416							
261-000-699-000	OPERATING TRANSFER IN	250,000	250,000	426,000	150,000	250,000	500,000	500,000	500,000
261-000-699-264	TRANS IN FROM 264				500,000			51,281	
<b>TOTAL ESTIMATED REVENUES</b>		<b>389,936</b>	<b>250,801</b>	<b>426,612</b>	<b>650,131</b>	<b>250,800</b>	<b>501,360</b>	<b>552,731</b>	<b>500,800</b>
<b>APPROPRIATIONS</b>									
261-330-717-000	MISC ROADS-CRACK SEAL								20,000
261-441-804-000	DUST CONTROL			59,209	56,790	60,000	70,484	70,000	70,000
261-470-802-000	NORTH SHORE ROAD IMPROVEMENT			14,000					
261-471-803-000	GRAND OAKS ROAD IMPROVEMENT				200,000				
261-472-804-000	GOLF CLUB			33,116					
261-473-805-000	MCCLEMENTS			14,268					
261-477-809-000	TRI LAKES			136,999	11,714				
261-477-810-000	SUNDANCE TRAIL				30,000				
261-477-811-000	HUGHES ROAD				44,434				200,000
261-477-813-000	WILDWOOD DRIVE				7,798				
261-477-817-000	LATSON ROAD SIGNAL					150,000			150,000
261-477-818-000	HACKER AND LAWSON					130,000	120,372	130,000	
261-477-819-000	TIMBERVIEW					48,000	49,000	49,000	
261-477-820-000	OAK POINTE HONORS					48,000	44,000	44,000	
261-906-956-000	MISC EXPENSE/AUDIT	719	1,985	624	180	2,000	486	2,000	
261-906-968-001	COON LAKE OVERLAY	283,764							
261-966-999-264	TRANS OUT TO 264				500,000				
<b>TOTAL APPROPRIATIONS</b>		<b>284,483</b>	<b>1,985</b>	<b>258,216</b>	<b>850,916</b>	<b>438,000</b>	<b>284,342</b>	<b>295,000</b>	<b>440,000</b>
<b>NET OF REVENUES/APPROPRIATIONS - FUND 261</b>		<b>105,453</b>	<b>248,816</b>	<b>168,396</b>	<b>(200,785)</b>	<b>(187,200)</b>	<b>217,018</b>	<b>257,731</b>	<b>60,800</b>
<b>BEGINNING FUND BALANCE</b>		<b>833,822</b>	<b>939,276</b>	<b>1,188,092</b>	<b>1,356,488</b>	<b>1,155,703</b>	<b>1,155,703</b>	<b>1,155,703</b>	<b>1,413,434</b>
<b>ENDING FUND BALANCE</b>		<b>939,275</b>	<b>1,188,092</b>	<b>1,356,488</b>	<b>1,155,703</b>	<b>968,503</b>	<b>1,372,721</b>	<b>1,413,434</b>	<b>1,474,234</b>

03/13/2018

## BUDGET REPORT FOR GENOA TOWNSHIP

Roads &amp; Lakes SAD's Fund 264

Amended 2017-18

Approved 2018-19

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/13/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
ESTIMATED REVENUES									
264-000-665-000	INTEREST	918	811	1,121	680	1,000	1,352	1,500	1,500
264-000-699-101	TRANSFER IN - FUND # 101	500,000	250,000	450,000	600,000	300,000	150,000	150,000	150,000
264-000-699-261	TRANSFER IN- FUND 261				500,000				
264-448-450-000	SAD PRINCIPAL - WHITE PINES LIGHTS	758	891	848	705	800	767	779	800
264-451-695-000	PROFESSIONAL FEES	(2,000)	(2,000)						
264-470-450-000	SAD PRINCIPAL - FENDT DRIVE W-22				(915)				48,040
264-470-678-000	NORTH SHORE ROAD IMPROVE SAD			11,897					
264-470-682-000	NORTH SHORE RDS ASSOCIATION			11,898					
264-471-450-000	SAD PRINCIPAL - GRAND OAKS-W-20				138,037	138,000	137,687	138,000	125,000
264-471-671-000	OTHER INCOME-GRAND OAKS- LCRC						157,793	157,793	
264-472-450-000	SAD PRINCIPAL - RED OAKS-W-22	69,149	69,143	59,762	59,268	56,000	48,131	50,000	56,600
264-473-450-000	SAD PRINCIPAL - GLENWAY DRIVE	17,861	15,628	15,628	15,628				
264-474-450-000	SAD PRINCIPAL - SUNRISE PARK-S-20				135,947	128,000	126,445	126,500	124,902
264-475-688-000	SAD PRINCIPAL GRAND BEACH-W-20				9,336	10,000	9,189	9,336	9,336
264-476-450-000	SAD PRINCIPAL - TIMBERVIEW-W-22						45,609	46,000	42,167
264-476-699-261	TRANSFER IN # 261 - TIMBERVIEW						49,000	49,000	
264-477-450-000	SAD PRINCIPAL - SUNDANCE TR-W-21				37,020	36,000	26,809	27,322	23,304
264-477-687-000	OP HONORS-SAD				178,000				
264-478-450-000	SAD PRINCIPAL- HOMESTEAD TR-W-20				38,333	39,000	37,171	37,171	35,429
264-479-450-000	SAD PRINCIPAL- E COON LAKE RD-S-21				26,961	19,000	18,382	19,607	19,607
264-480-450-000	SAD PRINCIPAL - OAK POINTE HONORS					30,000			
264-480-699-261	TRANSFER IN # 261 - OAK POINTE HONORS						44,000	44,000	
264-482-450-000	SAD PRINCIPAL - HILLENDALE-S-20								7,535
264-570-450-000	SAD PRINCIPAL - LAKE CHEMUNG-W21	58,649	54,395	54,196	53,349	54,000	113,483	116,818	68,325
264-571-450-000	SAD PRINCIPAL - PARDEE LAKE-W-20	24,055	24,055	24,054	26,000	25,000	22,977	23,000	25,000
264-573-450-000	SAD PRINCIPAL- E/W CROOKED LK S-18	21,272	21,136	20,419	19,434	18,500	18,937	19,000	18,500
TOTAL ESTIMATED REVENUES		690,662	434,059	649,823	1,837,783	855,300	1,007,732	1,015,826	756,045

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET	2017-18 ACTIVITY 03/13/2018	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
APPROPRIATIONS									
264-448-801-000	PROJECT COSTS - WHITE PINES LIGHTS	700	824	661	841		767	800	800
264-470-801-000	PROJECT COSTS - FENDT DRIVE W-22								242,000
264-470-802-000	PROJECT COSTS-FENDT DRIVE			22,197					
264-471-801-000	PROJECT COSTS - GRAND OAKS			1,980	619,730				
264-472-801-000	PROJECT COSTS - RED OAKS	740,703					7,110	7,110	
264-474-801-000	PROJECT COSTS - SUNRISE PARK			4,415	535,114				
264-475-801-000	PROJECT COSTS - MOUNTAIN/MYSTIC/MILROY				508	800			
264-476-801-000	PROJECT COSTS - TIMBERVIEW		6,170			255,000	265,698	265,698	
264-477-801-000	PROJECT COSTS - SUNDANCE TRAIL			1,700	155,742				
264-477-815-001	OAK POINTE HONORS ASSOCIATION					30,000			
264-477-816-000	PINE RIDGE PAVING-EXPENSES				1,007				
264-478-801-000	PROJECT COSTS - HOMESTEAD TRAIL			1,320	177,880				
264-479-801-000	PROJECT COSTS - E COON LAKE ROAD				124,405				
264-480-801-000	PROJECT COSTS - OAK POINTE HONORS				660	179,000	217,645	217,645	
264-482-801-000	PROJECT COSTS - HILLENDALE						1,519	1,600	21,000
264-570-801-000	PROJECT COSTS - LAKE CHEMUNG	48,222	43,728	52,169	57,672	55,000	27,719	30,000	60,000
264-571-801-000	PROJECT COSTS - PARDEE LAKE	25,095	30,071	21,456	24,866	30,000	21,952	30,000	30,000
264-572-801-000	PROJECT COSTS - GRAND BEACH WEEDS				1,080	10,000	9,230	9,336	10,000
264-573-801-000	PROJECT COSTS - E/W CROOKED LAKE WEEE	47,226	8,906	12,851	10,920	50,000	19,919	25,000	50,000
264-574-801-000	PROJECT COSTS - ROUND LAKE						1,619	1,619	
264-906-956-000	MISC EXPENSE	638	599	729	3,529	3,000	8,110	10,000	3,500
264-966-999-261	TRANS OUT TO FUND #261				500,000				
TOTAL APPROPRIATIONS		862,584	90,298	119,478	2,213,954	612,800	581,288	598,808	417,300
NET OF REVENUES/APPROPRIATIONS - FUND 264		(171,922)	343,761	530,345	(376,171)	242,500	426,444	417,018	338,745
BEGINNING FUND BALANCE		816,648	644,725	988,487	1,518,832	1,142,661	1,142,661	1,142,661	1,559,679
ENDING FUND BALANCE		644,726	988,486	1,518,832	1,142,661	1,385,161	1,569,105	1,559,679	1,898,424

03/13/2018

## BUDGET REPORT FOR GENOA TOWNSHIP

Parks &amp; Recreation Fund 270

Amended 2017-18

Approved 2018-19

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET THRU 03/31/18	2017-18 ACTIVITY	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
<b>ESTIMATED REVENUES</b>									
270-000-664-000	INTEREST	1,219	1,862	1,276	1,429	2,000	765	1,000	1,500
270-000-680-000	RENTAL INCOME	12,750	10,450	11,400	11,450	11,750	11,000	11,750	11,750
270-000-699-000	OPERATING TRANSFER IN #101	250,000	350,000	592,500	300,000	300,000	500,000	500,000	500,000
270-000-699-001	MISC REVENUE-OTHER					500			
<b>TOTAL ESTIMATED REVENUES</b>		<b>263,969</b>	<b>362,312</b>	<b>605,176</b>	<b>312,879</b>	<b>314,250</b>	<b>511,765</b>	<b>512,750</b>	<b>513,250</b>
<b>APPROPRIATIONS</b>									
270-241-801-000	ATTORNEY/ENGINEERING		19,226	24,921	32,690	35,000	240	240	
270-241-802-000	ENGINEERING		25,063						
270-265-775-000	MAINTENANCE		50,683	51,883	61,556	75,000	100,461	110,000	100,000
270-265-920-000	UTILITIES			479		1,000			
270-330-694-002	RENTAL HOUSE EXPENSE		1,391			2,000		500	1,500
270-330-695-002	MISC EXPENSE/AUDIT	800	500	368	1,291	1,500	529	1,000	1,500
270-330-696-002	GENOA TWP ATHLETIC FIELD	91,569	17,000						
270-330-697-002	RECREATION BIKE PATH	1,573	168,258	134,224	408,373		1,845	2,000	400,000
270-330-701-000	HOWELL PARKS AND REC			177,283	103,225	115,000	103,806	104,000	105,000
270-536-972-100	LAND FOR RECREATION					200,000			200,000
270-536-972-200	I-96 INTERCHANGE WALK	391,232							
<b>TOTAL APPROPRIATIONS</b>		<b>485,174</b>	<b>282,121</b>	<b>389,158</b>	<b>607,135</b>	<b>429,500</b>	<b>206,881</b>	<b>217,740</b>	<b>808,000</b>
<b>NET OF REVENUES/APPROPRIATIONS - FUND 270</b>		<b>(221,205)</b>	<b>80,191</b>	<b>216,018</b>	<b>(294,256)</b>	<b>(115,250)</b>	<b>304,884</b>	<b>295,010</b>	<b>(294,750)</b>
BEGINNING FUND BALANCE		718,042	496,837	577,027	793,045	498,789	498,789	498,789	793,799
ENDING FUND BALANCE		496,837	577,028	793,045	498,789	383,539	803,673	793,799	499,049

03/13/2018

BUDGET REPORT FOR GENOA TOWNSHIP

Buildings & Grounds Fund 271

Amended 2017-18

approved 2018-19

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 ORIGINAL BUDGET 'HRU 03/31/18	2017-18 ACTIVITY	2017-18 AMENDED BUDGET	2018-19 REQUESTED BUDGET
<b>ESTIMATED REVENUES</b>									
271-000-664-000	INTEREST	275	84	77	132	300	279	300	300
271-000-699-000	OPERATING TRANSFER IN #101	200,000		75,000	20,000	50,000	50,000	50,000	50,000
<b>TOTAL ESTIMATED REVENUES</b>		<b>200,275</b>	<b>84</b>	<b>75,077</b>	<b>20,132</b>	<b>50,300</b>	<b>50,279</b>	<b>50,300</b>	<b>50,300</b>
<b>APPROPRIATIONS</b>									
271-906-956-000	MISC EXPENSE	31			465	1,000		500	500
271-906-957-000	CEMETERY PURCHASE				40,440				
271-906-958-000	CEMETERY MAINTENANCE						5,500	5,500	6,000
271-929-977-000	CAPITAL OUTLAY/PAVEMENT/PARKIN	118,622	10,882	174,286		2,000			10,000
<b>TOTAL APPROPRIATIONS</b>		<b>118,653</b>	<b>10,882</b>	<b>174,286</b>	<b>40,905</b>	<b>3,000</b>	<b>5,500</b>	<b>6,000</b>	<b>16,500</b>
<b>NET OF REVENUES/APPROPRIATIONS - FUND 271</b>		<b>81,622</b>	<b>(10,798)</b>	<b>(99,209)</b>	<b>(20,773)</b>	<b>47,300</b>	<b>44,779</b>	<b>44,300</b>	<b>33,800</b>
<b>BEGINNING FUND BALANCE</b>		<b>200,921</b>	<b>282,543</b>	<b>271,745</b>	<b>172,537</b>	<b>151,763</b>	<b>151,763</b>	<b>151,763</b>	<b>196,542</b>
<b>ENDING FUND BALANCE</b>		<b>282,543</b>	<b>271,745</b>	<b>172,536</b>	<b>151,764</b>	<b>199,063</b>	<b>196,542</b>	<b>196,063</b>	<b>230,342</b>

**OAK POINTE SEWER BOND PAYMENT FUND #852**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 458,358	\$ 458,405	\$ 391,850
<b>REVENUES</b>			
Quarterly Utility Billing from O.P. Operating	\$ 415,000	\$ 313,450	\$ 312,000
INCOME - OTHER	\$ -	\$ -	\$ -
INTEREST INCOME	\$ 800	\$ 1,190	\$ 1,200
DUE FROM OP OPERATING		\$ -	\$ -
<b>TOTAL REVENUE</b>	<b>\$ 415,800</b>	<b>\$ 314,640</b>	<b>\$ 313,200</b>
<b>EXPENSES</b>			
BOND PAYMENTS	\$ 388,776	\$ 380,725	\$ 386,825
AUDITING/MISC.	\$ 500	\$ 500	\$ 500
<b>TOTAL EXPENSES</b>	<b>\$ 389,276</b>	<b>\$ 381,225</b>	<b>\$ 387,325</b>
<b>ENDING FUND BALANCE</b>	<b>\$ 484,882</b>	<b>\$ 391,820</b>	<b>\$ 317,725</b>

**LK EDGEWOOD WATER EXTENSION #857**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 50,707	\$ 50,706	\$ 27,163
<b>REVENUES</b>			
ASSESSMENTS/TAX LEVY	\$ -	\$ -	\$ -
TAX LEVY - DELINQUENT FR COUNTY	\$ -	\$ -	\$ -
ASSESSMENTS/PAYOFFS	\$ -	\$ -	\$ -
INCOME - OTHER	\$ -	\$ -	\$ -
INTEREST INCOME	\$ -	\$ -	\$ -
<b>TOTAL REVENUE</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>EXPENSES</b>			
BOND PAYMENTS	\$ -	\$ 28,863	\$ -
AUDITING/MISC.	\$ -	\$ 80	\$ 100
TRANSFER OUT - DISTRICT COMPLETE	\$ 50,707	\$ -	\$ 27,063
<b>TOTAL EXPENSES</b>	<b>\$ 50,707</b>	<b>\$ 28,943</b>	<b>\$ 27,163</b>
<b>ENDING FUND BALANCE</b>	<b>\$ -</b>	<b>\$ 21,763</b>	<b>\$ -</b>

**GRAND OAKS WATER #858**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 125,417	\$ 125,417	\$ 118,338
<b>REVENUES</b>			
ASSESSMENTS/TAX LEVY	\$ 19,768	\$ 18,987	\$ 18,240
TAX LEVY - DELINQUENT FR COUNTY	\$ 748	\$ 748	\$ 781
ASSESSMENTS/PAYOFFS	\$ -	\$ 475	\$ -
INCOME - OTHER	\$ -	\$ -	\$ -
INTEREST INCOME	\$ 200	\$ 186	\$ 200
<b>TOTAL REVENUE</b>	<b>\$ 20,716</b>	<b>\$ 20,396</b>	<b>\$ 19,221</b>
<b>EXPENSES</b>			
BOND PAYMENTS	\$ 27,125	\$ 27,125	\$ 30,750
AUDITING/MISC.	\$ 500	\$ 350	\$ 500
<b>TOTAL EXPENSES</b>	<b>\$ 27,625</b>	<b>\$ 27,475</b>	<b>\$ 31,250</b>
<b>ENDING FUND BALANCE</b>	<b>\$ 118,508</b>	<b>\$ 118,338</b>	<b>\$ 106,309</b>



**DORR RD SEWER & WATER #859**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 41,268	\$ 40,519	\$ 25,496
REVENUES			
ASSESSMENTS/TAX LEVY	\$ 26,018	\$ 23,616	\$ 24,794
TAX LEVY - DELINQUENT FR COUNTY	\$ 839	\$ 838	\$ 2,401
ASSESSMENTS/PAYOFFS	\$ -	\$ -	\$ -
INCOME - OTHER TRANS IN FR CAP IMP	\$ -	\$ 10,000	\$ 20,000
INTEREST INCOME	\$ 10	\$ 3	\$ -
TOTAL REVENUE	\$ 26,867	\$ 34,457	\$ 47,195
EXPENSES			
BOND PAYMENTS	\$ 49,480	\$ 49,480	\$ 47,500
AUDITING/MISC.	\$ 750	\$ -	\$ 250
TOTAL EXPENSES	\$ 50,230	\$ 49,480	\$ 47,750
ENDING FUND BALANCE	\$ 17,905	\$ 25,496	\$ 24,941

**GRAND RIVER WIDENING #870**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 77,312	\$ 77,389	\$ 66,409
REVENUES			
ASSESSMENTS/TAX LEVY	\$ 67,636	\$ 67,205	\$ 60,955
TAX LEVY - DELINQUENT FR COUNTY	\$ 1,635	\$ 1,635	\$ 2,355
ASSESSMENTS/PAYOFFS	\$ -	\$ 5,081	\$ -
INTEREST INCOME	\$ 10	\$ 4	\$ 10
TOTAL REVENUE	\$ 69,008	\$ 73,925	\$ 63,320
EXPENSES			
BOND PAYMENTS	\$ 84,375	\$ 84,375	\$ 80,625
AUDITING/MISC.	\$ 1,300	\$ 530	\$ 600
TOTAL EXPENSES	\$ 85,675	\$ 84,905	\$ 81,225
ENDING FUND BALANCE	\$ 60,645	\$ 66,409	\$ 48,504

**LK EDGEWOOD WEST WATER #872**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 376,259	\$ 376,662	\$ 328,424
REVENUES			
ASSESSMENTS/TAX LEVY	\$ 156,074	\$ 143,971	\$ 148,929
TAX LEVY - DELINQUENT FR COUNTY	\$ 8,528	\$ 8,528	\$ 5,144
ASSESSMENTS/PAYOFFS	\$ -	\$ 3,039	\$ -
INCOME - OTHER	\$ -	\$ -	\$ -
INTEREST INCOME	\$ 275	\$ 192	\$ 200
TOTAL REVENUE	\$ 164,877	\$ 155,730	\$ 154,273
EXPENSES			
BOND PAYMENTS	\$ 203,618	\$ 203,618	\$ 194,013
AUDITING/MISC.	\$ 425	\$ 350	\$ 500
TOTAL EXPENSES	\$ 204,043	\$ 203,968	\$ 194,513
ENDING FUND BALANCE	\$ 337,093	\$ 328,424	\$ 288,184

**LK EDGEWOOD WEST SEWER #873**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ 464,727	\$ 464,760	\$ 354,739
<b>REVENUES</b>			
ASSESSMENTS/TAX LEVY	\$ 226,210	\$ 197,997	\$ 222,963
TAX LEVY - DELINQUENT FR COUNTY	\$ 10,978	\$ 10,978	\$ 9,000
ASSESSMENTS/PAYOFFS	\$ -	\$ 3,419	\$ -
INTEREST INCOME	\$ 550	\$ 363	\$ -
<b>TOTAL REVENUE</b>	<b>\$ 237,738</b>	<b>\$ 212,757</b>	<b>\$ 231,963</b>
<b>EXPENSES</b>			
BOND PAYMENTS	\$ 318,331	\$ 318,331	\$ 303,096
AUDITING/MISC.	\$ 350	\$ 447	\$ 450
<b>TOTAL EXPENSES</b>	<b>\$ 318,681</b>	<b>\$ 318,778</b>	<b>\$ 303,546</b>
<b>ENDING FUND BALANCE</b>	<b>\$ 383,784</b>	<b>\$ 358,739</b>	<b>\$ 283,156</b>

**MHOG PLANT EXPANSION #875**

DESCRIPTION	APPROVED BUDGET FISCAL YEAR END 3/31/2018	YTD ACTUAL 3/12/2018	PROPOSED BUDGET FISCAL YEAR END 3/31/2019
BEGINNING FUND BALANCE	\$ -	\$ 298	\$ -
<b>REVENUES</b>			
INCOME - OTHER TRANS IN FR CAP IMP	\$ -	\$ -	\$ -
INTEREST INCOME	\$ -	\$ -	\$ -
<b>TOTAL REVENUE</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>EXPENSES</b>			
BOND PAYMENTS	\$ -	\$ -	\$ -
AUDITING/MISC.	\$ -	\$ -	\$ -
DISTRICT COMPLETE - TRANSFER OUT	\$ -	\$ 298	\$ -
<b>TOTAL EXPENSES</b>	<b>\$ -</b>	<b>\$ 298</b>	<b>\$ -</b>
<b>ENDING FUND BALANCE</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

## MEMORANDUM

To: Genoa Township Board

From: Robin L. Hunt, Genoa Township Treasurer

Date: March 14, 2018

RE: Depository Resolution Update

Please find attached for your consideration an update to the Genoa Township Depository Resolution.

I have highlighted in Red any changes/updates for your consideration. The bank names that have a strikethrough are strictly housekeeping to keep up on name changes that have occurred over the years. I am also requesting your approval to add some additional banks/credit unions, listed in red, to our approved list for use of Township Funds.

Thank you for your consideration. Please let me know if you have any questions.

## Depository Resolution

**WHEREAS**, Public Act 77 of 1989, MCL 41.77 requires that the Township Board designate the depositories for money belonging to the Township,

**BE IT FURTHER RESOLVED**, that the Genoa Township Board approved the following financial institutions as depositories of Township Funds:

Bank of America  
~~Bank One~~  
~~Michigan Commerce Bank~~ **Chemical Bank**  
~~Charter One~~ **Citizens Bank**  
Chase Bank  
~~Citizens Bank~~ **Huntington Bank**  
Comerica Bank  
Fifth Third Bank  
**Financial Plus Federal Credit Union**  
First National Bank of Howell  
Flagstar Bank  
Key Bank  
**Lake Trust Credit Union**  
Level One Bank  
~~Livingston Community Bank~~ **The State Bank**  
**LOC Credit Union**  
Michigan Class/MBIA  
**Old National Bank**  
PNC Bank  
TCF Bank

**BE IT FURTHER RESOLVED**, that the Treasurer may continue to use these institutions and the subsequent successor if any experience name changes due to acquisition or merger.



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

## MEMORANDUM

**TO:** Honorable Board of Trustees

**FROM:** Kelly VanMarter, Assistant Township Manager/Community Development Director

**DATE:** March 15, 2018

**RE:** Aldi Food Market Addition

**MANAGER'S REVIEW:**   
\_\_\_\_\_

Attached please find the project case file regarding a building addition and parking lot expansion for the Aldi Food Market located at 2260 E. Grand River Avenue, Howell. The applicant requests approval for a 2,254 square foot addition along the east side of the existing grocery store. Minor modifications of the existing parking area as well as an additional 24 parking spaces are proposed.

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 March 12, 2018 meeting. At the meeting, the Commission approved the site plan and recommended Board approval of the Impact Assessment.

The applicant and their design team are commended for the excellent plan preparation and cooperation throughout the approval process. Both Township consultants remarked on the excellent response to comments and flawless plan design. In this regard, please consider the following action:

**Moved by \_\_\_\_\_, Supported by \_\_\_\_\_ to approve the Environmental Impact Assessment dated February 25, 2018 as submitted.**

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

### **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



**GENOA CHARTER TOWNSHIP**  
**Application for Site Plan Review**

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

APPLICANT NAME & ADDRESS: ALDI Inc. 2625 N. Stockbridge Road Webberville, MI 48892  
*If applicant is not the owner, a letter of Authorization from Property Owner is needed.*

OWNER'S NAME & ADDRESS: ALDI Inc. 2625 N. Stockbridge Road Webberville, MI 48892

SITE ADDRESS: 2260 E. Grand River PARCEL #(s): 4711-06-100-044

APPLICANT PHONE: ( 517 ) 521-3907 OWNER PHONE: ( 517 ) 521-3907

OWNER EMAIL: sam.glennen@aldi.us

LOCATION AND BRIEF DESCRIPTION OF SITE: Southwest corner of Grand River and Golf Club Road intersection. Site contains an existing ALDI Food Market, parking area and associated infrastructure.

BRIEF STATEMENT OF PROPOSED USE: Continue existing use as an ALDI Food Market.

THE FOLLOWING BUILDINGS ARE PROPOSED: +/- 2,254 SF addition to east side of existing building.

**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: Sam Glennen, Director of Real Estate, ALDI Inc.


ADDRESS: 2625 N. Stockbridge Road Webberville, MI 48892

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

1.) Chris Grzenkowicz of DESINE Inc. at chrisg@desineinc.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: 1-17-18  
PRINT NAME: Sam Glennen PHONE: (517) 521-3907  
ADDRESS: 2625 N. Stockbridge Road Webberville, MI 48892

The Call to the Public was made at 7:59 pm.

Mr. Kathy Termors is one of the owners of Kolt Jewelers. She would like this project to be approved. This center needs more tenants.

Robert Huffman stated that he and his wife own BC Comix and Games. He would like this project to be approved.

The call to the public was closed at 8:01 pm.

**Moved** by Commissioner Grajek, seconded by Commissioner Mortensen, to table the request for a special use, site plan, and environmental impact assessment for a proposed commercial outdoor display, sales, and storage area for a new Family Farm and Home store located at 3685 E. Grand River Avenue, Howell 48843 until the April 9, 2018 meeting with the intention the petitioner will satisfactorily address the items discussed this evening.

#### NEW BUSINESS

#### **OPEN PUBLIC HEARING #2... Review of site plan and environmental impact assessment for a proposed 2,254 sq. ft. addition to the existing ALDI Food Market located at 2260 E. Grand River Ave., Howell. The request is petitioned by ALDI Inc.**

Planning Commission Recommendation of Petition:

- A. Recommendation of Environmental Impact Assessment (2-23-18)
- B. Disposition of Site Plan (2-21-18)

Mr. Christopher Grzenkowicz with Desine Inc. and Mr. Sam Glennen of Aldi were present. Mr. Grzenkowicz provided a review of their proposed project. They would like to completely remodel the inside of the store and add an approximate 2,254 square foot addition to the east of the building. They will also be adding additional parking spaces, resurfacing the entire parking lot, replacing the parking lot lighting with LED lights, replacing and adding additional landscaping, and replacing the existing monument sign. They are requesting side and rear parking setback waivers for six of their spaces. He showed colored renderings and a site plan.

They will also need approval for the increase of parking spaces. Aldi's corporate standard for parking is 75 spaces at a minimum and 95 as a requirement. Mr. Borden stated the maximum allowed by ordinance is 91 spaces. The Planning Commission will need to approve the additional four spaces.

Mr. Borden reviewed his letter of February 28, 2018. The applicant has met all of the requirements of the ordinance. The only outstanding issues are Planning Commission discretionary items. As Mr. Grzenkowicz stated, the Planning Commission must approve the waiver of the side and rear parking setbacks, the approval of the four additional parking spaces, and the building elevations, materials, and colors.

Mr. Markstrom stated the applicant has addressed all of their concerns.

The call to the public was made at 8:25 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commission Rauch to recommend to the Township Board the Environmental Impact Assessment dated February 23, 2018 for a 2,254 sq.



ft. addition to the existing ALDI Food Market located at 2260 E. Grand River Ave., Howell. **The motion carried unanimously**

**Moved** by Commissioner Mortensen, seconded by Commissioner Grajek, to approve the Site Plan for the expansion of Aldi Food Market dated February 21, 2018 for a 2,254 sq. ft. addition to the existing ALDI Food Market located at 2260 E. Grand River Ave., Howell. with the following provisions:

- Approval of the 24 additional parking spaces, bringing the parking count to 95, although more than 125% of the ordinance standards by four spaces is approved because Aldi's had demonstrated their experience requires that amount of parking.
- Six of the proposed parking spaces are within a side and rear parking setback, but is approved by the PC since they are within an easement permitting such use.
- The building materials and renders are approved by the planning Commission and will become property of the Township.

**The motion carried unanimously.**

**OPEN PUBLIC HEARING # 3... Review of site plan amendment to add 4 additional apartment units and relocate the fitness center for Lakeshore Village Apartments located at 2812 Ontario Ct., Howell. The request is petitioned by Coponen Architects.**

Planning Commission Disposition of Petition:  
A. Disposition of Site Plan (2-22-18)

Mr. Walter Coponen of Coponen Architects was present. They would like to add four additional apartments to the plan that was approved previously. They are experiencing a need for one-bedroom apartments. He submitted a site plan showing the additional units and sidewalk.

Mr. Borden requested that the applicant confirm that no changes to the originally-approved plan are being proposed. Mr. Coponen stated there are no changes to the original approval besides the addition of the four units and the sidewalk.

Mr. Markstrom has no outstanding items. The increase in the units will not have an impact on the property's utility usage.

The call to the public was made at 8:41 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Rauch, to approve the Site Plan dated February 23, 2018 with an amendment reviewed by the Planning Commission which adds a sidewalk to the February 23rd, plan to add four additional apartment units and relocate the fitness center for Lakeshore Village Apartments located at 2812 Ontario Ct. Howell.

- The applicant has confirmed that no changes have been made to the originally-approved plans, including (see Brian's letter)
- Approval of the missing landscape sheet provided this evening for review by Township Staff.

**The motion carried unanimously.**

February 28, 2018

Planning Commission  
Genoa Township  
2911 Dorr Road  
Brighton, Michigan 48116

<b>Attention:</b>	Kelly Van Marter, AICP Planning Director and Assistant Township Manager
<b>Subject:</b>	Aldi Food Market – Site Plan Review #2
<b>Location:</b>	2260 E. Grand River Avenue - south side of Grand River, west of Chilson Road
<b>Zoning:</b>	GCD General Commercial District

Dear Commissioners:

At the Township’s request, we have reviewed the revised site plan (cover sheet dated 2/21/18) proposing an expansion of the existing Aldi Food Market at 2260 E. Grand River Avenue.

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

**A. Summary**

1. Planning Commission has the discretion to waive the side and rear parking setback where a shared access/parking easement is provided – 6 of the proposed spaces are within such an easement.
2. Planning Commission has approval authority over the building elevations, including materials and colors.
3. Planning Commission approval is needed for the amount of parking proposed (125% of the minimum Ordinance standard). The applicant notes that the 4 additional spaces are needed to meet a corporate requirement.

**B. Proposal**

The applicant requests site plan review and approval for a 2,254 square foot addition to the existing 16,657 square foot grocery store.

Retail establishments with up to 30,000 square feet of gross floor area are permitted by right in the GCD. As such, the project requires site plan review/approval given that the size of the expansion (approximately 13%) exceeds the threshold for a “minor” deviation from an approved plan.



*Aerial view of site and surroundings (looking north)*

**C. Site Plan Review**

**1. Dimensional Requirements.** The proposal has been reviewed for compliance with the dimensional standards of the GCD, as follows:

District	Lot Size		Minimum Setbacks (feet)				Max. Height	Lot Coverage
	Lot Area (acres)	Width (feet)	Front Yard	Side Yard	Rear Yard	Parking		
GCD	1	150	70	15	50	20 front 10 side/rear	35' 2 stories	35% building 75% impervious
Proposal	2.66	358	91.2	15.4 (W) 135 (E)	57.6	4-29 front 10 side/rear*	24.5' 1 story	16.3% building 61.8% impervious

\* The majority of the existing and proposed parking meets the side/rear setback standard; however, there are 6 spaces proposed at the rear of the site that cross over the property line. This area is noted as being covered by an easement for “parking, landscaping and public utilities.” As such, Section 14.06.11 gives the Planning Commission discretion to waive or modify the parking setback requirement.

With the exception of the east side yard, the building and parking setbacks noted are existing conditions. The reduced parking front setback was allowed as part of the original development in 2008 via variance from the ZBA.

**2. Building Materials and Design.** The proposed elevations, including colors and materials, are subject to review and approval by the Planning Commission.

Building materials include brick and a CMU base to match the existing building. New materials include decorative wood panels and metal architectural panels (replacing glass) on the upper level of the store entrance.

In our opinion, the proposed building provides a complementary mix of materials that match the existing building, while also introducing new materials to modernize the overall design.

- 3. Parking.** Per Section 14.04, 76 parking spaces are required, while 95 are proposed, including the 5 required barrier free spaces.

The amount of parking proposed slightly exceeds that allowed by Ordinance. More specifically, Section 14.02.06 requires Planning Commission approval for parking that exceeds 120% of the minimum requirement.

The proposal is 125% of the minimum requirement. The applicant has indicated that the 4 additional spaces are needed to meet the current corporate requirement.

The parking spaces and drive aisles meet or exceed the dimensional standards of Section 14.06 and the use of looped striping is proposed.

- 4. Pedestrian Circulation.** There is an existing public sidewalk along Grand River, as well as existing walks along the north and east sides of the building. The proposal includes widening of the sidewalk along the east side of the building and crosswalk striping across the parking lot connecting the public and private walks.
- 5. Vehicular Circulation.** The site has direct access to Grand River via a restricted turning movement drive, as well as indirectly by a shared access easement with the County complex to the east. No changes are proposed to the existing circulation patterns.
- 6. Loading.** The development has an existing truck well at the rear of the building for deliveries. The size, design and location are all in accordance with current standards and no changes are proposed.
- 7. Waste Receptacle and Enclosure.** There is an existing waste receptacle and enclosure within the truck well at the rear of the building. Our original review of the site plan (2008) indicated that the receptacle/enclosure complied with the standards of Section 12.03 and no changes are currently proposed.
- 8. Landscaping.** We reviewed the landscape plan for compliance with the standards of Section 12.02, as noted in the following table:

Location	Requirements	Proposed	Comments
Greenbelt	20' width 9 canopy trees 2' tall hedgerow	0-29' width (existing) 4 existing trees 5 canopy trees (proposed)	Requirements met
Buffer Zone C (E)	10' width 23 canopy trees OR 23 evergreen trees OR 90 shrubs	10' width 7 existing trees 3 canopy trees (proposed) 6 evergreen trees (proposed) 28 shrubs (proposed)	Requirements met
Buffer Zone C (W)	10' width 16 canopy trees OR 16 evergreen trees OR 64 shrubs	10' width 8 existing trees 2 evergreen trees (proposed) 24 existing shrubs	Requirements met
Parking lot	950 SF landscaped area 10 canopy trees	1,458 SF landscaped area 2 existing trees 5 canopy trees (proposed) 2 evergreen trees 1 ornamental tree	Requirements met
Detention pond	8 trees (deciduous or evergreen) 80 shrubs	10 trees (existing) 73 shrubs (existing) 7 shrubs (proposed)	Requirements met

- 9. Exterior Lighting.** The submittal includes a lighting plan (Sheet LT1), which includes 9 light poles throughout the parking lot, as well as 24 wall mounted/under canopy fixtures.

The proposed lighting plan, including pole heights, fixture details and light intensities, complies with current Township standards.

- 10. Signs.** The existing monument sign is to remain, though replacement of the existing sign cabinet is proposed. This will not alter the sign height or area, both of which comply with current standards.

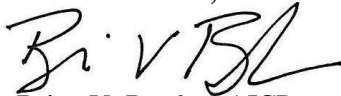
The building elevation drawings show the two existing wall signs in the northeast corner of the building. As a side note, the 2<sup>nd</sup> wall sign was allowed by the Planning Commission as part of the 2008 approval.

- 11. Impact Assessment.** The submittal includes an amended Impact Assessment (January 25, 2018). In summary, the Assessment notes that the project is not anticipated to adversely impact natural features, public services/utilities, surrounding land uses or traffic.

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 [borden@lsplanning.com](mailto:borden@lsplanning.com).

Respectfully,

**LSL PLANNING, A SAFE BUILT COMPANY**



Brian V. Borden, AICP  
Planning Manager

February 28, 2018

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

**Re: Aldi Expansion Site Plan Review #2**

Dear Ms. Van Marter:

Tetra Tech conducted a site plan review of the updated Aldi expansion plans submitted by Desine, Inc. The revised plans are dated February 21, 2018.

The petitioner has updated the stormwater calculations to show that more storage is provided in the existing detention basin than originally submitted and provided a detail to modify the outlet control structure to adequately meet the new storage amounts. The third concern, adequate free board, was addressed by providing updated spot elevations along the top of the detention basin embankment. These spot elevations all meet the 1-foot free board amount required by the Livingston County Drain Commission. With the corrections to the stormwater calculations and heavy-duty pavement section we have no further engineering related comments for the Aldi expansion site plan.

Please call if you have any questions.

Sincerely,

Gary J. Markstrom, P.E.  
Unit Vice President

Marguerite K. Davenport  
Project Engineer

copy: Christopher A. Grzenkowicz, P.E., DESINE, Inc.



# BRIGHTON AREA FIRE AUTHORITY

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

---

March 1, 2018

Kelly VanMarter  
Genoa Township  
2911 Dorr Road  
Brighton, MI 48116

RE: Aldi expansion  
2260 E. Grand River  
Genoa Twp., MI

Dear Kelly:

The Brighton Area Fire Authority has reviewed the above mentioned site plan. The plans were received for review on February 27, 2018 and the drawings are dated February 21, 2018. The project is based on an existing 16,657 sq.ft. Mercantile occupancy that will undergo site alteration to accommodate a new 2,254 sq.ft. addition. The plan review is based on the requirements of the International Fire Code (IFC) 2018 edition.

The applicant contacted the fire authority for clarification and revised the most recent submittal. All concerns identified on the previous submittal are shown to be corrected and or addressed.

The fire authority has no further comments for the project at this time.

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,

A handwritten signature in black ink, appearing to read "R. Boisvert".

Rick Boisvert, CFPS  
Fire Marshal

**IMPACT ASSESSMENT**  
**for the**  
**ALDI FOOD MARKET**  
**SITE DEVELOPMENT**

Developer:  
**ALDI Inc.**  
**2625 North Stockbridge Road**  
**Webberville, Michigan 48892**

Prepared by:  
**DESINE Inc.**  
**2183 Pless Drive**  
**Brighton, Michigan 48114**

April 30, 2008  
**Amended January 25, 2018**



## Introduction

This impact assessment has been prepared pursuant to Section 18.07 of the Genoa Township Zoning Ordinance. This assessment addresses the impact of development of the proposed ALDI Food Market Commercial Development on the natural features, economic condition and social environment of the Township.

The project site consists of approximately 3.13 acres of property zoned **General Commercial District (GCD)** located on the south side of Grand River Avenue, west of Golf Club Road, in Section 6 as shown in Figure 1. The site is currently developed with a 16,657 SF single story commercial building, paved parking area and associated infrastructure. The existing building contains an ALDI Food Market limited assortment grocery store. The existing parking area has a limited access right in / right out driveway on Grand River Avenue and a full access driveway along the Livingston County Complex driveway.

The existing building, paved parking area and infrastructure will remain. A 2,254 SF building addition is proposed along the east side of the existing building within a portion of the existing parking area to provide a total of 18,911 SF that will continue to be utilized as an ALDI Food Market. Minor modifications of the existing parking area are proposed to accommodate the proposed building addition. 24 new parking spaces are proposed along the existing rear drive. The proposed site improvements will increase the parking count from 71 to 95 spaces to accommodate the increase in customer base since 2008. Additional site improvements include site lighting and landscaping improvements as depicted on the Site Plan.

The subject property is located in a significantly developed area, surrounded by restaurant, retail, office and industrial uses. An aerial photograph (circa 2017) of the surrounding area and existing conditions is provided in Figure 2.

January 25, 2018

This impact assessment has been prepared under the direction of and by:

Christopher A. Grzenkowicz, P.E.  
DESINE Inc.  
2183 Pless Drive  
Brighton, Michigan 48114  
(810) 227-9533

The civil engineering / surveying firm of DESINE Inc. has been in practice since 1989. Mr. Grzenkowicz is a licensed Civil Engineer with experience in private and municipal developments including a number of projects within Genoa Township and Livingston County.

#### **A. IMPACT ON NATURAL FEATURES**

Prior to the construction of the existing ALDI Food Market, the subject property was previously developed with a fast food restaurant and a bank. The majority of the site had been disturbed during the construction of the previous development. The previous buildings, parking areas and infrastructure was removed to allow for construction of the existing ALDI Food Market development. The southern portion of the site contained brush and small trees prior to the existing development. This area was utilized to construct a detention basin for treatment of storm water runoff from the ALDI development. Following construction of the detention basin, this area was stabilized with vegetative growth and now contains a mixture of grasses, shrubs and mature trees. The existing topography of the site generally slopes from Grand River in the northeast to the railroad corridor in the southwest. Slopes are ranging from 1 percent to 5 percent. Elevation difference across the property is approximately 8 feet. Surface water runoff from the subject and adjacent properties flows generally from northeast to southwest toward the existing drainage swale adjacent to the railroad tracks. An existing underground storm sewer system collects runoff from the subject property and directs it to an existing detention basin which discharges at an agricultural rate to the serving the existing drainage swale adjacent to the railroad tracks. The existing site topography is depicted on the Existing Conditions Plan.

The soils on the subject property are primarily Boyer-Oshtemo loamy sands. These soils are generally well-drained, moderately permeable, loamy sands. Soil classifications are prepared by the United States Department of Agriculture, National Resource Conservation Service. The Soils Map, shown in Figure 3, shows the locations of specific soil types as classified.

Previous development of the subject property required land balancing to establish final

January 25, 2018

grades and provide proper drainage. The proposed building addition and parking improvements are designed to mesh with the existing site improvements as close as possible. Minimal demolition and site grading is necessary to accommodate the proposed building and site improvements.

The limits of disturbance have been depicted on the Soil Erosion and Sedimentation Control Plan. Grading for this project will maintain the general character of the existing site conditions. Development of the proposed site improvements will require minimal exporting of excess topsoil and minimal importing of additional granular fill material.

Vegetation in the area of the proposed parking area improvements will be disturbed. Existing vegetation in these areas consists of open lawn and landscape trees planted during the original development of the existing ALDI Food Market. No landmark trees have been identified on the site. Existing landscape trees consist of spruce, pine, pear, locust, maple and ginko. Existing on-site mature trees consist of elm, cottonwood, box elder, poplar, apple, aspen and oak. The existing mature trees are located in southwestern portion of the property surrounding the existing detention basin. No existing mature trees will be removed as a part of this project. Existing landscape trees within the proposed building addition area and proposed parking areas will be removed to accommodate the proposed site improvements. Those trees to be removed will be replaced with new plantings. Additional landscaping is proposed to ensure the site is in conformance with the current Zoning Ordinance requirements. Existing trees, including those trees to be removed, are depicted on the Existing Conditions Plan. Proposed replacement trees and other proposed landscaping improvements are depicted on the Landscape Plan.

No wetland areas are present on the project site.

Surface drainage characteristics of the site will not be significantly impacted. The proposed site improvements are designed to direct storm water runoff to the existing storm water management system. The proposed site improvements will result in a minimal reduction of permeable area on the subject property as compared to existing conditions and a minimal increase in the surface water runoff generated from the development site. The proposed increase in lot coverage is approximately 2.8%. The overall proposed lot coverage is 61.8%, well below the 75% allowable. Surface water runoff generated by the proposed site improvements will be directed to the existing detention basin.

The existing detention basin was designed and constructed to accept storm water runoff from the project site in accordance with Genoa Township and Livingston County Drain Commissioner rules and regulations. An analysis of the existing storm water management system has been performed to verify that the existing storm water management system can

January 25, 2018

accommodate the runoff to be generated by the proposed site improvements. The storm sewer analysis calculations are provided on sheet UT2 of the Site Plan.

The minimal impact of surface drainage alterations will not significantly impact local aquifer characteristics or groundwater recharge capacity. Surface water runoff from the developed site will flow into the existing detention basin which discharges along the historical drainage path adjacent to the railroad tracks.

Wildlife habitats exist primarily on the southern portion of the property which includes the existing detention basin, tall grasses, brush, shrubs and mature trees. Wildlife supported in these habitats are generally smaller woodland creatures, field animals and birds. Larger animals, such as deer, may traverse the site. The existing developed portion of the site does not contain any significant wildlife habitat areas. The proposed site improvements do not result in a significant impact to the existing wildlife habitats. No site improvements or disturbance is proposed in the southern portion of the site.

The project site does not currently support significant wildlife habitats and development of the proposed site improvements will not have a significant impact on the overall habitat quality. No significant adverse impact to existing natural features are anticipated due to the proposed site improvements for this property.

## **B. IMPACT ON STORM WATER MANAGEMENT**

The subject property contains an existing storm water management system consisting of an underground storm sewer network, a sedimentation basin and a detention basin. Minimal earthwork and site grading is necessary to accommodate the proposed site improvements and to direct surface drainage from the proposed site improvements to the existing storm water management system. Earthwork will be limited to the areas of proposed building and parking improvements.

Catch basins will collect surface water from parking and drive areas, building areas, and open space areas. Grading for the proposed site improvements will mesh with existing grades immediately surrounding the improvement areas. No adverse impact to adjoining properties is anticipated due to grading or construction of the proposed site improvements.

Soil erosion and sedimentation control is governed by the Soil Erosion Control Act No. 347 of the Public Acts of 1972, as amended as administered by the Livingston County Drain Commissioner. Silt fencing, sediment inlet filters and other soil erosion control measures will be required around the areas of the proposed site improvements as depicted on the Soil Erosion and Sedimentation Control Plan. The Contractor shall be responsible for initiating

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and maintaining adequate dust control measures during construction. The Contractor shall also be responsible for complying with all soil erosion and sedimentation control regulations during and after construction until the project site is fully stabilized and vegetative cover is established within the disturbed areas outside of hard surfacing.

Impact to adjoining properties due to the construction of the site improvements will be minimized by implementing soil erosion and sedimentation control measures. No adverse impact to adjacent properties due to surface water runoff will be created as a result of the proposed site improvements.

### **C. IMPACT ON SURROUNDING LAND USES**

Property to the North of the site is zoned Neighborhood Service (NS) and is occupied by CVS Pharmacy. Property to the East is zoned General Commercial District (GCD) and serves as the entryway to the Livingston County East Complex, east of that is PNC Bank. The Livingston County East Complex is located south of the subject parcel and is zoned GCD. West of the property is Mourad's Grill, also zoned GCD.

The Genoa Township Future Land Use Plan designates the subject property for General Commercial uses. The surrounding property is also designated for General Commercial use.

The existing use is consistent with the existing development in the surrounding area and is consistent with the long term planning within the Township. The proposed landscaping and architecture is consistent with the existing site development to allow this site to continue to be in harmony with the surrounding area. No adverse impact to the surrounding area is anticipated due to the proposed site improvements. All areas disturbed by construction will require restoration.

The continued use of the property as a general commercial use will not create any significant emissions of smoke, airborne solids, odors, gases, vibrations, noise or glare discernable and substantially annoying or injurious to persons and/or property beyond the lot lines. Radioactive emissions and electromagnetic radiation shall not be emitted in excess of quantities established as safe in accordance with the ordinance when measured at the property lines. No flammable liquids, gases or explosives shall be stored or used on the property. No underground or aboveground storage tanks are proposed on the property.

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**D. IMPACT ON PUBLIC FACILITIES AND SERVICES**

Police protection is and will continue to be provided by the Livingston County Sheriff and the Michigan State Police. Additional services required to accommodate the proposed site improvements are anticipated to be minimal.

Fire protection is provided by the Brighton Area Fire Department. The subject property is within the water district and fire hydrants are readily accessible for utilization in the event of a fire. Adequate fire protection systems are provided within the existing building and are proposed within the building addition. Additional fire protection services required to accommodate the proposed site improvements are anticipated to be minor.

Construction of the proposed site improvements will not create any direct adverse impact on the schools.

**E. IMPACT ON PUBLIC UTILITIES**

The subject property is located within the municipal sewer and water districts. Existing water main and sanitary sewer are located in easements to the south and east of the existing building. The existing building is connected to the existing sanitary sewer and water main.

Water service to the building is provided from the existing water main located within an easement that traverses the property south of the existing building. No significant increase in water use is anticipated as a result of the proposed site improvements. Capacity is available within the existing water system to provide adequate service to this development.

Sanitary sewer service for the development is provided by the existing sanitary sewer main which traverses the site south of the existing building. No significant increase in sanitary sewage flow is anticipated as a result of the proposed site improvements. Capacity is available within the existing sanitary sewer system to provide adequate service to this development.

The site is serviced by electric, gas, phone and cable TV systems located along Grand River Avenue. No significant increase in demand or use of the existing public utility systems is anticipated as a result of the proposed site improvements.

**F. STORAGE AND HANDLING OF ANY HAZARDOUS MATERIALS**

The proposed general commercial space will not utilize or store any potentially hazardous or polluting materials other than standard household type cleaning products. All solid wastes should be properly disposed of through a licensed waste disposal firm on a regular basis.

**G. IMPACT ON TRAFFIC AND PEDESTRIANS**

The project site is located along the Grand River Avenue corridor. Grand River Avenue, in the area of the proposed development, is major arterial public street consisting of four directional traffic lanes and a center left turn lane. Access to the site from Grand River Avenue is provided via a limited access, right in – right out driveway near the west side of the site and thru the driveway serving the Livingston County East Complex.

Traffic Engineering Associates, Inc. located in Lansing Michigan has prepared a Traffic Assessment for the existing development (Attachment 1). The Traffic Assessment has been provided to and reviewed by both the Livingston County Road Commission and Michigan Department of Transportation.

The Traffic Assessment projected the ALDI development to generate 49 vehicle trips in the AM Peak hour, 208 vehicle trips in the PM peak hour and 1534 vehicle trips daily. A significant amount of the trips are classified as Pass-By Trips. Pass-by trips are already present in the existing passing traffic.

The actual traffic generated by the development of the ALDI Food Market is now existing in the traffic stream. The existing ingress and egress points and signalized intersection of Grand River / Golf Club / Livingston County Complex Driveway operate at an acceptable level of service. The proposed site improvements are not anticipated to result in a significant increase in traffic. No significant impact on the major thoroughfares of Livingston County is anticipated as a result of the proposed site improvements.

The existing development provides service to pedestrian traffic through a pedestrian sidewalk connection from the existing sidewalk along Grand River to the building entrance. The pedestrian access will be maintained as a part of the proposed site improvements. No significant increase in pedestrian traffic or adverse impact upon pedestrian traffic is anticipated as a result of the proposed site improvements.

January 25, 2018

**H. SPECIAL PROVISIONS**

A variance has been obtained for the reduction of the parking setback from the Right-of-Way of Grand River Avenue. A reduction of 16 feet was granted to allow the 4-foot parking setback from the R.O.W for the portion of the parking area adjacent to the 75-foot wide ½ R.O.W.

An easement agreement to utilize the driveway to the Livingston County East Complex has been entered into. No additional special provisions or requirements are currently proposed for this facility.

**I. SITE LIGHTING**

All site lighting shall meet the requirements of the Genoa Township ordinances. Exterior building mounted site lighting shall be shielded and down directed. Pole mounted site lighting is proposed for this project. All pole-mounted lighting shall be shielded and down directed on the site. General site lighting, excluding safety and emergency lighting, shall be used between the times from dusk to 12:00 a.m. and from 5:00 a.m. to dawn.

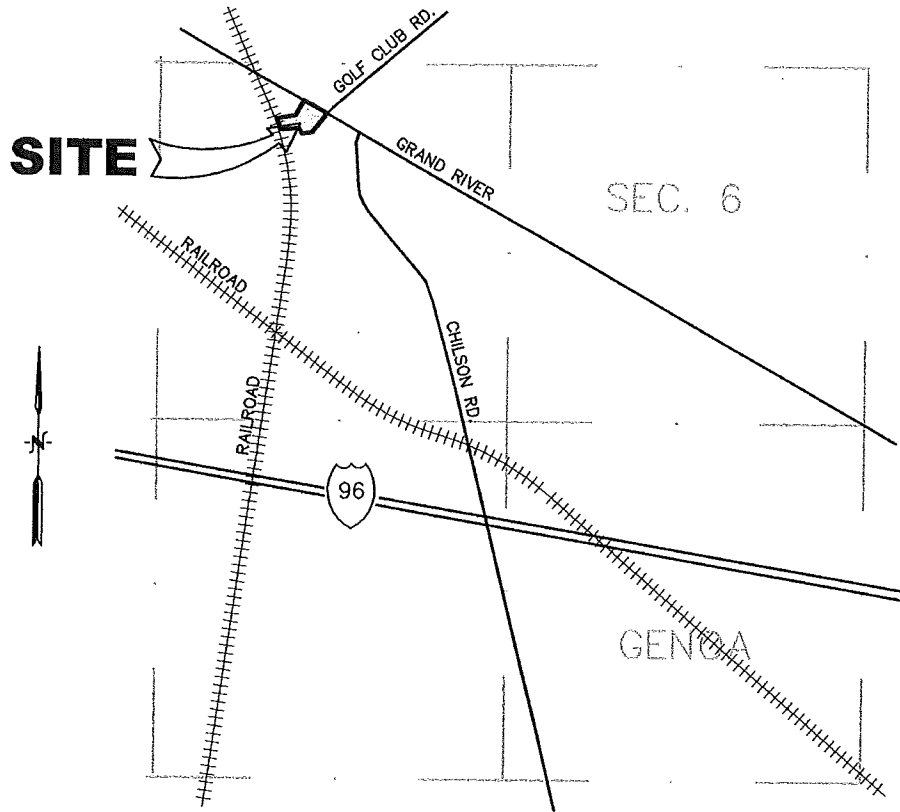
**J. HOURS OF OPERATION**

Hours of operation will generally be between 9:00 am to 8:00 pm seven (7) days a week. Corporate deliveries are the bulk of the product line and are scheduled when the store is closed. Corporate deliveries typically do not exceed one (1) delivery per day. Supplier delivery trucks deliver milk, bread, pop and similar products periodically during regular business hours. Supplier deliveries typically occur once or twice a week depending on the product delivered.



January 25, 2018

# FIGURE #1



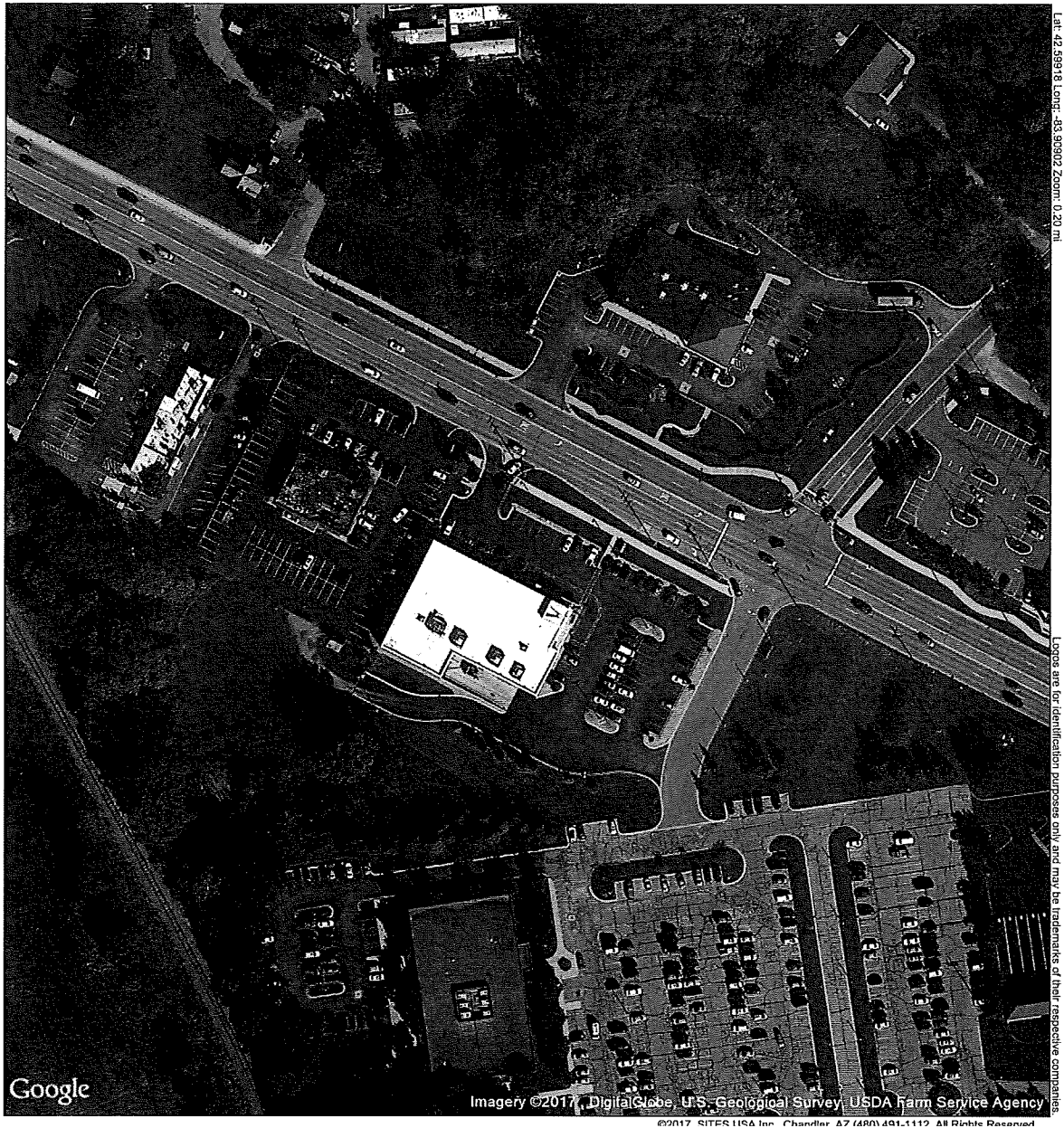
## LOCATION MAP

NOT TO SCALE

Site Address  
2260 E. Grand River Avenue  
Howell, MI 48843

January 25, 2018

## FIGURE #2



## AERIAL PHOTOGRAPH

NO SCALE

January 25, 2018

## **FIGURE #3**



## **SITE SOILS**

NO SCALE

Source: Web Soil Survey  
United States Department of Agriculture,  
Natural Resources Conservation Service

### Soil Legend:

BtE Boyer-Oshtemo loamy sands, 18 to 25 percent slopes  
BtA Boyer-Oshtemo loamy sands, 0 to 2 percent slopes  
MoE Miami loam, 18 to 25 percent slopes

January 25, 2018

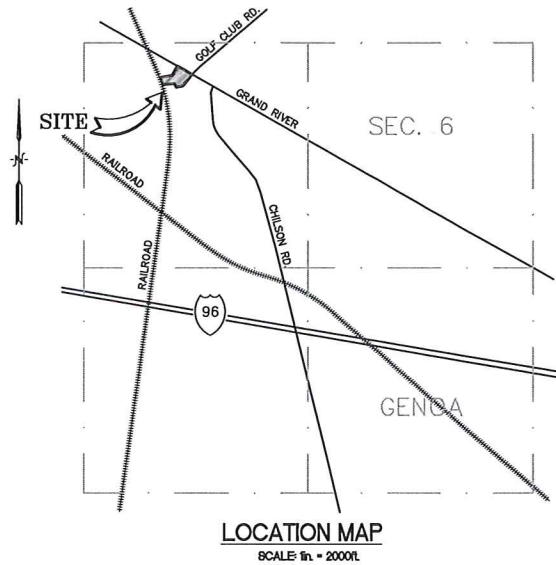
**ATTACHMENT #1**

# SITE PLAN

FOR

# ALDI FOOD MARKET #51

REMODEL AND EXPANSION  
 2260 EAST GRAND RIVER AVENUE HOWELL, MI 48843  
 A PART OF THE NORTHWEST 1/4 OF SECTION 6, T2N, R5E  
 GENOA TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



**LEGAL DESCRIPTION:**

Commencing at the Northwest Corner of Section 6, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan; thence S87°07'30"E 841.85 feet (S87°02'00"E 844.70 feet record) along the North line of said Section 6; thence S60°06'45"E 609.89 feet (606.69 feet record) along the centerline of Grand River Avenue to the PLACE OF BEGINNING; thence continuing S60°06'45"E 358.81 feet along said centerline of Grand River Avenue (variable width Right-of-way); thence S50°33'30"W 64.79 feet; thence S29°56'47"W 193.35 feet; thence S84°35'37"W 100.61 feet; thence N03°34'18"W 14.51 feet; thence N60°06'45"W 85.63 feet; thence S69°20'23"W 346.13 feet (S69°14'28"W 346.09 feet record, also recorded as S69°20'02"W 345.92 feet, also recorded as S69°18'10"W 346.39 feet); thence N25°35'10"W 120.00 feet along the Easterly line of the Tuscola and Saginaw Bay Railway (66 foot wide Right-of-Way), formerly known as Ann Arbor Railroad; thence N68°26'35"E 254.80 feet; thence N29°53'15"E 300.00 feet to the Place of Beginning. Being a part of the Northwest 1/4 of Section 6, Town 2 North, Range 5 East, Genoa Township, Livingston County, Michigan. Containing 3.14 acres of land, more or less. Subject to the rights of the public over that portion thereof taken for Grand River Avenue, also subject to and together with all easements and restrictions affecting title to the above described premises.

**BENCHMARKS:**

DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESINE INC., JOB No. 81389, REVISED DATE DECEMBER 3, 2008.  
 DATUM AS DEPICTED = NGVD

**PRIMARY (OFF SITE)**

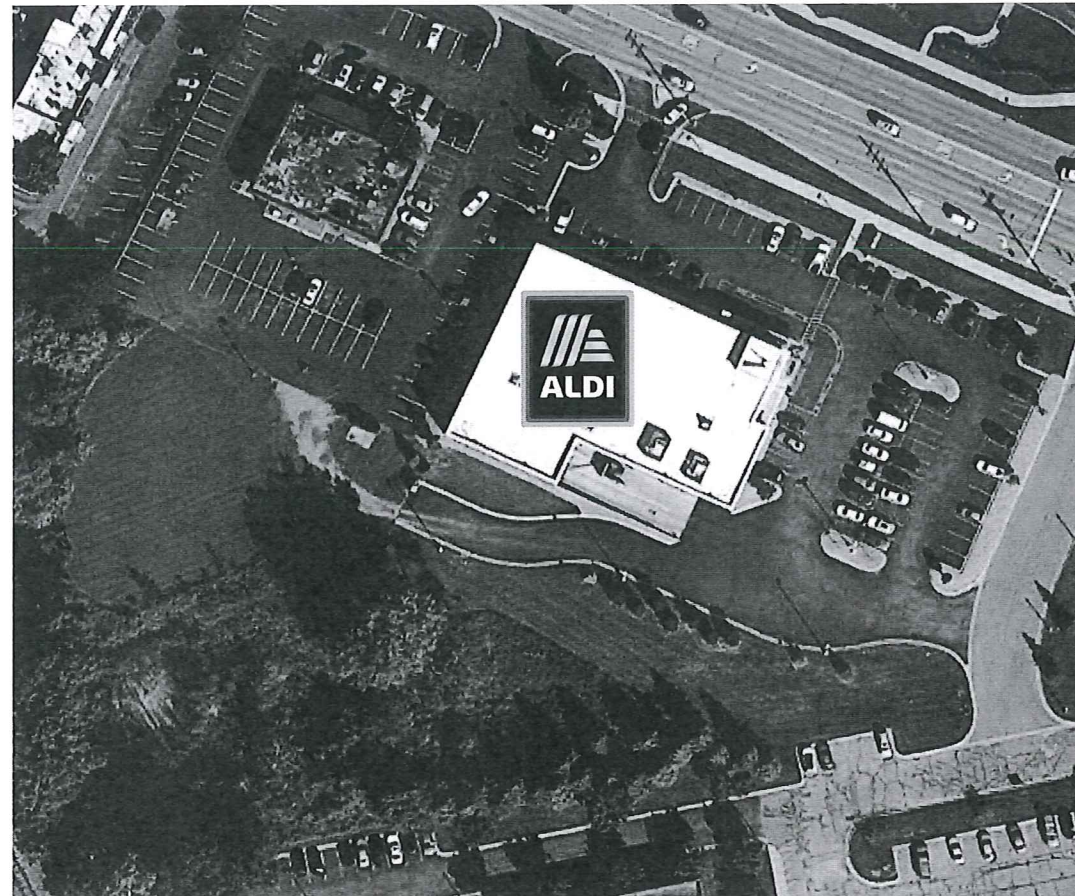
AT HOWELL, LIVINGSTON COUNTY, ON THE ANN ARBOR RAILROAD, 35 YARDS EAST OF THE NORTHEAST CORNER OF THE STATION; 60 YARDS WEST OF A HIGHWAY BRIDGE OVER THE TRACK; 7 YARDS NORTH OF THE WEST RAIL; A STANDARD TABLET STAMPED "G 105 1934" AND SET IN THE TOP OF A CONCRETE POST.  
 ELEVATION = 921.931 (NGVD) REF: SEE ABOVE

**BENCHMARK #201**

PREVIOUSLY DESCRIBED AS:  
 RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED McDONALDS RESTAURANT.  
 CURRENTLY:  
 LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
 ELEVATION = 925.46 (NGVD)  
 REF: SEE ABOVE  
 FIELD BOOK D405, PG. 43  
 POINT #201

**BENCHMARK #200**

ARROW OF HYDRANT, LOCATED 57± FEET NORTHERLY OF THE NORTHEASTERLY BUILDING CORNER "ALDI."  
 ELEVATION = 930.09 (NGVD) REF: POINT #200



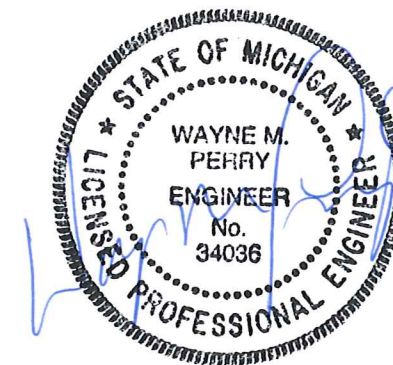
**AERIAL PHOTOGRAPH**  
SCALE: NOT TO SCALE

AERIAL PHOTOGRAPHY BY:  
 Google maps

Aerial photographic underlay is an unrectified image and is oriented to the engineering line work with reasonable accuracy and precision, and may not accurately depict current site conditions.

**SHEET INDEX**

- EX1 EXISTING CONDITIONS & DEMOLITION PLAN
- EX2 EXISTING SITE DATA & DEMOLITION NOTES
- SP SITE PLAN
- UT1 UTILITY PLAN
- UT2 STORM WATER MANAGEMENT CALCULATIONS
- GR GRADING PLAN
- SE1 SOIL EROSION & SEDIMENTATION CONTROL PLAN
- SE2 SOIL EROSION & SEDIMENTATION CONTROL NOTES & DETAILS
- LA1 LANDSCAPE PLAN
- LA2 LANDSCAPE NOTES & DETAILS
- LT1 SITE LIGHTING PLAN
- LT2 SITE LIGHTING NOTES AND DETAILS
- DT1 SITE PAVEMENT NOTES & DETAILS
- DT2 SIGNAGE & PAVEMENT MARKING NOTES & DETAILS
- DT3 STORM SEWER NOTES & DETAILS
- DT4 WATER MAIN & SANITARY SEWER NOTES & DETAILS
- DT5 M.H.O.G. STANDARD DETAILS
- DT6 M.H.O.G. STANDARD DETAILS
- A-131 BUILDING FLOOR PLAN / OPERATIONS PLAN
- A-201 EXTERIOR ELEVATIONS



**ENGINEER/SURVEYOR**

DESINE INC.  
 2183 PLESS DRIVE  
 BRIGHTON, MICHIGAN 48114  
 PHONE: (810) 227-9533

**DEVELOPER / APPLICANT**

ALDI Inc.  
 2625 N. STOCKBRIDGE ROAD  
 WEBBERVILLE, MICHIGAN 48892  
 PHONE: (517) 521-3907

**ARCHITECT**

APD ENGINEERING AND ARCHITECTURE, PLLC  
 615 FISHERS RUN  
 VICTOR, NEW YORK 14564  
 PHONE: (585) 742-2222



3 WORKING DAYS BEFORE YOU DIG  
 CALL 811 OR 1-800-482-7171 (TOLL FREE)  
 OR VISIT CALL811.COM

REVISED	SCALE: N/A
FEB 21, 2018	PROJECT No.: 9173290
	DWG NAME: 3290-COV
	PRINT: FEB 21, 2018



**BENCHMARK**  
 DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESNE INC., JOB No. 81389, REVISED DATE DECEMBER 3, 2008.  
 DATUM AS DEPICTED = NGVD

**PRIMARY (OFF SITE)**  
 AT HOWELL, LIVINGSTON COUNTY, ON THE ANN ARBOR RAILROAD, 35 YARDS EAST OF THE NORTHEAST CORNER OF THE STATION; 80 YARDS WEST OF A HIGHWAY BRIDGE OVER THE TRACK; 7 YARDS NORTH OF THE WEST RAIL; A STANDARD TABLE STAMPED "G 105 1934" AND SET IN THE TOP OF A CONCRETE POST.  
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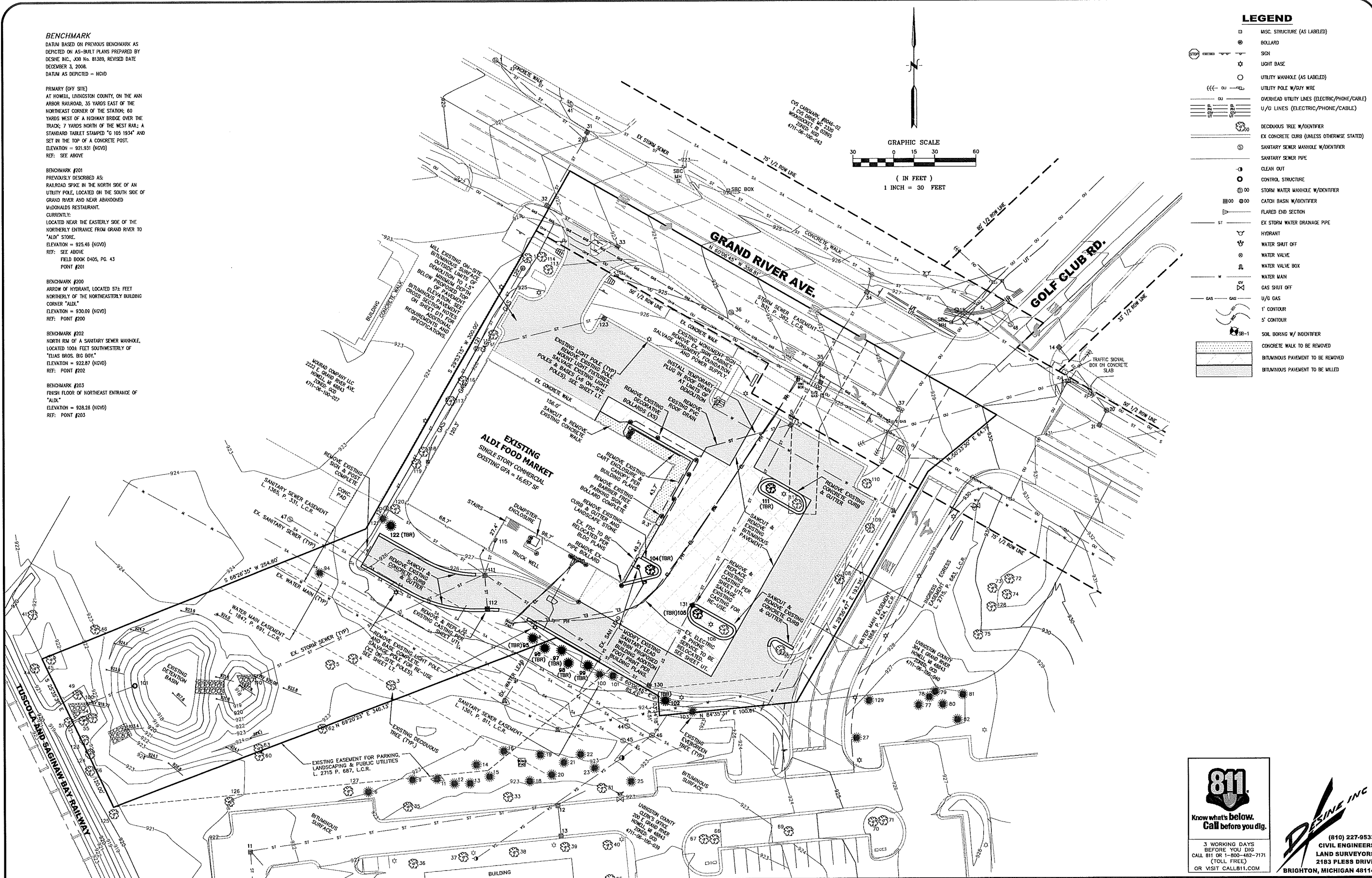
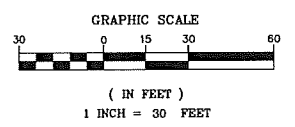
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 PREVIOUSLY DESCRIBED AS:  
 RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED WISCONSINS RESTAURANT.  
 CURRENTLY:  
 LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
 ELEVATION = 925.46 (NGVD)  
 REF: SEE ABOVE  
 FIELD BOOK D405, PG. 43  
 POINT #201

**BENCHMARK #200**  
 ARROW OF HYDRANT, LOCATED 57.4 FEET NORTHERLY OF THE NORTHEASTERLY BUILDING CORNER "ALDI."  
 ELEVATION = 930.09 (NGVD)  
 REF: POINT #200

**BENCHMARK #202**  
 NORTH RM OF A SANITARY SEWER MANHOLE, LOCATED 100.1 FEET SOUTHWESTERLY OF "ELIAS BROS. BIG BOX."  
 ELEVATION = 922.87 (NGVD)  
 REF: POINT #202

**BENCHMARK #203**  
 FRESH FLOOR OF NORTHEAST ENTRANCE OF "ALDI."  
 ELEVATION = 928.28 (NGVD)  
 REF: POINT #203

- LEGEND**
- MISC. STRUCTURE (AS LABELED)
  - BOLLARD
  - ☆ SIGN
  - LIGHT BASE
  - UTILITY MANHOLE (AS LABELED)
  - UTILITY POLE W/GUY WIRE
  - OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
  - U/G LINES (ELECTRIC/PHONE/CABLE)
  - DECIDUOUS TREE W/IDENTIFIER
  - EX CONCRETE CURB (UNLESS OTHERWISE STATED)
  - SANITARY SEWER MANHOLE W/IDENTIFIER
  - SANITARY SEWER PIPE
  - CLEAN OUT
  - CONTROL STRUCTURE
  - STORM WATER MANHOLE W/IDENTIFIER
  - CATCH BASIN W/IDENTIFIER
  - FLARED END SECTION
  - EX STORM WATER DRAINAGE PIPE
  - HYDRANT
  - WATER SHUT OFF
  - WATER VALVE
  - WATER VALVE BOX
  - WATER MAIN
  - GAS SHUT OFF
  - U/G GAS
  - 1' CONTOUR
  - 5' CONTOUR
  - SOIL BORING W/ IDENTIFIER
  - CONCRETE WALK TO BE REMOVED
  - BITUMINOUS PAVEMENT TO BE REMOVED
  - BITUMINOUS PAVEMENT TO BE MILLED



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**DESNE INC**

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 CIVIL ENGINEERS  
 LAND SURVEYORS  
 2183 PLESS DRIVE  
 BRIGHTON, MICHIGAN 48114

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION	<p><b>ALDI FOOD MARKET #51</b>          HOWELL, MI</p>	<p><b>EXISTING CONDITIONS AND DEMOLITION PLAN</b></p>	CLIENT:	SCALE: 1"=30'	PROJECT No: 9173290	EX1
DRAFT: SES	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS						ALDI Inc.	1"=30'	9173290	
CHECK: CAG									2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907	1"=30'	DWG NAME: 3290 EX ISSUED: FEB 21, 2018	

**EXISTING TREE SCHEDULE:**

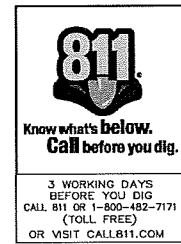
- 1 8" MAPLE
- 3 18" ELM
- 4 24" COTTONWOOD
- 5 18" COTTONWOOD
- 6 9" PINE
- 9 8" PINE
- 11 9" PINE
- 12 8" PINE
- 13 9" PINE
- 14 8" PINE
- 15 9" PINE
- 16 8" PINE
- 18 8" PINE
- 19 9" PINE
- 20 9" PINE
- 21 10" PINE
- 22 10" PINE
- 23 6" PINE
- 25 6" PINE
- 27 6" PINE
- 31 11" CRABAPPLE
- 33 12" CRABAPPLE
- 35 9" CRABAPPLE
- 36 8" CRABAPPLE
- 37 12" CRABAPPLE
- 38 9" CRABAPPLE
- 39 9" CRABAPPLE
- 40 7" CRABAPPLE
- 41 10" BOX ELDER
- 44 7" TWIN OAK
- 45 11" BOX ELDER
- 46 12" TWIN BOX ELDER
- 47 12" TWIN BOX ELDER
- 48 24" TWIN LOCUST
- 49 18" POPLAR
- 50 18" LOCUST - DEAD
- 51 12" POPLAR
- 52 12" POPLAR
- 54 20" POPLAR
- 55 22" POPLAR
- 56 13" TWIN BOX ELDER
- 60 12" POPLAR - DEAD
- 62 10" APPLE
- 63 19" ASPEN
- 64 7" CRABAPPLE
- 65 7" CRABAPPLE
- 66 3" CHERRY
- 67 3" CHERRY
- 69 3" CHERRY
- 70 4" CHERRY
- 71 4" CHERRY
- 72 9" CRABAPPLE
- 73 5" CRABAPPLE
- 74 9" CRABAPPLE
- 75 7" CRABAPPLE
- 77 7" PINE
- 78 8" PINE
- 79 8" PINE
- 80 8" PINE
- 81 8" PINE
- 82 6" PINE
- 83 6" TWIN PINE
- 84 9" PINE
- 85 9" PINE
- 86 9" PINE
- 87 9" PINE
- 88 9" PINE
- 89 6" CRABAPPLE
- 90 6" CRABAPPLE
- 91 6" CRABAPPLE
- 92 6" CRABAPPLE
- 93 6" CRABAPPLE
- 94 6" PINE
- 95 6" PINE (TBR)
- 96 6" PINE (TBR)
- 97 6" PINE (TBR)
- 98 6" PINE (TBR)
- 99 6" PINE (TBR)
- 100 6" PINE
- 101 6" PINE
- 102 6" SPRUCE (TBR)
- 103 6" SPRUCE
- 104 5" PEAR (TBR)
- 105 4" LOCUST (TBR)
- 106 4" LOCUST
- 107 4" PEAR
- 108 5" GINKO
- 109 3" GINKO
- 110 6" PEAR
- 111 4" LOCUST (TBR)
- 112 3" LOCUST
- 113 6" PEAR
- 114 6" PEAR
- 115 5" PEAR
- 116 6" PEAR
- 117 6" PEAR
- 118 6" PEAR
- 119 6" PEAR
- 120 6" PEAR
- 121 6" SPRUCE
- 122 6" SPRUCE (TBR)
- 123 11" TRIPLE OAK
- 124 9" TWIN OAK
- 125 9" TWIN OAK
- 126 12" TWIN OAK
- 127 12" TWIN OAK
- 128 7" CRABAPPLE
- 129 6" PINE

**EXISTING STRUCTURE INVENTORY**

STORM MANHOLE #1 RM 920.89	CATCH BASIN #14 RM 928.13	CB-100 RM 926.60
STORM MANHOLE #2 RM 921.58	YARDBASIN #15 RM 926.12	CS-101 RM 922.67 15" SW RCP 919.92
STORM MANHOLE #3 RM 926.74	YARDBASIN #20 RM 930.43	CB-111 RM 925.08 12" N PVC 920.58 12" NW HDPE-5 920.75 12" NE RCP 920.74 15" SE RCP 920.75 12" S RCP 921.00 18" SW RCP 920.45
STORM MANHOLE #5 RM 926.44 NORTHEAST 15" RCP 914.69 SOUTH 8" RCP 914.64	CATCH BASIN #21 RM 931.09	CB-112 RM 925.07 12" N RCP 921.08
CATCH BASIN #31 RM 921.77 SOUTHWEST 15" RCP	CATCH BASIN #22 RM 934.08	CB-115 RM 923.97 12" SW RCP 921.87
CATCH BASIN #32 RM 921.69 NORTHEAST 15" RCP 916.29 SOUTHWEST 15" RCP 916.49	YARDBASIN #23 RM 934.28	CB-116 RM 925.07 12" N RCP 921.08
CATCH BASIN #33 RM 922.96 NORTHWEST 15" RCP 920.96	CATCH BASIN #24 RM 934.60	CB-117 RM 923.97 12" SW RCP 921.87
CATCH BASIN #34 RM 926.63 SOUTHWEST 15" RCP	CATCH BASIN #25 RM 933.14	CB-118 RM 925.07 12" N RCP 921.08
MANHOLE #35 RM 926.70 NORTHWEST 12" RCP 920.60 NORTHEAST 15" RCP 914.10 SOUTHWEST 12" RCP 922.10 SOUTHWEST 15" RCP 914.25	CATCH BASIN #26 RM 921.38 SOUTHWEST 15" HDPE 918.24 NORTHWEST 24" RCP 918.24	CB-119 RM 925.07 12" N RCP 921.08
MANHOLE #36 RM 925.01 SOUTHWEST 12" RCP 921.86	SANITARY SEWER MANHOLE #41 RM 922.15	CB-120 RM 925.07 12" N RCP 921.08
MANHOLE #37 RM 927.96 NORTHWEST 12" RCP 922.61	SANITARY SEWER MANHOLE #42 RM 925.13	CB-121 RM 925.07 12" N RCP 921.08
CATCH BASIN #11 RM 921.31 E-NORTHEAST 24" RCP 916.11 SOUTH 24" RCP 916.11 SOUTHWEST 8" PVC 917.06	SANITARY SEWER MANHOLE #43 RM 924.83	CB-122 RM 925.07 12" N RCP 921.08
CATCH BASIN #12 RM 921.42 W-SOUTHWEST 24" RCP 917.37 E-NORTHEAST 24" RCP 917.22 S-SOUTHWEST 12" RCP 917.37	SANITARY SEWER MANHOLE #44 RM 923.14 NORTHWEST SDR TOP OF PIPE 918.04 SOUTHWEST SDR TOP OF PIPE 917.79	CB-123 RM 925.07 12" N RCP 921.08
CATCH BASIN #13 RM 921.09 N-NORTHEAST 12" RCP 917.94	SANITARY SEWER MANHOLE #45 RM 923.37	CB-124 RM 925.07 12" N RCP 921.08
	SANITARY SEWER MANHOLE #46 RM 923.03 SOUTHWEST 8" PVC 913.67 SOUTH 24" RCP 916.11 SOUTHWEST 8" PVC 913.61	CB-125 RM 925.07 12" N RCP 921.08
	SANITARY SEWER MANHOLE #47 RM 923.57 SOUTHWEST 8" PVC 912.02 NORTHWEST 8" CLAY 911.92	CB-126 RM 925.07 12" N RCP 921.08
	SANITARY SEWER MANHOLE #48 RM 928.05	CB-127 RM 925.07 12" N RCP 921.08

**DEMOLITION NOTES:**

1. The demolition specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional requirements.
2. Contractor shall contact the 811 Underground Public Utility Locating System or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to performing demolition work. Existing utility information on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. Prior to construction, locations and depths of all existing utilities (in possible conflict with the proposed improvements) shall be verified in the field.
3. Contractor shall contact the appropriate Agencies to coordinate disconnect of the electric, gas, phone, cable and other public utilities as necessary prior to performing demolition work.
4. Contractor shall contact the appropriate Agencies to coordinate removal and/or relocation of any underground and/or overhead public utility lines as necessary prior to performing demolition work.
5. Contractor shall recycle and/or dispose of all demolition material and debris in accordance with the appropriate Local, County, State and Federal regulations.
6. All bituminous and concrete pavement to be removed shall be saw cut at the limits of removal to provide for a clean straight edge for future abutment. The existing pavement that is to be removed, shall remain in place as long as possible to be used as a soil erosion control measure. Contractor shall coordinate the pavement removal work with the appropriate stages of construction. Coordination work shall include removing the existing pavement in sections / stages as necessary to minimize impacts to the adjacent parcel.
7. All existing irrigation lines to be removed shall be terminated at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Ends of pipe shall be capped and the location of marked for future connection.
8. All existing water main and sanitary sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent plugs shall be installed in the ends of pipe in accordance with the appropriate Agency. The Contractor shall record the location of all permanent plugs and provide the location information to the appropriate Agency.
9. All existing storm sewer to be removed shall be terminated at the limits of demolition or as indicated on the project plans. Temporary plugs shall be installed in the ends of pipe in accordance with the appropriate Agency and the locations of marked for future connection. Permanent bulkheads shall be installed in the ends of pipe and/or openings in terminating structures in accordance with the appropriate Agency. The Contractor shall record the location of all permanent bulkheads and provide the location information to the appropriate Agency.
10. All existing light sources to be removed shall have their power cables removed up to the power source or properly terminated for future connection at the limits of demolition or as necessary to allow for construction of the proposed site improvements. Removal and termination of power cables shall be performed in accordance with local electric codes.
11. All existing utility meters to be removed shall be properly removed to allow for reuse. Any existing utility meters that are not to be reused as a part of this project shall be returned to the appropriate Agency.
12. All trenches and/or excavations resulting from the demolition of underground utilities, building foundations, etc., that are located within the 1 on 1 influence zone of proposed structures, paved areas and/or other areas subject to vehicular traffic shall be backfilled with MDOT Class III granular material (or better) to the proposed subgrade elevation. Backfill shall be placed using the controlled density method (12" maximum lifts, compacted to 95% maximum unit weight, Modified Proctor).



DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: SES	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS			
CHECK: CAG						

**ALDI FOOD MARKET #51  
HOWELL, MI**

**EXISTING  
SITE DATA &  
DEMOLITION NOTES**

CLIENT: ALDI Inc. 2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907	SCALE: NONE PROJECT No.: 9173290 DWG NAME: 3290 EX ISSUED: FEB 21, 2018
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**EX2**

**BENCHMARK**  
 DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESINE INC., JOB No. 81368, REVISED DATE DECEMBER 3, 2008.  
 DATUM AS DEPICTED = NGVD

**PRIMARY (XIT SITE)**  
 AT HOWELL, LIVINGSTON COUNTY, ON THE ANN ARBOR RAILROAD, 35 YARDS EAST OF THE NORTHEAST CORNER OF THE STATION; 60 YARDS WEST OF A HIGHWAY BRIDGE OVER THE TRACK; 7 YARDS NORTH OF THE WEST RAIL; A STANDARD TABLE STAMPED "G 105 1934" AND SET IN THE TOP OF A CONCRETE POST.  
 ELEVATION = 921.931 (NGVD)  
 REF: SEE ABOVE

**BENCHMARK #201**  
 PREVIOUSLY DESCRIBED AS RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED McDONALD'S RESTAURANT.  
 CURRENTLY: LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
 ELEVATION = 925.46 (NGVD)  
 REF: SEE ABOVE  
 FIELD BOOK 0465, PG. 43  
 POINT #201

**BENCHMARK #200**  
 ARROW OF HYDRANT, LOCATED 57 1/2 FEET NORTHERLY OF THE NORTHEASTERLY BUILDING CORNER "ALDI."  
 ELEVATION = 930.09 (NGVD)  
 REF: POINT #200

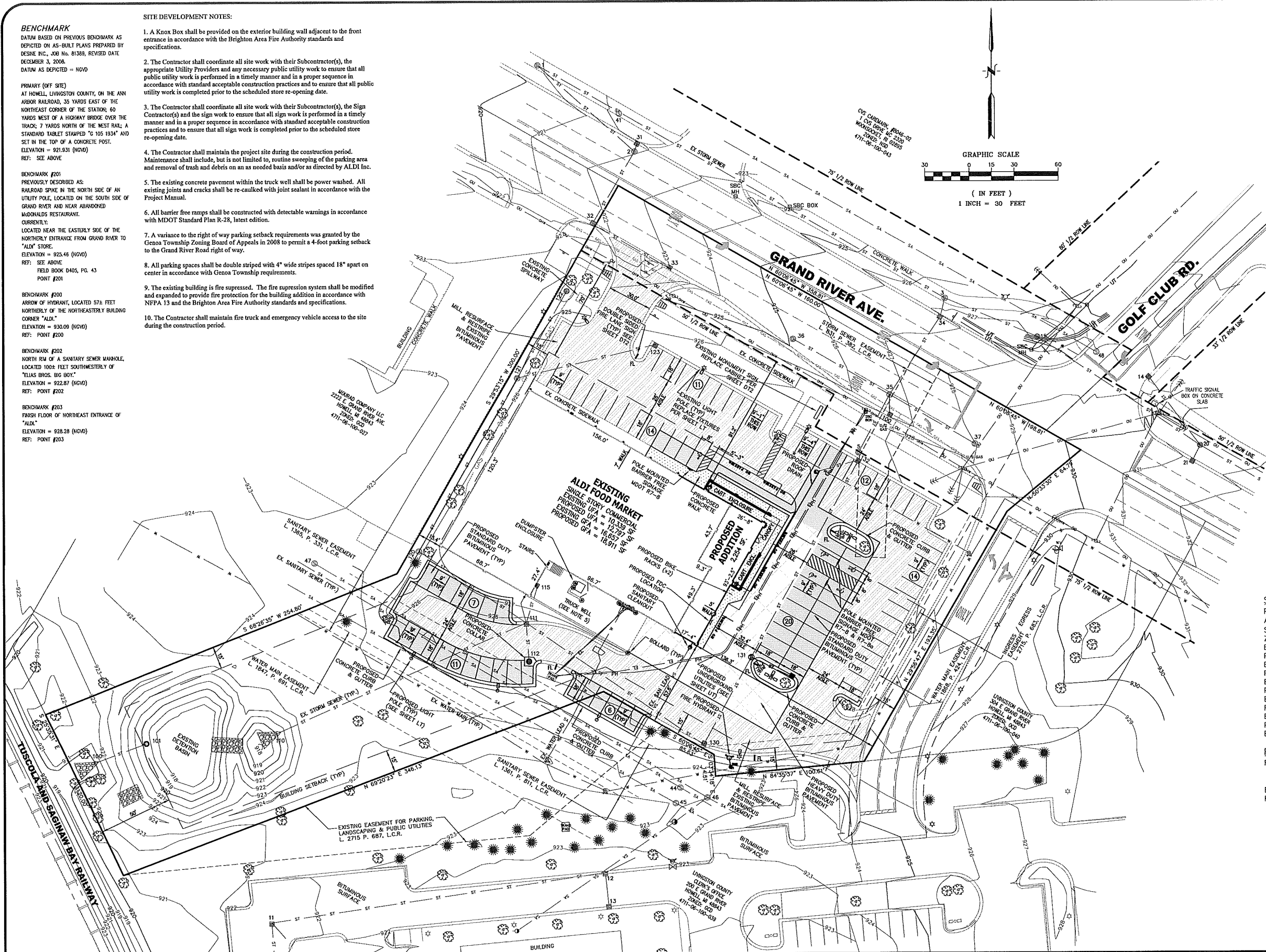
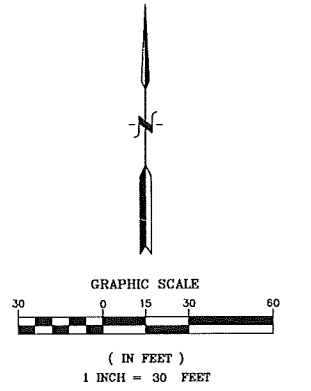
**BENCHMARK #202**  
 NORTH END OF A SANITARY SEWER MANHOLE, LOCATED 100+ FEET SOUTHWESTERLY OF "ELIAS BROS. BIG BOY."  
 ELEVATION = 922.87 (NGVD)  
 REF: POINT #202

**BENCHMARK #203**  
 FINISH FLOOR OF NORTHEAST ENTRANCE OF "ALDI."  
 ELEVATION = 928.28 (NGVD)  
 REF: POINT #203

- SITE DEVELOPMENT NOTES:**
1. A Knox Box shall be provided on the exterior building wall adjacent to the front entrance in accordance with the Brighton Area Fire Authority standards and specifications.
  2. The Contractor shall coordinate all site work with their Subcontractor(s), the appropriate Utility Providers and any necessary public utility work to ensure that all public utility work is performed in a timely manner and in a proper sequence in accordance with standard acceptable construction practices and to ensure that all public utility work is completed prior to the scheduled store re-opening date.
  3. The Contractor shall coordinate all site work with their Subcontractor(s), the Sign Contractor(s) and the sign work to ensure that all sign work is performed in a timely manner and in a proper sequence in accordance with standard acceptable construction practices and to ensure that all sign work is completed prior to the scheduled store re-opening date.
  4. The Contractor shall maintain the project site during the construction period. Maintenance shall include, but is not limited to, routine sweeping of the parking area and removal of trash and debris on an as needed basis and/or as directed by ALDI Inc.
  5. The existing concrete pavement within the truck well shall be power washed. All existing joints and cracks shall be re-caulked with joint sealant in accordance with the Project Manual.
  6. All barrier free ramps shall be constructed with detectable warnings in accordance with MDOT Standard Plan R-28, latest edition.
  7. A variance to the right of way parking setback requirements was granted by the Genoa Township Zoning Board of Appeals in 2008 to permit a 4-foot parking setback to the Grand River Road right of way.
  8. All parking spaces shall be double striped with 4" wide stripes spaced 18" apart on center in accordance with Genoa Township requirements.
  9. The existing building is fire suppressed. The fire suppression system shall be modified and expanded to provide fire protection for the building addition in accordance with NFPA 13 and the Brighton Area Fire Authority standards and specifications.
  10. The Contractor shall maintain fire truck and emergency vehicle access to the site during the construction period.

**LEGEND**

- MISC. STRUCTURE (AS LABELED)
- BOLLARD
- ☆ SIGN
- ★ LIGHT BASE
- UTILITY MANHOLE (AS LABELED)
- UTILITY POLE W/GUY WIRE
- OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
- U/G LINES (ELECTRIC/PHONE/CABLE)
- GEODUCOUS TREE W/IDENTIFIER
- EX CONCRETE CURB
- PROP. CONCRETE CURB
- PROP. CONCRETE REVERSE CURB
- SANITARY SEWER MANHOLE W/IDENTIFIER
- SANITARY SEWER PIPE
- CLEAN OUT
- EXISTING STORM WATER MANHOLE W/IDENTIFIER
- CATCH BASIN W/IDENTIFIER
- FLARED END SECTION
- CONTROL STRUCTURE
- EX STORM WATER DRAINAGE PIPE
- PROP STORM WATER DRAINAGE PIPE
- HYDRANT
- WATER SHUT OFF
- WATER VALVE
- WATER VALVE BOX
- WATER MAIN
- GAS SHUT OFF
- U/G GAS
- EX 1' CONTOUR
- EX 5' CONTOUR
- ▨ PROP. STANDARD DUTY BIT. PAVEMENT
- ▨ PROP. MILL & RESURFACE BIT.
- ▨ PROP. HEAVY DUTY BIT. PAVEMENT
- ▨ PROP. CONCRETE WALK
- PROP. LIGHT POLES



**SITE DATA:**  
 PARCEL #4711-06-100-044  
 ADDRESS: 2260 E. GRAND RIVER AVE.  
 SITE AREA: GROSS ±3.14 AC. / NET ±2.66 AC.  
 ZONED: GCD-GENERAL COMMERCIAL DISTRICT  
 EXISTING USE: LIMITED ASSORTMENT GROCERY  
 PROPOSED USE: LIMITED ASSORTMENT GROCERY  
 EXISTING BUILDING COVERAGE: 14.4%  
 PROPOSED BUILDING COVERAGE: 16.3%  
 EXISTING LOT COVERAGE: 59.0%  
 PROPOSED LOT COVERAGE: 61.8%  
 EXISTING BITUMINOUS PAVEMENT AREA: 40,619 SF  
 PROPOSED BITUMINOUS PAVEMENT AREA: 41,988 SF  
 EXISTING CONCRETE TRUCK WELL AREA: 1,984 SF  
 PROPOSED PRIVATE CONCRETE SIDEWALK AREA: 3,791 SF  
 EXISTING PUBLIC CONCRETE SIDEWALK AREA: 947 SF

**PARKING CALCULATIONS:**  
 REQUIRED = 1 SPACE PER 250 SF GFA  
 = 18,911 SF / 250 SF PER SPACE  
 = 76 SPACES  
 EXISTING = 71 SPACES  
 PROPOSED = 95 SPACES

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 CIVIL ENGINEERS  
 LAND SURVEYORS  
 2183 PLESS DRIVE  
 BRIGHTON, MICHIGAN 48114

DESIGNER	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
FAF	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS			
SES						
CAG						

**ALDI FOOD MARKET #51**  
 HOWELL, MI

**SITE PLAN**

CLIENT: ALDI Inc.  
 2625 N. STOCKBRIDGE RD.  
 WEBBERVILLE, MICHIGAN 48892  
 (517) 521-3907

SCALE: NONE  
 PROJECT No.: 9173290  
 DWG NAME: 3290 SP  
 ISSUED: FEB 21, 2018

**SP**



EXISTING STRUCTURE INVENTORY

STORM MANHOLE #1 RM 920.89	CATCH BASIN #14 RM 928.13	CO-100 RM 926.60
STORM MANHOLE #2 RM 921.58	YARDBASIN #15 RM 926.12	CS-101 RM 922.67 15' SW RCP 919.92
STORM MANHOLE #3 RM 926.74	YARDBASIN #20 RM 930.43	CO-111 RM 925.08
STORM MANHOLE #5 RM 926.44	CATCH BASIN #21 RM 931.09	12' N PVC 920.58 12' NW HOPE-S 920.75 12' NE RCP 920.74
NORTHEAST 15' RCP 914.69	CATCH BASIN #22 RM 934.08	15' SE RCP 920.73 12' S RCP 921.00 18' SW RCP 920.45
SOUTH 8' RCP 914.64	YARDBASIN #23 RM 934.28	CO-112 RM 925.07 12' N RCP 921.08
CATCH BASIN #31 RM 921.77	CATCH BASIN #24 RM 934.60	CO-115 RM 923.97 12' SW RCP 921.87
SOUTHWEST 15' RCP	CATCH BASIN #25 RM 933.14	MH-120 RM 924.97 SOUTHEAST 15' HOPE 918.24 NORTHWEST 24' RCP 918.24
CATCH BASIN #32 RM 921.69	CATCH BASIN #26 RM 924.83	MH-121 RM 925.01 12' NE RCP 921.51 12' E RCP 921.49 12' SW HOPE-S 921.45 12' SE HOPE-S 921.11
NORTHEAST 15' RCP 916.29	SANITARY SEWER MANHOLE #41 RM 922.15	MH-122 RM 923.89 12' SW RCP 921.69
SOUTHEAST 15' RCP 916.49	SANITARY SEWER MANHOLE #42 RM 925.13	CO-123 RM 926.02 12' W RCP 921.93
CATCH BASIN #33 RM 922.96	SANITARY SEWER MANHOLE #43 RM 924.83	CO-130 RM 925.63 12' NE RCP 921.39 15' NW RCP 921.23
NORTHWEST 15' RCP 920.96	SANITARY SEWER MANHOLE #44 RM 923.14	CO-131 RM 928.60 12' NE RCP 921.67 12' SW RCP 921.58
CATCH BASIN #34 RM 926.63	SANITARY SEWER MANHOLE #45 RM 923.37	CO-132 RM 928.50 8' W PVC 922.51 12' SW RCP 922.16
SOUTHWEST 15' RCP	SANITARY SEWER MANHOLE #46 RM 923.03	CO-133 RM 928.50 8' W PVC 922.51 12' SW RCP 922.16
MANHOLE #35 RM 926.70	SANITARY SEWER MANHOLE #47 RM 923.57	CO-134 RM 928.50 8' W PVC 922.51 12' SW RCP 922.16
NORTHWEST 12' RCP 920.60	SANITARY SEWER MANHOLE #48 RM 928.05	
NORTHEAST 15' RCP 914.10		
SOUTHEAST 12' RCP 922.10		
SOUTHWEST 15' RCP 914.25		
MANHOLE #36 RM 925.01		
SOUTHEAST 12' RCP 921.86		
MANHOLE #37 RM 927.96		
NORTHWEST 12' RCP 922.61		
CATCH BASIN #11 RM 921.31		
E-NORTHEAST 24' RCP 918.11		
SOUTH 24' RCP 916.11		
SOUTHEAST 8' PVC 913.61		
CATCH BASIN #12 RM 921.42		
W-SOUTHWEST 24' RCP 917.37		
E-NORTHEAST 24' RCP 917.22		
S-SOUTHWEST 12' RCP 917.37		
CATCH BASIN #13 RM 921.09		
N-NORTHEAST 12' RCP 917.94		

STORM SEWER CASTING SCHEDULE	
MANHOLE (MH):	EJW 1040Z-A-STORM
PAVEMENT CATCH BASIN (CB):	EJW 1040Z-M1
CURB LINE CATCH BASIN (CB):	EXISTING SALVAGED
8" DIA. ROOF DRAIN CLEANOUT (CO):	EJW 1576Z-A

LEGEND

	MISC. STRUCTURE (AS LABELED)
	BOLLARD
	SIGN
	LIGHT BASE
	UTILITY METERS & BOXES (ELECTRIC METER, GAS METER, WATER METER, PHONE BOX, CATV BOX, MAIL BOX)
	OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
	U/G UTILITY LINES (ELECTRIC/PHONE/CABLE)
	DECIDUOUS TREE W/IDENTIFIER
	CONIFEROUS TREE W/IDENTIFIER
	CONCRETE CURB (UNLESS OTHERWISE STATED)
	SANITARY SEWER MANHOLE W/IDENTIFIER
	SANITARY SEWER PIPE
	CLEAN OUT
	CONTROL STRUCTURE
	STORM WATER MANHOLE W/IDENTIFIER
	CATCH BASIN W/IDENTIFIER
	STORM DRAINAGE LINE
	HYDRANT
	WATER SHUT OFF
	WATER VALVE
	WATER VALVE BOX
	WATER MAIN
	WATER MAIN EASEMENT
	GAS SHUT OFF
	U/G GAS
	PROP. CONCRETE CURB
	PROP. REVERSE CONCRETE CURB
	PROP. SANITARY LEAD
	PROP. CLEAN OUT
	PROP. STORM DRAINAGE LINE
	PROP. CATCH BASIN
	PROP. LIGHT POLE

BENCHMARK

DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESINE INC. JOB NO. 81389, REVISED DATE DECEMBER 3, 2008.  
DATUM AS DEPICTED = NGVD

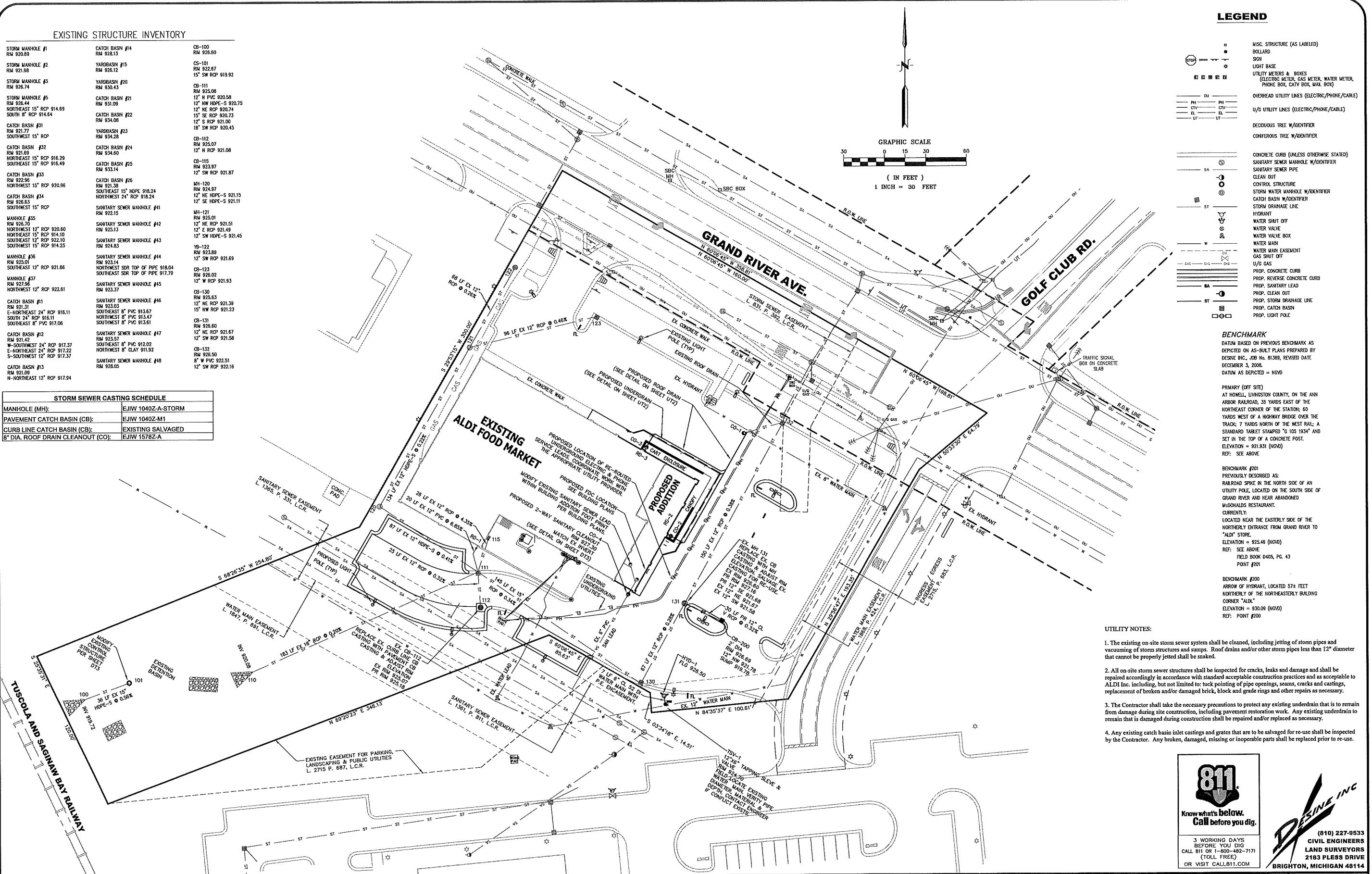
PRIMARY (OFF SITE)  
AT HOWELL, LIVINGSTON COUNTY, ON THE ANN ARBOR RAILROAD, 35 YARDS EAST OF THE NORTHEAST CORNER OF THE STATION, 60 YARDS WEST OF A HIGHWAY BRIDGE OVER THE TRACK, 7 YARDS NORTH OF THE WEST RAIL; A STANDARD TABLE STAMPED "105 1934" AND SET IN THE TOP OF A CONCRETE POST.  
ELEVATION = 921.931 (NGVD)  
REF: SEE ABOVE

BENCHMARK #201  
PREVIOUSLY DESCRIBED AS:  
RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED MCDONALD'S RESTAURANT.  
CURRENTLY:  
LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
ELEVATION = 925.46 (NGVD)  
REF: SEE ABOVE  
FIELD BOOK 0405, PG. 43  
POINT #201

BENCHMARK #200  
ARROW OF HYDRANT, LOCATED 574 FEET NORTHERLY OF THE NORTHEASTERLY BUILDING CORNER "ALDI".  
ELEVATION = 930.09 (NGVD)  
REF: POINT #200

UTILITY NOTES:

- The existing on-site storm sewer system shall be cleaned, including jetting of storm pipes and vacuuming of storm structures and sumps. Roof drains and/or other storm pipes less than 12" diameter that cannot be properly jetted shall be snaked.
- All on-site storm sewer structures shall be inspected for cracks, leaks and damage and shall be repaired accordingly in accordance with standard acceptable construction practices and as acceptable to ALDI Inc. including, but not limited to: tuck pointing of pipe openings, seams, cracks and castings, replacement of broken and/or damaged brick, block and grade rings and other repairs as necessary.
- The Contractor shall take the necessary precautions to protect any existing underdrain that is to remain from damage during site construction, including pavement restoration work. Any existing underdrain to remain that is damaged during construction shall be repaired and/or replaced as necessary.
- Any existing catch basin inlet castings and grates that are to be salvaged for re-use shall be inspected by the Contractor. Any broken, damaged, missing or inoperable parts shall be replaced prior to re-use.



REVISION #	DATE	REVISION-DESCRIPTION
1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS

ALDI FOOD MARKET #51  
HOWELL, MI

UTILITY PLAN

CLIENT:  
ALDI Inc.  
2625 N. STOCKBRIDGE RD.  
WEBBERVILLE, MICHIGAN 48892  
(517) 521-3907

SCALE: NONE  
PROJECT No.: 9173290  
DWG NAME: 3290 UT  
ISSUED: FEB 21, 2018



**BENCHMARK**  
 DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESNE INC. JOB No. 81368, REVISED DATE DECEMBER 3, 2008.  
 DATUM AS DEPICTED = NGVD

**PRIMARY (OFF SITE)**  
 AT HOWELL, LIVINGSTON COUNTY, ON THE ANN ARBOR RAILROAD, 35 YARDS EAST OF THE NORTHEAST CORNER OF THE STATION; 60 YARDS WEST OF A HIGHWAY BRIDGE OVER THE TRACK; 7 YARDS NORTH OF THE WEST RAIL; A STANDARD TABLET STAMPED "O 105 1934" AND SET IN THE TOP OF A CONCRETE POST.  
 ELEVATION = 921.931 (NGVD)  
 REF: SEE ABOVE

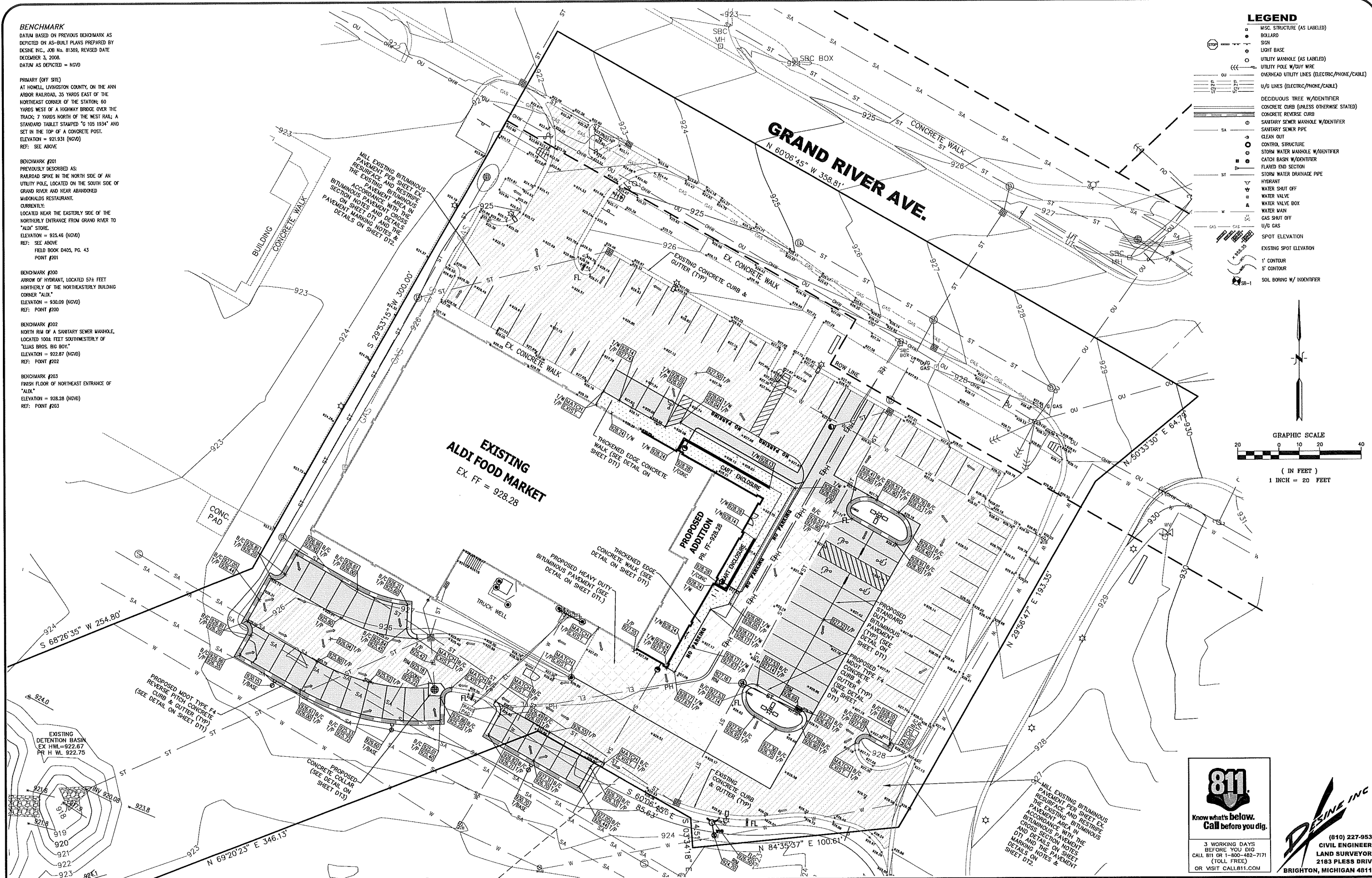
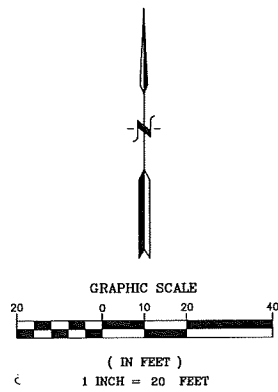
**BENCHMARK #201**  
 PREVIOUSLY DESCRIBED AS:  
 RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED MCDONALD'S RESTAURANT.  
 CURRENTLY:  
 LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
 ELEVATION = 923.46 (NGVD)  
 REF: SEE ABOVE  
 FIELD BOOK D425, PG. 43  
 POINT #201

**BENCHMARK #200**  
 ARROW OF HYDRANT, LOCATED 574 FEET NORTHERLY OF THE NORTHEASTLY BUILDING CORNER "ALDI."  
 ELEVATION = 930.09 (NGVD)  
 REF: POINT #200

**BENCHMARK #202**  
 NORTH RM OF A SANITARY SEWER MANHOLE, LOCATED 1006 FEET SOUTHWESTERLY OF "ELIAS BROS. BIG BOX".  
 ELEVATION = 922.87 (NGVD)  
 REF: POINT #202

**BENCHMARK #203**  
 FINISH FLOOR OF NORTHEAST ENTRANCE OF "ALDI."  
 ELEVATION = 928.28 (NGVD)  
 REF: POINT #203

- LEGEND**
- MISC. STRUCTURE (AS LABELED)
  - BOLLARD
  - SIGN
  - LIGHT BASE
  - UTILITY MANHOLE (AS LABELED)
  - UTILITY POLE W/JOY WIRE
  - OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
  - U/G LINES (ELECTRIC/PHONE/CABLE)
  - DECIDUOUS TREE W/IDENTIFIER
  - CONCRETE CURB (UNLESS OTHERWISE STATED)
  - CONCRETE REVERSE CURB
  - SANITARY SEWER MANHOLE W/IDENTIFIER
  - SANITARY SEWER PIPE
  - CLEAR OUT
  - CONTROL STRUCTURE
  - STORM WATER MANHOLE W/IDENTIFIER
  - CATCH BASIN W/IDENTIFIER
  - FLARED END SECTION
  - STORM WATER DRAINAGE PIPE
  - HYDRANT
  - WATER SHUT OFF
  - WATER VALVE
  - WATER VALVE BOX
  - WATER MAIN
  - GAS SHUT OFF
  - U/G GAS
  - SPOT ELEVATION
  - EXISTING SPOT ELEVATION
  - 1' CONTOUR
  - 5' CONTOUR
  - SOL BORING W/ IDENTIFIER



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 BRIGHTON, MICHIGAN 48114

DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: SES	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS			
CHECK: CAG						

**ALDI FOOD MARKET #51**  
 HOWELL, MI  
 GRADING AND PAVING PLAN

CLIENT: ALDI Inc. 2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907	SCALE: 1"=20' PROJECT No.: 9173290 DWG NAME: 3290 GR ISSUED: FEB 21, 2018	<b>GR</b>
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**BENCHMARKS:**

DATUM BASED ON PREVIOUS BENCHMARK AS DEPICTED ON AS-BUILT PLANS PREPARED BY DESINE INC., JOB No. B1389, REVISED DATE DECEMBER 3, 2008.  
 DATUM AS DEPICTED = NGVD

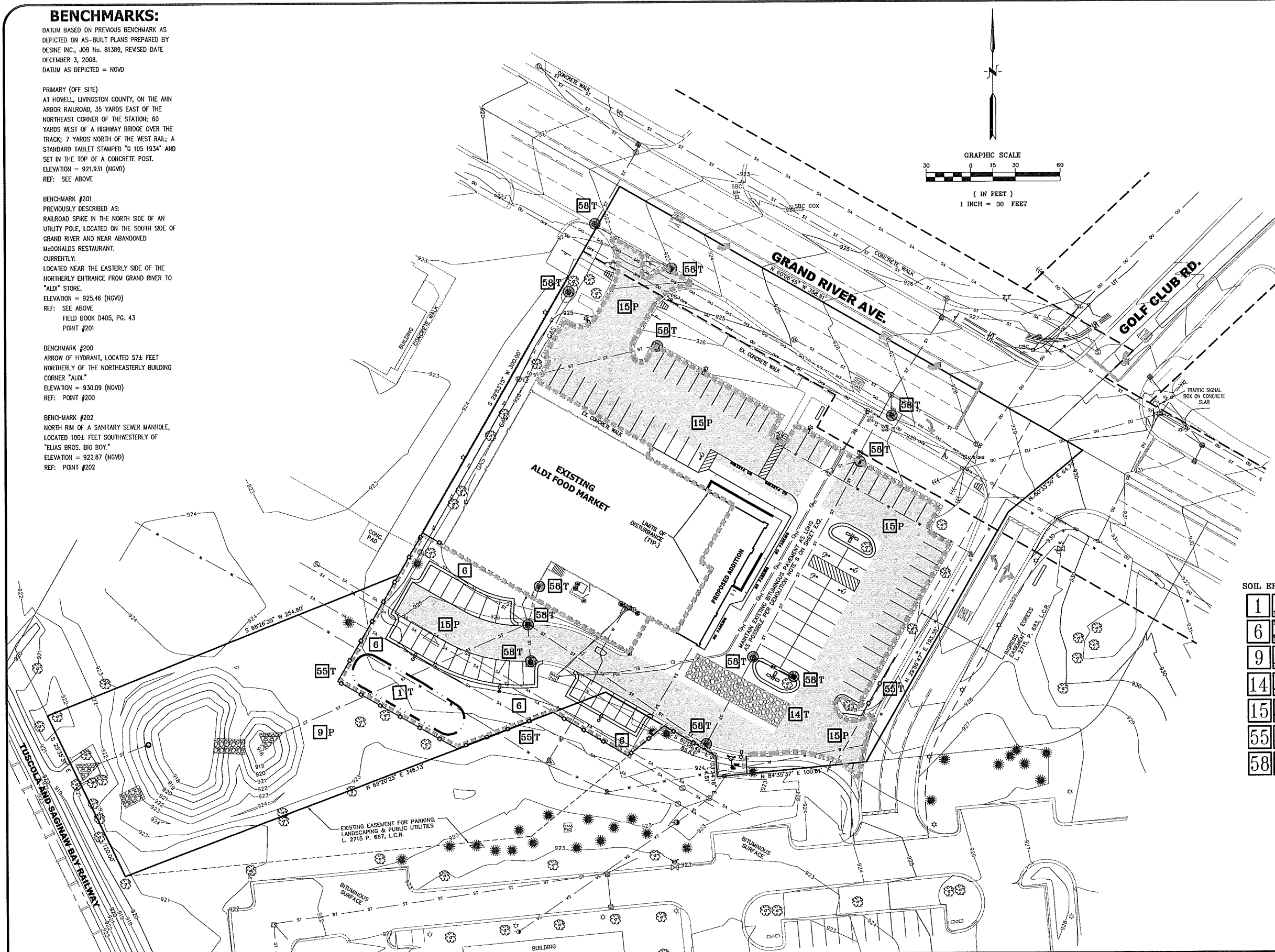
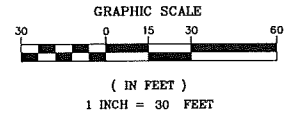
**BENCHMARK #201**  
 PREVIOUSLY DESCRIBED AS:  
 RAILROAD SPIKE IN THE NORTH SIDE OF AN UTILITY POLE, LOCATED ON THE SOUTH SIDE OF GRAND RIVER AND NEAR ABANDONED McDONALDS RESTAURANT.  
 CURRENTLY:  
 LOCATED NEAR THE EASTERLY SIDE OF THE NORTHERLY ENTRANCE FROM GRAND RIVER TO "ALDI" STORE.  
 ELEVATION = 925.46 (NGVD)  
 REF: SEE ABOVE  
 FIELD BOOK D405, PG. 43  
 POINT #201

**BENCHMARK #200**  
 ARROW OF HYDRANT, LOCATED 57± FEET NORTHERLY OF THE NORTHEASTERLY BUILDING CORNER "ALDI."  
 ELEVATION = 930.09 (NGVD)  
 REF: POINT #200

**BENCHMARK #202**  
 NORTH RIM OF A SANITARY SEWER MANHOLE, LOCATED 100± FEET SOUTHWESTERLY OF "ELIAS BROS. BIG BOY."  
 ELEVATION = 922.87 (NGVD)  
 REF: POINT #202

**LEGEND**

- MISC. STRUCTURE (AS LABELED)
- BOLLARD
- ⊕ SIGN
- ☆ LIGHT BASE
- UTILITY MANHOLE (AS LABELED)
- U—U— UTILITY POLE W/DUTY WIRE
- O—O— OVERHEAD UTILITY LINES (ELECTRIC/PHONE/CABLE)
- U/G—U/G— U/G LINES (ELECTRIC/PHONE/CABLE)
- ⊗ DECIDUOUS TREE W/IDENTIFIER
- EX CONCRETE CURB (UNLESS OTHERWISE STATED)
- ⊙ SANITARY SEWER MANHOLE W/IDENTIFIER
- SANITARY SEWER PIPE
- CLEAN OUT
- ⊙ CONTROL STRUCTURE
- ⊙ STORM WATER MANHOLE W/IDENTIFIER
- ⊙ CATCH BASIN W/IDENTIFIER
- FLARED END SECTION
- ST EX STORM WATER DRAINAGE PIPE
- ⊕ HYDRANT
- ⊕ WATER SHUT OFF
- ⊕ WATER VALVE
- ⊕ WATER VALVE BOX
- WATER MAIN
- ⊕ GAS SHUT OFF
- GAS U/G GAS
- 1' CONTOUR
- 5' CONTOUR



**SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**

1	STRIPE & SLOPPING TROPIC	TROPIC MAY BE STIPPED ABOVE BROWNS ARE TO ACT AS A DIVERSION STRIPE SHOULD BE TEMPORARILY SEED
6	STRIPES WITH MULCH AND/OR WOVEN	INCLUDES ESTABLISHMENT OF VEGETATION COVER STRIPES FOR BROWNS ARE WITH LOW VELOCITY ONLY PLACED IN SMALL QUANTITIES BY EXPERIENCED PERSONNEL STRIPES SHOULD BE PREPARED, TROPIC SET
9	WEDGIC BUTTER STOP	SLOWS RUNOFF VELOCITY FILTERS SEDIMENT FROM RUNOFF REDUCES VOLUME OF RUNOFF ON SLOPES
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, BIAS WINDING EROSION FILLS CONSTRUCTION WASTE IN AVOIDER. RESIDUE MAY BE USED AS FILL OF FERTILIZER SINCE CONSTRUCTION OF PAVED AREAS
15	FRAG	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES RUNOFF, VOLUME AND VELOCITY FERTILIZER SURFACE WILL HELP SLOW VELOCITY
55	DEBRISILE BIT FENCE	USES DEBRISILE AND PASTS OR PILES MAY BE CONSTRUCTED ON PREPARED EAST TO CONSTRUCT AND LOCATE AS NECESSARY
58	NET SEWMENT FIBER	USES PREPARED RESEEDABLE SACKS FILTERS SEDIMENT FROM RUNOFF AT CATCH BASIN INLET EAST TO INSTALL AND MAINTAIN

T = TEMPORARY P = PERMANENT  
 TOTAL DISTURBED AREA 1.32 AC.

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**ALDI FOOD MARKET #51**  
 HOWELL, MI

**SOIL EROSION AND  
 SEDIMENTATION  
 CONTROL PLAN**

CLIENT:  
 ALDI Inc.  
 2825 N. STOCKBRIDGE RD.  
 WEBBERVILLE, MICHIGAN 48892  
 (517) 521-3907

SCALE: 1"=30'  
 PROJECT No.: 9173290  
 DWG NAME: 3290 SE  
 ISSUED: FEB 21, 2018

**SE1**  
 60



LANDSCAPING CALCULATIONS

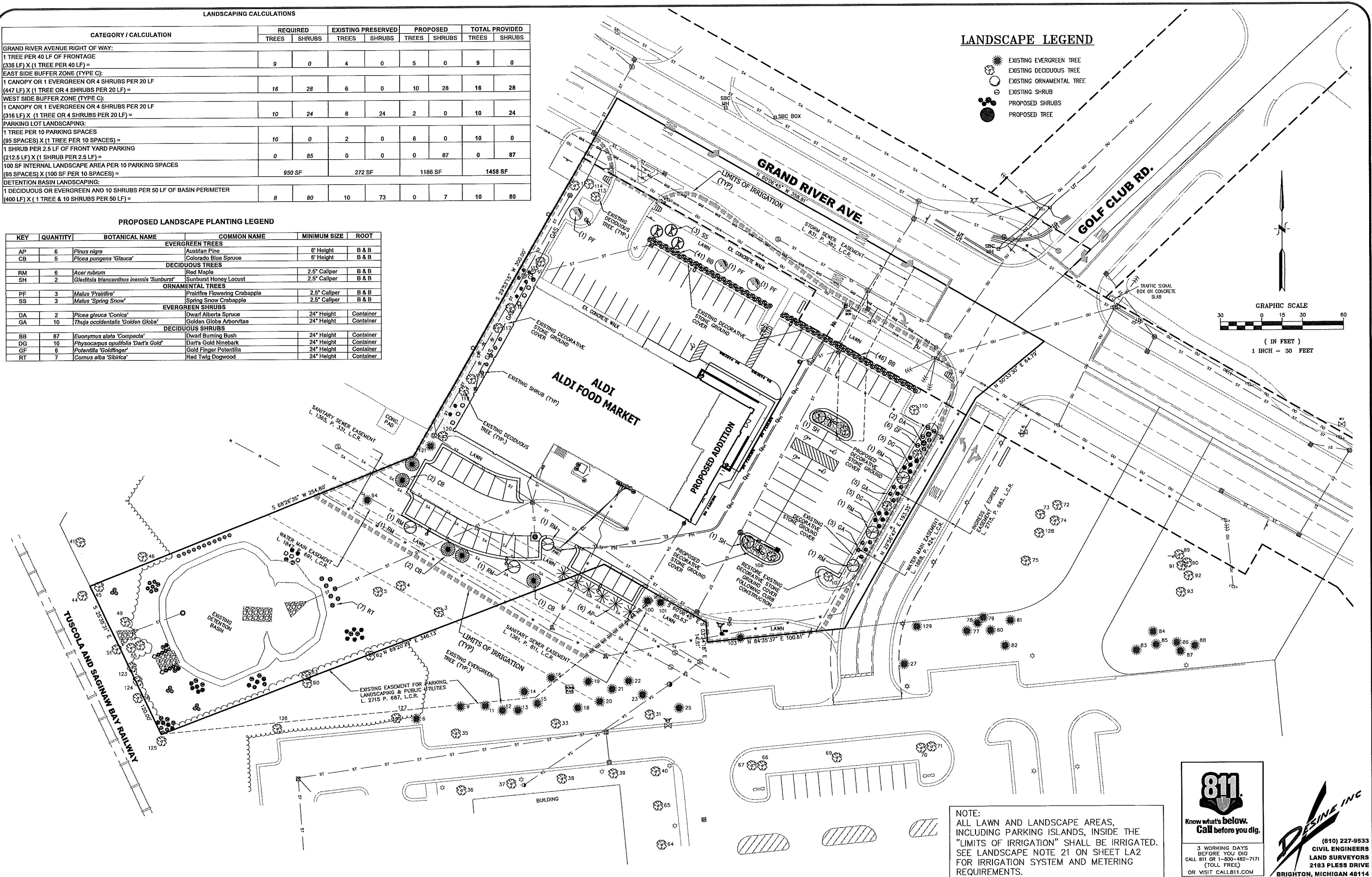
CATEGORY / CALCULATION	REQUIRED		EXISTING PRESERVED		PROPOSED		TOTAL PROVIDED	
	TREES	SHRUBS	TREES	SHRUBS	TREES	SHRUBS	TREES	SHRUBS
GRAND RIVER AVENUE RIGHT OF WAY:								
1 TREE PER 40 LF OF FRONTAGE (336 LF) X (1 TREE PER 40 LF) =	9	0	4	0	5	0	9	0
EAST SIDE BUFFER ZONE (TYPE C):								
1 CANOPY OR 1 EVERGREEN OR 4 SHRUBS PER 20 LF (447 LF) X (1 TREE OR 4 SHRUBS PER 20 LF) =	16	28	6	0	10	28	16	28
WEST SIDE BUFFER ZONE (TYPE C):								
1 CANOPY OR 1 EVERGREEN OR 4 SHRUBS PER 20 LF (316 LF) X (1 TREE OR 4 SHRUBS PER 20 LF) =	10	24	8	24	2	0	10	24
PARKING LOT LANDSCAPING:								
1 TREE PER 10 PARKING SPACES (85 SPACES) X (1 TREE PER 10 SPACES) =	10	0	2	0	8	0	10	0
1 SHRUB PER 2.5 LF OF FRONT YARD PARKING (212.5 LF) X (1 SHRUB PER 2.5 LF) =	0	85	0	0	0	87	0	87
100 SF INTERNAL LANDSCAPE AREA PER 10 PARKING SPACES (85 SPACES) X (100 SF PER 10 SPACES) =	950 SF		272 SF		1186 SF		1458 SF	
DETENTION BASIN LANDSCAPING:								
1 DECIDUOUS OR EVERGREEN AND 10 SHRUBS PER 50 LF OF BASIN PERIMETER (400 LF) X (1 TREE & 10 SHRUBS PER 50 LF) =	8	80	10	73	0	7	10	80

PROPOSED LANDSCAPE PLANTING LEGEND

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	ROOT
<b>EVERGREEN TREES</b>					
AP	6	<i>Pinus nigra</i>	Austrian Pine	6' Height	B & B
CB	5	<i>Picea pungens 'Glauca'</i>	Colorado Blue Spruce	6' Height	B & B
<b>DECIDUOUS TREES</b>					
RM	6	<i>Acer rubrum</i>	Red Maple	2.5" Caliper	B & B
SH	2	<i>Gleditsia triancanthos inermis 'Sunburst'</i>	Sunburst Honey Locust	2.5" Caliper	B & B
<b>ORNAMENTAL TREES</b>					
PF	3	<i>Malus 'Praediff'</i>	Prairie Flowering Crabapple	2.5" Caliper	B & B
SS	3	<i>Malus 'Spring Snow'</i>	Spring Snow Crabapple	2.5" Caliper	B & B
<b>EVERGREEN SHRUBS</b>					
DA	2	<i>Picea glauca 'Conica'</i>	Dwarf Alberta Spruce	24" Height	Container
GA	10	<i>Thuja occidentalis 'Golden Globe'</i>	Golden Globe Arborvitae	24" Height	Container
<b>DECIDUOUS SHRUBS</b>					
BB	87	<i>Euonymus alata 'Compacta'</i>	Dwarf Burning Bush	24" Height	Container
DG	10	<i>Physocarpus opulifolia 'Dart's Gold'</i>	Dart's Gold Ninebark	24" Height	Container
GF	6	<i>Potentilla 'Goldfinger'</i>	Gold Finger Potentilla	24" Height	Container
RT	7	<i>Cornus alba 'Sibirica'</i>	Red Twig Dogwood	24" Height	Container

LANDSCAPE LEGEND

- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- EXISTING ORNAMENTAL TREE
- EXISTING SHRUB
- PROPOSED SHRUBS
- PROPOSED TREE



NOTE:  
ALL LAWN AND LANDSCAPE AREAS,  
INCLUDING PARKING ISLANDS, INSIDE THE  
"LIMITS OF IRRIGATION" SHALL BE IRRIGATED.  
SEE LANDSCAPE NOTE 21 ON SHEET LA2  
FOR IRRIGATION SYSTEM AND METERING  
REQUIREMENTS.

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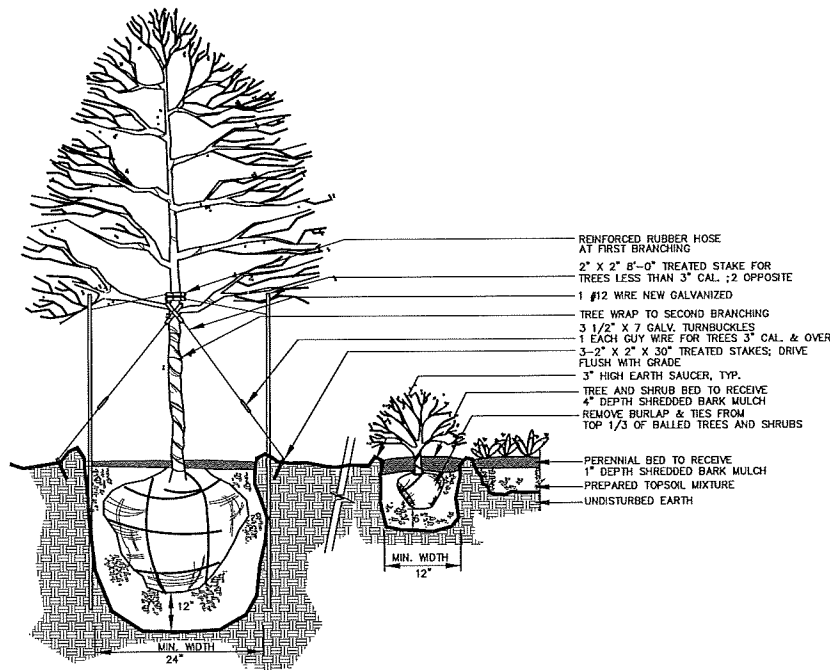
ALDI FOOD MARKET #51  
HOWELL, MI

LANDSCAPE PLAN

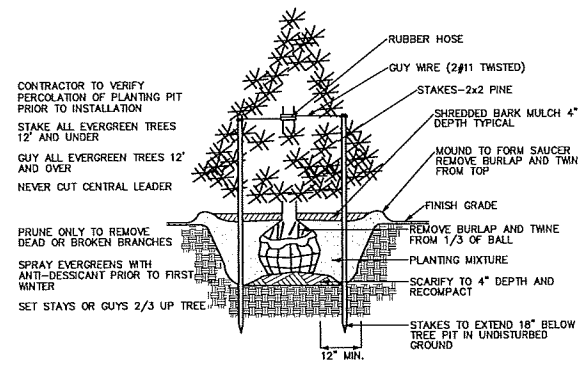
CLIENT:  
ALDI Inc.  
2625 N. STOCKBRIDGE RD.  
WEBBERVILLE, MICHIGAN 48892  
(517) 521-3907

SCALE: 1"=30'  
PROJECT No.: 9173290  
DWG NAME: 3290 LA  
ISSUED: FEB 21, 2018

**LA1**



**TYPICAL TREE/SHRUB/PERENNIAL PLANTING**  
NOT TO SCALE



**TYPICAL EVERGREEN TREE PLANTING**  
NOT TO SCALE

**MAINTENANCE-FREE BIKE RACKS**

Easy to install, environmentally safe, non-toxic, and available in unlimited colors in matte or high-gloss finish. S&G Bike Racks are built to withstand the rigors of hard outdoor use yet aesthetically pleasing in any environment. Our bike racks are made from structural grade steel pipe coated with durable, weather-resistant PVC.

Material: 1 1/2 Schedule 40 1.90 O.D. Coating: PVC Thermoplastic over Thermoset Vinyl Primer

Excellent Resistance to:  
Weather Acid Alkali Impact Abrasion Mildew

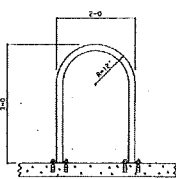
**Installation Options**

**SURFACE MOUNT**

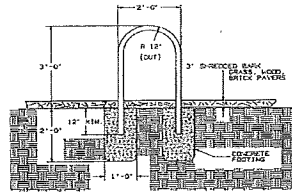
Secured with two steel flange bases and three anchors at each base.

**IN GROUND MOUNT**

Secured using concrete footings.



Model No. 2447-S



Model No. 2447

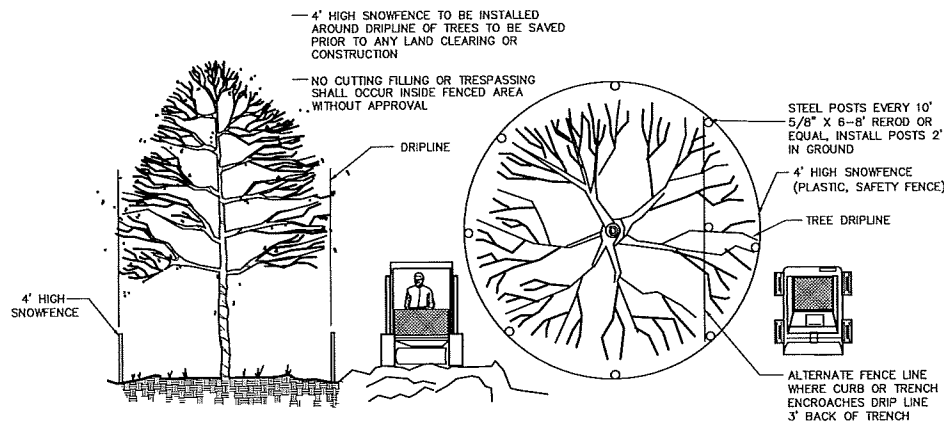
Bike racks to be Model No. 2447-S as manufactured by S&G Products, Dexter, Michigan (517-546-9240). 1 1/2\"/>

Bike racks to be Model No. 2447 as manufactured by S&G Products, Dexter, Michigan (517-546-9240). 1 1/2\"/>



S & G Products  
2055 N. Lima Center Rd, Dexter, Michigan 48130  
PO Box 615, Manchester, Michigan 48158  
Phone (517)546-9240 Fax (517)546-8720  
Email: sales@sandproducts.com  
Website: sandproducts.com

NOTE:  
SEE SHEET SP FOR PROPOSED BIKE RACK LOCATIONS



**TREE PROTECTION DETAIL**  
NOT TO SCALE

**EXISTING TREE SCHEDULE:**

- 1 8\"/>
- 3 18\"/>
- 4 24\"/>
- 5 18\"/>
- 6 9\"/>
- 9 8\"/>
- 11 9\"/>
- 12 8\"/>
- 13 9\"/>
- 14 8\"/>
- 15 9\"/>
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- 127 12\"/>
- 128 7\"/>
- 129 6\"/>

**LANDSCAPING NOTES:**

1. All minimum planting sizes specified on the Project Plans shall be at the time of planting.
2. All landscape materials shall be as specified on the Project Plans or approved equal. Substitutions shall not be made without prior written approval from the Project Engineer and receipt of the Owner's Authorization.
3. All plant material shall be free of disease and insects and shall conform to the American Standard of Nursery Stock of the American Association of Nurserymen.
4. All landscape plantings shall be planted and maintained in a healthy condition and shall be guaranteed by the Landscape Contractor and/or Supplier for a minimum period of 1 year from the time of planting. Any plantings that die or become diseased during the guarantee period shall be removed and replaced by the Landscape Contractor and/or Supplier at no cost to the Owner.
5. Excavations for container or balled plantings shall be no deeper than the root ball or container and shall be at least twice the diameter of the root ball or container.
6. Excavations for bare root plantings shall be no deeper than the longest roots and shall be at least twice the diameter of the root spread.
7. The sides of planting excavations in heavy and/or wet soils shall be scarified with a fork, pick or shovel to eliminate glazing.
8. Landscape planting backfill shall consist of a prepared mixture of peat moss, composted manure and topsoil or suitable excavated native soil material mixed with the appropriate soil conditioners that are compatible with the native soil and plant species. The type and mixture ratio of soil conditioners shall be in accordance with the Landscape Supplier's recommendations.
9. The Landscape Contractor shall stake and reinforce all trees to prevent wind damage. The Landscape Contractor shall remove all tree reinforcement and stakes upon expiration of the guarantee period.
10. Perennials shall be planted on a 3\"/>
- 11. Landscape beds shall be separated from lawn areas with landscape edging. Landscape edging shall be black heavy-duty polyethylene type with UV protection and a double V-lip bottom edge to prevent frost heave. Landscape edging shall be staked in accordance with the Manufacturer's recommendations to prevent frost heave. Landscape edging shall be installed in strict accordance with the Manufacturer's specifications and recommendations.
- 12. Ground cover within landscape beds shall be decorative stone. Decorative stone shall be 2\"/>
- 13. Ground cover within landscape beds shall be placed over a landscape fabric weed barrier. Landscape fabric shall be non-woven, 4 oz. per sq. yd. minimum weight, with UV protection. Landscape fabric shall be installed in strict accordance with the Manufacturer's specifications and recommendations. Landscape fabric shall not be installed over or within 12 inches of perennial plantings.
- 14. Lawn areas shall be established with 3\"/>
- 15. Topsoil shall be a dark, organic, natural surface soil free of clay lumps, peat, muck, subsoil, noxious weeds and other foreign material such as roots, sticks and rocks over 1/2\"/>
- 16. Seed mixture for lawn areas shall consist of 10% Kentucky Blue Grass, 20% Perennial Rye Grass, 30% Hard Fescue and 40% Creeping Red Fescue. Hydroseed shall be placed within 5 days of topsoil placement and shall be placed to provide complete and uniform coverage. Fertilizer shall be placed at 80 pounds per acre, hydro mulch at 1,200 pounds per acre and water at 500 gallons per acre unless otherwise specified by the Seed Distributor/Manufacturer. All over spray areas shall be properly cleaned and restored at no expense to the contractor.
- 17. Seed and mulch may be substituted for hydroseed when authorized by the Owner. Seed mixtures shall meet the requirements for lawn areas as outlined above. Seed shall be uniformly applied at a rate of 220 lbs per acre unless otherwise recommended by the seed Distributor/Manufacturer. Seed mixture shall be fertilized. Fertilizer shall be uniformly applied at of 240 pounds per acre of chemical fertilizer nutrients in equal portions (10-10-10) of Nitrogen, Phosphoric Acid and Potash.
- 18. All seeded areas with a slope less than 1:4 shall be stabilized with straw mulch placed at 2 tons per acre unless otherwise recommended by the seed Distributor/Manufacturer. Erosion control blankets shall be substituted for straw mulch in roadway greenbelts, lawn areas adjacent to heavy traffic, lawn areas subject to high winds, slopes of 1:4 or greater and within ditches, swales and other areas exposed to concentrated overland storm water flow. Erosion control blankets shall consist of 100% straw fiber matrix with photodegradable polypropylene netting and have a 12-month minimum longevity rating. Erosion control blankets shall be pinned with biodegradable pins and shall be installed in accordance with the Manufacturer's recommendations.
- 19. Sod shall only be utilized where specified on the project plans. (Sod may be substituted for hydroseed when required by the Municipality or if necessary for site stabilization late in the growing season. Sod shall not be substituted without receipt of the Owner's Authorization.) Sod shall be a drought tolerant species consisting primarily of Fine Leafed Fescues including Red Fescue, Chewings Fescue and Hard Fescue with Kentucky Bluegrass filler for hardiness. Sod shall be placed on a prepared subgrade. Subgrade shall be finish graded and tilled to a depth of 4\"/>
- 20. The Landscape Contractor shall be responsible for watering non-irrigated plantings and sod during dry weather conditions throughout the guarantee period as necessary to promote growth and establishment.
- 21. The existing irrigation system shall be modified as a part of this project. The existing irrigation system shall be inspected and tested to determine the limits of irrigation and condition of the irrigation system. The irrigation system shall be modified as necessary to accommodate the proposed site improvements and to provide irrigation to all lawn and landscape areas within the limits of irrigation as shown on the Landscape Plan. All broken, damaged and/or inoperable portions of the existing irrigation system shall be repaired or replaced as necessary. All existing sprinkler heads that are to remain shall be adjusted as necessary for proper operation and coverage. The Contractor shall submit an irrigation system design and shop drawings to the Owner for review and approval prior to installation. Irrigation systems shall be designed to utilize the minimum amount of water necessary to provide sufficient irrigation, satisfy the Local Municipal requirements and site conditions and shall include a rain sensor. A separate water meter, if not already existing, shall be installed as a part of the irrigation system modification to allow for reduced rate metering by the Local Municipality and/or Water Authority. The Contractor shall be responsible for coordinating installation of irrigation lines, sleeves, plumbing connections, controls and appurtenances at the appropriate stages of construction. All existing irrigation lines and systems that are to remain that are cut, plugged, spliced, damaged and/or otherwise modified during demolition and/or construction activities shall be properly repaired, replaced, reconnected and/or adjusted as necessary to ensure proper operation.
- 22. All existing on-site trees shall be trimmed / pruned as directed by ALDI Inc.

DESIGN#	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
FAF	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS			
SES						
CAG						

**ALDI FOOD MARKET #51**  
**HOWELL, MI**

**LANDSCAPE NOTES & DETAILS**

CLIENT:  
ALDI Inc.  
2625 N. STOCKBRIDGE RD.  
WEBBERVILLE, MICHIGAN 48892  
(517) 521-3907

SCALE: AS NOTED  
PROJECT No.: 9173290  
DWG NAME: 3290.LA  
ISSUED: FEB 21, 2018

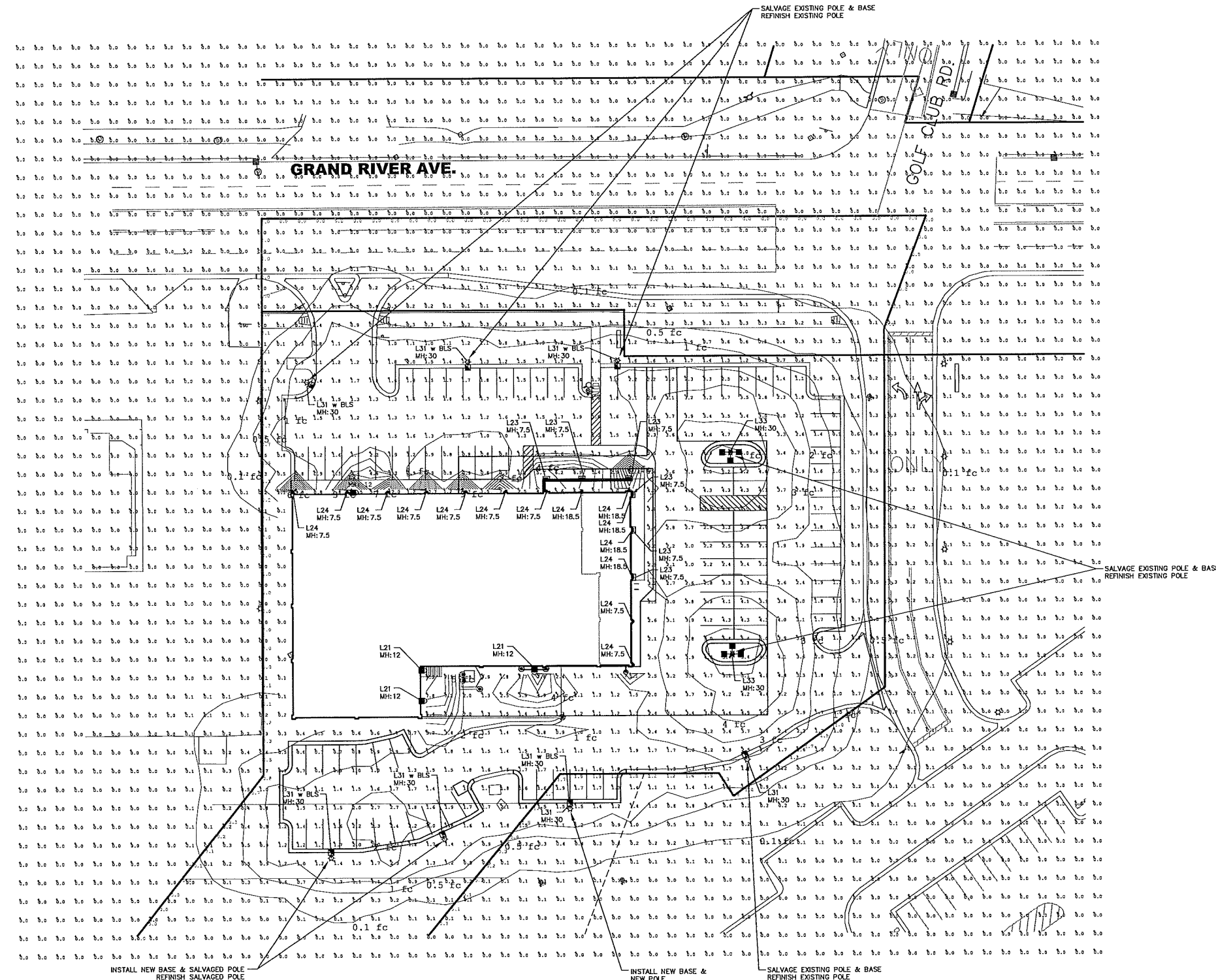
**LA2**

Symbol	Qty	Label	Arrangement	Lumens/Lamp	LLF	Total Watts	Description
⬢	4	L21	SINGLE	4109	1.000	168	XSPW403AC-UCSP
⬢	6	L23	SINGLE	N.A.	1.000	258.42	AL-27LED-UD-OS-120
⬢	7	L31 w BL	SINGLE	1950	1.000	602	OSQ-A-NM-4ME-B-5FK-UL-CS W/OSQ-DACS OSQ-BLSMF
⬢	2	L33	3 @ 90°	11648	1.000	516	OSQ-A-NM-4ME-B-5FK-UL-CS W/OSQ-DACS
⊙	14	L24	SINGLE	N.A.	1.000	824.8	CL-P5423-30-50K

Footcandles calculated using predicted lumen values after 50K hours of operation	Avg	Max	Min	Avg/Min	Max/Min
PROPERTY LINE	0.34	1.8	0.0	N.A.	N.A.
PARKING LOT	2.32	9.5	0.4	5.60	23.75

Pole Schedule  
 (1) CL-554-4011-26-D1-XX (26' X 4" STEEL SQUARE POLE)  
 Proposed poles meet 120 MPH sustained winds.

ADDITIONAL EQUIPMENT  
 (1) OSQ-DACS (DIRECT ARM MOUNT)  
 (7) OSQ-BLSMF (BACKLIGHT SHIELD)



DLC V4 is in effect as of April 1, 2017, which impacts the rebate eligibility of many LED products. If you require DLC-qualified fixtures, please reference <https://www.designlights.org/search/> for updated qualified product listings. Email [rebates@cree.com](mailto:rebates@cree.com) or [rebates@cree.com](mailto:rebates@cree.com) for assistance.



Project Name: ALDI - HOWELL, MI	Scale: 1"=30'	Footcandles calculated at grade
Date: 1/18/2018	Layout by: CHRIS BOSANEC	
Filename: V:\CommonAppEng\NATVALD-180118HWMCB.AGI		

Illustration results shown on this lighting design are based on project parameters provided to Cree, Inc. used in conjunction with Cree's test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy codes.

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DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: SES						
CHECK: CAG						

**ALDI FOOD MARKET #51**  
**HOWELL, MI**  
**SITE LIGHTING PLAN**

CLIENT: ALDI Inc. 2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907	SCALE: NONE PROJECT No.: 9173290 DWG NAME: 3290.LT ISSUED: JAN 29, 2018	<b>LT1</b>
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OSQ Series  
OSQ LED Ceiling Luminaire - Medium

Product Description

The OSQ Area Flood Luminaire is a ceiling mount LED luminaire designed for general and specialty lighting applications. It features a unique design that allows for easy installation and adjustment. The luminaire is available in various sizes and finishes to meet your specific lighting needs.

Performance Summary

Designed in the U.S.A. and imported parts. Available in the U.S.A. and imported parts. Input Power: 25W. Output Power: 20W. CRI: 90+. Beam Spread: 45°. Mounting: Ceiling. Finish: White.

Accessories table with columns: Part Number, Description, Price.

Ordering Information

OSQ Series Luminaire - Medium. Part number: OSQ-M. Dimensions: 18" Dia. Weight: 11.5 lbs. Material: Aluminum.

Accessories

Luminaire Accessories table with columns: Part Number, Description, Price.



CPY Series  
CPY LED Ceiling Luminaire

Product Description

The CPY Area Flood Luminaire is a ceiling mount LED luminaire designed for general and specialty lighting applications. It features a unique design that allows for easy installation and adjustment. The luminaire is available in various sizes and finishes to meet your specific lighting needs.

Performance Summary

Designed in the U.S.A. and imported parts. Available in the U.S.A. and imported parts. Input Power: 25W. Output Power: 20W. CRI: 90+. Beam Spread: 45°. Mounting: Ceiling. Finish: White.

Accessories table with columns: Part Number, Description, Price.

Ordering Information

CPY Series Luminaire - Medium. Part number: CPY-M. Dimensions: 18" Dia. Weight: 11.5 lbs. Material: Aluminum.

Accessories

Luminaire Accessories table with columns: Part Number, Description, Price.



18" Cylinder LED Sconce  
Decorative Outdoor - Wall Mount

Product Description

The 18" Cylinder LED Sconce is a decorative outdoor wall-mounted luminaire. It features a modern design and is suitable for use in patios, porches, and other outdoor areas. The sconce is available in various finishes to match your exterior decor.

Performance Summary

Designed in the U.S.A. and imported parts. Available in the U.S.A. and imported parts. Input Power: 25W. Output Power: 20W. CRI: 90+. Mounting: Wall. Finish: White.

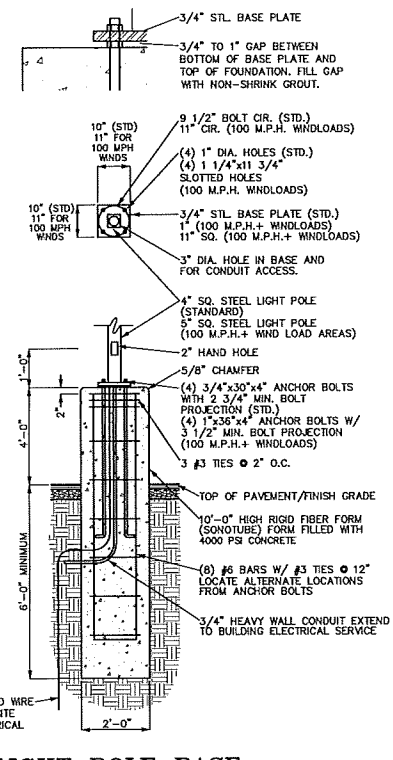
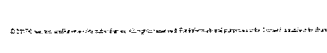
Accessories table with columns: Part Number, Description, Price.

Ordering Information

18" Cylinder LED Sconce - Decorative Outdoor. Part number: CYL-18. Dimensions: 18" Dia. Weight: 11.5 lbs. Material: Aluminum.

Accessories

Luminaire Accessories table with columns: Part Number, Description, Price.

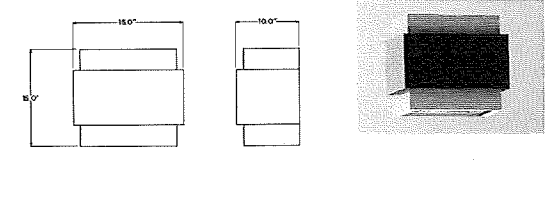


LIGHT POLE BASE STANDARD DETAIL  
NOT TO SCALE

- NOTES: 1. FOUNDATION SHOWN IS A TYPICAL DESIGN. WIND LOADS MORE THAN 100 MPH AND/OR UNSTABLE SOIL CONDITIONS MAY REQUIRE AN ALTERNATE DESIGN. VERIFY CONDITION OF SOILS WITH SOILS REPORT. 2. FOUNDATIONS SHALL EXTEND BELOW FROST DEPTH PER LOCAL CODES. 3. CONCRETE SHALL HAVE MIN 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. 4. SEE SITE LIGHTING ELECTRICAL PLAN WITH ARCHITECTURAL PLANS FOR ADDITIONAL REQUIREMENTS. 5. VERIFY BASE FLAT BOLT PATTERN WITH POLE MANUFACTURER AND / OR SUPPLIER PRIOR TO CONSTRUCTION.

Outdoor Wall Sconce LED Exterior Series

Applications: Security, pathway and perimeter lighting, ideal for entryways, walkways, and parking facilities.



Type L23

Catalog and specifications table for Type L23 outdoor wall sconce, including wattage, lumens, voltage, and warranty.



XSP Series  
XSPV LED Wall Mount Luminaire

Product Description

The XSPV LED Wall Mount Luminaire is a modern, sleek fixture designed for interior wall mounting. It features a minimalist design and is suitable for use in bedrooms, living rooms, and hallways. The luminaire is available in various finishes to match your interior decor.

Performance Summary

Designed in the U.S.A. and imported parts. Available in the U.S.A. and imported parts. Input Power: 25W. Output Power: 20W. CRI: 90+. Mounting: Wall. Finish: White.

Accessories table with columns: Part Number, Description, Price.

Ordering Information

XSP Series Luminaire - Wall Mount. Part number: XSP-W. Dimensions: 18" Dia. Weight: 11.5 lbs. Material: Aluminum.

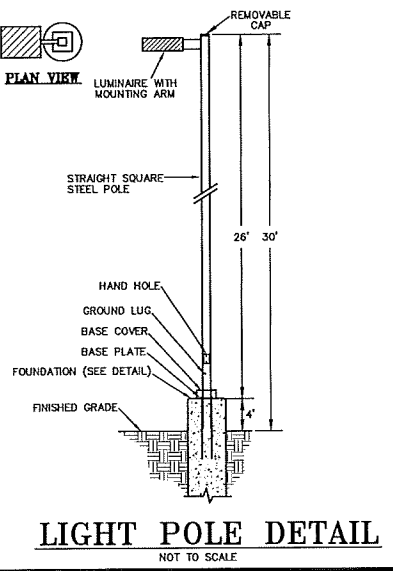
Accessories

Luminaire Accessories table with columns: Part Number, Description, Price.



SITE LIGHTING NOTES:

- 1. All existing on-site pole mounted light fixtures are to be removed in accordance with the project plans. The existing light poles and bases are to be salvaged where feasible. The existing electric supply is to be salvaged unless noted otherwise on the Site Electrical Plan.
- 2. All existing light poles shall be refinished. Remove all existing rust, scale, chipped and/or peeling finish. Prepare the surface, prime and paint all light poles in accordance with the Project Manual painting specifications and requirements for exterior finishes. Paint color shall be slate gray.
- 3. The proposed pole mounted light fixtures shall be mounted onto the existing light poles in accordance with the light fixture manufacturer's recommendations. Any new mounting holes shall be drilled and all other necessary modifications to the existing poles shall be performed prior to refinishing of the existing poles.
- 4. Existing exterior building mounted light fixtures shall be removed and replace in accordance with the project plans. See the building plans for additional information and specifications.
- 5. Contact the ALDI National Account Lighting Distributor to order fixtures, mounting accessories and pole(s): Mike Kreiner, Strategic Director - National Accounts, Cree Lighting, 9201 Washington Avenue, Racine, WI 53406, Office: 262-504-5037, Cell: 224-250-1561, mike\_kreiner@cree.com <mailto:mike\_kreiner@cree.com>
- 6. CAUTION! This site contains existing underground public and private utilities. See the project plans for locations of the known existing and proposed underground utility locations. Existing utility information provided on the project plans may be from information disclosed to this firm by the Utility Companies, Local, County or State Agencies, and/or various other sources. No guarantee is given as to the completeness or accuracy thereof. The Site Electrical Contractor shall contact the 811 Underground Public Utility Locating System or other appropriate local underground utility locating Agency, a minimum of three (3) working days prior to performing the site electrical work. The Site Electrical Contractor shall field locate all potential utility conflicts and take the necessary precautions to avoid damage to the existing underground utilities. Any damage to the existing utilities as a result of the site electrical work shall be immediately brought to the attention of the General Contractor and shall be repaired as acceptable to the Owner, the General Contractor and the appropriate Utility Provider. If the existing site conditions create a conflict and/or prevent the Site Electrical Contractor from performing the site electrical work, then contact the Engineer of Record.
- 7. Any existing light pole that cannot be salvaged due to damage, corrosion and/or other conditions shall be replaced. Replacement poles shall be CREE Straight Steel Poles 26"x4", unless directed otherwise by CREE. The Contractor shall field measure the bolt pattern of the existing base and order the replacement pole with the correct base installed. The Contractor shall provide ALDI with an alternate bid price per pole to remove an existing pole and install a new replacement pole in lieu of refinishing. The bid price shall include a credit for light pole refinishing.
- 8. Any existing anchor bolts, within an existing light pole base that is to remain, that are in need of replacement due to corrosion, damage and/or other circumstances, shall be removed and replaced with retrofit anchor bolts (Hilti or equal) in accordance with the light pole and anchor bolt manufacturer's specifications and recommendations. The Contractor shall provide ALDI with an alternate bid price per anchor bolt to remove an existing anchor bolt from an existing light pole base and install a retrofit anchor bolt.
- 9. Any existing light pole bases that cannot be salvaged due to damage, corrosion and/or other conditions shall be replaced. Replacement bases shall be constructed in accordance with the specifications provided on the project plans. The Contractor shall provide ALDI with an alternate bid price per base to remove an existing light pole base and install a new cast in place concrete light pole base in accordance with details provided on the project plans.
- 10. No Alternate Work shall be performed without written receipt of authorization from ALDI to complete said alternate work.



LIGHT POLE DETAIL  
NOT TO SCALE

Revision table with columns: REVISION #, DATE, REVISION-DESCRIPTION.

ALDI FOOD MARKET #51  
HOWELL, MI

SITE LIGHTING  
NOTES AND DETAILS

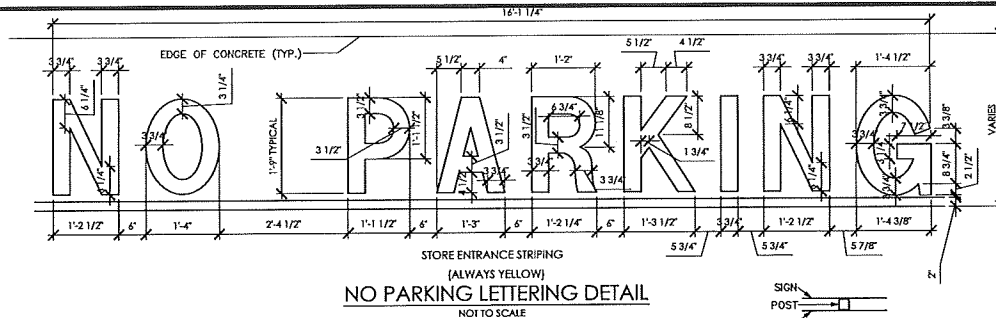
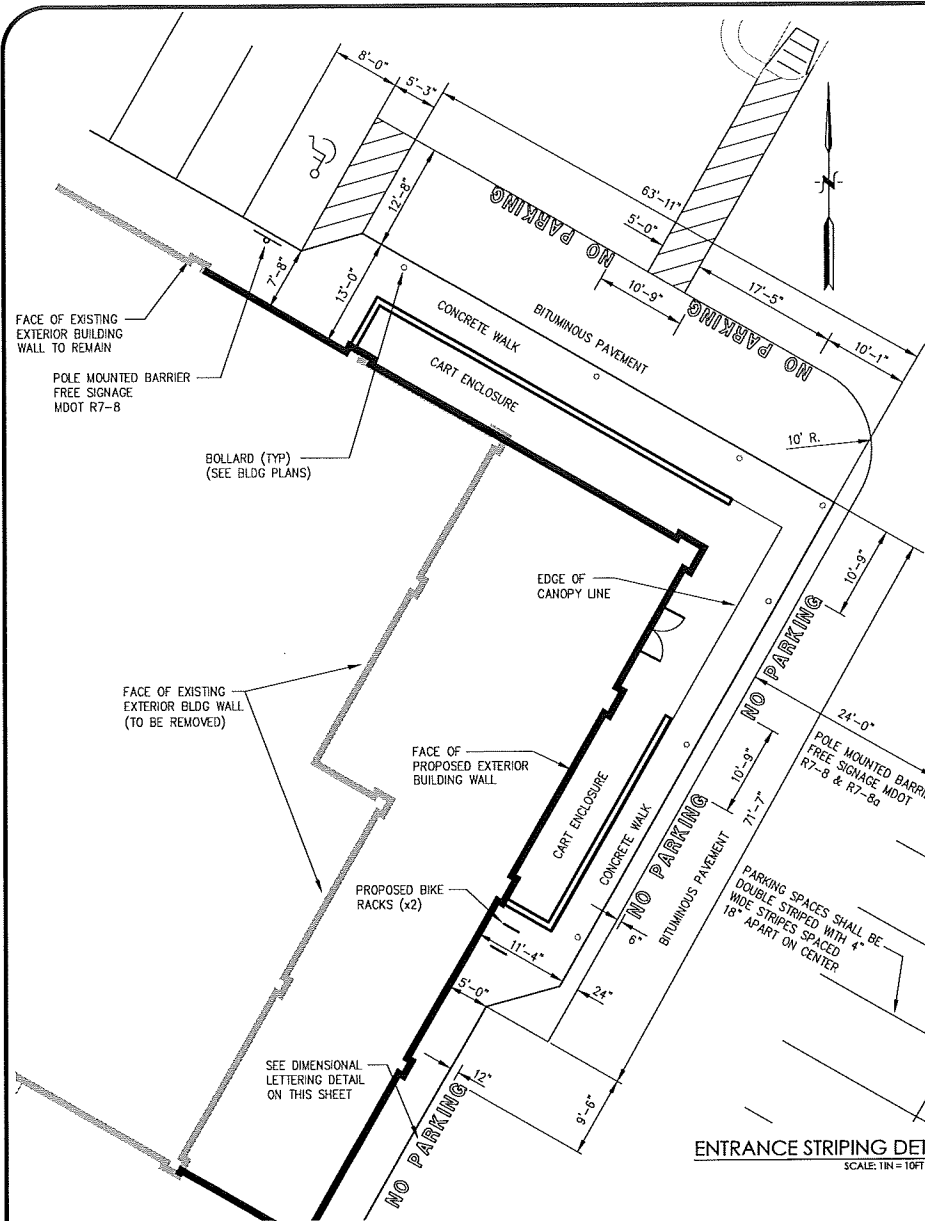
CLIENT: ALDI Inc. 2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907

SCALE: N/A PROJECT No.: 9173290 DWG NAME: 3290 LT ISSUED: JAN 29, 2018

LT2

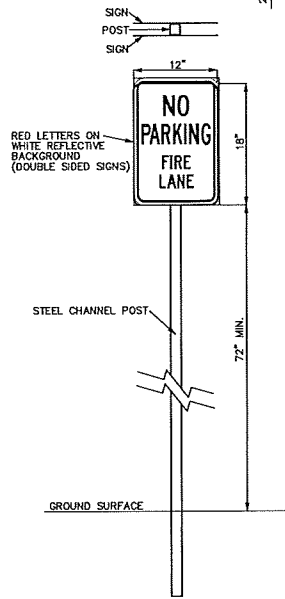
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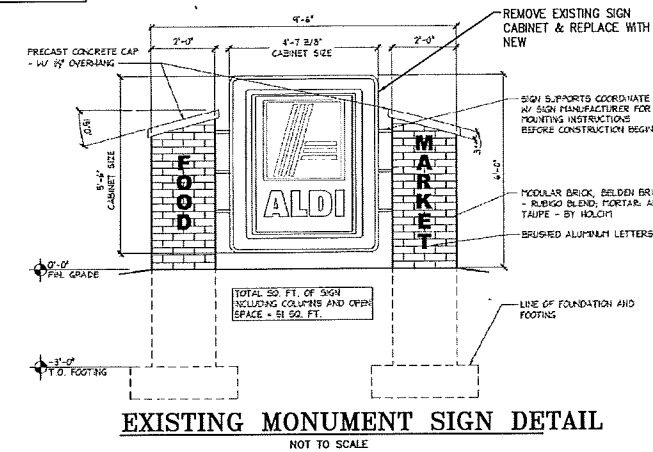
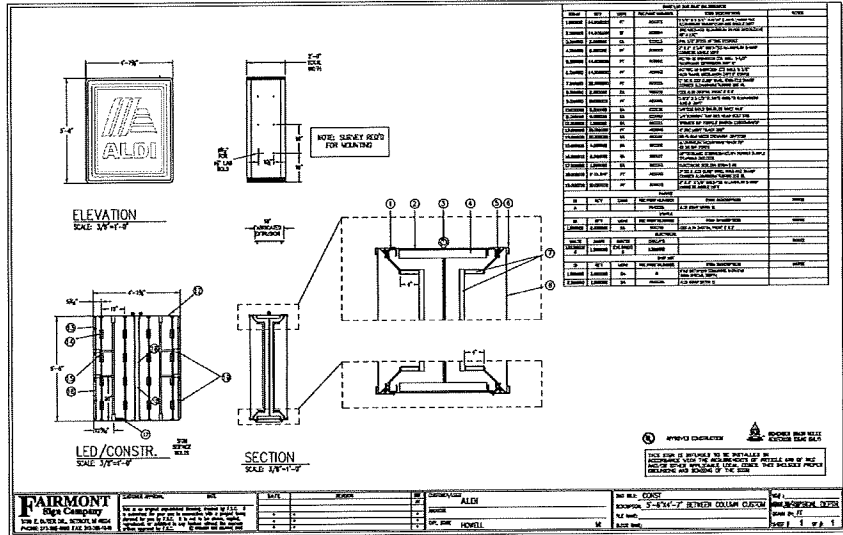
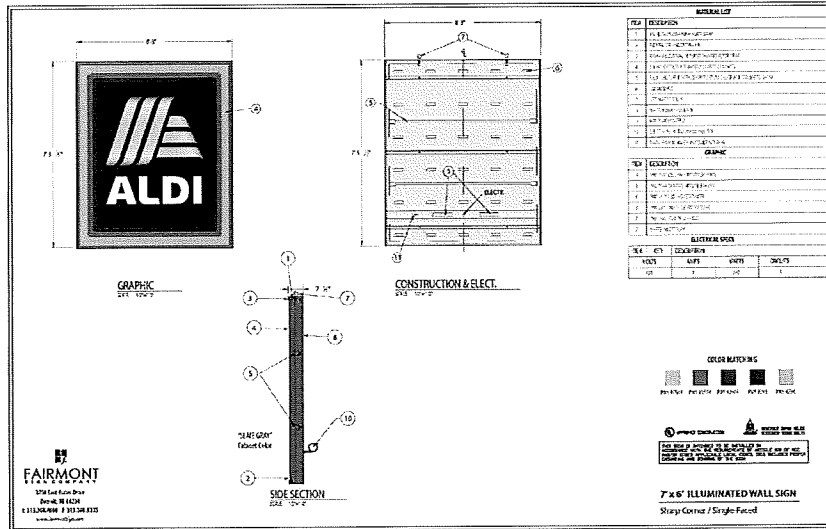
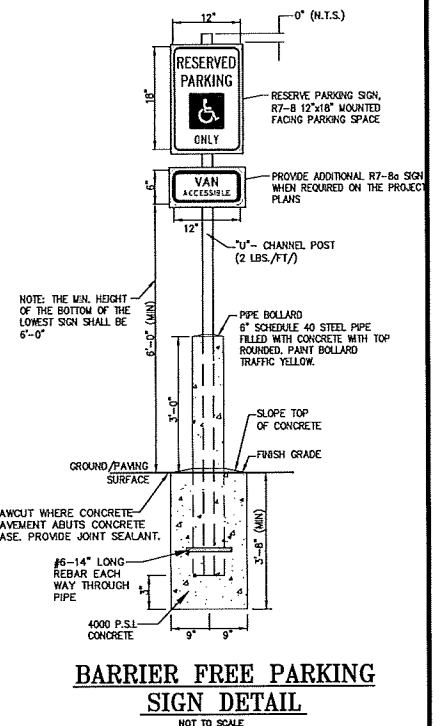
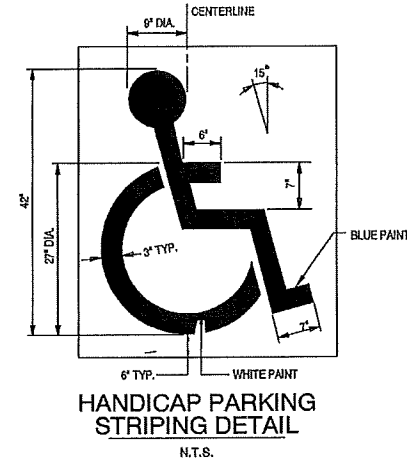
**SIGNAGE AND PAVEMENT MARKING NOTES:**

- Pavement markings shall be in accordance with the type, color, size and locations shown on the plans. If the information on the plans is not complete and the authority having jurisdiction does not have specific requirements, then use the following: Paint shall be supplied in accordance with AASHTO: M 248 latest addition. Colors shall be as follows: (YELLOW - parking stalls, loading zones, no parking zones and fire lanes) (WHITE - stop bars, pedestrian crossings, lane demarcations, directional arrows and lettering) (BLUE - handicap parking stalls and symbols). Stripe widths shall be as follows: (4" - parking spaces, driveway lanes, barrier free loading zones and no parking zones) (12" - crosswalks) (24" - stop bars).
- The pavement shall be clean and free of dirt, dust, moisture, oils and other foreign materials at time of marking application. Any old pavement markings shall be removed unless paints are compatible and overlay identically. The surface of the pavement prior to application shall be a minimum of 45 degrees F and rising unless the Manufacturer's recommendations are greater.
- The signage shall be in accordance with the type, color, size and locations shown on the plans in accordance with AASHTO M268. The signage shall be provided in accordance with the Local Municipality and the Michigan Manual of Uniform Traffic Devices latest edition.
- Posts, brackets and frames shall be steel per ASTM A-36, A-242, A-441, A-572, A588, Grade 50 and hot dip galvanized in accordance with ASTM A123. All cutting, drilling and/or other pole modifications shall be painted with galvanizing paint. All mounting hardware shall be stainless steel.
- Sign post footings shall be a minimum of 3'-6" deep and 8" in diameter unless poor soils or frost conditions require greater depth and/or diameter. Sign posts shall be kept plumb, 6 inches off the bottom of footing excavation and centered as 3000-psi concrete is placed under and around the sign post. The overall sign and post system should be able to withstand 33 pounds per square foot. All signs located in paved areas or with less than 3 feet of clearance between the centerline of sign post and the back of curb and/or edge of pavement shall be installed in a pipe bollard. Pipe bollards shall be 6" diameter schedule 40 steel pipe. Pipe bollards shall be filled with concrete that is rounded at the top of the bollard. Bollards shall be painted traffic yellow. Increase the sign post footing diameter to 14" minimum for pipe bollards and embed the bollard into the concrete footing a minimum of 3 feet below proposed finish grade.
- Signs shall not be mounted on posts until after concrete has cured for a minimum of seven days or 3/4 strength is achieved.
- All barrier free striping and signage shall meet the Americans with Disabilities Act (ADA) requirements.
- All Fire Lane signs shall have a Red Border and Red Letters on White Background. All Fire Lane signs shall be Reflective. Fire lane striping and signage shall meet the requirements of the Local Building Inspector and Fire Department.
- "Mounting Height" shall be the minimum height of the bottom of the sign above finish grade. When signs are located downhill from the roadway, driveway and/or parking area, then the "Mounting Height" shall be the height of the bottom of the sign above the top of pavement finish grade at the nearest edge of pavement adjacent to the sign.
- All Traffic Control and Fire Lane signs shall be installed at 3 feet behind the back of curb (and/or edge of pavement) to the centerline of the sign post unless noted otherwise on the project plans.
- The Contractor(s) and/or Subcontractor(s) responsible for installation of the sign posts shall contact the 811 Public Underground Utility Locating System a minimum of three (3) working days prior to installation of the signposts. Install the sign posts in the locations specified on the project plans. When underground utilities conflict with the proposed sign post locations, field adjust the sign locations the minimum amount necessary to safely clear the underground utilities. Maintain a minimum of 2 feet of clearance between the edge of sign and the back of curb and/or edge of sidewalk.



**SIGN SCHEDULE**

SGN	KEY	SIZE (W x H)	TYPE OR MOUNT	MOUNTING HEIGHT	QUANTITY
RESERVED PARKING ONLY	R7-8	12' x 18'	POST MOUNTED	7'-6"	5
			BUILDING MOUNTED	7'-6"	0
VAN ACCESSIBLE	R7-8a	12' x 6'	POST MOUNTED	7'-0"	4
NO PARKING FIRE LANE	FIRE LANE	12' x 18'	POST MOUNTED	6'-0"	10



- MONUMENT SIGN NOTES:**
- The existing monument sign cabinet shall be removed in accordance with the project plans. The existing monument and foundation shall be salvaged for reuse. The existing monument sign electric supply shall be salvaged for reuse unless noted otherwise on the Site Electrical Plan with the Building Plans. See the Site Electrical Plan for additional requirements and/or specifications.
  - The existing monument shall be power washed.
  - The proposed monument sign cabinet shall be mounted onto the existing monument in accordance with the monument sign cabinet manufacturer's recommendations.

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DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: SES	1	04/10/17	REVISED PER CITY AND CLIENT REVIEW COMMENTS			
CHECK: CAG						

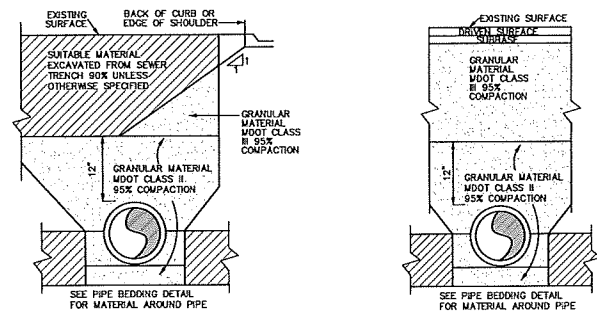
**ALDI FOOD MARKET #51**  
**HOWELL, MI**

**SIGNAGE & PAVEMENT MARKING NOTES & DETAILS**

CLIENT:  
ALDI Inc.  
2625 N. STOCKBRIDGE RD.  
WEBBERVILLE, MICHIGAN 48892  
(517) 521-3907

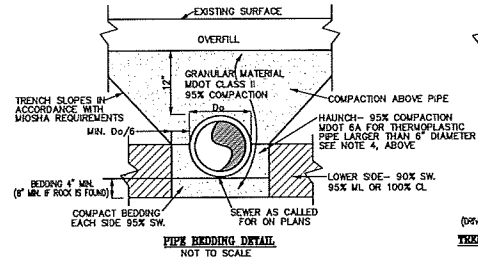
SCALE: AS NOTED  
PROJECT No.: 9173290  
DWG NAME: 3290 DT  
ISSUED: FEB 21, 2018

**DT2**

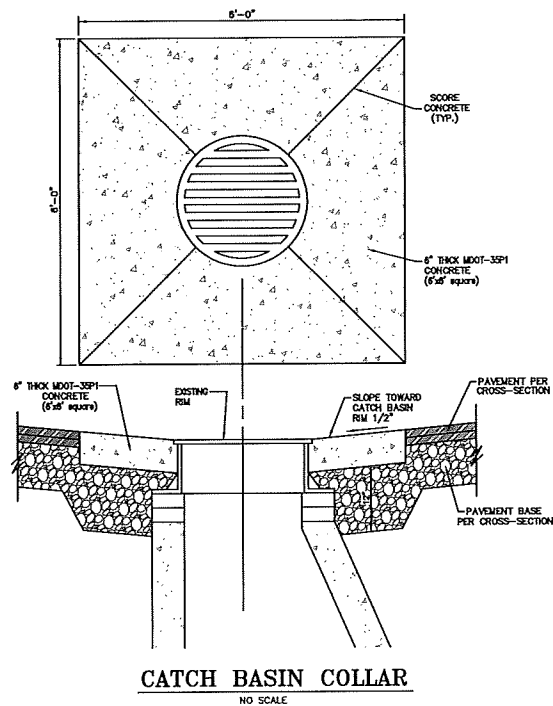


**TRENCH A - PIPE UNDER OR WITHIN INFLUENCE OF DRIVE SURFACE**  
NOT TO SCALE

- NOTES:
1. COMPACTION PRESENTED AS STANDARD PROCTOR VALUES.
  2. SOIL TYPES: AASHTO DESIG. GRAVEL SANDY (SW) A1, A3; SANDY SILTY (UL) A2, A4; SILTY CLAY (CL) A5, A6, A7.
  3. SOIL IN HAUNCH AND LOWER SIDE ZONES OUTSIDE OF D<sub>0</sub>/6 FROM SPRING LINE SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS THE SOIL IN THE OVERFILL ZONE.
  4. MATERIALS AROUND THERMO. PLASTIC PIPE WITH DIAMETER 6 INCHES SHALL PASS 0.5 INCH SEVE. MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SEVE.

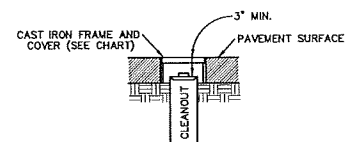


**TRENCH DETAILS**  
NOT TO SCALE

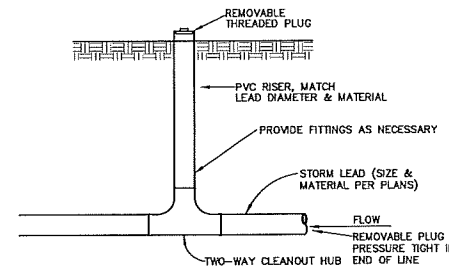


**CATCH BASIN COLLAR**  
NO SCALE

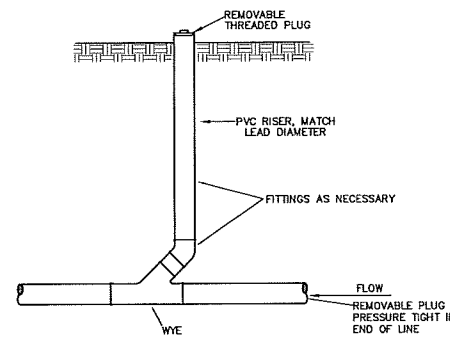
CLEANOUT DIA.	FRAME AND COVER
4"-8"	EJW 1578Z-A
10"-18"	EJW 1040Z-A-STORM



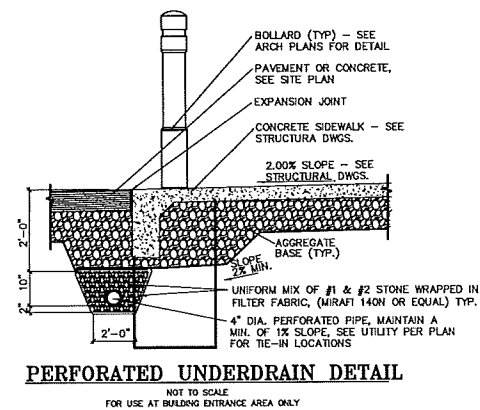
**CLEANOUT IN PAVED AREA**  
NOT TO SCALE



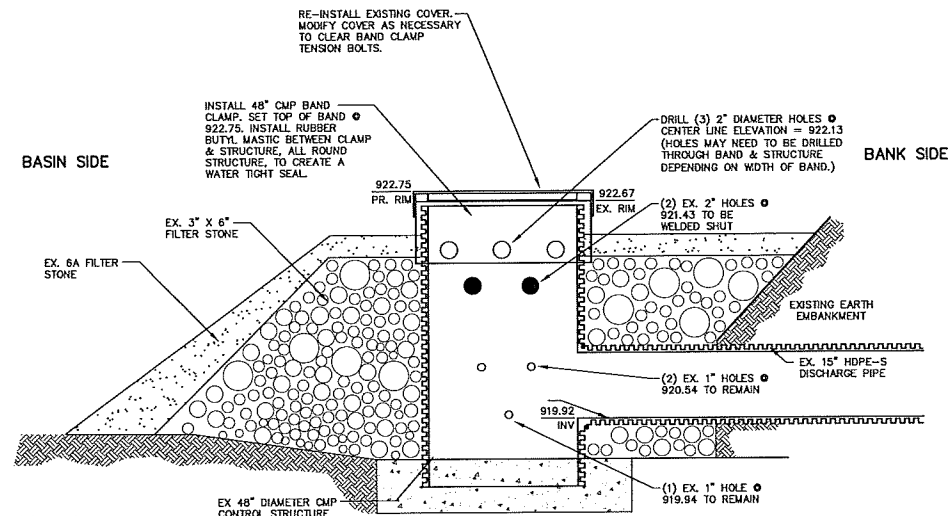
**TWO-WAY CLEANOUT FOR ROOF DRAIN**  
NOT TO SCALE



**STANDARD CLEANOUT FOR ROOF DRAIN**  
NOT TO SCALE



**PERFORATED UNDERDRAIN DETAIL**  
NOT TO SCALE  
FOR USE AT BUILDING ENTRANCE AREA ONLY



**CONTROL STRUCTURE CS-101 MODIFICATION DETAIL**  
NOT TO SCALE

**CS-101 NOTES:**

1. Any existing filter stone removed to perform structure modifications shall be replaced upon completion of structure modifications.
2. Place 1" additional washed MDOT 6A stone over the top of the filter stone to match new rim elevation.
3. Crushed concrete is not acceptable for use as filter stone.
4. Contact Engineer if conflict exists.

**STORM SEWER NOTES:**

1. The storm sewer and stormwater management specifications of the Local Municipality are a part of this work. Refer to the General Notes on the project plans for additional information and requirements.
2. Storm sewer work shall include clearing of vegetation and tree stumps, stripping and stockpiling of topsoil for reuse, excavation of pipe trench, placement of pipe bedding, placement of pipe and structures including castings, connection to existing structures, tuck pointing of structures, backfill of pipe trench, compaction of backfill, finish grading to provide positive drainage to structures, adjustment of castings to match finish grade, topsoil placement, seed & mulch, site cleanup and restoration, and other storm sewer related work as shown on the project plans and specifications.
3. Existing and proposed grades shown in profile view, when provided on the project plans, may be in relation to the centerline of road or item other than the centerline of pipe. The pipe lengths and grades shown in profile view on the project plans may not be to scale.
4. RCP when shown on the project plans shall be reinforced concrete pipe and shall conform to the specifications for reinforced concrete pipe per ASTM C76. RCP pipe joints shall be bell-and-spigot with rubber gaskets conforming to ASTM C433. Non-gasketed joints shall only be utilized when authorized by the Owner, Engineer AND Municipality. Non-gasketed joints of pipe having a diameter of 30 inches or greater shall be tuck-pointed on the inside with cement mortar after the backfill process is complete. Install reinforced concrete end sections incidental to work. Saw cut pipes to length as needed. When pipe class is not shown on the project plans, provide the following:  
Pipe cover to proposed grade: 0 to 4 feet Class V  
4.1 to 10 feet Class III\*  
10.1 to 18 feet Class IV  
18.1 feet and greater Class V  
\* Use Class IV under paved surfaces
5. CMP when shown on the project plans shall be corrugated metal pipe and shall conform to the specifications for corrugated metal pipe per AASHTO Designation M36. CMP shall be 16-gauge steel minimum for 24 inch diameter or smaller and 14-gauge steel minimum for 30 inch diameter or greater. Install galvanized steel end sections and connection bands, incidental to work. Connection bands for CMP pipe joints located under paved surfaces shall be gasketed couplers. Saw cut pipes to length as needed.
6. HDPE - Type S when shown on the project plans shall be high density polyethylene pipe with a smooth interior and shall conform to the specifications for high density polyethylene pipe per AASHTO Designation M252 for pipes of 3" to 10" diameter and per AASHTO Designation M294 for pipes of 12" to 60" diameter. HDPE - Type S pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type S pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
7. HDPE - Type C when shown on the project plans shall be high density polyethylene pipe with a corrugated interior and shall conform to the specifications for high density polyethylene pipe per AASHTO Designation M252 for pipes of 3" to 10" diameter and per AASHTO Designation M294 for pipes of 12" to 60" diameter. HDPE - Type C pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of HDPE - Type C pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
8. CPVC when shown on the project plans shall be corrugated polyvinyl chloride pipe and shall conform to the specifications for corrugated polyvinyl chloride pipe per ASTM F794 and F949. CPVC pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477. Tamp backfill at spring line of CPVC pipe. Install high density polyethylene end sections incidental to work. Saw cut pipes to length as needed.
9. PVC when shown on the project plans shall be polyvinyl chloride pipe and shall conform to the specifications for polyvinyl chloride pipe per ASTM D251, maximum SDR of 26. PVC pipe joints shall be bell-and-spigot type conforming to ASTM D3212 with rubber gaskets conforming to ASTM F477 or solvent welded type conforming to ASTM D2564. Tamp backfill at spring line of PVC pipe. Saw cut pipes to length as needed.
10. Concrete storm structures shall be pre-cast and shall conform to the specification of pre-cast concrete structures per ASTM C478. Joints of concrete storm structure sections shall be bell-and-spigot with rubber gaskets conforming to ASTM C433. Brick, concrete block or cast in place storm structures may be substituted for pre-cast storm structures ONLY when authorized by the Owner, Engineer AND Municipality; refer to MDOT standard plan R-1, latest revision. All pipe openings in pre-cast structures shall be factory installed and shall include a rubber boot resilient pipe to manhole connector conforming to ASTM C1478-07. All clamps, bands and hardware shall be stainless steel or other non-corrosive material. Provide the appropriate adapter(s) as necessary for corrugated pipe. Pipe to storm structure connections shall be performed in accordance with the rubber boot connector manufacturer's recommendations. All temporary openings and seams in storm structures shall be tuck-pointed watertight with cement mortar. Refer to MDOT standard plan R-2, latest revision, for alternate on-line storm structure details when pipe exceeds 42 inch diameter.
11. Tap existing structures as acceptable to the Engineer and Municipality, incidental to work. All temporary openings in storm structures shall be tuck-pointed watertight with cement mortar.
12. Backfill all storm sewer in accordance with the Pipe Trench details provided on the project plans. Provide pipe bedding that meets or exceeds both the specifications of the Pipe Trench details on the project plans and the recommendation of the pipe manufacturer, incidental to work.
13. When edge drains and/or under drains are shown on the project plans, connection to storm structures is incidental to work. During storm sewer construction, install first 10 linear feet of edge drain and/or under drain from the storm structures in each specified direction and install temporary cap at end. Complete installation of edge drain following preparation of the subgrade when under paved surface or following finish grade when not under paved surface.
14. Install removable plugs in storm sewer stubs as acceptable to Engineer and Municipality, incidental to work. Mark the end of all storm sewer stubs with a 2" x 4" wooden stake extending a minimum of 12" above finish grade, incidental to work.
15. Storm structure castings shall be coated with water based asphaltic paint by the manufacturer. Seams and temporary openings between storm structures and castings shall be tuck-pointed water tight with cement mortar. Coordinate correct curb box / hood / "T" back as needed to match curb profile. See casting schedule on project plans for additional requirements.
16. Provide 3.5' minimum cover from the top of pipe of all roof drain pipes to the proposed finish grade when site conditions allow. When pipe cover is less than 3.5', install 2" thick by 24" wide Styrofoam insulation centered over the top of pipe at 12" above top of pipe or as required by the Local Municipality.

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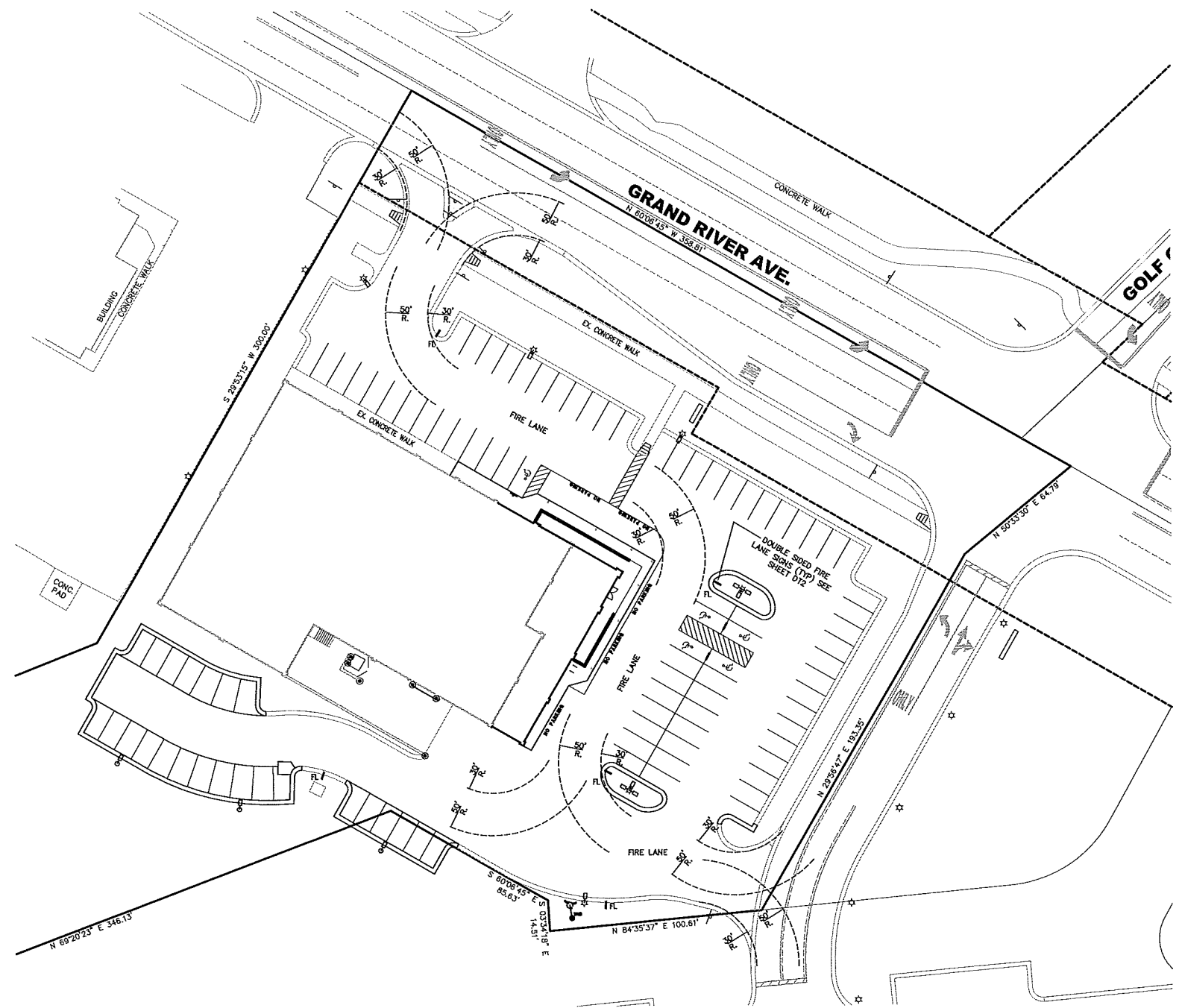
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BRIGHTON, MICHIGAN 48114

DESIGN#	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
FAF	1	02-21-18	REVISED PER TOWNSHIP REVIEW COMMENTS			
SES						
CAG						

ALDI FOOD MARKET #51  
HOWELL, MI

STORM SEWER  
NOTES & DETAILS

CLIENT: ALDI, Inc. 2625 N. STOCKBRIDGE RD. WEBBERVILLE, MICHIGAN 48892 (517) 521-3907	SCALE: NO SCALE PROJECT No.: 9173290 DWG NAME: 3290 DT ISSUED: FEB 21, 2018	<b>DT3</b>
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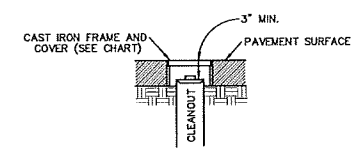


**EMERGENCY VEHICLE CIRCULATION PLAN**  
SCALE: 1" = 30'

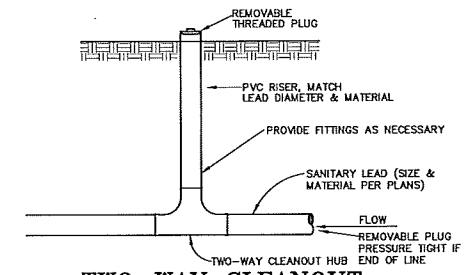
**SANITARY SEWER LEAD NOTES:**

- The Local Plumbing Code and sanitary sewer specifications of the M.H.O.G. Sewer and Water Authority are a part of this work. Refer to the General Notes on the project plans and the M.H.O.G. Standard Details for additional information and requirements.
- Sanitary Sewer Leads shall be PVC pipe conforming to ASTM D3034, maximum SDR of 23.5. Pipe joints shall be push on bell-and-spigot type joints conforming to ASTM D3212 with factory installed flexible elastomeric gaskets conforming to ASTM F477. Solvent cemented joints shall only be used when noted on the project plans for specific applications and shall conform to ASTM D2855. Provide pipe diameter and slope per project plans.
- Contractor shall field locate all existing utilities prior to work. Contractor shall provide all bends and fittings as needed, incidental to work, to install the sanitary sewer leads and to provide the required clearance between the sanitary sewer leads and all existing and proposed utilities while maintaining the proposed minimum pipe slope and proposed lead end invert elevation. Contractor shall notify the Engineer immediately of any utility crossing conflicts.
- Provide 4.0' minimum cover from the top of the sanitary sewer lead pipe to the proposed finished grade when site conditions allow. When pipe cover is less than 4.0', install 2" thick by 24" wide Styrofoam insulation centered over pipe at 12" above top of pipe or as required by Local Code. Backfill all sanitary sewer leads in accordance with the trench details on the project plans.

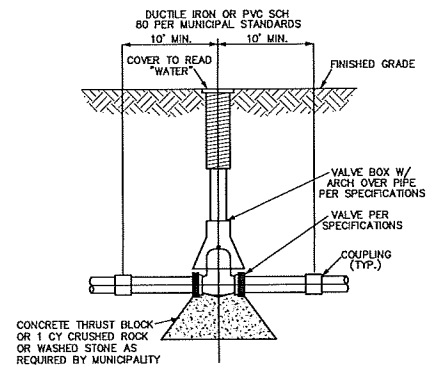
CLEANOUT DIA.	FRAME AND COVER
4"-8"	E.I.W 1574
10"-18"	E.I.W 1040Z-A-SANITARY



**CLEANOUT IN PAVED AREA**  
NOT TO SCALE



**TWO-WAY CLEANOUT FOR SANITARY LEAD**  
NOT TO SCALE

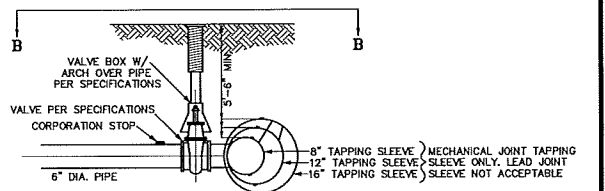


**VALVE AND BOX DETAIL**  
NOT TO SCALE

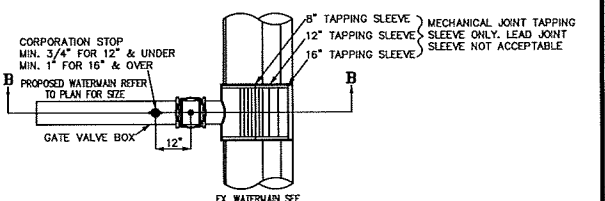
- NOTE:
- FOR PLASTIC PIPE, WRAP TRACER WIRE AROUND TOP OF VALVE BOX.
  - INSTALL COUPLINGS/FITTINGS AS NEEDED.
  - PROVIDE MECHANICAL JOINT RESTRAINTS FOR ALL GATE VALVES.

**WATER MAIN NOTES:**

- The water main specifications of the M.H.O.G. Sewer and Water Authority are a part of this work. Refer to the General Notes on the project plans and the M.H.O.G. Standard Details for additional information and requirements.
- DIP shall be ductile iron pipe conforming to ANS/AWWA C151/A21.51-02. DIP shall have a cement lining conforming to ANS/AWWA C104/A21.4-95. DIP shall be class 52 unless noted otherwise on the project plans. Provide polyethylene wrap in accordance with M.H.O.G. standards and specifications.
- Fittings shall be cast ductile iron Class 52, or Pressure Class 350 and shall conform to ANS/AWWA C153/A21.53-00 and shall have a cement lining conforming to ANS/AWWA C104/A21.4-95.
- Joints shall push-on type conforming to ANS/AWWA C111/A21.11-00. Sealing gaskets, retainer glands and lubricants shall be in accordance with the pipe manufacturer's specifications.
- Provide approved mechanical restraint systems at all bends of 11.25 degrees or greater, tees, crosses and hydrant shoes in accordance with the M.H.O.G. Standard Details. Thrust blocks shall only be utilized when authorized by M.H.O.G..
- Water gate main valves shall be nonrising-stem, resilient-seated gate valves with box, conforming to AWWA C515-01, 250 psig minimum working pressure rating with interior coating conforming to AWWA C550. All gate valves shall open counter clockwise (left).
- Fire Hydrant Assemblies shall include all necessary piping and fittings for a complete assembly. Fire hydrants shall conform to AWWA C502. Fire hydrants shall be East Jordan Iron Works 5BR-250 Watermaster with an integrated 5" Storz coupling or as otherwise specified by M.H.O.G. and/or the Brighton Area Fire Authority. Provide 5'-6" minimum cover.
- Tapping Sleeve and Valve shall meet the requirements of the M.H.O.G. Sewer and Water Authority. See Tapping Sleeve and Valve detail for additional requirements.
- Connect to existing water mains in accordance with the project plans and M.H.O.G. standards and specifications. Provide all materials and labor required for a complete watertight connection, incidental to work. Taps to existing water main shall be performed under pressure and without interruption of service.
- Backfill all water main in accordance with the Pipe Trench details provided on the project plans. Provide pipe bedding that meets or exceeds both the specifications of the Pipe Trench details on the project plans and the recommendation of the pipe manufacturer, incidental to work. Provide 5'-6" minimum cover for all water main.
- Provide 10' minimum horizontal separation and 1.5' minimum vertical separation between water main and both sanitary sewer and storm sewer.
- Contractor shall flush, test and chlorinate the water main in accordance with M.H.O.G. standards and specifications.



**SECTION B-B**  
**16"X6", 12"X6", 8"X6"\***  
**TAPPING SLEEVE, VALVE & WELL**  
NOT TO SCALE



**PLAN TAPPING SLEEVE**  
NOT TO SCALE

- NOTES:
- SIZE OF TAPPING SLEEVE MAY VARY AS NECESSARY TO MATCH SIZES OF EXISTING AND PROPOSED WATERMAIN. REFER TO SIZES SHOWN ON PLAN.
  - ALL JOINTS TO BE RESTRAINED PER MUNICIPAL STANDARDS OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.

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DESIGN: FAF	REVISION #	DATE	REVISION-DESCRIPTION	REVISION #	DATE	REVISION-DESCRIPTION
DRAFT: SES						
CHECK: CAG						

**ALDI FOOD MARKET #51**  
**HOWELL, MI**

**WATER MAIN AND SANITARY SEWER NOTES & DETAILS**

CLIENT:  
ALDI, Inc.  
2625 N. STOCKBRIDGE RD.  
WEBBERVILLE, MICHIGAN 48892  
(517) 521-3907

SCALE: NO SCALE  
PROJECT No.: 9173290  
DWG NAME: 3290 DT  
ISSUED: FEB 21, 2018

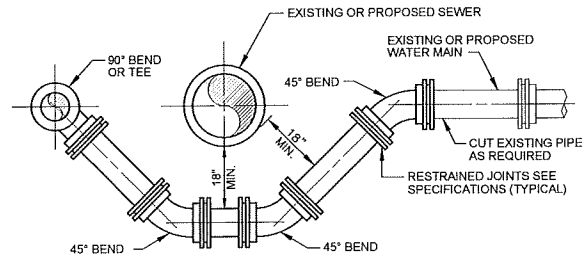
**DT4**  
69

### PIPE RESTRAINT SCHEDULE

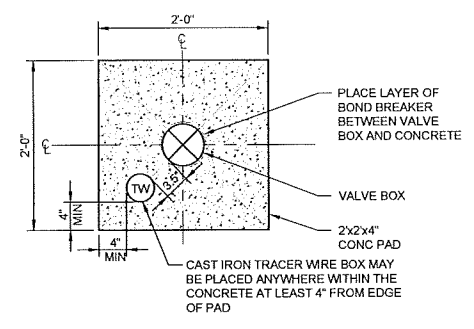
GROUND BURIED PRESSURE PIPE - POLYETHYLENE ENCASED DUCTILE IRON PIPE

PIPE DIAMETER	TEES, 90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	DEAD ENDS	REDUCERS (ONE SIZE REDUCTION)*	REDUCERS (TWO SIZE REDUCTION)*
4	13	5	3	1	40	--	--
6	19	8	4	2	58	31	--
8	24	10	5	2	75	30	70
12	34	14	7	3	107	57	116
16	43	18	9	4	139	59	137
20	52	22	10	5	169	59	134
24	61	25	12	6	199	60	132
30	73	30	15	7	242	85	168
36	84	35	17	8	281	84	168

- LENGTHS OF PIPE RESTRAINT ARE GIVEN IN FEET.
  - IF REQUIRED PIPE DIAMETER IS NOT LISTED IN THIS TABLE, THE NEXT LARGEST PIPE DIAMETER SHALL BE USED.
  - THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE PLUS WATER HAMMER). FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY.
  - THE VALUES PROVIDED OF RESTRAINT LENGTH ARE IN EACH DIRECTION FROM THE POINT OF DEFLECTION OR TERMINATION EXCEPT FOR TEES, AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE STEM.
  - IF TIE RODS ARE USED, USE FOUR RODS MINIMUM AND ADD 1/8-INCH TO BAR DIAMETER AS CORROSION ALLOWANCE.
- SIZE REDUCTION IS BASED UPON THE PIPE DIAMETER SHOWN IN THIS TABLE.
- BASED UPON:  
 INTERNAL PRESSURE: 180  
 PIPE DEPTH: 5  
 BEDDING CLASS: TYPE 4  
 SOIL TYPE: GOOD SAND  
 SAFETY FACTOR: 2



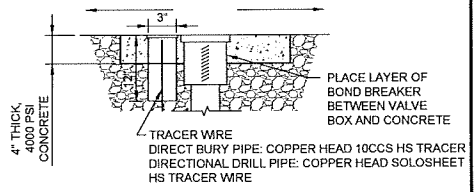
**WATER MAIN UTILITY OFFSET**



NOTE: ALL BOXES & ADJOINING TW BOXES SHALL BE ENCASED IN A CONC. PAD UNLESS OTHERWISE DETERMINED BY MHOG.

**PLAN**

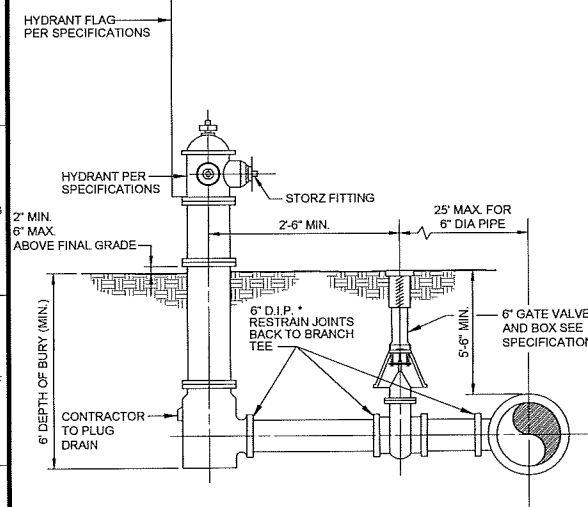
**VALVE/TRACER WIRE BOX IN CONCRETE DETAIL**



NOTE:

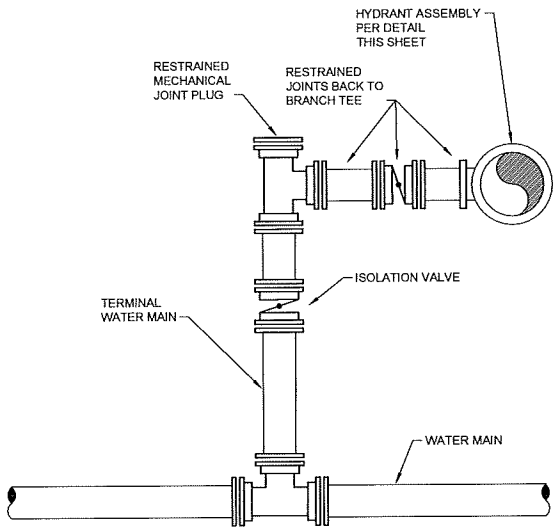
- TRACER WIRE BOXES LOCATED WITHOUT A VALVE BOX ONLY REQUIRE AN 18" X 18" CONCRETE PAD.
- TRACER WIRE BOX SHALL HAVE A LOCKING LID W/STANDARD AWWA PENTAGON KEY.
- TRACER WIRE BOX SHALL BE COPPERHEAD RB14" TP IN ASPHALT INSTALLATIONS AND CD14" TP FOR ALL OTHER INSTALLATIONS.

**SECTION**

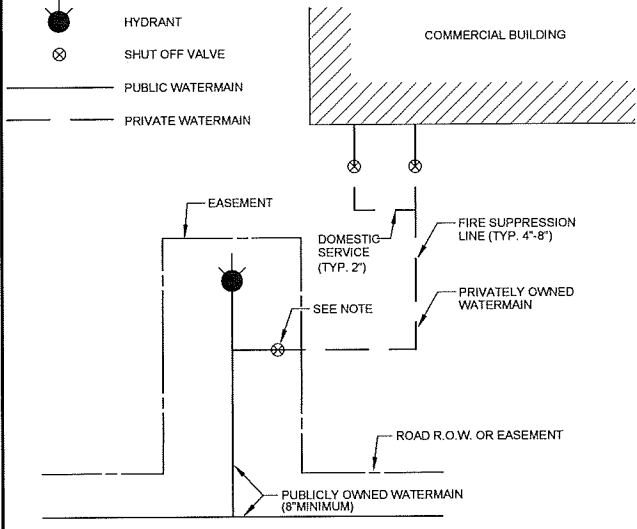


\* THE LENGTH OF 6" PIPE FROM THE MAIN TO THE HYDRANT ASSEMBLY CANNOT EXCEED 25'. ANY PIPE OVER 25 FEET SHALL BE 8" DIAMETER MINIMUM AND DESIGNED PER MHOG SPECIFICATIONS.

**FIRE HYDRANT ASSEMBLY**

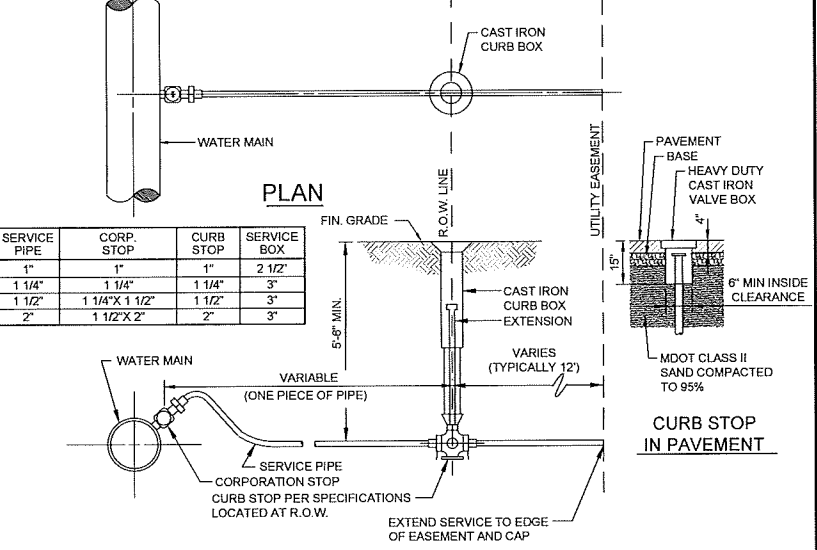


**TERMINAL HYDRANT DETAIL**

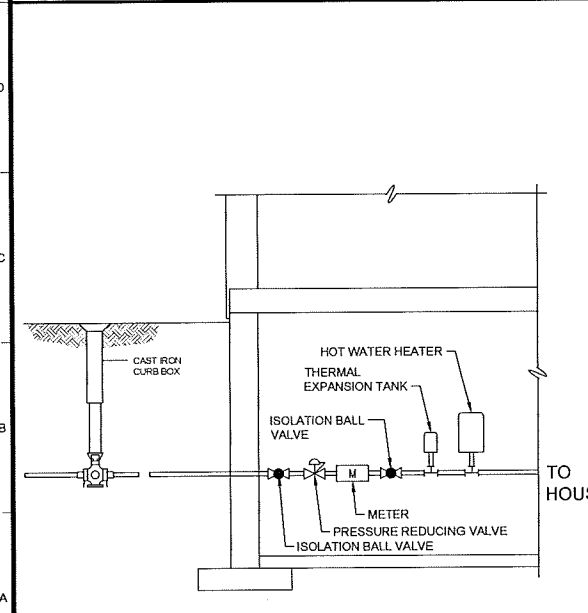


NOTE: PUBLICLY OWNED SHUT OFF VALVE TO BE LOCATED IN EASEMENT.

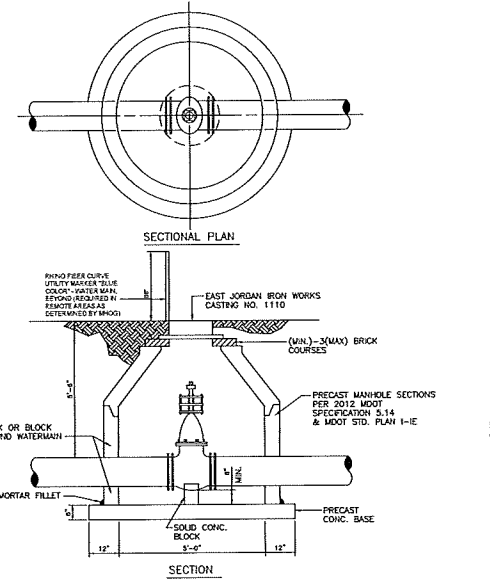
**COMMERCIAL BUILDING WATER SERVICE LAYOUT**



**SECTION WATER SERVICE LATERAL**

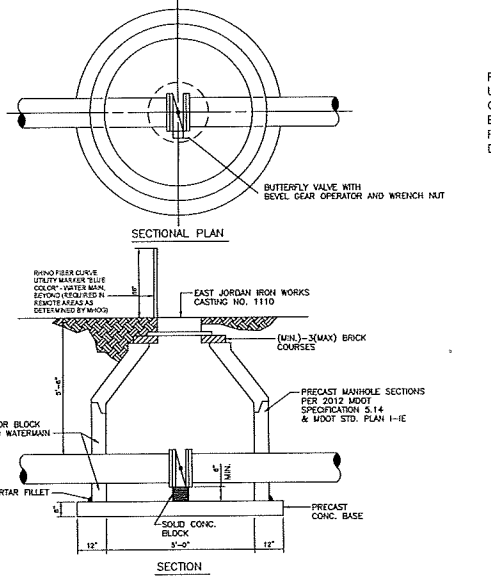


**PRIVATE RESIDENCE PRESSURE REDUCING VALVE (PRV)**



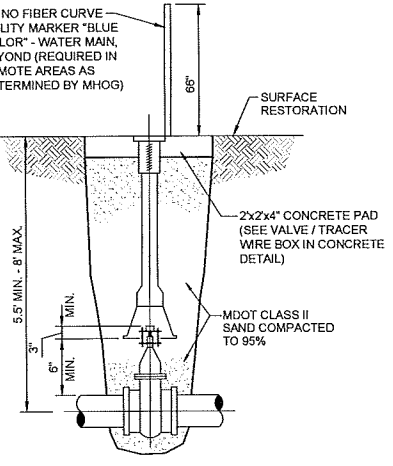
NOTES:  
 1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.  
 2. BLOCK MANHOLES TO BE USED ONLY WITH ENGINEER'S PERMISSION.  
 3. NO STEPS PERMITTED.

**GATE VALVE AND WELL**



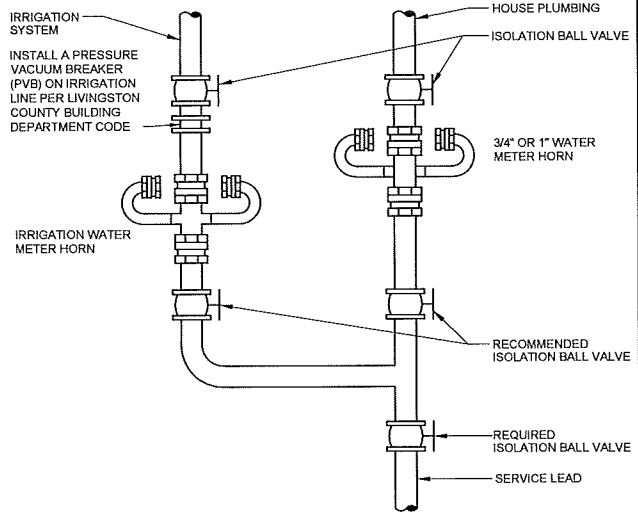
NOTES:  
 1. ALL LIFT HOLES AND JOINTS SHALL BE MORTARED BOTH INSIDE AND OUTSIDE.  
 2. BLOCK MANHOLES TO BE USED ONLY WITH ENGINEER'S PERMISSION.  
 3. NO STEPS PERMITTED.

**BUTTERFLY VALVE AND WELL**



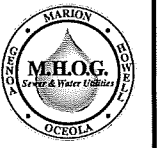
NOTES:  
 1. VALVE BOX SHALL NOT REST ON VALVE OR MAIN LINE PIPE.  
 2. A VALVE STEM EXTENSION WITH CENTERING RING IS REQUIRED FOR VALVES BURIED DEEPER THAN 6".

**GATE VALVE AND BOX**



NOTES:  
 1. ALL METERS ARE TO BE INSTALLED HORIZONTALLY IN A DRY, CLEAN, SANITARY LOCATION THAT IS READILY ACCESSIBLE. THIS DRAWING IS NOT TO SCALE & IS ONLY A REPRESENTATION OF HOW THE METERS SHOULD BE INSTALLED. THE SECOND METER IS OPTIONAL FOR IRRIGATION USAGE. METERS SHOULD NOT BE INSTALLED IN LINE (ONE RIGHT AFTER THE OTHER).  
 2. PROPERTIES DESIGNATED "HIGH HAZARD" PER THE MHOG CROSS CONNECTION RULES MANUAL WILL REQUIRE THE INSTALLATION OF A REDUCED PRESSURE ZONE (RPZ) BACK FLOW PREVENTION DEVICE.

**TYPICAL METER HORN INSTALLATION**

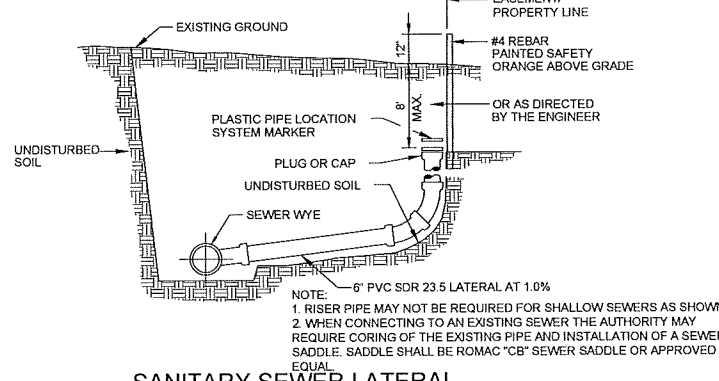


MARION HOWELL OCEOLA GENOA  
Sewer and Water Authority

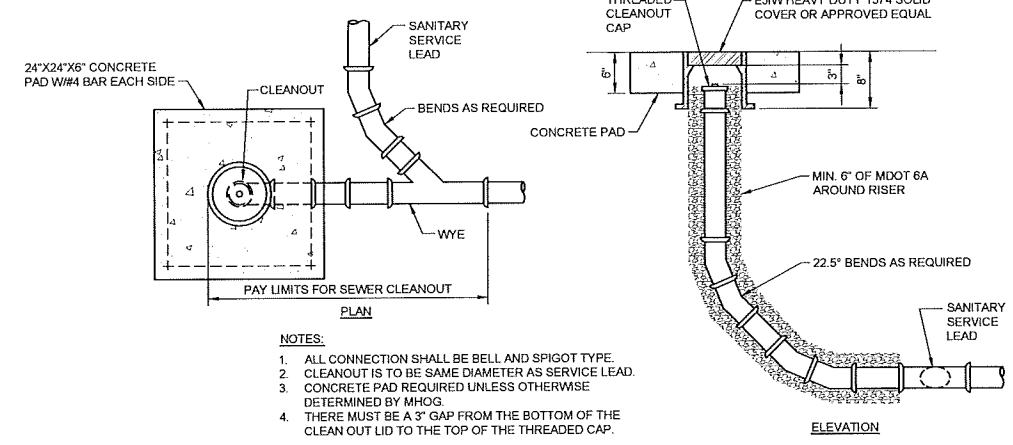
STANDARD DETAILS

Scale: NONE  
 Issued Date: JANUARY - 2014  
 UPDATED: MAY 2015  
 UPDATED: FEBRUARY 2016  
 UPDATED: APRIL 2016  
 UPDATED: OCTOBER 2017

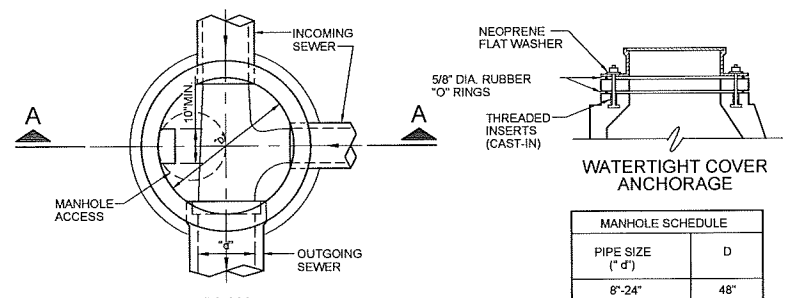
Wednesday, October 18, 2017 2:20:05 PM DRAWING: C:\Projects\Landring\IER\1719\200-12719-0000\CAD\SheetFiles\Wmg-sld.dwg



**SANITARY SEWER LATERAL**

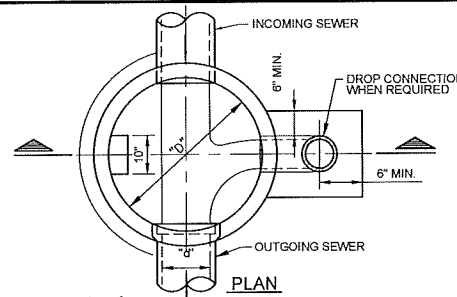


**SEWER CLEANOUT DETAIL**

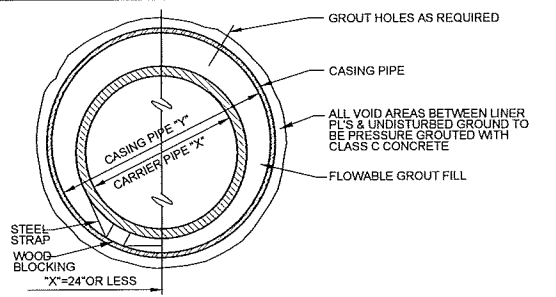


**WATERTIGHT COVER ANCHORAGE**

MANHOLE SCHEDULE	
PIPE SIZE (\" d)	D
8\"-24\"	48\"
27\"-36\"	60\"
42\"-48\"	72\"
54\"	84\"



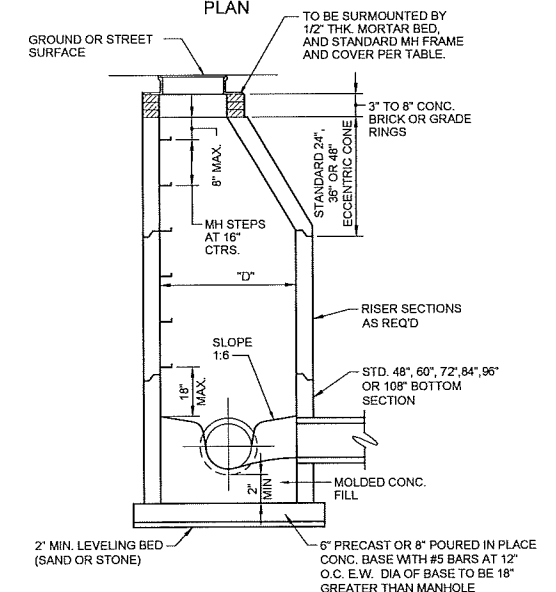
**DROP CONNECTION**



**CASING PIPE**

TABLE	
*X*	*Y*(MIN)
6\"-8\"	20\"
10\"-12\"	24\"
14\"-15\"	30\"
18\"-21\"	36\"
24\"	42\"

NOTE: SEE SPECIFICATIONS FOR ALTERNATE CONST. METHODS



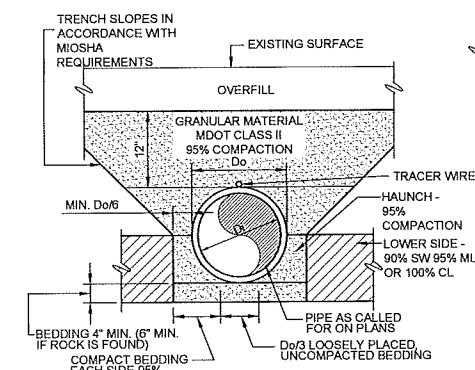
**SECTION A-A**

- NOTES:
1. ALL SANITARY MANHOLES TO BE PRECAST REINFORCED CONCRETE WITH PREMIUM JOINTS. SEE SPECIFICATIONS FOR BASE SLAB AND PIPE OPENINGS AND CONNECTIONS.
  2. MANHOLE CONES SHALL BE THE ECCENTRIC TYPE.
  3. PROVIDE 6\"/>

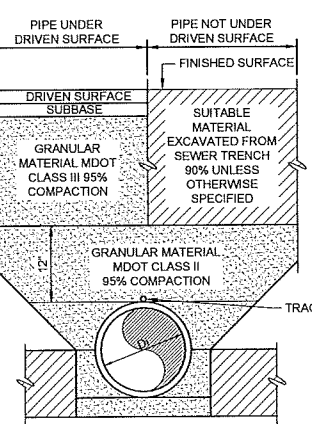
FRAME & COVER FOR SANITARY SEWER MANHOLES			
TYPE	TYPE OF COVER	MANUFACTURER OR EQUAL	
		EAST JORDAN	NEENAH
MH	SANITARY - SOLID SELF-SEALING	1040.0000	R-1642
MH	SANITARY - SOLID WATERTIGHT	1040-APT	R-1916-F
CO	SOLID	1574A	R-1973-A

**STANDARD MANHOLE**

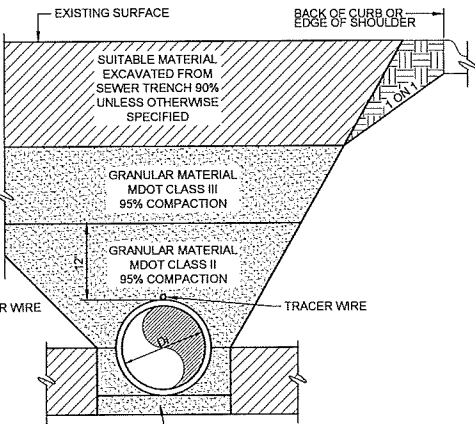
- NOTES:
1. COMPACTION PRESENTED AS MINIMUM STANDARD PROCTOR VALUES.
  2. MATERIALS AROUND THERMOPLASTIC PIPE WITH DIAMETER < 8 INCHES SHALL PASS 0.5 INCH SIEVE, MATERIALS AROUND OTHER PIPES SHALL PASS 1.5 INCH SIEVE.
  3. MATERIALS AROUND HDPE PIPE TO BE MDOT 6A OR 21AA.
  4. DRIVEN SURFACE IS DRIVEWAY, PARKING AREA, ROAD BED OR SHOULDER.
  5. UTILITY TRENCHES LOCATED WITHIN A MDOT ROW SHALL CONFORM TO MDOT STANDARD DETAIL R-83.
  6. TRACER WIRE IS REQUIRED ON FORCE MAIN ONLY AND SHALL BE BROUGHT TO GRADE AT A MINIMUM EVERY 1000 FEET IN AN APPROVED CAST IRON TRACER WIRE BOX ENCASED IN CONCRETE OR WITH AN APPROVED GREEN MARKER POST.



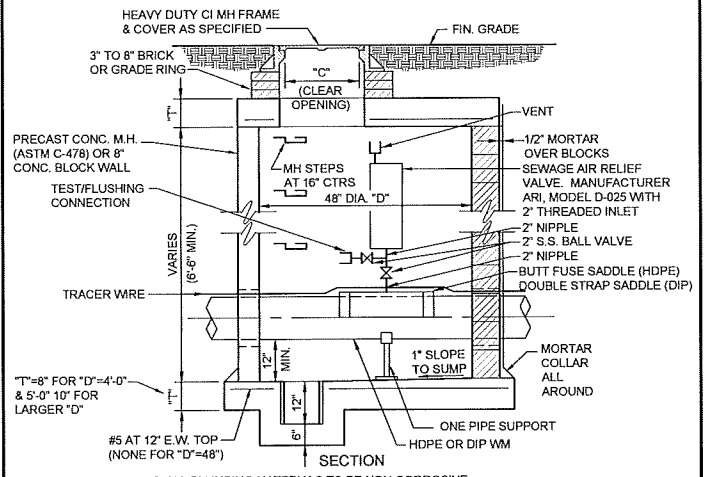
**PIPE BEDDING**



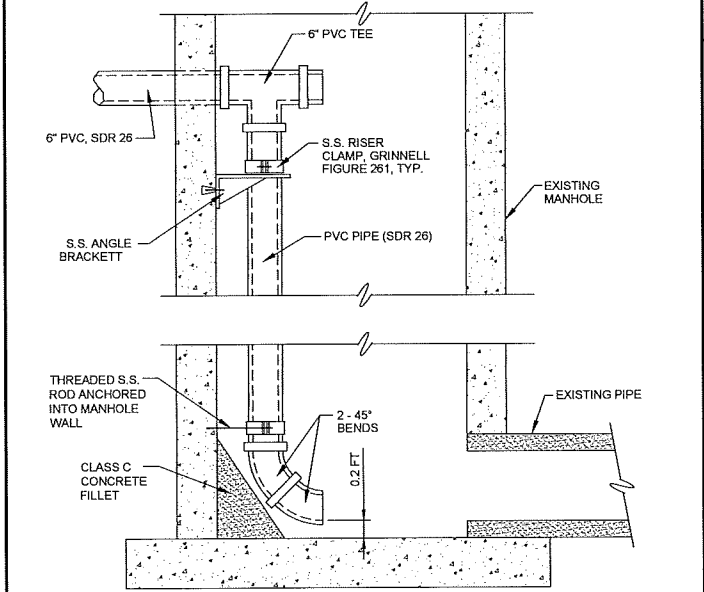
**PIPE UNDER/NOT UNDER DRIVEN SURFACE TRENCH EXCAVATION & PIPE BEDDING**



**PIPE WITHIN INFLUENCE OF DRIVEN SURFACE**



**AIR RELIEF STRUCTURE**



**INTERIOR SEWER LATERAL DROP CONNECTION**



MARION HOWELL OCEOLA GENOA  
Sewer and Water Authority

STANDARD DETAILS

Scale: NONE  
Issued Date: JANUARY - 2014  
UPDATED MAY 2015  
UPDATED APRIL 2016  
UPDATED OCTOBER 2017

Wednesday, October 18, 2017 2:20:51 PM DRAWING: C:\Project\JLaming\IER\2719200-12719-0000\CAD\Sheet\Final\Mhog-sld.DWG

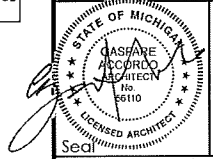
REAR DOCK AREA SUMMARY		
OCCUPANCY USE	ROOM NAME	SQUARE FOOTAGE
MARKETPLACE UNIT - SEE CH-DWG'S	SALES / VESTIBULE	12,108
	MEN'S ROOM	85
	WOMEN'S ROOM	83
	HALL	132
SUBTOTAL (MARKETPLACE)		12,408
BUSINESS UNIT - SEE BLDG'S	OFFICE	252
	BREAK ROOM	305
SUBTOTAL (BUSINESS)		557
STORAGE / STOCK	BACKROOM	3,082
	COOLER	1,313
	FREEZER	734
SUBTOTAL (STORAGE / STOCK)		5,129
SUBTOTAL (OCCUPANCIES)		18,094
EXTERIOR INTERIOR WALLS / UNOCCUPIED SPACE		960
BUILDING SQUARE FOOTAGE		19,054
EXTERIOR CANOPY		733
TOTAL SQUARE FOOTAGE (INCLUDING CANOPY)		19,787

REAR DOCK OPERATIONS DATA		
ITEM	V7.0 PROTOTYPE	
LINEAR FOOTAGE OF BASE (PRODUCE INCLUDED)	845'-10"	
ASSUMED PALLET STORAGE	62	77.3' V.L.F.
BUILDING DIMENSIONS	119'-4" x 153'-4"	
SALES FLOOR DIMENSIONS	74'-6" x 151'-1"	
LENGTH OF MULTIDECK	108	
COOLER MILK DOORS	4	
COOLER GENERAL DOORS	12	
FREESTER GENERAL DOORS	16	
SPOT MERCHANDISERS	8	
CART STORAGE	(119) MODEL 563W	

- NOTES:
- THIS DRAWING IS FOR GENERAL FIXTURE/LAYOUT AND REFERENCE TO EQUIPMENT ONLY. ALL INFORMATION IS FOR ALDI OPERATIONAL USE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION OR BIDDING PURPOSES.
  - ALL DIMENSIONS TO WALLS ARE TO FACE OF STUD.
  - ALL SHELVING DIMENSIONS ARE TO FACE OF GONDOLA.
  - THIS FACILITY DOES NOT CONTAIN A BAKERY, A BUTCHER, A DELI OR FISH COUNTER.
  - ALL FOOD IS PREPACKAGED. THERE IS NO ON-SITE FOOD PREPARATION.
  - GONDOLA LOCATIONS ARE MEASURED FROM THE FACE OF THE STAINLESS STEEL PRICE TAG MOLDING (SSPTM).

Issued:	Date:
A Issued for Client Review	11/08/17
B Issued for Client Review	11/20/17
C Issued for Client Review	12/01/17
D Issued for Client Review	12/04/17
E Issued for Client Review	12/06/17

Revisions:	Date:
1	
2	
3	
4	
5	
6	
7	
8	
9	



Seal PROJECT ARCHITECT/ENGINEER DATE

Seal PROJECT LEAD DATE

Seal PROJECT DESIGNER DATE

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**Gaspare Accordo,**  
AIA, NCARB

615 Fishers Run  
Victor, NY 14564

585.742.2222  
585.924.4914 fax



ALDI Inc. Store #: 51  
ALDI Howell, MI  
2250 East Grand River Ave  
Genoa Township, MI 48843  
Livingston County

Project Name & Location:

Operations Plan

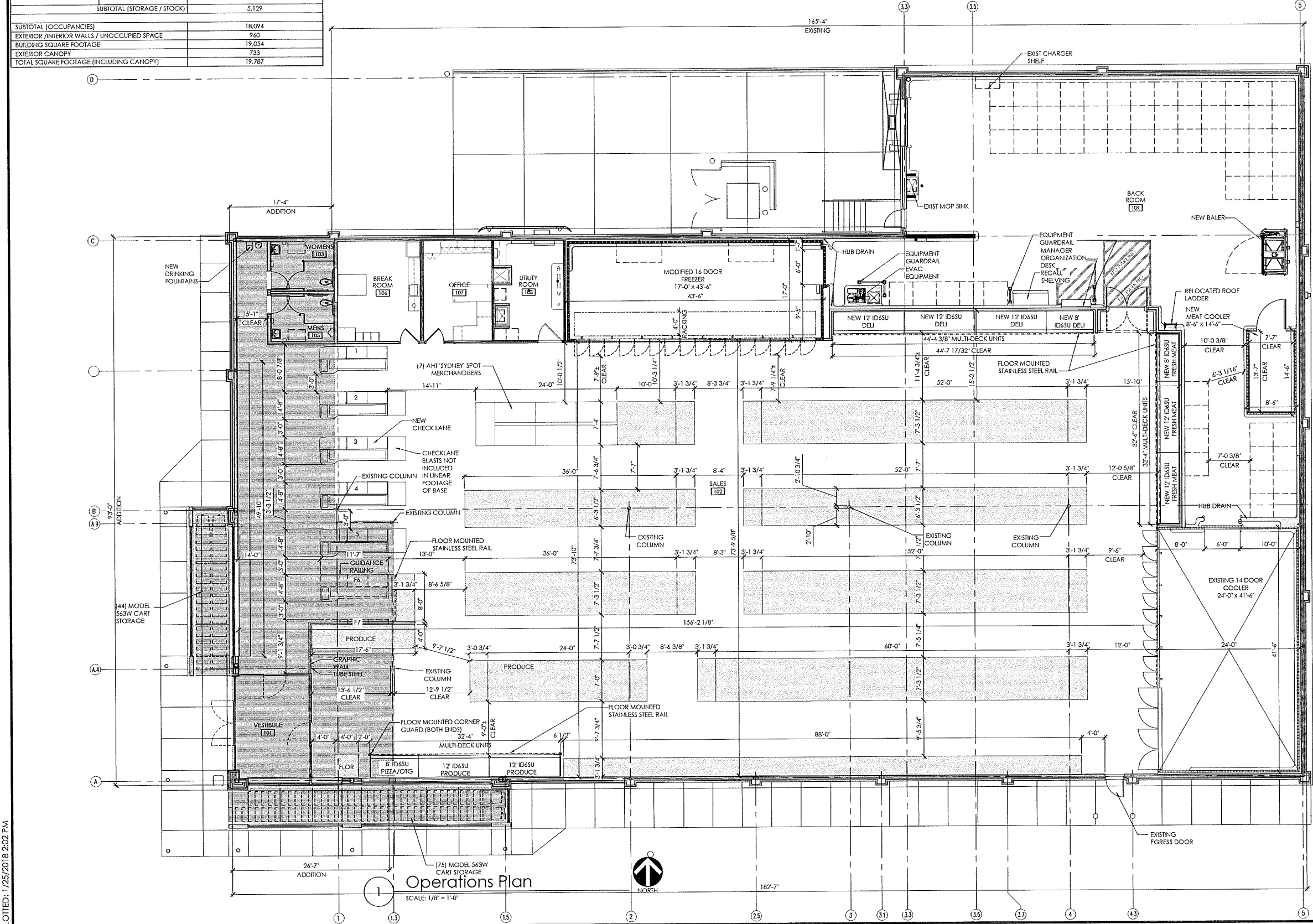
Drawing Name:

Date: 09/05/17 Project No. 17-0156A

Type: V2.7

Drawn By: JBS A-131

Scale: As Noted Drawing No.



PLOTTED: 1/25/2018 2:02 PM

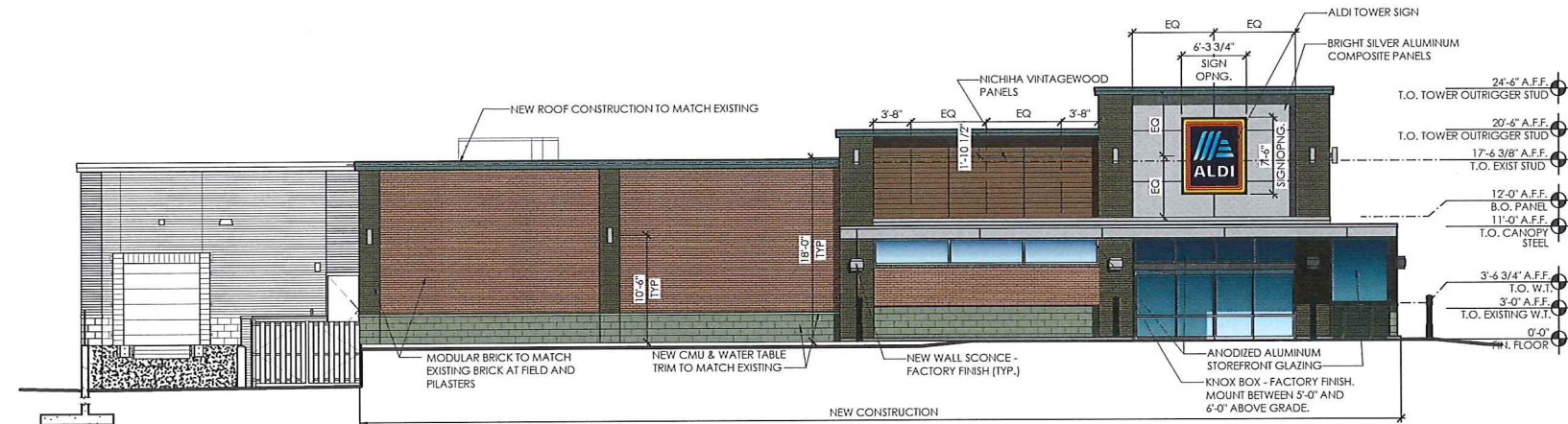


SIGNAGE			
DESCRIPTION	QUANTITY	SQ. FT. PER SIGN	TOTALS
TOWER SIGN	2	46.6	93.2
TOTAL SIGNAGE			93.2

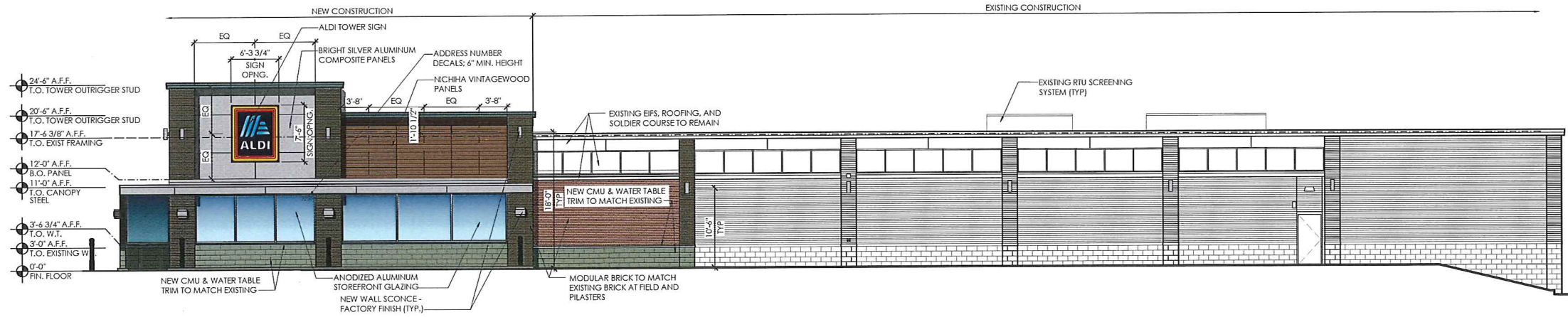
SIGNAGE IS SHOWN FOR REFERENCE ONLY AND SHALL BE UNDER SEPARATE PERMIT SUBMITTAL.

Please note that the colors shown here are a graphical representation to show contrast in materials only. Due to the nature of electronic media, colors may vary depending on computer or printer used.

For review of actual colors, a material sample board should be created on a project specific basis.



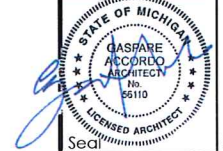
2 Side Elevation - Chillson Rd  
SCALE: 1/8" = 1'-0"



1 Front Elevation - East Grand River Rd  
SCALE: 1/8" = 1'-0"

Issued:	Date:
A	Issued for Client Review 11/20/17
B	Issued for Client Review 12/01/17
C	Issued for Client Review 12/04/17
D	Issued for Client Review 12/06/17
E	Issued per Township Comments 02/21/18

Revisions:	Date:
1	
2	
3	
4	
5	
6	
7	
8	
9	



PROJECT ARCHITECT/ENGINEER	DATE
PROJECT LEAD	DATE
PROJECT DESIGNER	DATE

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AIA, NCARB

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Victor, NY 14564  
585.742.2222  
585.924.4914 fax



ALDI Inc. Store #: 51  
ALDI Howell, MI  
2250 East Grand River Ave  
Genoa Township, MI 48843  
Livingston County  
Project Name & Location:

Exterior Elevations Drawing Name:	
Date: 09/05/17	Project No. 17-0156A
Type: V2.7	
Drawn By: VLV	A-201
Scale: As Noted	Drawing No.



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:** March 19, 2018  
**RE:** Proposed Township Hall Lighting replacement

Manager's Review: \_\_\_\_\_

This issue was tabled at the February 5, 2018 Board meeting to allow time to solicit additional bids for the project.

Recently, the 20 year old lighting fixtures in the three wings of the Township Hall have been experiencing ongoing issues. Replacement bulbs are becoming harder to find and the fixtures have warped which made replacing those bulbs exceedingly difficult. The age of the fixtures has also caused a downgrade in overall lighting over the desks, causing issues for Township employees.

Staff is looking to replace the existing fixtures with new LED fixtures. These new fixtures would have the benefit of less maintenance and greater energy efficiency. The lights would also provide better lighting and are resistant to debris accumulation (bugs, dirt, etc), unlike the current fixtures.

Staff is recommending the bid from K/E Electric due to their past excellent work with the Township restroom lighting and history of good customer service.

### Recommended Motion

**Moved by \_\_\_\_\_, Supported by \_\_\_\_\_ to approve the proposal from K/E Electric Supply for the purchase of new lighting fixtures for \$17,603.11.**

#### 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

Job: GENOA TOWNSHIP HALL  
 2911 DORR ROAD  
 BRIGHTON, MICHIGAN



7050 Jomar Dr.  
 Whitmore Lake, MI 48189  
 (810) 227-3377 (EDSS)  
 (810) 227-3399 Fax  
 www.edssenergy.com

Contact: Adam VanTassel

Project Executive:

GARY ELY

3/9/2018

Quote

PE: PM: PD:

Type	Qty	Description	Lamp	Manu	Cat #	Unit	Unit Ext.
<b>Lighting Quote:</b>							
8FT	1	8 FT LINEAR LED DIR/INDIRECT	LED	ATLANTIC	QCS-54-DI-SNW-FW-LEDMO-LEDLO-4K-8'-C-TW	\$ 790.25	\$ 790.25
16FT	1	16 FT LINEAR LED DIR/INDIRECT	LED	ATLANTIC	QCS-54-DI-SNW-FW-LEDMO-LEDLO-4K-16'-C-TW	\$ 1,580.25	\$ 1,580.25
32FT	4	32 FT LINEAR LED DIR/INDIRECT	LED	ATLANTIC	QCS-54-DI-SNW-FW-LEDMO-LEDLO-4K-32'-C-TW	\$ 3,160.50	\$ 12,642.00
GRAND TOTAL FOR ABOVE FIXTURES						\$	15,012.50

Drawings Referenced Lighting schedule given by EC

**\*\*Contact: David Ely at: (810) 227-3377 (EDSS) w/any questions or comments**

**\*\*Please review document carefully. Note above prices do not include tax. Freight when applicable. Price includes lamps & hardware unless otherwise noted. This quote is valid for 30 days. A 25% retainer is required on all orders. Subject to manufacturer's limited warranty, terms and conditions. Upon your approval please sign below.**

**\*\*Fax back to (810) 227-3399 or email davidely@msn.com**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ PO#: \_\_\_\_\_

# QUATRO

## LED 54 series direct/indirect suspended mount

**ZOOM**  
an Atlantic Lighting brand

Project: \_\_\_\_\_

Type: \_\_\_\_\_

Catalog number: \_\_\_\_\_

### specifications | 120-277 Volt

- The Quatro has a heavy wall alloy 6063T5 extruded aluminum housing. The die formed cold rolled steel reflector is painted with minimum 90% reflective gloss white enamel. See ordering key for more options.
- This fixture is offered in three nominal lumen levels from 550-1650 in both direct and indirect distribution. In 4 foot fixture lengths, the 1100 lumen per foot is designed to replace a single 54W T5HO. Contact factory for other lumen levels.
- Stem mount is a 5/8 OD hard stem and 5" diameter canopy for mounting to a standard 4" O-box or equivalent. Standard length is 2-ft., custom lengths available in 1-ft. increments.
- Cable mount is a 4-ft. length of aircraft cable that is adjustable to shorter lengths on site. Two cable and canopy kits are provided for each fixture length, and one for each additional segment in a run length. One of the two canopies has a cord for the power feed. With the EM option, the second canopy will also have a cord for the emergency power feed. White cord supplied on white fixtures and black cord supplied on all other fixtures.

#### OSRAM PrevaLED - Linear LED Board

- CRI >80
- Even and diffuse light
- Color variation within 3-step MacAdam Ellipse



#### OSRAM Optotronic LED Driver

- 120V through 277V universal driver is standard. Contact factory for 347V.
- Dimmable, instant 100% light (1%-100%) via: 0-10V protocol. 5-year warranty.

Listed to UL 1598 and Canadian standards. Suitable for damp locations.

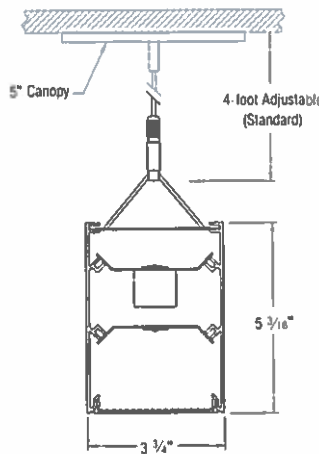
Specifications and dimensions subject to change without notice.



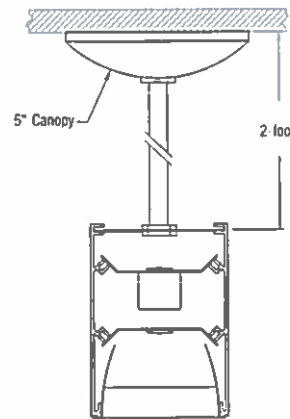
Available photometrics at [atlantic-lighting.com](http://atlantic-lighting.com).



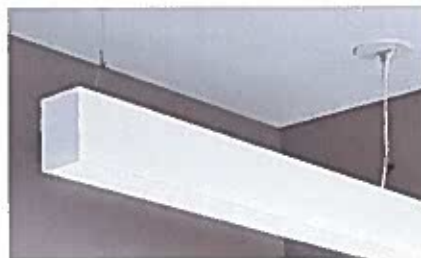
**ATLANTIC LIGHTING**



Cable Mount shown with snap-in lens in the direct position & flexible white in the indirect position



Stem Mount shown with with parabolic louver in the direct position & flexible white in the indirect



Low Output (LO)	550 Lumens/ft.	5W/ft.
Medium Output (MO)	1100 Lumens/ft.	9W/ft.
High Output (HO)	1650 Lumens/ft.	13W/ft.

\*Wattages based on a 4-foot fixture with a single driver.  
Listed lumens and wattages are component measurements.  
See photometrics for fixture values.

### ordering data

**MODEL** ..... **QCS-54**  
QCS-54 5x4 Quatro suspended

**DIRECTION** ..... **DI**  
DI Direct/Indirect

**DIRECT SHIELDING** .....  
PB Parabolic louver (4 ft. only)  
SNW Snap-in white lens

**INDIRECT SHIELDING** .....  
FW Flexible white acrylic lens  
DC Dust cover

**DIRECT - NOMINAL LUMENS/FT\*** .....  
LEDLO 550 lumen/ft. 5W/ft.  
LEDMO 1100 lumen/ft. 9W/ft.  
LEDHO 1650 lumen/ft. 13W/ft.

**INDIRECT - NOMINAL LUMENS/FT\*** .....  
LEDLO 550 lumen/ft. 5W/ft.  
LEDMO 1100 lumen/ft. 9W/ft.  
LEDHO 1650 lumen/ft. 13W/ft.

**COLOR TEMPERATURE** .....  
3K 3000K  
35K 3500K  
4K 4000K

**LENGTH** .....  
2 2 ft.  
3 3 ft.  
4 4 ft.  
6 6 ft.  
8 8 ft.  
X Replace X with run length (ft.)

**MOUNTING** .....  
C Cable 4-ft. adjustable  
Cxx Cable, custom length (in ft.)  
ST Stem, 2-ft. fixed  
STxx Stem, custom length (in ft.)

**FINISH** .....  
TW Textured white  
TS Textured silver  
TB Textured black  
CC Custom color

**DIMMING** .....  
0-10V DC standard, leave box blank  
2WR 2-wire TRIAC forward-phase or ELV reverse-phase (100%-5%) (TRIAC is 120V only)  
DAL DALI (100%-1%)

**OPTIONS** .....  
EM Emergency pack (Not available on 2' & 3' individual fixture lengths)  
DMX DMX analog interface, remote (120V only)

P/N Example: QCS-54-DI-PB-FW-LEDHO-LEDLO-3K-4-C-TW-EM

**QCS-54-DI-PB-FW-LEDHO-LEDLO-3K-4-C-TW-EM**

model direction indirect shielding lumens temp mounting options length finish

## QUOTE

Quote Number: **17-10777138**  
 Order Number: Quote  
 Customer Number: 210405-0

**TO:**  
 GENOA TOWNSHIP  
 2911 DORR RD  
 BRIGHTON, MI 48116  
 PHONE: (810) 227-5225 FAX: (810) 227-3420

**SHIP TO:**  
 GENOA TOWNSHIP  
 2911 DORR RD  
 BRIGHTON, MI 48116

Quote Date	Customer PO.	Job Number	Requested By
03/14/2018	Office Re-light	Office Re-light	Adam Vantassell

Ln	Qty	Mfg	Part Number	Description	Price	Ext. Price
1	1	FIN	FINELITE	HP 4 ID-16'-B-B-840-TG-F-120V-FA50-SC-C 4 16FT Front Office Area	\$1,756.00 E	\$1,756.00
2	4	FIN	FINELITE	HP 4 ID-32'-B-B-840-TG-F-120V-FA50-SC-C 4 32FT North & South Office Area	\$3,512.00 E	\$14,048.00
3	1	FIN	FINELITE	HP 4 ID-8'-B-B-840-TG-F-120V-FA50-SC-C4 8FT Conference Room	\$928.00 E	\$928.00
4	1	FIN	FINELITE	HP 4 ID-12'-B-B-840-TG-F-120V-FA50-SC-C 4 12FT Conference Room	\$1,317.00 E	\$1,317.00

**Comment:**  
 Plus inbound freight charges

**SubTotal:** \$18,049.00  
**Sales Tax:** \$0.00

**Grand Total:** **\$18,049.00**

Please do not hesitate to call with any questions.

Best Regards,  
 Todd Steward

10th Prox. Net 30 Days

Signature

Date

Purchase Order



ISO  
9001:2000

Q1





BUY AMERICAN ACT OF 2009 COMPLIANT

# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

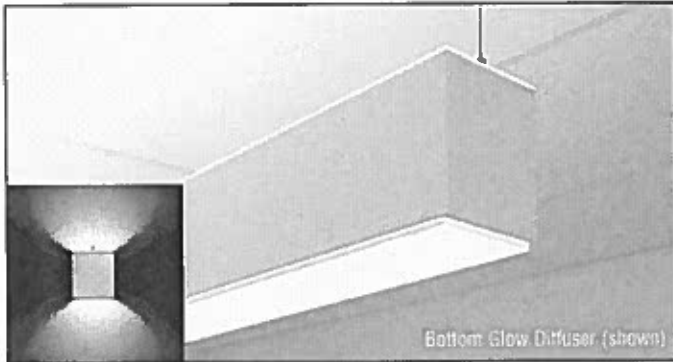


Date

Project

Type

Comments

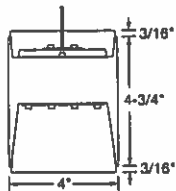


Bottom Glow Diffuser (shown)

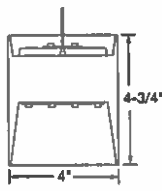
### DESCRIPTION

High Performance 4" aperture Indirect/Direct (HP-4 ID) is a patented, linear LED luminaire with Flush, Top Glow™ and Bottom Glow™ options for uplight and downlight. The micro shape delivers excellent performance using an advanced optical design and mid-power LEDs to achieve 90% of initial light output at 100,000+ hours.

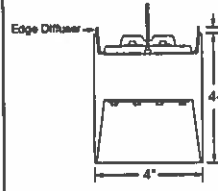
Top Glow Diffuser (standard)



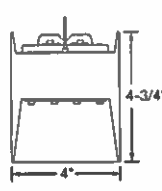
Flush Uplight Diffuser



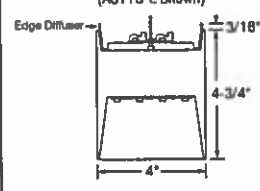
Widespread Optic with Top Glow



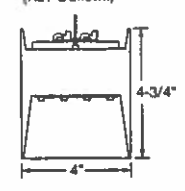
Widespread Optic



Asymmetric Optic with Top Glow (ASYTG-L Shown)



Asymmetric Optic (ASY-L Shown)

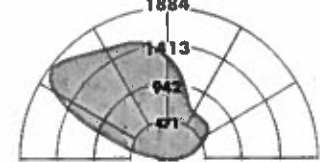
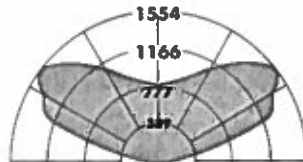


Bottom Glow Diffuser

Flush Downlight Diffuser (standard)

### DIMENSIONS & DIFFUSER

A glare-free experience is attained using a precise diffuser to eliminate pixilation.



### ORDERING GUIDE: Sample Number: HP-4 ID - 32' - S - H - 835 - TG - F - 120V - FA - SC - C1 - OBO

HP-4 ID																			
Finelite HP-4 ID																			
Length (Minimum 2', increments accurate to 1/16" (± 1/32"), standard)																			
Uplight Output (S - Standard, B - Boosted Standard, H - High, V - Very High)																			
Downlight Output (S - Standard, B - Boosted Standard, H - High, V - Very High)																			
LED CRI/CCT (830 - 80 CRI min, 3000K    930 - 90 CRI min, 3000K																			
835 - 80 CRI min, 3500K    935 - 90 CRI min, 3500K																			
840 - 80 CRI min, 4000K    940 - 90 CRI min, 4000K)																			
Uplight Option (TG - Top Glow (standard), F - Flush, WSO - Widespread Optic,																			
WSOTG - Widespread Optic with Top Glow, ASY-L - Asymmetric Left Optic,																			
ASY-R - Asymmetric Right Optic, ASYTG-L - Asymmetric Left Optic with Top Glow,																			
ASYTG-R - Asymmetric Right Optic with Top Glow)																			
Downlight Option (F - Flush (standard), BG - Bottom Glow)																			
Voltage (120V, 277V, 347V)																			
Mounting (FA - Fully Adjustable)																			
Circuiting (SC - Single Circuit, DC - Dual Circuit)¹																			
Ceiling Type (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - screw slot, C4 - hard ceiling)																			
Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)																			

¹ Contact factory for switching options

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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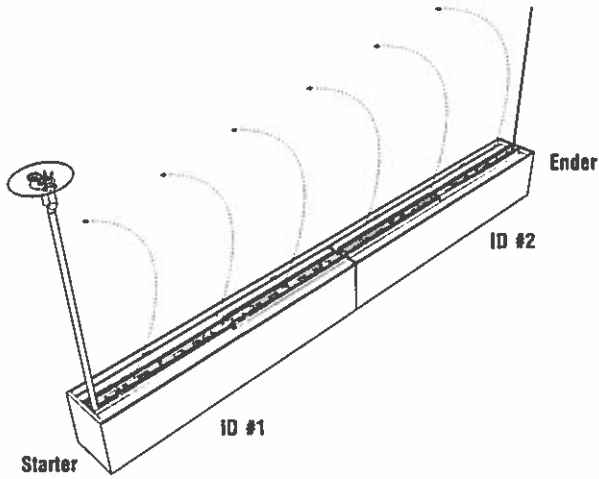
# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

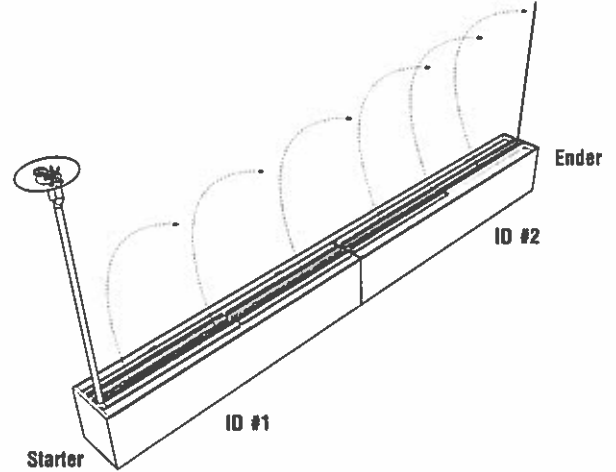
### ASYMMETRIC

Use this tool to understand how to specify Asymmetric for your project. The diagrams below show a linear run from power feed to ender. Specify, ASY-L distributes light to the left or ASY-R distributed light to the right.

Asymmetric Left Optic (ASY-L)



Asymmetric Right Optic (ASY-R)



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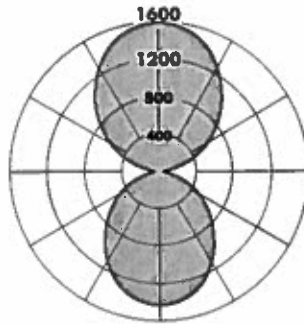
# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

### PHOTOMETRY

Very High Output / Very High Output - 4' Luminaire  
 Distribution: 53% Up (V) / 47% Down (V)  
 Efficacy: 106 lumens per watt  
 Uplight: 4180 lumens (1045 lumens/foot)  
 Downlight: 3706 lumens (927 lumens/foot)  
 Total luminaire output: 7886 lumens (1972 lumens/foot)  
 74.1 watts (18.5 watts/foot)

CRI: 80  
 CCT: 3500K  
 ITL LM79 Report 85125



CANDELA DISTRIBUTION						
	0.0	22.5	45	67.5	90	Flux
0	1443	1443	1443	1443	1443	
5	1433	1434	1434	1433	1434	136
15	1368	1360	1365	1363	1356	384
25	1239	1225	1228	1224	1216	564
35	1062	1050	1049	1040	1034	654
45	859	850	847	838	832	652
55	647	640	637	628	624	568
65	435	430	429	424	422	424
75	233	234	233	234	232	248
85	65	67	68	69	70	76
90	0	0	0	0	0	
95	71	72	76	81	82	86
105	257	261	266	270	269	281
115	485	483	485	490	486	482
125	723	726	726	720	717	646
135	963	958	961	958	951	739
145	1189	1177	1185	1179	1172	738
155	1377	1367	1374	1368	1363	631
165	1517	1510	1514	1511	1510	426
175	1590	1590	1590	1589	1590	151
180	1600	1600	1600	1600	1600	

↑ Indirect    ↓ Direct

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire				
	↑S*	↑B*	↑H*	↑V**
↑S*	3228 [153%   47%↓]	3668 [159%   41%↓]	4768 [168%   32%↓]	5697 [173%   27%↓]
↑B*	3618 [147%   53%↓]	4058 [153%   47%↓]	5158 [163%   37%↓]	6087 [169%   31%↓]
↑H*	4594 [137%   63%↓]	5034 [143%   57%↓]	6134 [153%   47%↓]	7062 [159%   41%↓]
↑V*	5417 [132%   68%↓]	5857 [137%   63%↓]	6957 [147%   53%↓]	7886 [153%   47%↓]

Lumen Adjustment Factors - 80 CRI	
3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI	
3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

Light Output, 3500K, 80 CRI (Lumens Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↑S*	807	917	1192	1424
↑B*	905	1015	1290	1522
↑H*	1148	1258	1533	1766
↑V*	1354	1464	1739	1972

Power, 3500K, 80 CRI (Watts Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↑S*	7.3	8.2	10.7	12.9
↑B*	8.2	9.2	11.7	13.9
↑H*	10.7	11.7	14.2	16.4
↑V*	12.9	13.9	16.4	18.5

Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
	↑S*	↑B*	↑H*	↑V**
↑S*	111	111	111	111
↑B*	110	110	110	110
↑H*	107	107	108	108
↑V*	105	106	106	106

**SAMPLE LUMEN ADJUSTMENT CALCULATION**  
 High Output (H) / Standard Output (S),  
 4000K, 90 CRI

$$\text{Lumen Adjustment Factor} = 0.789$$

$$\text{Total Light Output} = 4768 \text{ lm} \times 0.789 = 3762 \text{ lm}$$

$$\text{Total Light Output per Foot} = 1192 \text{ lm/ft} \times 0.789 = 940 \text{ lm/ft}$$

$$\text{watts/foot} = 10.7 \text{ W/ft}$$

$$\text{Efficacy} = \frac{940 \frac{\text{lm}}{\text{ft}}}{10.7 \frac{\text{W}}{\text{ft}}} = 88 \text{ lm/W}$$

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

\* Family Correlation based on 4" luminaire 3500K Very High Output (V) test - 120V

\*\* Correlation based on ITL report: 85125

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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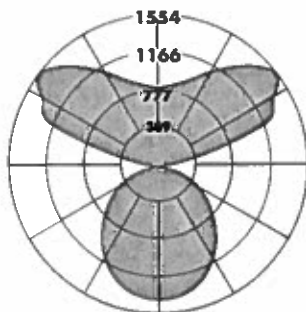
# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

### PHOTOMETRY - WIDESPREAD OPTIC (WSO)

Very High Output / Very High Output - 4' Luminaire  
 Distribution: 54% Up (V) / 46% Down (V)  
 Efficacy: 109 lumens per watt  
 Uplight: 4302 lumens (1076 lumens/foot)  
 Downlight: 3676 lumens (919 lumens/foot)  
 Total luminaire output: 7978 lumens (1995 lumens/foot)  
 73.3 watts (18.3 watts/foot)

CRI: 80  
 CCT: 3500K  
 ITL LM79 Report 89033



CANDELA DISTRIBUTION						
	0.0	22.5	45	67.5	90	Flux
0	1378	1378	1378	1378	1378	
5	1370	1370	1369	1370	1370	130
15	1314	1304	1309	1310	1305	369
25	1197	1184	1190	1187	1184	548
35	1038	1027	1030	1025	1020	643
45	851	841	843	837	833	648
55	652	643	642	636	635	573
65	446	437	438	435	433	433
75	245	240	242	241	240	256
85	70	68	67	67	69	77
90	0	0	0	0	0	
95	45	80	82	64	64	97
105	211	271	614	589	472	485
115	385	434	783	1212	1323	804
125	503	565	885	1386	1514	852
135	588	656	915	1294	1462	752
145	668	723	912	1137	1234	585
155	737	771	882	992	1037	409
165	790	802	845	884	899	240
175	816	817	821	825	828	79
180	819	819	819	819	819	

### WIDESPREAD OPTIC

	↑ Indirect	↓ Direct
--	------------	----------

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire				
	↑S*	↑B*	↑H*	↑V**
↑S*	3266 [154%   146%↓]	3719 [160%   140%↓]	4851 [169%   131%↓]	5807 [174%   126%↓]
↑B*	3653 [148%   152%↓]	4106 [154%   146%↓]	5238 [164%   136%↓]	6194 [170%   130%↓]
↑H*	4620 [138%   162%↓]	5073 [144%   156%↓]	6205 [154%   146%↓]	7161 [160%   140%↓]
↑V*	5437 [132%   168%↓]	5890 [138%   162%↓]	7022 [148%   152%↓]	7978 [154%   146%↓]

Lumen Adjustment Factors - 80 CRI	
3000K	0.985
3500K	1.000
4000K	1.032

Light Output, 3500K, 80 CRI (Lumens Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↑S*	816	930	1213	1452
↑B*	913	1026	1309	1548
↑H*	1155	1268	1551	1790
↑V*	1359	1472	1756	1995

Lumen Adjustment Factors - 90 CRI	
3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

Power, 3500K, 80 CRI (Watts Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↑S*	7.2	8.1	10.6	12.7
↑B*	8.1	9.1	11.6	13.7
↑H*	10.6	11.6	14.1	16.2
↑V*	12.7	13.7	16.2	18.3

### SAMPLE LUMEN ADJUSTMENT CALCULATION

High Output (H) / Standard Output (S),  
 4000K, 90 CRI

$$\text{Lumen Adjustment Factor} = 0.789$$

$$\text{Total Light Output} = 4851 \text{ lm} \times 0.789 = 3827 \text{ lm}$$

$$\text{Total Light Output per Foot} = 1213 \text{ lm/ft} \times 0.789 = 957 \text{ lm/ft}$$

$$\text{watts/foot} = 10.6 \text{ W/ft}$$

$$\text{Efficacy} = \frac{957 \frac{\text{lm}}{\text{ft}}}{10.6 \frac{\text{W}}{\text{ft}}} = 90 \text{ lm/W}$$

Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
	↑S*	↑B*	↑H*	↑V**
↑S*	114	114	114	114
↑B*	112	113	113	113
↑H*	109	109	110	111
↑V*	107	107	108	109

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

\* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V

\*\* Correlation based on ITL report: 89033

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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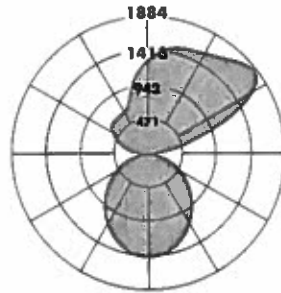
# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

### PHOTOMETRY - ASYMMETRIC OPTIC (ASY)

HP-4-ID-V-V-835-ASY-R  
 Very High Output / Very High Output - 4' Luminaire  
 Distribution: 54% Up (V) / 46% Down (V)  
 Efficacy: 111 lumens per watt  
 Uplight: 4436 lumens (1109 lumens/foot)  
 Downlight: 3766 lumens (942 lumens/foot)  
 Total Luminaire Output: 8202 lumens (2051 lumens/foot)  
 73.8 watts (18.5 watts/foot)

CRI: 80  
 CCT: 3500K  
 ITL LM79 Report 89988



CANDELA DISTRIBUTION						
	0.0	45.0	90.0	135.0	180.0	Flux
0	1434	1434	1434	1434	1434	
5	1427	1427	1426	1425	1426	135
15	1361	1363	1363	1360	1358	383
25	1230	1235	1235	1234	1227	567
35	1054	1063	1063	1060	1050	662
45	860	866	867	864	856	665
55	648	654	657	654	647	584
65	439	444	444	442	437	438
75	245	244	243	240	238	255
85	68	67	67	66	66	75
90	0	0	0	0	0	
95	142	146	57	141	175	147
105	582	647	207	294	355	431
115	1335	1134	369	414	493	692
125	1861	1288	545	504	620	797
135	1803	1318	724	574	667	745
145	1657	1367	909	644	668	642
155	1581	1432	1084	783	706	513
165	1537	1446	1220	1009	910	345
175	1401	1366	1293	1225	1196	123
180	1302	1302	1302	1302	1302	

### ASYMMETRIC OPTIC

↑ Indirect    ↓ Direct

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire				
	↑S*	↑B*	↑H*	↑V**
↓S*	3358 [154%   46%↓]	3824 [160%   40%↓]	4992 [169%   31%↓]	5978 [174%   26%↓]
↓B*	3754 [148%   52%↓]	4221 [154%   46%↓]	5388 [164%   36%↓]	6374 [170%   30%↓]
↓H*	4745 [138%   62%↓]	5212 [144%   56%↓]	6379 [154%   46%↓]	7365 [160%   40%↓]
↓V*	5582 [133%   67%↓]	6049 [138%   62%↓]	7216 [148%   52%↓]	8202 [154%   46%↓]

Lumen Adjustment Factors - 80 CRI	
3000K	0.985
3500K	1.000
4000K	1.032

Light Output, 3500K, 80 CRI (Lumens Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↓S*	839	956	1248	1494
↓B*	938	1055	1347	1594
↓H*	1186	1303	1595	1841
↓V*	1395	1512	1804	2051

Lumen Adjustment Factors - 90 CRI	
3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

#### SAMPLE LUMEN ADJUSTMENT CALCULATION

High Output (H) / Standard Output (S),  
 3500K, 80CRI

Lumen Adjustment Factor = 0.789

$$\text{Total Light Output} = 4992 \text{ lm} \times 0.789 = 3939 \text{ lm}$$

$$\text{Total Light Output per Foot} = 1248 \text{ lm/ft} \times 0.789 = 985 \text{ lm/ft}$$

$$\text{watts/foot} = 10.7 \text{ W/ft}$$

$$\text{Efficacy} = \frac{985 \frac{\text{lm}}{\text{ft}}}{10.7 \frac{\text{W}}{\text{ft}}} = 92 \text{ lm/W}$$

Power, 3500K, 80 CRI (Watts Per Foot)				
	↑S*	↑B*	↑H*	↑V**
↓S*	7.2	8.2	10.7	12.8
↓B*	8.2	9.2	11.7	13.8
↓H*	10.7	11.7	14.2	16.3
↓V*	12.8	13.8	16.3	18.5

Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
	↑S*	↑B*	↑H*	↑V**
↓S*	116	117	117	116
↓B*	114	115	115	115
↓H*	111	112	113	113
↓V*	109	109	111	111

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

\* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

\*\* Correlation based on ITL report: 89988

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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# FINELITE

## High Performance 4" Aperture (HP-4) - Indirect/Direct

### SPECIFICATIONS

**CONSTRUCTION:** Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard.

**ENDCAPS:** Flat diecast aluminum endcaps add 1/4" to each end of luminaire.

**MITERED CORNERS:** Illuminated 90° corners in a single plane, with Top Glow™ or Flush uplight diffuser, and/or Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

**REFLECTORS:** Die-formed 20-gauge cold-rolled steel reflectors finished in 96LG High Reflectance white power coat paint.

**UPLIGHT OPTION:** Patented Top Glow frost white diffuser standard. 12 ft. maximum diffuser length. 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Optional: Flush frost white snap-in diffuser, 73% transmissive, 99% diffusion; Widespread Optic (WSO) and Widespread Optic with Top Glow (WSOTG); WSO enables increased luminaire spacing with improved ceiling uniformity. Asymmetric optic directs light in a specific direction. ASY-L distributes light to the left, ASY-R distributed light to the right of the luminaire. See page 2.

**DOWNLIGHT OPTION:** 12' maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Bottom Glow™ frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

**LIGHT OUTPUT:** Four lumen packages available; Standard (S), Boosted Standard (B), High (H), and Very High (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

**LUMEN MAINTENANCE:** 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

**DRIVER:** Replaceable 120V/277V and 347V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Separate dimming for uplight and downlight available. Driver is fully accessible from below the ceiling. Power Factor: ≥ 0.9. Total Harmonic Distortion (THD): <20%. Expected driver lifetime: 100,000 hours.

**LUTRON DRIVER OPTIONS:** Lut3W-3-wire, LutES EcoSystem, Lut2W-2-wire.

**ELECTRICAL:** Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup batteries deliver 1300 lumens. Half of a 4' section (downlight only) will be illuminated in emergency mode.



**INTEGRATED SENSORS:** Integrated PIR (Passive Infrared) occupancy or daylight sensors available with Flush and Bottom Glow downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

**MOUNTING:** 50" Fully Adjustable (FA) plated steel aircraft cable with safety stop hardware standard. Contact factory for additional lengths up to 150".

**FINISHES:** Finelite Signal White powder coat standard. Optional Adders: 185 RAL colors.

**FEED:** Standard with one 18-gauge/5-conductor single-circuit feed controlling uplight and downlight together (power and dimming). Specify dual feeds for independent control of uplight and downlight. 14-gauge feed used when luminaire current exceeds 5 amps.

**LENGTHS:** Any length, 2-foot minimum, in increments down to 1/16th-inch (±1/32"). 12-foot maximum section length.

**LABELS:** Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. Finelite products use electronic components that are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2002/95/EC.

**WEIGHT:** 3.4 lb/ft.

**DLC QUALIFIED:** Configurations of this product are listed on the DLC Qualified Products List (QPL). [www.designlights.org/search](http://www.designlights.org/search)

**WARRANTY:** 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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Page 6

J O B   Q U O T A T I O N

10 K/E ELECTRIC SUPPLY  
10  
60 BRIGHTON

Telephone# 810-227-7005

PAGE 1

DATE 1/16/18

SLS# 176  
NUMBER:219256 J

PREPARED FOR: 35288-00  
MHOG WATER & SEWER AUTHORITY  
2911 DORR RD.

BRIGHTON MI 48116

JOB NAME:  
GENOA TWP-OPTION #1  
BRIGHTON AREA

SALES TAX - MI EXEMPTION# GOVERNMENT

Quantity	Description	Price	Extended
2 A	FINELITE HP 4 ID 32' B B 830 F F VOLT FA50 DUAL FEED C4 (WITH 5' CANOPY AT ALL MTG POINTS) SUSP. PTS EVERY 4'  ABOVE LIGHTING FOR TREASURY FA50 DUAL FEED C4 (WITH 5'	3425.49 E	6850.98
1 B	FINELITE HP 4 ID 16' B B 830 F F VOLT FA50 SINGLE FEED C4 WITH 5' CANOPY AT ALL MTG PTS SUSPENSION PTS EVERY 4'  ABOVE LIGHTING FOR MANAGER FA50 SINGLE FEED C4	1712.74 E	1712.74
2 C	FINELITE HP 4 ID 32' B B 830 F F VOLT FA50 DUAL FEED C4 WITH 5' CANOPY AT ALL MTG PTS SUSPENSION PTS EVERY 4'  ABOVE LIGHTING FOR CLERK'S FA50 DUAL FEED C4	3425.49 E	6850.98
1 D	FINELITE HP 4 ID 8' B B 830 F F VOLT FA50 SINGLE FEED C4 WITH 5' CANOPY AT ALL MTG PTS SUSPENSION PTS EVERY 4'	887.56 E	887.56

\* CONTINUED \*

J O B   Q U O T A T I O N

10 K/E ELECTRIC SUPPLY  
 10  
 60 BRIGHTON

Telephone# 810-227-7005

PAGE 2

DATE 1/16/18

SLS# 176  
 NUMBER:219256 J

PREPARED FOR: 35288-00  
 MHOG WATER & SEWER AUTHOR  
 2911 DORR RD.

BRIGHTON MI 48116

JOB NAME:  
 GENOA TWP-OPTION #1  
 BRIGHTON AREA

SALES TAX - MI EXEMPTION# GOVERNMENT

Quantity	Description	Price	Extended
	ABOVE LIGHTING FOR EAST FA50 SINGLE FEED C4	1300.85 E	
1 E	FINELITE HP 4 ID 12' B B 830 F F VOLT FA50 SINGLE FEED C4 WITH 5' CANOPY AT ALL MTG PTS SUSPENSION POINTS EVERY 4'	1300.85 E	1300.85
	ABOVE LIGHTING FOR EAST CONFER FA50 SINGLE FEED C4		

Extended Total: 17603.11

Estimated Ship Date:

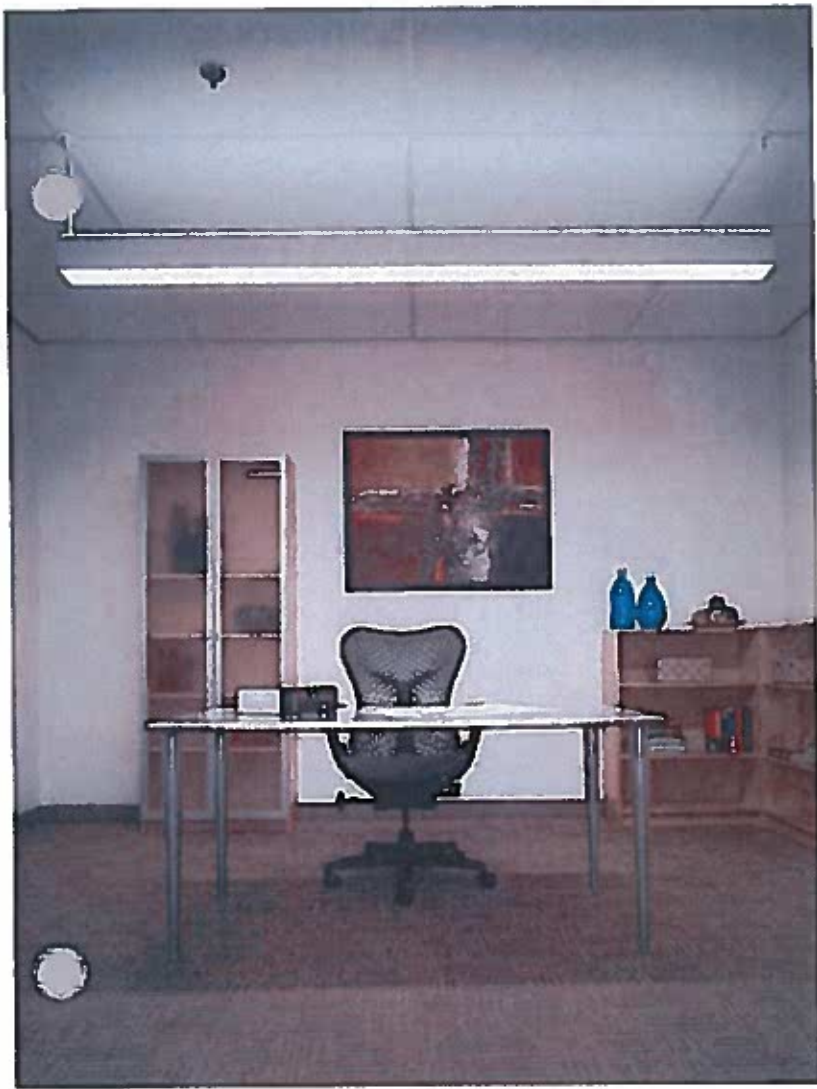
Terms:

Firm for acceptance on  
 or before:

By:

*Doug Kern*  
 Doug Kern  
 DOUG@KEELECTRIC.COM









AGREEMENT TO PROVIDE WATER SERVICE  
TO SHEPHERD OF THE LAKES

This Agreement is effective as of the date of the last signatory to this Agreement. This Agreement is by and between the Charter Township of Brighton (“Brighton Township”), a Michigan municipal corporation, with offices at 4363 Buno Road, Brighton, MI 48114; Genoa Charter Township (“Genoa Township”), a Michigan municipal corporation, with offices at 2911 Dorr Rd., Brighton, MI 48116; MHOOG Sewer and Water Authority (“Authority”), a Michigan municipal corporation, with offices at 1577 N. Latson Rd., Howell, MI 48843; and Shepherd of the Lakes (“SOTL”), a Lutheran Church, located at 2101 South Hacker Rd., Brighton, MI 48114.

RECITALS

A. The Authority owns a public water supply system that services properties in Genoa Township.

B. The SOTL property is located in Brighton Township.

C. The Authority water main is located within a serviceable distance to the SOTL property.

D. SOTL desires to connect and purchase municipal water from the Authority and Genoa Township and abandon its existing well service.

E. SOTL is currently connected to the Brighton Township Sewer System and is billed for sewer service through Brighton Township.

F. Brighton Township is authorized by Public Act 35 of 1951, as amended, and Public Act 107 of 1941, as amended, to enter into agreements to receive services from another municipality.

G. Brighton Township, the Authority, and Genoa Township agree that providing municipal water service to SOTL is in the best interest of all parties.

NOW, THEREFORE, in consideration of the promises and covenants of each other, the parties agree as follows:

1. The Authority and Genoa Township agree to permit an extension of its water service infrastructure and shall provide municipal water service to SOTL. SOTL shall be solely responsible for all costs associated with the extension of the water service infrastructure as set forth in the attached Exhibit A. SOTL shall comply with all engineering standards of the Authority in the construction of the water service infrastructure.

2. SOTL shall pay Genoa Township tap fees in the amount of \$\_\_\_\_\_ per REU, for a total purchase price of \$\_\_\_\_\_, as outlined in the attached letter from Genoa Township dated \_\_\_\_\_, 2018, identified as Exhibit B.

3. Following purchase of capacity through Genoa Township, SOTL shall additionally pay for and construct a water and fire suppression service under Hacker Road. SOTL shall obtain necessary permits and deposit with the Authority inspection fees (for tapping into and construction of the future Authority water main).

4. SOTL shall purchase a water meter of suitable size through Genoa Township.

5. Upon project completion and start of water service, the Authority shall read the meter and bill SOTL for water consumption on a quarterly basis. The water read shall also be submitted to Brighton Township.

6. The parties acknowledge the Authority is the owner of the water service infrastructure to be constructed pursuant to this Agreement.

7. The Authority shall have the right and obligation to service the SOTL property for the purpose of meter repair and replacement and repair of Authority owned main and hydrants.

8. SOTL agrees to comply with the Authority Backflow and Cross Connection Program, and acknowledges it has received a copy of that document.

9. No failure or delay in the performance of this Agreement by any party shall be deemed a breach when such failure or delay is occasioned by or due to any act of God, strikes or lockouts, wars, riots, epidemics, explosions, sabotage, breakage, or accidents to machinery or lines of pipe, the binding order of any Court or governmental authority, or any other cause, whether of the kind herein enumerated, or otherwise not in control of the party claiming suspension, provided that no cause or contingency shall relieve SOTL of its obligation to make payment.

10. This Agreement represents the entire agreement between the parties and supersedes all prior representations, negotiations or agreements, whether written or oral.

11. This Agreement and the rights and liabilities hereunder accruing to and imposed upon the Authority may be assigned by the Authority to any other governmental entity authorized by law to perform services.

12. Should Brighton Township extend a municipal water system that can service SOTL in the future, the parties agree to negotiate in good faith to connect SOTL to the Brighton Township Water System and construct an emergency interconnect with the Authority Water System.

13. The provisions of this agreement relating to the respective rights, duties, and obligations held by Brighton Township, Genoa Township, the Authority and SOTL may not be amended without the written consent of all parties. This Agreement shall become

binding on the parties and in full force and effect upon the approval by the respective Board of Trustees and signing thereof by the duly authorized officials in Brighton Township, Genoa Township, SOTL and of the Authority.

14. This Agreement shall be binding upon all successor government units of Brighton Township, Genoa Township, and the Authority.

15. Should any provisions of this Agreement be found by a Court to be invalid for any reason, it shall be severed from the Agreement and the remaining provisions shall remain in full force and effect.

CHARTER TOWNSHIP OF BRIGHTON

\_\_\_\_\_  
Patrick Michel, Supervisor  
Dated:\_\_\_\_\_

\_\_\_\_\_  
Ann Bollin, Clerk  
Dated:\_\_\_\_\_

GENOA CHARTER TOWNSHIP

\_\_\_\_\_  
William Rogers, Supervisor  
Dated:\_\_\_\_\_

\_\_\_\_\_  
Paulette Skolaris, Clerk  
Dated:\_\_\_\_\_

MHOG SEWER AND WATER AUTHORITY

\_\_\_\_\_  
Robert Hanvey, Chairman  
Dated:\_\_\_\_\_

---

William Bamber, Supervisor

Dated: \_\_\_\_\_

SHEPHERD OF THE LAKES

---

Dated: \_\_\_\_\_

---

Dated: \_\_\_\_\_

# **Board Correspondence**



# Livingston County Department of Planning

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March 1, 2018

**Kathleen J. Kline-Hudson**  
AICP, PEM  
Director

**Robert A. Stanford**  
AICP, PEM  
Principal Planner

**Scott Barb**  
AICP, PEM  
Principal Planner

Bill Rogers, Supervisor  
Genoa Charter Township  
2911 Dorr Road  
Brighton, MI 48116

Dear Bill

We sincerely appreciate the \$3,000 contribution from Genoa Charter Township as match assistance for the Land and Water Conservation Grant for Phase I development of Fillmore County Park.

We will keep you informed of development progress on the park and let the Township know when the recreational features within the park will be available to residents of Genoa Charter Township.

If you have any comments or questions, please feel free to contact me at (517) 540-8734.

Sincerely,

Kathleen J. Kline-Hudson, Director  
Livingston County Planning Department

**Department Information**

Administration Building  
304 E. Grand River Avenue  
Suite 206  
Howell, MI 48843-2323

cc: Gary Childs, Chair, Livingston County Parks & Open Space Advisory Committee  
Don Parker, Chair, Livingston County Board of Commissioners

●  
(517) 546-7555  
Fax (517) 552-2347

●  
Web Site  
livgov.com

# CONTRIBUTION AGREEMENT

This is an agreement between Genoa Charter Township, a Michigan Municipal Corporation (hereinafter referred to as "TOWNSHIP"), located at 2911 Dorr Road, Brighton, Michigan 48116, and County of Livingston, a Michigan Municipal Corporation (hereinafter referred to as "COUNTY"), located at 304 E. Grand River Avenue, Howell, Michigan 48843.

WHEREAS, the County of Livingston has been approved by the MDNR for a Land and Water Conservation Fund grant for Phase I development of Fillmore County Park pending final approval by the National Park Service; and,

WHEREAS, the Fillmore County Park is available to the residents of the Township and the Township wishes to support the development of Fillmore Park to provide recreation and open spaces to residents of the Township and County.

NOW THEREFORE, the Township and the County agree to the following:

1. The Township shall pay the sum of \$3,000 to the County in match assistance for the Land and Water Conservation Grant for Phase I funding of Fillmore County Park. These monies shall be payable upon execution of this agreement.
2. The County shall use the money from the Township solely for the costs associated with the Land and Water Conservation Grant for Phase I funding of Fillmore County Park.

IN WITNESS WHEREOF, the authorized representatives of the parties hereto have entered into this Contribution Agreement as of this 26<sup>th</sup> day of FEBRUARY, 2018.

## COUNTY OF LIVINGSTON

By: Don Parker  
Don Parker, Chairman  
Livingston County Board of Commissioners

Dated: 2-26-18

Approved as to Form for County of Livingston: COHL, STOKER & TOSKEY, P.C. By: Richard McNulty On: April 5, 2017
--

## GENOA CHARTER TOWNSHIP

By: Bill Rogers  
Supervisor

Dated: 2/21/18

By: P. Schauer  
Clerk

Dated: 2/22/18

Signatures authorized by Genoa Charter  
Township Board of Trustees Resolution  
2/19, 2018

# BRIGHTON AREA FIRE AUTHORITY

*Proudly serving Genoa Township, Brighton Township, and Brighton City*  
[www.brightonareafire.com](http://www.brightonareafire.com)



# 2017 ANNUAL REPORT





**MICHAEL O'BRIAN**  
Fire Chief

***Moving Beyond Yesterday, Focused on Tomorrow***

The resilience of our staff was proven in 2017; it was the busiest year to date for emergency service calls. Our all hazard response was tested during the year, and we met or exceeded the expectations of our communities and citizens. The strength of our service has always been our staff and they proved their ability to meet the challenges by responding to over 11% more calls than in the year prior. Our staff's abilities go far beyond striving for fire service excellence on the fireground and emergency scene. They work to be the leader in the State to reduce the impact of fire in our communities, educate our citizens on CRR or safety education, and work to strengthen the Fire Service in Livingston County.

In addition to the assessment by ESCI, staff worked with the Insurance Services Office (ISO) to evaluate our current insurance rating. At the time of this report, our revised rating has not been received. We expect to see a decrease in the rating which will result in savings for our residents. Our recruitment, retention, and development of employees have served as a key aspect in both reports.

These two evaluations are evidence that our programs and processes are meeting good fire protection practices as well as working to meet National Standards. To keep our programs in top shape, the Authority filled the position of Fire Marshal. After an in-depth process, Captain Rick Boisvert was promoted to the position. As with any promotion, it led to multiple changes in the organization which included the transfer of Captain Don Hall to serve as a fire inspector and Captain Lauren Brookins to fill the shift supervisor position. The Authority filled the open position and added an additional full-time position with the promotions of Lt. Aaron Gage and Lt. Rob Furlong.

We developed 14 new firefighters by hosting the Livingston County Firefighters Fire Academy and leading the Howell Schools Fire Academy, which entered its fifth year.

Over the last year our community risk reduction programs continued to evolve. This included:

- 71 Car seats were inspected
- 2,140 Inspections were conducted by our inspectors and company based inspectors
- 2,000 Smoke Alarms were installed in 272 homes
- 44 public education programs were delivered to 9,068 adults and children. (Includes 1,500 attendance at Open House)
- 10 CPR programs conducted, training 105 people
- 13 students graduated from the Howell Schools Fire Academy

In addition to the changes in our staff, BAFA was successful in the administration of two FEMA-based grants. The first was for additional smoke alarms that were purchased and installed throughout the communities within our established smoke alarm program. The second grant was used to replace our aging air compressor system that is utilized to fill our SCBA bottles after use.

A key component of the year was the master plan and fire station study completed by Emergency Services Consulting International (ESCI). The feedback received by the evaluators will enable our organization to ensure that the Authority is meeting future challenges. Observations and statements from ESCI evaluators confirmed that our staff is meeting or exceeding industry standards in many areas.

There is no doubt that to meet the demands of 2018 and beyond, we will depend upon our competent staff who are the backbone of this Authority. Ensuring their continual training, development, as well as putting the right people in key spots is critical to the Authority. We know that ensuring our staff's success will aid in providing the best interaction and service to the public who demand it.

Michael O'Brian, Fire Chief

**BAFA SENIOR STAFF**



**MICHAEL EVANS**  
Deputy Fire Chief



**RICHARD BOISVERT**  
Fire Marshal



**ANNE CAMPBELL**  
HR Director



**JAMES TESTER**  
Assistant Chief



**MATTHEW SMITH**  
Assistant Chief



**2017 BAFA FIRE BOARD**



**JIM MORTENSEN, VICE CHAIR  
GENOA TOWNSHIP TRUSTEE**



**JIM MUZZIN, CHAIRMAN  
BRIGHTON MAYOR**



**SHAWN PIPLY, TREASURER  
BRIGHTON MAYOR PRO-TEM**



**LUCILLE WEAIRE  
BRIGHTON TOWNSHIP TRUSTEE**



**PATRICK MICHEL  
BRIGHTON TOWNSHIP SUPERVISOR**



**BILL ROGERS  
GENOA TOWNSHIP SUPERVISOR**



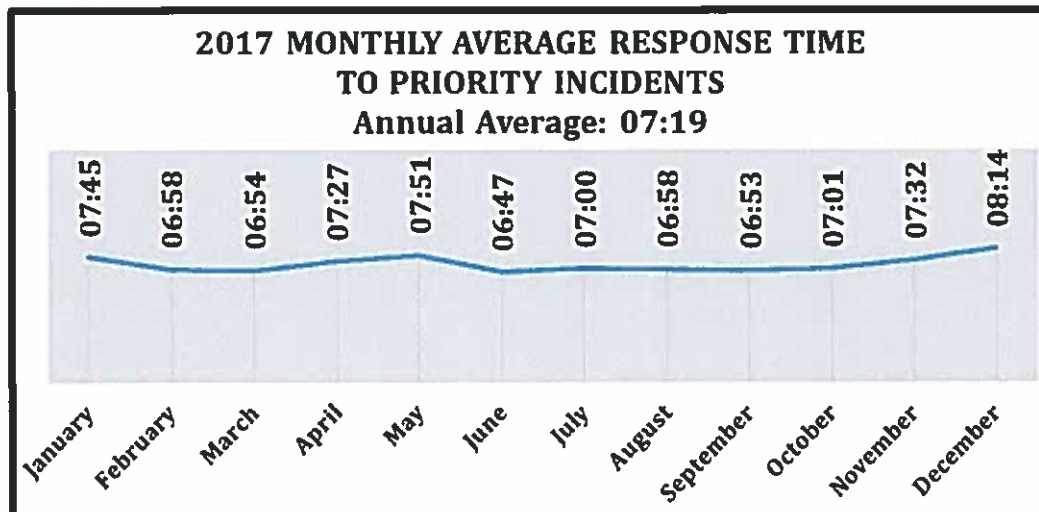
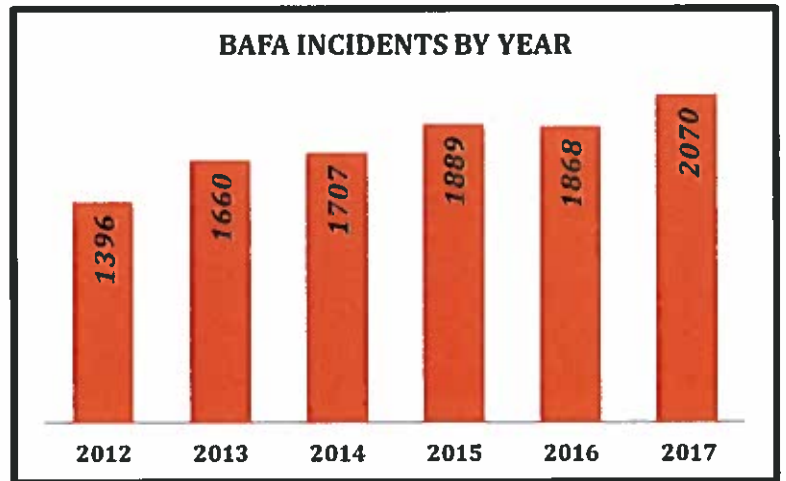
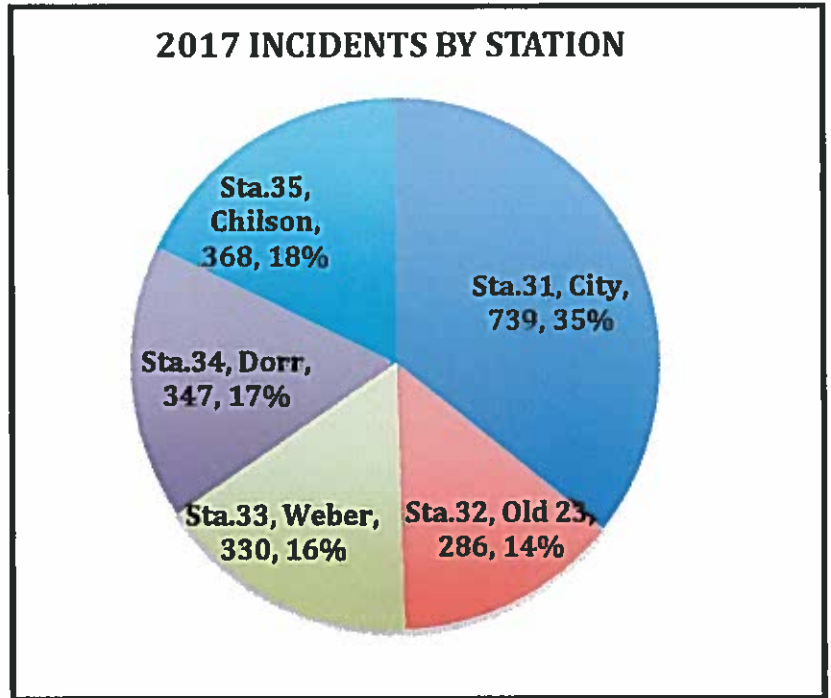
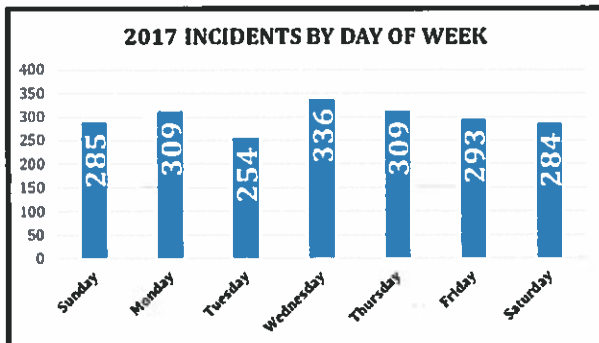
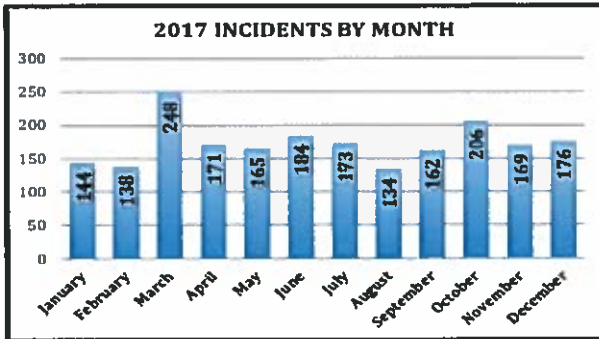
**NEAL NIELSEN  
BAFA ATTORNEY**



**MIKE CORRIGAN, SECRETARY  
CITIZEN AT LARGE**



## EMERGENCY RESPONSE





## EMERGENCY RESPONSE

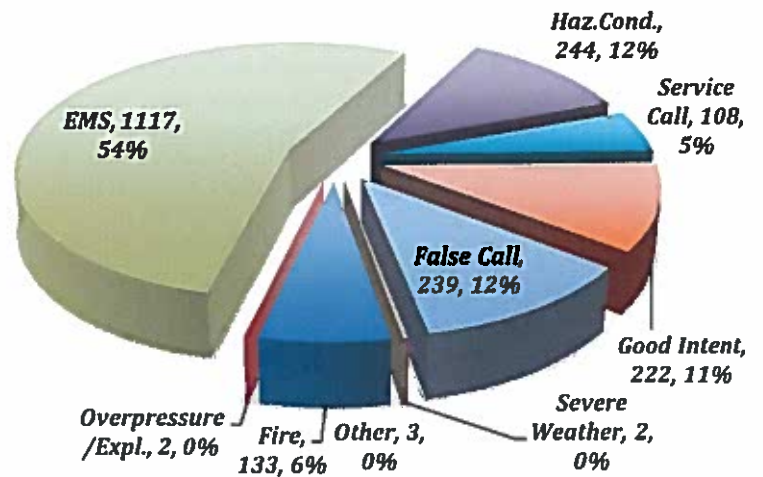


### EMERGENCY RESPONSE

The Brighton Area Fire Authority proudly provides emergency services to three municipalities covering a 74 square mile area. The Authority responded to 2,070 calls for assistance in 2017. An 11% increase over last year. As the chart on this page reveals:

- EMS events demanded the greatest response activity with 1,117 incidents, or 54% of our calls.
- Included in the number of EMS runs, there were 187 motor vehicle accidents (MVA).
- There were 133 fires of which 48 were structure fires, 16 fires in structures that were confined (cooking, trash, chimney), and 26 were vehicle fires.
- The Authority provided mutual aid 49 times and received mutual aid 46 times. The majority of mutual aid given and received is automatic aid that is built into the initial alarms dispatched to assure an adequate response.

## 2017 INCIDENTS BY TYPE



Five fire stations and a complement of nearly 90 firefighters protect the communities comprising the Authority. Response data shows Fire Station 31 as being the busiest station, responding to 739 calls in 2017. This past year, Monday, Wednesday, and Thursday were our busiest days with 46% of our total incidents occurring on these days. March was our busiest month with 248 incidents; however, 80 of these incidents occurred on March 8 and 9 during a severe heavy windstorm event. The busiest time of day continues to be from mid-morning to late evening, which is why the Authority adds additional staffing during these times when Paid-on-Call personnel are typically not available due to their full-time jobs.

There were 6 major loss fires (over \$100,000) in 2017 (see table). In total, an estimated 1.77 million dollars of property was estimated to have been lost to fire that threatened over 14.78 million dollars of property value. This resulted in an estimated 88% property save percentage of the property that was threatened. In addition, there were 5 fire-related casualties with one citizen dying in a home fire. In addition, three firefighters were injured while fighting fires during the year.

2017 MAJOR FIRE LOSS INCIDENTS		
DATE	COMMUNITY	LOSS
01-13-17	Brighton City	\$100,000
03-08-17	Brighton Township	\$125,000
03-20-17	Genoa Township	\$100,000
07-14-17	Genoa Township	\$200,000
07-28-17	Genoa Township	\$100,000
10-27-17	Brighton Township	\$150,000



## TRAINING



2017 Livingston County Firefighter Training Academy

The Brighton Area Fire Authority is proud to have a workforce of highly skilled and motivated firefighters who are ready to provide the best quality care and hazard mitigation for our citizens and visitors at a moment's notice. Training has always been one of the strengths of the Brighton Area Fire Authority. We recognize the need to constantly remain solid on core skills, as well as train rigorously for those calls that are high hazard/low frequency.

As it relates to training, it is the mission of the Brighton Area Fire Authority to provide the highest quality training, instruction, and evaluation to our employees. This is intended to prepare our Authority to serve our community in the most efficient and effective means possible, and to ensure personal safety as we deliver this service.

### LIVINGSTON COUNTY FIREFIGHTER TRAINING ACADEMY

The Livingston County Firefighter Training Academy, sponsored by the Brighton Area Fire Authority, is dedicated to creating a collaborative learning environment based on mutual respect and appreciation for the diversity of life and work experiences that each student brings to the learning environment. Our training program is academically and physically rigorous and requires the candidate to be motivated and responsible for the knowledge that they are presented. The program seeks to facilitate learning for each student in order that he or she can become a competent firefighter who meets the Brighton Area Fire Authority, the State of Michigan, and the U.S. Department of Transportation National Standards.

The 2017 graduation class comprised 14 cadets representing the following departments:

- Brighton Area Fire Authority
- Hartland Deerfield Fire Authority
- Howell Area Fire Authority
- Putnam Township Fire Department
- Wixom Fire Department

#### 2017 ACADEMY GRADUATION AWARDS

##### **Class of 2017 Top Cadet**

***Nathaniel Hincer, Putnam Twp. Fire Department***

##### **Academic Excellence**

***Nathaniel Hincer, Putnam Twp. Fire Department***

##### **Leadership Award**

***Ryan Pless, Howell Area Fire Authority***

##### **Bull Dog Award**

***David Binkiewicz, Hartland Deerfield Fire Authority***

##### **Everyone Goes Home Award**

***Blake Wingler, Putnam Twp. Fire Department***

##### **Instructor Award**

***Greg Baile-Jann, Wixom Fire Department***

##### **Top Rung Award**

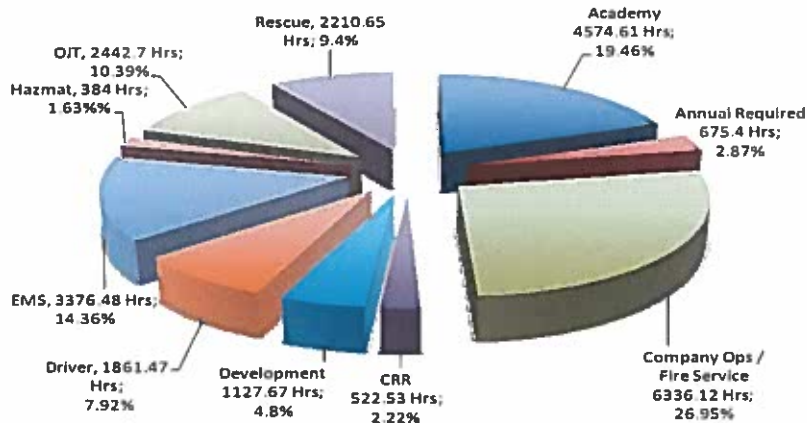
***Nicholas Castner, Brighton Area Fire Authority***





# TRAINING

2017 Sum of Training Hours



**Academy** – FF I & II certification, EMR certification

**Annual Required** – Required annual training topics / activities to meet Part 74

**Company Operations / Fire Service** – Training on various fire ground tactics, practical drills

**CRR** – Public education programs, company inspections, fire prevention training

**Development** – Blue Card command training, Classes, Programs and conferences that enrich the personal skill sets

**Driver** – Certification and recertification of Authority Engineers & Aerial Platform Operators

**EMS Training** – Medical training, CPR, practical EMS skill sets

**Hazmat** – Hazardous response training

**OJT** – On-the-Job Training, qualification of new hires

**Rescue** – Training on ice / water rescue, technical / trench rescue, FF safety survival, vehicle extrication





**JANUARY**

The month started with EMS continuing education with a focus on patient assessment, packaging, and report writing. This was also the start of Department-wide CPR and AED recertification, which was conducted over the next 5 months at each station. Crews were also tasked with a core skills evaluation in timed gear and SCBA donning, taking vitals, and hydrant dressing to name a few. Also, a number of our officers also completed recertification in Blue Card IC.



**FEBRUARY**

Several training topics were covered in February. We started with EMS continuing education in airway management and respiratory emergencies. A review of ice rescue procedures and equipment, as well as an overview of hypothermic patients was held. February was also the beginning of the 36-hour Aerial Platform Operator certification program for 3 of our Engineers.



**MAY**

This month we dedicated much of the training to Rapid Intervention and firefighter survival. The county came together to train at the same level, understanding procedures, equipment, and techniques. The month started at the station level conducting overviews on SCBA's, RIT Packs, and firefighter packaging. We conducted AMA training with the 7 other departments. This training demonstrated the various techniques to be used in firefighter rescue.



**JUNE**

The month started with crews working on ladder skills in size-up, transport, and placement. We also focused on stokes basket usage with L31 where crews worked on patient packaging, rigging, and operation-communication. We finished the month with a review in flow control, and the science behind fire advancement utilizing our Max Fire Box trainer.



**SEPTEMBER**

September started a 4-month review and recertification of the IC system Blue Card. Officers obtained required recertification and FF's were placed in non-conventional IC positions to gain a better understanding. Training was held at the Marshalls building in Genoa utilizing the Blue Card command system by running first arrival drill sets with fire companies and fast acting IC's. We hosted a U of M Survival Flight Landing Zone class. Lastly, we hosted our county-based Technical Rescue Team for the Large Truck Extrication and Rigging Principals by START Rescue and Corrigan's Towing.



**OCTOBER**

Dr. Dobbs, St. Joseph Mercy Health Care System, spoke about heart health, and a suicide prevention lecture was presented by Ulliance, our Employee Assistance Program. We trained with our AMA departments in a large-scale search and recovery of a downed firefighter. All 8 County departments were represented during this 3-day training. A few employees attended an advance stabilization class presented by START Rescue. Crews closed out the month with search practical events inside the Howell Fire Academy training box, as well as rotary saw operation training.





All Authority staff participated in harassment-sensitivity training by HR Director Campbell. Crews continued to hone their EMS skills in trauma emergencies and received a mass casualty management overview. The APO certification program concluded and produced 3 new operators. The 40-hour Apparatus Pump Operator program began for 5 of our firefighters ready to make the transition to driver. We hosted and had 2 staff attend the second BETA program for Instructor II certification through the State of Michigan Firefighter Training Council. Chief Cleveland, Capt. Thornbush, and TJ Richardson guided us through this process. Three of our rescue divers attended the Dive Rescue Train-the-Trainer for certification in Ice Rescue.



April saw the conclusion of the APO program with the successful candidates working on their practical evolution packet. We conducted accountability and radio communication refreshers at the company level. We also conducted a mass casualty practical drill held on the grounds of the Brighton Area Schools, tasking our members with patient assessment, packaging, and IC rolls. Five members participated in a 2-day county-based Rapid Intervention Team Train-the-Trainer program.



We refocused our efforts on saving our own and started out the month with firefighter extraction practical drills and performing CPR on a fully dressed firefighter. The month also brought a review of vehicle stabilization practices.



August was a very busy month with the continuation of additional AMA training, this time it was in smaller groups. Stations were paired with neighboring departments and crews were tasked with reviewing RIT tooling and packs as well as gear review to assist in packaging. We dedicated a week to work through engineer recertification drill sets as well as first arrival duties for crews. We finished out the month with some hands on training in hose management and crew communication.



When the leaves have left the trees, we all know that it means one thing . . . Haz-Mat training. Crews were tasked with annual recertification in Haz-Mat Operations. Over a 2-week period, crews were tasked with both practical application of various firefighting foams in flammable liquid fires, as well as classroom lessons in chemical identification, and a review of Sara Title III preplans. Crews completed the month with individual station visits to the training box.



We were able to do a couple of off-site visits to additional Sara Title III locations based in each response district. Crews had the opportunity to see first-hand building layouts and preplans. We finished out the year with the traditional Department Jeopardy game. This year the focus was on testing firefighters' knowledge in EMS.







## RECRUITMENT AND RETENTION OF PERSONNEL

At BAFA, we believe our personnel are not only some of the hardest working, bravest men and women in the county, but they are the greatest asset of this organization. Administration continues to examine opportunities to improve the quality of our staff's work experience and focus our efforts to lengthen their ability to serve in this emotionally and physically demanding job.

In 2017, due to the suicide epidemic facing the Fire Service, the mental health of our personnel became a primary issue. BAFA worked with Ulliance, our EAP provider, to develop suicide prevention training that was presented to both Brighton and Hartland fire departments in October 2017. This training will now be shared with other fire departments across the state.

In connection with mental health and the physical requirements of this profession, physical fitness also remained on the forefront of our retention efforts. Firefighting is a physically demanding position and it is imperative for staff to have a consistent physical fitness plan to help reduce stress, improve cardiac health, and improve proficiency and safety in emergency operations. With the support of our Fire Board, we added a Fitness Initiative to our benefit packages for both full-time and paid-on-call staff. This addition has been very well received by staff and is actively used. This year we also included our annual dodgeball teambuilding event and offered some of our firefighters and administration staff an opportunity to try yoga as a means of fitness and stress relief.

In September 2017, with the continued support from the Brighton Area Firefighters Association, BAFA hosted our 3rd annual family picnic in Genoa Township. This event is a wonderful tradition for our families to come together over great BBQ and games. This year it also provided an opportunity to welcome our new recruits and their families to Brighton Fire.

Our overall retention rate for 2017 was 75%, a slight improvement over 2016 which was 74%. The top reasons for separation for 2017 as cited in exit interviews were: time conflict between primary job/family vs. department responsibilities and relocation out of district for affordable housing.

As with retention, recruitment remains on the forefront of our strategic planning. Each year we explore new recruitment opportunities. In 2017, with the support of our municipalities, we utilized marketing opportunities that provided significant exposure numbers, while at a conservative cost to the Fire Authority.

Below are several of the recruitment channels utilized this past year:

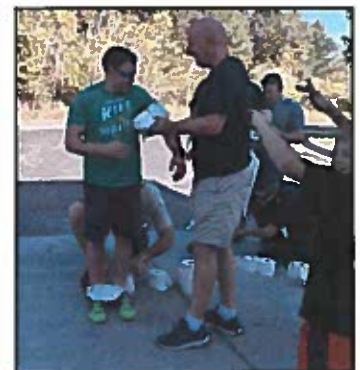
- June 2017, WHMI radio station commercial featuring Fire Chief Michael O'Brian
- 2017 Employee Referral Program
- Distributed recruitment inserts in the 2017 tax bills for City of

Brighton, Brighton Township, and Genoa Township.

- Job posting for Paid-on-Call positions utilizing National Volunteer Fire Council recruitment portal
- Livingston Regional Job Fair
- Mobileteer TV electronic recruitment ads displayed at Two Brothers Coffee, The Pound, Anytime Fitness, and Cleary's Pub.
- Michigan Balloonfest newspaper supplement (June)
- Advertisement in Brighton High School baseball dugout; Field Banner at Brighton High School at Girl's Lacrosse games.
- Social Media: Brighton Fire's Facebook; Genoa Township Twitter; City of Brighton Facebook
- Brighton Area Fire Authority website/recruitment video
- Brighton Chamber of Commerce
- Corrigan Oil Gas Kiosks
- Advertisements in Livingstoncountydaily.com, Careerbuilder.com, and Press & Argus print.
- Fire Station 31 recruitment banner that is visible to Grand River traffic.

As a result of our efforts, the Fire Authority welcomed 17 new recruits. Of those, 5 were hired with Fire Fighter 1 & 2 certification, saving the Fire Authority approximately \$15,000 in training costs.

The Brighton Area Fire Authority will continue researching and utilizing different channels of communication to reach out to our residents in the hope to inspire those with the desire, motivation, and ability to serve.





**2017 PROMOTIONS**

**PROMOTION TO FIRE MARSHAL**

*Richard Boisvert (9-3-17)*

**PROMOTION TO FIRE PROTECTION SPECIALIST**

*Robert Furlong (10-2-17) Aaron Gage (10-9-17)*

**PROMOTION TO AERIAL PLATFORM OPERATOR**

*Bradley Beaver Kevin Lander  
Harlan Lahring*

**PROMOTION TO ENGINEER**

*Kelley Baptist Timothy Keese  
Jeff Lewis Ronald Patterson  
John Rockne Arthur Slavik  
Steve Wasik*

**PROMOTION FROM RECRUIT TO FIREFIGHTER**

*Nicholas Castner Justin Gilbert  
Jeremy Griffin*

**2017 NEW HIRES**

17 Paid-on-Call personnel were hired in 2017





## HOWELL HIGH SCHOOL FIRE ACADEMY / CADETS



2017-18 Howell High School Fire Academy Students

### HOWELL HIGH SCHOOL FIRE ACADEMY

The Howell High School Fire Academy is a cooperative effort of the Livingston County fire chiefs to foster future firefighters and establish a strong recruitment resource. We are currently in our fifth year of operation, after being the first successful high school fire academy in the State of Michigan. Since inception, we have received numerous calls, emails, and visits from other fire departments and school districts who are thinking along this path.

The fire academy meets in their own "fire station," a former auto shop at Howell High School, which houses two fire engines, all of our SCBA (Self-Contained Breathing Apparatus), fire gear, and many of our props used for teaching. The program is overseen by Lt. Tom Kiurski with the assistance of many fire instructors from area fire departments. Classes are held during the first two class periods of each school day. Those students who successfully complete the program are eligible to take Firefighter I & II testing for state certification.

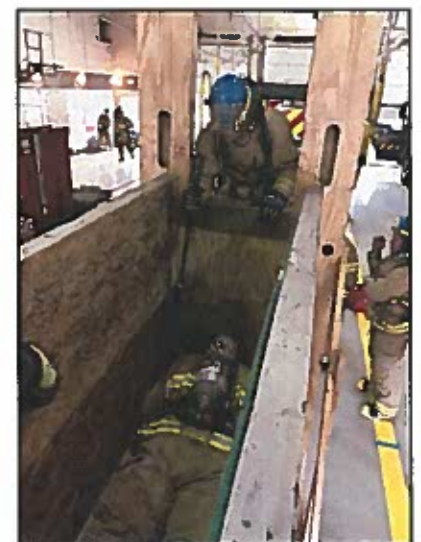
Our current fire academy has 26 cadets who represent five different school systems, and is comprised of 1 female and 25 males. Many of our past graduates currently work for Livingston County fire departments, and have obtained certification to deliver EMS (Emergency Medical Services) to our citizens. Our fire academy students visited the University of Michigan Trauma Burn Center to learn more about burn injuries and their treatment, the Michigan Firehouse Museum, and attended an 8-hour live burn training event.

### JUNIOR FIREFIGHTERS (CADETS)

The Authority is responsible for one of the oldest Junior/Cadet programs in Michigan. Originating with the City of Brighton Fire Department, this program continues with the Authority and works to build volunteerism and leadership with the youth in our communities. The Junior Cadet program is open to 16-18 year old teens and is a hands-on program that exposes interested participants to the fire service. The Junior Cadet program is presented to the high schools and private schools for recruitment. Cadets acquire and maintain the essential skills and proficiencies necessary for optimal performance during emergency calls. When

they turn 18, these fully trained and State-certified individuals may apply for employment with the Authority.

The BAFA Junior Cadet program currently has 5 active members. Two are currently enrolled in the Howell High School Fire Academy and two completed the Howell High School Fire Academy during the last academic year. The cadets work closely with mentors and each other to advance the skills and knowledge necessary for their academy programs as well as preparation for paid employment with the Brighton Area Fire Authority. They participate in Junior-specific weekend training, Department-wide training, as well as numerous other Department-organized special events. Their participation takes place after school and on the weekends, all while being required to maintain an appropriate grade point average. Some have jobs, others are active in sports, and some participate in both. This program is designed to teach young men and women ethics, self-discipline, communication, balance and other key skills necessary for success in the fire service as well as other life endeavors. Many cadets who have advanced through the program have been successful in obtaining employment with full-time career departments throughout the state, with ranks as high as fire chief at those departments. The junior cadet advisors are eager to recruit more participants and work with the young adults as they develop into firefighters.





## SPECIAL ASSIGNMENTS

### TECHNICAL RESCUE (Livingston County)

Ryan Sovey, Lead BAFA  
TJ Smith  
Jacob Andrews  
Matt Mardeusz  
Brian Gramza

### DIVE TEAM (Livingston County)

Doug Lytwynec, Lead BAFA  
Bryan Berry  
James Gramza  
Corey Laber  
Kevin VanDerhoof

### SAFETY & REGULATORY

Matt Smith, Lead BAFA  
Glen Bailey  
Kurt Bluhm  
Rick Boisvert  
Larry DeWachter  
Don Hall  
Bob Houhanisin  
Corey Laber  
Ian Griffith

### FIRE INVESTIGATION (Brighton)

Rick Boisvert, Lead BAFA  
Ryan Sovey  
Derrick Bunge

### HAZARDOUS MATERIALS (Livingston County)

Matt Smith, Lead BAFA  
Jacob Andrews  
Doug Lytwynec  
Curt Ruf  
Aaron Gage  
Harlan Lahring

2017 Special Assignment Rosters

### SPECIAL RESPONSE TEAMS (SRT)

Select staff continued to actively participate on the following Livingston County Special Response Teams:

- Hazardous Materials Incident Team
- Technical Rescue Response Team
- Dive/Recovery Team
- Fire Investigation Team
- Safety & Regulatory Committee

All teams conduct monthly training meetings in addition to occasional weekend training events.

### TECHNICAL RESCUE RESPONSE TEAM

The Livingston County Tech Rescue team did not have any activations in 2017, although they were placed on standby for a grain elevator rescue in Blissfield, MI in August. The team is comprised of 22 individuals, including 6 Livingston County paramedics. This past year the team received new equipment which included an Arizona Vortex (artificial high directional kit) and a Paratech highway vehicle stabilization kit. Fourteen team participants received training on this specialized equipment during a custom two-day heavy truck rescue course. In 2018, the team expects to plan and/or participate in a number of practical evolutions including a tower rescue, confined space rescue, building shoring and stabilization, and a mass-casualty heavy vehicle simulation.

### DIVE/RESCUE TEAM

There are 5 active BAFA personnel on the Livingston County Dive/Rescue team. BAFA team members clocked a combined training total of 250 hours. During 2017 the LCDR responded to 4 activations. Of those activations, three were unsubstantiated and the team was cancelled during response. The fourth activation resulted in a recovery at the Spring Mill Pond.

### SAFETY & REGULATORY COMMITTEE

The 9 person committee works to review injuries and accidents and make policy and procedure recommendations to the Fire Chief.

### FIRE INVESTIGATION TEAM

The Authority is responsible for conducting an origin and cause investigation of all fires. Many smaller fires can be determined by the company officer who responds on the call. For larger fires, the Authority has a team of trained investigators to examine these fires. The BAFA Fire Investigation Team is comprised of Fire Marshal Boisvert, Capt. Sovey and Lt./Inspector Bunge. In 2017, this team investigated 21 fires, a 62% increase over 2016, including one fatal fire and four suspicious or incendiary fires. In order to stay current with their training, this team also attended seminars and conferences in the field of fire and arson investigations.

### HAZARDOUS MATERIALS INCIDENT TEAM

The Brighton Area Fire Authority continues to have multiple employees serving on the Livingston County Hazardous Materials Response Team (LCHMRT). BAFA has 6 employees who are actively involved with the team. One of the Hazardous Materials Incident Response Vehicles (known as Haz-Mat 2) is located at Station 35. This vehicle is utilized for any response as well as when needed during training activities.

The team was activated 10 times in 2017, which included technical support to an incident commander and two incidents in Genoa. The team also provided back-up for teams from adjacent counties as part of our regional responsibilities.





## INSPECTIONS AND PLAN REVIEWS

### FIRE PREVENTION & CODE ENFORCEMENT

Community Risk Reduction (CRR) continues to be a priority for the organization with reduction of the impact of fire on the communities as the primary focus. To achieve this goal, the Authority engages staff in a broad based Community Risk Reduction program by providing a variety of services to the community. Education is the primary objective of all activities including; fire safety inspections, thorough plan reviews, code enforcement, public fire safety education for both young and older adult populations, and origin and cause investigations on all fires.

The fire prevention and CRR staff was realigned in September 2017 with the promotion of Capt. Boisvert to Fire Marshal. CRR Specialist Capt. Brookins laterally transferred to 24-hour Shift Captain while maintaining her responsibilities and Capt. Hall transitioned from Shift Captain to full-time Inspector.

The number and location of businesses and occupancies in our communities is constantly changing. Recently there has been an upswing in reoccupancy of existing structures and also new buildings. Staff are constantly working to maintain an accurate database of businesses and determine the risks associated. Inspection efforts have proven to be one of our strengths of success of our prevention and CRR programs. Staff was able to complete a total of 2,347 fire inspection related activities and identify 1,322 fire code violations that were cited and corrected. Staff also conducted 191 plan reviews that consisted of fire protection systems, building plans, site plans, and miscellaneous plans (tents, fireworks, etc.). This is slight decrease from last year and 2018 is expected to be even busier.

The use of on-duty firefighters to conduct fire safety inspections has again proven itself invaluable. This company-based Inspection program has produced 7 quality inspectors this past year. This need has arisen from turnover of new and existing staff working different schedules or gaining new employment. Although the face of the crew changes daily, the competency of the inspectors

remains consistent through continuing education. The staff has increased activity with a greater understanding and value of these activities and their role in preventing incidents. The process also includes pre-incident planning, through data collection while conducting the inspection and gives them a perspective of the building in a non-emergency condition. The company-based inspection program conducted nearly 1,000 fire safety inspections.



The Authority continually works to keep staff trained with up-to-date information regarding best practices in fire prevention and also maintain certifications and explore new certifications related to their skill level. To do this, our staff attends several local, regional, statewide, and national training events and conferences each year so that we can provide the best possible education regarding fire prevention to our customers.

FIRE INSPECTION ACTIVITY COMPARISON			
	CURRENT	PREVIOUS	PERCENT
ACTIVITY	Y-T-D	Y-T-D	CHANGE
<b>INSPECTIONS:</b>	<b>2017</b>	<b>2016</b>	
<b>FIRE SAFETY INSPECTION</b>	<b>1,176</b>	<b>985</b>	<b>19%</b>
<b>COMPLAINT INVESTIGATIONS</b>	<b>37</b>	<b>48</b>	<b>-23%</b>
<b>CERTIFICATE of OCCUPANCY INSPECTIONS</b>	<b>85</b>	<b>87</b>	<b>-2%</b>
<b>SPECIALTY &amp; MISCELLANEOUS INSPECTIONS</b>	<b>128</b>	<b>95</b>	<b>35%</b>
<b>RE-INSPECTIONS</b>	<b>855</b>	<b>816</b>	<b>5%</b>
<b>NEW CONSTRUCTION INSPECTIONS</b>	<b>93</b>	<b>109</b>	<b>-15%</b>
<b>TOTAL INSPECTIONS:</b>	<b>2,374</b>	<b>2,140</b>	<b>11%</b>
<b>VIOLATIONS CITED</b>	<b>1,322</b>	<b>1,304</b>	<b>1%</b>
<b>FIRE INVESTIGATIONS</b>	<b>21</b>	<b>13</b>	<b>62%</b>
<b>PLANS REVIEWED:</b>			
<b>SITE PLANS</b>	<b>68</b>	<b>82</b>	<b>-17%</b>
<b>BUILDING PLAN REVIEW</b>	<b>41</b>	<b>27</b>	<b>52%</b>
<b>FIRE PROTECTION SYSTEM PLANS</b>	<b>63</b>	<b>75</b>	<b>-16%</b>
<b>MISCELLANEOUS REVIEWS</b>	<b>19</b>	<b>24</b>	<b>-21%</b>
<b>TOTAL REVIEWS:</b>	<b>191</b>	<b>208</b>	<b>-8%</b>

#### 2017 FIRE PREVENTION HIGHLIGHTS IN EDUCATION

- FM Boisvert Awarded Fire Inspector of the Year by MFIS
- Lt. Inspector Derrick Bunge graduated from EMU Staff & Command
- Trained 7 new Company Inspectors
- FM Boisvert Completed National Fire Academy Managing Effective Fire Prevention Program
- Capt. Hall completed NFPA Inspector II Class
- Capt. Brookins completed NFPA Inspector II Class and the Certified Plans Examiner Class



## EMERGENCY SERVICES CONSULTING INTERNATIONAL (ESCI)

Emergency Services Consulting International (ESCI) was engaged by the Brighton Area Fire Authority in 2017 to independently evaluate the overall service provided by the Fire Authority. Specifically, the evaluation was to report on the level of services compared to industry standards and best practices. The emergency services master plan developed based on this evaluation will assist BAFA in future planning and the ability to continue providing the highest level of comprehensive emergency services to the citizens of the City of Brighton, Brighton Township, and Genoa Township.

Listed below are some of the key recommendations for short and mid-term strategies, as well as long-term strategies:

### *Short and Mid-Term Strategies*

#### **Agency Management and Organization**

- Evaluate the potential ownership of all fire station facilities by Brighton Area Fire Authority.
- Report compliance with established performance standards in annual report.

#### **Staffing and Personnel Deployment**

- Consider the addition of analyst function to the department to support planning activities.
- Evaluate the addition of a full-time training officer position.

#### **Training**

- Develop and implement a formal "training manual" to be used by BAFA and its mutual aid partners to ensure consistency in emergency operations across all agencies.
- Implement pre-fire planning into training schedules of emergency response personnel to maximize ISO fire protection classification grading.
- Continue to refine training schedules by incorporating NFPA 1410 training events into weekly drills.
- Establish a dedicated training facility within the BAFA jurisdiction.
- Design classroom / lecture areas into each fire station as they are remodeled or rebuilt.

#### **Fire Prevention/Community Risk Reduction**

- Conduct a comprehensive risk assessment and develop a community risk profile.
- Work with municipalities to standardize building and site plan review processes across the entire jurisdiction.

- Take an active role in educating local builders as to the benefits of residential sprinklers and work to incentivize the installation of residential sprinklers.
- Work to establish consistent authorities for the issuance of citations across all three municipalities.

#### **Response Performance Reporting**

- Establish demand zones based upon population densities for urban, suburban, and rural areas of the response jurisdiction per NFPA 1720.
- Establish time goals for the entire jurisdiction by incident type as needed to include call processing time, turnout time, and travel time.
- Establish jurisdictional response time objectives.
- Collect accurate and complete response time data for all units assigned to an incident.
- Measure the Effective Response Force (ERF) achieved on all structure fire calls per demand zones.
- Conduct regular meetings with Livingston County Central Dispatch to review call processing times and dispatch procedures.
- Provide regular reporting of turn out times with ongoing analyses of turnout time delays during staff meetings.

#### **Recommended Long-Term Strategies**

- Conduct a feasibility study of establishing a dedicated training facility within the central area of the BAFA jurisdiction.
- Evaluate the relocation of Station 33 to provide better coverage of the BAFA service area.
- Establish a plan for the reconstruction/relocation of Station 31.





### PUBLIC EDUCATION



2017 BAFA Open House

### COMMUNITY RISK REDUCTION

Community Risk Reduction (CRR), commonly known as fire public education, is one of the leading methods to keep people safe at home and work. BAFA staff presented a variety of diverse programs to target audiences from early age children to senior citizens.

Public education events average in size from the classroom setting to large events such as the Mill Pond concerts to live broadcast from radio stations such as 102.9 W4 Country. The largest event BAFA holds is our annual Open House, which brought over 1,500 community members to the Department to participate in a number of different safety situations. Community members were able to observe vehicle extrication demonstrations and watch live fire demonstrations that illustrated how fast a fire can grow and the impact residential sprinklers have on a home fire. Annually, hundreds of children and adults receive vital fire safety education.

BAFA has one certified National Child Passenger Safety technician on staff who installed 71 car seats in 2017.

New programs implemented in 2016 to promote fire safety to all age groups were continued in 2017. A youth fire setters program designed for parents, children, and young adults was developed to provide education about the hazards and consequences that may occur as a result of playing with fire. Also, an older adult program was developed and presented to older adult focus groups and those who reside in assisted or independent living facilities. This program focused on fall prevention as well as general home and fire safety.

In 2017, staff embarked on the development of a Community Risk Reduction Plan. This is one of the first within the State of Michigan. We have taken a deep look into our incident history and are working on a comprehensive approach to our education and risk reduction efforts.





## COMMUNITY CPR

Cardiopulmonary resuscitation (CPR) is a proven lifesaving skill. BAFA is a training site for the American Heart Association. Six new instructors were trained and certified to teach. Quick action from CPR trained bystanders can increase the rate of survival of a sudden cardiac arrest by over 50%.

- CPR classes are offered bi-monthly and upon special request for groups of 5 or more.
- Each CPR class averages 9 students from area communities.
- Additional programs including basic first aid, babysitting safety, and an assortment of first responder topics are also offered.
- In 2017, 10 Community CPR classes were presented to 105 citizens.



## SMOKE ALARMS

The Smoke Alarm Campaign, initiated in late 2011, has focused on testing and/or the installation of residential smoke alarms. Staff has promoted the campaign through various connections that have been established by inspectors and educational staff. This program was also promoted through media campaigns, social media, school newsletters, and in-person communication with the public. Since the beginning of the campaign outreach, door-to-door efforts have targeted high fire incident areas and high-risk housing to ensure functional alarms provide protection. Responding crews are required to check all alarms in the homes they enter at the conclusion of the emergency activity.

With the assistance of federal grants awarded in 2012 and 2016, thousands of smoke alarms and hundreds of carbon monoxide alarms have been purchased and installed in the BAFA jurisdiction. Since 2011, over 6,500 alarms have been installed including 150 specialized systems for hearing impaired residents. Collected information provides the Authority with vital details to ensure proper outreach is directed to high-risk areas. BAFA efforts have proven successful with 7 documented saves where smoke alarms installed by the Authority resulted in 26 lives saved due to the early notification of a fire by the smoke alarms.

The Howell Walmart generously donated \$1,000 for the purchase of smoke alarms.







## EMS / MABAS / MUTUAL AID

### EMERGENCY MEDICAL SERVICES (EMS)

In 2017, the Brighton Area Fire Authority continued to move forward with EMS training to continue to strengthen department members EMS skills. Primary EMS response is provided by Livingston County EMS with the Fire Authority providing crucial assistance on higher priority incidents or when EMS units are not available to respond.

- In 2017 BAFA responded to 2075 calls for service. Of these calls 54% were for medical incidents.
- In an effort to improve EMS education to staff, BAFA sought to increase the number of department EMS Instructor Coordinators from two to four. Ryan Dennett completed his EMS IC course and passed his State of Michigan IC exam and is a certified EMS IC. Jim Gramza has also completed his EMS IC course and is taking his Michigan IC exam in March of 2018. The addition of these two instructors will help to deliver the required training to department members to not only improve their skill sets but give them the required continuing education credits needed to renew their state EMS license.
- BAFA has continued to host a county Emergency Medical Responder (EMR) initial education course. The course is offered to outside departments throughout Livingston County and its surrounding area. This course provides the required training for an individual to take the National Registry EMR exam. Once passing the exam the student is then able to apply for licensure as an EMR from the State of Michigan. This year's class had 23 students and as of January 1, 2018, 20 of the 23 students have taken the National Registry exam and passed. This gives the program an 87% overall passing rate which is 9% higher than the National average of 79%.

In 2017 the Authority continued to improve its skill sets to offer the best service possible to the community.

### MABAS - MUTUAL AID BOX ALARM SYSTEM-MICHIGAN

The mission of MABAS is to coordinate the effective and efficient intrastate and interstate mobilization and deployment of fire, EMS, and specialized resources during natural and manmade emergencies and disasters.

The Brighton Area Fire Authority continues to play a critical role in the Livingston County division (31-01) of MABAS-Michigan, which is made up of 7 fire departments. Our chief officers provide critical leadership to the division as well as throughout the state.

In November 2017, MABAS 31-01 conducted a Fire Tanker Strike Team deployment drill where 5 of our county Tankers and a Chief Officer team were activated to a Point of Departure (POD) in a

simulated response to northern Oakland County. This drill was conducted to practice our preparedness and our communications with our Central Dispatch.

MABAS continues to be a valuable asset in the event that a fire or other major incident exceeds the available resources of BAFA and our surrounding neighbors.

### MUTUAL AID

The Brighton Area Fire Authority continued to receive and provide mutual aid to local fire departments as part of our automatic aid and mutual aid agreements. This may be as simple as working with Lyon Township on automatic aid on I-96 to provide faster response times or as complex as multiple tankers, chief officers, and engines to a large commercial fire in a neighboring community.

Our focus on providing and receiving automatic and mutual aid is to ensure an efficient response to all incidents in a timely fashion. In 2017, we;

- Received mutual aid on 46 incidents from neighboring organizations
- Provided automatic or mutual aid on 49 incidents.
- Chief officers provided oversight of aid agreements as part of the Livingston County Fire Chiefs Association.

There are times when mutual aid is not provided directly on the emergency scene, but rather to one of our stations to provide coverage while we are committed to an incident.

MUTUAL AID ANALYSIS 2017		
Department	Aid Given by BAFA	Aid Received by BAFA
Howell Area Fire Department	9	13
Green Oak Fire Department	15	23
Hamburg Twp. Fire Department	6	3
Hartland Fire Department	11	5
Highland Twp. Fire Department	2	0
Livingston County Haz-Mat Team	2	1
Livingston County Dive Rescue Team	1	0
Lyon Twp. Fire Department	2	2
Putnam Twp. Fire Department	1	0
<b>TOTAL</b>	<b>49</b>	<b>47</b>



## HONOR GUARD

### HONOR GUARD

Greg Mowbray  
 Rick Boisvert  
 Ryan Sovey  
 Jason Hordos  
 Derrick Bunge  
 Ronald Patterson



2017 Honor Guard

### HONOR GUARD

The Brighton Area Fire Authority Honor Guard is a six-member team. Members of the guard include Captain Greg Mowbray, Fire Marshal Richard Boisvert, Captain Ryan Sovey, Lieutenant Derrick Bunge, Lieutenant Jason Hordos, and Firefighter Ronald “RJ” Patterson.

Established in 2012, their goal is to represent all members of the Fire Authority in the highest degree of professionalism, dedication, loyalty, honor, and dignity. They strive to honor firefighters in life, as well as death, and to exhibit the best possible image to the entire community.

In addition to funerals and memorial services, the honor guard may be called upon to post colors, march in parades, attend social functions and badge pinning ceremonies, and any other function authorized or requested by the Fire Chief.

The Honor Guard had the distinct honor in 2017 to fold the America flag for fallen Firefighter Ron Savage and present to the Chief of Milford Fire Department to be presented to Ron’s wife, Mitzi Savage.

## APPARATUS



### APPARATUS

The Authority is responsible for the largest apparatus fleet in the County and surrounding areas, with over 17 apparatus and 8 staff vehicles responding from 5 strategically located fire stations.

The Apparatus Committee continued to work with Pierce manufacturing and Truck Tech to complete warranty paint work on both 2009 Pierce Impel pumpers. They have also obtained authorization to have warranty repairs made on our 2007 Pierce

Rescue. This warranty work consisted of repairing body cracks and paint work.

The Apparatus Committee also spent hundreds of hours in 2017 doing small repairs to our fleet that otherwise would have required the apparatus to be serviced by one of our vendors at a much higher cost to the Authority.



**AWARDS AND EXCELLENCE**

2017

**SPECIAL AWARDS ISSUED FOR OUTSTANDING PERFORMANCE**

**SOP 305 Awards and Recognition — Definitions**

**Firefighter of the Year Award** - (Name inscribed on station wall plaque, Certificate, Citation Bar & contribution from the Fire Authority) The Firefighter of the Year Award is an annual award given to a non-chief, active regular Firefighter, who has made the most significant contribution to the Authority during the course of that year. Nominations for this award are chosen by senior staff for exhibiting leadership, mentorship, and good will towards the Authority and its employees.

**Distinguished Service Award** - (Certificate & Service Bar) The Distinguished Service Award is presented to any employee or group of employees who may commit acts of merit or service in a non-emergency function that bring honor and distinction to the Authority or that increase Authority efficiency or effectiveness. This award shall be presented to employees who continuously perform their duties with unusual thoroughness, conscientiousness, determination and initiative.

**Medical Service Award** - (Certificate & Service Bar) To entitle an employee or unit to this award, a patient must have been successfully resuscitated in the field and transported to the hospital with patient being alive at time of departure or when their efforts aided in the survival of a patient. The patient must have been found with compromised airway, breathing and/or circulation and vital signs restored at the scene. Recommendation from higher medical authority required.

**Unit Citation Award** - (Certificate & Service Bar) The Unit Citation is awarded to any group of two or more employees for exemplary performances of duties by the group in overcoming difficulties or obstacles under unusual or adverse conditions in the completion of a task or duty.

**Civilian Award** - (Certificate) The Authority presents this award to a citizen of the public at large, who performed an act of bravery, initiative or capability that benefited the Brighton Area Fire Authority in meeting the mission of our organization.



**2017 AUTHORITY FIREFIGHTER OF THE YEAR**

**COREY LABER, SERGEANT**

*Chief O'Brian presented a special leather helmet and State Representative Lana Theis presented a State certificate*



## AWARDS AND EXCELLENCE



**BRIAN GRAMZA**  
STATION 31  
2017 FIREFIGHTER OF THE YEAR



**DOUGLAS LYTWYNEC**  
STATION 32  
2017 FIREFIGHTER OF THE YEAR



**DAVID MOURER**  
STATION 33  
2017 FIREFIGHTER OF THE YEAR



**MARK CIRELLA**  
STATION 34  
2017 FIREFIGHTER OF THE YEAR



**JONATHAN KUPEC**  
STATION 35  
2017 FIREFIGHTER OF THE YEAR



**DISTINGUISHED SERVICE AWARD**  
**CLAUDETTE MONROE**

Chief O'Brian, Al & Claudette Monroe with their daughters and their husbands, Nicole & Tony Chrisopoulos, Crystal & Adam Joanis



# SPECIAL AWARDS



**INCIDENT: #17-0234 DATE: 02-18-17**  
**DESCRIPTION: Cardiac Arrest**  
**MEDICAL SERVICE AWARD**

**Chief Michael O'Brian, Capt. Gregory Mowbray, Capt. Curt Ruf, Sgt. Corey Laber,  
Lt. Jason Hordos, APO Harlan Lahring, FF Ian Griffith, FF Douglas Lytwynec**



**INCIDENT: #17-0307 DATE: 03-05-17**  
**DESCRIPTION: Extrication**  
**UNIT CITATION**

**Capt. Ryan Sovey, Fire Marshal Richard Boisvert,  
Eng. Brendon Caid, Chief Michael O'Brian**  
*(Not pictured: APO Kevin Lander)*



**INCIDENT: #17-0923 DATE: 06-10-17**  
**DESCRIPTION: Vehicle Extrication**  
**UNIT CITATION**

**Chief Michael O'Brian, Capt. Lawrence DeWachter,  
Capt. Ryan Sovey, Eng. John Rockne**  
*(Not pictured: Assistant Chief James Tester,  
Lt. Aaron Gage, Lt. Kurt Bluhm, APO James Gramza)*



**INCIDENT: #17-2050 DATE: 12-27-17**  
**DESCRIPTION: Cardiac Arrest**  
**MEDICAL SERVICE AWARD**

**APO Bradley Beaver, Eng. Brendon Caid, Lt. Derrick Bunge,  
Capt. Ryan Sovey, Capt. Donald Hall, Chief Michael O'Brian**  
*(Not pictured: APO Bryan Berry)*



### SPECIAL AWARDS



**INCIDENT: #17-1673    DATE: 10-23-17**  
**DESCRIPTION: Crane Collapse and Wire Hazard**  
**CIVILIAN AWARD and UNIT CITATION**

**Deputy Chief Michael Evans, APO Bradley Beaver, Fire Marshal Richard Boisvert, APO Brian Gramza, Lt. James Boisvert,**  
**Corrigan Employees: James Wilcox, Kevin Simmons, Bill Wood, Travis Salisbury, Randy Mulcher**  
**Capt. Gregory Mowbray, Capt. Ryan Sovey, Eng. Ronald Patterson, Eng. Jonathan Kupec, Chief Michael O'Brian**  
*(Not pictured: Lt. Aaron Gage, APO Kevin Lander, Intro. FF Ethan DePuydt)*  
*(Not pictured Corrigan employees: Ron Hawkins, Scott Clark, Max Franz)*



**INCIDENT: #18-0018    DATE: 01-04-18**  
**DESCRIPTION: Cardiac Arrest**  
**CIVILIAN AWARD and MEDICAL SERVICE AWARD**

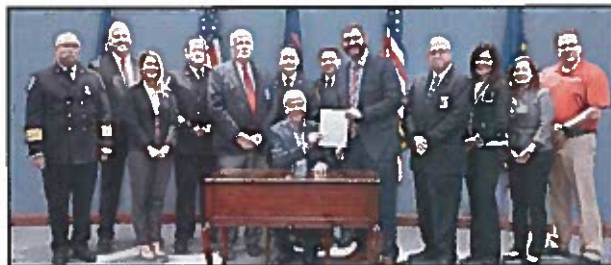
**Chief Michael O'Brian, Jill Donovan (CrossFit), Capt. Curt Ruf, APO Brian Gramza, FF Ronald Patterson, Capt. Ryan Sovey**  
*(Not pictured: APO Jacob Cook)*



Lt. / Inspector Derrick Bunge graduated from the EMU Staff and Command program.



Chief O'Brian participated in the 2017 National Thought Leaders Forum held in Washington DC.



Chief O'Brian and colleagues witnessed Governor Rick Snyder adding his signature to the changes to Public Act 291, Fire Fighters Training Act.



Capt. Greg Mowbray was recognized by the MFSIA as the Southern Regional Instructor of the Year for 2017

### SPECIAL EVENTS

Authority staff participated in special events around the State and throughout our community including:

- Emergency Services Consulting International developed and presented a Fire Department Evaluation and Master Plan to BAFA in November, 2017.
- Trained the University of Michigan physician interns in vehicle extrication practices.
- Participation in numerous City of Brighton civic events.
- Participated in multiple events at the Capital including welcoming new legislators, fire prevention week with the Governor, and testifying on various bills which affect the Authority.
- Capt. Mowbray named Southern Regional Instructor of the Year by the Michigan Fire Service Instructors Association.
- Authority family picnic at Genoa Township park on 9/24/17.
- Chief O'Brian was re-elected as president of the Michigan Association of Fire Chiefs.
- BAFA and Hartland came together for suicide prevention training in October, 2017.
- Chief O'Brian served on the Board of Directors, International Association of Fire Chiefs.
- Lt. Derrick Bunge successfully completed 2017 School of Fire Staff and Command program at EMU.
- Deputy Chief Evans holds the position of Chairman of the Michigan Fire Sprinkler Coalition.
- Worked with Livingston Sunrise Rotary for organization of the 2017 4th of July parade.



The 2017 Livingston County Firefighter Training Academy graduation. State Representative Lana Theis attended the event.



**IMPACTING THE COMMUNITIES**

- BAFA instructed 10 Community CPR programs and 105 people were issued CPR certification cards.
- Over 1,500 people attended the annual Open House on Sunday, 10/15/17.
- 2,000 Smoke alarms were installed in 2017.
- 71 Child safety seats were installed by Office Coordinator Claudette Monroe who maintains certification through Safe Kids Worldwide under the National Highway Traffic Safety Administration.
- The annual 9/11 5K Memorial Run was held on 9/9/17. There were 81 participants and \$3,773 was raised towards the completion of the 9/11 memorial at Station 31.
- Team Brighton Firefighters participated in the American Lung Association's Climb for Air at the Detroit Renaissance Center on 2/26/17. The 22 member team climbed 71 stories and came in 26th out of 61 with a time of 23:42. They raised \$14,320.
- The 76th annual Halloween Party brought record crowds with 1,057 attendees.
- The Annual "Soup Out" luncheon for BAFA Board members, local municipalities and fire departments, police, and EMS personnel was held on 2/2/17.
- Firefighters rang the Salvation Army bells the weekend before Christmas and raised \$6,732.62.
- BAFA assisted with the registration and organization of the 4th of July parade.

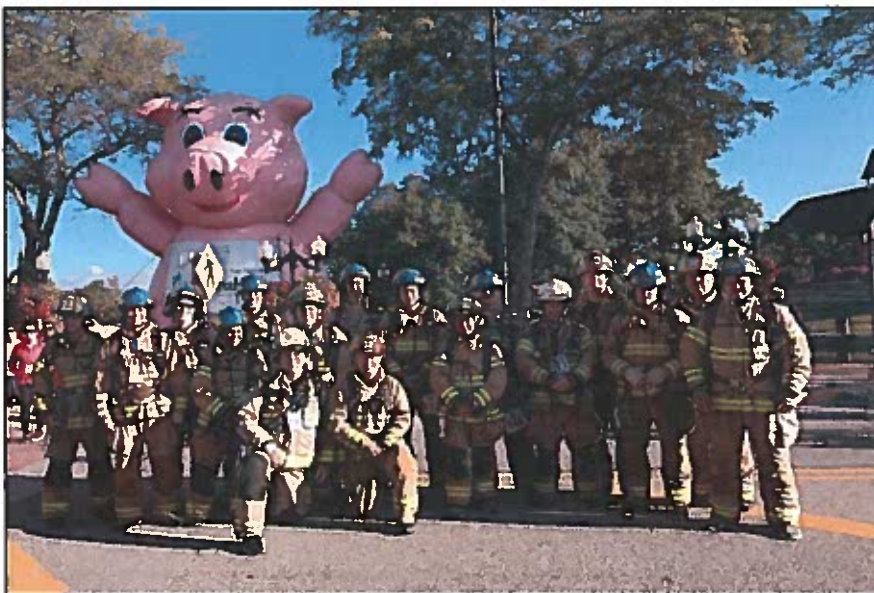


Capt. Curt Ruf was honored by the Detroit Fire Department for performing CPR on a person in cardiac arrest outside Comerica Park, 9-5-17.



Deputy Chief "Minion" Evans lecturing Chief O'Brian.

Lt. Tom Kiurski's winning entry in the Pumpkin carving



Authority participants prior to the start of the annual 9/11 5K Memorial Run

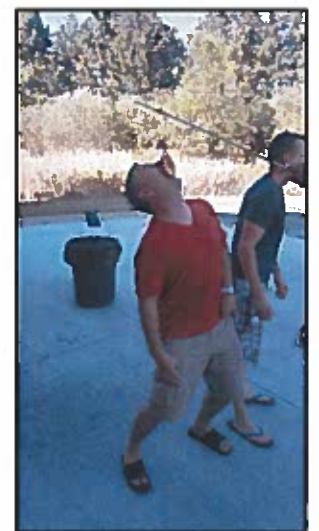


76th Annual Halloween Party at Station 31



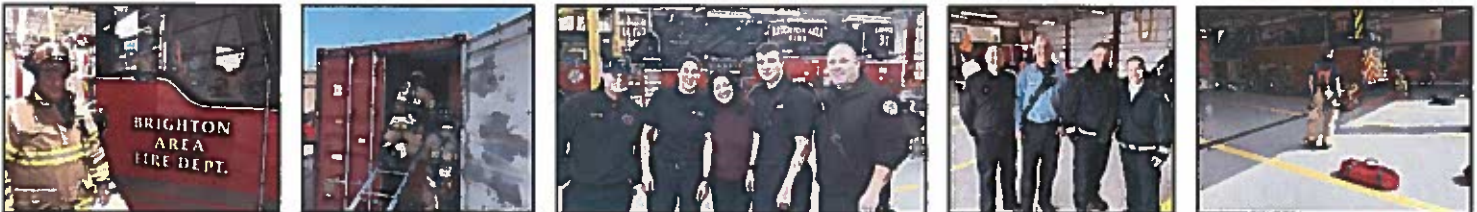


# MEMORIES





# MEMORIES





# BRIGHTON AREA FIRE AUTHORITY

## STAFF

As of December 31, 2017



Michael O'Brian, Fire Chief  
 Michael Evans, Deputy Chief  
 Richard Boisvert, Fire Marshal (Promoted 9-3-17)  
 Anne Campbell, Human Resources Director  
 Tom Kiurski, Lieutenant/Howell High School Academy Instructor  
 Claudette Monroe, Office Coordinator  
 Jean Coil, Administrative Assistant

James Tester, Assistant Chief Stations 31, 34, 35		Matthew Smith, Assistant Chief Stations 32, 33		SHIFT SUPERVISORS	FIRE PREVENTION
<b>STATION 31</b>	<b>STATION 32</b>	<b>STATION 33</b>	<b>STATION 34</b>	<b>STATION 35</b>	
Lawrence DeWachter Captain/Leader	Gregory Mowbray Captain/Leader	Kurt Bluhn Lieutenant/Leader	Lauren Brookins Hybrid Cap/Leader	Glen Bailey Captain/Leader	John Ryan Sovey Shift Captain
Derrick Bunge Hybrid Lieutenant	Jason Hordos Lieutenant	David Mourer Sergeant	Aaron Gage Hybrid Lieutenant	Raymond Ridge Lieutenant	Curt Ruf Shift Captain
Robert Furlong Hybrid Lieutenant	James Boisvert Lieutenant	Bryan Berry Firefighter/APO	Timothy Smith Sergeant	Justin Knapp Sergeant	Lauren Brookins Shift Captain
Andrew Piskorowski Lieutenant	Colin Tunison Sergeant	Kevin Lander Firefighter/Eng.	Mark Cirella Firefighter/APO	Corey Laber Sergeant	Robert Furlong Fire Protection Spec.
Jeffrey Fahmney Sergeant	James Gramza Firefighter/APO	Jeff Lewis Firefighter/Eng.	Bradley Beaver Firefighter/APO	Jacob Andrews Firefighter/APO	Aaron Gage Fire Protection Spec.
Matthew Herbert Firefighter/APO	Harlan Lahring Firefighter/Eng.	John Rockne Firefighter/Eng.	Brendon Caid Firefighter/Eng.	Jacob Cook Firefighter/Eng.	
Matthew Mardousz Firefighter/APO	Douglas Lybwyne Firefighter	Timothy Keese Firefighter/Eng.	Steve Wasik Firefighter/Eng.	Ryan Dennett Firefighter/Eng.	<b>JUNIOR CADET PROGRAM</b>
Brian Gramza Firefighter/Eng.	Ian Griffith Firefighter	Timothy Thumond Firefighter	Jordan Truesdell Firefighter	Jonathan Kupec Firefighter/Eng.	Lauren Brookins Lead Advisor
Kevin VanDerhoof Firefighter/Eng.	Briana Groth Firefighter	Jeremy Griffin Firefighter	Thomas Smeal Firefighter	Kelley Baptist Firefighter/Eng.	
Carl Crimaldi Firefighter/Eng.	Justin Gilbert Firefighter	Jeffrey Kuehls Intro. Firefighter	Tyler Schmiesing Firefighter	Arthur Slavik Firefighter/Eng.	Kevin Lander Junior Advisor
Ronald Patterson Firefighter/Eng.	Jeremy Thumond Intro. Firefighter		Emily Marks Firefighter	Daniel Kelly Intro. Firefighter	Shane Karls Station 32 Cadet
Mika Cherdron Intro. Firefighter	Mark Koniczny Intro. Firefighter		Brendan Unruh Firefighter	Justin Thornton Intro. Firefighter	Kelley Foley Station 32 Cadet
David Bussey Intro. Firefighter	Adam New Intro. Firefighter		Stephen Donovan Firefighter	Justin Fortune Intro. Firefighter	Gavin Griffin Station 33 Cadet
Michael Cherdron Intro. Firefighter			Nicholas Castner Firefighter		
Korrine Farmer Intro. Firefighter			Ethan DePuydt Intro. Firefighter		<b>PART TIME</b>
Michael Langford Intro. Firefighter			Dean Tengel Intro. Firefighter		Ryan Smith Firefighter/APO
Logan Malvich Intro. Firefighter			Jack Oliveri Intro. Firefighter		Gary Shelters Firefighter/APO
			Bernard Berger Intro. Firefighter		
			Philip Mattern Intro. Firefighter		
			Judaya Vasquez Intro. Firefighter		