



Board of Trustees

William J. Fountain, Supervisor	Matthew J. Germane, Trustee
Larry N. Ciofu, Clerk	Summer L. McMullen, Trustee
Kathleen A. Horning, Treasurer	Denise M. O'Connell, Trustee
	Joseph M. Petrucci, Trustee

Board of Trustees Regular Meeting Agenda Hartland Township Hall Tuesday, November 29, 2022 7:00 PM

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Approval of the Agenda
5. Call to the Public
6. Approval of the Consent Agenda
 - [a.](#) Approve Payment of Bills.
 - [b.](#) Approve Post Audit of Disbursements Between Board Meetings.
 - [c.](#) 10-01-22 Hartland Township Board Regular Meeting Minutes
 - [d.](#) Confirm the Supervisor's appointments – Jeff Burroughs, David Greig, Jon Litteral, and Cheryl Mara (as alternate) to Board of Review (01/01/23-12/31/24)
 - [e.](#) Confirm Supervisor's Appointments – Sue Grissim, Tom Murphy, and Matthew Eckman to Planning Commission (01/01/23-12/31/25)
 - [f.](#) Confirm the Supervisor's appointments – Mike Mitchell, Ed Seguin and Jim Bunn (as alternate) to Zoning Board of Appeals (01/01/23-12/31/24)
 - [g.](#) RPT REU Transfer Agreement
7. Pending & New Business
 - [a.](#) Site Plan with Special Land Use Application #22-015 (Mini warehouse establishment with outdoor storage as accessory to a permitted use)
 - [b.](#) ARPA Community Project Funding Program
 - [c.](#) Hartland Gymnastics Academy Charitable Gaming License
8. Board Reports
- [BRIEF RECESS]
9. Information / Discussion
 - a. Manager's Report
10. Adjournment

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Susan Case, Finance Clerk

Subject: Approve Payment of Bills

Date: November 22, 2022

Recommended Action

Move to approve the bills as presented for payment.

Discussion

Bills presented total \$48,730.77. The bills are available in the Finance office for review.

Notable invoices include:

\$20,000.00 – Benjamin Franklin Plumbing – (Release of developer performance bond)

\$22,313.00 – Spalding Dedecker – (M-59 water main, Old US23 mini storage invoices)

Financial Impact

Is a Budget Amendment Required? ☐ Yes ☒ No

All expenses are covered under the amended FY23 budget.

Attachments

Bills for 11.29.2022

11/23/2022 02:06 PM
User: SUSANC
DB: Hartland

INVOICE APPROVAL BY INVOICE REPORT FOR HARTLAND TOWNSHIP
EXP CHECK RUN DATES 11/29/2022 - 11/29/2022
BOTH JOURNALIZED AND UNJOURNALIZED
OPEN - CHECK TYPE: PAPER CHECK

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Vendor Code	Vendor name	Post Date	Invoice	Bank	Invoice Description	Gross Amount
Ref #	Address	CK Run Date	PO	Hold		Discount
Invoice Date	City/State/Zip	Disc. Date	Disc. %	Sep CK		Net Amount
		Due Date		1099		
PLUMMER	BENJAMIN FRANKLIN PLUMBING	11/16/2022	111622	FOA	RELEASE OF DEVELOPER PERFORMANCE BON	
48368	1150 N OLD US23	11/29/2022		N		20,000.00
11/16/2022	HOWELL MI, 48843	/ /	0.0000	N		0.00
		11/29/2022		Y		20,000.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-000-283.000-0025	BEN FRANKLIN PERF DEPOSIT	20,000.00

VENDOR TOTAL: 20,000.00

CINTAS	CINTAS CORPORATION	11/14/2022	4137334805	FOA	MATS	
48353	P.O. BOX 630910	11/29/2022		N		46.34
11/14/2022	CINCINNATI OH, 45263	/ /	0.0000	N		0.00
		11/29/2022		N		46.34

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-265-801.000	CONTRACTED SERVICES	46.34

VENDOR TOTAL: 46.34

FIRSTIMPRE	FIRST IMPRESSION PRINT & MARKETING	11/14/2022	81219	FOA	NEWSLETTER	
48358	907 FOWLER ST.	11/29/2022		N		1,730.43
11/14/2022	HOWELL MI, 48843	/ /	0.0000	N		0.00
		11/29/2022		N		1,730.43

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-577-900.000	PRINTING & PUBLICATIONS	1,730.43

VENDOR TOTAL: 1,730.43

5888	FOSTER, SWIFT, COLLINS & SMITH	10/31/2022	846758	FOA	OCTOBER 2022	
48350	313 S. WASHINGTON SQUARE	11/29/2022		N		987.00
11/14/2022	LANSING MI, 48933-2193	/ /	0.0000	N		0.00
		11/29/2022		Y		987.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
590-000-826.000	LEGAL FEES	987.00

VENDOR TOTAL: 987.00

REFUNDUB	HARTLAND TOWNSHIP WINTER TAX FUND	11/09/2022	11/09/2022	FOA	UB refund for account: WVDR-002189-0	
48344		11/29/2022		N		0.00
11/09/2022	,	11/29/2022	0.0000	N		0.00
		11/29/2022		N		28.27

Open

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Ref #	Address	CK Run Date	PO	Hold		Discount
Invoice Date	City/State/Zip	Disc. Date	Disc. %	Sep CK		Net Amount
		Due Date		1099		

GL NUMBER	DESCRIPTION	AMOUNT
536-000-601.002	METER REPLACEMENT	28.27

VENDOR TOTAL: 28.27

KOVACH	KOVACH, TOD	11/14/2022	111422	FOA	CUT DOWN WOOD & GLASS AT RECEPTION C	
48357	600 HACKER RD	11/29/2022		N		200.00
11/14/2022	BRIGHTON MI, 48114	/ /	0.0000	N		0.00
		11/29/2022		Y		200.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-265-930.000	REPAIRS & MAINTENANCE	200.00

VENDOR TOTAL: 200.00

LOWES	LOWES BUSINESS ACCT/SYNCB	10/19/2022	27043	FOA	MOWER BLADES, INSULATION, ANCHORS, S	
48376	P.O. BOX 530970	11/29/2022		N		620.73
10/19/2022	ATLANTA GA, 30353-0970	/ /	0.0000	N		0.00
		11/29/2022		N		620.73

Open

GL NUMBER	DESCRIPTION	AMOUNT
536-000-930.002	REPAIRS & MAINT VEHICLE/EQUIP	14.26
536-000-740.000	OPERATING SUPPLIES	544.65
101-265-740.000	OPERATING SUPPLIES	19.01
101-751-740.000	OPERATING SUPPLIES	42.81

620.73

VENDOR TOTAL: 620.73

1180	PETER'S TRUE VALUE HARDWARE	11/17/2022	K65192	FOA	BOLTS	
48372	3455 W. HIGHLAND ROAD	11/29/2022		N		27.00
11/17/2022	MILFORD MI, 48380	/ /	0.0000	N		0.00
		11/29/2022		N		27.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
536-000-930.002	REPAIRS & MAINT VEHICLE/EQUIP	27.00

VENDOR TOTAL: 27.00

7532	PRINTING SYSTEMS, INC.	10/18/2022	225708	FOA	ELECTION SUPPLIES	
48356	12005 BEECH DALY	11/29/2022		N		60.67
10/18/2022	TAYLOR MI, 48180	/ /	0.0000	N		0.00
		11/29/2022		N		60.67

Open

GL NUMBER	DESCRIPTION	AMOUNT
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Invoice Date	City/State/Zip	Disc. Date	Disc. %	Sep CK		Net Amount
		Due Date		1099		

101-191-727.000	SUPPLIES & POSTAGE				60.67	
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VENDOR TOTAL: 60.67

SANMARINOP	SAN MARINO PROPERTIES LLC	11/17/2022	111722	FOA	RELEASE OF DEVELOPER ACCT FUNDS	
48369	5550 MITCHEL WAY	11/29/2022		N		1,685.00
11/17/2022	HOWELL MI, 48843	/ /	0.0000	N		0.00
		11/29/2022		N		1,685.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-400-801.100-0021	SAN MARINO PROP CHECK (JOE RICCARDI)	1,685.00

VENDOR TOTAL: 1,685.00

SPALDING	SPALDING DEDECKER	11/15/2022	92682	FOA	M-59 WATER MAIN THRU 10/30/22	
48378	905 SOUTH BLVD EAST	11/29/2022		N		21,663.00
11/15/2022	ROCHESTER HILLS MI, 48307	/ /	0.0000	N		0.00
		11/29/2022		N		21,663.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
539-000-150.000	WATER CONSTRUCT IN PROGRESS	21,663.00

SPALDING	SPALDING DEDECKER	11/17/2022	92732	FOA	OLD US23 MINI STORAGE THRU 10/30/22	
48377	905 SOUTH BLVD EAST	11/29/2022		N		650.00
11/17/2022	ROCHESTER HILLS MI, 48307	/ /	0.0000	N		0.00
		11/29/2022		N		650.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-400-801.002	CONSULTING - SITE REVIEWS	650.00

VENDOR TOTAL: 22,313.00

STAPLES	STAPLES	11/12/2022	8068262623	FOA	MISC SUPPLIES	
48352	PO BOX 660409	11/29/2022		N		31.98
11/12/2022	DALLAS TX, 75266-0409	/ /	0.0000	N		0.00
		11/29/2022		N		31.98

Open

GL NUMBER	DESCRIPTION	AMOUNT
101-172-727.000	SUPPLIES & POSTAGE	131.98
101-209-727.000	SUPPLIES & POSTAGE	(100.00)

31.98

VENDOR TOTAL: 31.98

USA	USA BLUE BOOK	11/15/2022	177640	FOA	LAB/TESTING SUPPLIES	
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Invoice Date	City/State/Zip	Disc. Date	Disc. %	Sep CK		Net Amount
		Due Date		1099		
48359	P.O. BOX 9004	11/29/2022		N		376.35
11/15/2022	GURNEE IL, 60031-9004	/ /	0.0000	N		0.00
		11/29/2022		N		376.35

Open

GL NUMBER	DESCRIPTION	AMOUNT
536-000-740.000	OPERATING SUPPLIES	376.35

VENDOR TOTAL: 376.35

SCADA	UTILITIES INSTRUMENTATION SERVICE	11/18/2022	530369020	FOA	TEST WELL #1 VFD	
48375	2290 BISHOP CIRCLE EAST	11/29/2022		N		624.00
11/18/2022	DEXTER MI, 48130	/ /	0.0000	N		0.00
		11/29/2022		N		624.00

Open

GL NUMBER	DESCRIPTION	AMOUNT
536-000-930.001	REPAIRS & MAINTENANCE SYSTEM	624.00

VENDOR TOTAL: 624.00

TOTAL - ALL VENDORS: 48,730.77

FUND TOTALS:

Fund 101 - GENERAL FUND	24,466.24
Fund 536 - WATER SYSTEM FUND	1,614.53
Fund 539 - WATER REPLACEMENT FUND	21,663.00
Fund 590 - SEWER OPERATIONS & MAINTENANCE FUND	987.00

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Susan Case, Finance Clerk

Subject: Approve Post Audit of Disbursements Between Board Meetings

Date: November 22, 2022

Recommended Action

Move to approve the presented disbursements under the post-audit resolution.

Discussion

The following disbursements have been made since the last board meeting:

Accounts Payable – \$1,102,806.02

November 15, 2022 Payroll - \$73,077.52

November 30, 2022 Payroll - \$88,053.00

Financial Impact

Is a Budget Amendment Required? ☐ Yes ☒ No

All expenses are covered under the amended FY23 budget.

Attachments

Post Audit Bills List 10.27.2022

Post Audit Bills List 11.15.2022

Post Audit Bills List 11.17.2022

Post Audit Bills List 11.23.2022

Payroll for 11.15.2022

Payroll for 11.30.2022

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
 CHECK DATE FROM 10/27/2022 - 10/27/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
10/27/2022	FOA	43193	LOWES BUSINESS ACCT/SYNCB	OPERATING SUPPLIES	101-751-740.000	23.76
		43193		OPERATING SUPPLIES	536-000-740.000	627.75
						<hr/> 651.51
10/27/2022	FOA	43194	MUTUAL OF OMAHA	ACCRUED STD/LTD BENEFITS	001-000-257.103	155.51
		43194		EMPLOYMENT EXPENSE	101-192-716.000	94.06
		43194		EMPLOYMENT EXPENSE	101-209-716.000	91.50
		43194		EMPLOYMENT EXPENSE	101-215-716.000	62.89
		43194		EMPLOYMENT EXPENSE	101-253-716.000	68.84
		43194		EMPLOYMENT EXPENSE	101-400-716.000	108.78
		43194		EMPLOYMENT EXPENSE	101-441-716.000	79.40
		43194		EMPLOYMENT EXPENSE	536-000-716.000	116.56
						<hr/> 777.54
10/27/2022	FOA	43195	VERIZON WIRELESS	DUE TO EMPLOYEES	101-000-232.000	85.37
		43195		TELEPHONE	101-265-851.000	808.24
		43195		TELEPHONE	536-000-851.000	194.48
		43195		CONTRACTED SERVICES & RENTALS	577-000-801.000	40.01
						<hr/> 1,128.10
TOTAL - ALL FUNDS				TOTAL OF 3 CHECKS		2,557.15

--- GL TOTALS ---

001-000-257.103	ACCRUED STD/LTD BENEFITS	155.51
101-000-232.000	DUE TO EMPLOYEES	85.37
101-192-716.000	EMPLOYMENT EXPENSE	94.06
101-209-716.000	EMPLOYMENT EXPENSE	91.50
101-215-716.000	EMPLOYMENT EXPENSE	62.89
101-253-716.000	EMPLOYMENT EXPENSE	68.84
101-265-851.000	TELEPHONE	808.24
101-400-716.000	EMPLOYMENT EXPENSE	108.78
101-441-716.000	EMPLOYMENT EXPENSE	79.40
101-751-740.000	OPERATING SUPPLIES	23.76
536-000-716.000	EMPLOYMENT EXPENSE	116.56
536-000-740.000	OPERATING SUPPLIES	627.75
536-000-851.000	TELEPHONE	194.48
577-000-801.000	CONTRACTED SERVICES & RENTALS	40.01
	TOTAL	2,557.15

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
CHECK DATE FROM 11/15/2022 - 11/15/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
11/15/2022	FOA	43231	AIR 1 MECHANICAL SERVICE LLC	REPAIRS & MAINTENANCE	101-265-930.000	6,828.00
		43231		REPAIRS & MAINTENANCE BLD&GRDS	206-000-930.003	514.00
						<hr/> 7,342.00
11/15/2022	FOA	43232	AMERICAN WATER WORKS ASSOCIATION	MEMBERSHIP & DUES	101-441-804.000	238.00
11/15/2022	FOA	43233	APPLIED INNOVATION	REPAIRS & MAINTENANCE	101-172-930.000	26.27
11/15/2022	FOA	43234	BROWN DRILLING	REPAIRS & MAINTENANCE SYSTEM	536-000-930.001	835.16
11/15/2022	FOA	43235	CHASE BANK	SUPPLIES & POSTAGE	101-191-727.000	229.92
		43235		REPAIRS & MAINTENANCE	101-191-930.000	248.21
		43235		SUPPLIES & POSTAGE	101-192-727.000	380.79
		43235		REPAIRS & MAINTENANCE	101-209-930.000	201.00
		43235		REPAIRS & MAINTENANCE	101-239-930.000	44.57
		43235		SUPPLIES & POSTAGE	101-253-727.000	20.62
		43235		MEMBERSHIP & DUES	101-253-804.000	677.47
		43235		OPERATING SUPPLIES	101-265-740.000	15.89
		43235		TELEPHONE	101-265-851.000	19.40
		43235		REPAIRS & MAINTENANCE	101-265-930.000	38.97
		43235		MEMBERSHIP & DUES	101-400-804.000	480.00
		43235		OPERATING SUPPLIES	101-441-740.000	27.62
		43235		CONTRACTED SERVICES	101-577-801.000	38.99
		43235		SPECIAL EVENTS	101-577-956.000	49.94
		43235		OPERATING SUPPLIES	101-751-740.000	85.80
		43235		LAWN/SNOW MAINTENANCE	101-751-802.000	19.96
		43235		UNIFORMS/CLOTHING ALLOWANCE	536-000-719.100	776.39
		43235		SUPPLIES/POSTAGE	536-000-727.000	20.62
		43235		OPERATING SUPPLIES	536-000-740.000	434.95
		43235		WATER TREAT. CHEMICALS	536-000-740.001	3,036.60
		43235		LAWN/SNOW MAINTENANCE	536-000-802.000	102.11
		43235		INTERNET	536-000-805.000	304.80
		43235		TELEPHONE	536-000-851.000	76.90
		43235		PRINTING & PUBLICATIONS	536-000-900.000	26.99
		43235		REPAIRS & MAINT VEHICLE/EQUIP	536-000-930.002	544.93
		43235		CONTRACTED SERVICES & RENTALS	577-000-801.000	362.00
		43235		INTERNET	577-000-805.000	903.81
		43235		CABLE TV FEES	577-000-806.000	118.48
		43235		SUPPLIES & POSTAGE	852-453-727.000	20.62
						<hr/> 9,308.35
11/15/2022	FOA	43236	CINTAS CORPORATION	CONTRACTED SERVICES	101-265-801.000	57.47
11/15/2022	FOA	43237	CIVICPLUS, LLC	PEG SERVER & SOFTWARE RENTAL	577-000-946.000	3,424.00

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
CHECK DATE FROM 11/15/2022 - 11/15/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
11/15/2022	FOA	43238	D.V.M UTILITIES, INC.	WATER CONSTRUCT IN PROGRESS	539-000-150.000	529,827.98
11/15/2022	FOA	43239	DOUGIE'S DISPOSAL & RECYCLING	DUE FROM OTHERS	101-000-084.000	280.00
		43239		CONTRACTED SERVICES	101-751-801.000	300.00
						<hr/> 580.00
11/15/2022	FOA	43240	DTE ENERGY	MILLPOINTE STREETLIGHTS DEPOSIT	101-000-282.001	256.19
		43240		FIDDLAR GROVE STREETLIGHT DEPOSIT	101-000-282.002	22.29
		43240		WALNUT RIDGE STREETLIGHTS DEPOSIT	101-000-282.003	23.87
		43240		STREET LIGHTS	101-448-921.000	1,112.67
		43240		UTILITIES - ELECTRIC	101-751-920.002	48.33
						<hr/> 1,463.35
11/15/2022	FOA	43241	GREENLAWN LANDSCAPING CO.	PARKS CAPITAL OUTLAY	285-751-970.000	3,927.50
11/15/2022	FOA	43242	HARTLAND CONSOLIDATED SCHOOLS	GASOLINE	101-239-860.000	118.84
		43242		GASOLINE	536-000-860.000	518.94
						<hr/> 637.78
11/15/2022	FOA	43243	HARTLAND M-59 INVESTMENTS	SAD DISTRICT 4 INTEREST	595-000-404.004	15.16
11/15/2022	FOA	43244	HARTLAND TOWNSHIP GENERAL FUND	DOG LICENSES ESCROW	701-000-290.250	16.50
		43244		MOBILE HOME FEES ESCROW	701-000-290.300	558.00
						<hr/> 574.50
11/15/2022	FOA	43245	HARTLAND TOWNSHIP WATER O & M	CONTRACT SERVICES - WATER SYSTEM	101-265-801.009	1,176.53
		43245		CONTRACT SERVICES - WATER SYSTEM	101-567-801.009	102.14
		43245		CONTRACT SERVICES - WATER SYSTEM	101-751-801.009	2,123.07
						<hr/> 3,401.74
11/15/2022	FOA	43246	HIMES, SARAH M	CONTRACTED SERVICES & RENTALS	577-000-801.000	500.00
11/15/2022	FOA	43247	HORNING, KATHLEEN A	MEMBERSHIP & DUES	101-253-804.000	81.00
11/15/2022	FOA	43248	K & J ELECTRIC, INC	REPAIRS & MAINTENANCE SYSTEM	536-000-930.001	13,300.00
11/15/2022	FOA	43249	LIVINGSTON COUNTY TREASURER	DOG LICENSES ESCROW	701-000-290.250	153.50
		43249		MOBILE HOME FEES ESCROW	701-000-290.300	2,790.00
						<hr/> 2,943.50
11/15/2022	FOA	43250	LIVINGSTON CTY ROAD COMMISSION	GRAVEL ROAD IMPROVEMENTS	204-000-969.100	315,000.00
11/15/2022	FOA	43251	LIVINGSTON CTY.DRAIN COMMISSIO	LCDC CONTRACT SERVICES	590-000-801.008	171,191.26

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11/15/2022	FOA	43252	ORKIN	CONTRACTED SERVICES	101-265-801.000	89.85
11/15/2022	FOA	43253	PETTY CASH (TREASURER)	SUPPLIES & POSTAGE	101-101-727.000	24.90
		43253		LEGAL FEES	101-253-826.000	3.00
		43253		OPERATING SUPPLIES	101-265-740.000	14.99
						<hr/> 42.89
11/15/2022	FOA	43254	SAN MARINO EXCAVATING, INC.	CONTRACTED SERVICES	536-000-801.000	760.00
11/15/2022	FOA	43255	SPALDING DEDECKER	CONSULTING - SITE REVIEWS	101-400-801.002	650.00
11/15/2022	FOA	43256	STAPLES	SUPPLIES & POSTAGE	101-172-727.000	833.20
		43256		SUPPLIES & POSTAGE	101-191-727.000	22.15
		43256		SUPPLIES & POSTAGE	101-209-727.000	7.16
		43256		SUPPLIES & POSTAGE	101-253-727.000	18.65
		43256		SUPPLIES & POSTAGE	101-400-727.000	29.64
		43256		OPERATING SUPPLIES	101-751-740.000	106.96
						<hr/> 1,017.76
11/15/2022	FOA	43257	STATE OF MICHIGAN	REPAIRS & MAINTENANCE	101-751-930.000	485.10
		43257		MISCELLANEOUS	536-000-956.000	1,521.96
						<hr/> 2,007.06
11/15/2022	FOA	43258	THE HUNTINGTON NATIONAL BANK	BOND INTEREST PAYMENT	358-000-997.000	7,718.75
11/15/2022	FOA	43259	THE SPIRIT OF LIVINGSTON	UNIFORMS/CLOTHING ALLOWANCE	536-000-719.100	45.00
11/15/2022	FOA	43260	UTILITIES INSTRUMENTATION	REPAIRS & MAINTENANCE SYSTEM	536-000-930.001	312.00
11/15/2022	FOA	43261	VC3, INC.	OPERATING SUPPLIES	101-265-740.000	100.74
11/15/2022	FOA	43262	WATER TECH	OPERATING SUPPLIES	536-000-740.000	570.00
11/15/2022	FOA	43263	WSP USA ENVIRONMENT	TREATMENT PLANT SAMPLING	101-441-801.007	2,322.01
			TOTAL - ALL FUNDS	TOTAL OF 33 CHECKS		1,080,311.08

--- GL TOTALS ---

101-000-084.000	DUE FROM OTHERS	280.00
101-000-282.001	MILLPOINTE STREETLIGHTS DEPOSIT	256.19
101-000-282.002	FIDDLAR GROVE STREETLIGHT DEPOSIT	22.29
101-000-282.003	WALNUT RIDGE STREETLIGHTS DEPOSIT	23.87
101-101-727.000	SUPPLIES & POSTAGE	24.90
101-172-727.000	SUPPLIES & POSTAGE	833.20
101-172-930.000	REPAIRS & MAINTENANCE	26.27
101-191-727.000	SUPPLIES & POSTAGE	252.07
101-191-930.000	REPAIRS & MAINTENANCE	248.21

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
CHECK DATE FROM 11/15/2022 - 11/15/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
101-192-727.000				SUPPLIES & POSTAGE		380.79
101-209-727.000				SUPPLIES & POSTAGE		7.16
101-209-930.000				REPAIRS & MAINTENANCE		201.00
101-239-860.000				GASOLINE		118.84
101-239-930.000				REPAIRS & MAINTENANCE		44.57
101-253-727.000				SUPPLIES & POSTAGE		39.27
101-253-804.000				MEMBERSHIP & DUES		758.47
101-253-826.000				LEGAL FEES		3.00
101-265-740.000				OPERATING SUPPLIES		131.62
101-265-801.000				CONTRACTED SERVICES		147.32
101-265-801.009				CONTRACT SERVICES - WATER SYSTEM		1,176.53
101-265-851.000				TELEPHONE		19.40
101-265-930.000				REPAIRS & MAINTENANCE		6,866.97
101-400-727.000				SUPPLIES & POSTAGE		29.64
101-400-801.002				CONSULTING - SITE REVIEWS		650.00
101-400-804.000				MEMBERSHIP & DUES		480.00
101-441-740.000				OPERATING SUPPLIES		27.62
101-441-801.007				TREATMENT PLANT SAMPLING		2,322.01
101-441-804.000				MEMBERSHIP & DUES		238.00
101-448-921.000				STREET LIGHTS		1,112.67
101-567-801.009				CONTRACT SERVICES - WATER SYSTEM		102.14
101-577-801.000				CONTRACTED SERVICES		38.99
101-577-956.000				SPECIAL EVENTS		49.94
101-751-740.000				OPERATING SUPPLIES		192.76
101-751-801.000				CONTRACTED SERVICES		300.00
101-751-801.009				CONTRACT SERVICES - WATER SYSTEM		2,123.07
101-751-802.000				LAWN/SNOW MAINTENANCE		19.96
101-751-920.002				UTILITIES - ELECTRIC		48.33
101-751-930.000				REPAIRS & MAINTENANCE		485.10
204-000-969.100				GRAVEL ROAD IMPROVEMENTS		315,000.00
206-000-930.003				REPAIRS & MAINTENANCE BLD&GRDS		514.00
285-751-970.000				PARKS CAPITAL OUTLAY		3,927.50
358-000-997.000				BOND INTEREST PAYMENT		7,718.75
536-000-719.100				UNIFORMS/CLOTHING ALLOWANCE		821.39
536-000-727.000				SUPPLIES/POSTAGE		20.62
536-000-740.000				OPERATING SUPPLIES		1,004.95
536-000-740.001				WATER TREAT. CHEMICALS		3,036.60
536-000-801.000				CONTRACTED SERVICES		760.00
536-000-802.000				LAWN/SNOW MAINTENANCE		102.11
536-000-805.000				INTERNET		304.80
536-000-851.000				TELEPHONE		76.90
536-000-860.000				GASOLINE		518.94
536-000-900.000				PRINTING & PUBLICATIONS		26.99
536-000-930.001				REPAIRS & MAINTENANCE SYSTEM		14,447.16
536-000-930.002				REPAIRS & MAINT VEHICLE/EQUIP		544.93
536-000-956.000				MISCELLANEOUS		1,521.96
539-000-150.000				WATER CONSTRUCT IN PROGRESS		529,827.98
577-000-801.000				CONTRACTED SERVICES & RENTALS		862.00
577-000-805.000				INTERNET		903.81
577-000-806.000				CABLE TV FEES		118.48
577-000-946.000				PEG SERVER & SOFTWARE RENTAL		3,424.00
590-000-801.008				LCDC CONTRACT SERVICES		171,191.26
595-000-404.004				SAD DISTRICT 4 INTEREST		15.16

Check Date	Bank	Check #	Payee	Description	GL #	Amount
701-000-290.250			DOG LICENSES ESCROW			170.00
701-000-290.300			MOBILE HOME FEES ESCROW			3,348.00
852-453-727.000			SUPPLIES & POSTAGE			20.62
			TOTAL			1,080,311.08

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
 CHECK DATE FROM 11/17/2022 - 11/17/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
11/17/2022	FOA	43264	CONSUMERS ENERGY	UTILITIES - GAS	101-265-920.001	373.54
		43264		UTILITIES - GAS	536-000-920.001	155.64
						<hr/> 529.18
11/17/2022	FOA	43265	DTE ENERGY	UTILITIES - ELECTRIC	536-000-920.002	35.00
11/17/2022	FOA	43266	LIVINGSTON DAILY PRESS & ARGUS	PRINTING & PUBLICATIONS	101-191-900.000	60.00
		43266		PRINTING & PUBLICATIONS	101-215-900.000	250.00
		43266		PRINTING & PUBLICATIONS	101-400-900.000	100.00
						<hr/> 410.00
11/17/2022	FOA	43267	MICHIGAN.COM	MEMBERSHIP & DUES	101-101-804.000	63.00
						<hr/>
TOTAL - ALL FUNDS				TOTAL OF 4 CHECKS		1,037.18

--- GL TOTALS ---

101-101-804.000	MEMBERSHIP & DUES	63.00
101-191-900.000	PRINTING & PUBLICATIONS	60.00
101-215-900.000	PRINTING & PUBLICATIONS	250.00
101-265-920.001	UTILITIES - GAS	373.54
101-400-900.000	PRINTING & PUBLICATIONS	100.00
536-000-920.001	UTILITIES - GAS	155.64
536-000-920.002	UTILITIES - ELECTRIC	35.00
	TOTAL	1,037.18

CHECK DISBURSEMENT REPORT FOR HARTLAND TOWNSHIP
CHECK DATE FROM 11/23/2022 - 11/23/2022

Check Date	Bank	Check #	Payee	Description	GL #	Amount
11/23/2022	FOA	43268	DELTA DENTAL	ACCRUED DENTAL BENEFITS	001-000-257.101	226.74
		43268		EMPLOYMENT EXPENSE	101-192-716.000	64.06
		43268		EMPLOYMENT EXPENSE	101-209-716.000	60.52
		43268		EMPLOYMENT EXPENSE	101-215-716.000	92.55
		43268		EMPLOYMENT EXPENSE	101-253-716.000	121.04
		43268		EMPLOYMENT EXPENSE	101-400-716.000	171.57
		43268		EMPLOYMENT EXPENSE	101-441-716.000	222.10
		43268		EMPLOYMENT EXPENSE	536-000-716.000	175.11
						<hr/> 1,133.69
11/23/2022	FOA	43269	DTE ENERGY	UTILITIES - ELECTRIC	101-265-920.002	1,029.64
		43269		STREET LIGHTS	101-448-921.000	34.90
		43269		UTILITIES	101-567-920.000	14.79
		43269		UTILITIES - ELECTRIC	101-751-920.002	96.02
		43269		UTILITIES - ELECTRIC	536-000-920.002	2,740.72
						<hr/> 3,916.07
11/23/2022	FOA	43270	MUTUAL OF OMAHA	ACCRUED STD/LTD BENEFITS	001-000-257.103	155.51
		43270		EMPLOYMENT EXPENSE	101-192-716.000	94.06
		43270		EMPLOYMENT EXPENSE	101-209-716.000	91.50
		43270		EMPLOYMENT EXPENSE	101-215-716.000	62.89
		43270		EMPLOYMENT EXPENSE	101-253-716.000	68.84
		43270		EMPLOYMENT EXPENSE	101-400-716.000	108.78
		43270		EMPLOYMENT EXPENSE	101-441-716.000	79.40
		43270		EMPLOYMENT EXPENSE	536-000-716.000	116.56
						<hr/> 777.54
11/23/2022	FOA	43271	PRIORITY HEALTH	ACCRUED MEDICAL BENEFITS	001-000-257.100	2,565.68
		43271		EMPLOYMENT EXPENSE	101-192-716.000	1,162.90
		43271		EMPLOYMENT EXPENSE	101-209-716.000	1,279.20
		43271		EMPLOYMENT EXPENSE	101-215-716.000	1,860.65
		43271		EMPLOYMENT EXPENSE	101-253-716.000	581.45
		43271		EMPLOYMENT EXPENSE	101-441-716.000	3,198.04
		43271		EMPLOYMENT EXPENSE	536-000-716.000	2,180.47
						<hr/> 12,828.39
11/23/2022	FOA	43272	VSP INSURANCE CO. (CT)	ACCRUED VISION BENEFITS	001-000-257.102	48.97
		43272		EMPLOYMENT EXPENSE	101-192-716.000	15.54
		43272		EMPLOYMENT EXPENSE	101-209-716.000	13.08
		43272		EMPLOYMENT EXPENSE	101-215-716.000	26.43
		43272		EMPLOYMENT EXPENSE	101-253-716.000	26.16
		43272		EMPLOYMENT EXPENSE	101-400-716.000	34.61
		43272		EMPLOYMENT EXPENSE	101-441-716.000	43.06

Check Date	Bank	Check #	Payee	Description	GL #	Amount
		43272		EMPLOYMENT EXPENSE	536-000-716.000	37.07
						<hr/> 244.92
TOTAL - ALL FUNDS				TOTAL OF 5 CHECKS		18,900.61

--- GL TOTALS ---

001-000-257.100	ACCRUED MEDICAL BENEFITS	2,565.68
001-000-257.101	ACCRUED DENTAL BENEFITS	226.74
001-000-257.102	ACCRUED VISION BENEFITS	48.97
001-000-257.103	ACCRUED STD/LTD BENEFITS	155.51
101-192-716.000	EMPLOYMENT EXPENSE	1,336.56
101-209-716.000	EMPLOYMENT EXPENSE	1,444.30
101-215-716.000	EMPLOYMENT EXPENSE	2,042.52
101-253-716.000	EMPLOYMENT EXPENSE	797.49
101-265-920.002	UTILITIES - ELECTRIC	1,029.64
101-400-716.000	EMPLOYMENT EXPENSE	314.96
101-441-716.000	EMPLOYMENT EXPENSE	3,542.60
101-448-921.000	STREET LIGHTS	34.90
101-567-920.000	UTILITIES	14.79
101-751-920.002	UTILITIES - ELECTRIC	96.02
536-000-716.000	EMPLOYMENT EXPENSE	2,509.21
536-000-920.002	UTILITIES - ELECTRIC	2,740.72
	TOTAL	18,900.61

Check Register Report For Hartland Township
For Check Dates 11/15/2022 to 11/15/2022

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
11/15/2022	FOA	17258	MISSION SQUARE	2,275.89	2,275.89	0.00	Open
11/15/2022	FOA	17259	MISSION SQUARE	3,531.62	3,531.62	0.00	Open
11/15/2022	FOA	17260	MISSION SQUARE	2,035.27	2,035.27	0.00	Open
11/15/2022	FOA	DD8148	BEDUHN, TIMOTHY L.A.	1,767.00	0.00	1,343.91	Cleared
11/15/2022	FOA	DD8149	BERNARDI, MELYNDA A	1,654.43	0.00	1,283.02	Cleared
11/15/2022	FOA	DD8150	BROOKS, TYLER J	3,064.00	0.00	2,121.99	Cleared
11/15/2022	FOA	DD8151	CASE, SUSAN E	1,951.60	0.00	1,268.41	Cleared
11/15/2022	FOA	DD8152	CIOFU, LARRY N	2,746.24	0.00	1,980.75	Cleared
11/15/2022	FOA	DD8153	COBB, SUSAN M	156.42	0.00	137.80	Cleared
11/15/2022	FOA	DD8154	COSGROVE, HEATHER H	722.50	0.00	636.52	Cleared
11/15/2022	FOA	DD8155	DRYDEN-HOGAN, SUSAN A	3,601.41	0.00	2,555.76	Cleared
11/15/2022	FOA	DD8156	HAASETH, GWYN M	778.75	0.00	694.93	Cleared
11/15/2022	FOA	DD8157	HEASLIP, JAMES B	3,211.94	0.00	1,811.62	Cleared
11/15/2022	FOA	DD8158	HORNING, KATHLEEN A	2,746.24	0.00	1,990.14	Cleared
11/15/2022	FOA	DD8159	HUBBARD, TONYA S	1,838.26	0.00	1,326.74	Cleared
11/15/2022	FOA	DD8160	JOHNSON, LISA	2,091.60	0.00	1,302.03	Cleared
11/15/2022	FOA	DD8161	KENDALL, ANTHONY S	96.00	0.00	88.66	Cleared
11/15/2022	FOA	DD8162	LANGER, TROY D	3,592.16	0.00	2,519.57	Cleared
11/15/2022	FOA	DD8163	LOFTUS, DANIEL M	847.87	0.00	716.15	Cleared
11/15/2022	FOA	DD8164	LOUIS, CASEY	912.57	0.00	590.91	Cleared
11/15/2022	FOA	DD8165	LUCE, MICHAEL T	3,446.80	0.00	2,523.62	Cleared
11/15/2022	FOA	DD8166	MORGANROTH, CAROL L	995.02	0.00	787.50	Cleared
11/15/2022	FOA	DD8167	NIXON, MITCHELL A	2,094.75	0.00	1,614.18	Cleared
11/15/2022	FOA	DD8168	RADLEY, JAMES W	1,111.50	0.00	919.15	Cleared
11/15/2022	FOA	DD8169	SHOLLACK, DONNA M	2,215.60	0.00	1,673.05	Cleared
11/15/2022	FOA	DD8170	SOSNOWSKI, SHERI R	1,937.75	0.00	1,496.25	Cleared
11/15/2022	FOA	DD8171	VERMILLION, KAREN L	1,979.64	0.00	1,429.41	Cleared
11/15/2022	FOA	DD8172	WEST, ROBERT M	4,266.67	0.00	2,561.34	Cleared
11/15/2022	FOA	DD8173	WYATT, MARTHA K	3,025.95	0.00	1,955.41	Cleared
11/15/2022	FOA	EFT655	FEDERAL TAX DEPOSIT	12,382.07	12,382.07	0.00	Cleared

Totals:	Number of Checks: 030	73,077.52	20,224.85	37,328.82
Total Physical Checks:	3			
Total Check Stubs:	27			

Check Register Report For Hartland Township
For Check Dates 11/30/2022 to 11/30/2022

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
11/30/2022	FOA	17261	PETRUCCI, JOSEPH M	525.00	438.59	0.00	Open
11/30/2022	FOA	17262	MISSION SQUARE	2,325.89	2,325.89	0.00	Open
11/30/2022	FOA	17263	MISSION SQUARE	3,879.32	3,879.32	0.00	Open
11/30/2022	FOA	17264	MISSION SQUARE	2,113.92	2,113.92	0.00	Open
11/30/2022	FOA	17265	MISSION SQUARE	200.00	200.00	0.00	Open
11/30/2022	FOA	DD8174	BEDUHN, TIMOTHY L.A.	2,080.50	0.00	1,612.60	Cleared
11/30/2022	FOA	DD8175	BERNARDI, MELYNDA A	1,746.77	0.00	1,355.14	Cleared
11/30/2022	FOA	DD8176	BROOKS, TYLER J	2,423.85	0.00	1,710.67	Cleared
11/30/2022	FOA	DD8177	CASE, SUSAN E	1,968.82	0.00	1,279.50	Cleared
11/30/2022	FOA	DD8178	CIOFU, LARRY N	2,746.24	0.00	1,980.76	Cleared
11/30/2022	FOA	DD8179	COSGROVE, HEATHER H	658.75	0.00	580.35	Cleared
11/30/2022	FOA	DD8180	DRYDEN-HOGAN, SUSAN A	3,601.41	0.00	2,555.79	Cleared
11/30/2022	FOA	DD8181	ECKMAN, MATTHEW A	90.00	0.00	79.28	Cleared
11/30/2022	FOA	DD8182	FOUNTAIN, WILLIAM J	2,746.24	0.00	2,295.93	Cleared
11/30/2022	FOA	DD8183	FOX, LAWRENCE E	428.25	0.00	377.28	Cleared
11/30/2022	FOA	DD8184	GERMANE, MATTHEW J	525.00	0.00	459.84	Cleared
11/30/2022	FOA	DD8185	GRISSIM, SUSAN L	90.00	0.00	83.11	Cleared
11/30/2022	FOA	DD8186	HAASETH, GWYN M	599.38	0.00	536.91	Cleared
11/30/2022	FOA	DD8187	HEASLIP, JAMES B	3,211.94	0.00	1,811.64	Cleared
11/30/2022	FOA	DD8188	HORNING, KATHLEEN A	2,996.24	0.00	2,180.40	Cleared
11/30/2022	FOA	DD8189	HUBBARD, TONYA S	1,822.13	0.00	1,314.53	Cleared
11/30/2022	FOA	DD8190	JOHNSON, LISA	2,574.30	0.00	1,665.56	Cleared
11/30/2022	FOA	DD8191	KENDALL, ANTHONY S	48.00	0.00	44.33	Cleared
11/30/2022	FOA	DD8192	LANGER, TROY D	3,842.16	0.00	2,709.83	Cleared
11/30/2022	FOA	DD8193	LOFTUS, DANIEL M	874.53	0.00	736.97	Cleared
11/30/2022	FOA	DD8194	LOUIS, CASEY	1,160.73	0.00	780.87	Cleared
11/30/2022	FOA	DD8195	LUCE, MICHAEL T	3,446.80	0.00	2,523.62	Cleared
11/30/2022	FOA	DD8196	MAYER, JAMES L	142.50	0.00	125.54	Cleared
11/30/2022	FOA	DD8197	MCMULLEN, SUMMER L	615.00	0.00	517.87	Cleared
11/30/2022	FOA	DD8198	MITCHELL, MICHAEL E	142.50	0.00	131.60	Cleared
11/30/2022	FOA	DD8199	MORGANROTH, CAROL L	1,601.63	0.00	1,251.28	Cleared
11/30/2022	FOA	DD8200	NIXON, MITCHELL A	2,330.50	0.00	1,793.87	Cleared
11/30/2022	FOA	DD8201	O'CONNELL, DENISE	525.00	0.00	368.59	Cleared
11/30/2022	FOA	DD8202	RADLEY, JAMES W	988.00	0.00	825.19	Cleared

Check Register Report For Hartland Township
For Check Dates 11/30/2022 to 11/30/2022

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
11/30/2022	FOA	DD8203	SHOLLACK, DONNA M	2,353.71	0.00	1,777.90	Cleared
11/30/2022	FOA	DD8204	SOSNOWSKI, SHERI R	1,742.25	0.00	1,343.61	Cleared
11/30/2022	FOA	DD8205	VERMILLION, KAREN L	2,783.34	0.00	1,952.27	Cleared
11/30/2022	FOA	DD8206	WEST, ROBERT M	4,466.67	0.00	2,713.54	Cleared
11/30/2022	FOA	DD8207	WYATT, MARTHA K	3,320.71	0.00	2,178.81	Cleared
11/30/2022	FOA	EFT656	FEDERAL TAX DEPOSIT	14,120.81	14,120.81	0.00	Cleared
11/30/2022	FOA	EFT657	MI DEPT OF TREASURY	4,194.21	4,194.21	0.00	Cleared
Totals:							
				Number of Checks: 041	88,053.00	27,272.74	43,654.98
Total Physical Checks:				5			
Total Check Stubs:				36			

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Larry Ciofu, Clerk

Subject: 11-01-22 Hartland Township Board Regular Meeting Minutes

Date: November 21, 2022

Recommended Action

Move to approve the Hartland Township Board Regular Meeting minutes for November 1, 2022.

Discussion

Draft minutes are attached for review.

Financial Impact

None

Attachments

11-1-22 HTB Minutes - DRAFT

HARTLAND TOWNSHIP BOARD OF TRUSTEES REGULAR MEETING MINUTES

November 01, 2022 – 7:00 PM

DRAFT

1. Call to Order

The meeting was called to order by Supervisor Fountain at 7:00 p.m.

2. Pledge of Allegiance

3. Roll Call

PRESENT: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell, Trustee Petrucci (remote from Florida)

Also present were Township Manager Bob West and Public Works Director Mike Luce.

4. Approval of the Agenda

Move to approve the agenda for the November 1, 2022 Hartland Township Board meeting as presented.

Motion made by Treasurer Horning, Seconded by Trustee O'Connell.

Voting Yea: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell

Voting Nay: None

Abstaining: Trustee Petrucci

5. Call to the Public

No one came forward.

6. Approval of the Consent Agenda

Move to approve the consent agenda for the November 1, 2022 Hartland Township Board meeting as presented.

Motion made by Clerk Ciofu, Seconded by Trustee McMullen.

Voting Yea: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell

Voting Nay: None

Abstaining: Trustee Petrucci

a. Approve Payment of Bills

b. Approve Post Audit of Disbursements Between Board Meetings

c. 10-18-22 Hartland Township Board Regular Meeting Minutes

d. ARPA Budget Amendment

e. Public Works Truck Purchase Budget Amendment

7. Pending & New Business

a. 2022-2024 Snow Plow Contract

Public Works Director Mike Luce presented the two-year renewal of the winter snow maintenance contract with Horizon Landscape. He stated there was a very small increase in

HARTLAND TOWNSHIP BOARD OF TRUSTEES REGULAR MEETING MINUTES

November 01, 2022 – 7:00 PM

the price and that they are recommending approval of the 2022-2024 Winter Maintenance Agreement with Horizon Landscape. Supervisor Fountain inquired if this contract included the Hartland Deerfield Fire Department and Manager West responded that it did not.

Move to approve the 2022-2024 Winter Maintenance Contract with Horizon Landscape

Motion made by Trustee O'Connell, Seconded by Clerk Ciofu.

Voting Yea: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell

Voting Nay: None

Abstaining: Trustee Petrucci

b. San Marino Pathway Connector Design Engineering

Manager West gave a brief overview of the 2016 Pathways Plan and stated that this was the last connector section of that plan, which will connect the Fiddler's Grove pathway to Clover Ridge Drive at the entrance of the San Marino development. This pathway is in the M-59 right of way and will connect the San Marino subdivision to the Old US-23 and M-59 intersection and beyond. If we are to continue with this project, the engineering needs to be completed over the winter to be ready to go for the 2023 construction season. He stated we are seeking approval for the engineering of this project not to exceed \$20,000. He also stated that we are beginning to work on the next pathways plan that will be brought to the Board for discussion at a later work session. Clerk Ciofu stated that the Board received an e-mail from a resident regarding another possible location for this connector and inquired as to whether this was feasible. Manager West stated that this was looked at and the difficulty with that location was that it was on private land and easements would need to be obtained. He stated that if the two developments wanted to develop this location they could do so, but he stated the Pathways Plan goal was to create M-59 frontage and continuity in the pathway plan and he is recommending the M-59 location as more suitable option.

Move to approve the engineering of the San Marino Pathway Connector by Spalding DeDecker as presented, in an amount not to exceed \$20,000.

Motion made by Treasurer Horning, Seconded by Trustee O'Connell.

Voting Yea: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell

Voting Nay: None

Abstaining: Trustee Petrucci

8. Board Reports

Trustee Germane - No report.

Trustee O'Connell - No report.

Trustee McMullen - No report.

Trustee Petrucci - No report.

Clerk Ciofu - Stated that we have sent out over 3400 Absentee Vote Ballots and have received about 60% of the ballots back at this time, so we are still looking for the return of about 1400 ballots by election day. He stated that you can still submit an Application, and receive an Absentee Ballot here at the Township Hall. He also stated that the Clerk's Office will be open on Saturday, November 5, 2022 from 8:00 a.m. until 4:00 p.m. for election business only. No other Township offices will be open on that day. In addition, he stated that due to election processing, the Clerk's Office will be suspending passport application processing on Monday, November 7th and Tuesday, November 8th.

HARTLAND TOWNSHIP BOARD OF TRUSTEES REGULAR MEETING MINUTES

November 01, 2022 – 7:00 PM

Treasurer Horning - Stated she sent out the Treasurer's Report to the Board today and if anyone has any questions to please contact her. She wanted to make the Board aware of the footnotes regarding the First National Bank records that have been converted to the Bank of Ann Arbor and that Level One Bank has been purchased by First Merchants Bank.

Supervisor Fountain - No report.

[BRIEF RECESS]

9. Information / Discussion

a) Manager's Report

Manager West gave a brief update on the Septage Receiving Dispute Resolution Panel stating the second meeting is scheduled for this week. Manager West agreed to a 30-day extension until November 10th and as long as we are making progress he will continue to do so, but he does not think a second extension will be needed and that we are prepping for the next step in the resolution process if required. With regards to the Capital Improvement Projects (CIP) we are seeing unprecedented times with contractors. As an example he stated that we have been unable to get an electrical contractor to even come out to provide a bid on the HERO Center electrical work. Contractors have so much work now that we cannot even get contractors to bid on projects. Manager West stated that the Hartland Deerfield Fire Authority has a new Fire Marshall, Jon Dehanke, and that he, Supervisor Fountain and Planning Commissioner Larry Fox met with him today and that he was very pleased with Mr. Dehanke's approach to helping the Township be more business friendly. Manager West also stated that tomorrow is the all-day staff budget meetings where we complete approximately 85 % of the budget, so it will be a very busy day for staff. Tonight is the beginning of the budget cycle for the Board as we will discuss the CIP, which will be again reviewed once more before we adopt the budget.

b) Hartland Township Capital Improvement Projects Update

Manager West presented the draft Capital Improvement Plan (CIP) and a brief discussion was held on each section of the Plan. As to the General Fund CIP, discussion was held on the Pathways projects, the Township Hall and Grounds projects, highlighting HVAC Units, the parking lot rehab and the internal hall improvements. Also briefly discussed were the HERO Center Improvements, and Parks projects, highlighting the phragmites project, the Spranger Field storage building and existing building enhancements, and a potential second pavilion at Settler's Park. Other miscellaneous projects that were discussed were the Ore Creek Bridge painting, Board room audience chairs, the Grant Initiative for Civic Organizations using American Rescue Plan Act (ARPA) funds, replacement DPW truck, and the M-59 Median Improvements. Trustee Germane inquired as to the large FY 23-24 transfer of \$568k in relation to other FY transfers. Manager West stated that some of the projects that we budgeted for were ARPA eligible and would not be funded out of the general fund which would increase the surplus transfer. Supervisor Fountain inquired as to the effect the new Sheriff's contract has on the General Fund transfer. Manager West stated that we budgeted the Sheriff's contract in the FY 22-23 so it was included in determining the projected transfer and was offset further by the increase in State Shared Revenue. He stated we generally use a \$400,000 placeholder for the General Fund transfer. The Board then reviewed the proposed ARPA projects completed and projected, the Fire Authority projects, which were mostly postponed due to the Fire Study that is being completed, and the Road Millage remaining projects. Items discussed in the Road Millage CIP were the cost sharing US-23 paving project, which \$1.3MM is our portion of the \$5MM project, and the limestone cap placeholder for Bergin and Pleasant Valley

HARTLAND TOWNSHIP BOARD OF TRUSTEES REGULAR MEETING MINUTES

November 01, 2022 – 7:00 PM

roads. Discussions are being held by Manager West, Public Works Director Luce and the Livingston County Road Commission (LCRC) on our potential future road millage renewal plans in light of the significant increase in road costs beyond current market rates. Discussion was then held on the Water System CIP with the potential to possibly remove the New PRV project of \$300K due to the new water main installation. A brief discussion was held on potential developments regarding the new Supply Well Construction and discussions are being held with the State on this. Manager West stated the Water Plant Filter Improvements with media is a placeholder amount that has been in the CIP for many years now and will only be used when the State requires an upgrade.

Supervisor Fountain inquired as to the \$2.1MM in the Water System CIP related to the Installation of the Water Main. Manager West stated that this was developer money to extend the water main and is in addition to the \$1MM of ARPA funds being used for the \$3.1MM water main project. Trustee Germane inquired as to whether we would be reviving the Road Millage Task Force if we go forward with a road millage renewal. Manager West stated normally we would do so, but with the cost of maintaining the roads and completing the paving of Bergin and Pleasant Valley roads, we would use the full amount of the millage, so there really would be no need to reconvene the Roads Task Force. Manager West stated that he does not think a millage would pass for just two projects, so they went to the LCRC with a proposal that if a road millage passed we would commit the funds to the LCRC as projects are completed. He stated we asked the LCRC to provide us a list of road projects in Hartland Township that they would be willing to complete on a cost share basis with the Township. The LCRC put together a list of projects with a total cost of \$18MM that they would be willing to cost share with the Township at 50%. The condition is that this list of roads, that were selected by LCRC based on traffic patterns and passer ratings, would be basically an all or nothing list. Manager West stated they are in the process of reviewing this proposal. Trustee Germane also inquired as to whether the Township Hall and Grounds CIP could include some landscaping improvements to the HERO Center. He also inquired as to the revenues from the Septage Receiving Station that do not appear to be in any of the CIP projections. Manager West responded that it is his recommendation that all of the hosting fee funds be left in the Sewer Fund until the bonds are repaid and/or that all legal issues are resolved.

10. Adjournment

Move to adjourn the meeting at 7:45 p.m.

Motion made by Clerk Ciofu, Seconded by Trustee McMullen.

Voting Yea: Supervisor Fountain, Clerk Ciofu, Treasurer Horning, Trustee Germane, Trustee McMullen, Trustee O'Connell

Voting Nay: None

Abstaining: Trustee Petrucci

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Robert M. West, Township Manager

Subject: Confirm the Supervisor's appointments – Jeff Burroughs, David Greig, Jon Litteral, and Cheryl Mara (as alternate) to Board of Review (01/01/23-12/31/24)

Date: October 25, 2022

Recommended Action

Move to confirm the Supervisor's appointments – Jeff Burroughs, David Greig, Jon Litteral, and Cheryl Mara (as alternate) to Board of Review (01/01/23-12/31/24)

Discussion

After speaking with incumbents Supervisor Fountain recommends their appointment to the Hartland Board of Review for a two-year term.

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Robert M. West, Township Manager

Subject: Confirm Supervisor's Appointments – Sue Grissim, Tom Murphy, and Matthew Eckman to Planning Commission (01/01/23-12/31/25)

Date: October 25, 2022

Recommended Action

Move to confirm the Supervisor's appointments - Sue Grissim, Tom Murphy and Matthew Eckman to Planning Commission (01/01/23-12/31/25)

Discussion

After speaking with incumbents and new candidates, Supervisor Fountain recommends their appointment to the Hartland Township Planning Commission for this three-year term.

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Robert M. West, Township Manager

Subject: Confirm the Supervisor's appointments – Mike Mitchell, Ed Seguin and Jim Bunn (as alternate) to Zoning Board of Appeals (01/01/23-12/31/24)

Date: October 25, 2022

Recommended Action

Move to confirm the Supervisor's appointments – Mike Mitchell, Ed Seguin and Jim Bunn (as alternate) to Zoning Board of Appeals (01/01/23-12/31/24)

Discussion

After speaking with incumbents Supervisor Fountain recommends their appointment to the Hartland Zoning Board of Appeals for a two-year term.

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Michael Luce, Director of Public Works

Subject: RPT REU Transfer Agreement

Date: November 22, 2022

Recommended Action

Approve the transfer of 20 water REU's and 20 Sewer REU's from RPT PID 4708-21-400-076 to 4708-21-400-0079.

Discussion

By approving this transfer of the 20 REU's in water and sewer to the new parcel it reflects the condo issuance approved in October. As of now all of the remaining REU's owned by RPT properties are stored on PID 4708-21-400-076, as the out lots are sold, they are transferring the needed REU's to the developers for their buildout of the sites. This particular instance the transfer is for out lot 7A and 7B or also known as Buffalo Wild Wings and Chipolte.

With the site condo splits already approved staff is recommending the approval of the transfer of 20 water REU's and 20 sewer REU's for this development.

Financial Impact

Is a Budget Amendment Required? ☐ Yes ☒ No

Attachments

BW3's – Chipolte RTC REU Transfer Agreement.



Residential Equivalent Unit (REU) Transfer Agreement

I, _____, the owner of parcels 4708-21-400-076 and 4708-21-400-0079 acknowledge that a sanitary sewer assessment for 20 REUs through SAD #1 and a water main assessment for 20 REUs through the Central Water SAD were and are currently being paid for by the owner to Hartland Township.

Due to the development of the properties and their current use, it is requested that both sewer and water REUs be transferred between the two adjacent properties, which are under the same ownership, as follows:

CENTRAL WATER SAD

Parcel Number	Current REU Allocation	Change	New REU Allocation
4708-21-400-076	151.50	20	131.50
4708-21-400-079	0	20	20
(OL 7A)	0	13	13
(OL7B)	0	7	7

SANITARY SEWER SAD #1

Parcel Number	Current REU Allocation	Change	New REU Allocation
4708-21-400-076	60.97	20	33.97
4708-21-400-079	0	20	20
(OL 7A)	0	13	13
(OL 7B)	0	7	7

PROPERTY OWNER

Signed: _____ Date: _____

Printed Name: _____

HARTLAND TOWNSHIP

Approved: _____ Date: _____

Printed Name: _____

Hartland Township Board of Trustees Agenda Memorandum

Submitted By: Troy Langer, Planning Director

Subject: Site Plan with Special Land Use Application #22-015 (Mini warehouse establishment with outdoor storage as accessory to a permitted use)

Date: November 22, 2022

Recommended Action

Move to Approve Special Land Use Permit #22-015, as outlined in the Staff Memorandum, dated November 22, 2022.

Approval of the request is based on the following:

Move to recommend approval of Special Land Use Permit and approve Site Plan Application #22-015, a request to construct a mini warehouse establishment with outdoor storage as accessory to the permitted use, on a vacant parcel on Old US-23, in Section 28 of the Township (Tax Parcel ID #4708-28-300-023). The recommendation for approval is based on the following findings:

1. The proposed special land use, outdoor storage accessory to a permitted use (mini warehouse) meets the intent and purposes of the Ordinance as well as the specific standards outlined in Section 6.6 (Special Uses).
2. The proposed special land use is permitted in the LI (Light Industrial) zoning district as outlined in Section 3.1.16.D.ix, and the proposed use is compatible with the existing and future uses in the vicinity.
3. The Hartland Township Comprehensive Plan and the Future Land Use Map (FLUM) designate this property as Planned Industrial Research Industrial. The proposed special land use is compatible with the Comprehensive Plan and the FLUM.
4. The site is adequately served by existing essential facilities and public services and the Fire Department has no objection. The proposed use will be served by a public road with direct access to Old US-23.
5. The proposed use will not create additional requirements at public cost for public facilities as the proposed site will be served by private well (water) and sanitary sewer.

Approval is subject to the following conditions:

1. The proposed special land use, outdoor storage accessory to a permitted use, is subject to approval by the Township Board.
2. The applicant shall adequately address the outstanding items noted in the Planning Department's memorandum, dated November 10, 2022, and November 22, 2022, on the Construction Plan set, subject to an administrative review by the Planning staff prior to the issuance of a land use permit.
3. A land use permit is required after approval of the Site Plan and Special Use Permit and prior to construction.

4. Applicant complies with any requirements of the Department of Public Works Director, Township Engineering Consultant (SDA), Hartland Deerfield Fire Authority, and all other government agencies, as applicable.
5. (Any other conditions the Planning Commission deems necessary).

Discussion

Applicant: Jerrad Beauchamp

Site Description

The subject property is located on the east side of Old US-23, north of Bergin Road, with frontage along Old US-23 and US-23. The undeveloped site, approximately 11.9 acres in area, is zoned LI (Light Industrial). (Tax Parcel ID #4708-28-300-023). The property has approximately 740 lineal feet along Old US-23 and approximately 736 lineal feet along US-23.

A mix of deciduous and evergreen trees are found in the center and northern area of the site along with open fields. Three (3) wetland areas are found on the site, as noted on the Existing Conditions and Removals page (Sheet 2.0). The wetland boundaries are based on the delineation completed by ASTI Environmental and provided by the applicant. Per the Wetland Delineation and Jurisdictional Assessment Report completed by ASTI, dated July 12, 2021, Wetland A is likely to be regulated by the Michigan Department of Environment, Great Lakes and Energy (EGLE), which is located in the southeast corner of the site. Wetlands B and C are not likely to be regulated by EGLE, per the Assessment Report.

Adjacent properties to the north (1480 Old US-23) and south (1200 Old US-23) are zoned LI (Light Industrial). On the west side of Old US-23 and across from the subject site, the property at 1285 Old US-23 is zoned CA (Conservation Agricultural) and is occupied by a single-family home. To the north of that parcel, the property is zoned LI (Light Industrial), at 1461 Old US-23. Historically a boat repair business has occupied this property.

The Future Land Use Map (FLUM) designates the subject site and adjacent properties to the north, south, west as Planned Industrial/Research and Development.

Background Information

The site is undeveloped and additional site history was not found.

Proposed Use

The applicant is requesting to construct a mini warehouse facility that includes an area for outdoor storage, which is considered a special land use. The plans show the following storage options:

- 7 mini warehouse buildings without climate control, accessed on the outside via garage doors (typical drive-up storage units).
- 1 climate-controlled building with storage units within the building. Additional drive-up storage units are along the east and north sides of the building and are not climate controlled. This building also has a small office for a manager.
- 3 carports for RV storage/other vehicles or boats, open air and covered with a canopy (labeled as Storage Canopy on the plans). A screen wall is shown on the end of each canopy where facing Old US-23 or US-23.

- 1 unroofed, outdoor storage area, which shows gravel surfacing, The applicant indicated to the Site Plan Review Committee that he will use asphalt millings in place of the gravel.

A mini warehouse establishment is considered a Principal Permitted use in LI, per Section 3.1.16.B. xiii. Outdoor storage accessory to a permitted use is considered a special land use in the LI (Light Industrial) zoning district. Additional standards for this special land use are provided in Section 3.27 of the Zoning Ordinance (Outdoor Storage in the LI and I Districts). Section 4.35 (Mini Warehouses) provides standards for mini warehouse establishments.

The proposed project also requires site plan approval thus there are two application elements: special land use and site plan approval for a mini warehouse establishment with outdoor storage accessory to the permitted land use. Although there are technically two elements, all are incorporated into one combined site plan which will be reviewed and approved concurrently.

Per the Hartland Township Zoning Ordinance and the State Enabling Act, a public hearing is required for the special land use application. Given the requirements for publishing a notice for the special land use, the public hearing has been scheduled for the November 17, 2022, Planning Commission meeting.

The Planning Commission held a public hearing on this request on November 17, 2022. There were no comments from the public regarding this request. The Planning Commission approved the Site Plan and recommended approval of the Special Land Use Permit for the outdoor storage that is accessory to the Mini-Storage facility.

Request and Project Summary

The applicant is requesting site plan with special land use approval to construct a mini warehouse establishment with an area dedicated for outdoor storage, as accessory to the permitted use.

The proposed mini warehouse facility includes seven (7) drive-up mini warehouse buildings; one (1) climate-controlled storage building with a small office area and drive-up storage units on the north and east; 3 carports (Storage Canopy) offering covered storage of RV's, motor vehicles, trailers and boats, with masonry screen (end) walls shown on sides facing US-23 or Old US-23; and one (1) unroofed, outdoor storage area, with gravel surfacing. The gravel outdoor storage area is approximately 139 feet by 326 feet, or 45,314 square feet. This area is intended to store motor vehicles, boats, trailers, etc. The applicant has offered to use asphalt millings in place of the gravel surfacing.

Following is a summary of the mini warehouse buildings and storage canopies (dimensions and square footage).

Building	Dimensions	Sq. Ft.
Building 1	30' x 186'	5,580 SF
Building 2	30' x 181'	5,430 SF
Building 3*	86' x 166'	14,276 SF
Building 4	30' x 326'	9,780 SF
Building 5	30' x 326'	9,780 SF
Building 6	30' x 326'	9,780 SF
Building 7	30' x 302'	9,090 SF
Building 8	30' x 240'	7,260 SF

Total SF for 8 Bldgs.		70,946 SF
Storage Canopy 1	84' x 207'	17,388 SF
Storage Canopy 2	84' x 316'	26,544 SF
Storage Canopy 3	84' x 191'	16,044 SF
Total SF for 3 Storage canopies		59,976 SF
Total SF all buildings		130,992 SF

**Building 3 is the climate-controlled building with office space and storage units on north & east sides (units not climate-controlled).*

The combined square footage of the eight (8) mini warehouse buildings is approximately 70,946 square feet. The three (3) carports equate to 59,976 square feet, bringing the total to approximately 130,992 square feet. The plan states the building coverage is 130,992 square feet.

As an overall guide to the design of the mini warehouse buildings, the end wall of each warehouse building, where facing Old US-23 or US-23, is constructed with split-faced block at the base (beige color) and topped with C-Brick in 2 colors (grey and brown), with a smooth face finish. C-Brick is a half-high concrete masonry unit that serves as a structural system and exterior finish. The cornice at the top is comprised of a grey tone cement board product.

Steel garage doors for the drive-up storage units are on the north and south sides of each warehouse building, for Buildings 1, 2, 4, 5, 6, and 7. Building 3 has drive-up storage units with garage doors on the north and east sides which are not climate-controlled. The remainder of Building 3 is climate-controlled with entry through several man-doors. Building 8 has garage doors on the north side. The south elevation is faced with ribbed metal panels in a sandstone color. All garage doors are a barn red color.

Where the end wall of the warehouse building is facing into the site, there are steel garage doors (1 to 3 doors), and ribbed metal panels make up the rest of the elevation. For instance, if the end wall has one (1) garage door, the remaining portion of that wall is ribbed metal panels in a sandstone color. This is the design for warehouse buildings 1, 2, 4, 5, and 6. Buildings 7 and 8 have masonry walls on both ends of the building (east and west elevations).

Each Storage Canopy (carport) has a masonry wall (free-standing) on the end facing either Old US-23 or US-23. The free-standing canopy structure is on the other side of the wall. The wall is intended to screen the canopy structure from view from the street. The north and south sides are open for vehicular access. The fourth side is also open (no screen wall). The applicant has submitted photographs of canopy structures as examples, however specific product information is not provided (manufacturer, materials, dimensions, etc.). Height information on the screen wall and canopy structure is explained in an attachment (PVA Response letter to the Township dated November 3, 2022). Per that document the height of the masonry screen wall is 18'-2" and the height of the canopy structure is 16'-11".

Access to the site is from Old US-23 via a boulevard entrance. Four (4) parking spaces are shown on the south side of Storage Building #3, adjacent to the office. Asphalt pavement is shown for the maneuvering lanes within the site however curbing is not provided. Per Section 5.8.5.E. (Off-Street Parking Requirements), curbing is required for a parking area, with a minimum height of six (6) inches. The applicant indicated to the Site Plan Review Committee that he would consider using a rolled curb. The drive aisle between the storage buildings is typically twenty-five (25) feet, and thirty-five (35) feet between the storage areas with canopies (carports). The perimeter drive aisles around the buildings range in width from thirty (30) feet to thirty-three (33) feet.

Two (2) detention ponds are shown, one on the south by the regulated wetland (Wetland A) and a second detention pond along the eastern side of the site.

The site is enclosed with a masonry pillar and black fencing system, six (6) feet in height, along the east and west sides of the site. Black vinyl coated chain link fencing, six (6) feet in height, is shown along the north property line and along the leading edge of the paved area on the south.

Approval Procedure

The proposed special land use, outdoor storage accessory to a principal permitted use, requires approval from the Township Board. The Planning Commission will review the special land use and make a recommendation to the Township Board.

The project also requires the site plan to be reviewed by the Planning Commission who will make a final decision on the site plan. The plans will be reviewed using the development standards of the LI (Light Industrial) zoning district (Section 3.1.16.), standards associated with mini warehouses (Section 4.35), and all applicable zoning standards in the Zoning Ordinance. Section 4.38 (Open Air Business, Commercial Outdoor Display, Sales or Storage) speaks to those uses listed however it seems to be applicable to commercial businesses that have outdoor sales and display areas for products offered at that business. In this case, the site is for the storage of personal items which are not intended to be for sale or be displayed. As a result, the standards from Section 4.38 are not discussed for this request. Should the Planning Commission determine Section 4.38 is applicable, those standards could be reviewed.

SPECIAL LAND USE REVIEW – General Standards

In accordance with Section 6.6, Special Uses, of the Hartland Township Zoning Ordinance, the following standards shall serve the Planning Commission and Township Board as the basis for decisions involving such uses. The standards are provided below, and the applicant has submitted a letter, as a separate attachment, which addresses the special use criteria.

- A. Be harmonious and in accordance with the objectives, intent, and purposes of this Ordinance.
- B. Be compatible with the natural environment and existing and future land uses in the vicinity.
- C. Be compatible with the Hartland Township Comprehensive Plan.
- D. Be served adequately by essential facilities and public services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to adequately provide any such service.
- E. Not be detrimental, hazardous, or disturbing to the existing or future neighboring uses, person, property, or the public welfare.
- F. Not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.

The Planning Department believes the proposed use can and will meet the criteria listed above for the special land use request. The applicant has provided responses to the special land use general standards as an attachment, in the letter dated November 9, 2022. The applicant will be responsible for all applicable approvals and permits from other agencies and departments for the proposed use.

SPECIAL LAND USE REVIEW – Applicable Site Standards

In addition to a finding by the Planning Commission and Township Board that the criteria above have been satisfied, standards outlined in Section 3.27 (Outdoor Storage in the LI & I Districts), for the special land use, will apply. The standard is listed below, followed by staff's findings.

Outdoor Storage in the LI & I Districts (Section 3.27)

1. All outdoor storage areas shall be screened from public rights-of-way and adjacent public use areas with screening in accordance with the provisions of Section 5.11 (Landscaping and Screening) and 5.20 (Walls and Fences).

The outdoor storage area is interior to the site, on the east side, and is surrounded by a combination of storage buildings (#1, #2, and #4) and carports (all 3 storage canopies plus end walls). These structures provide some screening on the north, south, and west sides of the outdoor storage area. The height of each storage building is 12'-2" to the tallest point. The carport end wall is 22'-2" to the tallest point. The majority of the end wall is 18'-2" high.

Canopy and evergreen trees are shown on the east side of the site (adjacent to the ROW of US-23) as well as the masonry and pillar fencing system. A similar landscape plan and fencing is provided along the west side of the site and ROW of Old US-23. The combination of the buildings, carports, and landscaping provides sufficient screening of the outdoor storage area.

SITE PLAN REVIEW – Applicable Site Standards

The applicable site standards include those standards related to the proposed use, mini warehouse with special land use of outdoor storage as outlined in Section 3.1.16 (LI-Light Industrial); Section 3.27 (Outdoor Storage in the LI & I Districts), as discussed above; Section 4.35 (Mini Warehouses) of the Zoning Ordinance; and all applicable zoning standards in the Zoning Ordinance.

Impact Assessment

An impact assessment was not provided.

Traffic Generation

A traffic impact assessment was not provided.

Dimensional Requirements (LI-Light Industrial; Section 3.1.16)

Lot Size (Sec. 3.1.16)

- Required – 40,000 sq. ft.
- Proposed – 11.90 acres (518,484 sq. ft.)
- Meets Requirement? Yes
- Comment – (none)

Frontage (Sec. 3.1.16)

- Required – Minimum lot width of 120 feet
- Proposed – 740 lineal feet along Old US-23 and approximately 736 lineal feet along US-23
- Meets Requirement? – Yes
- Comment – (none)

Building Setbacks (Sec. 3.1.16 and Sec.3.24)

Setback	Required	Proposed	Meets Requirements? (Y / N)
Front (east) Old US-23	80'	80'	Yes

Front (west) US-23	80'	86.57'	Yes
Side (north)	15'	33.18'	Yes
Side (south))	15'	142.08'	Yes

Building Height (Sec. 3.1.16)

- Required – 35 feet or 2½ stories, whichever is less
- Proposed – 22'-6" feet
- Meets Requirement? – Yes
- Comment – (none)

Lot Coverage (Sec. 3.1.16)

- Required – Principal structure: 75% max.
- Proposed – 25% (130,922 sq. ft. bldg. (total) ÷ 518,484 sq. ft.)
- Meets Requirement? – Yes
- Comment – (none)

Section 4.35 Mini Warehouses

The following regulations shall apply to Mini Warehouses:

1. Permitted Uses. Mini warehouse establishments shall provide for storage only, which must be contained within an enclosed building. No water or telephone service shall be provided. Electric service shall be limited to 10 amperes.

Eight (8) mini warehouse buildings are shown with all storage within the buildings. Private well (water) and sanitary services will be provided for the office. Information on the electric service was not provided. Site lighting (exterior) is proposed.

2. Site Enclosure. The entire site, exclusive of access drives, shall be enclosed with a six (6) foot high masonry wall, constructed in accordance with Section 5.20, Screening. A six (6) foot chain link fence may be permitted along the property lines which do not abut residentially zoned or residentially used district.

The subject site is bounded by Old US-23 on the west and US 23 on the east. Adjacent properties to the north and south are zoned LI (Light Industrial). Screening is provided on the east and west sides by using landscaping (trees and shrubs) and a 6-foot high fencing system (masonry post and black metal spindles). Black vinyl coated chain link fencing, six (6) feet in height, is shown along the north property line and along the leading edge of the paved area on the south. A regulated wetland (Wetland A) provides additional screening on the south. The proposed screening seems to be sufficient and meets the intent of the Ordinance.

3. Exterior Appearance. The exterior of any mini warehouse shall be of finished quality and design, compatible with the design and structures on surrounding property.

The proposed façade materials are compatible with the design and structures on surrounding properties to the north and south.

4. Resident manager. A resident manager may be permitted on the site for the purpose of maintaining the operation of the facility in conformance with the conditions of approval.

It is staff's understanding that the office area will be designated for the manager.

5. On-Site Circulation and Parking.

- A. All one-way driveways shall be designed with one ten (10) foot wide loading/unloading lane and one fifteen (15) foot travel lane.
- B. All two-way driveways shall be designed with one ten (10) foot wide loading/unloading lane and two twelve (12) foot travel lanes.
- C. The parking lanes may be eliminated if the driveway does not serve storage units. Signs and painted lines shall be used to indicate parking and traffic direction throughout the site.

Option B is applicable in this case as the interior travel lanes are two-way. The travel lane width between two (2) warehouse buildings is twenty-five (25) feet for 2 travel lanes, running east-west. A dedicated loading/unloading lane is not shown. The Planning Commission is to determine if this is required. Per the applicant, he anticipates the facility will generate a low volume of traffic within the site and few conflicts will occur with vehicular circulation as patrons load or unload items from their storage unit, thus an additional loading/unloading lane is unnecessary.

Site Requirements

Dumpster Enclosure (Sec. 5.7)

- Required – Dumpster designed, enclosed, and screened per requirements; dumpster materials must match the building. enclosure height sufficient to screen dumpsters; minimum height is 6 feet.
- Proposed – None shown
- Meets Requirement? – NA
- Comment – (none)

Off-Street Parking (Sec. 5.8.4.H – Mini or Self-storage Warehouse)

- Required – Minimum 6 spaces plus adequate loading area at each unit
- Proposed – 3 parking spaces, 10' X 20' in dimension plus 1 barrier-free parking space and access aisle by office in Storage Building #3; loading area at each unit is not specified on the plan.
- Meets Requirement? – **TBD**
- Comment – Section 5.8.4.H.i. states that the Planning Commission may modify the numerical number of off-street parking spaces, based on evidence that another standard would be more reasonable, because of the level of current or future employment and/or level of current or future customer traffic. Consideration should be given toward testimony from the applicant on the number of spaces they believe would be necessary for the mini warehouse facility. Please see the applicant's letter dated November 9, 2022. The Planning Commission to determine if four (4) parking spaces are sufficient for this facility, and if a loading area at each storage unit is required.

Barrier-Free Parking

- Required – 1 barrier-free space in a location most accessible to the building entrance, with at least 1 space van-accessible (1 barrier-free space required per 25 parking spaces)
- Proposed – 1 barrier-free space, with 5-foot wide access aisle near the entrance to the office in Storage Building #3
- Meets Requirement? – **No**
- Comment – The plans are to be revised to show an 8-foot wide van accessible access aisle adjacent to the barrier-free parking space, on the Construction Plan set.

Parking Lot / Driveway / Internal Roads Setbacks (Sec. 5.8.3.)

- Required – Off-street parking in industrial districts may only be located in a side or rear yard or non-required front yard; may not be permitted within 20' of a single-family district, nor within 10' of a road ROW, or 25' from a front lot line, nor 10' from a side or rear lot line.
- Proposed – Parking is interior to the site, approximately 192 feet from the Old US-23 ROW
- Meets Requirement? – Yes
- Comment – (none)

Loading (Sec. 5.9)

- Required – 1 loading space (10' X 50') required for up to 10,000 sq. ft. of gross floor area (for industrial use)
- Proposed – Loading space is not shown
- Meets Requirement? – Yes
- Comment – Typically this has not been required to be shown on a plan. Also, there appears to be sufficient room in the drive aisles adjacent to each warehouse building to accommodate loading/unloading activities.

Access Management and Non-Residential Driveway Standards (Sec. 5.10)

- Required – Per Sec. 5.10.5.C., the minimum access spacing between commercial driveways on a street with a posted speed limit of 50 MPH or greater is 330 feet.
- Proposed – The posted speed limit is 55 MPH on Old US-23. The spacing between the proposed driveway and the driveway to the north (1480 Old US-23) is approximately 660 feet. The spacing between the proposed driveway and the driveway to the south (1200 Old US-23) is approximately 860 feet.
- Meets Requirement? – Yes
- Comment – (none)

Landscaping and Screening (Sec. 5.11)

A. Landscaping of Divider Median (Sec. 5.11.2.A.vii.)

- Required – Curbed, 10-ft. wide divider median; 1 canopy or evergreen tree and 6 medium shrubs for initial 25 lineal feet or portion thereof; PLUS 1 additional canopy or evergreen tree and 4 additional medium shrubs for every increment of 25 lineal feet. Trees to be spaced no farther than 60 ft. center-to center. Median is approx. 67 feet in length. EQUATES TO: 3 canopy trees and 13 medium shrubs REQUIRED
- Proposed – curbed, 10-ft. wide median; 2 canopy trees; 18 medium shrubs; perennial plants and ornamental grasses. Monument sign shown on west end of median.
- Meets Requirement? – Yes, a monument sign is shown, limiting the space for a 3rd canopy tree
- Comment – In order to avoid on-going weeding issues, staff recommends elimination of the 18 shrubs and using lawn in that area of the median plus 2 canopy trees (area on the east side of the median). The proposed perennial plants and ornamental grasses can remain, if 80% coverage of plant material is achieved at the ground surface. The median should be mulched (shredded hardwood mulch) and irrigated and shown on the landscape plan. The revised landscape plan shall be submitted with the Construction Plan set.

B. Greenbelt Landscaping (Sec. 5.11.C.). Although this site has frontage on Old US-23 and US-23, historically Greenbelt calculations have been only applied to the frontage along Old US-23, for properties in this same situation.

- Required – Within the first 30 feet of the property, 1 canopy tree for every 30 ft of lineal of frontage; PLUS 3 small deciduous ornamental trees or large deciduous or evergreen shrubs for the initial 40 ft., and 1 per 20 ft. thereafter, for 740' of frontage along Old US-23. EQUATES

- TO: 25 canopy trees and 38 additional ornamental trees, or large deciduous or evergreen shrubs
REQUIRED
- Proposed – 17 canopy trees; 3 ornamental trees; and 43 deciduous shrubs, within first 30 feet of frontage along Old US-23
 - Meets Requirement? – Yes, for the number of shrubs; **No** for the number of canopy trees
 - Comment – Planning Commission to determine if the proposed plan meets the intent of the Greenbelt Landscaping regulations for the number of canopy trees. Consideration could be given to counting the 6 evergreen trees that are outside the 30-foot Greenbelt area, as counting toward the required number of trees.
- C. Foundation Landscaping (Sec. 5.11.2.D.)
- Required – Must equal 60% of the front and sides of the proposed building where facing road or adjacent to parking lot; must be 8-10 ft. in width, and consist of 1 ornamental or columnar tree, and 6 medium or 8 small shrubs for every 30 ft.
 - Proposed – Foundation landscaping is not proposed
 - Meets Requirement? – **TBD**
 - Comment – Planning Commission to determine if this requirement is applicable given the proposed use (warehouse buildings) with limited area for landscape beds, and the fact that the warehouse buildings are not adjacent to a parking lot, except for Storage Building #3.
- D. Parking Lot Landscaping (Sec. 5.11.2.E.) – Only applicable for off-street parking areas with more than ten (1) parking spaces (4 parking spaces proposed).
- E. Buffering or Screening (Sec. 5.11.2.G.i.) – Screening between land uses – NA as adjacent properties to the north and south are zoned LI (Light Industrial).
- F. Screening of Ground Mounted Equipment (Sec. 5.11.2.G.iii.)
- Required – Screening on three sides for utility cabinets (if 30 inches or more in height)
 - Proposed – Ground mounted equipment is not proposed. The HVAC equipment for Building #3 is housed inside the building.
 - Meets Requirement? – NA
 - Comment – (none)
- G. Detention/Retention Area Landscaping (Sec. 5.11.2.H.)
- Calculations for Detention Basin A (SE corner of site; 615' pond perimeter)***
- Required – Detention/retention ponds must be integrated into the overall design of the property and landscaped to provide a natural setting; 1 canopy or evergreen tree and 10 medium, 6 large shrubs or ornamental trees must be planted for every 50 ft. of pond perimeter. Pond Perimeter approx. 615 ft., EQUATES TO: 12 canopy or evergreen trees, and 120 medium shrubs, or 72 large shrubs or ornamental trees **REQUIRED**
 - Proposed – 12 trees (6 deciduous and 6 evergreen trees); 0 shrubs
 - Meets Requirement? – **TBD for number of shrubs**
 - Comment – Applicant has provided a note on Sheet LP-1 stating Detention Basin A is adjacent to Wetland A. Detention shrubs were not provided in lieu of existing wetland plants and scrub growth associated with the wetland area, per the applicant. Planning Commission to determine if this meets the intent of the ordinance requirements.
- Calculations for Detention Basin B (East side of site; 1,047' pond perimeter)***
- Required – detention/retention ponds must be integrated into the overall design of the property and landscaped to provide a natural setting; 1 canopy or evergreen tree and 10 medium, 6 large shrubs or ornamental trees must be planted for every 50 ft. of pond perimeter. Pond Perimeter approx. 1,047 ft., EQUATES TO: 21 canopy or evergreen trees, and 210 medium shrubs, or 126 large shrubs or ornamental trees **REQUIRED**
 - Proposed – 21 trees (8 deciduous and 13 evergreen trees); 107 large shrubs

- Meets Requirement? – **TBD for number of shrubs**
- Comment – Planning Commission to determine if the proposed number of shrubs meets the intent of the ordinance requirements (deficient 19 large shrubs).

Other comments on landscaping

Some of the plant counts listed on Sheet LP-1 (Landscaping Plan) for the landscape calculations do not match the number of plant symbols shown on the landscape plan. Also, several plant name abbreviations are stated but the plant name is not listed in the Plant List (AS, TD, and VL). A revised landscape plan shall be submitted as part of the Construction Plan set.

Sidewalks and Pathways (Sec. 5.12)

- Required – The Planning Commission may require sidewalks or safety paths as a condition of site plan approval
- Existing – Sidewalk along Old US-23 is not proposed
- Meets Requirement? – **TBD**
- Comment – Planning Commission to decide if this is applicable to the subject site. Currently, there are no sidewalks along the east side of Old US-23.

Lighting (Sec. 5.13)

A. Intensity

- Required – Max. 0.5 fc along property line adjacent to residential; or max.1.0 fc along property line adjacent to non-residential; average fc between 2.4 and 3.6 in main parking area and an average of 5.0 fc at main building entrance and at exit/entry drive; may not exceed 10 fc on site.
- Proposed – Photometric plan indicates 0.0 to 0.1 fc along each property line. Footcandle value less than 10 fc throughout the site. Information on average footcandle values in the main parking area, at main building entrance, and exit/entry drives was not provided. Footcandle values are measured at 0 feet above ground level and required height for measurement is 5 feet above ground level.
- Meets Requirement? – See notes below
- Comment – For this site intensity levels at the main exit/entry drive should be provided, but intensity levels at the main parking area and main building entry do not seem relevant, as there is a limited parking area and no designated main building (Building #3 at the office entrance could be of consideration). Photometric plan to be revised to measure the footcandle values at 5 feet above ground level and lighting intensity at the main exit/entry drive on the Construction Plan set.

B. Fixture Height

- Required – 25' or the height of the principal building, whichever is less, measured from the ground level to the centerline of the light source
- Proposed – Light poles stated as 15 ft. in height
- Meets Requirement? – Yes
- Comment – (none)

C. Fixture Type

- Required – Details of all lighting fixtures needed including specifications for shielding, wattage, and illumination
- Proposed – Specifications for proposed light fixtures are provided.
- Meets Requirement? – Yes
- Comment – (none)

Water Supply and Wastewater Disposal (Sec. 5.16)

The site is served by private well (water) and sanitary sewer.

Architecture / Building Materials (Sec. 5.24)**Architecture Comments:**

- Façade Materials Calculation – façade materials must comply with the specifications for Façade Materials Group #3; percentages for each warehouse building and end wall of each storage canopy are listed on Sheet A1 and A2.

The applicant did not provide elevation drawings and façade material calculations for every side of a warehouse building. In instances where the entire side of a building is garage doors or ribbed metal panels, staff has listed that as 100% metal even though there may also be a cornice detail along the top of the building (cement board). Where information is lacking, the percentage is listed as UK (unknown). For end walls facing interior to the site, a combination of garage doors (1 to 3 doors) and ribbed metal panels are proposed for Building 1, 2, 3, 4, 5, and 6. Elevations and façade percentages are not provided on Sheet A1 and A2.

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #01

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%
East	0.0%	0.0%	UK	0.0%	UK	UK
South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	61.8	24.84%	13.98%	0.0%	0.0%	0.0%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #02

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100.0%	0.0%
East	0.0%	0.0%	UK	0.0%	UK	UK
South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	61.18%	24.84%	13.98%	0.0%	0.0%	0.0%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #03

Elevation	C-Brick (not listed in Sec. 5.24)	Split- faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)	Entry doors (not listed in Sec. 5.24)
North	0.0%	0.0%	UK	0.0%	100%	UK	UK
East	0.0%	0.0%	UK	UK	UK	UK	UK

South	67.40%	24.47%	0.13%	4.84%	0.0%	0.0%	3.16%
West	67.66%	22.45%	9.89%	0.0%	0.0%	0.0%	0.0%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #04

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%
East*	UK	UK	UK	UK	UK	UK
South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	61.18%	24.84%	13.98%	0.0%	0.0%	0.0%

*Staff assumes the information listed for Building #4 on Sheet A2 has flipped the façade material information for the east and west end walls, as the east end wall faces US-23 and would have masonry products, and the west end wall is interior to the site and may have 1-3 garage doors/ribbed metal panels.

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #05

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%
East	61.18%	24.84%	13.98%	0.0%	0.0%	0.0%
South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	0.0%	0.0%	UK	0.0%	UK	UK

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #06

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%
East	61.8%	24.84%	13.98%	0.0%	0.0%	0.0%
South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	0.0%	0.0%	UK	0.0%	UK	UK

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #07

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%
East	61.18%	24.84%	13.98%	0.0%	0.0%	0.0%

South	0.0%	0.0%	UK	0.0%	100%	0.0%
West	61.18%	24.84%	13.98%	0.0%	0.0%	0.0%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Building #08

Elevation	C-Brick (not listed in Sec. 5.24)	Split- faced Block (75% max.)	Molded cornices (15% max.)	Glass (50% max.)	Metal Garage Doors (not listed in Sec. 5.24)	Exposed Concrete (not listed in Sec 5.24)	Ribbed Metal Panels (50% max.)
North	0.0%	0.0%	UK	0.0%	100%	0.0%	0.0%
East	46.34%	20.94%	11.78%	0.0%	0.0%	20.94%	0.0%
South	0.0%	0.0%	UK	0.0%	0.0%	0.0%	100%
West	46.34%	20.94%	11.78%	0.0%	0.0%	20.94%	0.0%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Canopy #01

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)
West	76.19%	17.59%	6.22%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Canopy #02

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)
East	76.19%	17.59%	6.22%

Materials Group #3: Proposed Façade Materials by Percentage by Elevation – Canopy #03

Elevation	C-Brick (not listed in Sec. 5.24)	Split-faced Block (75% max.)	Molded cornices (15% max.)
West	76.19%	17.59%	6.22%

- Colors: Earthtone colors are proposed for all products in tones of grey, beige, and brown. Barn red garage doors are proposed.
- General product information for each façade material is stated on the building elevations, however specific product information on each façade material should be submitted (product name, manufacturer name, and specific color name) or stated on the Construction Plan set.
- Materials: Façade material percentages for split-faced block, molded cornices, and glass comply with the Ordinance. Percentages are listed by elevation as indicated by the table; however additional information is required for remaining elevations where percentages and drawings were not provided, to be submitted with the Construction Plan set.
- Meets Requirement? – C-Brick is not listed as a Façade Material option. Per the applicant the block size is 4” tall by 16” in length and has a smooth-faced finish.
- Comment – Planning Commission to determine if C-Brick is an acceptable product for a façade material.

Other Requirements-Zoning Ordinance Standards/Comments

No comments at this time.

Hartland Township DPW Review

A review letter is provided from the Hartland Township DPW Director, dated November 8, 2022.

Hartland Township Engineer's Review (SDA)

The Township Engineer (SDA) has reviewed the plans and recommends approval subject to items being addressed in the letter dated November 7, 2022.

Hartland Deerfield Fire Authority Review

The Hartland Deerfield Fire Authority has reviewed the plans and provided comments in the letter dated November 3, 2022. Approval is subject to the contingencies being addressed as outlined in the letter.

Attachments:

1. Site Plans dated 10.18.2022
2. Example Drawings Premium CC building – *PDF version only*
3. Example Drawings Premium NCC Building – *PDF version only*
4. Example of Carport Structure 1 – *PDF version only*
5. Example of Carport Structure 2 – *PDF version only*
6. Example of Carport Structure 3 – *PDF version only*
7. Example of Carport Structure 4 – *PDF version only*
8. Applicant's summary dated 11.09.2022– *PDF version only*
9. PVA response letter to Township 11.03.2022 – *PDF version only*
10. Hartland Township DPW review letter, dated 11.08.2022 – *PDF version only*
11. Township Engineer (SDA) review letter dated 11.07.2022 – *PDF version only*
12. Hartland Deerfield Fire Authority review letter, dated 11.03.2022 – *PDF version only*

T:\PLANNING DEPARTMENT\PLANNING COMMISSION\2022 Planning Commission Activity\Site Plan Applications\SUP #22-015 Mini Storage Old US 23\Staff reports\Township Board\SUP #22-015 TB staff report 11.22.2022.docx

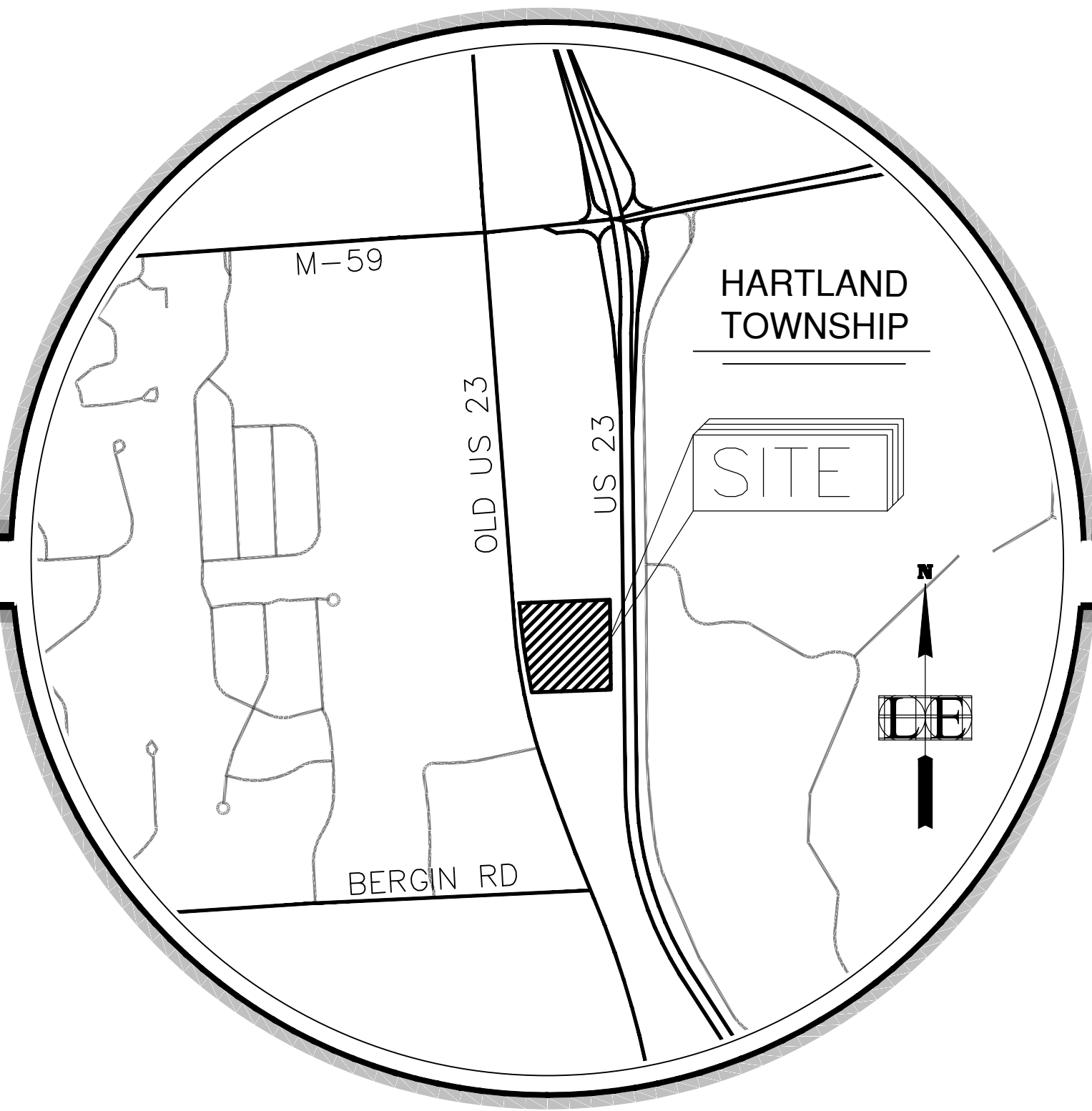
PRELIMINARY SITE PLAN FOR

OLD US 23 MINI-STORAGE

OLD US 23

TAX ID: 08-28-300-023

HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN



LOCATION MAP

NOT TO SCALE

PARKING CALCULATIONS

REQUIRED PARKING		
MINI OR SELF STORAGE WAREHOUSE	=	6 SPACES MINIMUM
PROVIDED PARKING		
TOTAL SPACES PROPOSED:	=	6 SPACES INCL./1 BARRIER FREE SPACE

SITE DATA TABLE

LOT AREA WIDTH	REQUIRED 40,000 SFT (min) 120 FT (min)	PROVIDED 11.90 AC. (518,484 SFT) 120 FT (min)
MAXIMUM LOT COVERAGE: BUILDINGS	75% (max)	130,922 SF / 518,484 SF = 25%
BUILDING SETBACKS: FRONT REAR SIDE NORTH (ZONED L1) SOUTH (ZONED L1)	REQUIRED 80 FT (min) 50 FT (min)	PROVIDED 80 FT 86.57 FT
	15 FT (min) 15 FT (min)	33.18 FT 142.08 FT
BUILDING DATA: BUILDING HEIGHT	REQUIRED 35 FT MAX	PROVIDED

GENERAL NOTES

- Property is zoned: L1, Light Industrial
- Site Use: Mini Storage
- Contractor is responsible for protecting all existing and proposed utilities from damage during all stages of construction.
- The engineer and applicable agency must approve, prior to construction, any alteration, or variance from these plans.
- Barrier Free parking spaces shall be marked with above grade sign in accordance with current ADA standards.
- All construction shall be performed in accordance with the current standards and specifications of the Hartland Township and Livingston County.
- The contractor shall contact Hartland Township 72 hours before beginning any construction.
- Three working days prior to any excavation, the Contractor shall telephone MISS DIG (800-482-7171) for the location of underground utilities and shall also notify representatives of other utilities located in the vicinity of the work. It shall be the Contractor's responsibility to verify and/or obtain any information necessary regarding the presence of underground utilities which might affect this job.

LEGAL DESCRIPTION

(per Warranty deed recorded in Liber 4315, Page 235, LCR)

Parcel 2:

Commencing at the South 1/4 corner of Section 28, Town 3 North, Range 6 East, Hartland Township, Livingston County, Michigan; thence North 89 degrees 11 minutes 14 seconds West 714.82 feet along the South line of said Section 28 to a point located on the East Right of Way line of Old US-23 Highway (120 feet wide); thence Northwesterly along said East Right of Way line of Old US-23 in the following two courses; North 17 degrees 33 minutes 35 seconds West 806.58 feet; Northwesterly 904.94 feet in the Arc of a curve to the right, Radius 5669.65 feet, Central Angle 08 degrees 08 minutes 42 seconds; Chord North 12 degrees 59 minutes 14 seconds West 903.98 feet to the point of beginning; thence continuing Northwesterly along said Right of Way 740.90 feet in the arc of a curve to the right, Radius 5669.65 feet, Central Angle 07 degrees 29 minutes 14 seconds, Chord North 04 degrees 40 minutes 15 seconds West 740.37 feet; thence South 88 degrees 42 minutes 49 seconds East 743.40 feet to the West Right of Way of US-23 Limited Access Expressway; thence South 02 degrees 41 minutes 03 seconds West 736.59 feet along said West Right of Way line of US-23 Limited Access Expressway; thence North 88 degrees 42 minutes 49 seconds West 648.59 feet to the point of beginning, being a part of the Southwest 1/4 of Section 28 Town 3 North, Range 6 East and being subject to other easements and restrictions of record, if any.

Tax Item No. 08-28-300-023

UTILITY DISCLAIMER



Know what's below.
Call before you dig.

Utilities as shown indicate approximate location of facilities only, as described by the various companies and no guarantee is given either as to the completeness or accuracy thereof. Contractor shall call "MISS DIG" at 811 or 1-800-482-7171 prior to the start of construction. Electric, gas, phone and television companies should be contacted prior to the commencement of field activities.

SHEET INDEX

- 1.0 COVER SHEET
- 2.0 EXISTING CONDITIONS & REMOVALS
- 3.0 SITE LAYOUT
- 4.0 UTILITY PLAN
- 5.0 GRADING & SESC
- 6.0 STORM WATER MANAGEMENT PLAN
- 7.0 DETAILS & SESC NOTES

LP-1 LANDSCAPE PLANTING PLAN

P1 PHOTOMETRIC PLAN

- A1 OFFICE AREA PLAN AND ELEVATIONS
- A2 END WALL ELEVATIONS

LEGEND

	EXISTING > 000.00	PROPOSED > 000.00
SPOT GRADE	---	---
CONTOUR	--- 000 ---	--- 000 ---
SANITARY SEWER	--- C.O. --- SAN ---	--- C.O. --- SAN ---
STORM SEWER	--- ST ---	--- ST ---
WATER	---	---
OVERHEAD	---	---
FENCE	---	---
GAS	---	---
ELECTRIC	---	---
DRAINAGE AREA BOUNDARY	---	---
LIMITS OF DISTURBANCE	---	---
SILT FENCE	---	---
SIGN	---	---
LIGHT POLE	---	---
UTILITY POLE	---	---
DECIDUOUS TREE	---	---
GATE VALVE IN WELL	---	---

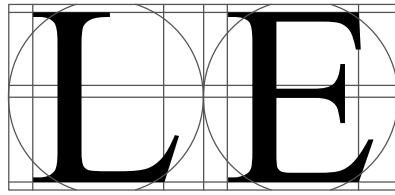
LANDSCAPE ARCHITECT

J EPPINK PARTNERS, INC
9336 SASHABAW ROAD
CLARKSTON, MI 48348
PHONE: (248) 922-0789

OWNER

JERRAD BEAUCHAMP
872 N OLD US 23
BRIGHTON, MI 48843
PHONE: (810) 632-2000

ENGINEER



LIVINGSTON ENGINEERING
CIVIL ENGINEERING SURVEYING PLANNING
3300 S. OLD U.S.23 , BRIGHTON, MI 48114
PHONE: (810) 225-7100 FAX: (810) 225-7699

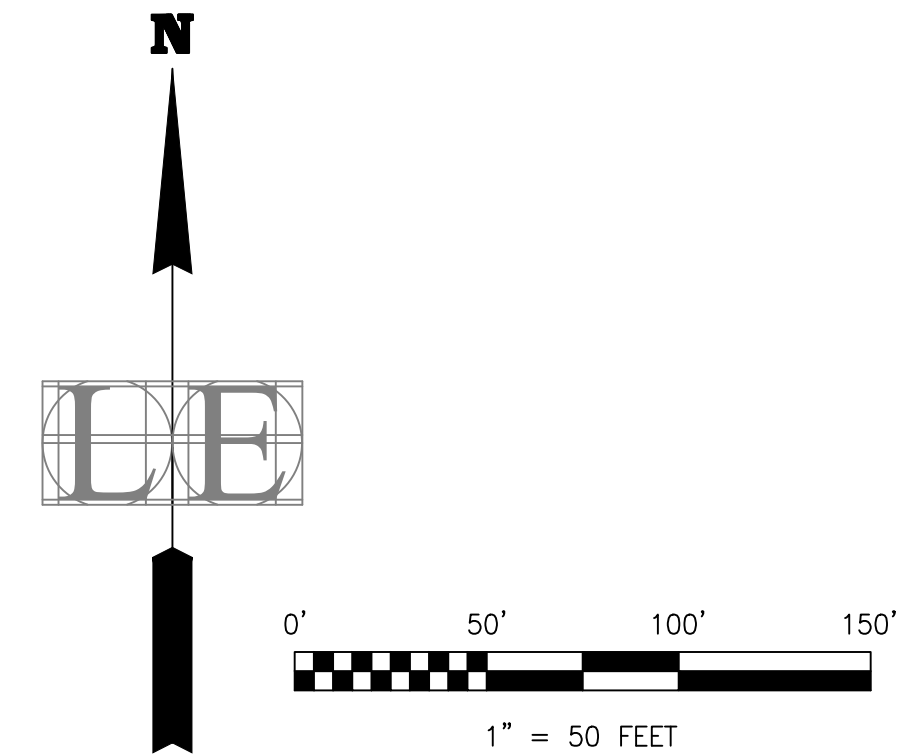
OLD US 23 MINI-STORAGE
HARTLAND TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN
PRELIMINARY SITE PLAN

REVISIONS	DATE
WETLAND RETAINING WALL	10/18/22

PROJECT No. 21117
SHEET 1 OF 11
DATE: JULY 25, 2022

ENGINEER'S SEAL

EXISTING CONDITIONS & REMOVALS



- ## LEGEND

WATER LINE				W
STORM SEWER				ST
SANITARY SEWER				SAN
SECTION CORNER				
FOUND IRON ROD				
SET IRON ROD				
FOUND MONUMENT				
TRAVERSE POINT-SET				
BENCHMARK				
				— X —
FENCE				
OVERHEAD UTILITIES				
GUY POST				
GUY WIRE				
UTILITY POLE				
LIGHT POLE				
ELECTRIC BOX				
ELECTRIC METER				
EXISTING GAS LINE (FLAGGED BY OTHERS)				
GAS METER				
GAS SHUTOFF VALVE				
				— GAS —
COMMUNICATION BOX				
COMMUNICATION HANDHOLE				
COMMUNICATION MANHOLE				
COMMUNICATION LINE				
				— T —
SOIL TYPE BOUNDARY				
SOIL TYPE				
FrE				
STOP SIGN				
WARNING GAS PIPELINE				
TEMPLE ROAD				
NO PARKING				
25 MPH				

BENCHMARKS

BENCHMARK #300
BENCH TIE IN THE E.
SIDE UTILITY POLE
ELEVATION= 978.57
(NAVDB88)

BENCHMARK #301
BENCH TIE IN THE SE.
SIDE UTILITY POLE
ELEVATION= 979.34
(NAVDB88)

BENCHMARK #302
BENCH TIE IN THE NE.
SIDE OF UTILITY POLE
ELEVATION= 980.91
(NAVDB88)

BENCHMARK #303
NAIL IN THE N. SIDE OF
A UTILITY POLE. LOCATED
AT THE SW. CORNER OF
PAGE
ELEVATION= 978.50
(NAVDB88)

TOPOGRAPHIC SURVEY NOTES:

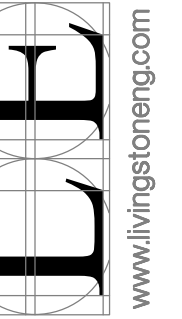
1. A BOUNDARY SURVEY WAS NOT PERFORMED. PROPERTY LINES ARE BASED ON RECORD SURVEY BY MIDWESTERN CONSULTING (L2594.P.737).
2. NORTHINGS AND EASTINGS SHOWN ON THIS DRAWING ARE BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE INTERNATIONAL FEET (NAD83), ELEVATION BASED UPON NAVD83 DATUM FROM RTK GPS OBSERVATIONS.
3. WETLAND BOUNDARIES ARE BASED ON DELINEATION BY ASTI ENVIRONMENTAL AND PROVIDED BY OWNER.
4. ASTI ENVIRONMENTAL COMPLETED A SITE INSPECTION ON JULY 7, 2021, AND PROVIDED AN ASSESSMENT REPORT DATED JULY 12, 2021.
5. PER ASTI ASSESSMENT, WETLAND A IS REGULATED, AND WETLANDS B AND C ARE UNREGULATED.

USDA NRCS SOIL SURVEY SOIL TYPES:

USDA NRCS SOIL SURVEY SOIL TYPES:	
Bta	BOYER-OSTHEMO LOAMY SANDS, 0 TO 2 PERCENT SLOPES
MoB	WAWASEE LOAM, 2 TO 6 PERCENT SLOPES
MoC	WAWASEE LOAM, 6 TO 12 PERCENT SLOPES
Pc	PEWAMO CLAY LOAM

22022

LIVINGSTON ENGINEERING
CIVIL ENGINEERING SURVEYING PLANNING
3300 S. OLD U.S. 23, BRIGHTON, MI 48114
PHONE: (810) 225-7100 FAX: (810) 225-7699



372 N OLD US 23
BRIGHTON, MI 48114
310-632-2000

PORTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN

PRELIMINARY SITE PLAN EXISTING CONDITIONS & REMOVALS

[illegible]

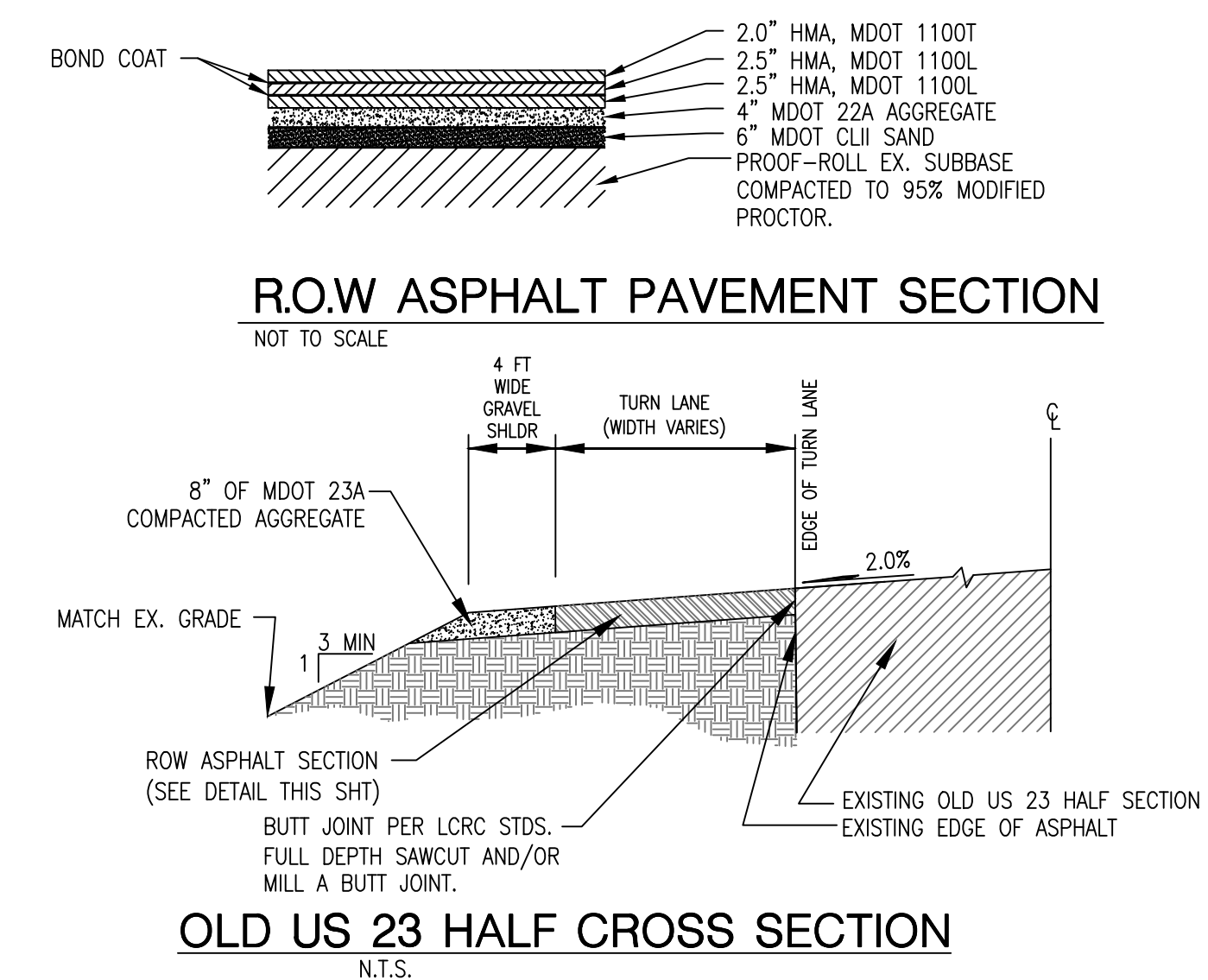
$r = 50'$

Checked: TJZ
Approved: TJZ
Date: 7/25/2022

Scale:
Vertical:
Horizontal:

C

1. ALL UTILITY COMPANIES SHALL BE CONTACTED PRIOR TO CONSTRUCTION AND ALL UTILITIES LOCATED. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO ENGINEER FOR RESOLUTION PRIOR TO COMMENCING CONSTRUCTION.
2. ALL SIDEWALK RAMP TO MEET CURRENT ADA GUIDELINES AND SPECIFICATIONS.
3. ALL DIMENSIONS TO CURB ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED.
4. UNDERGROUND ELECTRIC & GAS CONNECTION WILL BE PROVIDED AS DETERMINED BY UTILITY COMPANY.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH HARTLAND TOWNSHIP & LIVINGSTON COUNTY STANDARDS AND SPECIFICATIONS.
6. ALL WORK DONE IN THE RIGHT-OF-WAY SHALL BE DONE IN CONFORMANCE WITH CURRENT LIVINGSTON COUNTY ROAD COMMISSION STANDARDS AND PERMIT PROVISIONS.



EXISTING

12"W - W

12"S - SAN

12" - ST

PROPOSED

8"W

12"S - SAN

12" - ST

WATER MAIN

GATE VALVE & WELL, GATE VALVE & BOX, HYDRANT

SANITARY SEWER

MANHOLE, CLEANOOUT

STORM SEWER

CATCH BASIN, MANHOLE

1. ALL SANITARY SEWER, STORM SEWER, & WATER MAIN SHALL BE DESIGNED AND CONSTRUCTED TO MEET HARTLAND TOWNSHIP STANDARDS.
2. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN ACCORDANCE TO HARTLAND TOWNSHIP STANDARDS.
3. THE DEVELOPMENT SHALL BE SERVICED BY SANITARY SEWER AND WATER MAIN. ALL LOTS SHALL BE SERVICED BY INDIVIDUAL SANITARY AND WATER LEADS.
4. SEE SHEET 6 FOR PROPOSED DETENTION BASIN DETAIL AND STORM WATER MANAGEMENT PLAN.
5. HARTLAND TOWNSHIP STANDARD DETAILS SHALL BE USED FOR ALL APPLICABLE CONSTRUCTION ACTIVITIES. THESE STANDARD DETAILS WILL BE PROVIDED IN THE FINAL SITE PLAN PACKAGE.

1. STORM SEWER TO BE RCP C76 CLIV UNLESS OTHERWISE NOTED.
2. ALL PIPE LENGTHS SHOWN ARE FROM ϕ TO ϕ OF STRUCTURE OR FROM ϕ OF STRUCTURE TO END OF FLARED END SECTION.
3. ALL STORM SEWER WITHIN 1:1 SLOPE INFLUENCE OF EXISTING OR PROPOSED PAVEMENT SHALL HAVE COMPACTED SAND BACKFILL.
4. MAINTAIN A MIN. OF 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.

1. SANITARY LEAD SHALL BE 6" SCH 40 PVC PIPE LAID AT A MIN. 1% GRADE.
2. ALL PIPE LENGTHS SHOWN ARE FROM E TO E OF STRUCTURE.
3. ALL SEWER WITHIN 1:1 SLOPE INFLUENCE OF EXISTING OR PROPOSED PIPEMENT SHALL HAVE COMPACTED SAND BACKFILL.
4. MAINTAIN A MIN. OF 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.
5. TREES AND OTHER LANDSCAPE PLANTINGS CANNOT BLOCK ACCESS TO ANY OF THE SANITARY SEWER MANHOLES THAT ARE LOCATED OFF THE STREET WITHIN THE SEWER UTILITY EASEMENT.

1. WATER SERVICE LEADS SHALL BE 2" DIA. TYPE 'K' COPPER
2. MAINTAIN A MIN. OF 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.
3. WELL SHALL BE INSTALLED ACCORDING TO LIVINGSTON COUNTY HEALTH DEPARTMENT STANDARDS AND PERMIT PROVISIONS.

GRADING & SESC PLAN

LEGEND

EXISTING PROPOSED

CONTOUR 100

LIMITS OF CLEARING/GRADING

SILT FENCE SF

CATCH BASIN FILTER

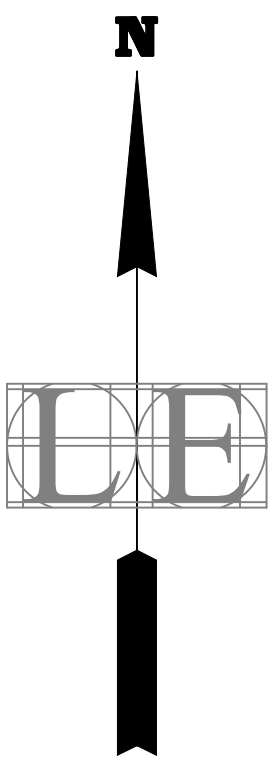
SPOT GRADE ABBREVIATIONS LIST

- TP == TOP OF PAVEMENT
TW == TOP OF WALK
EM == EDGE OF METAL
BC == BACK OF CURB
M == MATCH EXISTING GRADE
EX == EXISTING GRADE

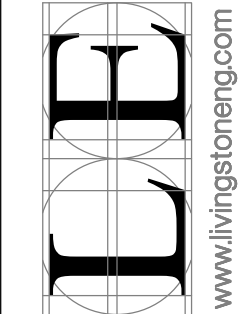
TOTAL DISTURBED AREA
514,724 S.F. (11.82 AC.)

PROPOSED CONSTRUCTION SCHEDULE FOR THE YEAR 2023

ACTIVITY	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
INSTALL TEMPORARY SESC MEASURES	-								
CLEAR & GRUB									
MASS GRADING									
UTILITIES & FINAL GRADING									
BUILDING CONSTRUCTION									
PAVING									
FINAL STABILIZATION SEED & MULCH									



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Client
BEAUCHAMP
872 N OLD US 23
BRIGHTON, MI 48114
810-632-2000

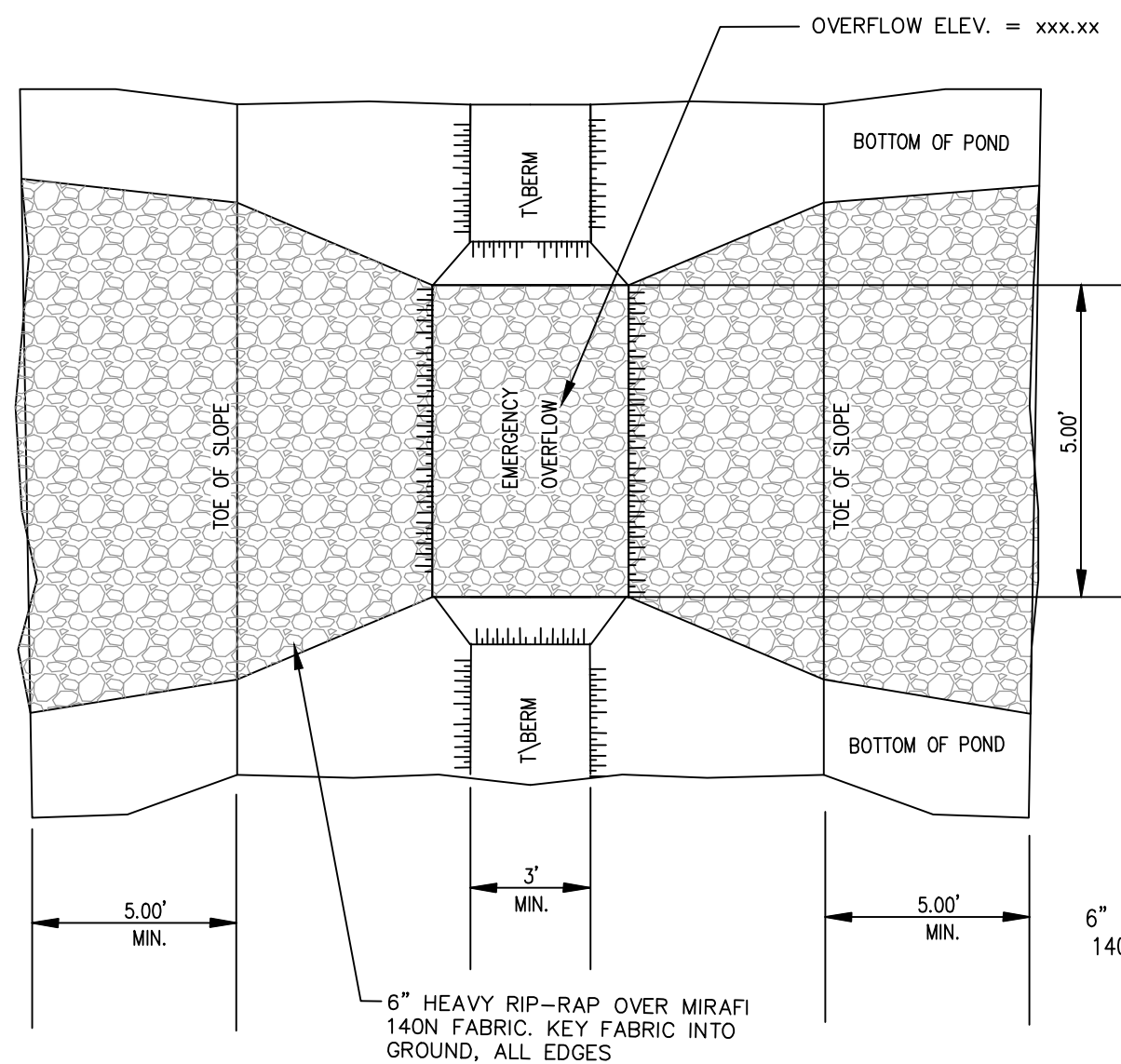
OLD US 23 MINI STORAGE
HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
PRELIMINARY SITE PLAN
GRADING & SESC PLAN

REVISIONS	DATE
WETLAND RETAINING WALL	10/18/2022

Drawn: M.B.	Checked: T.J.	Approved: T.J.	Date: 7/25/2022
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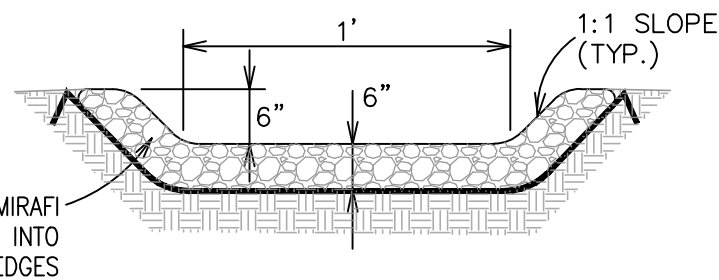
Job no. 21117	Scale:	Vertical: T = 40'	Horizontal:
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DETAILS & SESC NOTES

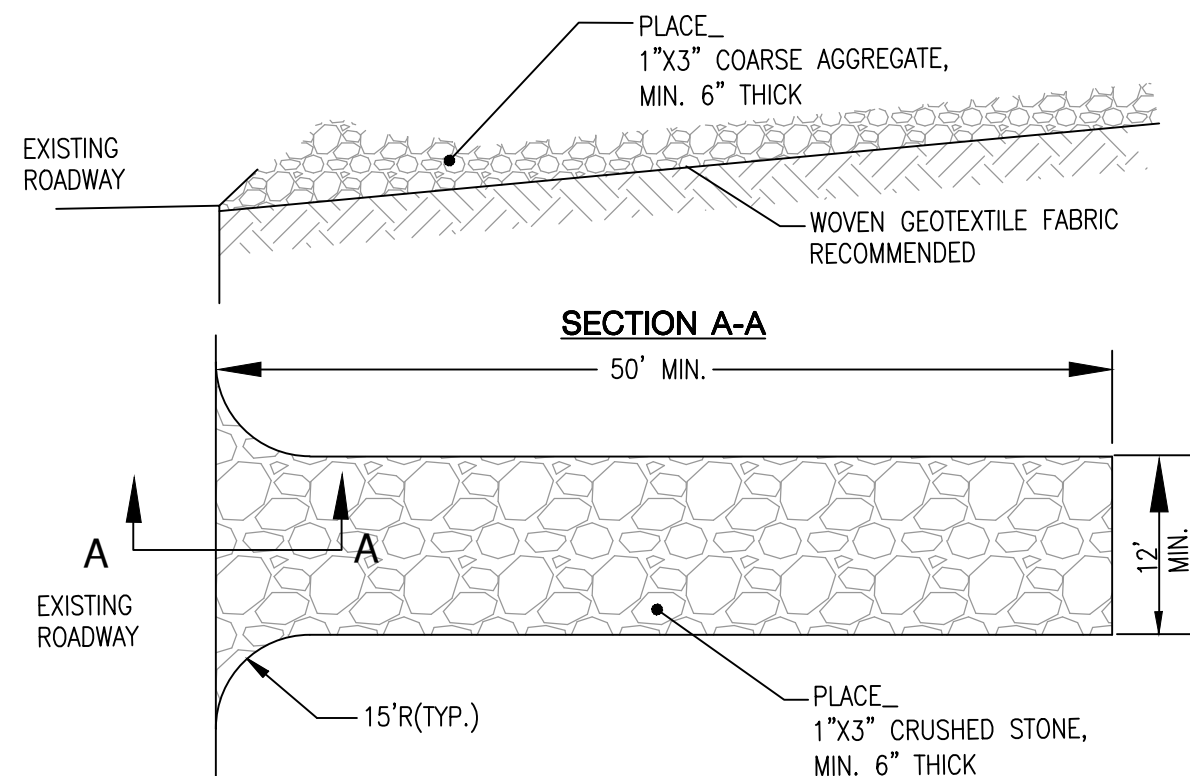


EMERGENCY SPILLWAY DETAIL
NOT TO SCALE

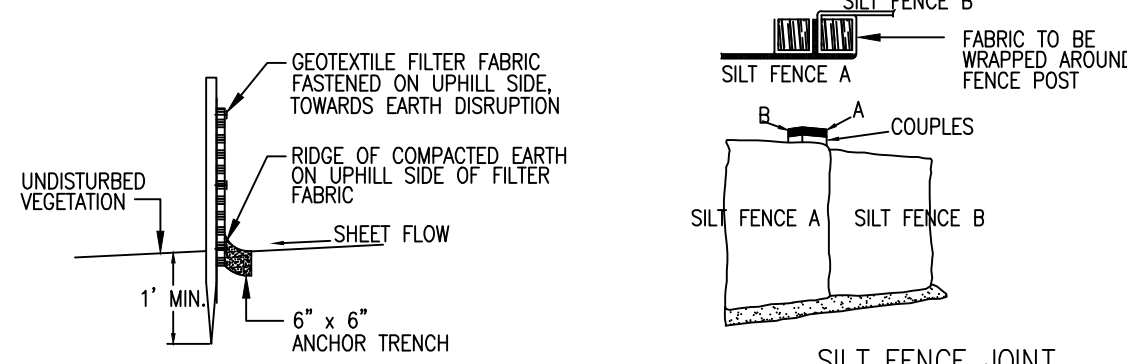
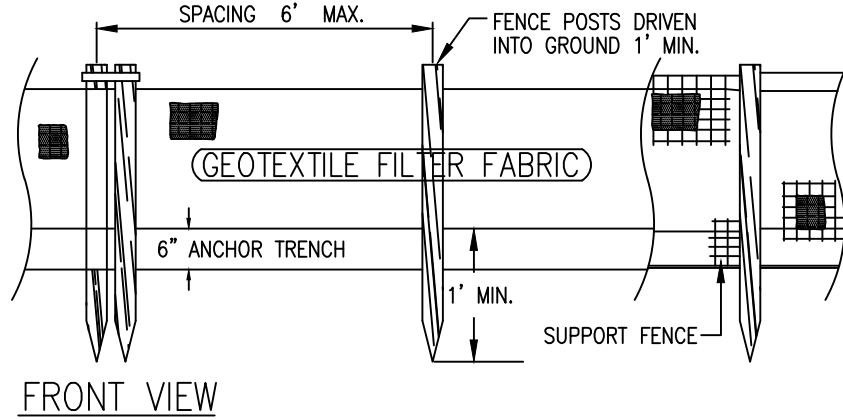
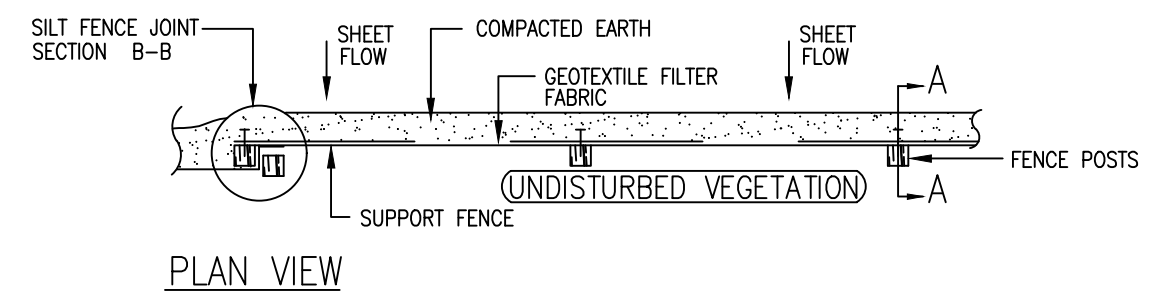
- SPILLWAY NOTES:**
1. CONNECT SPILLWAY TO END SECTION RIP RAP.
 2. KEY GEOTEXTILE FABRIC INTO GROUND ON ALL EDGES.
 3. INSTALL THE SPILLWAY DOWN THE SLOPE OF THE POND AND TERMINATE SPILLWAY WITH RIP RAP AT THE BOTTOM OF THE POND ELEVATION. RIP RAP TERMINATION TO MATCH THE END SECTION - RIP RAP DETAIL FOR A 12" PIPE.



RIP RAP SPILLWAY
NOT TO SCALE

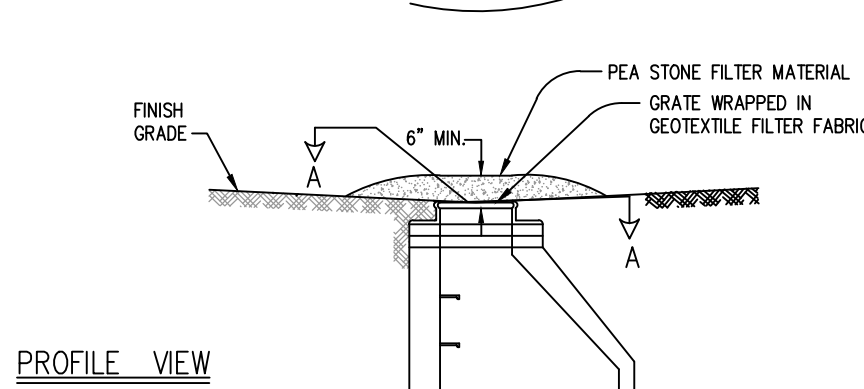
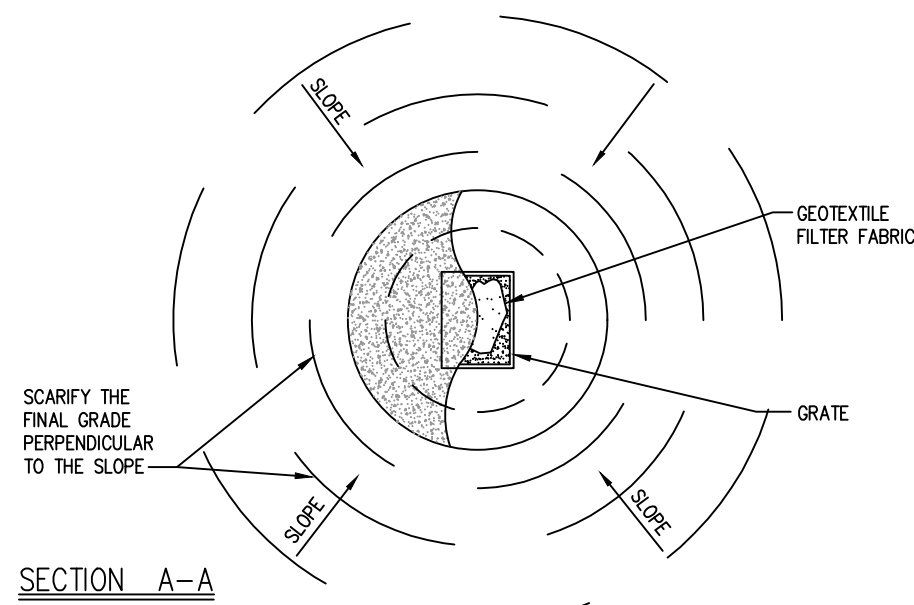


MUD TRACKING MAT DETAIL



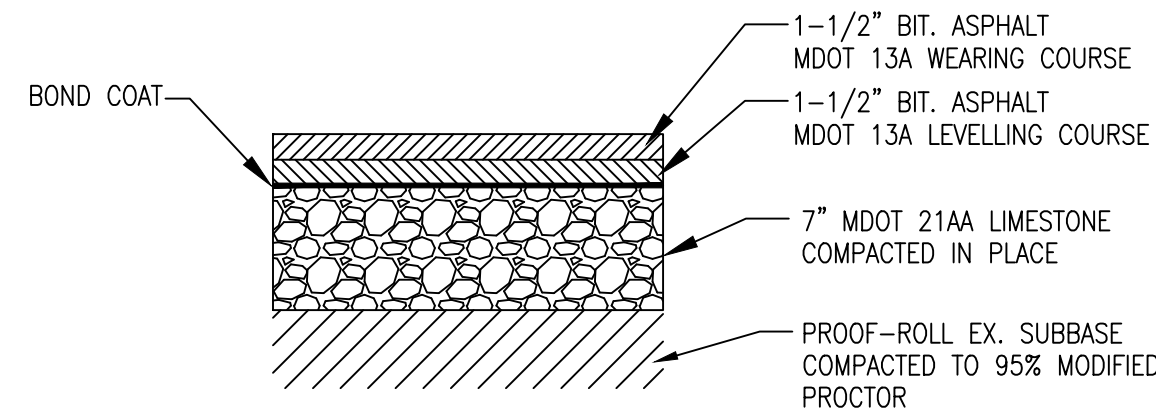
SECTION A-A **SECTION B-B**

36" SILT FENCE

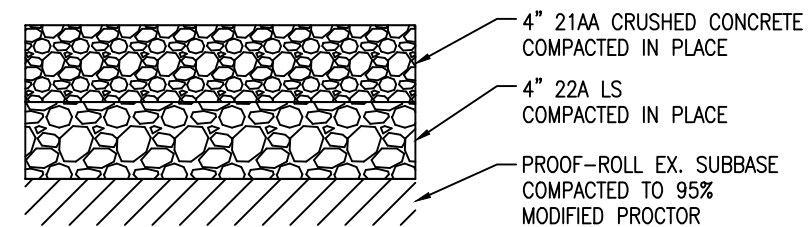


PROFILE VIEW

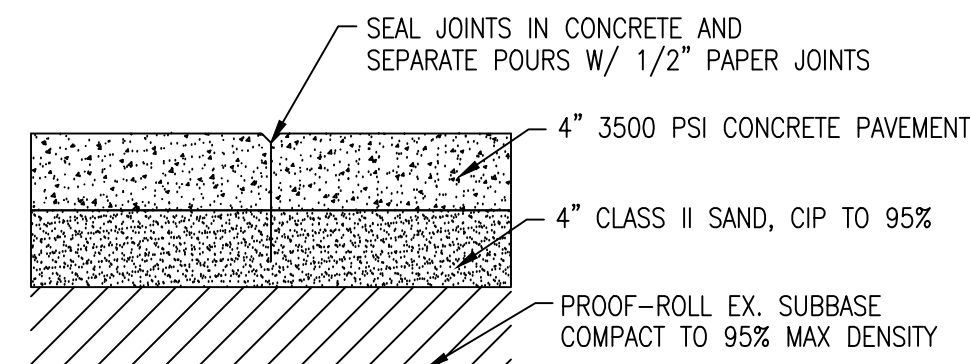
LOW POINT INLET FILTER (SI-2)



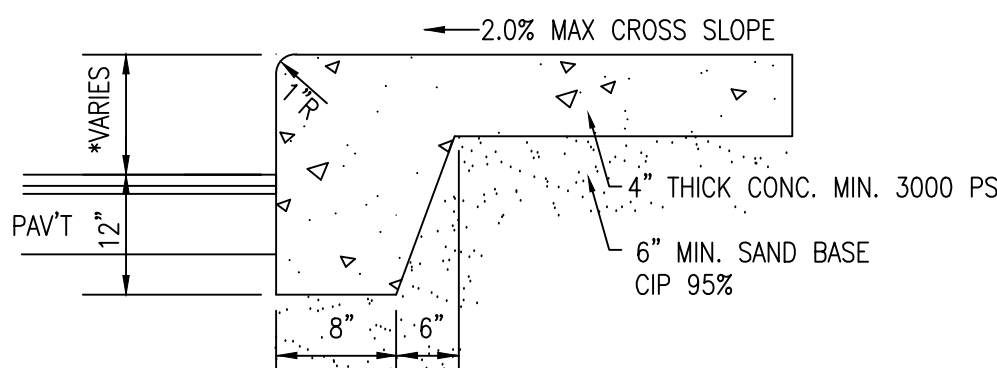
A ASPHALT PAVEMENT SECTION
NOT TO SCALE



B HEAVY DUTY GRAVEL PAVEMENT SECTION
NOT TO SCALE

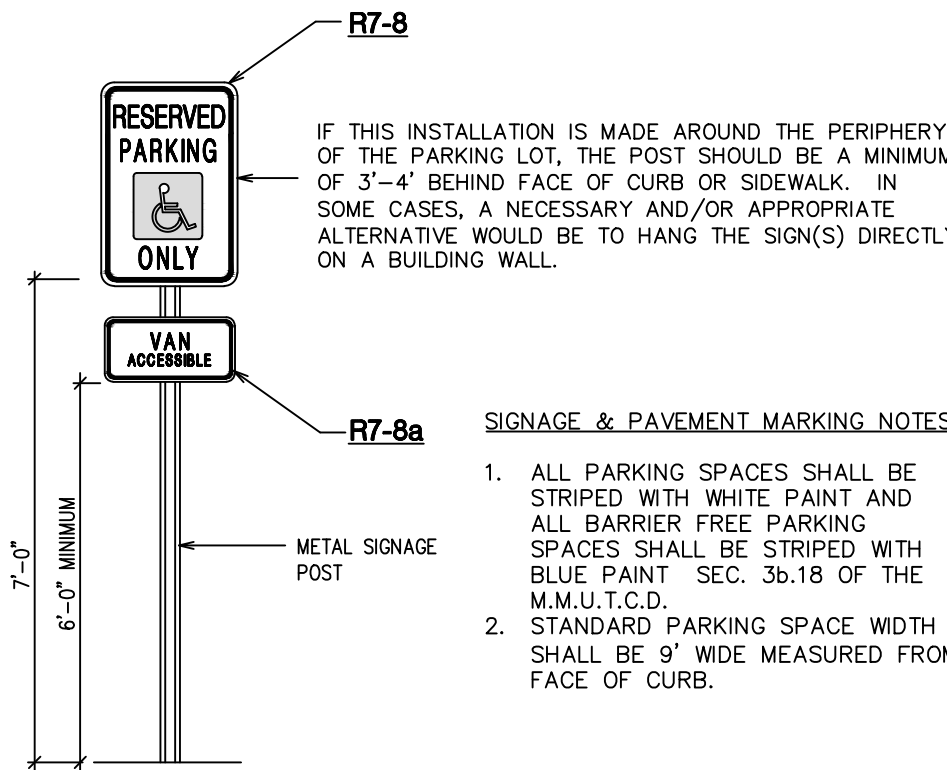


C CONCRETE SIDEWALK SECTION
** FOR USE IN SIDEWALK AREAS THAT DO NOT ADJUT PAVEMENT**
NOT TO SCALE



* NOTE: 0" IN AREAS WHERE T/P & T/W ARE FLUSH. ALL OTHER AREAS WALK IS 6" ABOVE ADJACENT PAVEMENT.

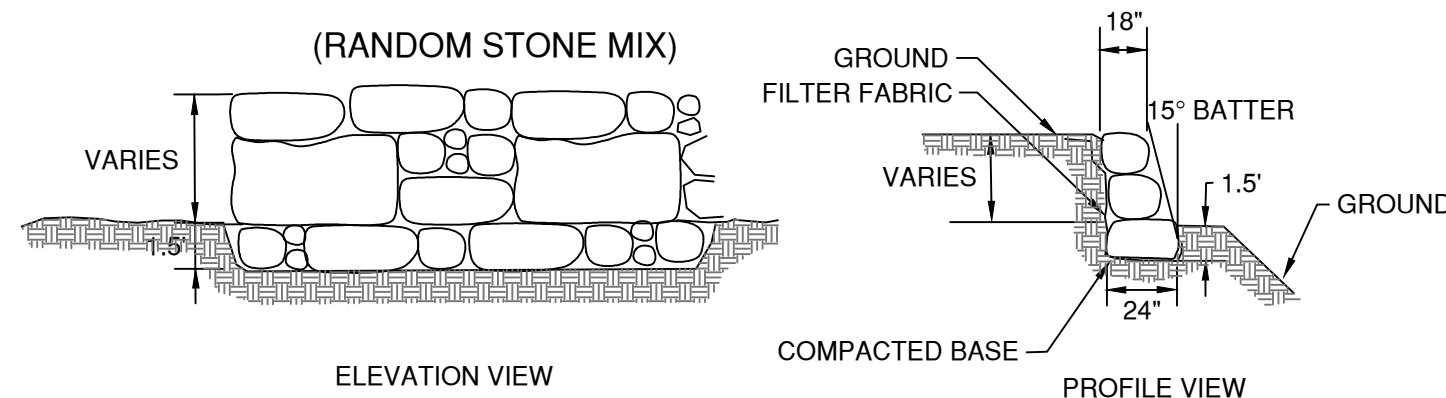
F CURB FACE WALK
NOT TO SCALE



SIGNAGE & PAVEMENT MARKING NOTES

1. ALL PARKING SPACES SHALL BE STRIPED WITH WHITE PAINT AND ALL BARRIER FREE PARKING SPACES SHALL BE STRIPED WITH BLUE PAINT SEC. 3b-18 OF THE M.M.U.T.C.D.
2. STANDARD PARKING SPACE WIDTH SHALL BE 9' WIDE MEASURED FROM FACE OF CURB.

E BARRIER FREE SIGN
NOT TO SCALE



F BOULDER RETAINING WALL
NOT TO SCALE

Livingston County Soil Erosion Control Temporary Controls And Sequence of Construction

1. NOTIFY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO THE START OF GRADE WORK.
2. IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974, THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK
3. (IMPORTANT NOTICE) DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
4. SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.
5. ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO START OF MASSIVE EARTH DISRUPTION.
6. PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 75 LINEAR FEET.
7. TOPSOIL OR SOIL STORAGE AREAS SHALL BE SEEDED AND MULCHED OR MATTED WITH STRAW, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION

DETENTION PONDS

8. DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
9. DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND PER ACRE. POND DWS SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD.
10. DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
11. ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE FOR THE EXCAVATION STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
12. SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.
13. PRIOR TO COMPLETION OF THE PROJECT, STONE AROUND OUTLET STANDPIPE SHALL BE REFRESHED WITH CLEAN STONE.

SLOPES

14. SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE. SLOPES STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL SHALL HAVE STAKED MULCH BLANKETS OR SOD TO MINIMIZE THE CHANGE FOR EROSION.

STORM DRAINS

15. ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
16. PAVEMENT ADJACENT TO STREET STORMWATER INLET STRUCTURES SHALL BE CUT OUT AFTER THE FIRST COAT OF PAWING, CONCRETE SHALL BE POURED AND A SECOND LAYER OF ASPHALT LAID OVER THE CONCRETE. CUT RINGS AND CASTINGS SHALL BE CENTERED AT THIS TIME. GROUTING AND POINTING SHALL ALSO BE DONE AT THIS TIME TO PREVENT LEAKAGE INTO THE STRUCTURES AND THE RESULTING SOIL MOVEMENT.
17. STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL, A STRAW BALE BARRIER AND A STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. DEPTH CAN BE USED, DUE TO THE POROSITY OF THE BURLAP FILTER THE 1 FT OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
18. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
19. COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
20. ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.
21. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
22. ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE DETENTION POND SHALL HAVE A TEMPORARY 5'-10'x3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
23. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER COBBLE STONE.
24. RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS THE DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
25. RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.
26. IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

STABILIZATION

27. ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOPSOILED WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
28. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.
29. PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
30. THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES, AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND/OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
31. THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN RECEIVED.

SEQUENCE OF CONSTRUCTION:

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PER PLAN.
2. PERFORM SITE DEMOLITION REQUIRED.
3. INSTALL STORM DRAINAGE SYSTEM INCLUDING DETENTION BASINS; INSTALL INLET FILTERS.
4. ROUGH GRADE SITE & STORE SOIL.
5. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES, AS REQUIRED.
6. BRING PAVEMENT AREAS TO SUB-BASE; PLACE SUB-BASE; REMOVE PARKING LOT INLET FILTER AND PLACE ASPHALT PAVEMENT.
7. FINISH GRADE, REDISTRIBUTED TOPSOIL, SEED & MULCH ALL DISTURBED AREAS.
8. REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES; SEED AND MULCH ALL REMAINING UNSTABILIZED AREAS.

SEEDING, FERTILIZER AND MULCH BARE GROUND RATIO:

- TOP-SOIL 3" IN DEPTH
- GRASS SEED 210 LBS./AC.
- FERTILIZER 150 LBS./AC.
- STRAW MULCH 3" IN DEPTH, 1.5 TO 2 TONS / AC. (ALL MULCHING MUST HAVE A TIE DOWN - ASPHALT TACKIFIER, NET BINDING, ETC.)
- HYDROSEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

1. SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
2. TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOCKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
3. DETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
4. CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
5. COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).

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3300 S. OLD US 23, BRIGHTON, MI 48114
PHONE: (810) 225-7100 FAX: (810) 225-7699

LE
www.livingstoneng.com

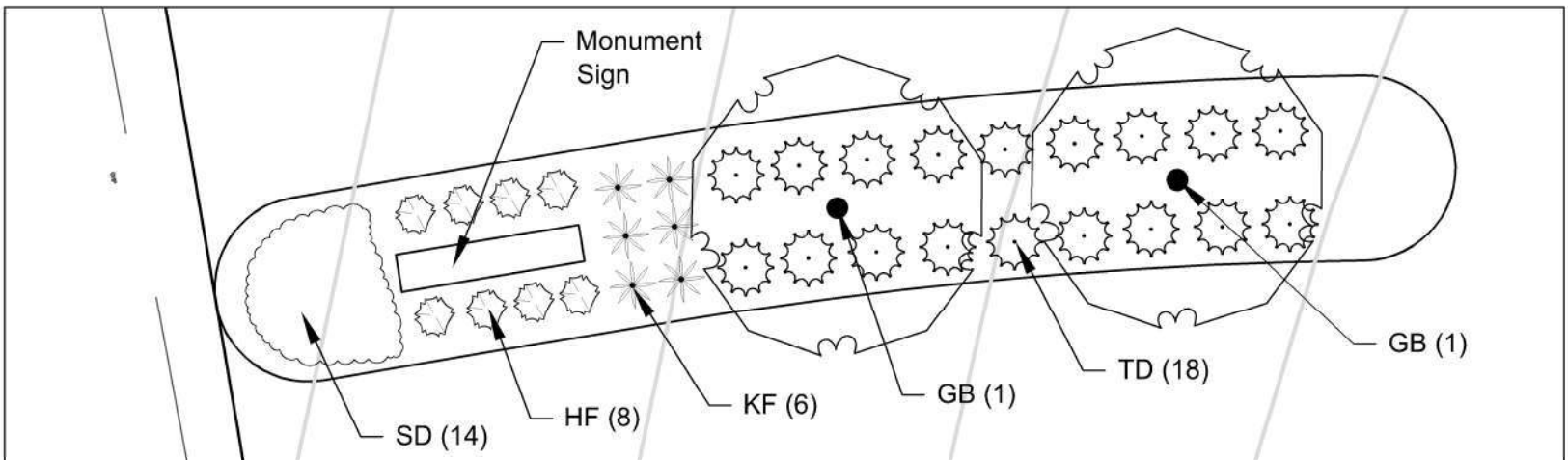
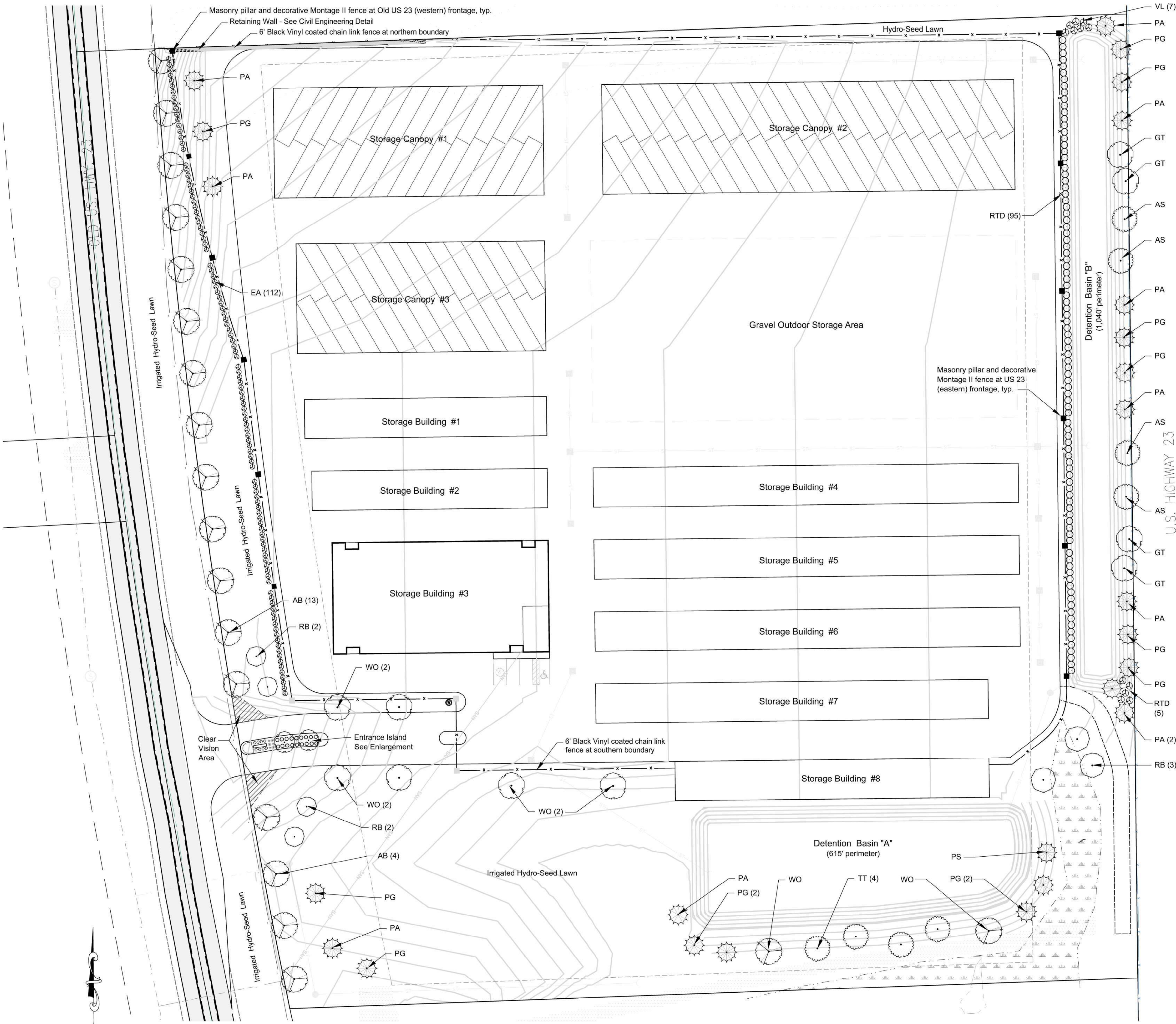
Client
BEAUCHAMP
872 N OLD US 23
BRIGHTON, MI 48114
810-632-2000

OLD US 23 MINI STORAGE
HARTLAND TOWNSHIP, LIVINGSTON COUNTY, MICHIGAN
PRELIMINARY SITE PLAN
DETAILS & SESC NOTES

DATE	10/18/2022
REVISIONS	WETLAND RETAINING WALL

Drawn: MJB	Checked: TJZ	Approved: TJZ	Date: 7/25/2022
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Job no. 21117	Scale:	Vertical: NOT TO SCALE	Horizontal: NOT TO SCALE
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LANDSCAPE ENTRANCE ISLAND :

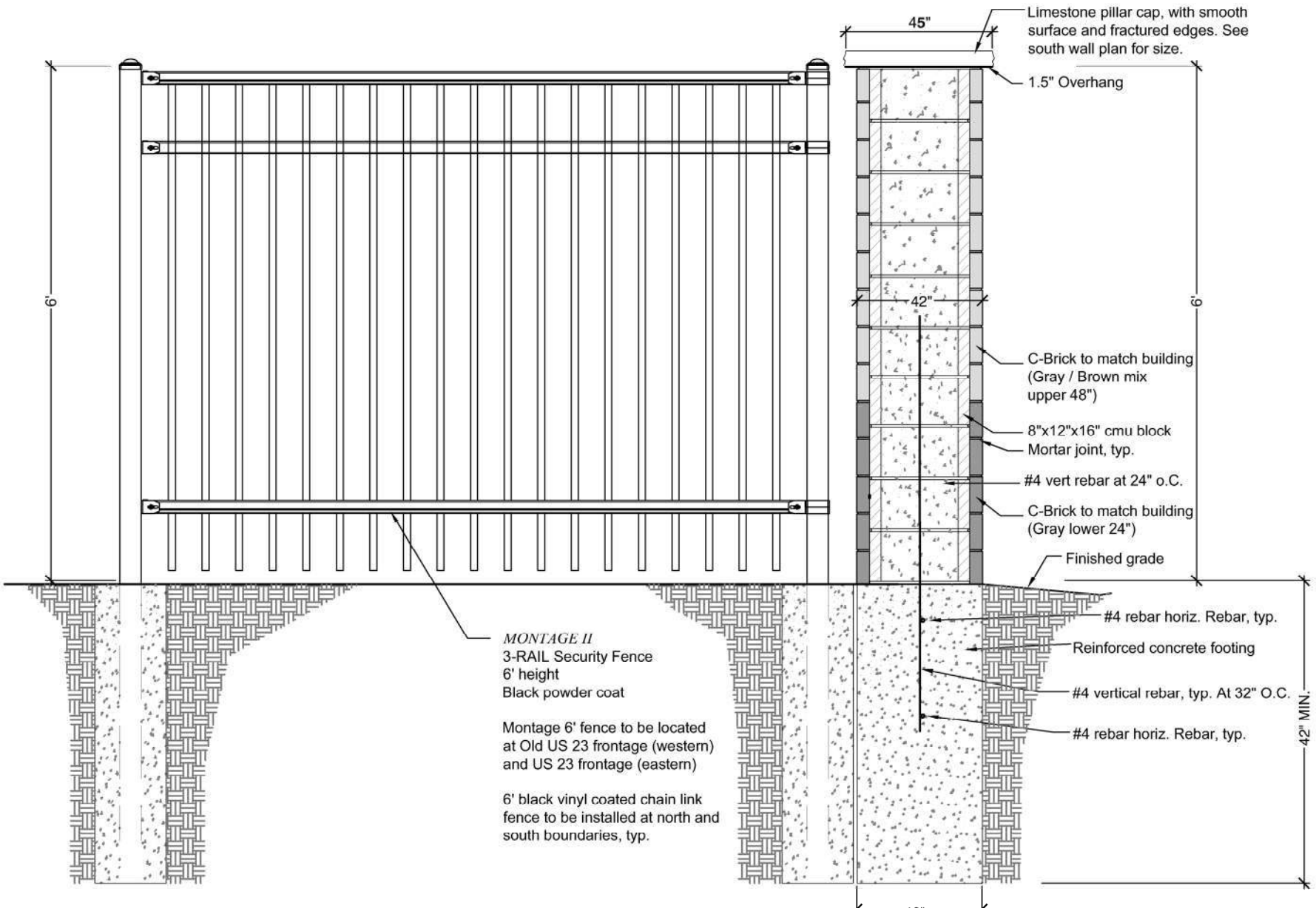
SCALE : 1" = 10'

PLANT LIST:

SYMB.	QTY.	DESCRIPTION	NOTES
AB	17	Acer rubrum 'Autum Red' Autumn Blaze Red Maple, 3" cal.	B&B
RB	7	Betula nigra River Birch, 8' - 10'	B&B multi-stem
GB	2	Ginkgo biloba Maidenhair Tree, 3" cal.	B&B
GT	4	Gleditsia triacanthos 'Sunburst' Sunburst Locust, 3" cal.	B&B
TT	4	Liriodendron tulipifera Tulip Tree, 3" cal.	B&B
PA	12	Picea abies Norway Spruce, 8'	B&B
PG	13	Picea glauca White Spruce, 8'	B&B
LLL	4	Tilia cordata Little Leaf Linden, 3" cal.	B&B
WO	6	Quercus bicolor Swamp White Oak, 3" cal.	B&B
KF	6	Calamagrostis x acutiflora Karl Foerster Reed Grass, 2 gal.	Container
RTD	100	Cornus sericea Red Twig Dogwood, 42"	B&B
EA	112	Euonymus alatus compactus Dwarf Burning Bush, 36"	B&B
SD	14	Hosta franciae Stella D'Ora Daylily, 1 gal	Container
HF	8	Hosta franciae Variegated Hosta, 2 gal.	Container

PLANTING NOTES :

- Contractor shall be responsible for contacting all pertinent utility companies 72 hours in advance of digging to make themselves familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for any cost incurred due to damage of said utilities or structures.
- Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or grade differences exist. Such conditions shall immediately be brought to the attention of the Owner's Representative. The contractor shall assume full responsibility for all necessary revisions due to failure to give such notification.
- Any discrepancies between dimensioned layout and actual field conditions shall be reported to the Owner's Representative. Failure to make such discrepancies known will result in contractor's responsibility and liability for any changes and associated costs.
- Contractor shall be responsible for coordination with subcontractors required to accomplish construction installation operations.
- Contractor shall provide and maintain positive surface drainage throughout project site.
- Contractor shall be responsible for any existing materials that are damaged during construction.
- See Plant & Material List and Planting Details for planting requirements, materials and execution.
- All tree varieties and substitutions, or deviations to the landscape plan must be approved prior to installation. Any plant material delivered to site not previously approved may be rejected and is the sole responsibility of the contractor.
- The contractor shall provide finish grade and install hydroseeded at all lawn areas. Contractor shall install an automated irrigation system to provide coverage to all lawn and landscape areas.
- Contractor shall install 3" depth Shredded Hardwood Mulch in all shrub and tree planting beds and at the base of trees, typ.
- Contractor shall coordinate lawn installation and planting bed construction in conjunction with the timing of other building construction and improvements.
- The contractor shall guarantee and maintain all trees, shrubs, ground cover and other plant materials for one year from the date of installation, including labor and removal and disposal of dead material.
- All plant material shall be grade 1 northern nursery grown from a local source and shall meet the current standards of the American Society of Nurseryman.
- Contractor shall adhere to all soil erosion prevention methods as directed within civil engineering drawings and Municipal Ordinance including maintaining silt fencing and ensuring that soil, silt and other debris is prevented from leaving site or entering area drains, sewer inlets, creeks or natural areas.



MASONRY PILLAR AND FENCE DETAIL:

ORDINANCE REQUIREMENTS:

Hartland Township Zoning Ordinance Section 5.11

GREENBELT:
Old US 23 = 740' lin ft.
Canopy (Evergreen) Tree: Standard = 1 tree per 30'
740 / 30 = 24.6
25 Canopy / Evergreen Req.
Ornamental Tree / Shrub: Standard = 3 trees per 1st
40' Standard = 1 / remaining 20'
1st 40' = 3
700 / 20 = 35
35 Ornamental Trees Req.
35 Shrubs Req.

	Required	Provided
Canopy Tree:	25	25
Ornamental Tree:	3	3
Shrub:	35	96

FOUNDATION:
Landscape / lawn area is not planned at the perimeter of the main building or within the secure fenced yard.

PARKING LOT:
Interior: 4 parking spaces provided.
Interior Parking Lot landscape not required
Perimeter: 4 parking spaces provided.
Perimeter Parking Lot landscape not required

BUFFERING:
Subject property abuts same zoning classification and does not abut residential zone or uses.
Buffer landscape not required.

DETENTION BASIN:
Canopy (Evergreen) Tree: Standard = 1 tree per 50'
Large Shrub: Standard = 6 shrubs per 50'
Detention Basin A = 615' lin ft. perimeter
615 / 50 = 12.3
12 Canopy / Evergreen Req.
615 / 50 = 12 x 6 = 72
72 Shrubs Req.
Detention Basin B = 1,040' lin ft. perimeter
1,040 / 50 = 20.8
21 Canopy / Evergreen Req.
1,040 / 50 = 21 x 6 = 126
126 Shrubs Req.

Total	Required	Provided
Canopy Tree:	33	33
Shrub:	198"	126

* Detention Basin "A" is adjacent to an existing wetland. Detention basin shrubs were not provided at Basin "A" in lieu of existing wetland plant and scrub growth in place.



J EPPINK PARTNERS, INC.

Urban Design Studio

Landscape Architecture
Traditional Town Planning

9336 Sashabaw Road
Clarkston, Michigan 48348
248.922.0768

The ideas and design concepts expressed herein and the graphically displayed arrangement of their components represented by this drawing have been developed for the exclusive use of the specified project and are the sole property of J EPPINK PARTNERS, INC. Any conveyance or disclosure of the ideas or design concepts or use of any graphically displayed arrangements of their components shall be at the discretion of and only through the expressed written consent of J EPPINK PARTNERS, INC.
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Project:

**BEAUCHAMP
STORAGE**

Old US 23
Hartland Township, Michigan

Owner:

**Beauchamp
Storage**

872 N. Old US 23
Brighton, MI 48114
810-632-2000

Sheet:

**Landscape
Planting
Plan**

Issues / Revisions

Drawn by:

JER

Checked By:

JTE

Date:

July 29, 2022

Scale:

AS SHOWN

Not for Construction

Sheet:

LP-1

53



3 WORKING DAYS
BEFORE YOU DIG
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1-800-482-7171
FOR THE LOCATION OF
UNDERGROUND UTILITIES

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Grade @ 0'	+	0.8 fc	5.9 fc	0.0 fc	N/A	N/A	0.1:1
Propretty Line	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A	0.0:1
Stat Zone # 1	X	1.4 fc	5.9 fc	0.1 fc	59.0:1	14.0:1	0.2:1

Symbol	Label	Quantity	Manufacturer	Catalog Number	Lamp	Light Loss Factor
	A	68	Lithonia Lighting	WDGE2 LED 40K 80CRI	LED	0.9
	B	34	Lithonia Lighting	VCPGX LED 40K 80CRI	LED	0.9
	C	1	Lithonia Lighting	DSX0 LED 40K MVOLT	LED	0.9
	D	2	Lithonia Lighting	DSX0 LED 40K MVOLT	LED	0.9
	E	4	Lithonia Lighting	DSX0 LED 40K MVOLT	LED	0.9

General Note
1. SEE DRAWING FOR LUMINAIRE MOUNTING HEIGHT.
2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"
3. LIGHTING ALTERNATES REQUIRE NEW PHOTOMETRIC CALCULATION AND RESUBMISSION TO CITY FOR APPROVAL.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

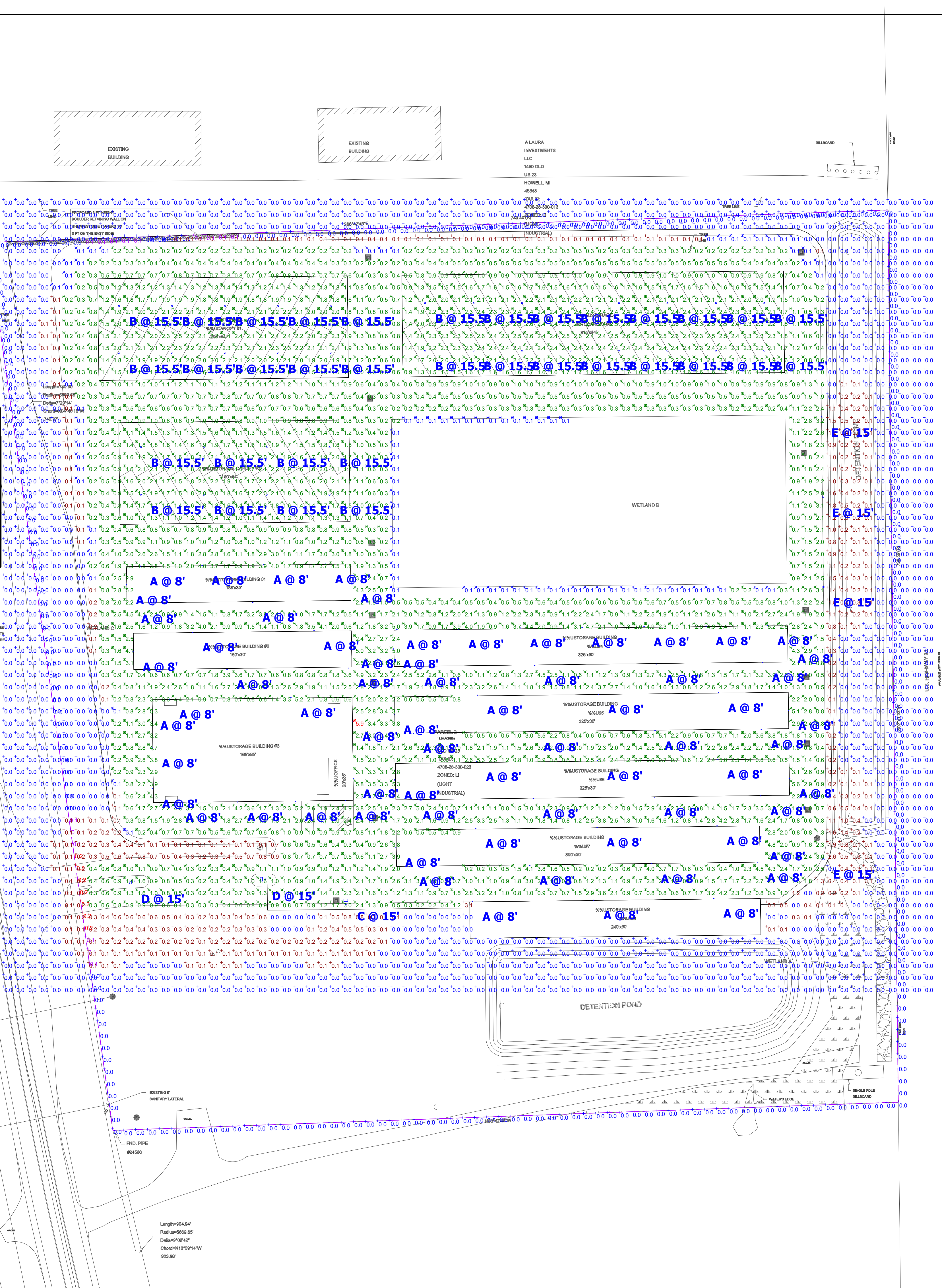
THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

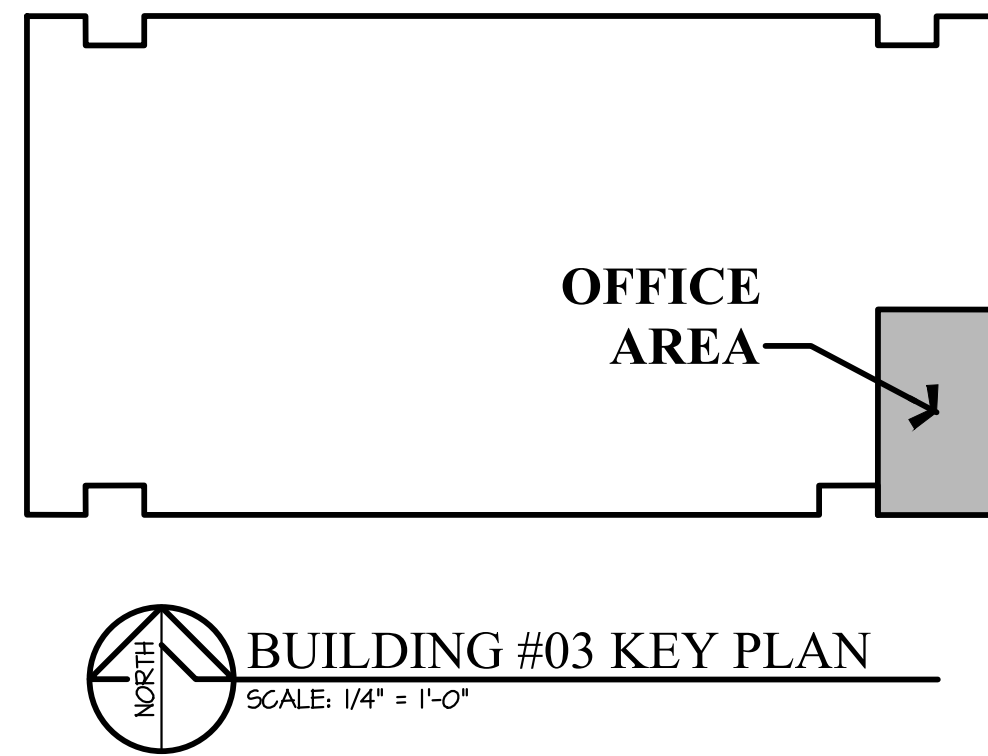
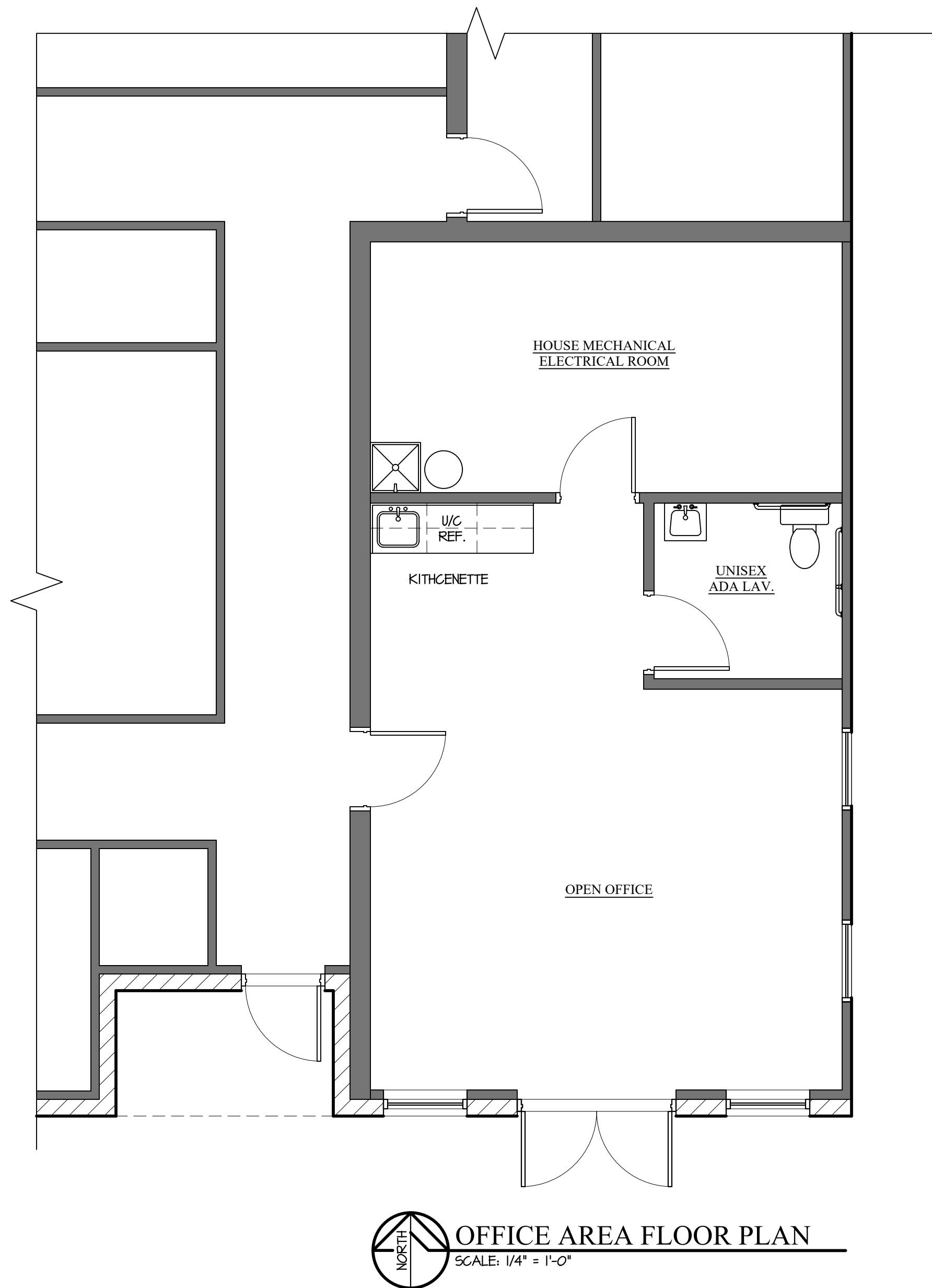
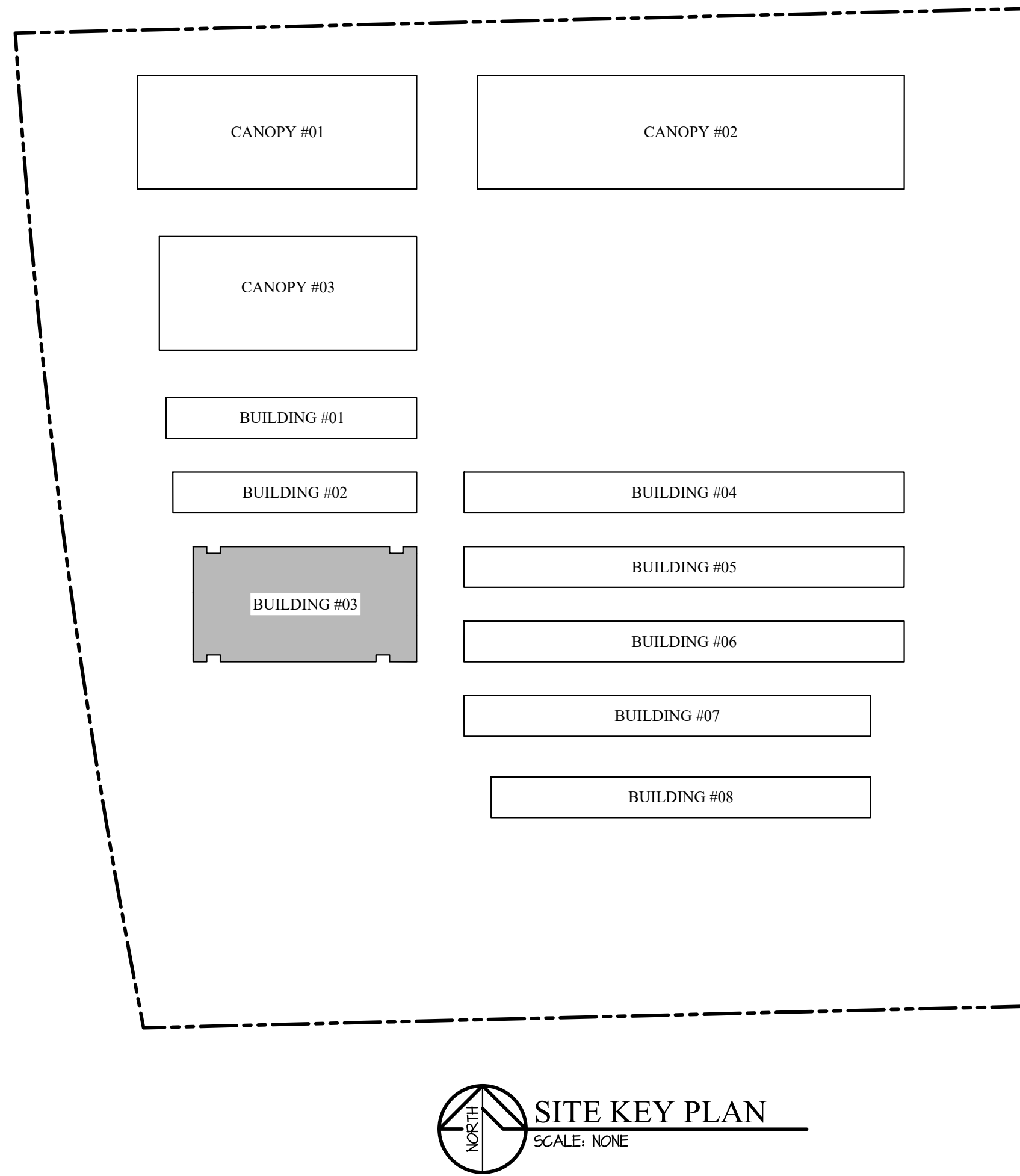
UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

FOR ORDERING INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

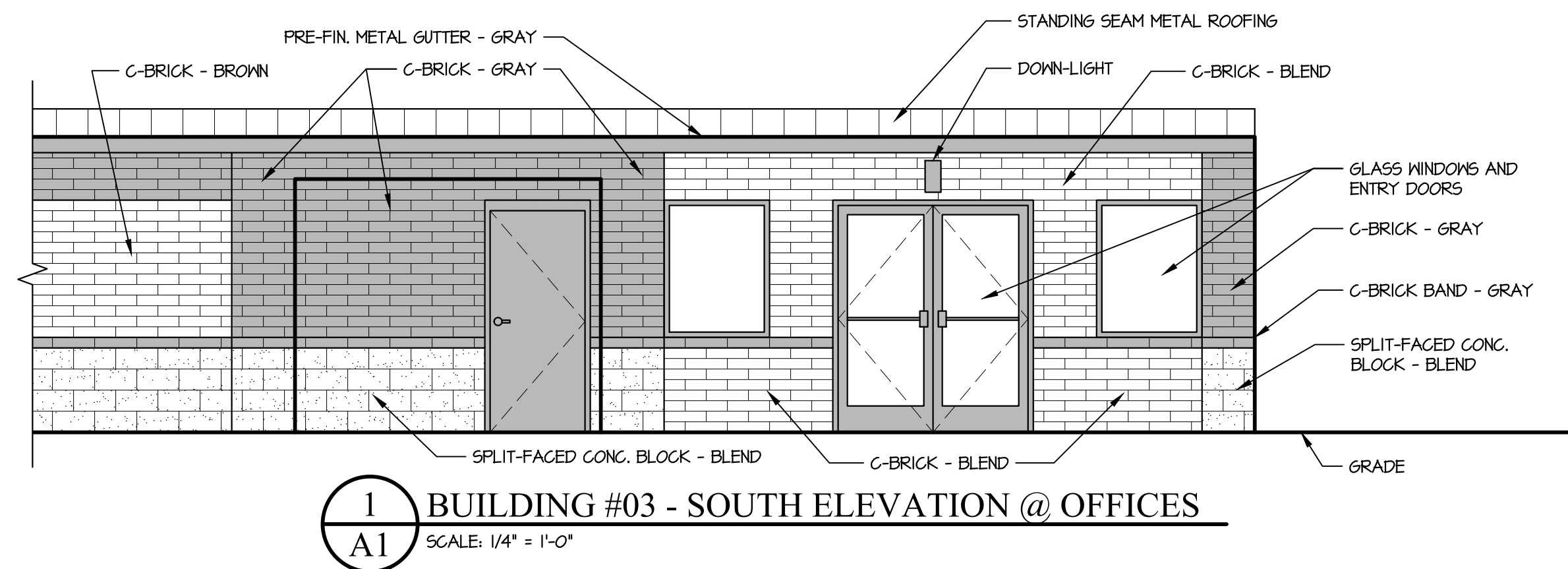
MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.



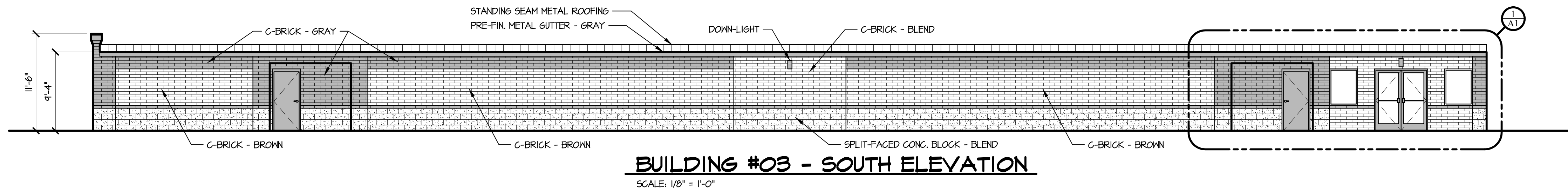


TOWNSHIP REGULATIONS
ZONED: LI = LIGHT INDUSTRIAL
BUILDING HEIGHT: 35' / 2.5 STORIES PROPOSED: 18'-2" MAX. / 1 STORY (COMPLIES)
ARCHITECTURAL GUIDELINES: FACADE GROUP #1
- BRICK = 100% MAX.
- STONE = 50% MAX.
- SPLIT-FACED CONCRETE BLOCK = 25% MAX.
- GLASS = 50% MAX. (TINTED IS ACCEPTABLE / COLORED IS NOT ALLOWED)
- MOLDED CORNICES, TRIM, COLUMNS, AND SURROUNDS = 15% MAX.

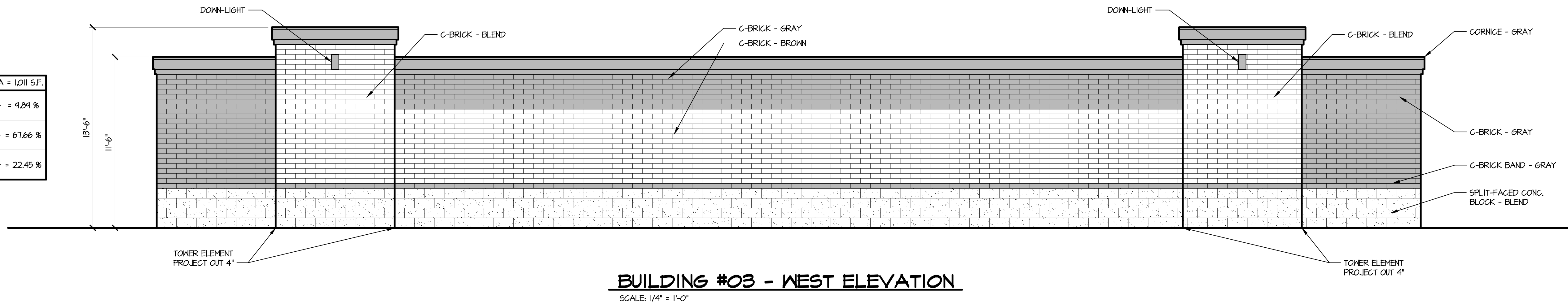
MATERIALS
SPLIT-FACED CONCRETE BLOCK: GRAND BLANC CEMENT PRODUCTS; BLEND COLOR: "CIMARRON BLEND"
C-BRICK: GRAND BLANC CEMENT PRODUCTS; GRAY COLOR: "DARK GRAY" BROWN COLOR: "GOTHIC" BLEND COLOR: "CIMARRON BLEND"
MOLDED CORNICE: HARDI-PLANK; COLOR: "NIGHT GRAY"
GLASS: 1" LOW-E INSULATING GLASS IN DARK BRONZE ANOD. ALUM. FRAMES



MATERIAL %S	OVERALL WALL AREA = 1544 S.F.
DOORS	= 49 S.F. ~ % = 3.16 %
GLASS (50% MAX)	= 75 S.F. ~ % = 4.84 %
MOLDED CORNICE (15% MAX)	= 2 S.F. ~ % = 0.13 %
C-BRICK (100% MAX)	= 1044 S.F. ~ % = 67.40 %
SPLIT-FACED CONG. BLOCK (25% MAX)	= 374 S.F. ~ % = 24.41 %



MATERIAL %S	OVERALL WALL AREA = 1011 S.F.
MOLDED CORNICE (15% MAX)	= 100 S.F. ~ % = 9.89 %
C-BRICK (100% MAX)	= 684 S.F. ~ % = 67.66 %
SPLIT-FACED CONG. BLOCK (25% MAX)	= 227 S.F. ~ % = 22.45 %



PV
A

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PHONE (810) 225-2930
www.pv-architects.com

BEAUCHAMP STORAGE
OLD U.S. 23
HARTLAND TWP., MICHIGAN

OFFICE AREA PLAN AND ELEVATIONS

PROJECT: SHEET TITLE

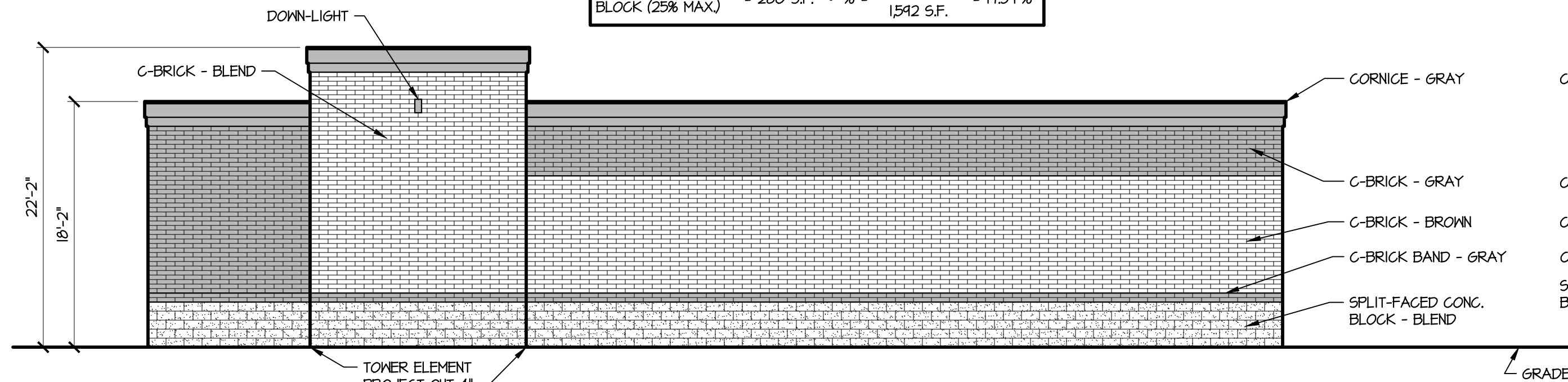
DO NOT SCALE THIS PRINT, USE DIMENSIONS SHOWN ONLY

DRAWN BY: KY
APPROVED BY: KY

PROJECT: 2223

SHEET: **A1**

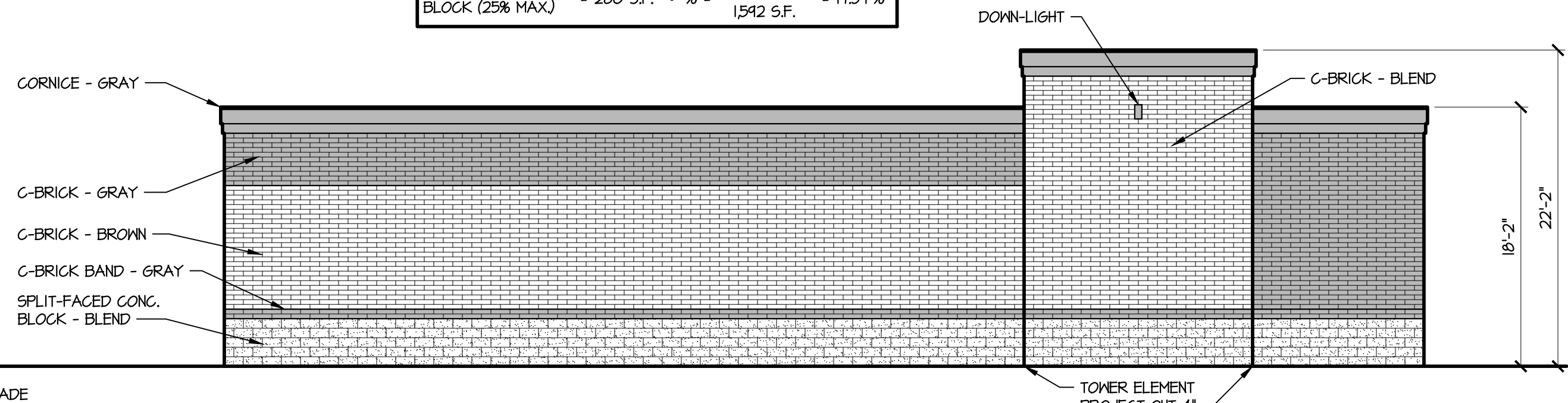
MATERIAL %'S	OVERALL WALL AREA = 1542 S.F.
MOULDED CORNICE (15% MAX.)	= 99 S.F. ~ % = $\frac{99 \text{ S.F.}}{1542 \text{ S.F.}} = 6.22 \%$
C-BRICK (100% MAX.)	= 1213 S.F. ~ % = $\frac{1213 \text{ S.F.}}{1542 \text{ S.F.}} = 76.19 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 280 S.F. ~ % = $\frac{280 \text{ S.F.}}{1542 \text{ S.F.}} = 17.59 \%$



CANOPY #01 - END WALL WEST ELEVATION

SCALE: 1/8" = 1'-0"

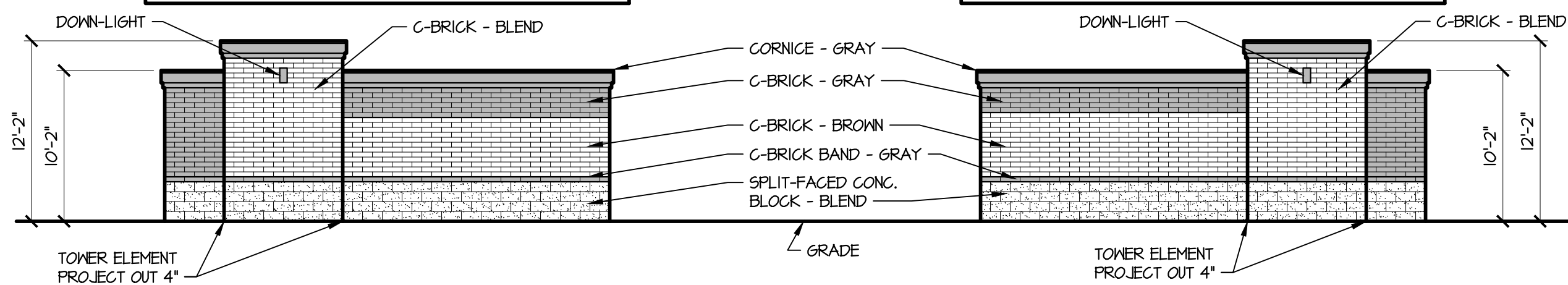
MATERIAL %'S	OVERALL WALL AREA = 1542 S.F.
MOULDED CORNICE (15% MAX.)	= 99 S.F. ~ % = $\frac{99 \text{ S.F.}}{1542 \text{ S.F.}} = 6.22 \%$
C-BRICK (100% MAX.)	= 1213 S.F. ~ % = $\frac{1213 \text{ S.F.}}{1542 \text{ S.F.}} = 76.19 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 280 S.F. ~ % = $\frac{280 \text{ S.F.}}{1542 \text{ S.F.}} = 17.59 \%$



CANOPY #03 - END WALL WEST ELEVATION

SCALE: 1/8" = 1'-0"

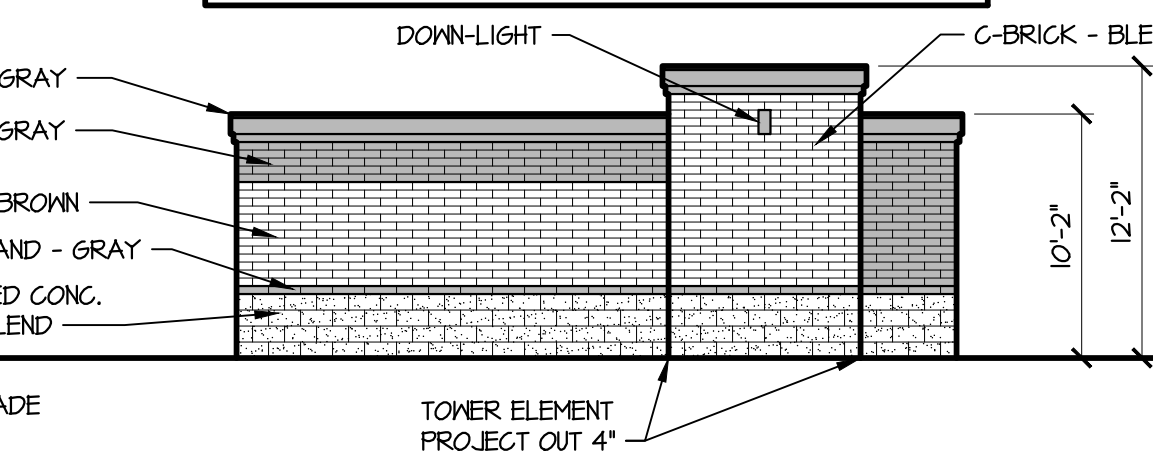
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #01 - WEST ELEVATION

SCALE: 1/8" = 1'-0"

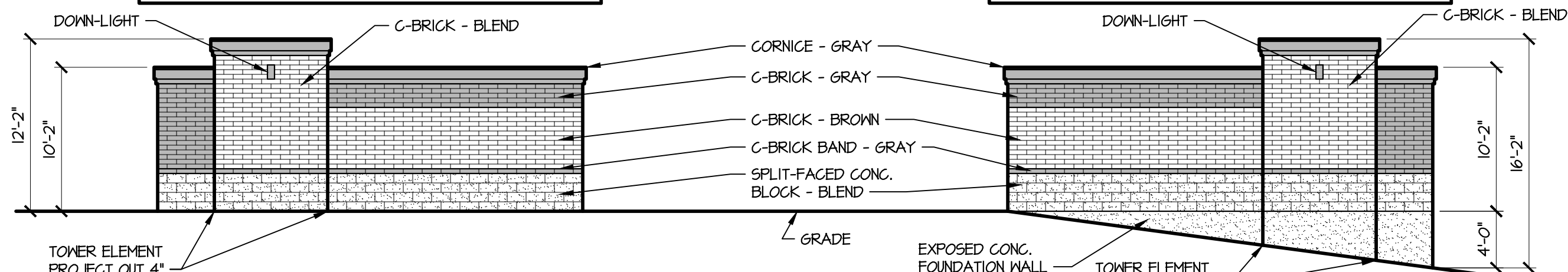
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #02 - WEST ELEVATION

SCALE: 1/8" = 1'-0"

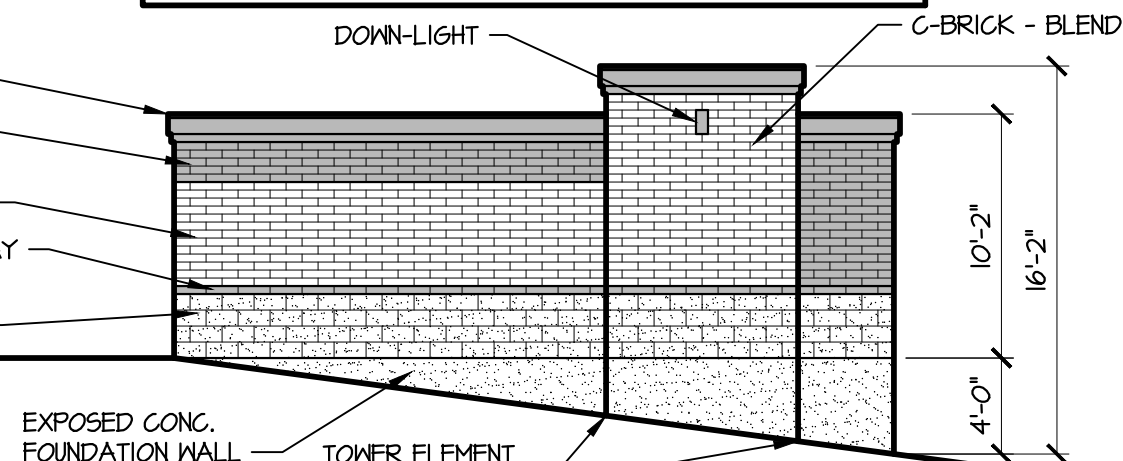
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #07 - WEST ELEVATION

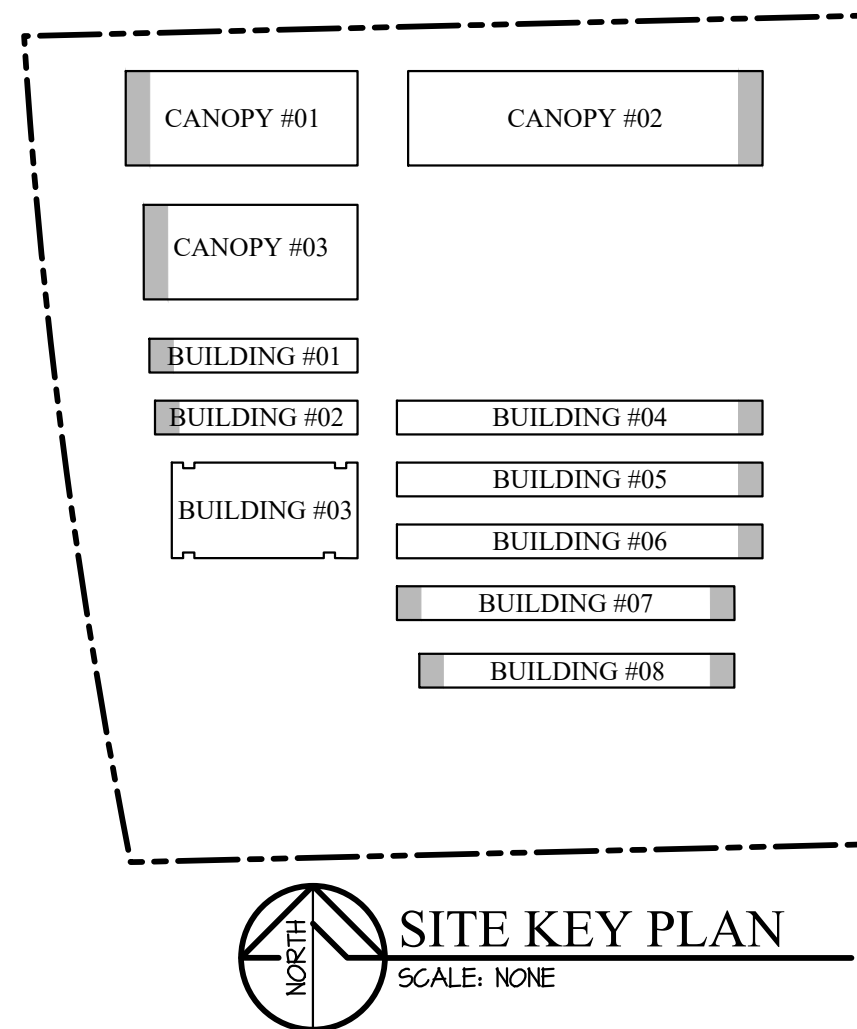
SCALE: 1/8" = 1'-0"

MATERIAL %'S	OVERALL WALL AREA = 382 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{382 \text{ S.F.}} = 11.78 \%$
C-BRICK (100% MAX.)	= 177 S.F. ~ % = $\frac{177 \text{ S.F.}}{382 \text{ S.F.}} = 46.34 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{382 \text{ S.F.}} = 20.94 \%$
CONCRETE	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{382 \text{ S.F.}} = 20.94 \%$

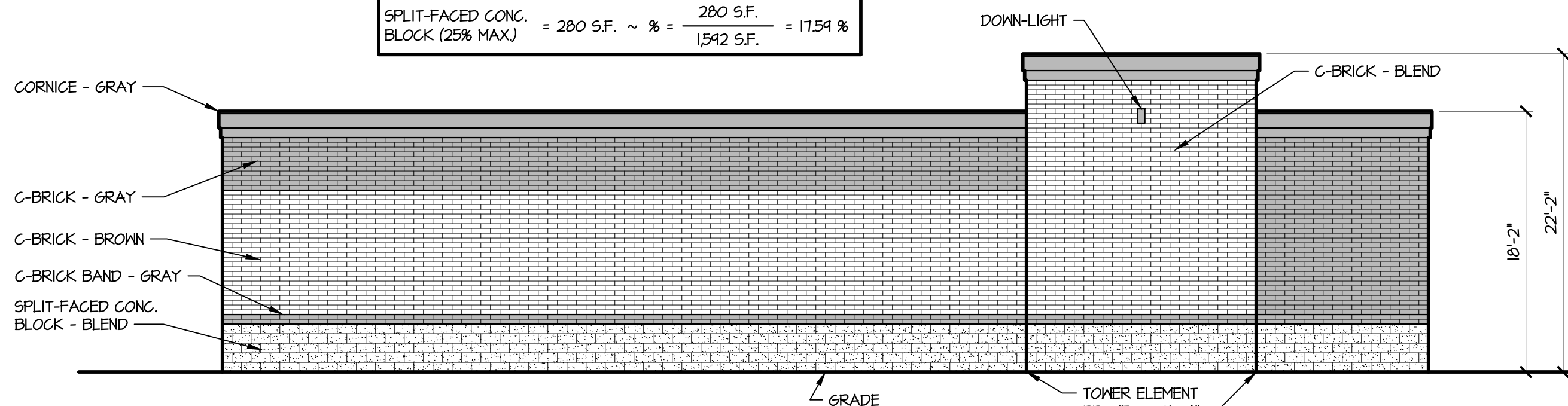


BUILDING #08 - WEST ELEVATION

SCALE: 1/8" = 1'-0"



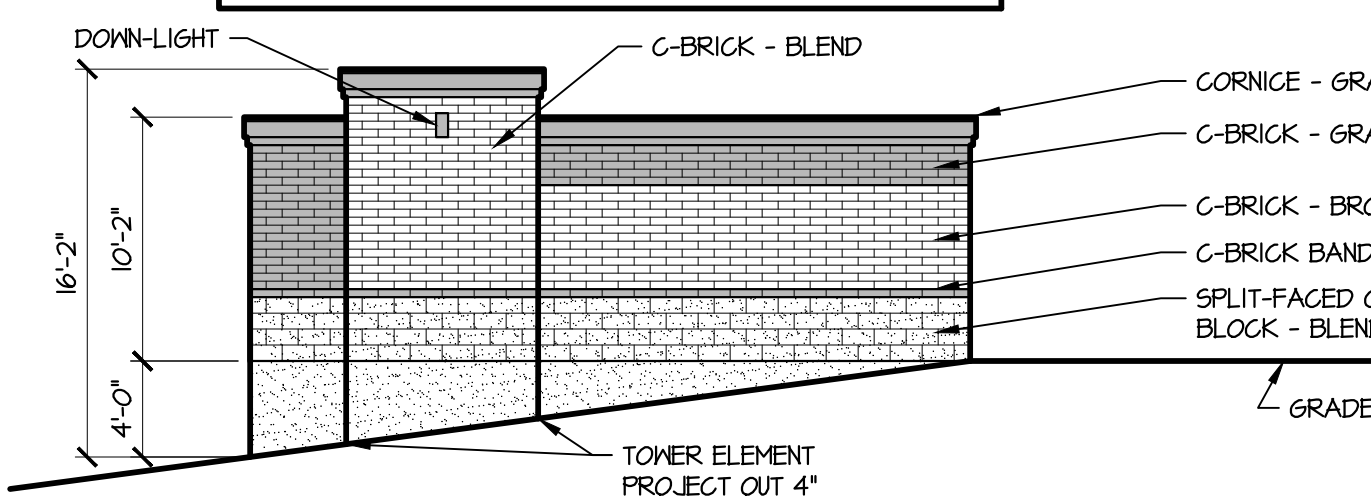
MATERIAL %'S	OVERALL WALL AREA = 1542 S.F.
MOULDED CORNICE (15% MAX.)	= 99 S.F. ~ % = $\frac{99 \text{ S.F.}}{1542 \text{ S.F.}} = 6.22 \%$
C-BRICK (100% MAX.)	= 1213 S.F. ~ % = $\frac{1213 \text{ S.F.}}{1542 \text{ S.F.}} = 76.19 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 280 S.F. ~ % = $\frac{280 \text{ S.F.}}{1542 \text{ S.F.}} = 17.59 \%$



CANOPY #02 - END WALL EAST ELEVATION

SCALE: 1/8" = 1'-0"

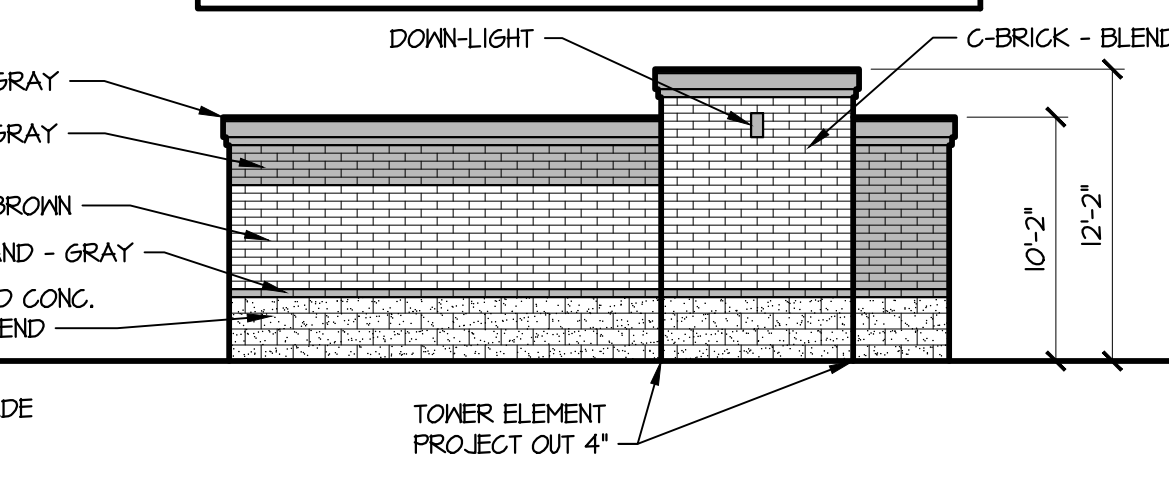
MATERIAL %'S	OVERALL WALL AREA = 382 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{382 \text{ S.F.}} = 11.78 \%$
C-BRICK (100% MAX.)	= 177 S.F. ~ % = $\frac{177 \text{ S.F.}}{382 \text{ S.F.}} = 46.34 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{382 \text{ S.F.}} = 20.94 \%$
CONCRETE	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{382 \text{ S.F.}} = 20.94 \%$



BUILDING #08 - EAST ELEVATION

SCALE: 1/8" = 1'-0"

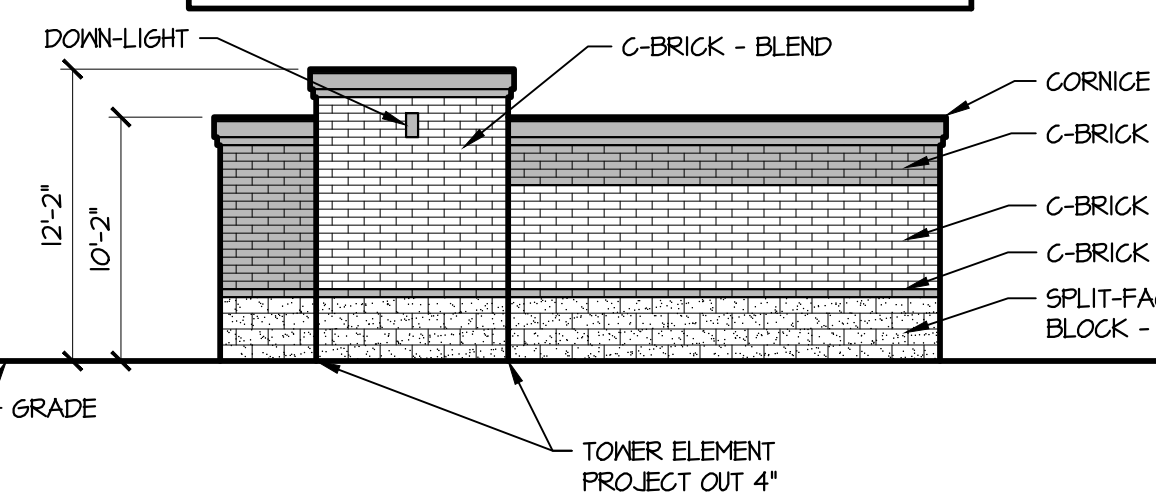
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #07 - EAST ELEVATION

SCALE: 1/8" = 1'-0"

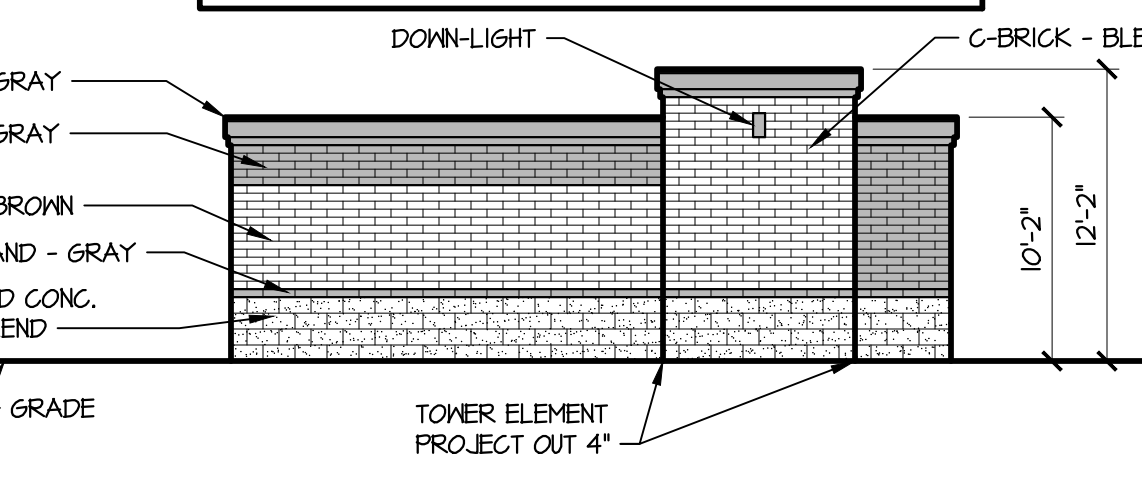
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #06 - EAST ELEVATION

SCALE: 1/8" = 1'-0"

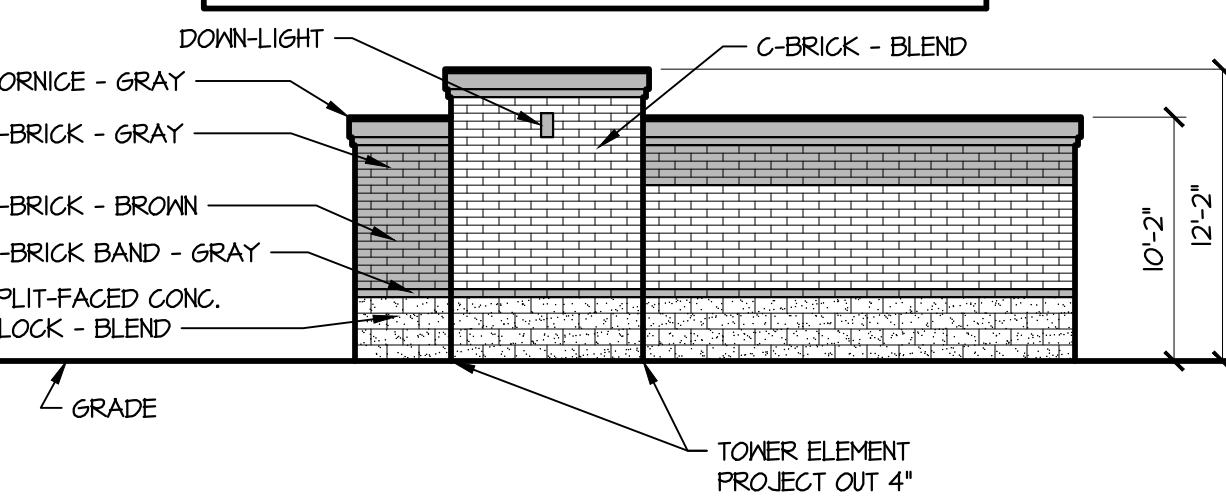
MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #05 - EAST ELEVATION

SCALE: 1/8" = 1'-0"

MATERIAL %'S	OVERALL WALL AREA = 322 S.F.
MOULDED CORNICE (15% MAX.)	= 45 S.F. ~ % = $\frac{45 \text{ S.F.}}{322 \text{ S.F.}} = 13.98 \%$
C-BRICK (100% MAX.)	= 197 S.F. ~ % = $\frac{197 \text{ S.F.}}{322 \text{ S.F.}} = 61.18 \%$
SPLIT-FACED CONG. BLOCK (25% MAX.)	= 80 S.F. ~ % = $\frac{80 \text{ S.F.}}{322 \text{ S.F.}} = 24.84 \%$



BUILDING #04 - WEST ELEVATION

SCALE: 1/8" = 1'-0"



MINI STORAGE
NORTH CAROLINA

SUBMITTED TO :

PHONE:

WIND LOAD DESIGN DATA:
ULTIMATE DESIGN WIND SPEED (V_{ULT}): 105 MPH
NOMINAL DESIGN WIND SPEED (V_{ASD}): 82 MPH
RISK CATEGORY: I
WIND EXPOSURE: B
INTERNAL PRESSURE COEFFICIENT: ± 0.18

SNOW LOAD DESIGN DATA:
GROUND SNOW LOAD (P_g): 15 PSF
FLAT-ROOF SNOW LOAD (P_f): 12.1 PSF
SNOW EXPOSURE FACTOR (C_e): 1.2
SNOW LOAD IMPORTANCE FACTOR (I): 0.8
THERMAL FACTOR (C_t): 1.2

EARTHQUAKE LOAD DESIGN DATA:
- RISK CATEGORY: I
- SEISMIC IMPORTANCE FACTOR (I): 1.0
- SEISMIC DESIGN CATEGORY: C
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7-10 SECTION 12.8)
- BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT FRAMED WALLS WITH STEEL SHEAR PANELS
- SITE CLASS: D
- DESIGN BASE SHEAR: BUILDING "1": 1.579^K
- RESPONSE MODIFICATION FACTOR (R): 7.0
- SEISMIC RESPONSE COEFFICIENT (C_s): 0.041
- MAPPED SPECTRAL RESPONSE ACCELERATION (S_s): 27.0% G
(S_1): 10.2% G
- SPECTRAL RESPONSE COEFFICIENTS (S_{D1}): 28.5% G
(S_{D2}): 16.3% G

BUILDING DATA :

BUILDING DESCRIPTION :

SINGLE STORY METAL BUILDING BOLTED TO CONCRETE SLAB FOUNDATION.

BUILDING SIZE :

BUILDING "1" 70' x 110' = 7,700 sq. ft. 10'-0" EAVE HEIGHT

PARKING DATA :

SEE SITE PLAN BY OTHERS

BUILDING CODE :

THE 2018 NORTH CAROLINA BUILDING CODE

DESIGN CRITERIA :

THIS BUILDING HAS BEEN DESIGNED TO CONFORM TO THE STRUCTURAL REQUIREMENTS OF THE 2018 NORTH CAROLINA BUILDING CODE, WITH CURRENT REVISIONS.

THIS BUILDING HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADINGS IN ADDITION TO THE DEAD LOADINGS :

ROOF LIVE LOADING : 20 psf
FLOOR LIVE LOADING: 125 psf
USE GROUP: S-1
TYPE OF CONSTRUCTION: II-B

IT IS THE RESPONSIBILITY OF THE BUYER/OWNER TO VERIFY THE FIREWALL, LIVE LOAD AND WIND LOAD REQUIREMENTS WITH THE LOCAL CODE AUTHORITY.

PROJECT NUMBER :

NC20211

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NOTE: DETAIL LABELS CONTAINED WITHIN THIS SET OF PLANS MAY REFERENCE THE ERECTION DRAWINGS MARKED IN THIS SCHEDULE. EXAMPLE: DETAIL A/800 REFERS TO DETAIL "A" LOCATED ON ERC800X.

ERECTION DRAWINGS

ERC010X	ERC200X	ERC420X	ERC819X	ERC752X
ERC018X	ERC201X	ERC500X	ERC820X	ERC753X
ERC100X	ERC202X	ERC505X	ERC821X	ERC754X
ERC105X	ERC203X	ERC506X	ERC822X	ERC800X
ERC106X	ERC204X	ERC516X	ERC823X	ERC900X
ERC110X	ERC206X	ERC600X	ERC824X	ERC901X
ERC112X	ERC207X	ERC601X	ERC825X	ERC902X
ERC115X	ERC208X	ERC602X	ERC826X	ERC903X
ERC120X	ERC209X	ERC603X	ERC830X	ERC904X
ERC130X	ERC250X	ERC604X	ERC851X	ERC906X
ERC150X	ERC250XHP	ERC605X	ERC852X	ERC907X
ERC161X	ERC251X	ERC606X	ERC700X	ERC908X
ERC162X	ERC251XHP	ERC607X	ERC710X	ERC910X
ERC163X	ERC252X	ERC608X	ERC711X	ERC911X
ERC164X	ERC251XHP	ERC609X	ERC712X	ERC912X
ERC165X	ERC253X	ERC610X	ERC713X	ERC913X
ERC175X	ERC254X	ERC611X	ERC720X	ERC914X
ERC178X	ERC255X	ERC612X	ERC725X	ERC916X
ERC177X	ERC256X	ERC613X	ERC730X	ERC916X
ERC179X	ERC257X	ERC614X	ERC731X	ERC917X
ERC176X	ERC258X	ERC615X	ERC731XHP	ERC918X
ERC180X	ERC302X	ERC616X	ERC732X	ERC919X
ERC181X	ERC302XHP	ERC617X	ERC732XHP	
ERC182X	ERC410XHP	ERC618X	ERC750X	
ERC183X	ERC411X	ERC618XALT	ERC751X	

SCHEDULE OF DRAWINGS

DRAWING NO.	DESCRIPTION
CS1	COVER SHEET
CS2	BUILDING NOTES
CS3	APPENDIX B
S1	ELEVATIONS & NOTES
S2	FLOOR PLAN, DETAILS & NOTES
S3	CROSS SECTION
F1	FOUNDATION PLAN, DETAIL & NOTES
F2	FOUNDATION DETAILS

GENERAL NOTES:

1. CONCRETE FOUNDATIONS AND FLOOR SLAB ARE TO BE SUPPLIED AND INSTALLED BY OTHERS . WEDGE ANCHORS FOR INTERIOR AND EXTERIOR FOOTINGS SUPPLIED AND INSTALLED BY BETCO.
2. EXTERIOR OPENINGS, NOT DESIGNATED AS DOOR LOCATIONS, TO BE COMPLETED USING EXTERIOR WALL PANELS FURNISHED BY BETCO.
3. USE DOW 791 SILICONE CAULK AND 1/2" WIDE BUTYL RUBBER TAPE SEALANT FOR ROOF INSTALLATION. USE DOW 799 SILICONE CAULK AT DOWNSPOUT TO GUTTER JOINT.
4. INTERIOR PARTITIONS PERPENDICULAR TO ROOF BEAM(S) MUST BE COMPLETED BEFORE ROOF PANELS ARE INSTALLED. USE PARTITION FRAMING TO PLUMB AND SQUARE COLUMNS AND HEADER SECTIONS. CHECK BUILDING WIDTH AT TOP OF COLUMNS PRIOR TO ROOF INSTALLATION.
5. THOROUGHLY SWEEP ROOF PANELS FOLLOWING INSTALLATION TO REMOVE METAL DRILLINGS.
6. THIS DESIGN IS BASED ON USING ONLY METAL BUILDING COMPONENTS WHICH ARE PROPRIETARY TO BETCO. FURTHER, THE PROFESSIONAL ENGINEER'S SEAL IS INVALID UNLESS ONLY BETCO METAL BUILDING COMPONENTS ARE UTILIZED.
7. METAL STUDS (IF APPLICABLE) MAY REQUIRE FIELD CUTTING DEPENDING UPON THE EAVE HEIGHT OF THE STRUCTURE.
8. UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.
9. THESE DRAWINGS ARE THE PROPERTY OF BETCO, INC. AND MAY NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN CONSENT OF BETCO, INC.
10. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
11. THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC. AS REQUIRED BY THE VARIOUS TRADES.

FOUNDATIONS:

1. THE FOUNDATION DESIGN IS BASED ON A PRESUMED ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF. NOTIFY ENGINEER IF SITE CONDITIONS DIFFER FROM DESIGN ASSUMPTIONS SPECIFIED.
2. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
3. TOP OF FOOTING ELEVATIONS ARE SHOWN ON THE DRAWINGS ARE TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD IN ACCORDANCE WITH THE GUIDE LINES SET FORTH IN THE DRAWINGS AND SPECIFICATIONS.
4. FILL MATERIAL SHALL BE FREE OF ROOTS, WOOD OR OTHER ORGANIC MATERIAL AND COMPLY WITH THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. MATERIALS USED FOR FILL UNDER FOOTINGS AND WITHIN BUILDING LIMITS SHALL BE TESTED AND APPROVED FOR THE USE BY THE GEOTECHNICAL TESTING AGENCY.
5. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEERS APPROVAL.
6. FOUNDATION WALLS RETAINING EARTH SHALL BE BRACED AGAINST BACK FILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.
7. FOUNDATION WALLS OR GRADE BEAMS HAVING EARTH PLACED ON EACH SIDE SHALL HAVE BOTH FILLED SIMULTANEOUSLY TO MAINTAIN A COMMON ELEVATION.
8. DO NOT PLACE CONCRETE IN ANY EXCAVATION CONTAINING ICE, FROST, FROZEN GROUND OR FREE WATER. FROZEN SUB GRADES MUST BE THAWED AND RECOMPACTED PRIOR TO PLACING CONCRETE.
9. EARTH FORMED FOOTINGS SHALL CONFORM TO THE SHAPE, LINES, AND DIMENSIONS AS SHOWN ON THE FOUNDATION PLAN. ALL WATER SHALL BE REMOVED BEFORE DEPOSITING CONCRETE.
10. BEFORE PLACING CONCRETE, ALL EMBEDDED ITEMS SHALL BE PROPERLY LOCATED, ACCURATELY POSITIONED, AND MAINTAINED SECURELY IN PLACE.
11. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
12. PERIMETER FOUNDATION MUST NOT EXCEED 1/4" ELEVATION VARIATION ALONG ANY 50' DISTANCE OF BUILDING LENGTH.
13. PERIMETER FOUNDATION TO EXTEND BELOW FROST LINE. VERIFY REQUIRED DEPTH WITH LOCAL BUILDING OFFICIALS PRIOR TO PROCEEDING WITH FOUNDATION WORK AND NOTIFY ENGINEER OF DEVIATION FROM DRAWING.
14. THE AMERICAN CONCRETE INSTITUTE DOES NOT RECOGNIZE FIBERMESH AS A SUBSTITUTE FOR WIRE MESH REINFORCED CONCRETE WHEN SUBJECTED TO TENSILE STRESS
15. SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-8" MINIMUM FROM INTERIOR COLUMN LINES.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE NEW BILLET STEEL, DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60 (Fy=60,000 PSI).
2. FIELD BENDING OF CONCRETE REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
3. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI SP-88 "ACI DETAILING MANUAL-1984" AND THE "CRS MANUAL OF STANDARD PRACTICE", LATEST EDITION.
4. PLACE REINFORCEMENT AND TIES IN GROUT SPACES PRIOR TO GROUTING.
5. CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE UNLESS NOTED OTHERWISE.

A. FOOTING AND GRADE BEAMS	
IN GROUND CONTACT	3 INCHES
B. BEAMS AND COLUMNS	2 INCHES
C. SLABS, WALLS, AND JOISTS	3/4 INCH - NOT EXPOSED TO EARTH, LIQUID OR WEATHER
D. SLABS ON GRADE	2 INCHES FROM TOP
E. FORMED SURFACES IN GROUND CONTACT	2 INCHES
6. DEVELOPMENT LENGTHS AND LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318-14 CHAPTER 12 AND AS INDICATED ON THE DRAWINGS. WHERE SPLICES ARE NOT CALLED OUT ON THE DRAWINGS, USE CLASS "B", BUT IN NO CASE SHALL ANY SPLICE BE LESS THAN 12 INCHES. FOR BARS AS INDICATED BELOW THE BASIC DEVELOPMENT LENGTH SHALL BE MULTIPLIED BY THE FACTORS AS INDICATED FOR TENSION OR COMPRESSION AND THEN ROUNDED UP TO THE NEAREST WHOLE INCH. THE FACTORS INDICATED BELOW ARE CUMULATIVE FOR EACH OF THE CONDITIONS APPLICABLE.
7. WELDED WIRE MAT/FABRIC SHALL CONFORM TO ASTM A104 AND A105 RESPECTIVELY AND BE LAPPED 1'-0" AT ALL SPLICES.
8. ALL REINFORCING TERMINATING AT THE TOPS OF COLUMNS AND PILASTERS SHALL BE HOOKED UNLESS OTHERWISE NOTED.
9. SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL (SP-88) SHOWING BAR SCHEDULES, STARTUP SPACING, DIAGRAMS OF BENT BARS, ARRANGEMENT OF CONCRETE REINFORCEMENT. INCLUDE SPECIAL REINFORCEMENT REQUIRED AT OPENINGS THROUGH CONCRETE STRUCTURES. INCLUDE ALL ACCESSORIES SPECIFIED/ REQUIRED TO SUPPORT REINFORCING.
10. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES.
11. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER AND TESTING AGENCY A MINIMUM OF 48 HOURS PRIOR TO ALL CONCRETE POURS IN ORDER TO PERMIT REINFORCING STEEL REVIEW AS REQUIRED BY THE INSPECTION SCHEDULE.
12. REINFORCING IN ALL CONTINUOUS STRIP FOOTINGS SHALL HAVE CORNER BARS OR DOWELS. PROVIDE AT ALL CORNERS AND INTERSECTIONS.

CONSTRUCTION AND SAFETY:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
3. MEANS AND METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS ARE SOLELY THE CONTRACTORS RESPONSIBILITY.
4. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR SHALL COORDINATE THE VARIOUS REQUIREMENTS.
5. NO OPENINGS NOR ANY CHANGES IN SIZE, DIMENSION OR LOCATION SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.
7. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY TEMPORARY BRACING OR SUPPORT REQUIRED TO ACCOMMODATE THE CONTRACTORS MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER, CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEERS REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.
9. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
10. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY THE EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.
12. DO NOT SCALE THESE DRAWINGS, USE THE DIMENSIONS SHOWN.

CONCRETE:

1. SUBMIT WRITTEN REPORTS OF EACH PROPOSED CONCRETE DESIGN MIX NOT LESS THAN 15 DAYS PRIOR TO THE START OF WORK. DESIGN MIXES PREPARED MORE THAN TWELVE (12) MONTHS PRIOR TO THE DATE THE SUBMITTAL ARE NOT PERMITTED.
2. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14).
3. ALL CONCRETE SHALL BE TESTED BY AN INDEPENDENT TESTING AGENCY FOR STANDARD PARAMETERS (SLUMP, COMPRESSIVE STRENGTH, ETC.). TWO COPIES OF ALL REPORTS SHALL BE SUBMITTED TO THE ENGINEER/ ARCHITECT.
4. ALL NORMAL WEIGHT CONCRETE SHALL HAVE ASTM C-33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 160 PCF. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS, MINIMUM FOR FOUNDATIONS AND SLABS ON GRADE. ALL CONCRETE FOR FLOOR SLABS ON METAL DECK FORMS SHALL BE NORMAL WEIGHT CONCRETE WITH COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
5. MIX DESIGNS, INCLUDING WATER CEMENT RATIOS AND SLUMPS, SHALL BE PREPARED IN ACCORDANCE WITH MOST CURRENT ACI 301 CHAPTER 3, EXCEPT WHERE NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS. CEMENT SHALL CONFORM TO ASTM C 150 TYPE 1 OR AT CONTRACTOR'S OPTION, ASTM C 595 TYPE II WHERE FLY ASH IS PERMITTED. NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 160 PCF AND LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C 330 AGGREGATE. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED IN ANY CONCRETE.

AGGREGATE SIZES SHALL BE:	
I. FORMED CONCRETE ELEMENTS, U.N.O.	#57 STONE (3/4" MAX)
II. GRADE SLABS AND EARTH FORMED ELEMENTS	#57 STONE (1" MAX)
III. COARSE MASONRY GROUT REQUIRED	#57 STONE (3/4" MAX)
IV. FINE MASONRY GROUT REQUIRED	#40 STONE (3/4" MAX)
6. WATER REDUCING ADMIXTURE SHALL BE USED IN ALL CONCRETE.
7. AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301-84 TABLE 3.4.1, SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION OR SERVICE CONDITIONS.
8. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45 FOR ANY CONCRETE SUBJECTED TO FREEZING/THAWING.
9. ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.45 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).
10. IN NO CASE SHALL A WATER/CEMENT RATIOS EXCEED THE FOLLOWING:

I. ALL FOUNDATION CONCRETE to 3000 psi	0.55 MAX. W/C RATIO
II. EXTERIOR PAVING CONCRETE to 3500 psi	0.50 MAX. W/C RATIO
III. ALL EXPOSED C.P. WATERABLE, FIBERS, ETC., to 3500 psi	0.45 MAX. W/C RATIO
III. SLABS ON GRADE to 3000 psi	0.45 MAX. W/C RATIO
11. LIQUID MEMBRANE CURING COMPOUND WITH A MINIMUM 30% SOLIDS CONTENT SHALL BE APPLIED WITHIN TWO (2) HOURS AFTER COMPLETION OF FINISHING TO ALL CONCRETE FLATWORK AND WALLS, U.N.O., OTHER THAN FOOTINGS AND GRADE BEAMS.
12. FLOORS IN AREAS RECEIVING QUARRY TILE, CERAMIC TILE AND LIQUID FLOOR HARDENER SHALL BE CURED WITH DISSIPATING LIQUID MEMBRANE CURING COMPOUND OR WET CURED BY USE OF MOISTURE RETAINING COVER. DISSIPATING CURING COMPOUND SHALL BE THOROUGHLY BROOMED AND WASHED OFF PRIOR TO APPLICATION OF FLOOR FINISH.
13. USE A NON-CORROSIVE, NON-CHLORIDE ACCELERATING ADMIXTURE IN CONCRETE EXPOSED TO TEMPERATURES BELOW 40 DEGREES. UNIFORMLY HEAT THE WATER AND AGGREGATES TO A TEMPERATURE OF NOT LESS THAN 50 DEGREES. PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 308.
14. ALL CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE STRUCTURAL ENGINEER.
15. REINFORCING IN ALL ABUTTING CONCRETE, INCLUDING FOOTINGS, SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS OR INTERSECTIONS. DOWELS OR SPLICES SHALL BE EQUAL IN SIZE AND SPACING TO THE REINFORCING IN THE ABUTTING MEMBERS.
16. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WASHES, MASONRY ANCHORS, BRICK LEDGE ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
17. FORMS FOR ROUND COLUMNS SHALL BE ONE PIECE FIBERGLASS FORM TO PRODUCE SMOOTH FINISH ON EXPOSED COLUMNS.
18. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
19. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES AND OTHER STEEL EXPOSED TO EARTH OR GRANULAR FILL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.
20. FINISHING TOLERANCE SHALL BE WITHIN CLASS B IN ACCORDANCE WITH ACI 301 AND CONSIDERATION SHALL BE GIVEN TO SEQUENCING OF CONCRETE PLACEMENT TO FACILITATE CONTROL OF FINISH ELEVATIONS.
21. NON-SHRINK GROUT SHALL BE PRE-MIXED, NON-CORROSIVE, NON-METALLIC, NON-STAINING CONTAINING SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AND WATER REDUCING AGENTS. PRODUCTS SHALL ONLY REQUIRE THE ADDITION OF WATER. MINIMUM COMPRESSIVE STRENGTH SHALL BE 6000 PSI AFTER ONE DAY AND 7000 PSI AFTER 28 DAYS. GROUT SHALL BE FREE OF GAS PRODUCING OR AIR RELEASING AND OXIDIZING AGENTS AND CONTAIN NO CORROSIVE IRON, ALUMINUM OR GYPSUM.
22. PROVIDE CONCRETE GROUT - NOT MORTAR - FOR REINFORCING MASONRY LINTEL AND BOND BEAMS WHERE INDICATED ON DRAWINGS OR AS SCHEDULED.
23. TOLERANCE FOR ANCHOR RODS AND OTHER EMBEDDED ITEMS SHALL BE PER THE AISI CODE OF STANDARD PRACTICE SECTION 7.5.
24. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL COLUMN, WALL, SLAB, OR BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

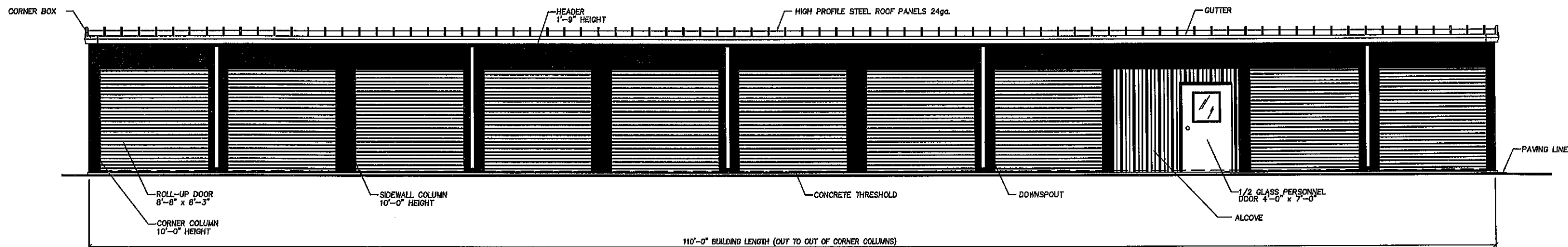
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228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140



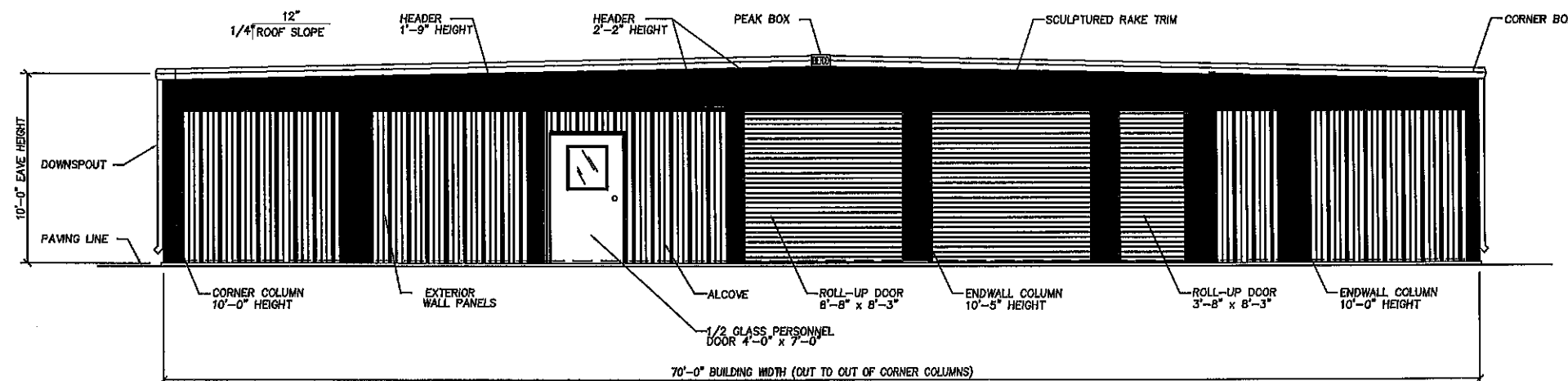
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: _____
PROJECT ADDRESS: _____
OWNER: _____
SHEET TITLE: BUILDING NOTES
PROJECT NO.: NC202
DRAWING NO.: 58
CS2 of 3

DATE	8/28/20
DRAWN BY:	K. MACLAY
SCALE	AS NOTED
APPROVED BY:	
REVISIONS	
DATE	BY



A SIDEWALL ELEVATION . . . BUILDING "1"
 S1 SCALE: 1/4" = 1'-0"



B ENDWALL ELEVATION . . . BUILDING "1"
 S1 SCALE: 1/4" = 1'-0"

NOTE:
 DOWNSPOUTS LOCATIONS SHOWN FOR
 ELEVATION PURPOSE ONLY. REFER
 TO FLOOR PLAN SHEETS FOR LOCATIONS

NOTE: . . . SEE OWNER FOR
 BUILDING ORIENTATION ON SITE

BETCO, Inc.
 228 Commerce Blvd.
 Statesville, NC 28625
 Limited Engineering License # D-0140

DATE: 8/28/20
 DRAWN BY:
 K. MACLAY
 SCALE:
 AS NOTED
 APPROVED BY:

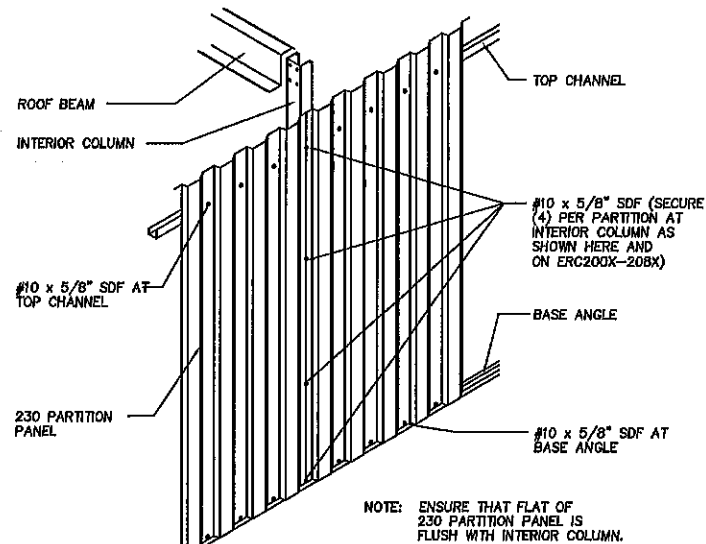


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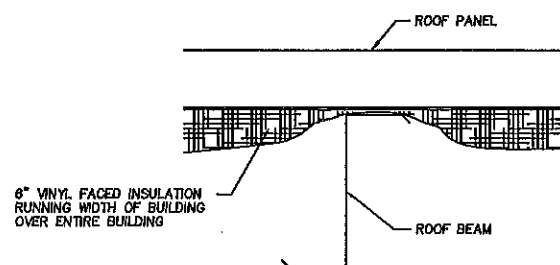
PROJECT NAME:
 PROJECT ADDR:
 OWNER:

SHEET TITLE: ELEVATIONS & NOTES

PROJECT NO.: NC20211
 DRAWING NUMBER:
 S1 of 5



A
S2
PARTITION ATTACHMENT @ INTERIOR COLUMNS
NOT TO SCALE



B
S2
INSULATION @ ROOF BEAM BUILDING "1"
NOT TO SCALE

NOTES:

- 6" ROOF INSULATION (R-19) INCLUDED AT ENTIRETY OF BUILDING "1".
- 4" WALL INSULATION (R-13) INCLUDED AT STUD WALL OF BUILDING "1".
- 4" x 5" KICK-OUT DOWNSPOUTS ARE INCLUDED.
- CORRIDOR WIDTH WILL BE A MINIMUM OF APPROXIMATELY 56" FROM FACE TO FACE OF DOOR JAMBS.
- ATTACH ALL STUDS TO TRACKS WITH #10 x 5/8" SDF (4 PER STUD).
- BURGLAR BARS ARE PROVIDED ABOVE INTERIOR ROLL-UP DOORS AS REQUIRED.
- INTERIOR DOOR FRAMES AND PARTITIONS AT HALLWAYS ARE PREPAINTED.
- ALL PERSONNEL DOORS ARE GLOBAL AND INCLUDE LOCK-OPEN TYPE CLOSERS.
- ALL ROLL-UP DOORS ARE BY BETCO & INCLUDE TENSION ADJUSTERS & BEARINGS.
- CORNER GUARDS ARE INCLUDED AT INTERIOR HALLWAYS.
- SECURE INTERIOR PARTITION TO INTERIOR COLUMNS WITH (4) #10 x 5/8" SDF'S AS SHOWN ON ERC200X - ERC208X.
- INTERIOR DOOR JAMBS INCLUDE PARTITION CLOSURE ANGLES.
- NOTE FOR INTERIOR BEARING STUDWALLS: (SECURE BOTTOM TRACK W/ 3/8" x 3" KB-TZ ANCHORS (2" MIN. EMBEDMENT @ 30" O.C. MAXIMUM).
- NOTE FOR ALL EXTERIOR STUDWALLS: (SECURE FLOOR TRACK W/ 3/8" x 3" KB-TZ ANCHORS (2" MIN. EMBEDMENT @ 30" O.C. MAXIMUM).

NOTE:
15ft. ROOF BEAMS ARE 3" x 10" x 12ga. ZEE'S.

STUDWALL LEGEND BUILDING # 1		
INTERIOR STUDWALL	EXTERIOR STUDWALL	
DESCRIPTION	UNINSULATED	INSULATED *
③ INSULATED LOAD BEARING STUDWALL	N/A	180 L.F.
④ INSULATED NON-LOAD BEARING STUDWALL	N/A	110 L.F.
⑤ EXTERIOR STUDWALL CONSTRUCTION AT HVAC (BLOCK @ MID-HGT.)	20 L.F.	20 L.F.

NOTE #1: SEE ERC610X FOR COMPLETE STUDWALL CONSTRUCTION DETAILS.
NOTE #2: * = INSULATED (SEE ERC610X) - COORDINATE WITH FLOOR PLAN. (NOTE WALLS #3 AND #4 ARE ALWAYS INSULATED)
NOTE #3: SEE BLOCKING DETAIL A/081 ON ERC631X

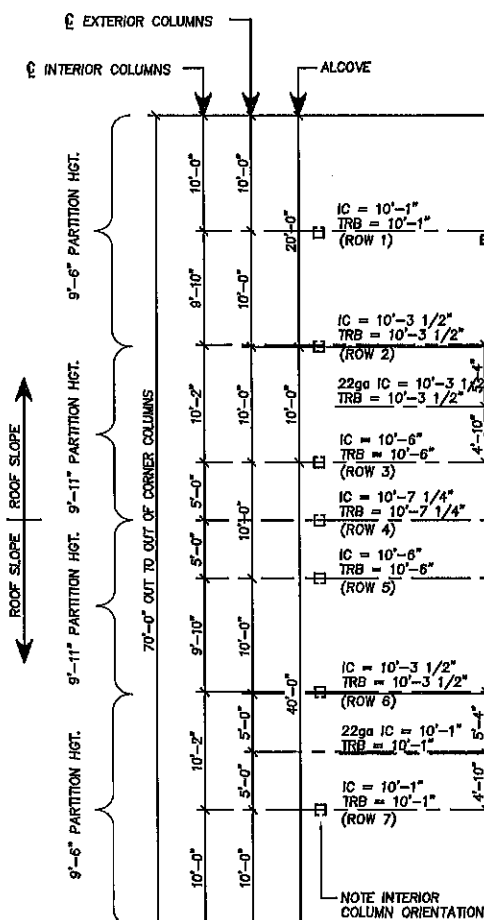
DOOR SCHEDULE		
ID	DOOR SIZE	TYPE
①	4'-0" x 7'-0" (4070 - 2 - G) (ERC264X)	1/2 GLASS PERSONNEL
②	3'-0" x 7'-0" w/LOUVER	INTERIOR SWING
③	3'-0" x 7'-0"	INTERIOR ROLL-UP
④	8'-0" x 7'-0"	INTERIOR ROLL-UP
⑤	3'-8" x 8'-8"	EXTERIOR ROLL-UP
⑥	8'-8" x 8'-8"	EXTERIOR ROLL-UP

NOTE: BLOCK ALL LOAD-BEARING INTERIOR & EXTERIOR STUD WALLS AS SHOWN IN DETAIL A OF ERC631X

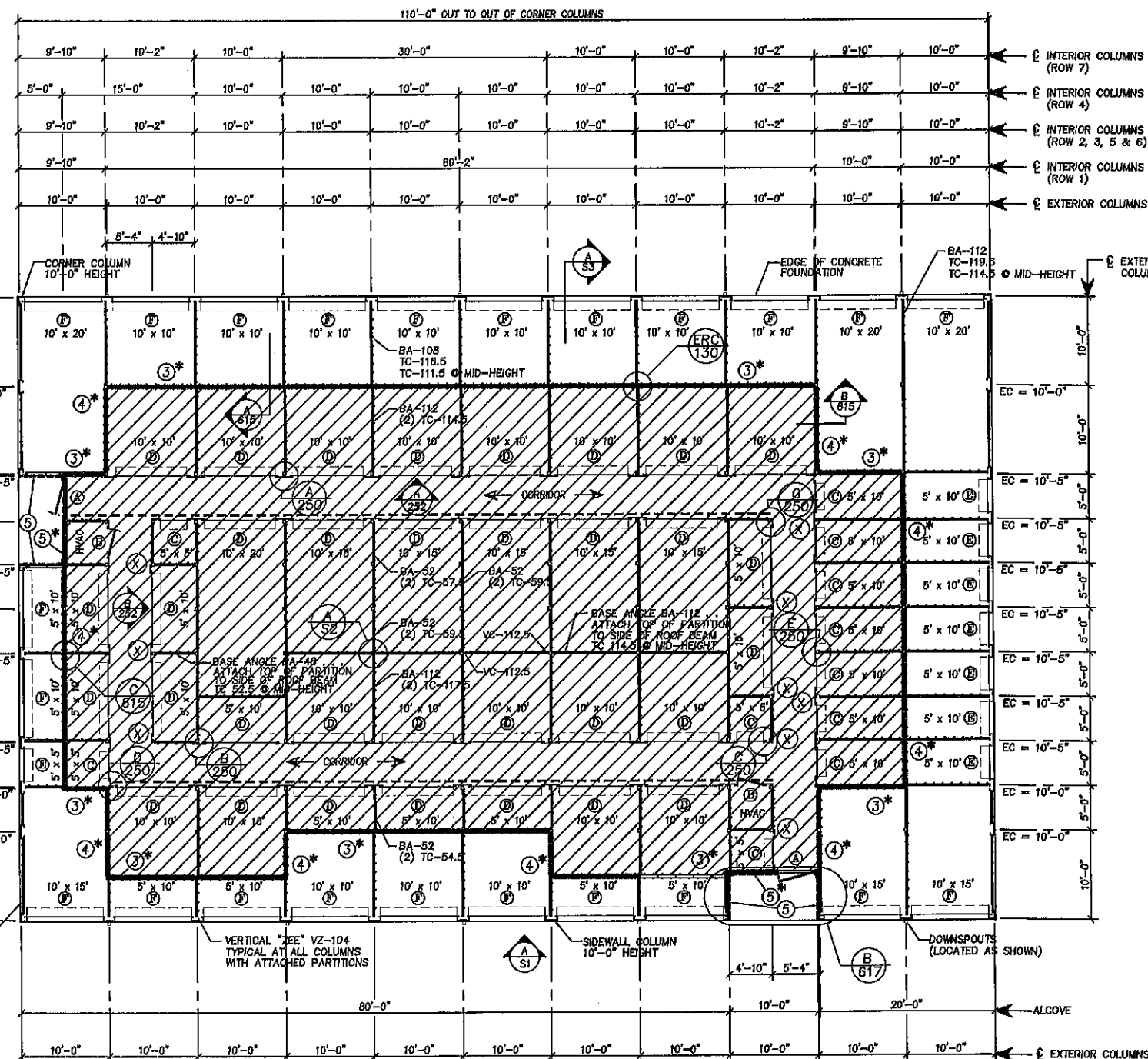
NOTE: ... SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE:
UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

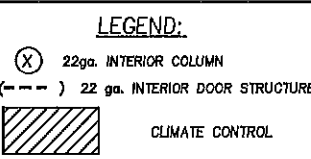
IC = INTERIOR COLUMN HEIGHT
3 5/8" x 3 5/8" x 17ga.
TRB = TOP OF ROOF BEAM A.F.F.
CC = CORNER COLUMN
EC = EXTERIOR COLUMN
VC = VERTICAL CHANNEL
BA = BASE ANGLE
TC = TOP CHANNEL



EXTERIOR WALL PANELS - FRAME OPENING WITH ANGLE SA-3A AT TOP, CHANNEL SA-4 AT SIDES, AND BASE CHANNEL (8'-6" LG.) (USE (3) 236A PANELS AT 10ft. NOMINAL SECTIONS AND (1 1/2) 236A PANELS AT 5ft. NOMINAL SECTIONS) (SEE ERC302X)



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



NOTE COLUMN ORIENTATION @ CORRIDORS PARALLEL TO ROOF BEAMS

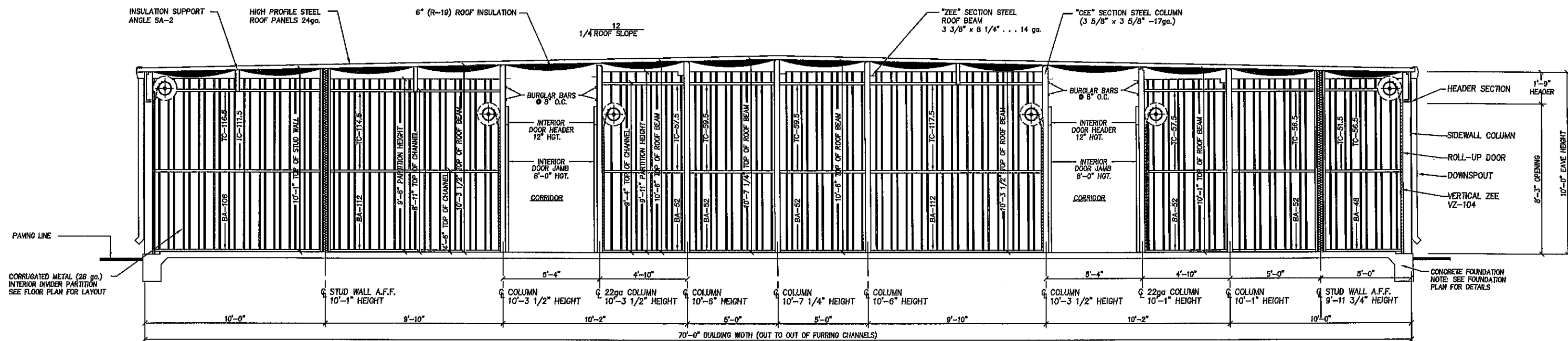
JAMB	ROLL-UP HEADER	SWING DOOR HEADER
8'-0"	12"	10 1/2"

NOTE:
SEE ERC602X FOR EXTERIOR SWING DOOR FRAMING IN STUDWALL.

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

DATE: 8/28/20	PROJECT NAME:
DRAWN BY: K. MACLAY	PROJECT ADDR:
SCALE: AS NOTED	OWNER:
APPROVED BY:	SHEET TITLE: FLOOR PLAN, DETAILS & NOTES
REVISIONS:	PROJECT NO: NC02011
DATE:	DRAWING NUMBER: S2 OF 3
BY:	

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813



A 70'-0" WIDE CROSS SECTION . . . BUILDING "1"

S3 SCALE: 3/8" = 1'-0"

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

	DATE	8/26/20	<p>228 COMMERCE BLVD. STATESVILLE, NC 28625 (800) 654-7813</p>	PROJECT NAME		<p>PROJECT NO: NC02011</p> <p>DRAWING NUMBER: S3 of 3</p>
	DRAWN BY	K. MACLAY		PROJECT ADDRESS		
	SCALE	AS NOTED		OWNER		
	APPROVED BY			SHEET TITLE	CROSS SECTION	
	REVISIONS					
	DATE	BY				



SUBMITTED TO :

ERECTION DRAWINGS				
ERC010X	ERC200X	ERC420X	ERC619X	ERC750X
ERC016X	ERC201X	ERC500X	ERC620X	ERC751X
ERC100X	ERC202X	ERC505X	ERC621X	ERC752X
ERC105X	ERC203X	ERC506X	ERC622X	ERC753X
ERC106X	ERC204X	ERC515X	ERC623X	ERC754X
ERC110X	ERC206X	ERC600X	ERC624X	ERC800X
ERC112X	ERC207X	ERC601X	ERC625X	ERC900X
ERC115X	ERC208X	ERC602X	ERC626X	ERC901X
ERC120X	ERC209X	ERC603X	ERC630X	ERC902X
ERC130X	ERC250X	ERC604X	ERC631X	ERC903X
ERC150X	ERC250XPH	ERC605X	ERC650X	ERC904X
ERC151X	ERC251X	ERC606X	ERC651X	ERC905X
ERC152X	ERC251XPH	ERC607X	ERC652X	ERC907X
ERC153X	ERC252X	ERC608X	ERC700X	ERC908X
ERC154X	ERC251XPH	ERC609X	ERC710X	ERC910X
ERC155X	ERC253X	ERC610X	ERC711XPH	ERC911X
ERC175X	ERC254X	ERC611X	ERC712X	ERC912X
ERC176X	ERC255X	ERC612X	ERC713X	ERC913X
ERC177X	ERC256X	ERC613X	ERC720X	ERC914X
ERC178X	ERC257X	ERC614X	ERC725X	ERC915X
ERC179X	ERC258X	ERC615X	ERC730X	ERC916X
ERC180X	ERC302X	ERC616X	ERC731X	ERC917X
ERC181X	ERC303X	ERC617X	ERC731XPH	ERC918X
ERC182X	ERC410XPH	ERC618X	ERC732X	ERC919X
ERC183X	ERC411X	ERC618XALT	ERC732XPH	

SCHEDULE OF DRAWINGS	
DRAWING NO.	DESCRIPTION
CS	COVER SHEET
CS2	BUILDING NOTES
S1	ELEVATIONS & NOTES
S2	FLOOR PLANS, CROSS SECTION, DETAILS & NOTES
F1	FOUNDATION PLAN, DETAILS & NOTES

WIND LOAD DESIGN DATA:

ULTIMATE DESIGN WIND SPEED (V_{ULT}): 115 MPH
NOMINAL DESIGN WIND SPEED (V_{ASD}): 90 MPH
RISK CATEGORY: I
WIND EXPOSURE: B
INTERNAL PRESSURE COEFFICIENT: ± 0.18

SNOW LOAD DESIGN DATA:

GROUND SNOW LOAD (P_g): 30 PSF
FLAT-ROOF SNOW LOAD (P_f): 24.19 PSF
SNOW EXPOSURE FACTOR (C_e): 1.2
SNOW LOAD IMPORTANCE FACTOR (I): 0.8
THERMAL FACTOR (C_t): 1.2

EARTHQUAKE LOAD DESIGN DATA:

- RISK CATEGORY: I
- SEISMIC IMPORTANCE FACTOR (I): 1.0
- SEISMIC DESIGN CATEGORY: B
- ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7-10 SECTION 12.8)
- BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT FRAMED WALLS WITH STEEL SHEAR PANELS
- SITE CLASS: D
- DESIGN BASE SHEAR: BUILDING "1": 0.870^k
- RESPONSE MODIFICATION FACTOR (R): 7.0
- SEISMIC RESPONSE COEFFICIENT (C_s): 0.029
- MAPPED SPECTRAL RESPONSE ACCELERATION
(S_s): 19.0% G
(S_1): 7.4% G
- SPECTRAL RESPONSE COEFFICIENTS
(S_{DS}): 20.3% G
(S_{D1}): 11.9% G

BUILDING DATA :

BUILDING DESCRIPTION :

SINGLE STORY METAL BUILDING BOLTED TO CONCRETE SLAB FOUNDATION.

BUILDING SIZE :

BUILDING "1" 50' X 120' = 6,000 sq. ft. 8'-6" EAVE HEIGHT

PARKING DATA :

SEE SITE PLAN BY OTHERS

BUILDING CODE :

THE 2015 INTERNATIONAL BUILDING CODE

DESIGN CRITERIA :

THIS BUILDING HAS BEEN DESIGNED TO CONFORM TO THE STRUCTURAL REQUIREMENTS OF THE 2015 INTERNATIONAL BUILDING CODE, WITH CURRENT REVISIONS.

THESE BUILDINGS HAVE BEEN DESIGNED FOR THE FOLLOWING LIVE LOADINGS IN ADDITION TO THE DEAD LOADINGS :

ROOF LIVE LOADING : 20 psf

FLOOR LIVE LOADING: 125 psf

USE GROUP: S-1

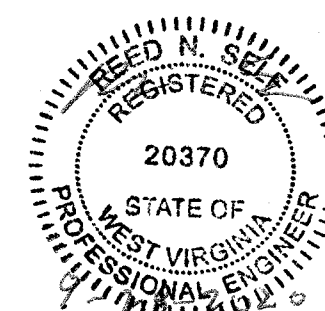
TYPE OF CONSTRUCTION: II-B

IT IS THE RESPONSIBILITY OF THE BUYER/OWNER TO VERIFY THE FIREWALL, LIVE LOAD AND WIND LOAD REQUIREMENTS WITH THE LOCAL CODE AUTHORITY.

PROJECT NUMBER :

WV20152

- △ REVISED WIND AND SNOW LOAD 9/28/20 JCM
- △ REVISED BUILDING LENGTH 9/18/20 JCM



1. CONCRETE FOUNDATIONS AND FLOOR SLAB ARE TO BE SUPPLIED AND INSTALLED BY OTHERS. WEDGE ANCHORS FOR INTERIOR AND EXTERIOR FOOTINGS SUPPLIED AND INSTALLED BY BETCO.
2. EXTERIOR OPENINGS, NOT DESIGNATED AS DOOR LOCATIONS, TO BE COMPLETED USING EXTERIOR WALL PANELS FURNISHED BY BETCO.
3. USE DOW 791 SILICONE CAULK AND 1/2" WIDE BUTYL RUBBER TAPE SEALANT FOR ROOF INSTALLATION. USE DOW 799 SILICONE CAULK AT DOWNSPOUT TO GUTTER JOINT.
4. INTERIOR PARTITIONS PERPENDICULAR TO ROOF BEAM(S) MUST BE COMPLETED BEFORE ROOF PANELS ARE INSTALLED. USE PARTITION FRAMING TO PLUMB AND SQUARE COLLINS AND HEADER SECTIONS. CHECK BUILDING WIDTH AT TOP OF COLLINS PRIOR TO ROOF INSTALLATION.
5. THOROUGHLY SWEEP ROOF PANELS FOLLOWING INSTALLATION TO REMOVE METAL DRILLINGS.
6. THIS DESIGN IS BASED ON USING ONLY METAL BUILDING COMPONENTS WHICH ARE PROPRIETARY TO BETCO. FURTHER, THE PROFESSIONAL ENGINEER'S SEAL IS INVALID UNLESS ONLY BETCO METAL BUILDING COMPONENTS ARE UTILIZED.
7. METAL STUDS (IF APPLICABLE) MAY REQUIRE FIELD CUTTING DEPENDING UPON THE EAVE HEIGHT OF THE STRUCTURE.
8. UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.
9. THESE DRAWINGS ARE THE PROPERTY OF BETCO, INC. AND MAY NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN CONSENT OF BETCO, INC.
10. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
11. THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC. AS REQUIRED BY THE VARIOUS TRADES.

1. THE FOUNDATION DESIGN IS BASED ON A PRESUMED ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF. NOTIFY ENGINEER IF SITE CONDITIONS DIFFER FROM DESIGN ASSUMPTIONS SPECIFIED.
2. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
3. TOP OF FOOTING ELEVATIONS ARE SHOWN ON THE DRAWINGS ARE TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD IN ACCORDANCE WITH THE GUIDE LINES SET FORTH IN THE DRAWINGS AND SPECIFICATIONS.
4. FILL MATERIAL SHALL BE FREE OF ROOTS, WOOD OR OTHER ORGANIC MATERIAL AND COMPLY WITH THE REQUIREMENTS OF THE MATERIALS USED FOR THE UNDER FOOTING AND MAIN BUILDING LIMITS SHALL BE TESTED AND APPROVED FOR THE USE BY THE GEOTECHNICAL TESTING AGENCY.
5. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL.
6. FOUNDATION WALLS RETAINING EARTH SHALL BE BRACED AGAINST BACK FILLING PRESSURES UNTIL FLOOR SLAB IS AT TOP AND BOTTOM ARE IN PLACE.
7. FOUNDATION WALLS OR GRADE BEAMS HAVING EARTH PLACED ON EACH SIDE SHALL HAVE BOTH FILLED SIMULTANEOUSLY TO MAINTAIN A COMMON ELEVATION.
8. DO NOT PLACE CONCRETE IN ANY EXCAVATION CONTAINING ICE, FROST, FROZEN GROUND OR FREE WATER. FROZEN SUB GRADES MUST BE THAWED AND RECOMPACTED PRIOR TO PLACING CONCRETE.
9. EARTH FORMED FOOTINGS SHALL CONFORM TO THE SHAPE, LINES, AND DIMENSIONS AS SHOWN ON THE FOUNDATION PLAN. ALL WATER SHALL BE REMOVED BEFORE DEPOSITING CONCRETE.
10. BEFORE PLACING CONCRETE, ALL EMBEDDED ITEMS SHALL BE PROPERLY LOCATED, ACCURATELY POSITIONED, AND MAINTAINED SECURELY IN PLACE.
11. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
12. PERMETER FOUNDATION MUST NOT EXCEED 1/4" ELEVATION VARIATION ALONG ANY 50' DISTANCE OF BUILDING LENGTH.
13. PERMETER FOUNDATION TO EXTEND BELOW FROST LINE. VERIFY REQUIRED DEPTH WITH LOCAL BUILDING OFFICIALS PRIOR TO PROCEEDING WITH FOUNDATION WORK AND NOTIFY ENGINEER OF DEVIATION FROM DRAWING.
14. THE AMERICAN CONCRETE INSTITUTE DOES NOT RECOGNIZE FIBERLESS AS A SUBSTITUTE FOR WIRE MESH REINFORCED CONCRETE WHEN SUBJECT TO TENSILE STRESS.
15. SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS ... OFFSET GIRT 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.

1. REINFORCING STEEL SHALL BE NEW BUILT STEEL, DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60 (FY-60,000 PSI).
2. FIELD BENDING OF CONCRETE REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
3. ALL REINFORCING SHALL BE DETAILLED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 8F-66 "ACI DETAILING MANUAL-1994" AND THE "CRSI MANUAL OF STANDARD PRACTICE", LATEST EDITION.
4. PLACE REINFORCEMENT AND TIES IN GROUT SPACES PRIOR TO GROUTING.
5. CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE UNLESS NOTED OTHERWISE.

A. FOOTING AND GRADE BEAMS	
IN GROUND CONTACT	3 INCHES
B. BEAMS AND COLUMNS	2 INCHES
C. SLABS, WALLS, AND JOISTS	3/4 INCH - NOT EXPOSED TO EARTH, LIQUID OR WEATHER
D. SLABS ON GRADES	2 INCHES FROM TOP
E. REINFORCEMENT IN GROUND CONTACT	2 INCHES
6. DEVELOPMENT LENGTHS AND LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318-14 CHAPTER 17 AND AS INDICATED ON THE DRAWINGS. WHERE SPLICES ARE NOT CALLED OUT ON THE DRAWINGS, USE CLASS "B", BUT IN NO CASE SHALL ANY SPLICE BE LESS THAN 12 INCHES. FOR BARS AS INDICATED BELOW THE BASIC DEVELOPMENT LENGTH SHALL BE MULTIPLIED BY THE FACTORS AS INDICATED FOR CORROSION AND THEN ROUNDED UP TO THE NEAREST WHOLE INCH. THE FACTORS INDICATED BELOW ARE CUMULATIVE FOR EACH OF THE CONDITIONS APPLICABLE.

1. WELDED WIRE MESH/FABRIC SHALL CONFORM TO ASTM A184 AND A185 RESPECTIVELY AND BE LAPPED 1'-0" AT ALL SPLICES.
2. ALL REINFORCING TERMINATING AT THE TOPS OF COLUMNS AND PILASTERS SHALL BE HOOKED UNLESS OTHERWISE NOTED.
3. SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL, (8F-66) SHOWING BAR SCHEDULES, STRIP/UP SPACING, DIAGRAMS OF BENT BARS, ARRANGEMENT OF CONCRETE REINFORCEMENT. INCLUDE SPECIAL REINFORCEMENT REQUIRED AT TRANSITIONS THROUGH CONCRETE STRUCTURES. INCLUDE ALL ACCESSORIES SPECIFIED/REQUIRED TO SUPPORT REINFORCING.
4. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES.
5. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER AND TESTING AGENCY A MINIMUM OF 14 DAYS PRIOR TO ALL CONCRETE CURING IN ORDER TO PERMIT REINFORCING STEEL REVIEW AS REQUIRED BY THE INSPECTION SCHEDULE.
6. REINFORCING IN ALL CONTINUOUS STRIP FOOTINGS SHALL HAVE CORNER BARS OR DOUGL. PROVIDE AT ALL CORNERS AND INTERSECTIONS.

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
3. MEANS AND METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS ARE SOLELY THE CONTRACTORS RESPONSIBILITY.
4. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR SHALL COORDINATE THE VARIOUS REQUIREMENTS.
5. NO OPENINGS NOR ANY CHANGES IN SIZE, DIMENSION OR LOCATION SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.
7. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY TEMPORARY BRACING OR SUPPORT REQUIRED TO ACCOMMODATE THE CONTRACTORS MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEERS REVIEW OF SHOP DRAWINGS, PROJECT DATA, ETC. UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.
9. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
10. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY THE EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INSTRUCTIONS ON THESE DIMENSIONS ARE TO BE SHOWN ON THE DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.
12. DO NOT SCALE THESE DRAWINGS. USE THE DIMENSIONS SHOWN.

1. SUBMIT WRITTEN REPORTS OF EACH PROPOSED CONCRETE DESIGN MIX NOT LESS THAN 15 DAYS PRIOR TO THE START OF WORK. DESIGN MIXES PREPARED MORE THAN TWELVE (12) MONTHS PRIOR TO THE DATE THE SUBMITTAL ARE NOT PERMITTED.

2. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14).

3. ALL CONCRETE SHALL BE TESTED BY AN INDEPENDENT TESTING AGENCY FOR STRENGTH AND PARAMETERS (SLUMP, COMPRESSIVE STRENGTH, ETC.). TWO COPIES OF ALL REPORTS SHALL BE SUBMITTED TO THE ENGINEER/ARCHITECT.

4. ALL NORMAL WEIGHT CONCRETE SHALL HAVE ASTM C-33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 150 PCF. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS, MINIMUM FOR FOUNDATIONS AND SLABS ON GRADE. ALL CONCRETE FOR FLOORS, SLABS ON METAL DECK FORMS SHALL BE NORMAL WEIGHT CONCRETE WITH COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

5. MIX DESIGNS, INCLUDING WATER-CEMENT RATIOS AND SLUMPS, SHALL BE PREPARED IN ACCORDANCE WITH MOST CURRENT ACI 301 CHAPTER 3, EXCEPT WHERE CONTRADICTED IN THE PROJECT SPECIFICATIONS. GEMENT SHALL CONFORM TO ASTM C 150 TYPE 1 OR AT CONTRACTOR'S OPTION, ASTM C 595 TYPE II WHERE FLY ASH IS PERMITTED. NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 150 PCF AND LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C 330 AGGREGATE. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED IN ANY CONCRETE.

AGGREGATE SIZES SHALL BE:

I. FORTIFIED CEMENT ELEPHANTS, UNO.	76#1 STONE (3/4" MAX)
II. GRADE SLABS AND FLOOR FORTIFIED ELEPHANTS.	54#1 STONE (1" MAX)
III. COARSE SAND AND FORTIFIED ELEPHANTS.	80#1 STONE (3/4" MAX)
IV. FINE SAND, GROUT, CRUSHED.	80#1 STONE (3/4" MAX)

AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301-84 TABLE 3.4.1 SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION OR SERVICE CONDITIONS.

8. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45 FOR ANY CONCRETE SUBJECTED TO FREEZING/THAWING.

9. ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.45 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).

10. IN NO CASE SHALL A WATER/CEMENT RATIO EXCEED THE FOLLOWING:

I. ALL FOUNDATION CONCRETE TO 3000 PSI.....	0.35 MAX. W/C RATIO
II. EXTERIOR PAVING CONCRETE TO 3500 PSI.....	0.50 MAX. W/C RATIO
III. ALL EXPOSED OR WATERABLE, PIERS, ETC. TO 3500 PSI.....	0.45 MAX. W/C RATIO
IV. SLABS ON GRADE TO 3000 PSI.....	0.45 MAX. W/C RATIO

11. LIQUID MEMBRANE CURING COMPOUND WITH A MINIMUM 30% SOLIDS CONTENT SHALL BE APPLIED WITHIN TWO (2) HOURS AFTER COMPLETION OF FINISHES TO ALL CONCRETE FLOORWORK AND WALLS, UNO, OTHER THAN FOOTINGS AND GRADE BEAMS.

12. FLOORS IN AREAS RECEIVING QUARRY TILE, CERAMIC TILE AND LIQUID FLOOR HARDENER SHALL BE CURED WITH DISPERBATING LIQUID MEMBRANE CURING COMPOUND OR LET CURED BY USE OF MOISTURE RETAINING COVER. DISPERBATING CURING COMPOUND SHALL BE THOROUGHLY BEHIND AND WATERABLE PRIOR TO APPLICATION OF FLOOR FINISH.

13. USE A NON-CORROSIVE, NON-CHLORIDE ACCELERATING ADMIXTURE IN CONCRETE EXPOSED TO TEMPERATURES BELOW 40 DEGREES. UNIFORMLY HEAT THE WATER AND AGGREGATES TO A TEMPERATURE OF NOT LESS THAN 50 DEGREES. PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 306.

14. ALL CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE STRUCTURAL ENGINEER.

15. REINFORCING IN ALL ABUTTING CONCRETE, INCLUDING FOOTINGS, SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS OR INTERSECTIONS. DOUELS OR SPLICES SHALL BE EQUAL IN SIZE AND SPACING TO THE REINFORCING THE ABUTTING MEMBERS.

16. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WALL SLOTTING AND ANCHORS, BRICK LINED ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.

17. FORMS FOR ROUND COLUMNS SHALL BE ONE PIECE FIBERGLASS FORM TO PRODUCE SMOOTH FINISH ON EXPOSED COLUMNS.

18. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED CONFORM TO REQUIREMENTS OF ACI 301.

19. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES AND OTHER STEEL EXPOSED TO EARTH OR GRANULAR FILL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.

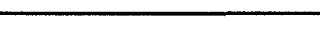

20. FINISHING TOLERANCE SHALL BE WITHIN CLASS B IN ACCORDANCE WITH ACI 301 AND CONSIDER SHALL BE GIVEN TO SEQUENCING OF CONCRETE PLACEMENT TO FACILITATE CONTROL OF FINISH ELEVATIONS.

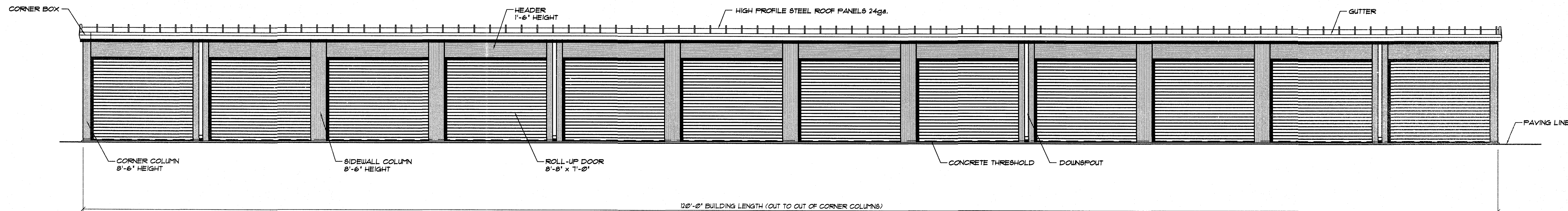
21. NON-SHRINK GROUT SHALL BE FREE-MIXED, NON-CORROSIVE, NON-METALLIC, NON-STAINING, CONTAINING SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AND WATER REDUCING AGENTS. PRODUCTS SHALL ONLY REQUIRE THE ADDITION OF WATER. MINIMUM COMPRESSIVE STRENGTH BE 5000 PSI AFTER ONE DAY AND 10000 PSI AFTER 28 DAYS. GROUT SHALL BE FREE OF FIBER OR AIR RELEASING AND OXIDIZING AGENTS AND CONTAIN NO CORROSIVE IRON, ALUM OR GYPHUM.

22. PROVIDE CONCRETE GROUT - NOT MORTAR - FOR REINFORCING MASONRY LINTEL AND BOND BEAMS WHERE INDICATED ON DRAWINGS OR AS SCHEDULED.

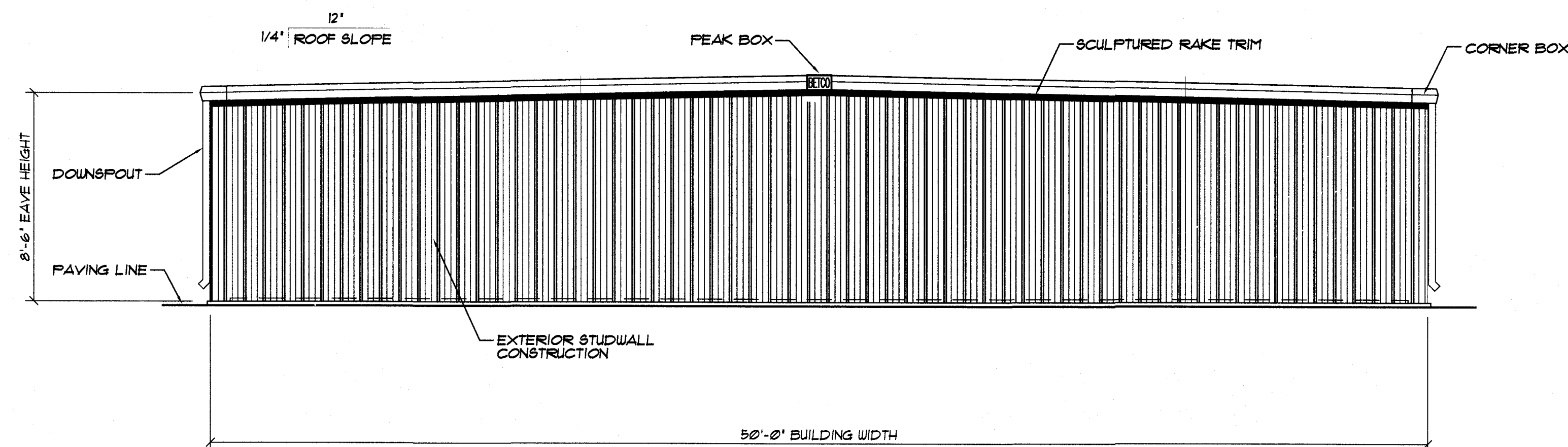
23. TOLERANCE FOR ANCHOR RODS AND OTHER EMBEDDED ITEMS SHALL BE PER THE AISC CODE OF STANDARD PRACTICE SECTION 13.

24. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL COLUMNS, WALL, SLAB, OR BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

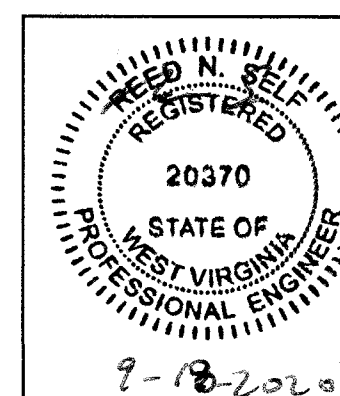
			DATE:	8/06/20		OWNER: AMERICAN SELF STORAGE	PROJECT NO.:	WY20152	
			DRAWN BY:	K. MACLAY			SHEET TITLE: BUILDING NOTES	DRAWING NUMBER:	CS2 OF 2
			SCALE:	AS NOTED					
			APPROVED BY:						
REVISIONS		DATE	BY						



A SIDEWALL ELEVATION... BUILDING "1"
 S1 SCALE: 1/4" = 1'-0"



B ENDWALL ELEVATION... BUILDING "1"
 S1 SCALE: 1/4" = 1'-0"



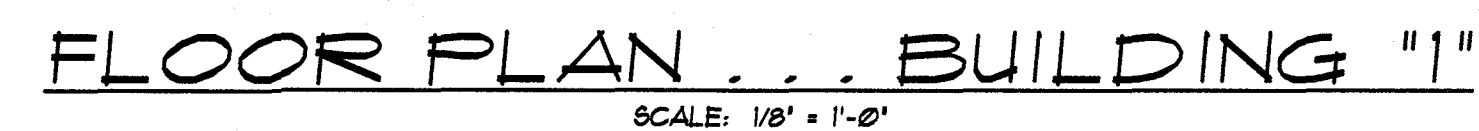
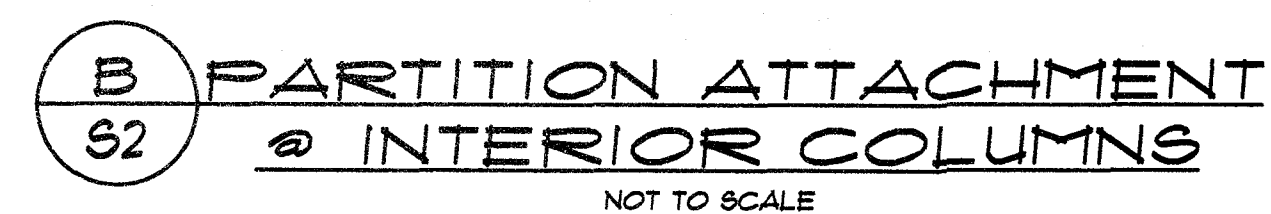
DATE:	8/06/20
DRAWN BY:	K. MACLAY
SCALE:	AS NOTED
APPROVED BY:	
REVISIONS	DATE BY
Δ REVISED BUILDING LENGTH	9/18/20 JCM

BETCO
 228 COMMERCE BLVD.
 STATESVILLE, NC 28625
 (800) 654-7813

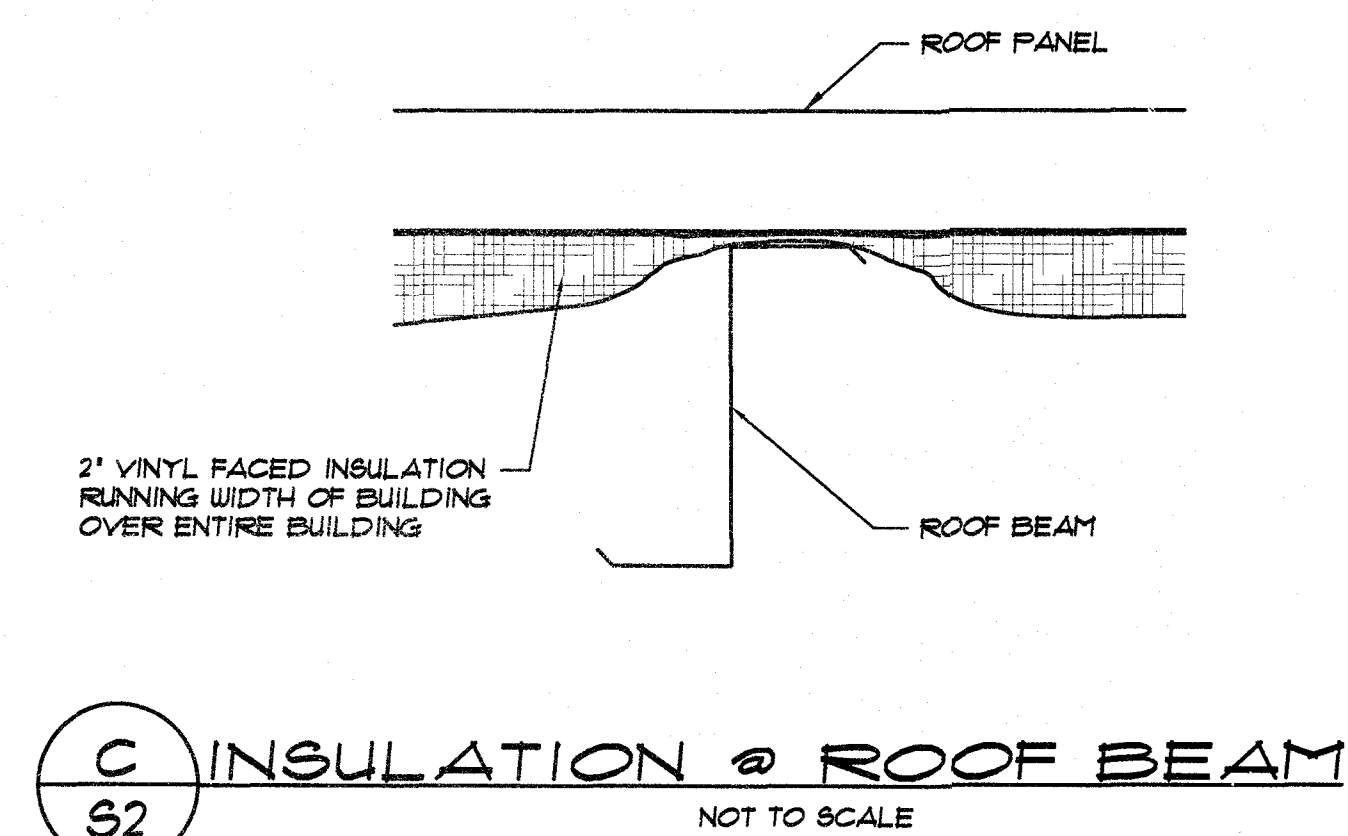
SHEET 1

ELEVATIONS & NOTES

WV20162
 DRAWING NUMBER:
 S1 OF 2

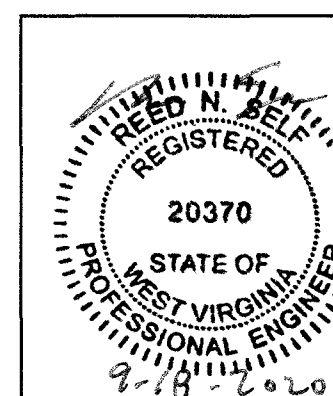


NOTE: BUILDING "1" IS PROVIDED
W/(2) ADJUSTABLE CONTROL JOINT
COLUMNS. 8'-6" HEIGHT



NOTE: . . . SEE OWNER FOR
BUILDING ORIENTATION ON SITE

NOTE:
UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR
DIMENSIONS INSIDE UNITS MAY VARY ACCORDING
TO FINAL DESIGN OF COMPONENTS.



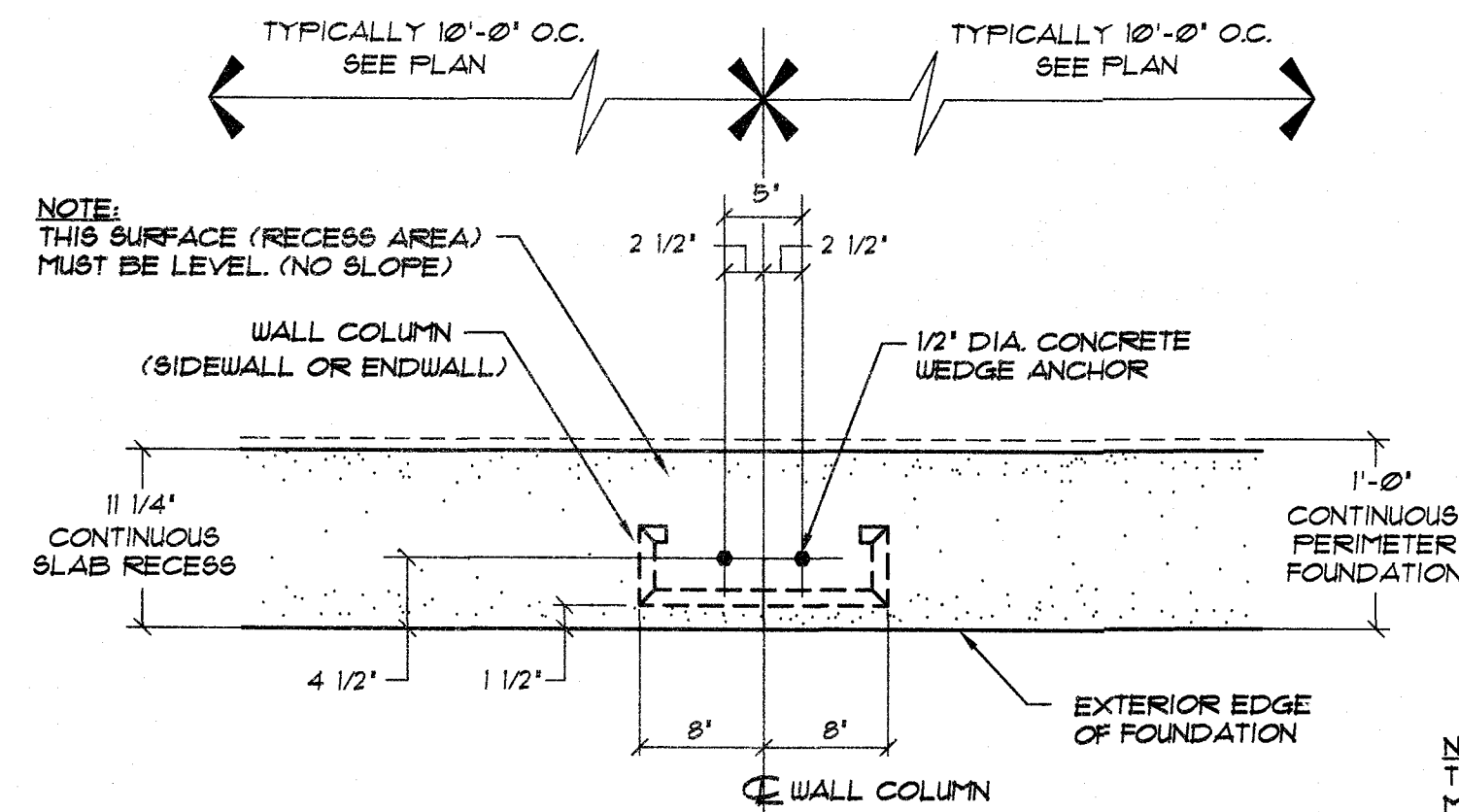
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				DRAWN BY:	K. MACLAY
				SCALE:	AS NOTED
				APPROVED BY:	
	REVISED BUILDING LENGTH	9/8/20	JCM		
REVISIONS		DATE	BY		



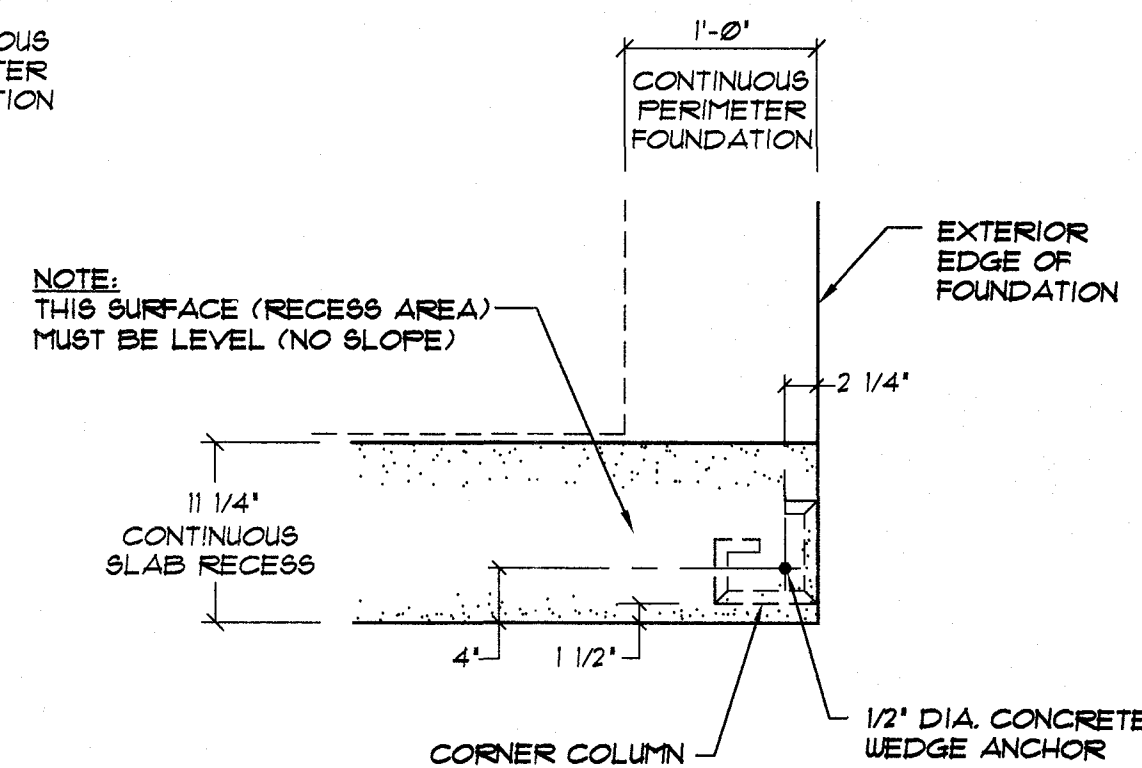
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

SHEET TITLE: FLOOR PLAN, CROSS SECTION,
DETAILS & NOTES

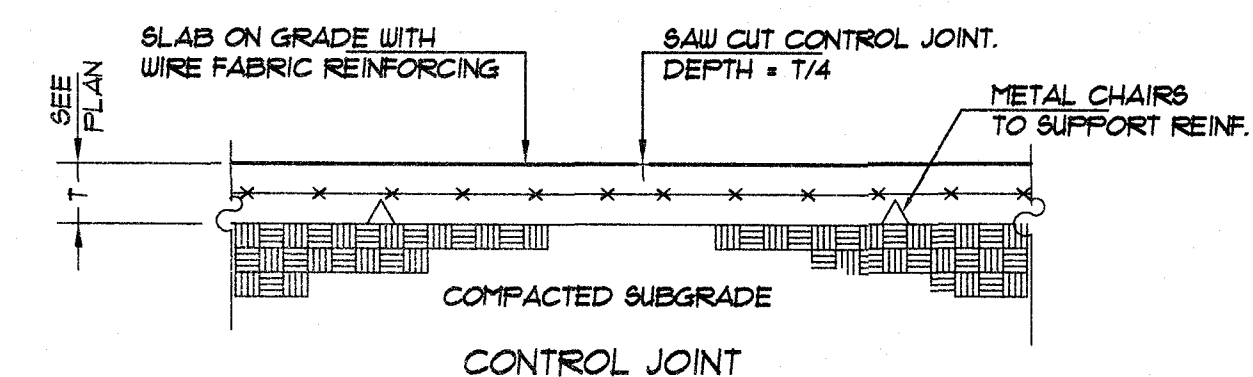
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S2 OF 2



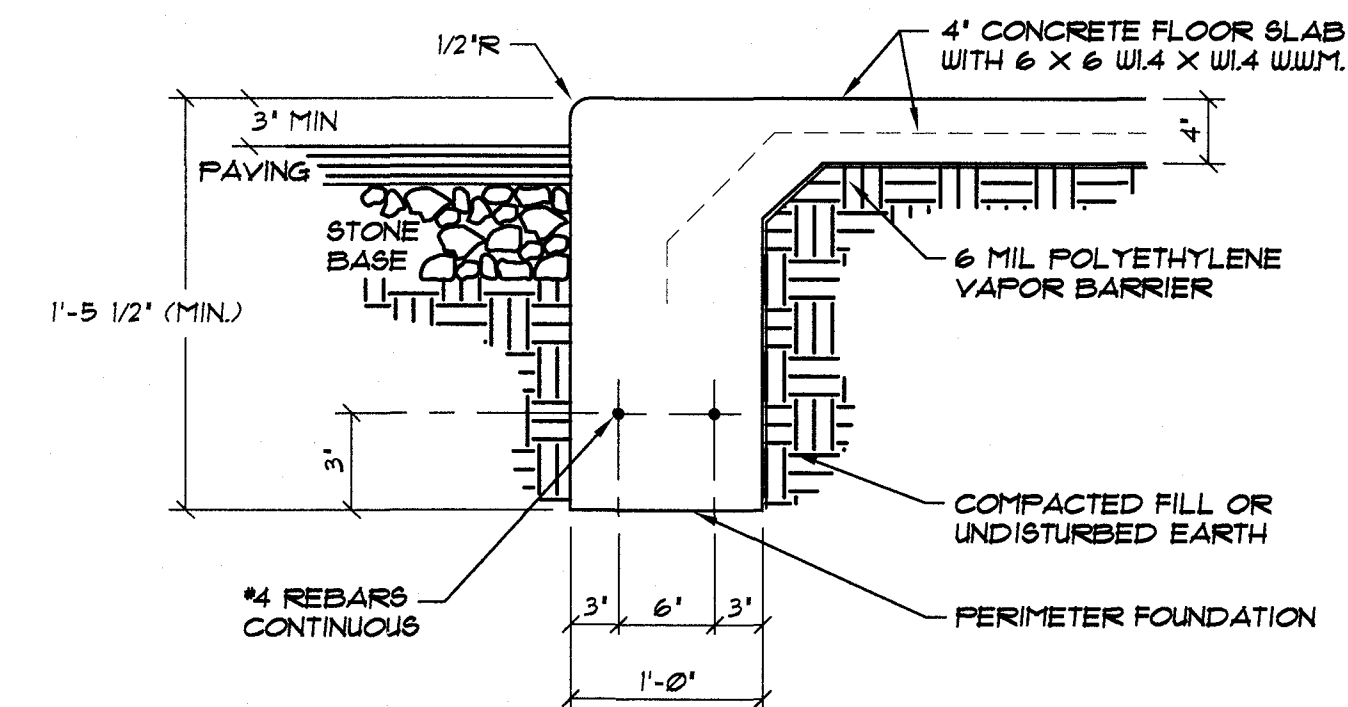
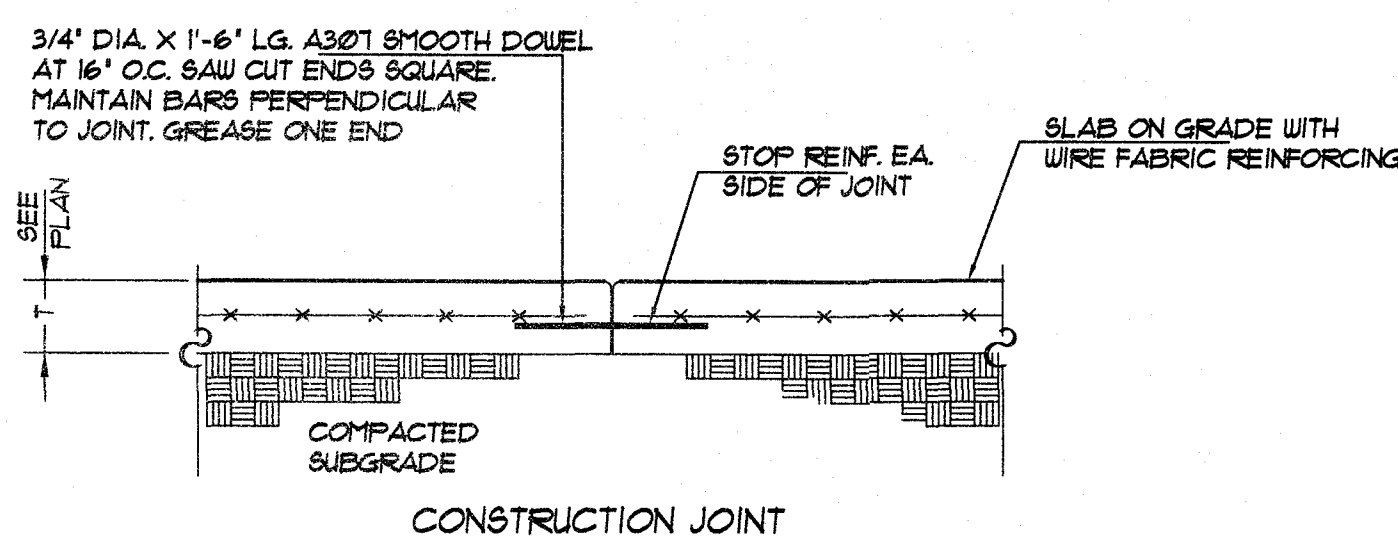
D
FI **TYPICAL WALL COLUMN WEDGE ANCHORS**
NOT TO SCALE



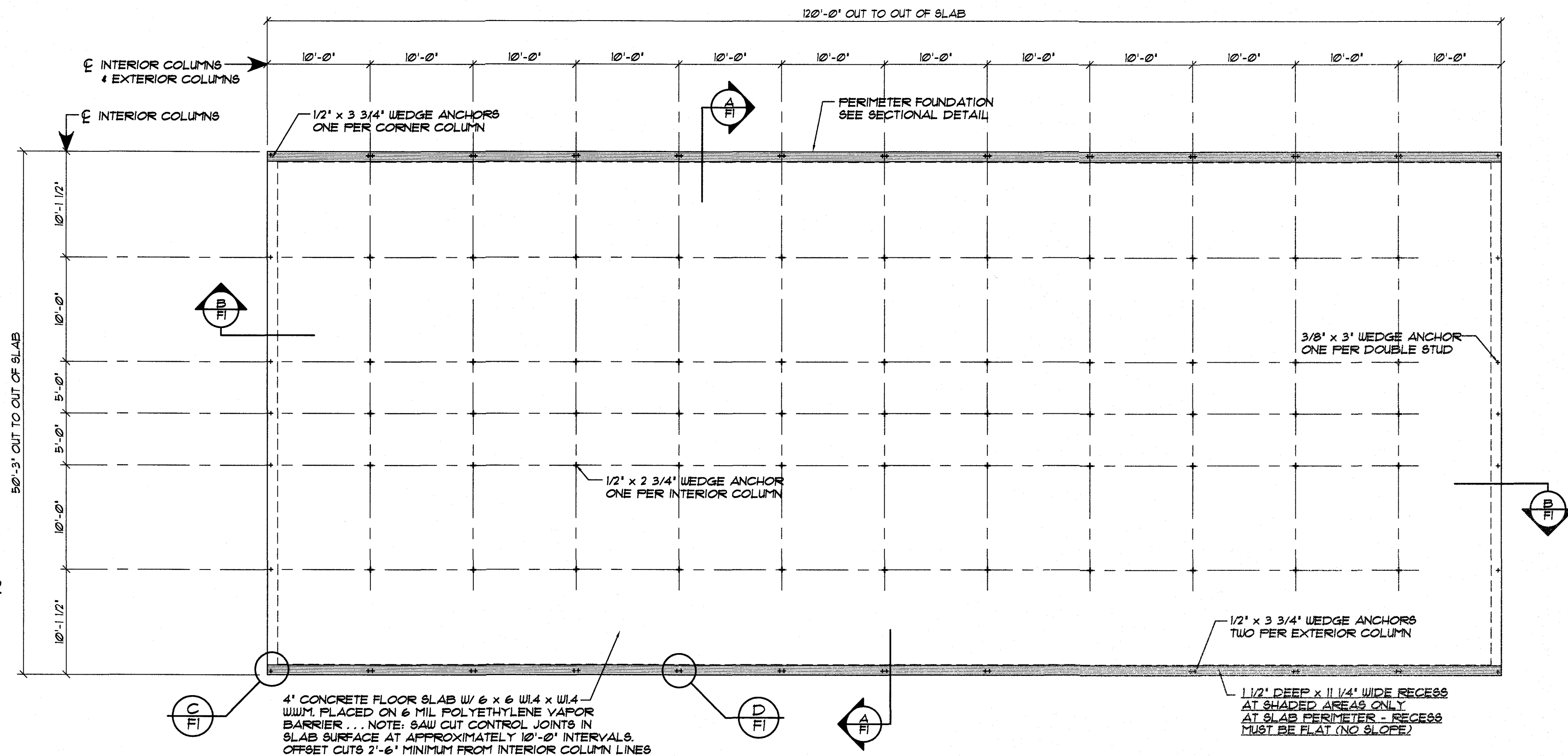
C
FI **CORNER WEDGE ANCHORS AT STUD WALL**
NOT TO SCALE



E
FI **CONTROL JOINT & CONSTRUCTION JOINT IN CONCRETE SLAB**
NOT TO SCALE

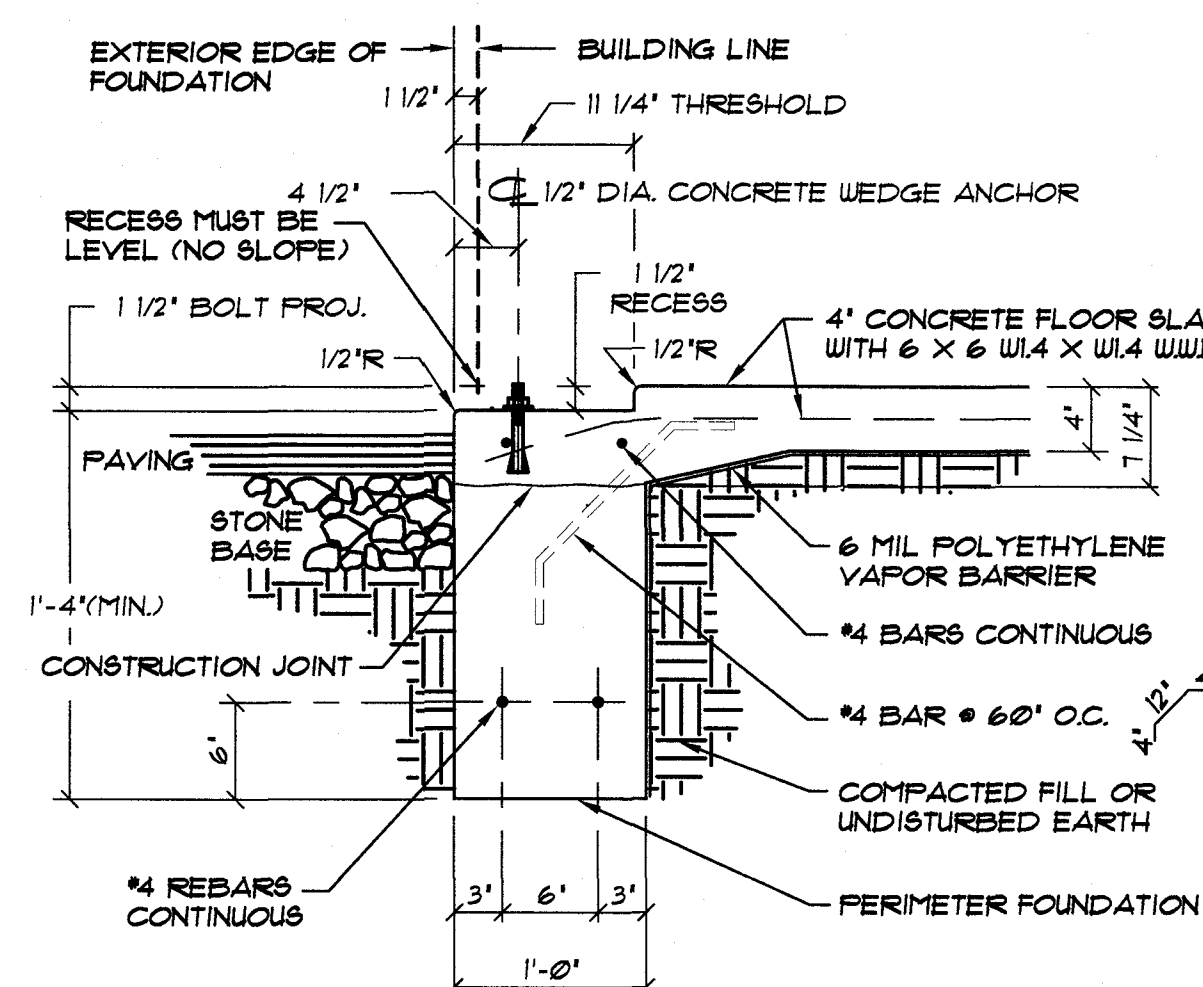


B
FI **PERIMETER FOUNDATION SECTION AT EXTERIOR STUDWALL (MONOLITHIC CONCRETE PLACEMENT)**
NOT TO SCALE

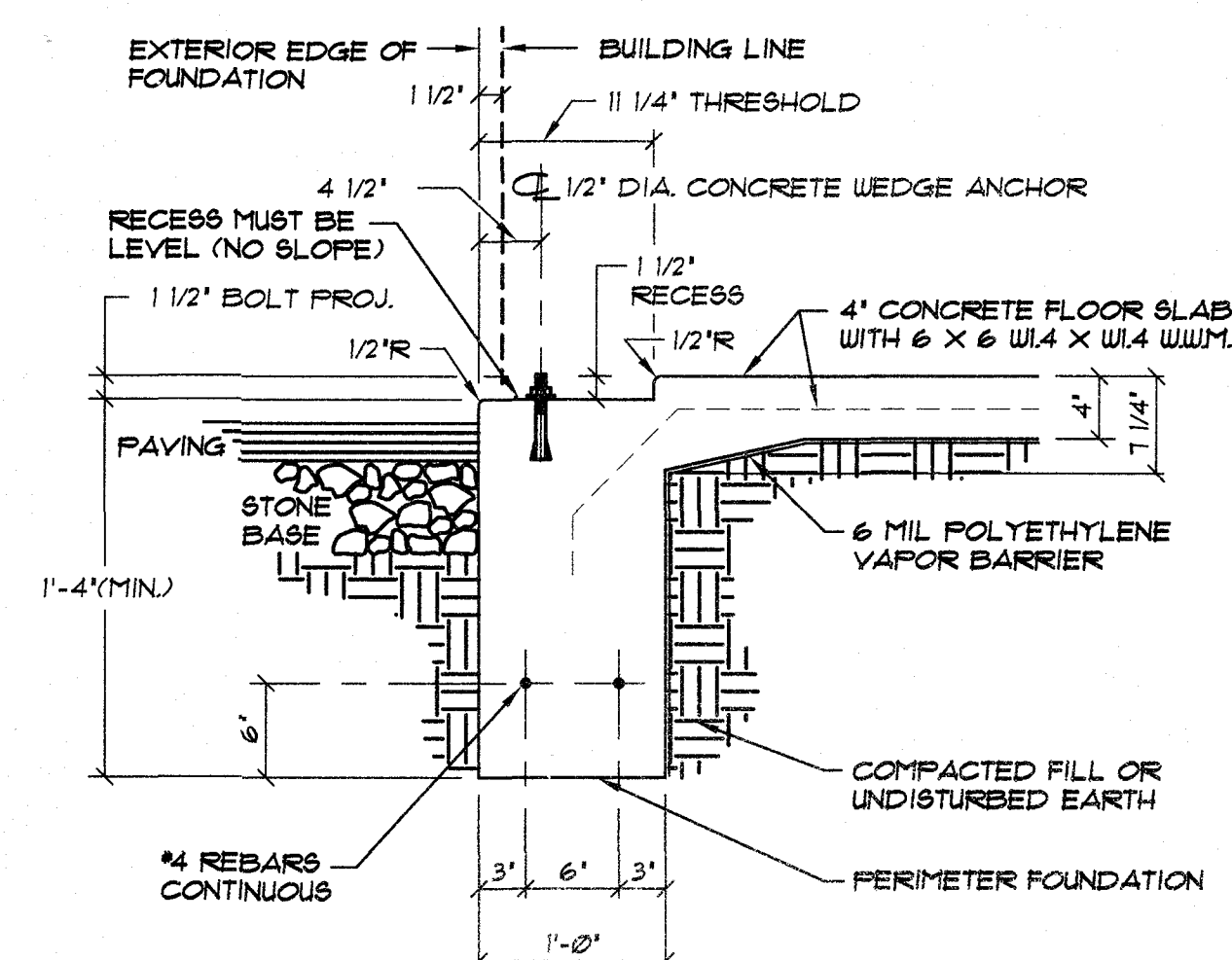


FOUNDATION PLAN... BUILDING "1"
SCALE: 1/8" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS...
OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.



A
FI **ALTERNATE PERIMETER FOUNDATION SECTION (TWO STAGE CONCRETE PLACEMENT)**
NOT TO SCALE



A
FI **TYPICAL PERIMETER FOUNDATION SECTION (MONOLITHIC CONCRETE PLACEMENT)**
NOT TO SCALE

ACI 318 - TABLE 4.2.1 EXPOSURE CATEGORIES AND CLASSES				
CATEGORY	SEVERITY	CLASS	CONDITION	
F FREEZING AND THAWING	NOT APPLICABLE	F0	CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES	
S SULFATE	NOT APPLICABLE	S0	WATER-SOLUBLE SULFATE (SO ₄) IN SOIL, PERCENT BY WEIGHT	DISSOLVED SULFATE (SO ₄) IN WATER, ppm
			SO ₄ < 0.10	SO ₄ < 150
P REQUIRING LOW PERMEABILITY	NOT APPLICABLE	P0	IN CONTACT WITH WATER WHERE LOW PERMEABILITY IS NOT REQUIRED	
C CORROSION PROTECTION OF REINFORCEMENT	MODERATE	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES	

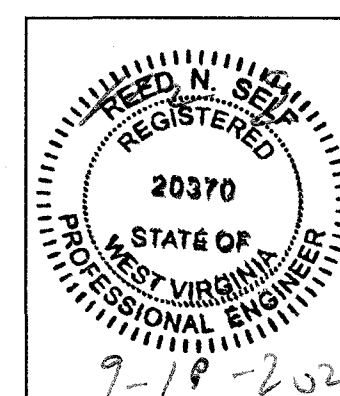
NOTE: ABOVE REPRESENTS "ASSUMED" CONDITIONS BY ENGINEER. IF CONTRACTOR KNOWS OR HAS REASON TO BELIEVE OTHERWISE, ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CONSTRUCTION.

REFERENCE ACI 318 - TABLE 4.3.1 FOR REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS.

NOTE: ... SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE: WEDGE ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.



DATE:	8/06/20
DRAWN BY:	K. MACLAY
SCALE:	AS NOTED
APPROVED BY:	
REVISED BUILDING LENGTH	9/18/20 JCM
REVISIONS	DATE BY

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

SHEET TITLE:
FOUNDATION PLAN, DETAILS & NOTES

DRAWING NUMBER:
F1 of 1







2018

2016 2014



Martha Wyatt

From: Martha Wyatt
Sent: Wednesday, November 9, 2022 4:19 PM
To: Martha Wyatt
Subject: Parking requirements and Special Use Criteria summary

From: Jerrad Beauchamp
Sent: Wednesday, November 9, 2022 4:04 PM
To: Martha Wyatt <MWyatt@hartlandtwp.com>
Cc: Troy Langer <TLanger@hartlandtwp.com>
Subject: RE: Parking requirements and Special Use Criteria summary

Hi Martha,

Below are a few items we discussed.....

- 1) ***Pertaining to the required parking spots for office/customer use***-Below are items that have changed.
 - a. Storage units are commonly booked through online rental contracts. Office visits are no longer the norm.
 - b. Storage units are now accessed with coded locks, again all controlled online for access.
 - c. Storage units have switch to these new processes because its more convenient for the customers and less payroll for the company.
 - d. Storage units offices Typically is only used for Janitorial purposes.
 - e. These changes have totally changed the traffic/customers usage of storage facility office to minimal visitors because its almost always done online.

I would also propose if needed, we have several outdoor and covered parking places which we could designate employee parking.

- 2) **Special Land Use Review-General Standards 6.6**
 - a. We feel this project does conform with the intent and purpose of the ordinance-This would be the best fit for storage units.
 - b. We feel the use of storage units in this area and the surrounding business is the correct mix for storage units and will mix nicely.
 - c. We feel the transition from full retail on m59 to industrial use along old 23 the storage units makes a nice transition.
 - d. We feel the traffic access and also public utilities for our project fits well in this area and doesn't ad any high levels of traffic count or public services requirements such as sewer or water.
 - e. We feel we do not negatively impact the neighboring uses and again this is a nice transition of a nice facility enhancing local convenience for our local community. In fact it improves better solutions for locals to storage there items in a nice facility rather than cluttering up their neighborhood driveways and houses.
 - f. We will not ad to any public costs or services or economic welfare of the community.



PUCCI + VOLLMAR
ARCHITECTS, PC
ARCHITECTURE + DESIGN + PLANNING

November 3, 2022

sent via email

Martha Wyatt, Planner
Hartland Township
2655 Clark Road
Hartland, MI 48353

Dear Martha,

This letter is in response to your emailed comments regarding Beauchamp Storage, project SUP #22-015, dated November 2, 2022.

You had requested a written statement indicating the end walls of the canopy structures will completely be screened. Please refer to the following information:

<u>Building Number</u>	<u>Height Of Storage Structure At Peak</u>	<u>Height Of Masonry Screen Wall</u>
1	8'-10"	10'-2"
2	8'-10"	10'-2"
3	10'-3"	11'-6"
4	8'-10"	10'-2"
5	8'-10"	10'-2"
6	8'-10"	10'-2"
7	8'-10"	10'-2"
8	8'-10"	10'-2"

<u>Canopy Number</u>	<u>Height Of Canopy Structure At Peak</u>	<u>Height Of Masonry Screen Wall</u>
1	16'-11"	18'-2"
2	16'-11"	18'-2"
3	16'-11"	18'-2"

Sincerely,

Karl F. Vollmar, Architect

Copy: Jerrad Beauchamp, David LeClair, via copy of email





DEPARTMENT OF PUBLIC WORKS

Michael Luce, Public Works Director
2655 Clark Road
Hartland MI 48353
Phone: (810) 632-7498

TO: Planning Department
DATE: 11/08/2022
DEVELOPMENT NAME: Mini Storage
PIN#: 4708-28-300-023
APPLICATION #: SUP 22-015
REVIEW TYPE: Site Plan

The Department of Public Works (DPW) has reviewed the site plans for the proposed Mini Storage facility and has determined that it will require .15 REU's for the development. As the only portion of the building that will have sewer is the office and it is quite small.

	Sewer REUs	Water REUs
Owned	0	0
Required	.15	0
# REUs Needed	.15	0
Cost Each	\$9,439.20	\$5,816.01
Total Due Each	\$1,415.88	
TOTAL REU COST	\$1,415.88	

Public Works approves the above plans subject to applicant securing the required number of REUs and the inclusion of the following details on the site plans and construction plans:

1. All review is subject to approval and must comply the Livingston County Drain Commission standards.
2. All Utility easements noted as public as well as a monitoring manhole if so, required by the Livingston County Drain Commission
3. Notes to indicate that all existing utility infrastructure within the development envelope will be required to be upgraded to the current design and engineering standards.

Prior to interior construction, applicant will be required to purchase a 2" water meter from the Township. Please contact the Public Works Department (810-632-7498) to purchase the water meter.

Please feel free to contact me with any further questions or comments regarding this matter, and thank you for your time.

Michael Luce
Public Works Director

November 7, 2022

Troy Langer
Planning Director
Hartland Township, MI

Re: Old US 23 Mini – Storage – First Site Plan Review
SDA Review No. HL22-117

Dear Troy:

We have received the preliminary site plan submittal for the above referenced project prepared by Livingston Engineering dated October 18, 2022 and were received by our office on November 1, 2022. The plans were reviewed in accordance with Hartland Township Engineering Standards and the following comments are our observations.

A. General

The site is located along the east side of Old US Hwy. 23, south of E Highland Road (M-59). It is measured as 11.90 acres total area. The site is currently vacant. The proposed development includes a proposed self-storage warehouse (Mini - Storage).

1. At this time no certified boundary survey was submitted. Provide a recent boundary survey indicating all existing topography consisting of existing grades to a minimum of 100' beyond the site's property (if available).
 - a. Include all existing (recorded) easement for utilities and/or right-of-way.
2. The existing site is located within wetlands areas. The current plans indicate that these areas will be impacted and disturbed. An EGLE Permit or a letter of "No Authority" will be required for any proposed work within these areas.
3. Proposed work limits extend within the Old US Hwy. 23 and US Hwy. 23 ROW. A permit from the Livingston County Road Commission for all work within the County ROW and an MDOT permit for all work within the MDOT ROW will be required prior to any construction.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. On site pavement, water main, sanitary sewer and storm sewer and quantities must be shown on the plans.
2. Hartland Township Standard Detail Sheets are to be attached to the proposed plans when applicable.

B. Water Main

The plans do not show any existing water main. Township records show an existing 12" diameter water main located along and crossing Old US Hwy. 23, north of the neighbor property (1480 Old US Hwy. 23). The plans show a 2" water service connecting to a proposed well.

Based on this water main layout, we have the following comments:

1. Provide indication of the proposed system of water supply by a method approved by the Livingston County Health Department or other applicable authorities.
2. Well shall be installed according to Livingston County Health Department Standards and permit provisions.
3. The Hartland Fire Marshall shall review and approve the hydrant coverage for the site.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. When connecting to an existing water main, a tapping sleeve, gate valve and well will be required unless connection to the existing main can be made without interrupting service of the main.
2. Add a notation of the proposed water service size.

C. Storm Drainage/Grading

Storm water runoff is to be captured via catch basins along the proposed buildings and drain to two detention ponds, located on the east and southeast of the site. The two are connected by a storm pipe.

An outlet structure is being provided to outlet into wetland A at the south east corner of the site. Coordination with Livingston County and EGLE will be needed to confirm this outlet as acceptable.

1. Offsite surface runoff shall not be trapped along the development perimeter. If the existing runoff from adjacent properties pass onto the proposed site, the proposed storm sewer system must be sized to accommodate.
2. On-site drainage must be captured within the proposed development via the storm sewer network and will not be allowed to drain to adjacent properties.
3. Confirm that Livingston County Drain Commission and EGLE will not require any additional water quality requirements before draining into the existing wetland A.
4. All storm water design calculations are to follow Hartland Township and Livingston County Drain Commissioner standards and details.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. Storm sewer layouts and profiles must be included on the plans.
2. Provide finish grades of the building corners and sidewalks.
3. Curb will be required along wetland A and proposed retaining wall. Top of curb grades shall be shown on the grading plan.

D. Paving

The site is accessed by a driveway off Old US Hwy 23. The proposed plans include 6 parking spaces, 8 storage buildings, 3 storage canopy shelters, and a gravel outdoor storage area. No sidewalks along Old US Hwy 23 is proposed as part of this development.

At this time no sufficient information was provided to determine whether a fire truck will have proper circulation around the proposed site layout.

1. Provide a circulation layout demonstrating turning movements around the proposed buildings. It shall be reviewed and approved by the Hartland Fire Marshall.

These comments are to assist in plan preparation in anticipation of your engineering review submittal and are not required at this time for site plan approval:

1. Provide the location of all solid waste storage areas and pick-up points.
2. Identify all proposed curb on the plans.

E. Sanitary Sewer

The plans show an existing 8" sanitary sewer along the west side of Old US Hwy 23 and an existing 6" sanitary lead on the west south side of the site. The proposed 6" sanitary lead connects to existing sanitary lead.

1. The existing sanitary lead shall be televised and reviewed by the Township Engineer to make sure it is in good working condition. If found to be defective, the Township may require that the existing lead be removed and built new or CIPP lined.

All sanitary sewer design requirements are to follow current Livingston County Drain Commissioner's (LCDC) standards and details. LCDC sanitary sewer detail sheets shall be attached to the proposed plans when applicable.

Permits Required

Based on those improvements depicted on the plans, the following permits may be required and will need to be provided to the Township once available. Any changes to the approved site plan from the following agencies that impact the design may require reapproval.

Hartland Township:

1. A Land Use Permit will be granted after the pre-construction meeting.
2. Storm Water Agreement (for the storm water improvements on the site).

Livingston County:

1. Copy of Livingston County Drain Commissioner approval and permit.
2. Copy of a Soil Erosion and Sedimentation permit from Livingston County Drain Commissioner.
3. Copy of Livingston County Road Commission approval and permit for work in the Old US Highway 23 Road right-of-way.

Michigan Department of Transportation (MDOT):

1. Copy of Michigan Department of Transportation approval and/or permit for work in the US Highway 23 Road right-of-way.

Michigan Department of Environment, Great Lakes, and Energy (EGLE):

1. NPDES Notice of Coverage Documentation.
2. MDEGLE Permit for all proposed work within the state-regulated wetlands, if applicable.

Please be aware that additional comments may arise with the submittal of the requested revisions and/or additional information including comments from other agencies.

RECOMMENDATION

We recommend approval of the Final Site Plan, conditional upon all of the above comments being addressed to the satisfaction of the Planning Commission. Final engineering approval is not recommended at this time. Before final engineering can be granted, the final alignments of all proposed water main, sanitary sewer, and storm sewer must be approved by the Township along with any necessary easements.

The comments are not to be construed as approvals and are not necessarily conclusive. The final engineering plans for this development are to be prepared in accordance with the Hartland Township Engineering Design Standards and 2008 Hartland Township Standard Details. Sanitary sewer and water benefit fees may be applicable for this project.

If you have any questions regarding this matter, please contact our office at your convenience.

Sincerely,

SPALDING DEDECKER



Adam Chludzinski
Project Engineer

cc: Jeremy Schrot, Hartland Township Engineer (via email)



HARTLAND DEERFIELD FIRE AUTHORITY
HARTLAND AREA FIRE DEPT.

3205 Hartland Road
Hartland, MI. 48353-1825

Voice: (810) 632-7676
E-Mail: firemarshal@hartlandareafire.com

November 3, 2022

To: Hartland Township Planning Commission
c/o: Zoning Department

Re: Old US-23 Mini-Storage

This review and the following comments are upon the Old US-23 Mini-Storage Preliminary Site Plan, dated July 25, 2022.

1. Development to maintain minimum fifty foot (50') turning radiuses throughout the internal road system.
2. Request the development to install a siren activated entry gate for emergency vehicles.
3. Development to provide Supra Brand Rapid Entry Key Box placement attached to the office building containing keys of each locked storage building (fire department to provide order form).

Jon Dehanke
Captain

Hartland Township Board of Trustees Meeting Agenda Memorandum

Submitted By: Robert M. West, Township Manager

Subject: ARPA Community Project Funding Program

Date: November 23, 2022

Recommended Action

Move to approve the ARPA Community Project Funding program as presented

Discussion

Hartland Township was the recipient of American Rescue Plan Act funding in 2021. The funding is intended to be used for capital projects within the community. In an effort to expand the reach of the community benefits, the Township Administration has developed a program which provides non-profit community civic organizations the opportunity to request funding for community projects offering public benefit.

The application process will include a 60-day window for all interested parties to apply. The Township Administrative Committee will review and determine the most beneficial projects for Township Board presentation and subsequent approval of funding. The Township Manager will facilitate the projects with the identified non-profit community civic organizations to reach completion by the end of the 2023 calendar year.

Financial Impact

Is a Budget Amendment Required? ☒ Yes ☐ No

Increase 285-703-884.000 ARPA Community Projects

Attachments

ARPA Community Project Funding Program Application



American Rescue Plan Act Project Funding Application

Hartland Township is pleased to provide an opportunity for financial assistance through the Township American Rescue Plan Act (ARPA) funding for non-profit civic community organizations operating and offering benefit within Hartland Township. The intent of the opportunity remains to maximize and diversify the Hartland Township ARPA funding.

Please understand Hartland Township's Administrative Committee will review all ARPA Project Funding Applications prior to determining whether they will support the described project. Please take the time and effort to explain to them how your project will benefit the community in detail. The quality of information provided can impact the Hartland Township Administrative Committee's decision to approve or deny funding.

PROJECT NAME:

ORGANIZATION NAME:

ADDRESS:

PROJECT CONTACT:

PHONE NUMBER:

E-MAIL:

PROJECT START DATE:

PROJECT END DATE:

Submit completed applications to:
Robert West, Hartland Township Manager
Email: rwest@hartlandtwp.com
Mail: 2655 Clark Rd
Hartland, MI 48353
517-861-7889



American Rescue Plan Act Project Funding Application

1. Provide a detailed description of project (if necessary, attach separate pages):

2. How does the proposed project benefit the community?

3. Who will facilitate and complete the proposed project?

4. If benefits of this project will aid or involve other organizations, please describe and list:

5. Additional Information:



American Rescue Plan Act Project Funding Application

Please provide supporting documentation that aligns with the budgetary information. Supporting documentation may consist of quotes, bids, invoices, purchase orders, sales agreements, board/commission meeting minutes, or other documents that provide additional information about the project described and the budget associated with that project. Funding requests are limited to \$7,500.00 per application. Approved application will require designated vendor and/or contractor to issue payment. ARPA guidelines prevent Hartland Township from issuing funds directly to the community organization, yet the Township can issue direct payments to the vendors and/or contractors.

TOTAL PROJECT COST: \$

OTHER FUNDING SOURCE(S):

TOTAL FROM OTHER SOURCE(S): \$

HARTLAND TOWNSHIP FUNDS REQUESTED: \$

Please provide the vendor and/or contractor funding should be issued to for project completion.

SIGNATURE OF APPLICANT:

DATE:

PRINTED NAME:

TITLE:

Please contact Robert West, Township Manager with any questions or comments regarding the application at rwest@hartlandtwp.com or directly at 517-861-7889