ADDENDUM NO. 2

August 31, 2023

New Buffalo Elementary Kitchen Renovation & Addition
1112 East Clay Street
New Buffalo, MI 49117

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated August 1, 2023, by TowerPinkster. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of pages ADD 2-1 through ADD 2-2 Specification Sections 00 20 00 Information Available To Bidders, 01 32 00c Schedules and Reports, and 01 12 00 Multiple Contract Summary, and attached TowerPinkster Addendum No. 2 dated August 30, 2023, consisting of 1 page, Specification Section 10 4413 Fire Protection Cabinets, revised Specification Sections 08 3313 Coiling Counter Door and 10 2800 Toilet, Bath, and Laundry Accessories, and revised drawing sheets: G 001, A 101, A 501, ED 101, E 101, E 301, E 302, L 103, L 104.

A. SPECIFICATION SECTION 00 20 00 – INFORMATION AVAILABLE TO BIDDERS

1. Geotechnical Report
2. Asbestos Survey and Report

B. SPECIFICATION SECTION 01 32 00c – SCHEDULES AND REPORTS

1. Guideline Schedule

C. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

A. 3.03 BID CATEGORIES

a. BID CATEGORY NO. 1 – GENERAL TRADES

1. Clarification: General Trades Contractor is to provide labor and equipment to disconnect, remove, and protect existing Kitchen Equipment (KE). General Trades Contractor is to store these items on premises and coordinate with the Owner the Owner's removal of the excess KE items that are not being re-installed as part of this project. For KE items that are to be re-installed, General Trades Contractor is to store and protect these items on premises until such time items are to be re-installed by Food Equipment contractor.

b. BID CATEGORY NO. 4 – FOOD SERVICE EQUIPMENT

1. Clarification: General Trades Contractor is to provide labor and equipment to disconnect, remove, salvage and protect all existing Kitchen Equipment (KE). General Trades Contractor is to store these items on premises and coordinate with the Owner the Owner's removal of the excess KE items that are not being re-installed as part of this project. For KE items that are to be re-installed, General Trades Contractor is to store and protect these items on premises until such time items are to be re-installed by Food Equipment contractor.

Weaver Consultants Group

August 30, 2023
Project No.: 0279-355-19-00

Mr. David V. Taylor
The Skillman Corporation
8120 Moorsbridge Road, Suite 101
Portage, Michigan 49024

RE: Subsurface Exploration
New Buffalo Elementary School
Kitchen Addition
New Buffalo, Michigan

Dear Mr. Taylor:

Weaver Consultants Group, LLC has completed subsurface explorations for the kitchen addition at the New Buffalo Elementary School. Our exploration was conducted in general accordance with our proposal dated August 1, 2023

The purpose of the subsurface exploration is to provide subsurface soil and groundwater information in the area of development. An approximate 2,500 square foot addition is planned for the east side of the existing kitchen. We anticipate the new addition to be a single-story, slab-on-grade, steel framed with masonry block construction addition. No foundation loading information was provided for this report, however, we assume the foundation loads to be less than 50 kips. The anticipated depth of the exterior foundations are 3½ to 4 feet below the finish surface elevation.

On August 13, 2023, two (2) hand auger borings, drilled to a depth of 9 feet below the existing surface, were performed within the proposed addition area to determine the soil and groundwater conditions at the site. The soils were visually classified in the field to provide a boring log of the subsurface soil conditions. Additionally, static cone measurements were taken ahead of the hand auger to estimate a relative density of the soils encountered.

Attached with this report are the hand auger boring logs, boring location plan and site location plan for the project.

Site Location

The New Buffalo Elementary School is located at 12291 Lubke Road in New Buffalo, Michigan. The proposed kitchen addition is located on the east side of the school near the main entrance. Currently, ground cover of the proposed addition is mowed grass. There are some small trees, shrubs and bushes within the proposed addition area. The ground surface is level with no visible change in elevation.

Soil Borings

The following discussion for the subsurface soils encountered, is general, for more specific information, and delineation of the soil types, refer to the boring logs attached to this report.

Two (2) hand auger borings were drilled to assess the subsurface soil and groundwater conditions for the site. Below the approximate 9 inches of silty sand topsoil, there is approximately 2 to 3 feet fill consisting of silty sand (SM) and clayey sand (SC). Underlying the fill soil was natural granular soil consisting of fine and fine to medium sand (SP) with varying amounts of silt. The relative density of the subsurface soil was characterized as being medium dense with Static Cone Penetrometer (SCP) readings from 30 to over 35 kg/cm^2.

Groundwater

Groundwater was encountered at both hand auger boring locations at completion. The groundwater measured at the time of our exploration was 6.3 and 6.2 feet below the existing surface at borings B-1 and B-2 respectively. Seasonal fluctuations in the groundwater level should be expected due to variations in precipitation, evaporation, surface runoff and other man-maid and natural influences.

Discussion

Our recommendation for the New Buffalo Elementary School kitchen addition are based on data presented in this report, which includes two (2) hand auger soil borings located at the site. Subsurface variations can exist at a site which may not be indicated by a dispersed boring program. If such variations or unexpected conditions are encountered during construction, or if the project information is incorrect or changed, we should be informed immediately since the validity of our recommendations may be affected.

Building Foundations

Although no foundations loads are provided at this time, we anticipate the structure's foundations to be lightly loaded, (less than 50 kips). It is our opinion the proposed foundations can be supported on shallow spread footings. A program of soil compaction is recommended to densify the foundations soils, identify any soft/loose or yielding areas, and provide a uniform bearing surface.

Footing bearing on compacted native soils or on structural fill overlying the same should be proportioned using a net allowable soil bearing pressure not exceeding 2,500 psf. The above bearing pressure value is the pressure which may be transmitted to the foundation soil in excess of the final minimum surrounding overburden pressure and may be increased by one-third when considering short-term wind or seismic loading conditions.

We recommend that the wall (including grade beams) and column footings should be at least 18 in. wide and 30 in. wide, respectively. In order to provide adequate frost protection, we recommend locating perimeter footings in heated areas of the structure at

least 42 in. below exterior grade. In non-heated areas, the footings should be located at a depth of at least 48 in. below finish grade. Interior footings in heated areas can bear at a nominal depth below the floor slab.

Floor Slabs

The floor slabs should be supported on a minimum 4-inch thick relatively clean free-draining granular base course, bearing on a suitably prepared subgrade. In our opinion, relatively clean, free-draining granular soil should contain no more than 5 percent fines, by dry weight, passing a No 200 U.S. Standard sieve. The soils encountered and classified as SP sand will meet the requirement of free-draining granular soil. We recommend a vertical modulus of subgrade reaction (k_{30}) of 130 pci (30-inch plate) for design of the floor slabs. The floor slab should also be structurally independent of the building walls and liberally jointed.

If the flooring surface is moisture sensitive, a plastic vapor barrier should be installed beneath the concrete slab.

Foundation Excavations

Foundation excavations should be sloped, shielded, or shored in accordance with the current Occupational Safety and Health Administration (OHA requirements. Once the foundation subgrade level is reached, the exposed subgrade soils should be compacted to achieve a minimum of 98 percent of the standard Proctor (ASTM D698) dry density, or at least a medium dense condition (as measured by a static cone penetrometer (SCP), in the upper 2 feet. Any localized soft/loose soil zones encountered at the bearing elevations should be further compacted and or excavated to adequate support soils and replaced with structural fill. Structural fill installed under foundations should extend beyond all edges of the footing at least 6 inches per foot of undercut depth below the foundation bottom grade.

The proposed addition will be directly adjacent to the existing building. Care must be exercised not to undermine the existing foundation or floor slab during foundation excavation. Depending on the process of excavation the existing foundations and/or floor slab may need to be underpinned, braced or shielded during construction.

Geotechnical Risk

The concept of risk is an important aspect of any geotechnical evaluation. The primary reason for this is that the analytical method used by the geotechnical engineers are generally empirical and must be tempered by engineering judgement and experience. Therefore, the solutions or recommendations presented in any geotechnical evaluation should not be considered risk free, and more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as predicted, desired, or intended. The engineering recommendations presented in the preceding sections constitute our best estimate of those measures that are necessary to help the structure perform in a satisfactory manner based on the information generated during this evaluation and our experience in working with these conditions.

We trust this information is sufficient for your needs at this time, if you have any questions or if we can be of further assistance, please contact this office.

Sincerely,
Weaver Consultants Group, LLC

John J. Warner, LPG
Sr. Project Manager

Attachments: Hand Auger Boring Logs (2)
Site Location Plan (Figure 1)
Boring Location Plan (Figure 2)

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Weaver Consultants Group

7121 Grape Road, Granger, IN 46530
574-271-3447(Phone)/574-271-3343(Fax)

LOG OF SOIL BORING NO.: B-01

Location: See Boring Location Plan
Project No.: 0279-355-19-00 Sheet 1 of 1

WATER LEVEL DATA NE = Not Encountered	
6.3	ft While Drilling ▼
NE	ft At Completion**
--	ft At -- Days A.D.*
--	ft At -- Days A.D.***

Started: 8/13/2023
Completed: 8/13/2023
Geologist: J. Warner
Driller: J. Warner
Drilling Equip.: Hand Auger
Drilling Method: ID 3¼" Hand Auger

PROJECT: New Buffalo Elementary School Kitchen Addition
12291 Lubke Road
New Buffalo, MI 49117

CLIENT: Skillman Corporation
8120 Moorsbridge Rd, Suite 101, Portage, MI 49024

DATUM: SURFACE ELEVATION (ft) +/-: --

Depth (ft)	Symbol	SOIL DESCRIPTION, CLASSIFICATION and USCS or AASHTO GROUP SYMBOL	Strata Depth (ft)	Type	Recovery	Number	Standard Penetration Test-Blows/6" (#)= "N" Value	LOI (%)	Qp (tsf)	Moisture Content %	BORING AND SAMPLING NOTES	Elevations (ft)
0		Moist, dark brown, SILTY SAND (TOPSOIL: OL)										
			0.9									
1		Moist, brown, SILTY FINE SAND (FILL: SM)							35+			
			1.2									
		Moist, light brown, FINE SAND (FILL: SP)										
			1.7									
2		Moist, brown to grayish brown, CLAYEY FINE SAND, trace gravel (FILL: SC)							35+			
3									35+			
			4.0									
4		Moist, brown, FINE SAND, trace silt (SP-SM)				1			35+		P_{200}=7.2%	
			4.7									
5		Moist, orange brown, FINE SAND, trace gravel (SP)							35+			
6	▼								35+			
			6.7									
7		Wet, brown, FINE to MEDIUM SAND, trace gravel (SP)				2			30		P_{200}=2.3%	
8												
			9.0									
9		Boring Terminated at 9 ft										

NOTES:

1. Weather: Cloudy, 75-80°F
2. Backfield with auger cuttings

LEGEND

= Auger
= Geoprobe
= Grab Sample
= No Recovery
= Core Sample
= Shelby Tube
= Split-Spoon Sample
= Vane Shear Test

Weaver Consultants Group

7121 Grape Road, Granger, IN 46530
574-271-3447(Phone)/574-271-3343(Fax)

LOG OF SOIL BORING NO.: B-02

Location: See Boring Location Plan
Project No.: 0279-355-19-00 Sheet 1 of 1

WATER LEVEL DATA
NE = Not Encountered

6.2	ft While Drilling ▼
NE	ft At Completion**
--	ft At -- Days A.D.*
--	ft At -- Days A.D.***

Started: 8/13/2023
Completed: 8/13/2023
Geologist: J. Warner
Driller: J. Warner
Drilling Equip.: Hand Auger
Drilling Method: ID 3¼" Hand Auger

PROJECT: New Buffalo Elementary School Kitchen Addition
12291 Lubke Road
New Buffalo, MI 49117

CLIENT: Skillman Corporation
8120 Moorsbridge Rd, Suite 101, Portage, MI 49024

DATUM: SURFACE ELEVATION (ft) +/-: --

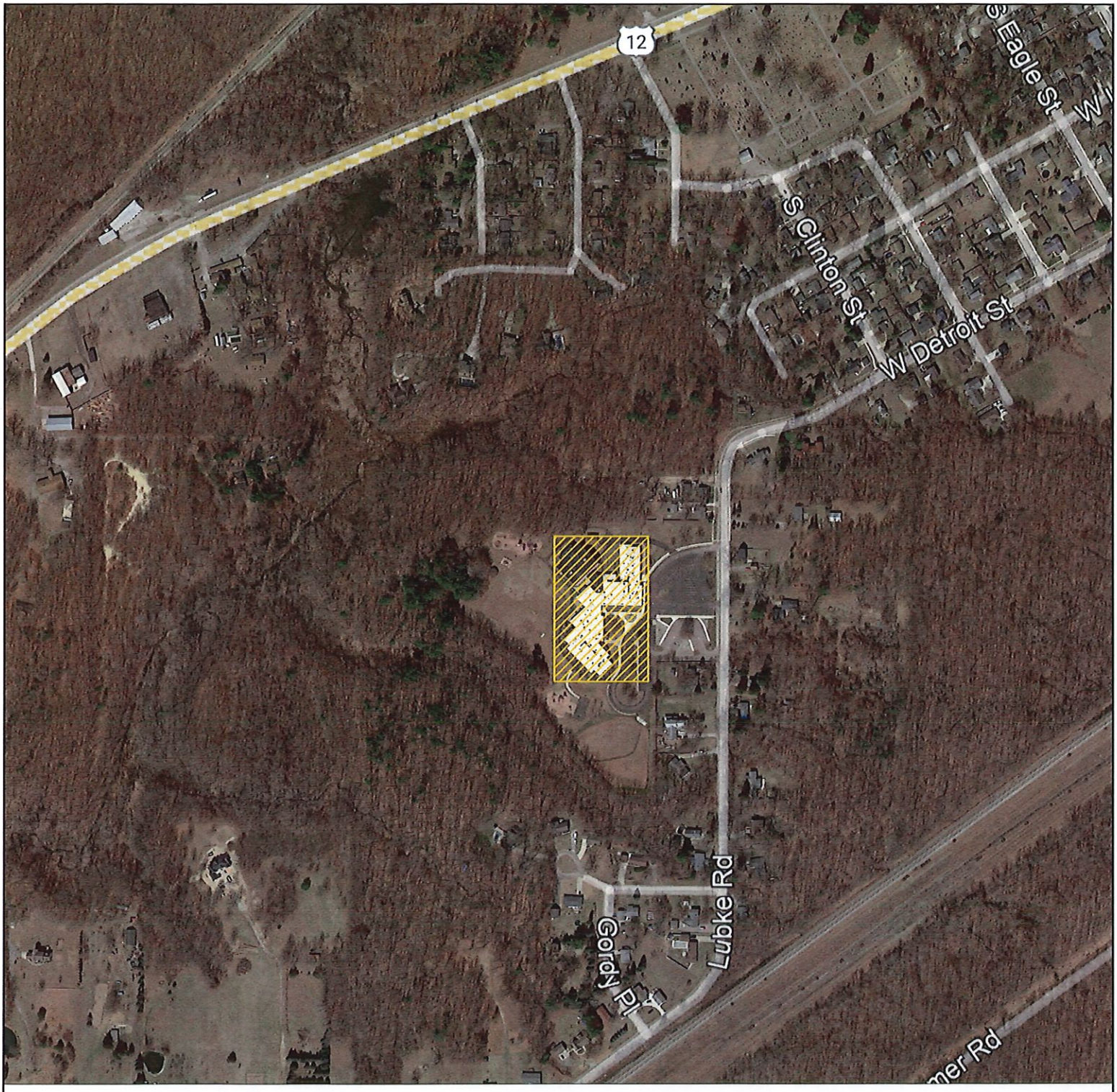
Depth (ft)	Symbol	SOIL DESCRIPTION, CLASSIFICATION and USCS or AASHTO GROUP SYMBOL	Strata Depth (ft)	Type	Recovery	Number	Standard Penetration Test-Blows/6" (#)= "N" Value	LOI (%)	Qp (tsf)	Moisture Content %	BORING AND SAMPLING NOTES	Elevations (ft)
		Moist, dark brown, SILTY SAND (TOPSOIL: OL)										
		Moist, brown, FINE SAND, trace gravel (FILL: SP)	0.7						35+			
1												
2						1			35+		P_{200}=3.8%	
3		Moist, dark brown, SILTY FINE SAND, trace organics (SM)	3.0						35+			
						2		1.0		9.5		
4		Moist, orange brown, FINE SAND (SP)	4.0						35+			
5						3			35+		P_{200}=1.0%	
6		▼							35+			
		Wet, brown, FINE to MEDIUM SAND (SP)	6.7						35+			
7												
8									30			
9		Boring Terminated at 9 ft	9.0									

NOTES:

1. Weather: Cloudy, 75-80°F
2. Backfield with auger cuttings

LEGEND

- = Auger
- = Geoprobe
- = Grab Sample
- = No Recovery
- = Core Sample
- = Shelby Tube
- = Split-Spoon Sample
- = Vane Shear Test



SITE LOCATION (LATITUDE: 41.7828; LONGITUDE:-86.7575)

N

0 500 1000 FEET

1:500

PREPARED FOR: SKILLMAN CORPORATION	SITE LOCATION PLAN NEW BUFFALO ELEMENTARY SCHOOL KITCHEN ADDITION 12291 LUBKE ROAD NEW BUFFALO, MI 49117	Weaver Consultants Group GRANGER, INDIANA (574) 271-3447 www.wcgrp.com

DRAWN BY:	MJK
REVIEWED BY:	JJW
DATE:	08/16/2023
FILE:	0279-355-19-00
CAD:	Site Location P...

FIGURE 1

B-3 SOIL BORING LOCATION & DESIGNATION

N

0 30 60 FEET

1:30

PREPARED FOR:

SKILLMAN CORPORATION

BORING LOCATION PLAN

NEW BUFFALO ELEMENTARY SCHOOL KITCHEN ADDITION
12291 LUBKE ROAD
NEW BUFFALO, MI 49117

Weaver Consultants Group
GRANGER, INDIANA
(574) 271-3447 www.wcgrp.com

DRAWN BY:	MJK
REVIEWED BY:	JJW
DATE:	08/16/2023
FILE:	0279-355-19-00
CAD:	Boring Location...

FIGURE 2

Villa Environmental Consultants, Inc.

215 Colfax Avenue, Benton Harbor, MI 49022 ♦PH: (269) 927-2434 ♦ rvilla@villaenv.com

18 August 2023

Keith Carlson, Director of Operations
New Buffalo Area Schools
1112 East Clay St.
New Buffalo, MI 49117

Re: Limited Asbestos-Containing Materials Survey Report-Kitchen and Cafeteria
Villa Environmental Consultants, Inc. Project No. 23-157

Dear Mr. Carlson,

This letter form of a report provides a summary of the limited asbestos sampling that was conducted as requested and according to our agreement with New Buffalo Area Schools. This sampling was only completed on the materials in the rooms that are expected to be renovated.

Background

There has been historical sampling in the 1974 section of the Elementary School. The attached charts only provide sample results and general information about the 1974 section and the referenced area of renovation. The historical sampling included pipe fittings associated with fiberglass insulation and was found to be non-asbestos as noted on the attached tables. The licensed asbestos inspector was Rick Villa (A1157).

Asbestos

Potential ACM samples were analyzed using Polarized Light Microscopy (PLM) methodology and the results are attached to this letter. The following is our observations based on this testing:

- If the materials that contain asbestos are to be disturbed, then a licensed asbestos contractor is to remove the materials prior to renovation.
- There may be more ceiling material than the amount listed on the chart if there is a ceiling above the Kitchen cooler.
- If any suspect materials are discovered during renovation, the work should stop, and the material sampled.

If you should have any questions on the sample results or any other related details, do not hesitate to contact me at 269-927-2434, at your convenience.

Yours truly,

Richard P. Villa

Richard P. Villa, President
rvilla@villaenv.com

Enc.

Table 1
Description of Functional Spaces
1974 Section- New Buffalo Elementary
VEC Project No. 23-157

Functional Space No.	Functional Space Description	Floor
1	Kitchen	1
2	Pantry	1
3	Kitchen toilet	1
4	Cooler Storage	1
5	Custodial Closet	1
6	Cafeteria	1

Table 2
Summary of Homogenous Areas
1974 Section- New Buffalo Elementary
VEC Project No. 23-157

HA No.	Homogenous Area Description	Functional Space Locations (FS#)	Asbestos Content	Estimated Quantity
1	1959 section material	NA	NA	NA
2	1959 section material	NA	NA	NA
3	1959 section material	NA	ND	NA
4	1959 section material	NA	ND	NA
5	Pipe fitting insulation on fiberglass	FS1-FS3,FS5,FS6 (Other 1974 areas)	ND	not quantified
6	1959 section material	NA	NA	NA
7	2'x2' acoustical ceiling tile-1974 section	Other 1974 areas	ND	not quantified
8	1'x1' acoustical ceiling tile and glue pod-media center/1974section	Media Center	ND	2500 SF
9	Grout for beige ceramic tile	FS1	ND	900 SF
10	**Ceiling plaster**	**FS1,FS2,FS5**	**2.0% CH**	**1035 SF**
11	**Fire door**	**FS1,FS5**	**Assumed**	**42 SF**
12	**12"x12" beige floor tile and mastic**	**FS2**	**2.0% CH/Mastic ND**	**125 SF**
13	Blue cove base	FS2	ND	15 SF
14	Dark blue cove base	FS6	ND	80 SF
15	12"x12" cafeteria floor tile and mastic	FS6	ND	4500 SF
16	2'x2' acoustical ceiling tile-1974 section Cafeteria	FS6	ND	4500 SF

Table 2 Notes and Acronyms:

1. Homogeneous Areas listed in bold text were identified to contain asbestos by laboratory analysis or were assumed to contain asbestos based on the scope of work requirements.
2. Functional Space (FS) is defined as a one or more spatially distinct units within a building or structure
3. Homogeneous Area (HA) is defined as an area of surfacing materials, thermal surface insulation, or miscellaneous material that is uniform in color and texture.
4. SF = Square Feet; LF = Linear Feet; CF = Cubic Feet; EA = **Each, Bold = Known or Assumed asbestos**

Table 3
Summary of ACM and Material Characteristics
1974 Section - New Buffalo Elementary
VEC Project No. 23-157

HA No.	Homogenous Area Description	Condition	Friable (Yes/No)	EPA Category	Estimated Quantity
10	Ceiling plaster	G	N	II	1035 SF
11	Fire door	G	N	II	42 SF (2 doors)
12	12"x12" beige floor tile and mastic	G	N	I	125 SF

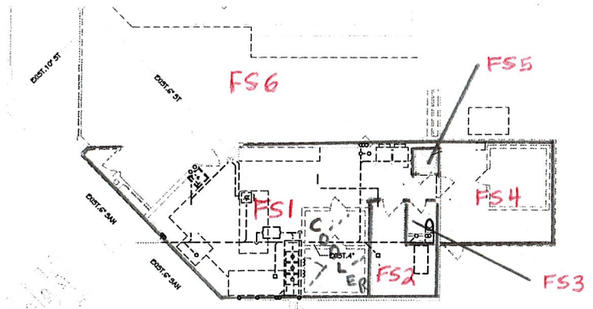
Table 3 Notes and Acronyms:

1. Homogeneous Area (HA) is defined as an area of surfacing materials, thermal surface insulation, or miscellaneous material that is uniform in color and texture.

2. EPA Category I non-friable ACM consist of asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing materials. These materials can be left in-place during demolition if materials remain intact and non-friable. If concrete is planned to be recycled as part of demolition activities, all Category I non-friable flooring materials must be removed.

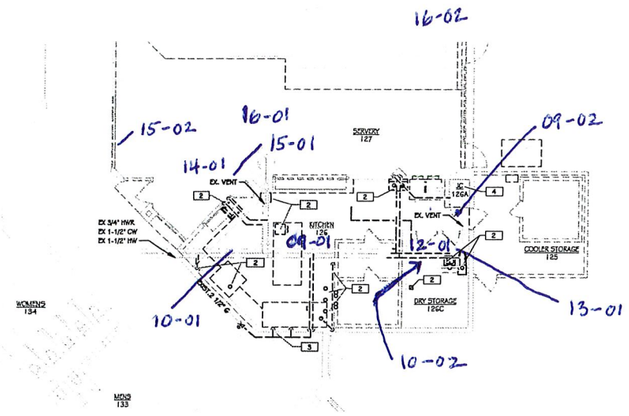
3. SF = Square Feet; LF = Linear Feet; CF = Cubic Feet; EA = Each

4. Asbestos is a group of fibrous minerals that include: actinolite, amosite, anthophllite, chrysotile, crocidolite, and tremolite



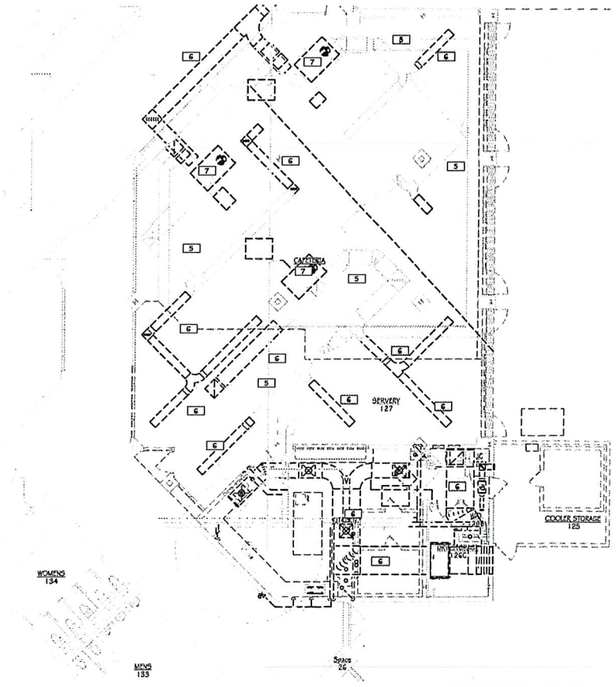
FOUNDATION PLUMBING DEMOLITION PLAN
1/8" = 1'-0"

FS - Function Spaces



FIRST FLOOR PLUMBING DEMOLITION PLANFIRST FLOOR PLUMBING DEMOLITION PLAN
1/8" = 1'-0"

09-01, 02, - Sample locations



FIRST FLOOR MECHANICAL DEMOLITION PLAN
1/8" = 1'-0"

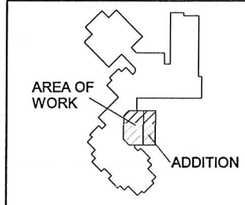
PLUMBING AND MECHANICAL KEYED NOTES - DEMOLITION

1. REMOVE BELOW GRADE DOMESTIC WATER, SANITARY AND VENT PIPING AS REQUIRED FOR NEW KITCHEN LAYOUT. CAP BRANCH PIPING OFF AT MAINS.
2. REMOVE FIXTURE, DOMESTIC WATER, SANITARY AND VENT PIPING AS REQUIRED FOR NEW KITCHEN LAYOUT. CAP BRANCH PIPING OFF AT MAIN. PREPARE PIPING BEING REUSED FOR NEW CONNECTION.
3. REMOVE GAS PIPING, PRESSURE REGULATOR AND VALVES SERVING KITCHEN EQUIPMENT. PREPARE PIPING FOR NEW CONNECTION.
4. FIXTURE TO REMAIN.
5. EXISTING DUCTWORK TO REMAIN.
6. REMOVE EXISTING DUCTWORK, SUPPORTS, AND ALL RELATED ACCESSORIES.
7. REMOVE EXISTING MECHANICAL EQUIPMENT AND ALL ASSOCIATED ACCESSORIES.

8-10-23

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

ISSUED FOR | DATE

PROJECT TITLE
ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOL

New Buffalo, Michigan

SHEET TITLE
PLUMBING AND MECHANICAL DEMOLITION PLAN

DATE
JULY 18, 2023

SHEET NUMBER
MD 101
22-102.00

3130 Old Farm Lane, Suite 1
Commerce Twp., MI 48390

877-665-3373

Asbestos Laboratory Report

Prepared Exclusively For:

Villa Environmental Consultants, Inc.
Rick Villa
215 Colfax Ave.
Benton Harbor, MI 49022
269-927-2434
rvilla@villaenv.com

NVLAP TESTING
NVLAP LAB CODE: 201036-0

MICROBIOLOGY LABS ISO/IEC 17025:2017 Accredited Laboratory AIHA LAP, LLC AIHAACCREDITEDLABS.ORG Lab ID # 172958

Project: New Buffalo Elementary Kitchen and Cafeteria **Project # 23-157** **Lab # A28869**
Report Date: 08/17/23 **Collected: 08/11/23** **Received: 08/14/23**

IMS Laboratory, LLC

IMS Laboratory, LLC operates a state-of-the-art environmental laboratory, specializing in full service microbial, asbestos and radon analyses. We maintain the highest levels of quality and personalized service in the industry. Our analytical staff includes only Certified Indoor Air Quality Professionals, Ph.D. Microbiologists, Mycologists, Microbiologists, and Biochemists. Our team's extensive experience in indoor air quality sampling techniques, microbial identification, and analytical interpretation allows us to offer our clients expert personalized service and has made IMS Laboratory an industry leader.

IMS Laboratory is accredited through the American Industrial Hygiene Association (AIHA) for both viable and nonviable fungal identification and through the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos. To maintain quality control and quality assurance, we use standardized procedures approved under strict AIHA and NVLAP guidelines. Client data information is compiled and stored in a specially designed computer management system for secure, redundant data and the ability to comply with AIHA and NVLAP quality system requirements. A portion of this quality system includes inter-analyst comparisons and statistical quality control using blind duplicate analyses and process blanks. Laboratory data is provided in compliance with AIHA and NVLAP policy modules and ISO 17025:2017 guidelines.

This data is intended for use by professionals having the necessary knowledge of the testing methods to interpret them accurately.

Report Prepared For: Villa Environmental Consultants, Inc.
Project Name: New Buffalo Elementary Kitchen and Cafeteria
Project Number: 23-157
Report Date: 08/17/23
Lab Number: A28869

Asbestos Report Summary

Test Method: Polarized Light Microscopy (PLM)

17 Samples Analyzed
2 Samples Containing >1% Asbestos

Greater than 1% Asbestos

Client ID	Lab Number	Description	Asbestos
24-02	A28869 - 4	Ceiling Material / Pantry - At Light	Chrysotile 2%
26-01	A28869 - 5A	12x12 Beige Tile / Pantry Entrance	Chrysotile 2%

IMS Laboratory

Report Prepared For: Villa Environmental Consultants, Inc.
Project Name: New Buffalo Elementary Kitchen and Cafeteria
Project Number: 23-157
Report Date: 08/17/23
Lab Number: A28869

Certificate of Laboratory Analysis

Test Method: Polarized Light Microscopy (PLM)

EPA 600/R-93/116 and/or EPA - Appendix E to Subpart E of 40 CFR Part 763;
Interim Method for the Determination of Asbestos in Bulk Insulation Samples

Project: New Buffalo Elementary Kitchen and Cafeteria
Project Number: 23-157

Prepared For
Villa Environmental Consultants, Inc.
Rick Villa
215 Colfax Ave.
Benton Harbor, MI 49022
269-927-2434
rvilla@villaenv.com

IMS Lab No. A28869
Date Collected: 08/11/23
Date Received: 08/14/23
Date Reported: 08/17/23

Client ID Lab No.	Client Description	Sample Color(s)	Laboratory Attributes	Fibrous Components	Non-Fibrous Components	Asbestos Type / Percent
23-01 A28869 - 1A	Beige Ceramic Tile / Kitchen Near Stove	Beige	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
23-01 A28869 - 1B	Grout	Gray	Heterogeneous Non-Friable Non-Fibrous		25% Quartz 75% Matrix	No Asbestos Detected
23-02 A28869 - 2A	Beige Ceramic Tile / Kitchen at Custodial	Beige	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
23-02 A28869 - 2B	Grout	Gray	Heterogeneous Non-Friable Non-Fibrous		25% Quartz 75% Matrix	No Asbestos Detected
24-01 A28869 - 3	Ceiling Material / Kitchen - Above Sink	White Brown	Heterogeneous Friable Fibrous	<1.0% Chrysotile 12% Cellulose	88% Matrix	**Chrysotile <1.0%**
24-02 A28869 - 4	Ceiling Material / Pantry - At Light	White Brown	Heterogeneous Friable Fibrous	2% Chrysotile 12% Cellulose	86% Matrix	**Chrysotile 2%**
26-01 A28869 - 5A	12x12 Beige Tile / Pantry Entrance	Beige	Heterogeneous Non-Friable Non-Fibrous	2% Chrysotile	98% Matrix	**Chrysotile 2%**
26-01 A28869 - 5B	Mastic	Black Beige	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
27-01 A28869 - 6A	Blue Cove Base / Pantry - Behind Door	Blue	Homogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected

IMS Laboratory

Report Prepared For: Villa Environmental Consultants, Inc.
Project Name: New Buffalo Elementary Kitchen and Cafeteria
Project Number: 23-157
Report Date: 08/17/23
Lab Number: A28869

Client ID Lab No.	Client Description	Sample Color(s)	Laboratory Attributes	Fibrous Components	Non-Fibrous Components	Asbestos Type / Percent
27-01 A28869 - 6B	Glue*	Tan Beige	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
28-01 A28869 - 7A	Dark Blue Cove Base / Cafeteria - At K. Entry	Blue	Homogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
28-01 A28869 - 7B	Mastic*	Tan Beige	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
29-01 A28869 - 8A	12x12 Floor Tile / Cafeteria - At K. Entry	White	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
29-01 A28869 - 8B	Mastic*	Gray Brown	Heterogeneous Non-Friable Non-Fibrous	3% Cellulose	97% Matrix	No Asbestos Detected
29-02 A28869 - 9	12x12 Floor Tile / Cafeteria - S. Entry to Room	Blue	Heterogeneous Non-Friable Non-Fibrous		100% Matrix	No Asbestos Detected
Note on 9: No Mastic Observed						
30-01 A28869 - 10	2x2 ACT / Cafeteria - K. Entry	White Gray	Heterogeneous Friable Fibrous	45% Cellulose 5% Fiberglass	50% Matrix	No Asbestos Detected
30-02 A28869 - 11	2x2 ACT / Cafeteria - E. Wall	White Gray	Heterogeneous Friable Fibrous	45% Cellulose 5% Fiberglass	50% Matrix	No Asbestos Detected

*Material description provided by laboratory.

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NVLAP® TESTING
NVLAP LAB CODE: 201036-0

08/17/23
Marty Eakin, Asbestos Laboratory Manager

Glossary

Actinolite - This form of asbestos was not commonly used commercially, but can be found occasionally in some building products.

Amosite - This form of asbestos was commonly used in ceiling tiles, cement sheets, pipe insulation, and in many different types of thermal insulation products.

Anthophyllite - This form of asbestos was not commonly used commercially, but can be found occasionally in some building products.

Asbestos - Any of six naturally occurring silicate minerals (Chrysotile, Amosite, Crocidolite, Tremolite, Actinolite, and Anthophyllite). Inhalation of these minerals can cause asbestosis and certain types of cancer. Because of asbestos' fireproofing and other desirable properties, these minerals can be found in many different types of building materials.

Chrysotile - This is the most commonly used form of asbestos and can be found today in many building components including floors, roofs, ceilings, walls and insulation cement materials, piping and sealants of residential and commercial buildings. It was also used in automobile brake pads, linings and blocks, clutch plates and gaskets.

Crocidolite - This form of asbestos has been used in some building products including cement, pipe insulation and spray-on coatings.

Fibrous - Any material that contains, consists of, or resembles fibers.

Friable - Any material that can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand. Friable asbestos containing materials are dangerous because they allow asbestos fibers to get into the air where they can be inhaled.

Heterogeneous - A mixture that consists of two or more substances. It is non-uniform and the different components of the mixture can be seen.

Homogeneous - A substance which has uniform composition and properties throughout.

Non-Fibrous - Any material that does not contain fibers.

Non-Friable - Any material that cannot be pulverized under hand pressure.

Tremolite - This form of asbestos was not commonly used commercially, but can be found in some roofing materials, insulation products (including vermiculite), paints, sealants, and talc powders.

Warranties, Legal Disclaimers, and Limitations

Stereoscopic microscopy and polarized light microscopy coupled with dispersion staining is the analytical technique used for sample identification. The percentage of each component is visually estimated by volume. The detection limit for this method is <1% by visual estimation and 0.25% by 400 point counts or 0.1% by 1,000 point counts. The samples were analyzed as submitted by the client and may not be representative of the larger material in question. IMS Laboratory, LLC ("IMS") will discard all samples after 7 days.

Matrix interference and/or resolution limits may yield false results in certain circumstances. Samples collected via tape and/or wipe may reduce sensitivity and reliability of quantification. Suspect floor tiles containing less than 1% asbestos should be tested with SEM or TEM. Many vinyl floor tiles have been manufactured using greater than 1% asbestos. Often the asbestos was milled to a fiber size below the detection limit of polarized light microscopy. Therefore, a "No Asbestos Found" reading on vinyl floor tile does not necessarily exclude the presence of asbestos. TEM provides a more conclusive form of analysis for vinyl floor tiles.

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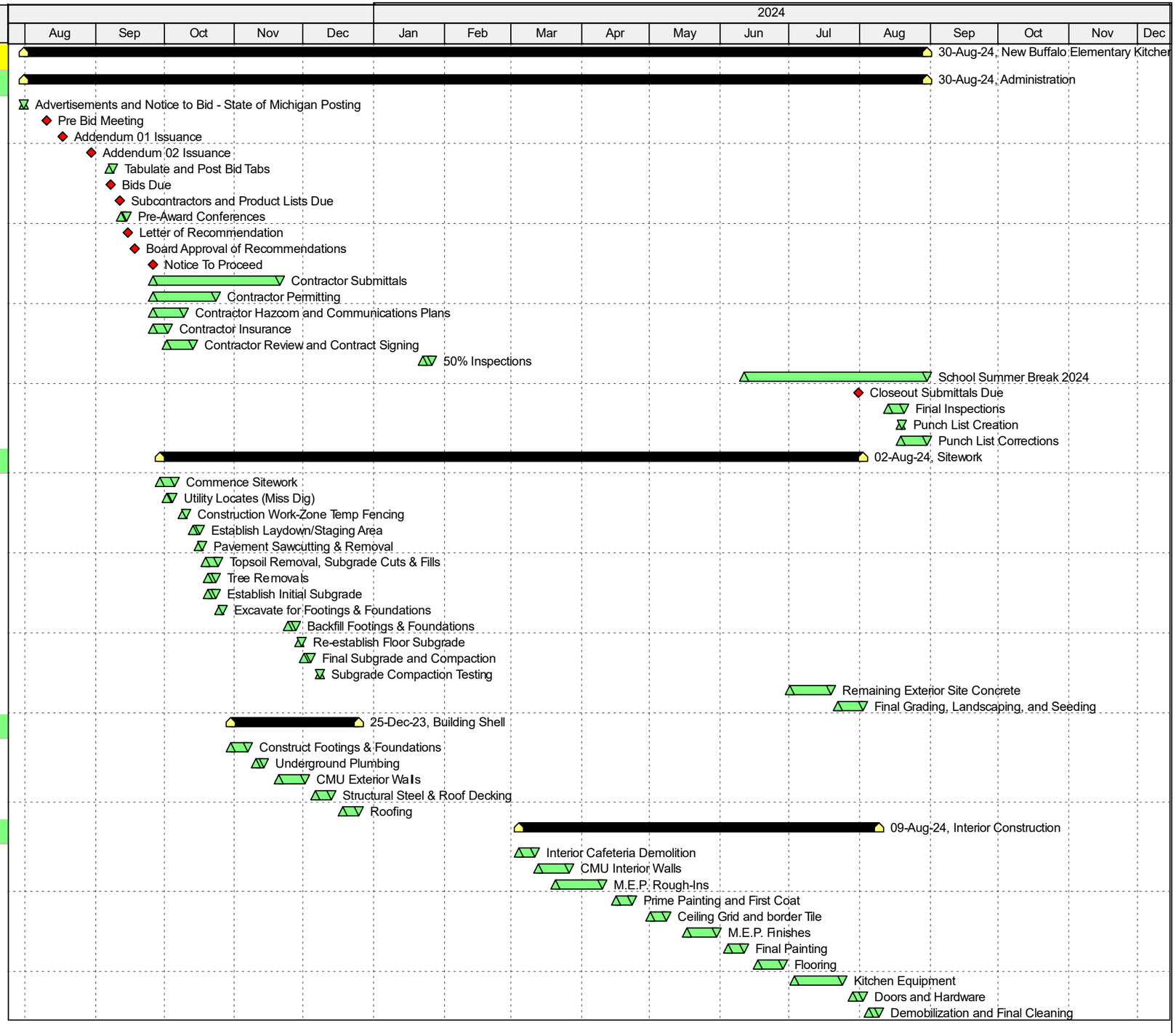
- End of Lab Report Number A28869 -

Activity Name	Original Duration	Start	Finish
New Buffalo Elementary Kitchen	285	31-Jul-23	30-Aug-24
Administration	285	31-Jul-23	30-Aug-24
Advertisements and Notice to Bid - State of Michigan Posting	0	31-Jul-23	31-Jul-23
Pre Bid Meeting	0	10-Aug-23	
Addendum 01 Issuance	0	17-Aug-23*	
Addendum 02 Issuance	0	30-Aug-23	
Tabulate and Post Bid Tabs	2	07-Sep-23	08-Sep-23
Bids Due	0		07-Sep-23
Subcontractors and Product Lists Due	0		11-Sep-23
Pre-Award Conferences	3	12-Sep-23	14-Sep-23
Letter of Recommendation	0	15-Sep-23	
Board Approval of Recommendations	0	18-Sep-23	
Notice To Proceed	0	26-Sep-23	
Contractor Submittals	40	26-Sep-23	20-Nov-23
Contractor Permitting	20	26-Sep-23	23-Oct-23
Contractor Hazcom and Communications Plans	10	26-Sep-23	09-Oct-23
Contractor Insurance	5	26-Sep-23	02-Oct-23
Contractor Review and Contract Signing	10	02-Oct-23	13-Oct-23
50% Inspections	5	22-Jan-24	26-Jan-24
School Summer Break 2024	59	11-Jun-24	30-Aug-24
Closeout Submittals Due	0		31-Jul-24
Final Inspections	5	13-Aug-24*	20-Aug-24
Punch List Creation	1	19-Aug-24	19-Aug-24
Punch List Corrections	10	19-Aug-24	30-Aug-24
Sitework	221	29-Sep-23	02-Aug-24
Commence Sitework	5	29-Sep-23	05-Oct-23
Utility Locates (Miss Dig)	3	02-Oct-23	04-Oct-23
Construction Work-Zone Temp Fencing	2	09-Oct-23	10-Oct-23
Establish Laydown/Staging Area	1	13-Oct-23	16-Oct-23
Pavement Sawcutting & Removal	2	16-Oct-23	17-Oct-23
Topsoil Removal, Subgrade Cuts & Fills	4	19-Oct-23	24-Oct-23
Tree Removals	2	20-Oct-23	23-Oct-23
Establish Initial Subgrade	2	20-Oct-23	23-Oct-23
Excavate for Footings & Foundations	2	25-Oct-23	26-Oct-23
Backfill Footings & Foundations	2	24-Nov-23	27-Nov-23
Re-establish Floor Subgrade	1	29-Nov-23	30-Nov-23
Final Subgrade and Compaction	1	01-Dec-23	04-Dec-23
Subgrade Compaction Testing	0	08-Dec-23	08-Dec-23
Remaining Exterior Site Concrete	15	01-Jul-24	19-Jul-24
Final Grading, Landscaping, and Seeding	10	22-Jul-24*	02-Aug-24
Building Shell	41	30-Oct-23	25-Dec-23
Construct Footings & Foundations	6	30-Oct-23*	06-Nov-23
Underground Plumbing	2	10-Nov-23	13-Nov-23
CMU Exterior Walls	10	20-Nov-23	01-Dec-23
Structural Steel & Roof Decking	5	06-Dec-23	13-Dec-23
Roofing	5	18-Dec-23	25-Dec-23
Interior Construction	115	04-Mar-24	09-Aug-24
Interior Cafeteria Demolition	5	04-Mar-24	11-Mar-24
CMU Interior Walls	10	13-Mar-24	26-Mar-24
M.E.P. Rough-Ins	15	20-Mar-24	10-Apr-24
Prime Painting and First Coat	5	16-Apr-24	23-Apr-24
Ceiling Grid and border Tile	5	01-May-24	08-May-24
M.E.P. Finishes	10	17-May-24	30-May-24
Final Painting	5	04-Jun-24	11-Jun-24
Flooring	10	17-Jun-24	28-Jun-24
Kitchen Equipment	15	03-Jul-24	24-Jul-24
Doors and Hardware	5	29-Jul-24	02-Aug-24
Demobilization and Final Cleaning	5	05-Aug-24	09-Aug-24



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

New Buffalo Elementary Kitchen - 222050
Guideline Schedule - 03-Jul-23

SKILLMAN

ADDENDUM NO. 2

DATE OF ISSUANCE:	**08/30/2023**
PROJECT:	**New Buffalo Elementary Kitchen Renovation & Addition** **12291 Lubke Road** **New Buffalo, Michigan 49117**
OWNER:	**New Buffalo Area School**
ARCHITECT'S PROJECT NO.:	**22-102.00**
ORIGINAL BID ISSUE DATE:	**July 18, 2023**

SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes **(2)** pages of text and the following documents:

- Bidding Documents: **None.**
- Contract Conditions: **None.**
- Specification Sections: **08 3313, 10 2800, 10 4413**
- Drawings: **G 001, A 101, A 501, ED 101, E 101, E 301, E 302, L 103, L 104**

CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

CHANGES TO SPECIFICATIONS

ADD-2 Item No. S-1 - Coiling Counter Door

Refer to Specification Section: 08 3313

Clarification from RFI 005. 2.3.A.2 Door Curtain Material: Aluminum & Stainless Steel are acceptable. 2.3.A.3.a Perforated slats & Solid slats are acceptable.

ADD-2 Item No. S-2 - Toilet Room Mirror

Refer to Specification Section: 10 2800

Clarification from RFI 006. 2.2.F Mirror size was updated to match drawings.

ADD-2 Item No. S-3 - Fire Protection Cabinet

Refer to Specification Section: 10 4413

Clarification from RFI 006. Fire Protection Cabinet spec section added.

CHANGES TO DRAWINGS

ADD-2 Item No. D-1 - Sliding Window Clarification

Refer to Sheet(s): A 101, A 501

Clarification from RFI 003. Updated sliding window location.

ADD-2 Item No. D-2 - Door Schedule

Refer to Sheet(s): A 501

Removed doors from schedule that are not in the project scope.

ADD-2 Item No. D-3 - Revise Fire Alarm Information

Refer to Sheet(s): ED 101, E 101, E301, E302

Revise the demolition plan and new power/fire alarm plan to omit reference to existing fire alarm system. Remove the existing fire alarm system in its entirety and provide an all new system per sheet E 301. Connect the new hood and roller doors to the new system.

Add sheet E 302 to show location of existing fire alarm device for refence only. Add note to provide a blank cover over location not reused as shown.

ADD-2 Item No. D-4 - Sheet Index

Refer to Sheet(s): G 001,

Updated Sheet Index.

ADD-2 Item No. D-5 - Irrigation Sheets

Refer to Sheets(s): L 103, L 104, Historic Scanned Sheets for reference.

Addition of two sheets for changes to existing Irrigation.

END OF ADDENDUM.

SECTION 08 3313 - COILING COUNTER DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Counter door assemblies.

B. Related Requirements:

1. Section 05 5000 "Metal Fabrications" for door-opening framing and corner guards.
2. Section 09 9123 "Interior Painting" for finish painting of factory-primed doors.

1.2 ACTION SUBMITTALS

A. Product Data: For each type and size of coiling counter door and accessory.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
2. Show locations of controls, locking devices, detectors or replaceable fusible links, and other accessories.
3. Include diagrams for power, signal, and control wiring.

C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

1. Include similar Samples of accessories involving color selection.

D. Samples for Verification: For each type of exposed finish on the following components, in manufacturer's standard sizes:

1. Curtain slats.
2. Bottom bar with sensor edge.
3. Guides.
4. Brackets.
5. Hood.
6. Locking device(s).

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Oversize Construction Certification: For door assemblies required to be fire-rated and that exceed size limitations of labeled assemblies.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Cookson Company.
2. Cornell Iron Works, Inc.
3. Overhead Door Corporation.
4. Raynor.
5. Wayne-Dalton Corp.

B. Source Limitations: Obtain coiling counter doors from single source from single manufacturer.

1. Obtain operators and controls from coiling counter door manufacturer.

2.2 PERFORMANCE REQUIREMENTS

2.3 COUNTER DOOR ASSEMBLY

A. Counter Door : Coiling counter door formed with curtain of interlocking metal slats.

1. Operation Cycles: Door components and operators capable of operating for not less than 20,000. Include tamperproof cycle counter.
2. Door Curtain Material: **Stainless steel** Aluminum.
3. Door Curtain Slats: Flat profile slats of 1-1/2-inch (38-mm) center-to-center height.
   a. Perforated Slats: Approximately 1/16-inch (1.6-mm) pinholes.
   b. Solid Slats
   c. Gasket Seal. Manufacturer's standard continuous gaskets between slats.

4. Bottom Bar: Manufacturer's standard continuous channel or tubular shape, fabricated aluminum extrusion and finished to match door.
5. Curtain Jamb Guides: Aluminum with exposed finish matching curtain slats. Provide continuous integral wear strips to prevent metal-to-metal contact and to minimize operational noise.

6. Hood: Match curtain material and finish.
   a. Shape: Square.
   b. Mounting: Face of wall.

7. Integral Frame, Hood, and Fascia: Stainless steel.
   a. Mounting: Face of wall.

8. Sill Configuration: Integral metal sill.
9. Locking Devices: Equip door with locking device assembly.
   a. Locking Device Assembly: Single-jamb side locking bars, operable from inside with thumb turn.

10. Electric Door Operator:
    a. Usage Classification: Heavy duty, 25 or more cycles per hour and more than 90 cycles per day.
    b. Motor Exposure: Interior.
    c. Motor Electrical Characteristics: Match building electrical system.
    d. Emergency Manual Operation: Push-up type.
    e. Obstruction-Detection Device: Automatic photoelectric sensor.
       1) Sensor Edge Bulb Color: As selected by Architect from manufacturer's full range.
    f. Control Station(s): Interior-side mounted.

11. Door Finish:
    a. Powder-Coat Finish: Color as indicated by manufacturer's designations.
    b. Interior Curtain-Slat Facing: Match finish of exterior curtain-slat face.

2.4 MATERIALS, GENERAL

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.5 DOOR CURTAIN MATERIALS AND FABRICATION

A. Door Curtains: Fabricate coiling counter door curtain of interlocking metal slats in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

1. Aluminum Door Curtain Slats: ASTM B 209 (ASTM B 209M) sheet or ASTM B 221 (ASTM B 221M) extrusions, alloy and temper standard with manufacturer for type of use and finish indicated; thickness of 0.050 inch (1.27 mm); and as required.
2. Metal Interior Curtain-Slat Facing: Match metal of exterior curtain-slat face.

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain.

1. Removable Posts and Jamb Guides: Manufacturer's standard.

2.6 HOODS

A. General: Form sheet metal hood, from same metal and finish as slats, to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.

1. Include automatic drop baffle on fire-rated doors to guard against passage of smoke or flame.

B. Integral Frame, Hood, and Fascia: Welded sheet metal assembly of the following sheet metal(s):

1. Stainless Steel: 0.025-inch- (0.64-mm-) thick, stainless steel sheet, Type 304, complying with ASTM A240/A240M or ASTM A666.

C. Removable Metal Soffit: Formed or extruded from same metal and with same finish as curtain if hood is mounted above ceiling unless otherwise indicated.

2.7 LOCKING DEVICES

A. Locking Device Assembly: Fabricate with cylinder lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in tracks.

B. Chain Lock Keeper: Suitable for padlock.

C. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.8 COUNTER DOOR ACCESSORIES

A. Integral Metal Sill: Fabricate sills as integral part of frame assembly of Type 304 stainless steel in manufacturer's standard thickness with No. 4 finish.

2.9 COUNTERBALANCE MECHANISM

A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.

B. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate.

2.10 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.

1. Comply with NFPA 70.
2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V ac or dc.

B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.

C. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated for each door assembly.

1. Electrical Characteristics: Minimum as indicated for each door assembly. If not indicated, large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than 8 in./sec. (203 mm/s) and not more than 12 in./sec. (305 mm/s), without exceeding nameplate ratings or service factor.
2. Operating Controls, Controllers, Disconnect Switches, Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
3. Coordinate wiring requirements and electrical characteristics of motors and other electrical devices with building electrical system and each location where installed.

D. Limit Switches: Equip each motorized door with adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

E. Obstruction-Detection Devices: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening. For non-fire-rated doors, activation of device immediately stops and reverses downward door travel.

1. Electric Sensor Edge: Automatic safety sensor edge, located within astragal mounted to bottom bar. Contact with sensor activates device. Connect to control circuit using manufacturer's standard take-up reel or self-coiling cable.
   a. Self-Monitoring Type: Four-wire-configured device designed to interface with door operator control circuit to detect damage to or disconnection of sensor edge.

F. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."

1. Type: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.

G. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

2.11 FINISH REQUIREMENTS

A. General: Comply with NAAMM/NOMMA 500 for recommendations for applying and designating finishes.

1. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

B. Aluminum Finishes:

1. Powder-Coat Finish: AAMA 2603. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.
   a. Where powder-coat finish is indicated as selected from manufacturer's full range, provide minimum of 50 color selections.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install coiling counter doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

3.2 FIELD QUALITY CONTROL

A. Perform the following tests and inspections with the assistance of a factory-authorized service representative :

1. Test door release, closing, and alarm operations when activated by smoke detector or building's fire-alarm system. Test manual operation of closed door. Reset door-closing mechanism after successful test.

3.3 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

1. Complete installation and startup checks according to manufacturer's written instructions.
2. After electrical circuitry has been energized, operate doors to confirm proper motor rotation and door performance.
3. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.

3.4 ADJUSTING

A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

B. Lubricate bearings and sliding parts as recommended by manufacturer.

C. Adjust seals to provide tight fit around entire perimeter.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain coiling counter doors.

END OF SECTION 08 3313

SECTION 10 2800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Washroom accessories.

B. Owner-Furnished Material: Paper towel dispensers, toilet tissue dispensers, and liquid soap dispensers.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Product Schedule:

1. Identify locations using room designations indicated on Drawings.
2. Identify products using designations indicated on Drawings.

C. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.4 COORDINATION

A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.

B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.5 WARRANTY

A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.

B. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.2 WASHROOM ACCESSORIES

A. Basis-of-Design Product: The design for accessories is based on products indicated. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:

1. American Specialties, Inc.
2. Bobrick Washroom Equipment, Inc.
3. Bradley Corporation.
4. General Accessory Manufacturing Co. (GAMCO).

B. Toilet Tissue (Roll) Dispensers: Surface mounted, Owner furnished and Contractor installed.

C. Paper Towel Dispensers: Surface mounted, Owner furnished and Contractor installed.

D. Liquid-Soap Dispensers: Surface mounted, Owner furnished and Contractor installed.

E. Grab Bars:

1. Mounting: Flanges with concealed fasteners.
2. Material: Stainless steel, 0.05 inch(1.3 mm) thick.
   a. Finish: Smooth, No. 4, satin finish on ends and slip-resistant texture in grip area.

3. Outside Diameter: 1-1/2 inches(38 mm).
4. Configuration and Length: As indicated on Drawings.

F. Mirror Units:

1. Frame: Stainless-steel angle, 0.05 inch(1.3 mm) thick.
2. Hangers: Wall bracket of galvanized steel, equipped with concealed locking devices requiring a special tool to remove.
3. Size: ~~24 by 36 inches~~ **18 by 34 inches** (610 by 914 mm) unless indicated otherwise.

G. Robe Hooks: Provide one in each single-occupant toilet room and other locations as indicated.

1. Basis-of-Design Product: Bobrick B-6727.
2. Description: Double-prong unit.
3. Material and Finish: Stainless steel, No. 4 finish (satin).

2.3 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.

B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

1. Grab Bars: Install to withstand a downward load of at least 250 lbf(1112 N), when tested according to method in ASTM F 446.
2. Shower Seats: Install to withstand a downward load of at least 300 lbf(1334 N), when tested according to method in ASTM F 446.

B. Adjusting and Cleaning: Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

1. Remove temporary labels and protective coatings.
2. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 10 2800

SECTION 10 4413 - FIRE PROTECTION CABINETS

PART 1 - GENERAL

1.1 HYPERLINK "http://contact.arcomnet.com/ContentContact.aspx?sect=104413&ver=06/01/17&format=SF&sid=13143" SUMMARY

A. Section Includes:

1. Fire-protection cabinets for the following:
   a. Portable fire extinguisher.

B. Related Requirements:

1. Section 10 4416 "Fire Extinguishers" for portable, hand-carried fire extinguishers accommodated by fire-protection cabinets

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For fire-protection cabinets.

C. Samples for Verification: For each type of exposed finish required, prepared on samples 6 by 6 inches (150 by 150 mm) square.

D. Product Schedule: For fire-protection cabinets. Indicate whether recessed, semirecessed, or surface mounted. Coordinate final fire-protection cabinet schedule with fire-extinguisher schedule to ensure proper fit and function. Use same designations indicated on Drawings.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.4 COORDINATION

A. Coordinate size of fire-protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.

B. Coordinate sizes and locations of fire-protection cabinets with wall depths.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Fire-Protection Cabinets: Listed and labeled to comply with requirements in ASTM E 814 for fire-resistance rating of walls where they are installed.

2.2 FIRE-PROTECTION CABINET

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. JL Industries, Inc.; a division of the Activar Construction Products Group.
2. Larsens Manufacturing Company.
3. Nystrom, Inc.
4. Potter Roemer LLC.

B. Cabinet Type (FEC): Suitable for fire extinguisher.

1. Cabinet Construction: Nonrated and Fire rating matching rating of wall installed in.
   a. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from 0.043-inch- (1.09-mm-) thick cold-rolled steel sheet lined with minimum 5/8-inch- (16-mm-) thick fire-barrier material. Provide factory-drilled mounting holes.

2. Cabinet Material: Cold-rolled steel sheet.
3. Semirecessed Cabinet: One-piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
   a. Rolled-Edge Trim: 2-1/2-inch (64-mm) backbend depth.

4. Cabinet Trim Material: Same material and finish as door.
5. Door Material: Aluminum sheet.
6. Door Style: Vertical duo panel with frame.
7. Door Glazing: Tempered float glass (clear).
8. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
   a. Provide projecting door pull and friction latch.
   b. Provide concealed hinge, permitting door to open 180 degrees.

C. Materials:

1. Cold-Rolled Steel: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
   a. Finish: Baked enamel, TGIC polyester powder coat, HAA polyester powder coat, epoxy powder coat, or polyester/epoxy hybrid powder coat, complying with AAMA 2603.
   b. Color: White.

2. Aluminum: ASTM B 221 (ASTM B 221M) for extruded shapes and aluminum sheet, with strength and durability characteristics of not less than Alloy 6063-T5 for aluminum sheet.
   a. Finish: Clear anodic.

3. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 304.
   a. Finish: ASTM A480/A480M No. 4 directional satin finish,.

4. Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, 3 mm thick, Class 1 (clear).

PART 3 - EXECUTION

3.1 INSTALLATION

A. Examine walls and partitions for suitable framing depth and blocking where semirecessed cabinets will be installed.

B. Prepare recesses for semirecessed fire-protection cabinets as required by type and size of cabinet and trim style.

C. Install fire-protection cabinets in locations and at mounting heights indicated.

1. Fire-Protection Cabinets: 42 inches (1067 mm) above finished floor to top of fire extinguisher unless indicated otherwise.

D. Fire-Protection Cabinets: Fasten cabinets to structure, square and plumb.

E. Adjust fire-protection cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.

END OF SECTION 10 4413

NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

NEW BUFFALO AREA SCHOOL

New Buffalo, Michigan

CONSTRUCTION DOCUMENTS

DESIGN TEAM

ARCHITECT/ENGINEER

TowerPinkster
Architecture · Engineering · Interiors

242 E. KALAMAZOO AVE, SUITE 100
KALAMAZOO, MICHIGAN 49007
PHONE: 269.343.6133
FAX: 269.343.6633

STRUCTURAL CONSULTANT

COMPREHENSIVE ENGINEERING

4650 PLAINFIELD AVE NE, SUITE A
GRAND RAPIDS, MICHIGAN 49525
PHONE: 616.365.9933

FOOD SERVICE CONSULTANT

JRA Food Service Consultants, LLC

401 HALL ST. SW #185H
GRAND RAPIDS, MICHIGAN 49503
PHONE: 616.454.4433

CONSTRUCTION MANAGER

SKILLMAN

8120 MOORSBRIDGE ROAD
SUITE 101
PORTAGE, MICHIGAN 49024
PHONE: 269.350.5757
www.skillman.com

SITE ADDRESS

NEW BUFFALO ELEMENTARY SCHOOL
12291 LUBKE RD,
NEW BUFFALO, MI 49117

REFERENCED CODES

BUILDING:	2015 MICHIGAN BUILDING CODE AND 2012 NFPA 101 LIFE SAFETY CODE
ENERGY:	2015 MICHIGAN ENERGY CODE
PLUMBING:	2018 MICHIGAN PLUMBING CODE
MECHANICAL:	2015 MICHIGAN MECHANICAL CODE
FUEL GAS:	(IFGC) 2015 INTERNATIONAL FUEL GAS CODE
ELECTRICAL:	2017 NATIONAL ELECTRICAL CODE WITH MICHIGAN AMENDMENTS
BARRIER-FREE:	2015 MICHIGAN BUILDING CODE AND 2009 ICC & C A117.1
USE GROUP:	EDUCATION
CONSTRUCTION TYPE:	IIB
AUTOMATIC SPRINKLERS:	NON SPRINKLERED

PROJECT AREA

EXISTING RENOVATION:	4,340 SQ. FT.
ADDITION:	2,068 SQ. FT.
TOTAL FINISHED PROJECT:	6,408 SQ. FT.

DRAWING INDEX

TowerPinkster
Architecture · Engineering · Interiors

ADDENDUM 2 08-30-2023

ISSUED FOR DATE

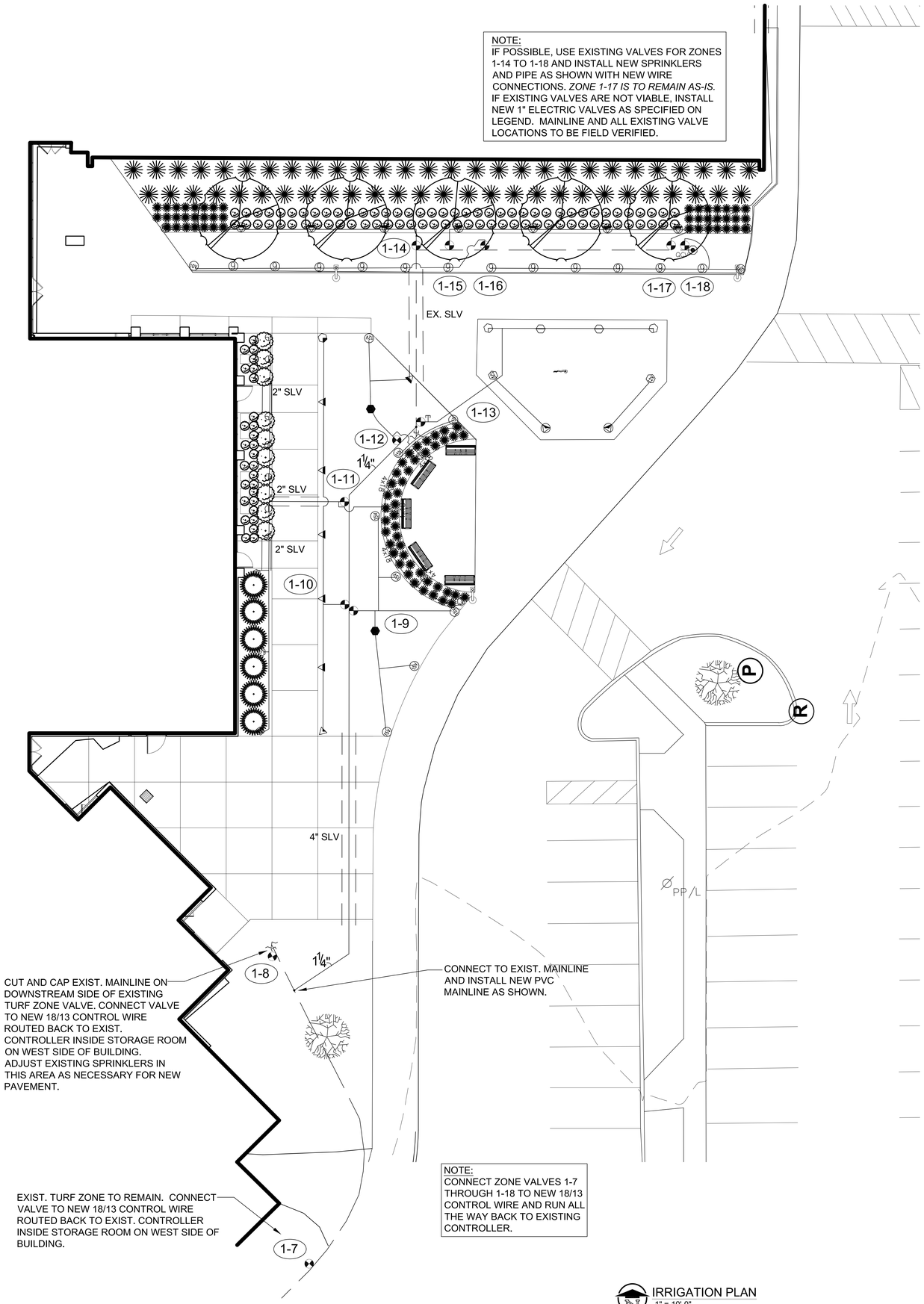
PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOL
New Buffalo, Michigan

DATE
JULY 18, 2023

SHEET TITLE
COVER SHEET

SHEET NUMBER
G 001
22-102.00



IRRIGATION PLAN
1" = 10'-0"

LEGEND

	570Z-4P	9SST-MPR SERIES	TORO FIXED SPRAY POP-UP (4")
	570Z-4P	12'-MPR SERIES	TORO FIXED SPRAY POP-UP (4")
	570Z-4P	15'-MPR SERIES	TORO FIXED SPRAY POP-UP (4")
	570Z-4P	TVAN-10 NOZZLE	TORO FIXED SPRAY POP-UP (4")
	570Z-4P	TVAN-12 NOZZLE	TORO FIXED SPRAY POP-UP (4")
	570Z-4P	TVAN-15 NOZZLE	TORO FIXED SPRAY POP-UP (4")
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	570Z-12P	8'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	12'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	15'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	TVAN-12 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	TVAN-17 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	EXISTING 474-00		TORO 1" QUICK COUPLER VALVE
	2400TF		IRRITROL 1" ELECTRIC VALVE
—— ——	EXISTING 1-1/4" SDR 26 CLASS 160 PVC MAINLINE PIPE		
————	NEW 1-1/4" SDR 26 CLASS 160 PVC MAINLINE PIPE		
————	100# POLYETHYLENE PIPE (PE-3408 NSF APPROVED) (ALL PIPE DOWNSTREAM OF VALVE 1-1/4" AND SMALLER)		
NOT SHOWN	(1) TSM-8 & (1) TSM-4		TORO CONTROLLER EXPANSION MODULES
NOT SHOWN	#18/13 UL APPROVED 24V MULTI-CONDUCTOR CONTROL WIRE		
•	POINT OF CONNECTION (P.O.C.)		

GENERAL NOTES:

1. COORDINATE THIS WORK WITH ALL OTHER TRADES.
2. ALL PLUMBING AND ELECTRICAL SHALL BE INSTALLED ACCORDING TO STATE AND LOCAL CODES.
3. ALL SLEEVES SHALL BE 4" PVC CLASS 160 (UNLESS OTHERWISE SPECIFIED). SLEEVE INSTALLATION SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
4. ALL PIPE NOT SIZED DOWNSTREAM OF VALVE IS 1".
5. IRRIGATION CONTRACTOR'S POINTS OF CONNECTION SHALL BE ON LOCATIONS ALONG EXISTING MAINLINE PIPE AS SHOWN ON PLAN. SEE NOTES ON DRAWING FOR ADDITIONAL INFORMATION.
6. 115V POWER INTO CONTROLLER IS EXISTING.
7. CONTROLLER AND RAINSWITCH ARE LOCATED AT STORAGE ROOM ON WEST SIDE OF BUILDING (VERIFY EXACT LOCATION WITH OWNER'S REPRESENTATIVE).
8. IRRIGATION CONTRACTOR SHALL ADJUST THE FLOW CONTROL FEATURE ON ALL ELECTRIC VALVES PER THE MANUFACTURER'S RECOMMENDATIONS TO MAXIMIZE THE VALVES PERFORMANCE AND LONGEVITY.
9. IF SITE PRESSURE IS NOT ADEQUATE, A BOOSTER PUMP AND RELATED EQUIPMENT MAY BE REQUIRED AT ADDITIONAL COST TO OWNER.
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11. PIPE ROUTING IS DIAGRAMMATIC. ALL EQUIPMENT AND PIPE ARE TO BE FIELD ADJUSTED TO TAKE INTO CONSIDERATION ANY OBSTRUCTIONS AND ALL LANDSCAPE.
12. NOTE: ALL REFERENCES TO EXISTING IRRIGATION SYSTEMS AND THEIR COMPONENTS ARE BASED ON ORIGINAL BID DOCUMENTS AND AS-BUILTS (IF AVAILABLE). IRRIGATION CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH EXISTING IRRIGATION SYSTEM(S) PRIOR TO INSTALLATION OF ANY NEW IRRIGATION.

WATER REQUIREMENTS: EXISTING 1" WATER SOURCE @ EXISTING PRESSURE

ZONE NUMBER	VALVE SIZE	GPM	ZONE TYPE
1-7	EX.		TURF ZONE
1-8	EX.		TURF ZONE
1-9	1"	12	TURF SPRAYS (4")
1-10	1"	12	TURF SPRAYS (4")
1-11	1"	10	LANDSCAPE SPRAYS (12")
1-12	1"	9	TURF SPRAYS (4")
1-13	EX.		LANDSCAPE PLANTER ZONE
1-14	EX.	8	LANDSCAPE SPRAYS (12")
1-15	EX.	9	LANDSCAPE SPRAYS (12")
1-16	EX.	9	TURF SPRAYS (4")
1-17	EX.		LANDSCAPE ZONE
1-18	EX.	9	TURF SPRAYS (4")

CONTROLLER NUMBER
1-1
ZONE NUMBER
SYMBOL
STATION NUMBER

THIS DESIGN IS BASED ON INFORMATION PROVIDED BY THE ARCHITECT AND/OR OWNER WHO ASSUMES FULL RESPONSIBILITY FOR ITS CORRECTNESS.

LIVONIA R. CHORKALUK CERTIFIED IRRIGATION DESIGNER COMMERCIAL

EPA WaterSense PARTNER

TORO

Spartan Distributors
487 W. Division St.
Sparta, MI 49345
Ph: 616.887.7301
Fax: 616.887.6288
1050 Opdyke Road
Auburn Hills, MI 48326
Ph: 248.373.8800
Fax: 248.373.8899
800.822.2216

Design By: L. CHORKALUK, C.I.D.
Plan #: 23-077C
Date: 08/30/23
Revisions:

Know what's below. Call before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

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ISSUED FOR	DATE
ADDENDUM 02	08-30-2023

PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOLS

New Buffalo, Michigan

DATE
AUGUST 30, 2023

SHEET TITLE
IRRIGATION RENOVATIONS PLAN

SHEET NUMBER
L 103
22-102.00

A2

LEGEND

	570Z-4P	9SST-MPR SERIES	TORO FIXED SPRAY POP-UP (4")
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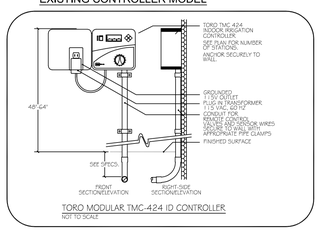
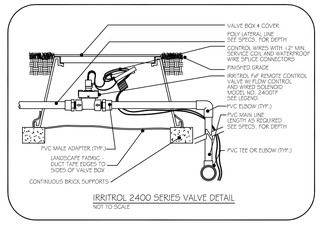
NOT SHOWN	#18/13 UL APPROVED 24V MULTI-CONDUCTOR CONTROL WIRE		
•	POINT OF CONNECTION (P.O.C.)		

EXISTING CONTROLLER MODEL



TORO MODULAR TMC-424 ID CONTROLLER
NOT TO SCALE



IRRITROL 2400 SERIES VALVE DETAIL
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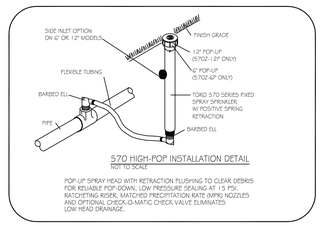
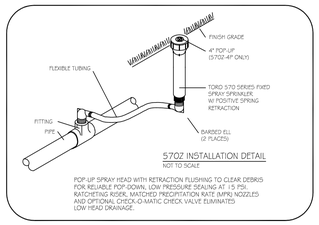


570 HIGH-POP INSTALLATION DETAIL
NOT TO SCALE

POP-UP SPRAY HEAD WITH RETRACTION FLUSHING TO CLEAR DEBRIS FOR RELIABLE POP-DOWN. LOW PRESSURE SEALING AT 15 PSI. RATCHETING RISER, MATCHED PRECIPITATION RATE (MPR) NOZZLES AND OPTIONAL CHECK-O-MATIC CHECK VALVE ELIMINATES LOW HEAD DRAINAGE.



570Z INSTALLATION DETAIL
NOT TO SCALE

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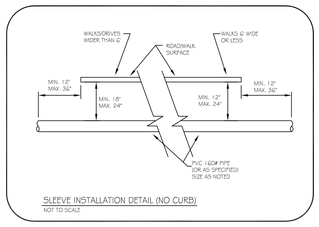

SLEEVE INSTALLATION DETAIL (NO CURB)
NOT TO SCALE

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WATER REQUIREMENTS: EXISTING 1" WATER SOURCE @ EXISTING PRESSURE

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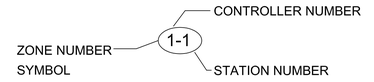

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LIVONIA R. CHORKALUK CERTIFIED IRRIGATION DESIGNER CERTIFIED COMMERCIAL

EPA WaterSense PARTNER

TORO

Spartan Distributors

487 W. Division St.
Sparta, MI 49345
Ph: 616.887.7301
Fax: 616.887.6288

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Fax: 248.373.8899

800.822.2216

Design By: L. CHORKALUK, C.I.D.
Plan #: 23-077C
Date: 08/30/23
Revisions:

811 Know what's below. Call before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

TowerPinkster
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ISSUED FOR	DATE
ADDENDUM 02	08-30-2023

PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOLS

New Buffalo, Michigan

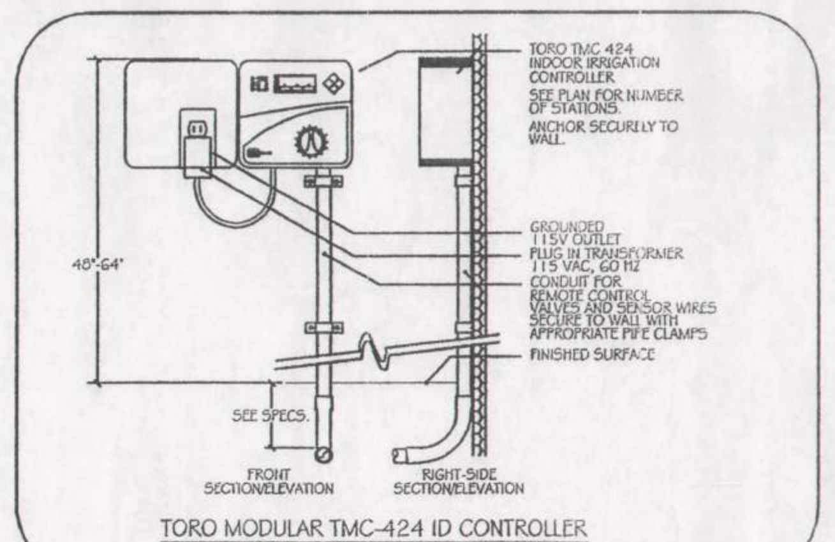
DATE
AUGUST 30, 2023

SHEET TITLE
IRRIGATION DETAILS

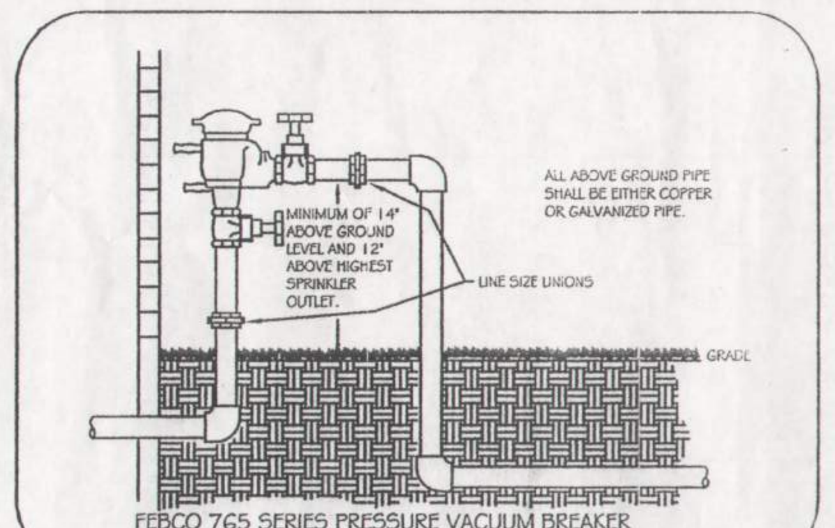
SHEET NUMBER
L 104
22-102.00

A2

FOR REFERENCE ONLY



TORO MODULAR TMC-424 ID CONTROLLER
NOT TO SCALE



FEBCO 765 SERIES PRESSURE VACUUM BREAKER
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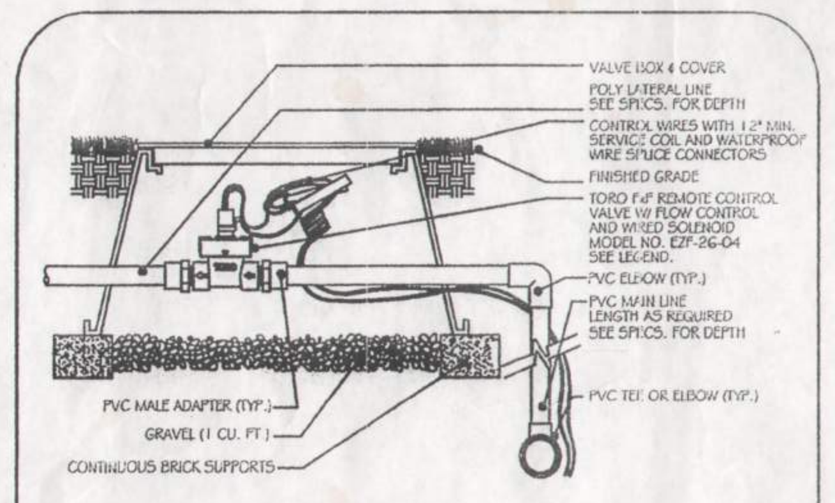
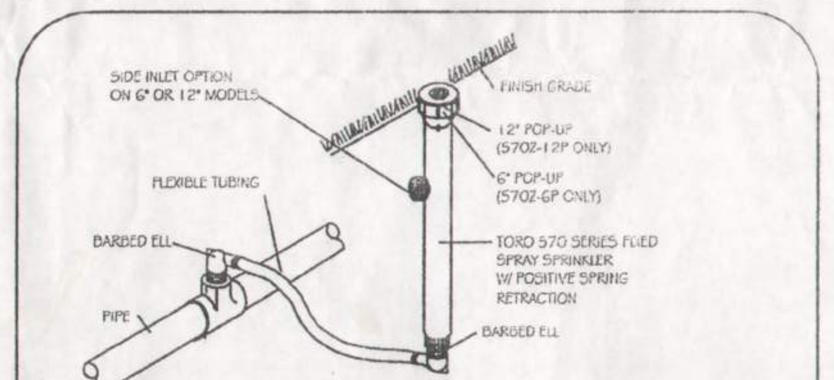
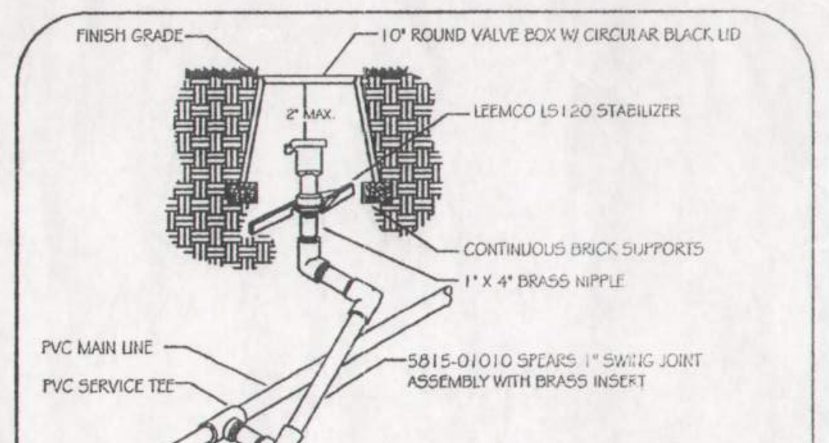


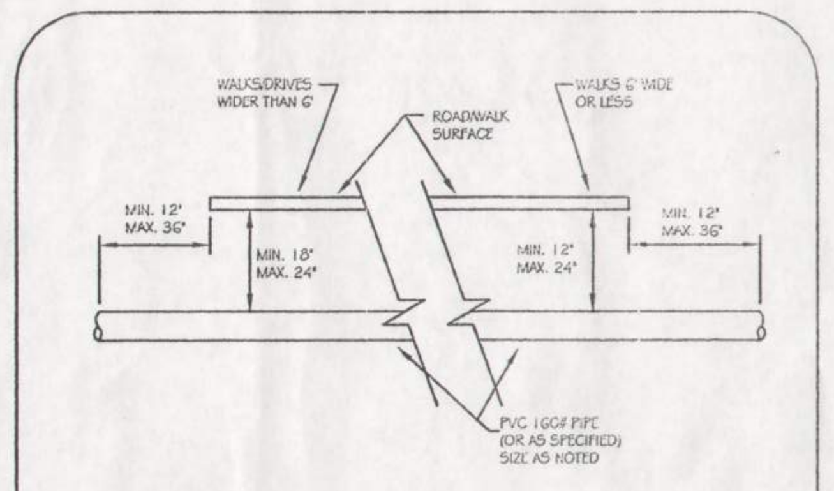
EZ-FLO SERIES VALVE DETAIL
NOT TO SCALE



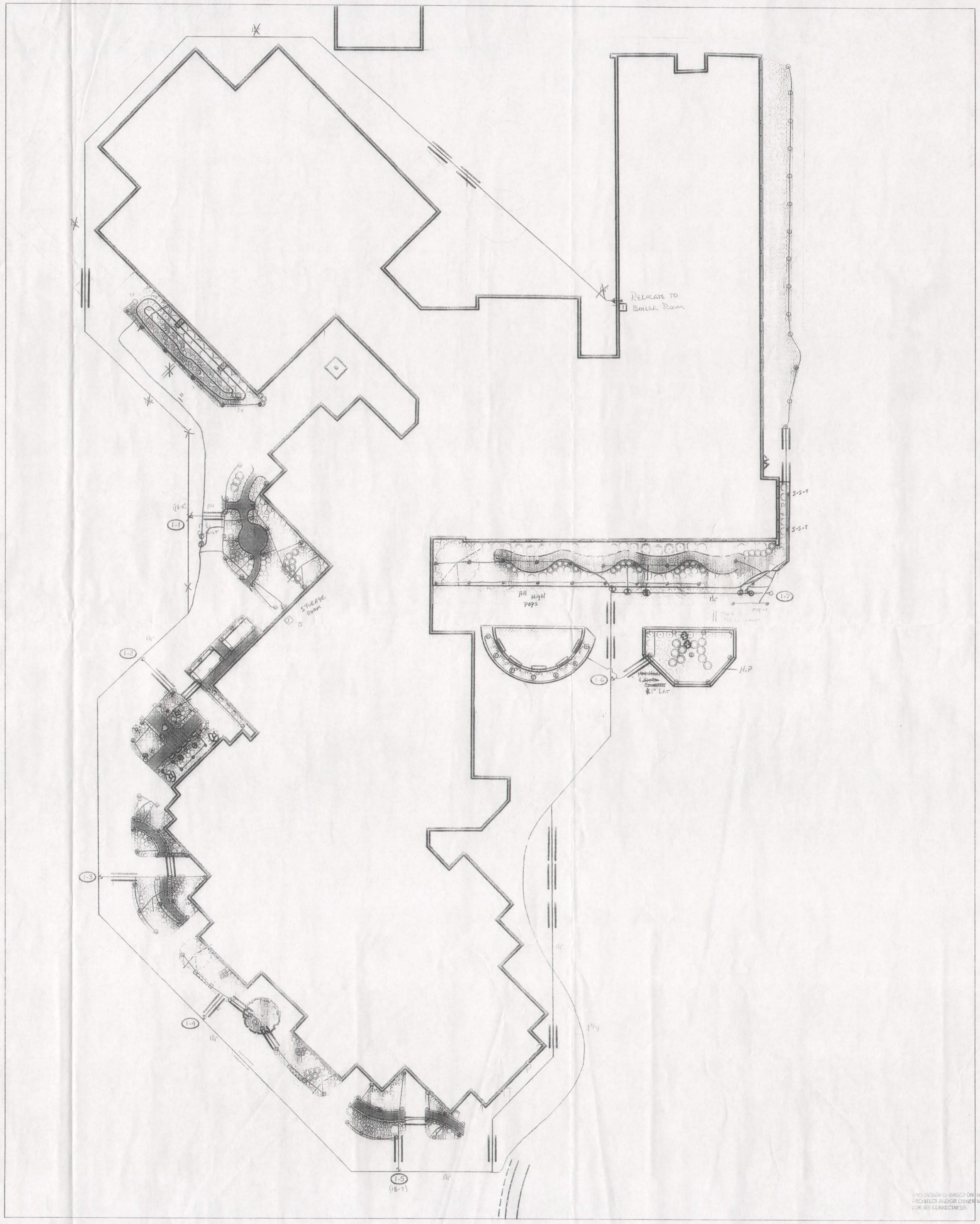
570 HIGH-POP INSTALLATION DETAIL
NOT TO SCALE



470 SERIES QUICK COUPLER DETAIL
NOT TO SCALE



SLEEVE INSTALLATION DETAIL (NO CURB)
NOT TO SCALE



LEGEND

	570Z-12P	FB-100-PC SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	4ST-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	5'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	8'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	10'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	12'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	15'-MPR SERIES	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	TVAN-8 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	TVAN-10 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	570Z-12P	TVAN-12 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	570Z-PRX-12P	TVAN-15 NOZZLE	TORO FIXED SPRAY POP-UP (12")
	474-00		TORO 1" QUICK COUPLER VALVE W/(2) KEYS AND HOSE SWIVELS
	EZF-26-04		TORO 1" ELECTRIC VALVE
	TMC-424-ID	8 STATION	TORO MODULAR INDOOR CONTROLLER W/TSM-8F MODULE AND I-RS1000 RAIN SWITCH
	PVC 160# PIPE (ALL PRESSURIZED MAINLINE PIPE)		
	100# POLYETHYLENE PIPE (PE-3408 NSF APPROVED) (ALL PIPE DOWNSTREAM OF VALVE 1-1/4" AND SMALLER)		
NOT SHOWN	#14 UL APPROVED 24V RED CONTROL WIRE WITH A #14 UL APPROVED WHITE COMMON WIRE		
	POINT OF CONNECTION (P.O.C.)		
	765-1		FEBCO 1" PRESSURE VACUUM BREAKER BACKFLOW PREVENTER

GENERAL NOTES:

1. COORDINATE THIS WORK WITH ALL OTHER TRADES.
2. ALL PLUMBING AND ELECTRICAL SHALL BE INSTALLED ACCORDING TO STATE AND LOCAL CODES.
3. ALL SLEEVES SHALL BE 2" PVC 160# (UNLESS OTHERWISE SPECIFIED). SLEEVE INSTALLATION SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.
4. ALL PIPE NOT SIZED DOWNSTREAM OF VALVE IS 1".
5. IRRIGATION CONTRACTOR'S POINT OF CONNECTION SHALL BE TO TIE INTO THE EXISTING MUNICIPAL WATER SERVICE LINE AND INSTALL 1" COPPER PIPE FROM TIE-IN LOCATION TO OUTSIDE WALL OF BUILDING FOR CONNECTION TO BACKFLOW PREVENTER.
6. 115V POWER INTO CONTROLLER SHALL BE SUPPLIED BY ELECTRICAL CONTRACTOR.
7. CONTROLLER AND RAINSWITCH SHALL BE MOUNTED AT LOCATION SHOWN ON PLAN (VERIFY EXACT LOCATION WITH OWNER'S REPRESENTATIVE).
8. IRRIGATION CONTRACTOR SHALL ADJUST THE FLOW CONTROL FEATURE ON ALL ELECTRIC VALVES PER THE MANCUFACTURER'S RECOMMENDATIONS TO MAXIMIZE THE VALVES PERFORMANCE AND LONGEVITY.
9. IF SITE PRESSURE IS NOT ADEQUATE, A BOOSTER PUMP AND RELATED EQUIPMENT MAY BE REQUIRED AT ADDITIONAL COST TO OWNER.
10. IRRIGATION PIPE AND EQUIPMENT SHOWN IN PAVED AREAS IS FOR CLARITY ONLY AND SHALL BE INSTALLED WITHIN THE TURF & LANDSCAPE AREAS.
11. PIPE ROUTING IS DIAGRAMMATIC. ALL EQUIPMENT AND PIPE ARE TO BE FIELD ADJUSTED TO TAKE INTO CONSIDERATION ANY OBSTRUCTIONS AND ALL LANDSCAPE.

WATER REQUIREMENTS: 15 GPM @ 50 PSI (AT P.O.C.).

ZONE NUMBER	VALVE SIZE	GPM	ZONE TYPE
1-1	1"	15	LANDSCAPE SPRAYS
1-2	1"	11	LANDSCAPE SPRAYS
1-3	1"	8	LANDSCAPE SPRAYS
1-4	1"	8	LANDSCAPE SPRAYS
1-5	1"	12	LANDSCAPE SPRAYS
1-6	1"	12	LANDSCAPE SPRAYS
1-7	1"	14	LANDSCAPE SPRAYS

ZONE NUMBER SYMBOL — (1-1) — CONTROLLER NUMBER / STATION NUMBER

TORO

Spartan Distributors

487 W. Division St.
Sparta, MI 49345
Ph: 616.887.7301
Fax: 616.887.6288

1050 Opdyke Road
Auburn Hills, MI 48326
Ph: 248.373.8800
Fax: 248.373.8899

800.822.2216

Design By: L. CHORKALUK, C.I.D.
Checked By:
Plan #: 08-155C
Date: 10-03-08
Revisions:

811 Know what's below. Call before you dig.

NORTH

LANDSCAPE ARCHITECTS PLANNERS
OAKLAND CENTER
809 CENTER STREET
SUITE ONE
LANSING, MI 48906
P: (517) 485-5500
F: (517) 485-5576
info@lapinc.net

REVISIONS

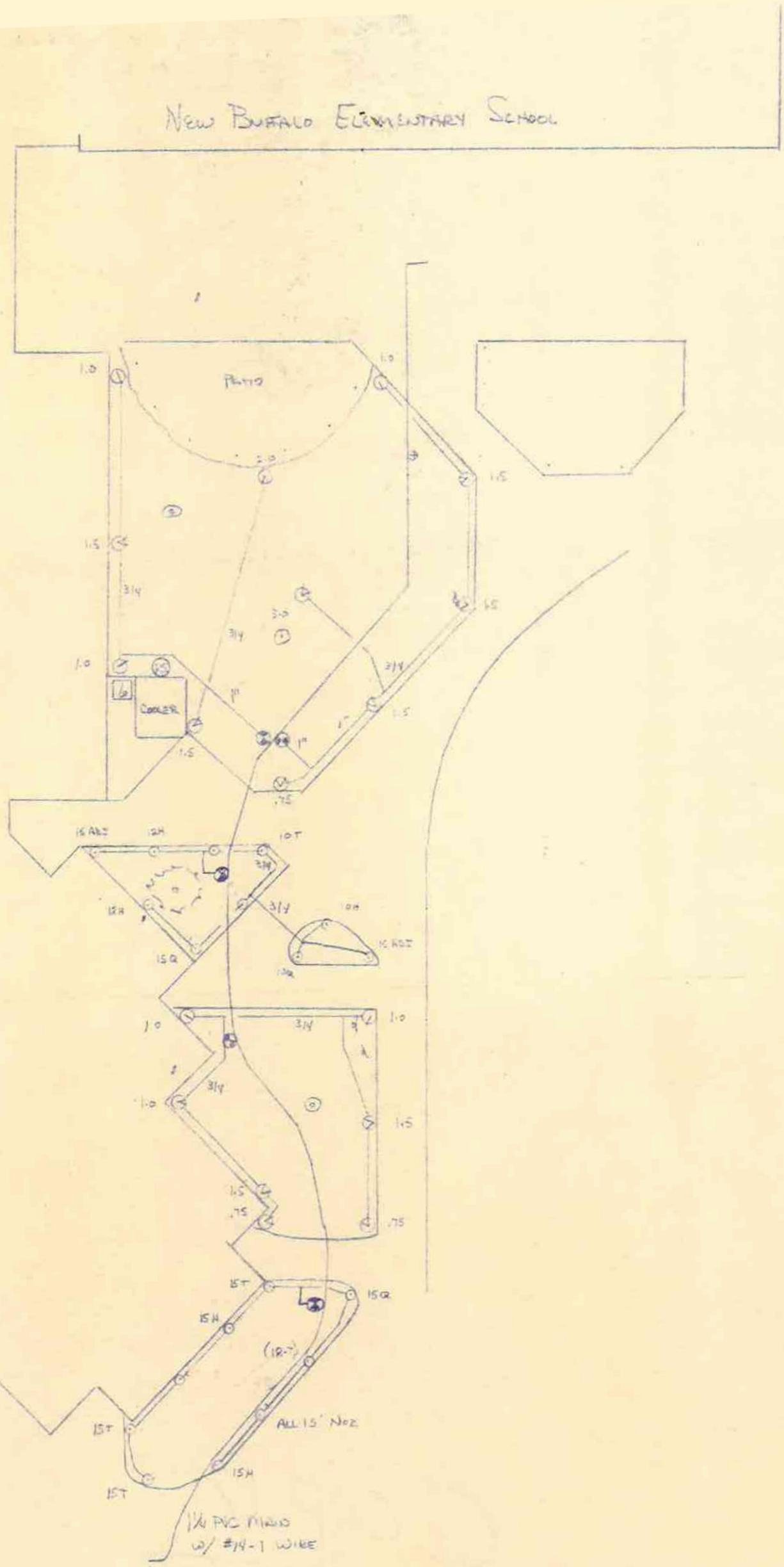
INITIALS	DATE	COMMENTS

NEW BUFFALO AREA SCHOOLS
1112 E. CLAY ST,
NEW BUFFALO, MI 49117
P: 269-469-6010 F: 269-469-3315

NEW BUFFALO ELEMENTARY SCHOOL
PHASE II
IRRIGATION PLAN
12291 LUBKE RD.
NEW BUFFALO, MI

DATE: AUGUST 26, 2008
DESIGNED BY: TJJ
CHECKED BY: REF
DRAWN BY: TJJ/MH
PROJECT NO: 07013
SCALE: AS SHOWN
HORIZ:
VERT:

SHEET
L4



SCALE: 1" = 23.5' APPROX.

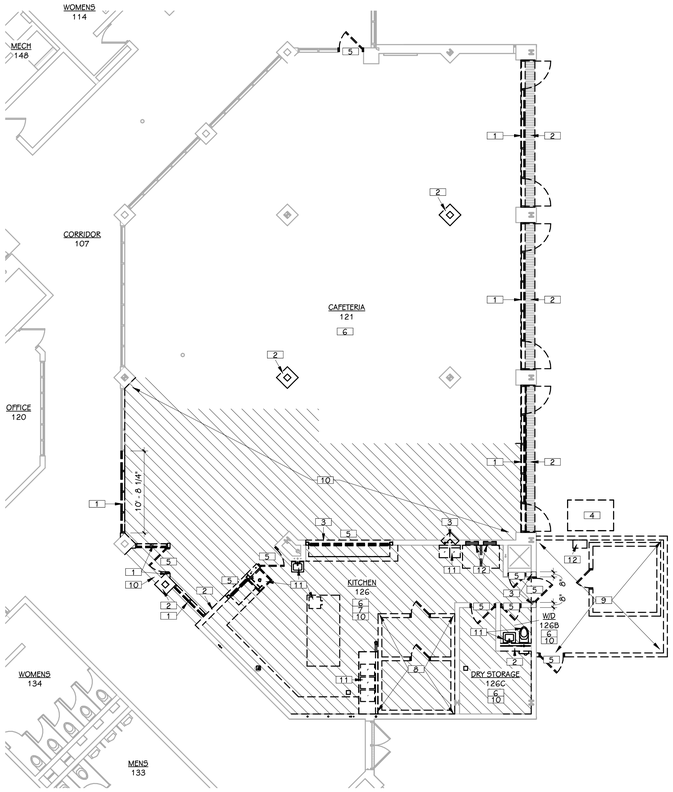
LEGEND:
- [C] - TMC 212 CONTROLLER
- ⊕ - ELECTRIC ZONE VALVE
- ⊙ - MODEL 570 SARAN HEAD
- ⊗ - MINI 8 ROTOR HEAD
- ⊙ - SUPER 800 ROTOR HEAD
- (RS) - RAIN SHUTOFF SENSOR

Toro Lawn Irrigation

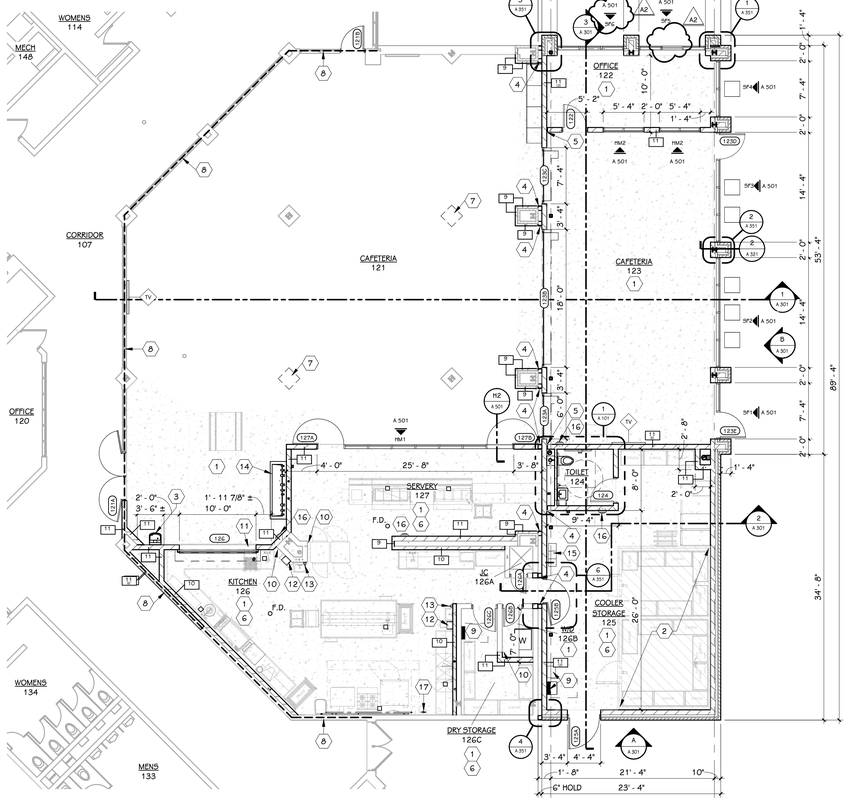
DOWN TO EARTH INC.

DAVID MANGES, Agronomist
Phone (219) 778-4642

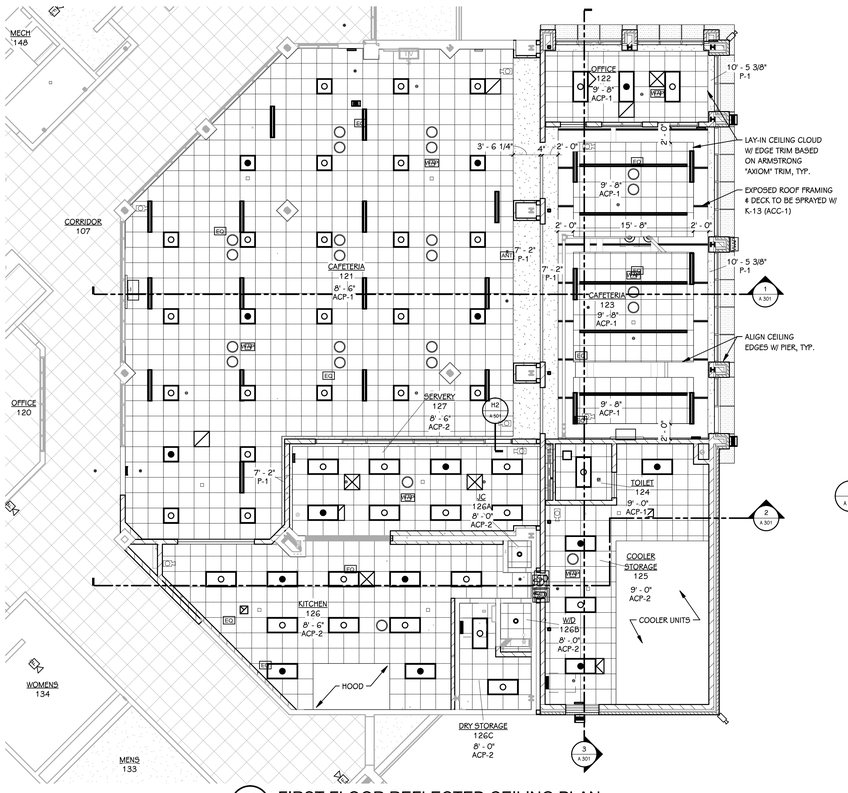
6385 E. 900 N.
La Porte, Indiana 46350



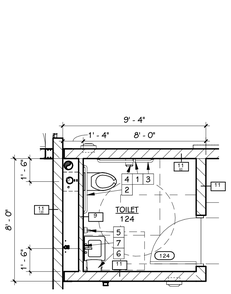
FIRST FLOOR DEMOLITION PLAN
1/8" = 1'-0"



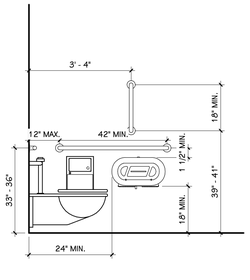
FIRST FLOOR PLAN
1/8" = 1'-0"



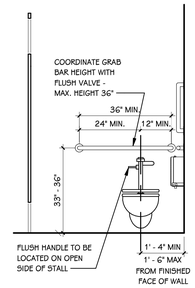
FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

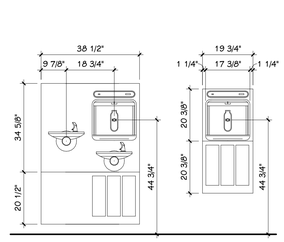


1 A101 ENLARGED PLAN - TOILET RM
1/4" = 1'-0"

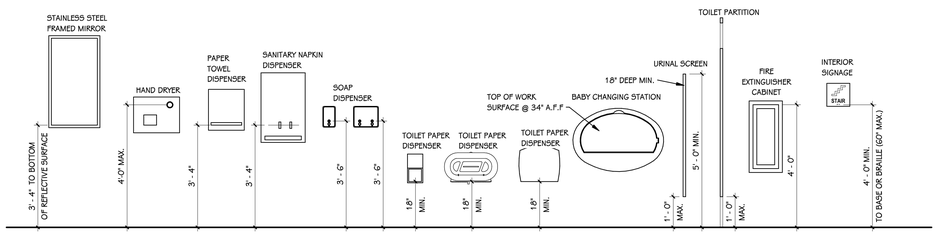


TYPICAL BARRIER-FREE MOUNTING HEIGHTS
1/2" = 1'-0"





TYPICAL DRINKING FOUNTAIN & BOTTLE FILL MOUNTING HEIGHTS
1/2" = 1'-0"



TYPICAL MOUNTING HEIGHTS
1/2" = 1'-0"

GENERAL NOTES

1. REFER TO CODE COMPLIANCE PLAN FOR WALL RATING LINES.
2. REFER TO FLOOR FINISH PLANS FOR INTERIOR ELEVATION CALLOUTS.
3. REFER TO SHEET A 501 FOR WALL AND CEILING ACCESS PANEL INFORMATION.

KEYED NOTES - DEMOLITION

1 REMOVE WINDOW SYSTEM IN ITS ENTIRETY.
2 REMOVE MASONRY WALL.
3 REMOVE PORTION OF MASONRY WALL.
4 REMOVE GENERATOR & CONCRETE PAD. REFER TO ELECTRICAL DRAWINGS.
5 REMOVE DOOR & FRAME IN ITS ENTIRETY.
6 REMOVE CEILING IN ITS ENTIRETY.
7 REMOVE & SALVAGE FOOD SERVICE EQUIPMENT, RETURN TO OWNER. COORDINATE W/ NEW WORK. REFER TO FOOD SERVICE, PLUMBING, & ELECTRICAL DRAWINGS.
8 REMOVE INSULATED SLAB. SALVAGE WALK-IN COOLER, RETURN TO OWNER. COORDINATE W/ NEW WORK. REFER TO FOOD SERVICE DRAWINGS.
9 REMOVE WOOD STRUCTURE, WALK-IN COOLER & ASSOCIATED MECHANICAL & ELECTRICAL IN ITS ENTIRETY. REFER TO PLUMBING, MECHANICAL, & ELECTRICAL DRAWINGS.
10 REMOVE FLOOR SLAB AS SHOWN HATCHED. COORDINATE W/ NEW WORK.
11 REMOVE PLUBMING FIXTURE, SEAL & CAP SERVICES AS REQUIRED. REFER TO PLUMBING DRAWINGS. PATCH & REPAIR WALL AND/OR FLOOR AS REQUIRED. COORDINATE W/ NEW WORK.
12 REMOVE ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL.

KEYED NOTES - NEW CONSTRUCTION

1 NEW CONCRETE SLAB ON GRADE (AS SHOWN WITH CONCRETE HATCH). COORDINATE EXTENTS W/ EXISTING CONDITIONS, NEW WORK, FINISH PLANS, STRUCTURAL, MECHANICAL, PLUMBING & ELECTRICAL.
2 DEPRESSED SLAB 10" FOR INSULATED COOLER-FREEZER AREA (SHOWN WITH DIAGONAL HATCH). REFER TO FOOD SERVICE.
3 ELECTRIC WATER COOLER & BOTTLE FILL. REFER TO PLUMBING DRAWINGS.
4 WALL JOINT COVER, WJC-1. REFER TO SPECIFICATIONS.
5 WALL JOINT COVER, WJC-3. REFER TO SPECIFICATIONS.
6 KITCHEN EQUIPMENT, MECHANICAL, PLUMBING, & ELECTRICAL DESIGN BY FOOD SERVICE CONSULTANT. REFER TO FOOD SERVICE.
7 REPLACE/REPAIR CONCRETE FLOOR AS REQUIRED @ COLUMN DEMO.
8 FIRE CAULK TOP OF WALL BOTH SIDES, TYP.
9 ELECTRICAL EQUIPMENT. REFER TO ELECTRICAL DRAWINGS.
10 PATCH & REPAIR WALL @ AREA OF DEMOLITION AS REQUIRED TO MATCH ADJACENT. MASONRY TO BE TOOTHEN-IN UNLESS NOTED OTHERWISE.
11 OPENING FOR SILVERWARE RETURN, REFER TO FOOD SERVICE.
12 PAPER TOWEL DISPENSER
13 SOAP DISPENSER.
14 PLUMBING FIXTURE. REFER TO PLUMBING DRAWINGS.
15 METAL LOCKERS, L-2 (DOUBLE TIER), SEE SPEC - QUANTITY AS SHOWN. SHOWN ON PLANS AS AN EMPTY RECTANGLE.
16 RECESSED FIRE EXTINGUISHER CABINET.
17 FIRE EXTINGUISHER

REFLECTED CEILING KEY

GYPSUM BOARD (P-X)
LAY-IN ACOUSTICAL TILE GRID (ACP-X)
LIGHTING - REFER TO ELECTRICAL LIGHTING PLAN
MECHANICAL - REFER TO MECHANICAL SHEET METAL PLAN

GENERAL NOTES - REFLECTED CEILINGS

1. WHERE CEILING TILE IS LESS THAN 3" AT PERIMETER OF ROOM PROVIDE A CUT 2x4 TILE IN LIEU OF FULL 2x2 TILE AND SMALL PIECE OF TILE OR DOUBLE GRID - MATCH 2x2 FOR STYLE AND COLOR.
2. AT AREAS OF EXPOSED CEILING PAINT ALL STRUCTURE, DUCTWORK, PIPING, CONDUIT, HANGERS ETC., COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING SPECIFICATIONS. REFER TO THE REFLECTED CEILING PLANS FOR PAINT COLORS.

VISUAL DISPLAY BOARD KEY

TV SINGLE WALL MOUNTED TV
REFER TO TECHNOLOGY DRAWINGS

VISUAL DISPLAY BOARD GENERAL NOTES

1. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.
2. VISUAL DISPLAY BOARD TAGS REPRESENT A SINGLE UNIT. COMBINATION BOARDS INCLUDE MORE THAN ONE MATERIAL TYPE IN THE OVERALL UNIT. (I.E.. MARKERBOARDS WITH ATTACHED TACKBOARDS)
3. TYPICAL MOUNTING HEIGHT WILL BE 5'-0" A.F.F., UNLESS NOTED OTHERWISE.
4. VISUAL DISPLAY BOARDS TO BE MOUNTED CENTERED ON WALL, UNLESS NOTED OTHERWISE
5. COORDINATE MOUNTING LOCATION AND REQUIREMENTS WITH ANY TECHNOLOGY EQUIPMENT (PROJECTOR, SMART BOARDS, ETC.)

KEYED NOTES - ENLARGED PLAN

1 18" VERTICAL STAINLESS STEEL GRAB BAR
2 36" STAINLESS STEEL GRAB BAR
3 42" STAINLESS STEEL GRAB BAR
4 TOILET PAPER DISPENSER
5 SOAP DISPENSER
6 PAPER TOWEL (ROLL) DISPENSER
7 STAINLESS STEEL FRAMED MIRROR (18"Wx34"H)

ACCESSORY NOTES

1. OP = OWNER PURCHASED, OI = OWNER INSTALLED, CP = CONTRACTOR PURCHASED, CI = CONTRACTOR INSTALLED.
2. DIMENSIONS INDICATED ARE TYPICAL UNLESS NOTED OTHERWISE ON PLANS.
3. GENERIC PLUMBING FIXTURES ARE SHOWN. REFER TO PLUMBING DRAWINGS AND SPECIFICATIONS FOR FIXTURE TYPES, MANUFACTURERS AND MOUNTING HEIGHTS.
4. CODE REQUIRED INTERIOR SIGNAGE - INCLUDES MINIMUM REQUIRED SIGN TYPES REQUIRED FOR OCCUPANCY AS DICTATED BY IBC, IFC, AND NFPA. COORDINATE WITH ANY OWNER-PROVIDED SIGNAGE.

NEW BUFFALO ELEMENTARY

AREA OF WORK
ADDITION

KEY PLAN
SCALE: NO SCALE

TowerPinkster
Architecture · Engineering · Interiors
TOWERPINKSTER.COM

ISSUED FOR	DATE
ADDENDUM 2	08-30-2023

PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOL

New Buffalo, Michigan

SHEET TITLE
FIRST FLOOR DEMOLITION PLAN, FLOOR PLAN & REFLECTED CEILING PLAN

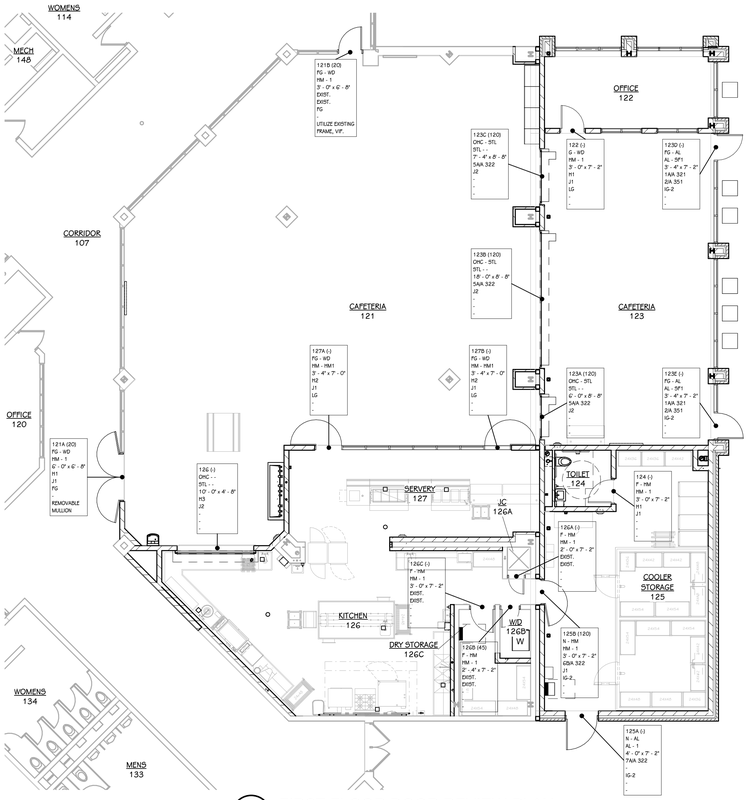
DATE
JULY 18, 2023

SHEET NUMBER
A 101
22-102.00

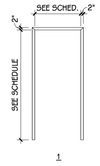
DOOR SCHEDULE - FIRST FLOOR

NUMBER		ROOM NAME	FIRE RATING		DOOR			SIZE		FRAME			DETAILS			GLASS	ACCESS CONTROLS					HDWR. SET	REMARKS
DOOR	ROOM		DOOR	FRAME	TYPE	MAT	FIN	WIDTH	HEIGHT	ELEV	MAT	FIN	HEAD	JAMB	SILL		A-PHONE	BARRIER-FREE	CARD READER	ELEC. LOCK HDWR.	MAG HOLD		
121A	121	CAFETERIA	20	20	FG	WD	PREFIN	6' - 0"	6' - 8"	1	HM	P-2	H1	J1	-	FG	No	No	No	Yes	Yes	3.0	REMOVABLE MULLION
121B	121	CAFETERIA	20	EXIST	FG	WD	PREFIN	3' - 0"	6' - 8"	1	HM	P-2	EXIST.	EXIST.	-	FG	No	No	No	Yes	Yes	4.0	UTILIZE EXISTING FRAME, VIF.
122	122	OFFICE	-	-	G	WD	PREFIN	3' - 0"	7' - 2"	1	HM	P-2	H1	J1	-	LG	No	No	No	No	No	5.0	-
123A	123	CAFETERIA	120	120	OHC	STL	PREFIN	6' - 0"	8' - 8"	-	STL	PREFIN	5A/A 322	J2	-	-	No	No	No	No	No		-
123B	123	CAFETERIA	120	120	OHC	STL	PREFIN	18' - 0"	8' - 8"	-	STL	PREFIN	5A/A 322	J2	-	-	No	No	No	No	No		-
123C	123	CAFETERIA	120	120	OHC	STL	PREFIN	7' - 4"	8' - 8"	-	STL	PREFIN	5A/A 322	J2	-	-	No	No	No	No	No		-
123D	123	CAFETERIA	-	-	FG	AL	ANOD	3' - 4"	7' - 2"	SF1	AL	ANOD	1A/A 321	2A 351	-	IG-2	No	No	No	No	No	2.0	-
123E	123	CAFETERIA	-	-	FG	AL	ANOD	3' - 4"	7' - 2"	SF1	AL	ANOD	1A/A 321	2A 351	-	IG-2	Yes	No	No	No	No	1.0	-
124	124	TOILET	-	-	F	HM	P-2	3' - 0"	7' - 2"	1	HM	P-2	H1	J1	-	-	No	No	No	No	No	10.0	-
125A	125	COOLER STORAGE	-	-	N	AL	ANOD	4' - 0"	7' - 2"	1	AL	ANOD	7A/A 322	-	-	IG-2	Yes	No	No	Yes	No	1.0	-
125B	125	COOLER STORAGE	120	120	N	HM	P-2	3' - 0"	7' - 2"	1	HM	P-2	6B/A 322	J1	-	IG-2	No	No	No	No	Yes	6.0	-
126	126	KITCHEN	-	-	OHC	-	-	10' - 0"	4' - 8"	-	STL	PREFIN	H3	J2	-	-	No	No	No	No	No		-
126A	126A	JC	-	-	F	HM	P-2	2' - 0"	7' - 2"	1	HM	P-2	EXIST.	EXIST.	-	-	No	No	No	No	No	8.0	-
126B	126B	W/D	45	45	F	HM	P-2	2' - 4"	7' - 2"	1	HM	P-2	EXIST.	EXIST.	-	-	No	No	No	No	No	9.0	-
126C	126C	DRY STORAGE	-	-	F	HM	P-2	3' - 0"	7' - 2"	1	HM	P-2	EXIST.	EXIST.	-	-	No	No	No	No	No	7.0	-
127A	127	SERVERY	-	-	FG	WD	PREFIN	3' - 4"	7' - 0"	HM1	HM	P-2	H2	J1	-	LG	No	No	No	No	Yes	6.0	-
127B	127	SERVERY	-	-	FG	WD	PREFIN	3' - 4"	7' - 0"	HM1	HM	P-2	H2	J1	-	LG	No	No	No	No	Yes	6.0	-

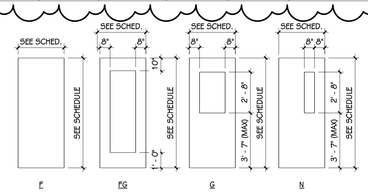
A2



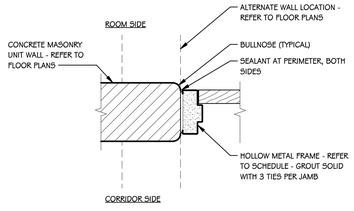
FIRST FLOOR DOOR REVIEW PLAN
1/8" = 1'-0"



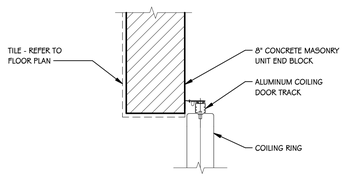
FRAME ELEVATION LEGEND
1/4" = 1'-0"



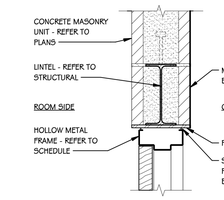
DOOR PANEL ELEVATION LEGEND
1/4" = 1'-0"



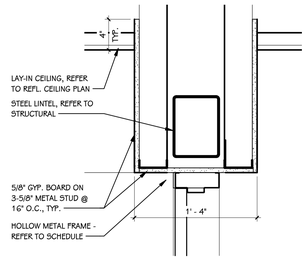
J1 A 501 MASONRY WALL JAMB DETAIL
1 1/2" = 1'-0"



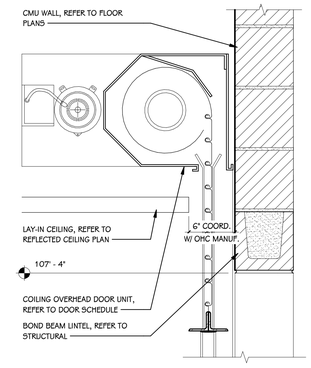
J2 A 501 MASONRY WALL JAMB DETAIL
1 1/2" = 1'-0"



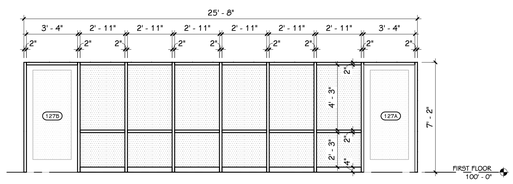
H1 A 501 MASONRY HEAD DETAIL
1 1/2" = 1'-0"



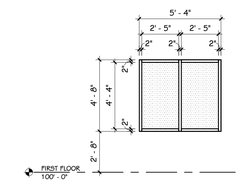
H2 A 501 GYP. HEAD DETAIL
1 1/2" = 1'-0"



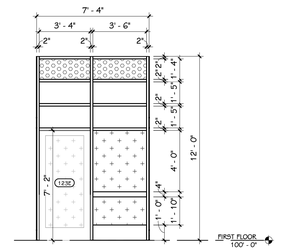
H3 A 501 MASONRY WALL JAMB DETAIL
1 1/2" = 1'-0"



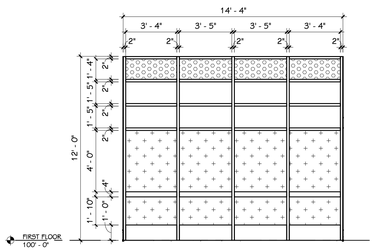
HM1 A 501 HOLLOW METAL - SERVERY
1/4" = 1'-0"



HM2 A 501 HOLLOW METAL - OFFICE 121H
1/4" = 1'-0"



SF1 A 501 STOREFRONT CAFETERIA SF 1
1/4" = 1'-0"



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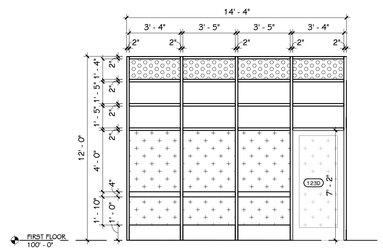
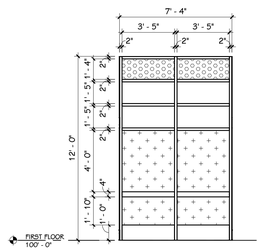
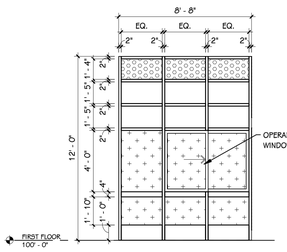
1/4" = 1'-0"



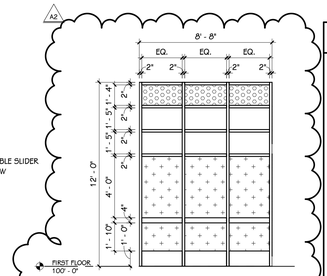
SF3 A 501 STOREFRONT CAFETERIA SF 3
1/4" = 1'-0"



SF4 A 501 STOREFRONT CAFETERIA SF 4
1/4" = 1'-0"



SF5 A 501 STOREFRONT CAFETERIA SF 5
1/4" = 1'-0"



SF6 A 501 STOREFRONT CAFETERIA SF6
1/4" = 1'-0"

FRAME ELEVATIONS

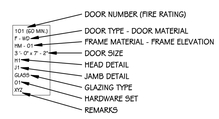
DOOR PLAN GENERAL NOTES

AL	= ALUMINUM	IG	= INSULATED GLASS
ANOD	= ANODIZED	PA	= PAINT
HM	= HOLLOW METAL	STN	= STAIN
WD	= WOOD	NA	= NOT APPLICABLE
OHC	= OVERHEAD		
OHS	= OVERHEAD COILING SHUTTER		
G	= GLASS		
T	= TEMPERED OR SAFETY GLASS		
FFG	= FIRE RATED GLASS		

DOOR PLAN GENERAL NOTES

1. SEE A 101 & A 501 FOR DOOR SCHEDULES
2. SEE A 501 FOR DOOR TYPES & DETAILS
3. REFER TO ARCHITECTURAL FLOOR PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION

DETAILED DOOR TAG KEY



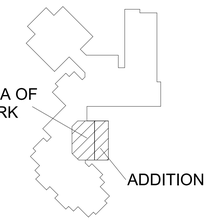
GENERAL DOOR NOTES

1. REFER TO A 500 SHEETS FOR ADDITIONAL ACCESS CONTROL INFORMATION NOT NOTED ON THIS SHEET.

GLAZING KEY

- LAMINATED GLAZING (FG)
- INSULATED GLAZING (IG-1)
- INSULATED GLAZING SECURITY (IG-2)
- SPANDREL INSULATED GLAZING (ISP)

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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ISSUED FOR	DATE
ADDENDUM 2	08-30-2023

PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN
RENOVATION & ADDITION

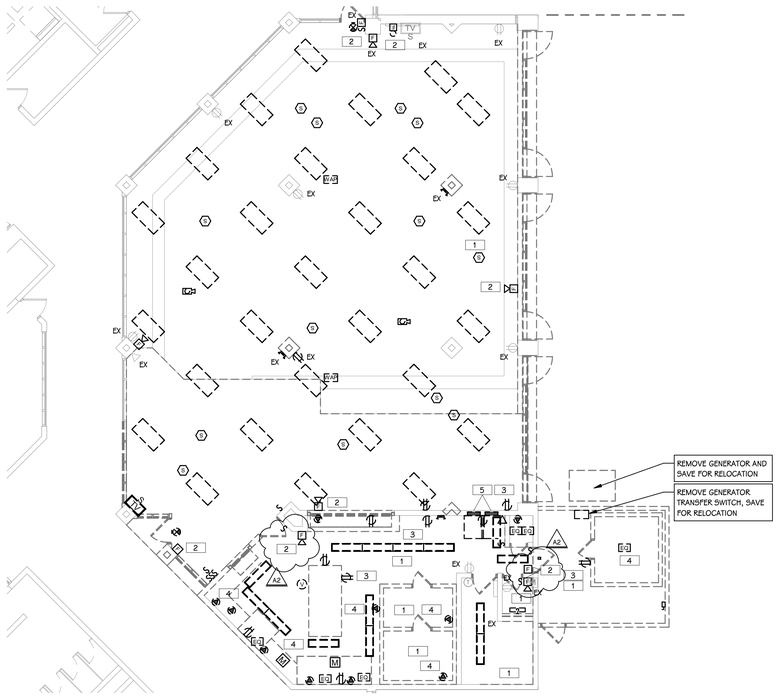
OWNER
NEW BUFFALO AREA SCHOOL

New Buffalo, Michigan

SHEET TITLE
DOOR SCHEDULE & DOOR REVIEW PLAN

DATE
JULY 18, 2023

SHEET NUMBER
A 501
22-102.00



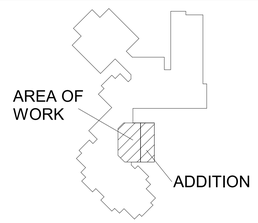
FIRST FLOOR ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

DEMO KEYED NOTES

1. REMOVE LIGHT FIXTURES AND ALL ASSOCIATED WIRE AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO NEAREST JUNCTION BOX. RETAIN CIRCUIT FOR REUSE.
2. REMOVE FIRE ALARM ALARM SYSTEM IN IT'S ENTIRETY.
3. REMOVE RECEPTACLE AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO NEAREST JUNCTION BOX. RETAIN CIRCUIT FOR REUSE.
4. REMOVE POWER CONNECTIONS TO EXISTING KITCHEN EQUIPMENT AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE.
5. REMOVE EXISTING KITCHEN PANEL AND ALL ASSOCIATED FEEDER WIRE AND CONDUIT BACK TO SOURCE.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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ADDENDUM 2 — 08-30-2023
ISSUED FOR — DATE

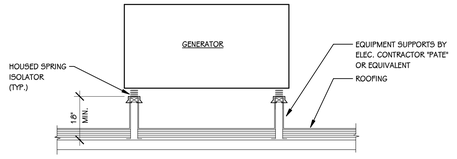
PROJECT TITLE
NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOL
New Buffalo, Michigan

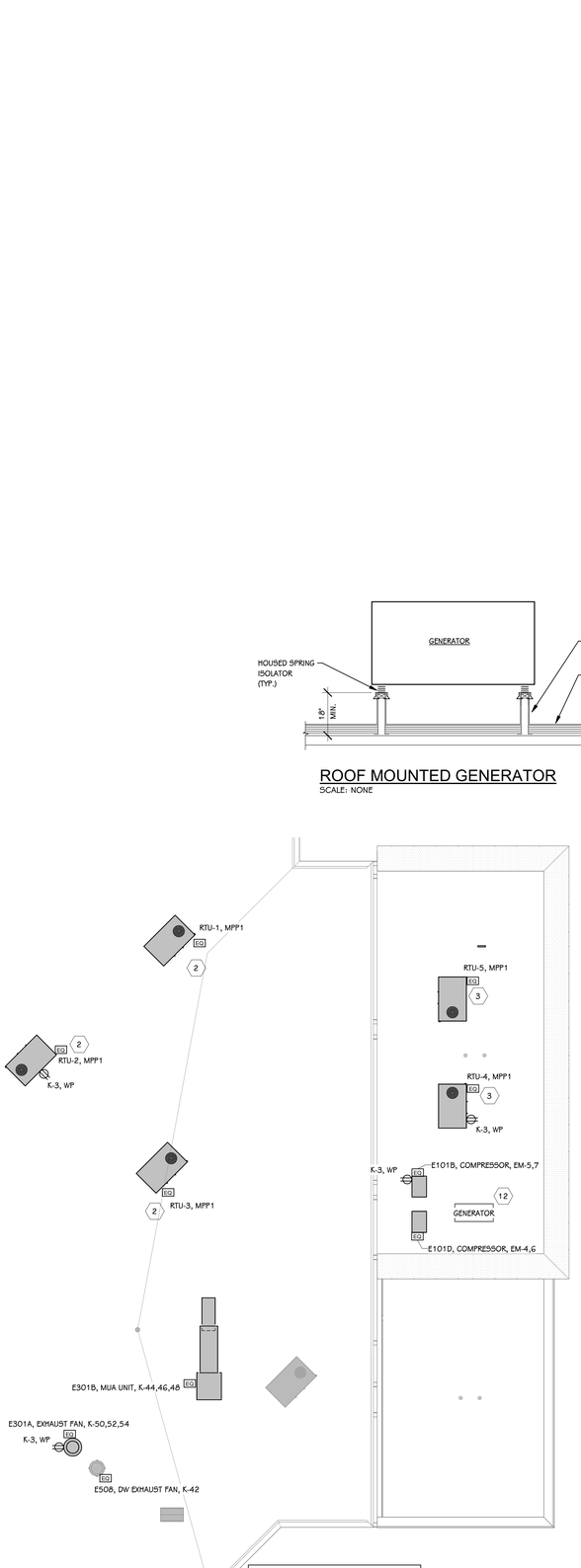
SHEET TITLE
FIRST FLOOR ELECTRICAL DEMOLITION

DATE
JULY 18, 2023

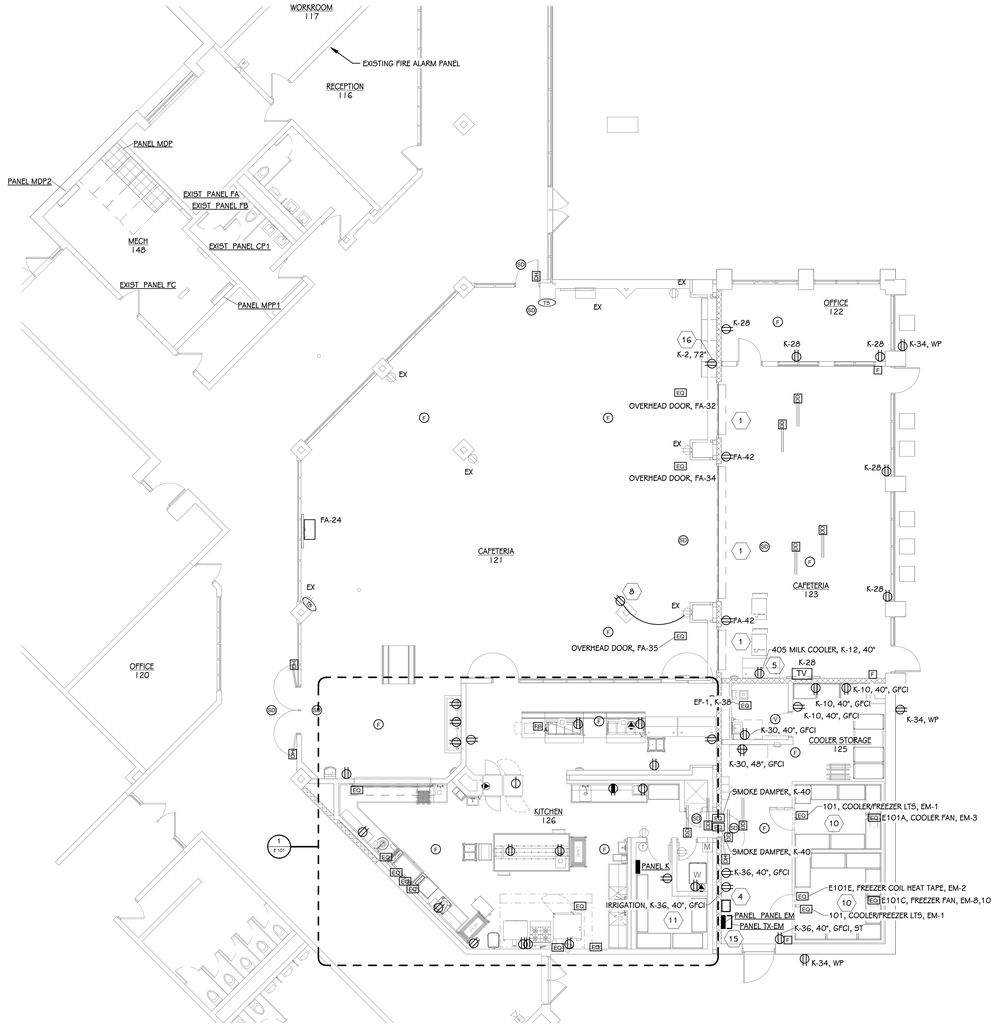
SHEET NUMBER
ED 101
22-102.00



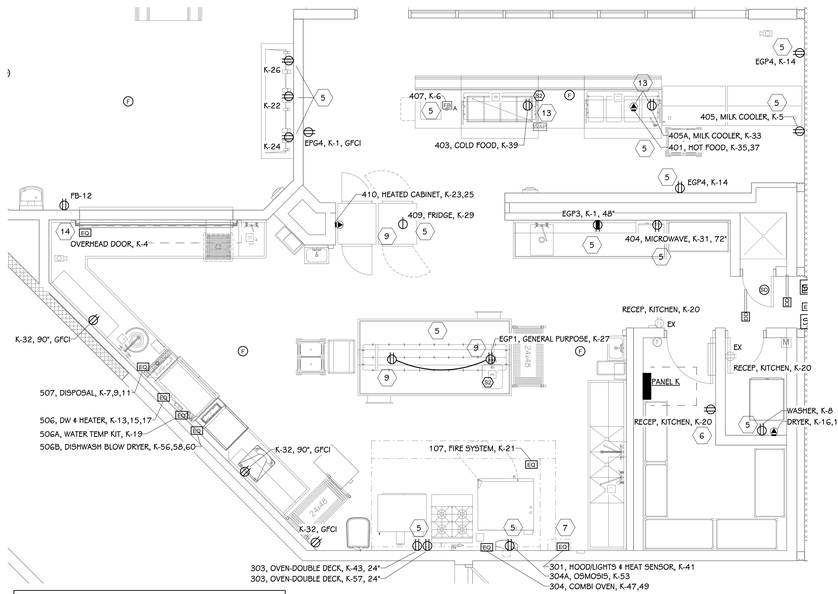
ROOF MOUNTED GENERATOR
SCALE: NONE



ELECTRICAL ROOF PLAN
1/8" = 1'-0"



FIRST FLOOR POWER PLAN
1/8" = 1'-0"



REFER TO FOOD SERVICE ELECTRICAL UTILITY SHEETS FOR MORE INFORMATION AND DETAILS.

ENLARGED KITCHEN PLAN
SCALE: NONE

DEMO KEYED NOTES

1 REMOVE LIGHT FIXTURES AND ALL ASSOCIATED WIRE AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO NEAREST JUNCTION BOX. RETAIN CIRCUIT FOR REUSE.

2 REMOVE FIRE ALARM ALARM SYSTEM IN IT'S ENTIRETY.

3 REMOVE RECEPTACLE AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO NEAREST JUNCTION BOX. RETAIN CIRCUIT FOR REUSE.

4 REMOVE POWER CONNECTIONS TO EXISTING KITCHEN EQUIPMENT AND ALL ASSOCIATED WIRE AND CONDUIT BACK TO SOURCE.

5 REMOVE EXISTING KITCHEN PANEL AND ALL ASSOCIATED FEEDER WIRE AND CONDUIT BACK TO SOURCE.

ELECTRICAL KEYED NOTES

1 CONNECT ROLLING DOOR TO NEW FIRE ALARM SYSTEM.

2 REPLACE EXISTING 50 AMP RTU BREAKER WITH NEW 30/3 BREAKER IN EXISTING SQUARE D I-LINE PANEL. REUSE EXISTING WIRE, EXTEND TO NEW RTU AS REQUIRED.

3 PROVIDE (2) NEW 30/3 BREAKER IN EXISTING SQUARE D I-LINE PANEL. PROVIDE (3) #8, (1) #10 GROUND IN 3/4" CONDUIT TO EACH NEW AIR HANDLER.

4 RELOCATE EXISTING ATS. PROVIDE NEW 100 MAIN BREAKER 16 POLE PANEL LOAD CENTER CONNECTED TO ATS FED FROM PANEL K AND ATS.

5 PROVIDE GFCI TYPE BREAKERS FOR ALL RECEPTACLE CIRCUIT IN THE KITCHEN AND SERVERY.

6 REPLACE EXISTING RECEPTACLE, RECIRCUIT AS SHOWN. A2

7 PROVIDE ALL WIRING BETWEEN HOOD FIRE SUPPRESSION SYSTEM, HOOD MECHANICAL EQUIPMENT, AND NEW FIRE ALARM SYSTEM.

8 CONNECT NEW RECEPTACLE TO EXISTING LOCAL RECEPTACLE CIRCUIT.

9 PROVIDE CORD DROP FROM CEILING. REFER TO DETAIL ON FOOD SERVICE DRAWINGS.

10 PROVIDE ALL WIRING BETWEEN INDOOR UNIT, OUTDOOR UNIT, AND TIME CLOCK FOR THE COOLER AND FREEZER. REFER TO FOOD SERVICE DRAWINGS FOR DETAILS.

11 COORDINATE FINAL LOCATION WITH IRRIGATION CONTROLLER LOCATION.

12 RELOCATE EXISTING GENERATOR TO NEW ROOF AND ALL ASSOCIATED EXISTING CONTROLS/WIRING AND CIRCUITS. RE-INSTALL EXISTING TRANSFER DEVICE AND PROVIDE NEW PANEL AS SHOWN IN NEW ADDITION. PROVIDE ISOLATION/SUPPORT AS SHOWN IN ROOF MOUNTED GENERATOR DETAIL.

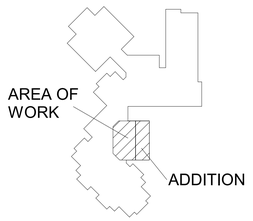
13 PROVIDE PEDESTAL MOUNTED RECEPTACLE ON FLOOR. REFER TO DETAIL ON FOOD SERVICE SHEET.

14 MOUNT AND WIRE ANY OVERHEAD DOOR CONTROLS AND ELECTRIC EYES. COORDINATE FINAL LOCATION OF SWITCH WITH OWNER.

15 PROVIDE 25 KVA 208 VOLT TO 120/240 VOLT TRANSFORMER. MOUNT TRANSFORMER ON WALL ABOVE PANEL.

16 MOUNT RECEPTACLE IN CABINET. COORDINATE W/ TECHNOLOGY.

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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ADDENDUM 2 08-30-2023
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NEW BUFFALO ELEMENTARY KITCHEN RENOVATION & ADDITION

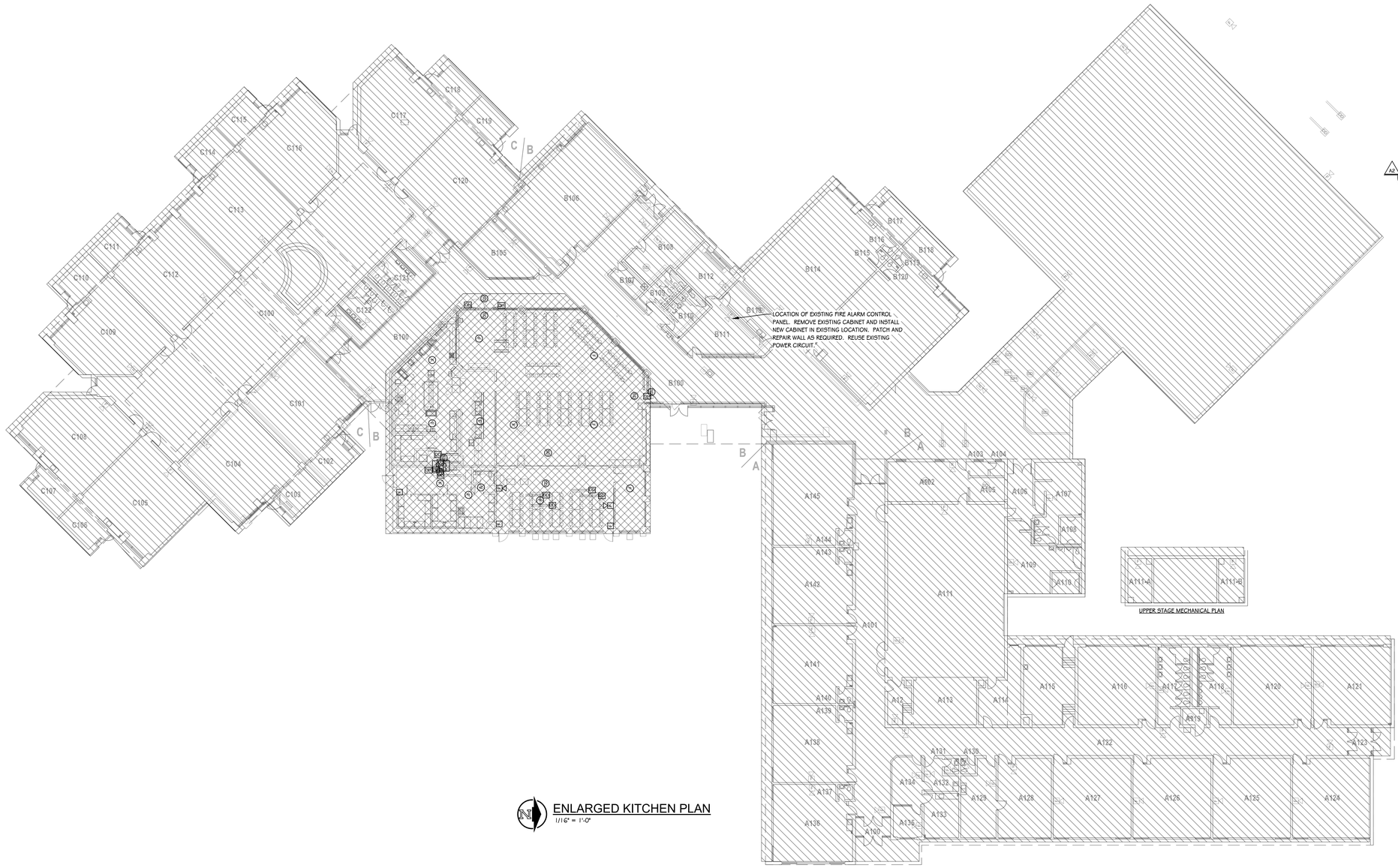
OWNER
NEW BUFFALO AREA SCHOOL

New Buffalo, Michigan

SHEET TITLE
FIRST FLOOR POWER PLAN

DATE
JULY 18, 2023

SHEET NUMBER
E 101
22-102.00



ENLARGED KITCHEN PLAN
1/16" = 1'-0"

GENERAL FIRE ALARM NOTES

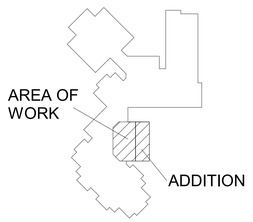
1. THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION.
2. FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS.
3. FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN.
4. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS.
5. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW / TAMPER SWITCHES AND ANY OTHER DEVICES.
6. THE FIRE ALARM CONTRACTOR SHALL RESPONSIBLE FOR FIELD VERIFYING EXISTING DEVICES AND CONDITIONS AND REMOVE THE EXISTING SYSTEM IN IT'S ENTIRETY.

FIRE ALARM REPLACEMENT KEY

VERIFY EXISTING FIRE ALARM SYSTEM AND PROVIDE THE COMPLETE REMOVAL OF EXISTING FIRE ALARM PLAN IN ITS ENTIRETY. PREPARE PLANS FOR NEW VOICE TYPE FIRE ALARM SYSTEM MEETING THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE FOR GROUP E OCCUPANCIES. PROVIDE COMPLETE INSTALLATION OF NEW FIRE ALARM SYSTEM WITH ALL REQUIRED WIRING AND HARDWARE FOR COMPLETE SYSTEM.

VERIFY EXISTING FIRE ALARM SYSTEM AND PROVIDE THE COMPLETE REMOVAL OF EXISTING FIRE ALARM PLAN IN ITS ENTIRETY. PREPARE PLANS FOR NEW VOICE TYPE FIRE ALARM SYSTEM MEETING THE REQUIREMENTS OF THE MICHIGAN BUILDING CODE FOR GROUP E OCCUPANCIES. PROVIDE COMPLETE INSTALLATION OF NEW FIRE ALARM SYSTEM WITH ALL REQUIRED WIRING AND HARDWARE FOR COMPLETE SYSTEM. PROVIDE DOOR HOLDS, DUCT DETECTORS, CONNECTIONS TO NEW FIRE ROLLING DOORS, AND CONNECTION TO THE NEW HOOD FIRE SUPPRESSION SYSTEM AS SHOWN ON SHEET E101.

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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ADDENDUM 2 08-30-2023
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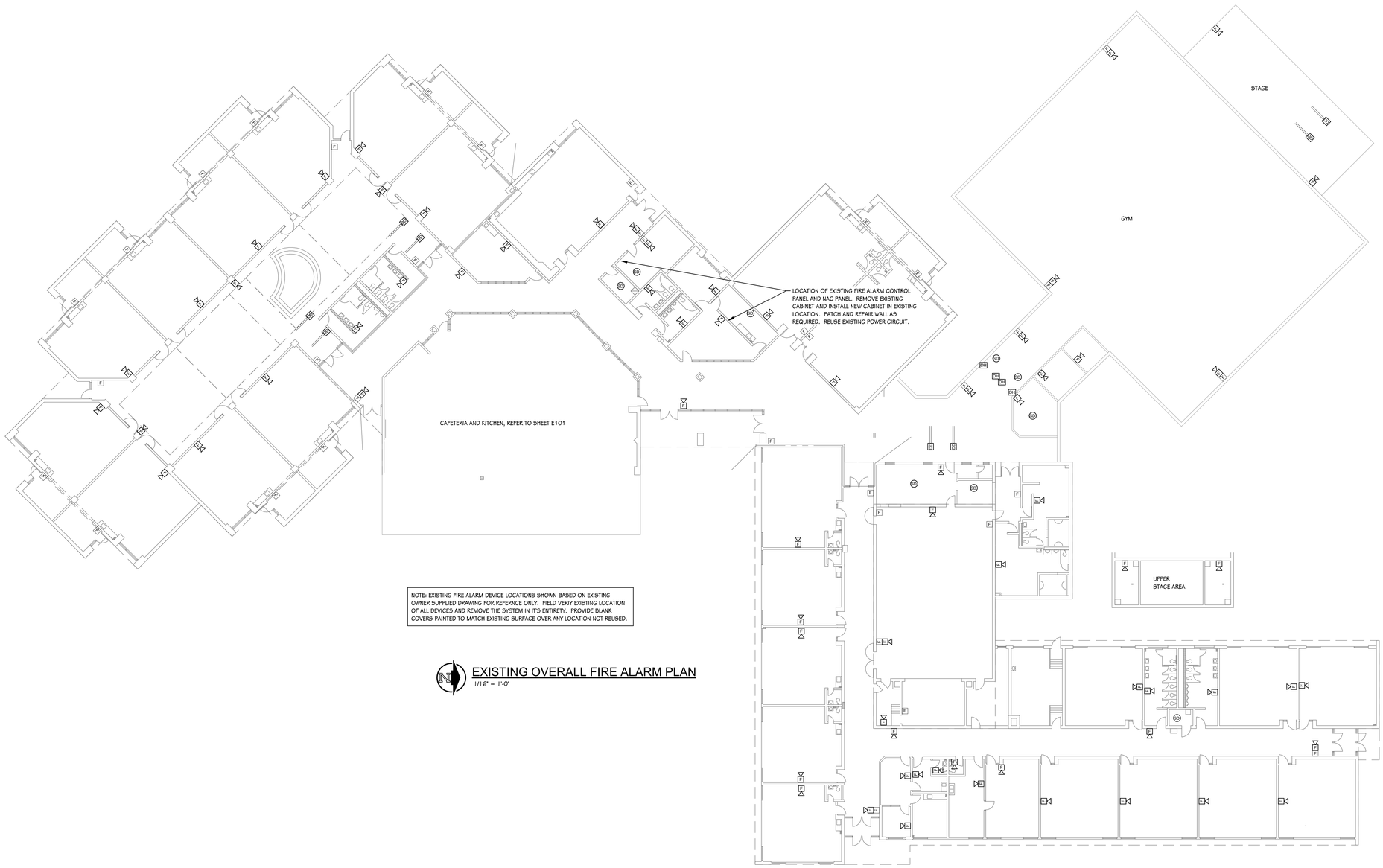
RENOVATION & ADDITION

OWNER
NEW BUFFALO AREA SCHOOL
New Buffalo, Michigan

SHEET TITLE
FIRST FLOOR FIRE ALARM PLAN

DATE
JULY 18, 2023

SHEET NUMBER
E 301
22-102.00

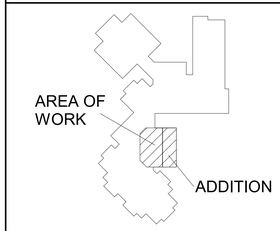


NOTE: EXISTING FIRE ALARM DEVICE LOCATIONS SHOWN BASED ON EXISTING OWNER SUPPLIED DRAWING FOR REFERNCE ONLY. FIELD VERIFY EXISTING LOCATION OF ALL DEVICES AND REMOVE THE SYSTEM IN IT'S ENTIRETY. PROVIDE BLANK COVERS PAINTED TO MATCH EXISTING SURFACE OVER ANY LOCATION NOT REUSED.

EXISTING OVERALL FIRE ALARM PLAN

1/16" = 1'-0"

NEW BUFFALO ELEMENTARY



KEY PLAN
SCALE: NO SCALE

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