Volume 4

North Loading Docks & Heated Storage Area

DLS8 & DLS9

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Volume 4 - Table of Contents

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FORM EQP 5111 Template

A1: GENERAL FACILITY DESCRIPTION

(Volume 4)

See Volume 1

A1: General Facility Description

FORM EQP 5111 TEMPLATE

A2: CHEMICAL AND PHYSICAL ANALYSES

(Volume 4)

See Volume 1

A2: Chemical and Physical Analysis

FORM EQP 5111 TEMPLATE

A3: WASTE ANALYSIS PLAN (WAP)

(Volume 4)

See Volume 1

A3: Waste Analysis Plan

A4: SECURITY PROCEEDURES AND EQUIPMENT

40 CFR §264.14

(Volume 4)

See Volume 1

A4: Security Procedures and Equipment

FORM EQP 5111 TEMPLATE

A5: INSPECTION REQUIREMENTS

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A5: Inspection Requirements

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A6: PREPAREDNESS AND PREVENTION OR WAIVER

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A6: Preparedness and Prevention or Waiver

FORM EQP 5111 TEMPLATE MODULE A7

A7: CONTINGENCY PLAN

(Volume 4)

This document is an attachment to the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities.* See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9501, R 299.9508(1)(b), R 299.9504(1)(c), R 299.9521(3)(b), R 299.9607, and Title 40 of the Code of Federal Regulations (CFR) §§264.50 through 264.56, and 270.14(b)(7), establish requirements for contingency plans at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.
This license application template addresses requirements for a contingency plan at the hazardous waste management facility for *Drug & Laboratory Disposal, Inc.* (DLD) in *Plainwell,*, Michigan.
It is recommended that DLD perform annual drill exercises with the local fire department and emergency responders using the contingency plan to make sure all staff are familiar with the plan and determine whether the plan needs any updating.

(Check as appropriate)

☐ Applicant for Operating License for Existing Facility

☒ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

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This template is organized as follows:

A7.D.5 Procedures to Be Used to Ensure That Fires, Explosions, and Releases Do Not Occur, Reoccur, or Spread During the Emergency

A7.D.6 Procedures to Be Used to Monitor Equipment Should Facility Operations Cease

A7.D.7 Procedures to Provide Proper Treatment, Storage, and Disposal for Any Released Materials

A7.D.8 Procedures for Cleanup and Decontamination

A7.E RESUMPTION OF OPERATIONS AND RECORD KEEPING REQUIREMENTS

A7.E.1 Procedures to Be Used Prior to Resuming Operations

A7.E.2 Record Keeping Requirements

A7.E.2(a) Operating Record

A7.E.2(b) Written Incident Report

*A7.*F PROCEDURE FOR ASSESSING OFFSITE RISK DURING AND AFTER A FIRE/EXPLOSION INCIDENT OR SIGNIFICANT RELEASE

A7.G PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN

Attachment A7.1 DLS-8 Evacuation Route Diagram

Attachment A7.2 DLS-9 Evacuation Route Diagram

Attachment A7.3 DLS-8 & DLS-9 Emergency Equipment Descriptions

Attachment A7.4 Checklist for Tracking Facility Response Actions During and After a Fire/Explosion Incident

INTRODUCTION

A7.A BACKGROUND INFORMATION

A7.A.1 Purpose of the Contingency Plan
[R 299.9607 and 40 CFR §264.51and 264.53]

See Volume 1, Section A7.A.1

A7.A.2 Description of Facility Operations

Reference is made to Volume 1, Section A7.A.2, with the addition of the following information specific to new hazardous waste management units DLS-8 & DLS-9:

The building housing DLS-8 and DLS-9 will be built of hydrophobic cement and steel, and will have secondary containment in compliance with the containment standards. The entire area will be fully licensed, as it is intended for hazardous waste storage.

DLS-8: This area will be another hazardous waste loading and unloading area. The dock area will consist of nine loading bays, two of which will be specially designed and equipped for cargo tanks and seven bays for semis and straight trucks. It will be also be available for temporary parking of loaded trucks (both cargo tanks, trailers and straight trucks) and the dock portion will act as a temporary storage area to containers coming from or going to permanent storage. See Volume 4, Section B6 for engineering drawings applicable to DLS-8.

DLS-9: This area is intended for warm storage of hazardous waste and will also include an office area for the transportation staff and incoming drivers. Waste will be stored in containers on racks. See volume 4, Section B6 for engineering drawings applicable to DLS-9.

A7.A.3 Identification of Potential Situations

See volume 1, Section A7.A.3

A7.B EMERGENCY COORDINATORS
[R 299.9607 and 40 CFR §264.52 and 264.55]

A7.B.1 Identification of Primary and Alternate Emergency Coordinators
[R 299.9607 and 40 CFR §264.52 and 264.55]

See Volume 1, Section A7.B.1.

A7.B.2 Qualifications of the Emergency Coordinators
[R 299.9607 and 40 CFR §264.55]

See Volume 1, Section A7.B.2.

Table A7.B.1 Identification of Primary and Alternate Emergency Coordinators

See Volume 1, Table A7.B.1.

A7.B.3 Authority to Commit Resources
[R 299.9607 and 40 CFR §264.55]

See Volume 1, Section A7.B.3.

A7.C IMPLEMENTATION OF THE CONTINGENCY PLAN
[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

See Volume 1, Section A7.C.

A7.D EMERGENCY PROCEDURES
[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

A7.D.1 Immediate Notification Procedures for Facility Personnel and State and Local Agencies with Designated Response Roles
[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

See Volume 1, Section A7.D.1.

A7.D.2 Procedures to Be Used for Identification of Releases
[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

See Volume 1, Section A7.D.2.

A7.D.3 Procedures to Be Used to Assess Potential Hazards to Human Health and the Environment
[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

See Volume 1, Section A7.D.3.

A7.D.4 Procedures to Determine if Evacuation Is Necessary and Immediate Notification of Michigan Pollution Emergency Alerting System, and the National Response Center

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

Reference is made to Volume 1, Section A7.D.4, with the addition of the following information specific to DLS-8 & DLS-9:

- Evacuation plans for DLS-8 & DLS-9 are included in this Contingency Plan as Volume 4, Attachment A7-1 & A7-2, respectively.

A7.D.5 Procedures to Be Used to Ensure that Fires, Explosions, and Releases Do Not Occur, Reoccur, or Spread During the Emergency

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(e), 264.227, and 264.200]

Reference is made to Volume 1, Section A7.D.4, with the addition of the following information specific to DLS-8 & DLS-9:

- DLS-8 Evacuation Diagrams can be found in Volume 4, Attachment A7-1
- DLS-9 Evacuation Diagrams can be found in Volume 4, Attachment A7-2
- An Emergency Equipment List for both DLS-8 & DLS-9 can be found in Volume 4, Attachment A7-3.

A7.D.6 Procedures to Be Used to Monitor Equipment Should Facility Operations Cease

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(f)]

See Volume 1, Section A7.D.6.

A7.D.7 Procedures to Provide Proper Treatment, Storage, and Disposal for Any Released Materials

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(g)]

See Volume 1, Section A7.D.7.

A7.D.8 Procedures for Cleanup and Decontamination

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(h)]

See Volume 1, Section A7.D.8.

A7.E NOTIFICATION AND RECORD KEEPING REQUIREMENTS

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(I) and (j)

A7.E.1 Procedures to Be Used to Notify State and Federal Officials Prior to Commencement of Operations

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56]

See Volume 1, Section A7.E.1.

A7.E.2 Record Keeping Requirements

[R 299.9607 and 40 CFR §264.51, 264.52, and 264.56(j)]

See Volume 1, Section A7.E.2.

A7.E.2(a) Operating Record

See Volume 1, Section A7.E.2(a)

A7.E.2(b) Written Incident Report

See Volume 1, Section A7.E.2(b)

A7.F Procedure for Assessing Offsite Risk During and After a fire/explosion incident or Significant Release

[R 299.9521(3)(b) and R 299.9607 and 40 CFR §264.56(d)]

See Volume 1, Section A7.F

A7.G PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN

[R 299.9607 and 40 CFR §264.54]

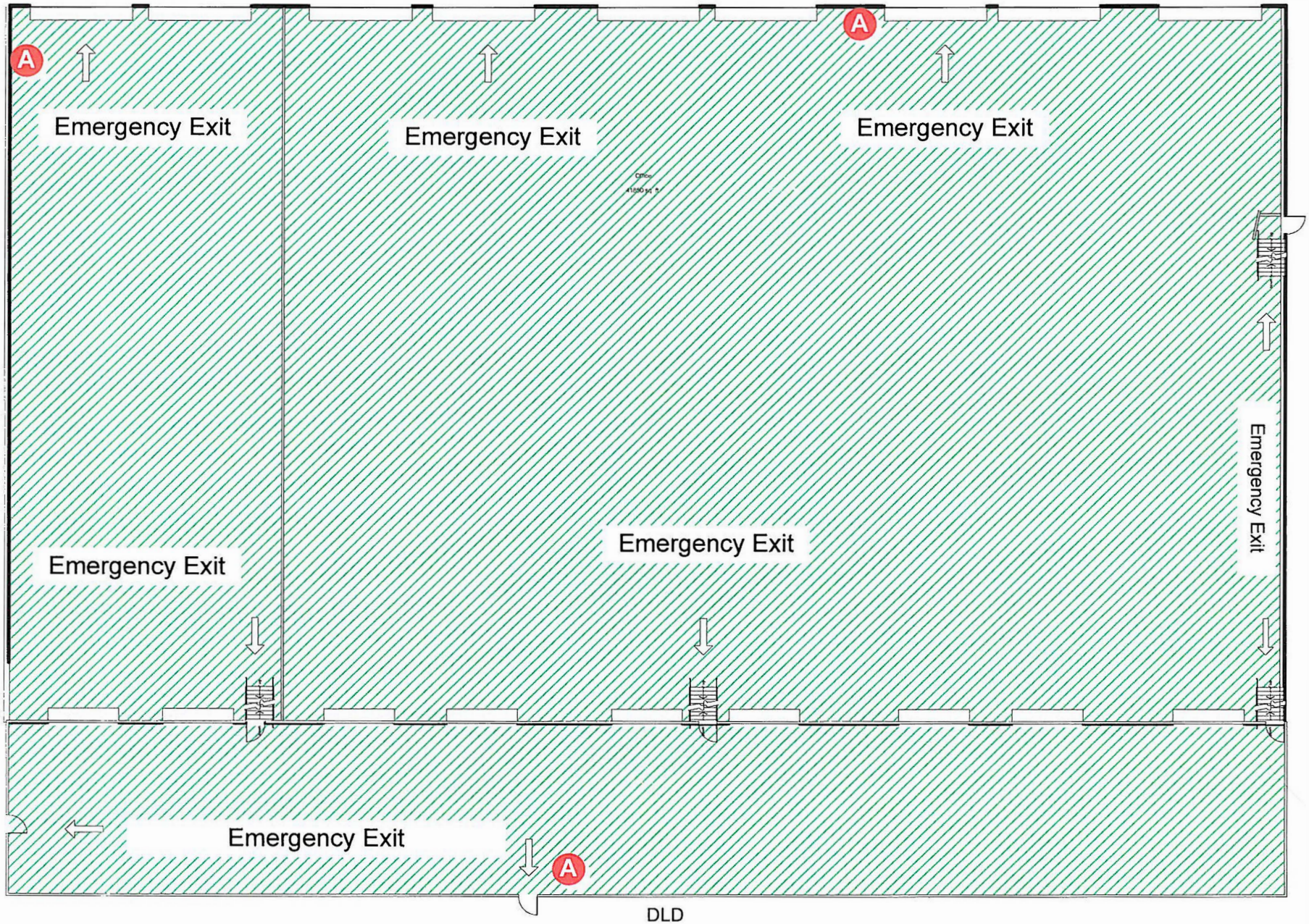
See Volume 1, Section A7.G.

EVACUATION ROUTE FOR LIME ZONE DLS-8

Attachment A7-1
Volume 4
Hazardous Waste Loading Dock

A Emergency Alarm

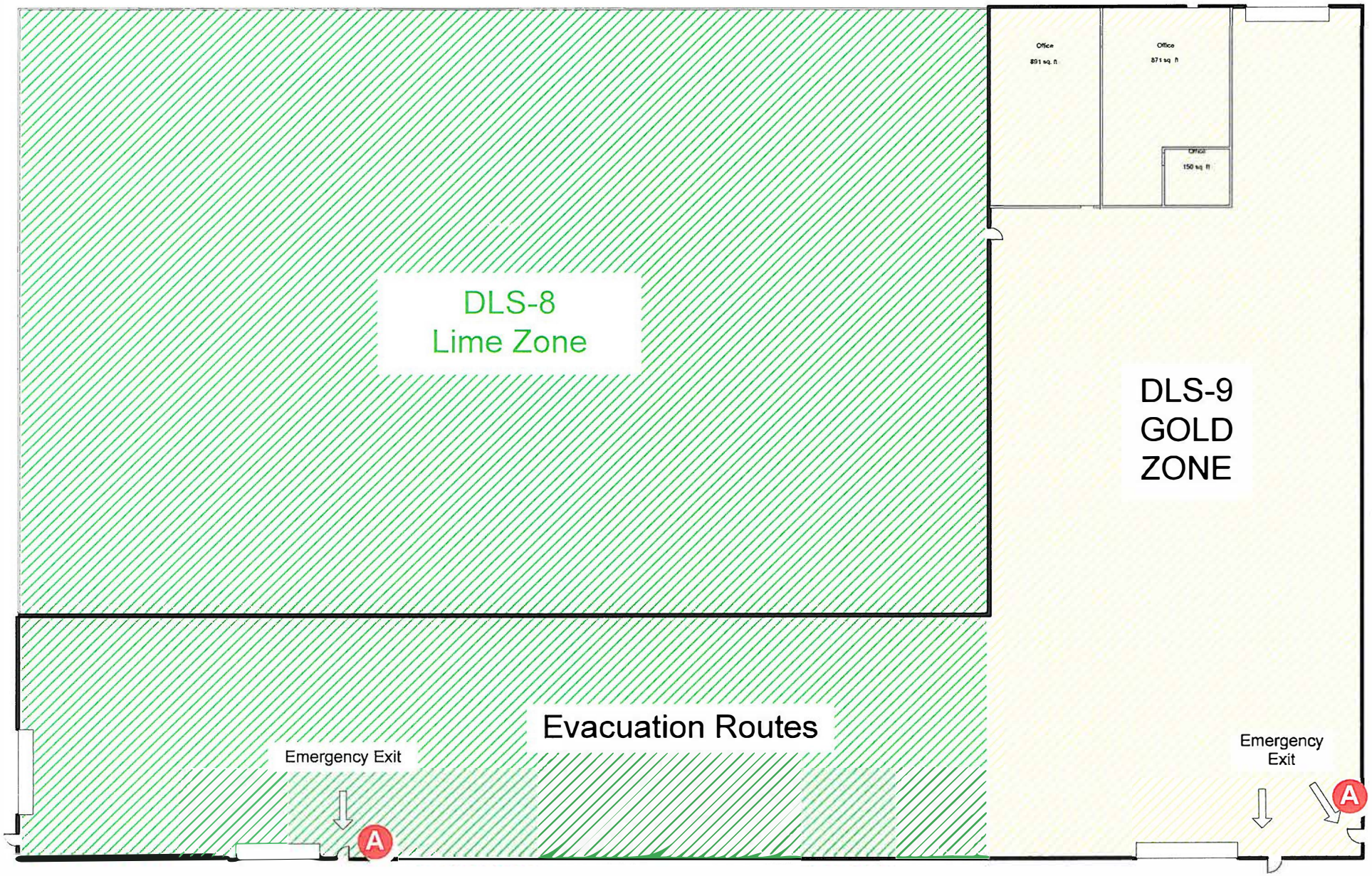
Overhead doors 1, 4, 7 have Emergency escape doors built-in



Attachment A7-2
Volume 4
DLS-9 Heated Storage Area

A Emergency Alarm

DLD
MID 092 947 928



Attachment V4-A7-3
Emergency Equipment

Emergency equipment that will be available at DLD includes the following:

EQUIPMENT DESCRIPTION	LOCATION	EMERGENCY RESPONSE USAGE
1. Type ABC fire extinguishers Type D-type fire extinguisher	DLS-8 & DLS-9	Extinguishing Type A (e.g. trash, wood, paper), Type B (e.g. liquids and grease), Type C (e.g. electrical equipment) and Type D (e.g. alkaline earth metal) fires.
2. 110 V AC suction Pumps		Suction of liquids from sump area if not served by compressed air.
3. Hand-operated pumps		Suction of small volumes of liquid from areas not served by compressed air or electricity.
4. Air-driven vacuum pumps with 1½" inlet and outlet.		Transfer of liquids, both viscous and non-viscous, as in spill clean-up.
5. Air-driven vacuum pump with 3" inlet and outlet		Transfer of liquids, both viscous and non-viscous, as in spill clean-up.
6. Spill clean-up material: Oil dry, sawdust, brooms, pads, booms		As appropriate to the type of material spilled. Sawdust is not used on spills with potential for oxidation.
7. Personnel equipment—modified Level C (hard hats, face shields, rubber gloves, respirators, coveralls)		Clean-up of spills requiring not higher than Level C protection.
8. Personal equipment—modified Level C (same as # 9 plus supplied air)		Clean-up of spills requiring not higher than Level C protection.
9. Telephone/Intercom • Driver's Phones • Two-way radio set • Radio System (5)		Communication with office via intercom and with emergency responders.

EQUIPMENT DESCRIPTION	LOCATION	EMERGENCY RESPONSE USAGE
10. Alarm system consisting of seven loud horns and seven activation locations		Evacuation signal
11. Visual alarms consisting of flashing red lights		Additional evacuation signal for outside areas when noise is a factor.
12. Mercury Vacuum		Clean-up of mercury spills
13. Decontamination Equipment: bucket, 1A2 drum, brushes, pump		Clean-up of PCB spills
14. Emergency Gate Opener		Emergency evacuation of employees and access to facility by emergency vehicles

FORM EQP 5111 Template

A8: Traffic Information

(Volume 4)

See Volume 1

A8: Traffic Information

A9 - FACILITY LOCATION INFORMATION

40 CFR §270.14(b)(11)

(Volume 4)

See Volume 1

A9: Facility Location Information

A10: PERSONNEL TRAINING PROGRAM

(Volume 4)

See Volume 1

A10: Personnel Training Program

FORM EQP 5111 Template

A11: Closure and Postclosure Plan

(Volume 4)

See Volume 1

A11: Closure and Postclosure Plan

FORM EQP 5111 TEMPLATE

A12: CLOSURE AND POSTCLOSURE CARE COST ESTIMATES

(Volume 4)

(Hazardous Waste Units DLS-8 and DLS-9)

This document is an attachment to the Michigan Department of Environment, Great Lakes, and Energy's *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities.* See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9702 and Title 40 of the Code of Federal Regulations (CFR), Part 264, Subpart H, establishes requirements for providing financial assurance for closure and, if necessary, postclosure care. Specifically, R 299.9702(1) requires the preparation of associated cost estimates. This license application template addresses the requirement for preparing a closure cost estimate and, if necessary, a postclosure care cost estimate. The cost estimates provided in this attachment are based on the closure and postclosure care activities detailed in Template A11. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This template is organized as follows:

A12.A CLOSURE COST ESTIMATE

A12.A.1 Closure Cost Estimate Breakdown

Table A12.A.1 Facility Closure Cost Estimate Breakdown by Unit

Table A12.A.2 Container Storage Areas Closure Cost Estimate

Table A12.A.3 Tank Systems Closure Cost Estimate

Table A12.A.4 Miscellaneous Units Closure Cost Estimate

A12.B POSTCLOSURE COST ESTIMATE

(Since no hazardous waste will be left behind at closure, the following template sections are not applicable)

A12.A CLOSURE COST ESTIMATE

[R 299.9702(1) and 40 CFR §264.142]

Reference is made to Volume 1, Section A12.A, with the addition of the following information specific to DLS-8 & DLS-9:

The cost closure information found in Tables A12.A.2, A12.A.3, and A12.A.4, below, shall be cumulative with those tables found in Volume 1 and any other volumes whose hazardous waste management units are approved and operational.

A12.A.1 Closure Cost Estimate Breakdown

Table A12.A.1 Facility Closure Cost Estimate Breakdown by Unit*

1.	Container Storage Areas	$ 173,503
2.	Tank Systems	$ NA
3.	Surface Impoundments	$ NA
4.	Waste Piles	$ NA
5.	Landfills	$ NA
6.	Incinerators	$ NA
7.	Miscellaneous Units	$ NA
8.	Boilers and Industrial Furnaces	$ NA
Total Closure and Postclosure Care Estimate (add lines 1 through 11)		$ 173,503

* Tables not included at this time for Land Treatment Units, Drip Pads, and Hazardous Waste Munitions and Explosives Storage Units

Table A12.A.2 Container Storage Areas Closure Cost Estimate

	Activity If certain activities are not expected to be performed, enter "NA" as the Estimated Cost.	**Estimated Cost**
1.	Demolition and Removal of Containment	$ NA
2.	Removal of Soil	$ NA
3.	Backfill	$ NA
4.	Decontamination	$ 5,000
5.	Sampling and Analysis	$ 8,000
6.	Monitoring Well Installation	$ NA
7.	Transportation	$ 30,000
8.	Treatment and Disposal of Waste Inventory and Other Cleanup Wastes	$ 114,972
9.	**Subtotal of Closure Costs** (Add lines 1 through 8)	$ 157,972
10.	Engineering Expenses (typically 10% of closure costs, excluding certification of closure.)	$ 9478
11.	Certification of Closure	$ 1000
12.	**Subtotal** (Add Lines 9, 10, and 11])	$ 168,450
13.	Contingency Allowance (typically 20% of closure costs, engineering expenses, and cost of certification of closure.)	$ 5053
14.	Landfill Closure	$ NA
	Total Closure Cost (Add Lines 12, 13, and 14)	$ 173,503

Table A12.A.3 Tank Systems Closure Cost Estimate

Not applicable to hazardous waste units DLS-8 and DLS-9

Table A12.A.4 Miscellaneous Units Closure Cost Estimate

Not applicable to hazardous waste units DLS-8 and DLS-9

FORM EQP 5111 TEMPLATE

A13: Topographical Map

(Volume 4)

See Volume 1

A13: Topographical map

A14: LIABILITY MECHANISM

40 CFR §270.14(b)(17)

(Volume 4)

To Be Determined

A15: FINANCIAL ASSURANCE INSTRUMENT

40 CFR §270.14(b)(17)

(Volume 4)

To Be Determined

B1: STATUS OF COMPLIANCE WITH OTHER FEDERAL LAWS

40 CFR §270.14(b)(20)

(Volume 4)

See Volume 1

B1: Status of Compliance With Other Federal Laws

FORM EQP 5111 TEMPLATE

B2: CORRECTIVE ACTION INFORMATION

(Volume 4)

See Volume 1

B2: Corrective Action Information

FORM EQP 5111 Template

B3: HYDROGEOLOGICAL REPORT

(Volume 4)

See Volume 1

B3: Hydrogeological Report

FORM EQP 5111 Template

B4: ENVIRONMENTAL ASSESSMENT

(Volume 4)

See Volume 1

B4: Environmental Assessment

B5: ENVIRONMENTAL MONITORING PROGRAMS

(Volume 4)

As Recommended

B6: ENGINEERING PLANS INDEX

(Volume 4)

Index of Attachments

ATTACHMENT	DESCRIPTION
B6-80.0	Sheet Index DLS-8 & DLS-9, Loading Bays and Warm Storage
B6-80.1	Drawing C001, Blueprint 21084EC001.dwg Site Development Plan / DLS-8 & DLS-9
B6-80.2	Drawing A101, Blueprint 21084EA101.dwg DLS-8 & DLS-9 Floor Plan
B6-80.3	Drawing A150, Blueprint 21084EA150.dwg DLS-8 & DLS-9 Finish Schedule
B6-80.4	Drawing A201, Blueprint 21084EA201.dwg DLS-8 & DLS-9 Exterior Elevations
B6-80.5	Drawing A501, Blueprint 09024EA501.dwg DLS-8 & DLS-9 Building Section and Details
B6-80.6	Drawing S100, Blueprint 21084ES100.dwg DLS-8 & DLS-9 Foundation Plan
B6-80.7	Drawing S501, Blueprint 21084ES501.dwg DLS-8 & DLS-9 Foundation Details
B6-80.8	Drawing M101, Blueprint 08-146_M101.dwg DLS-8 & DLS-9 Mechanical Plan
B6-80.9	Drawing E100, Blueprint E100-Phase_3-0803600.dwg DLS-8 & DLS-9 Electrical Symbols and Notes
B6-80.10	Drawing E400, Blueprint E400-Phase_3-0803600.dwg DLS-8 & DLS-9 Lighting Plan
B5-80.11	Drawing E500, Blueprint E500-Phase_3-0803600.dwg DLS-8 & DLS-9 Power Plan

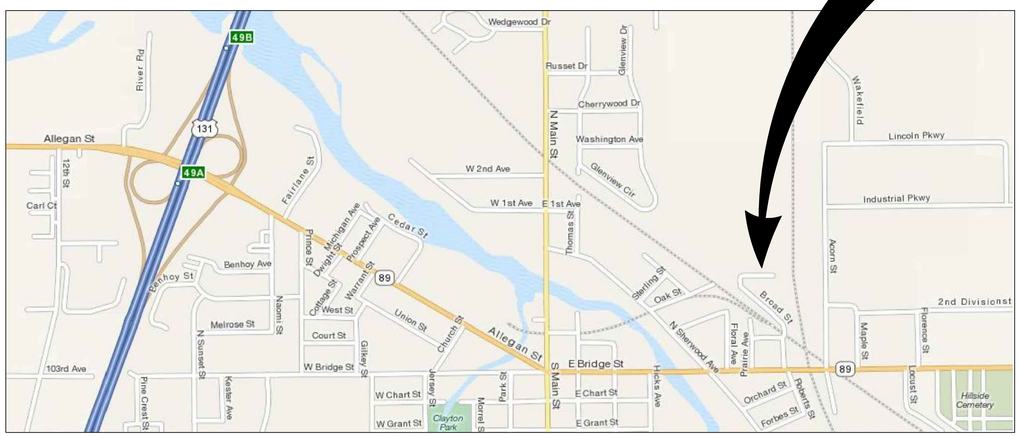
DLD Environmental Services, Inc.

Phase 3 - DLS 8 North Loading Dock & DLS 9 Heated Storage

Broad Street, Plainwell, Michigan 49080

January 29, 2010 for State Submittal
September 8, 2022 for State Submittal

PROJECT LOCATION



LOCATION MAP
NOT TO SCALE

SHEET INDEX

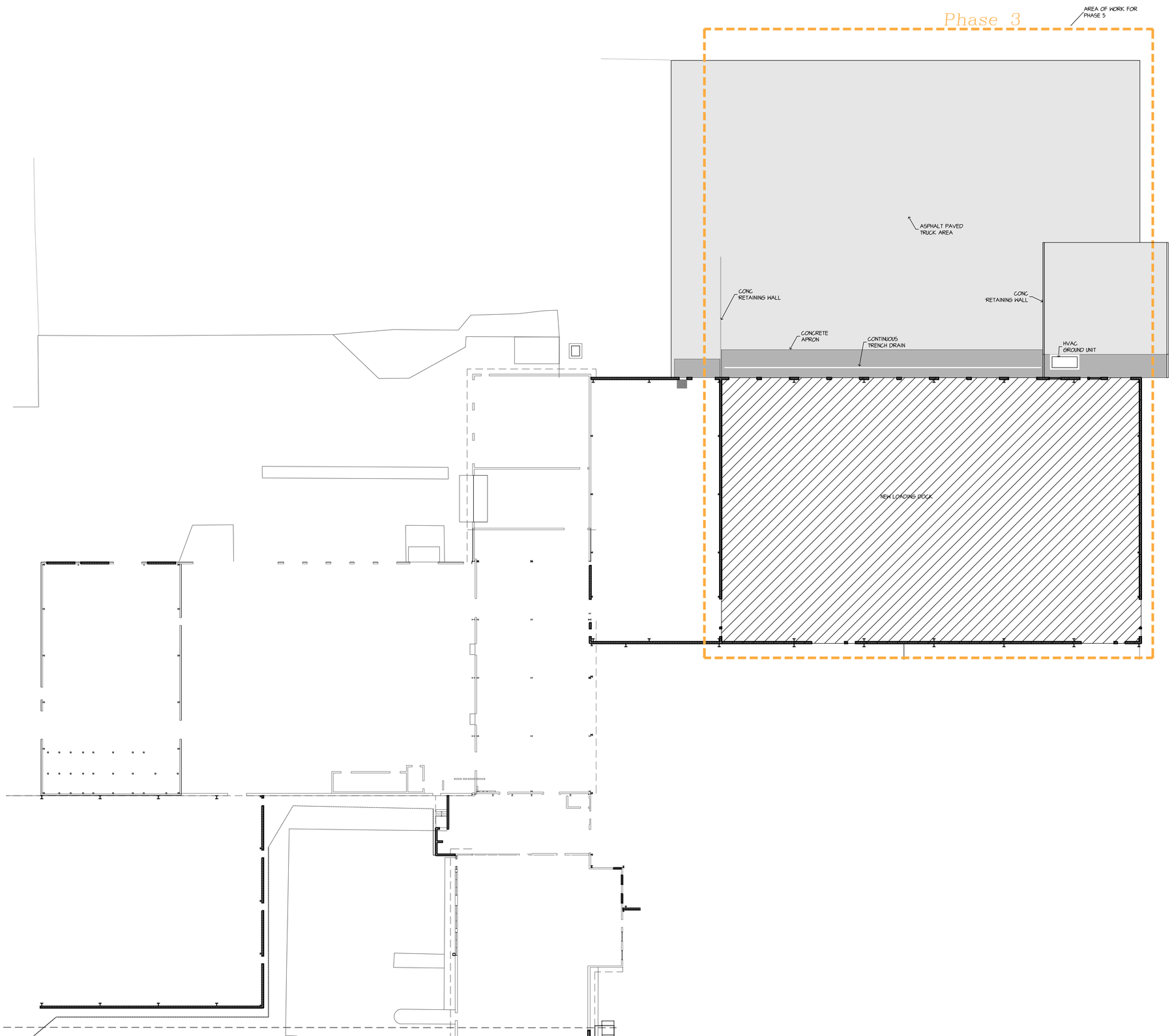
COVER SHEET + INDEX

DLD Environmental Services, Inc.
Phase 3- DLS 8 North Loading Dock & DLS 9 Heated Storage
Broad Street
Plainwell, Michigan 49080

ISSUED

bosch
ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
8065 Vineyard Parkway
Kalamazoo, Michigan 49009
ph: 269-321-5151
www.boschcharch.com

JOB NUMBER
21084E



GENERAL NOTES (SITE WORK)

1. THE SOILS INVESTIGATION REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST.

2. FOUNDATION DESIGN CAPACITIES:

	DESCRIPTION	CAPACITY
A.	STRIP FOOTINGS	GROSS 2,000 PSF
B.	SPREAD FOOTINGS	GROSS 2,000 PSF

3. DEMOLITION

A. REMOVAL OF EXISTING UTILITIES, STRUCTURES AND SLABS SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. IF REMOVAL LIMITS ARE NOT SHOWN, THEY SHALL BE THE MINIMUM REQUIRED TO COMPLETE THE PROJECT.

B. DISCONNECTS OF ALL UTILITIES TO BE REMOVED SHALL BE BY THE TRADE INVOLVED OR THE APPROPRIATE UTILITY CO. AS DIRECTED BY THE GENERAL CONTRACTOR.

C. DISPOSAL OF MATERIAL REMOVED SHALL BE OFF SITE BY THE GENERAL CONTRACTOR.

4. SITE PREPARATION:

A. ALL EROSION AND SEDIMENTATION CENCONTROL MEASURES SHALL BE PERFORMED BY THE CONTRACTOR IN COMPLIANCE WITH ACT 347.

B. ORGANIC TOPSOIL SHALL BE STRIPPED FROM THE CONSTRUCTION AREA TO DEPTHS RANGING FROM APPROXIMATELY 6" TO 30" AND STOCKPILED AS INSTRUCTED BY THE ARCHITECT FOR LATER USE.

C. IT IS REQUIRED THAT DENSIFICATION OF THE EXISTING SOILS BE PERFORMED BEFORE ANY FOOTINGS ARE CONSTRUCTED. SEE DIVISION 2 OF THE SPECIFICATION FOR ADDITIONAL INFORMATION.

5. EARTHWORK:

A. CALL MISS DIG AT 1-800-482-7171 BEFORE BEGINNING EXCAVATION.

B. EXCAVATION SHALL BE LEVEL TO EXACT DEPTHS AND DIMENSIONS INDICATED ON DRAWINGS.

C. CONSTRUCTION OF FOUNDATIONS AND SLABS ON GRADE WILL BE ON COMPACTED FILL IN MOST AREAS, LAYERED COMPACTION SHALL BE PERFORMED TO A MINIMUM DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM DESIGNATION D 1557 VALUES AND AS OUTLINED IN THE SPECIFICATIONS DIVISION 2.

D. EXTREME CARE SHALL BE TAKEN NOT TO DISTURB OR DAMAGE EXISTING FOOTINGS, FOUNDATIONS, FLOORS, AND UTILITY OR STORM LINES. CONTRACTOR SHALL PROVIDE ALL REQUIRED SHORING AND BRACING TO PREVENT CAVE-INS OR SETTLEMENT OF EXISTING STRUCTURES OR UTILITIES.

E. PLACE 6 INCHES OF BANK RUN SAND COMPACTED TO 95% OF MAXIMUM DENSITY UNDER ALL FLOOR SLABS ON GRADE.

F. SOIL TESTING WILL BE CONTRACTED AND PAID FOR BY THE GENERAL CONTRACTOR.

G. SITE SHALL BE FINE GRADED BEFORE PLACING TOP SOIL OR GRANULAR BASE MATERIAL.

H. EXTERIOR SURFACE DRAINAGE SHALL BE AWAY FROM BUILDINGS.

I. AFTER BACKFILL IS PLACED AND PRIOR TO PLACING CONCRETE FLOORS, THE SOIL WILL BE TREATED FOR TERMITE CONTROL.

N

SITE DEVELOPMENT PLAN
SCALE: 1" = 20'

DLD Environmental Services, Inc.

Phase 3- DLS 8 North Loading Dock & DLS 9 Heated Storage

Broad Street

Plainwell, Michigan 49080

ISSUED

01-29-2010 FOR STATE SUBMITTAL
09-08-2022 FOR STATE SUBMITTAL

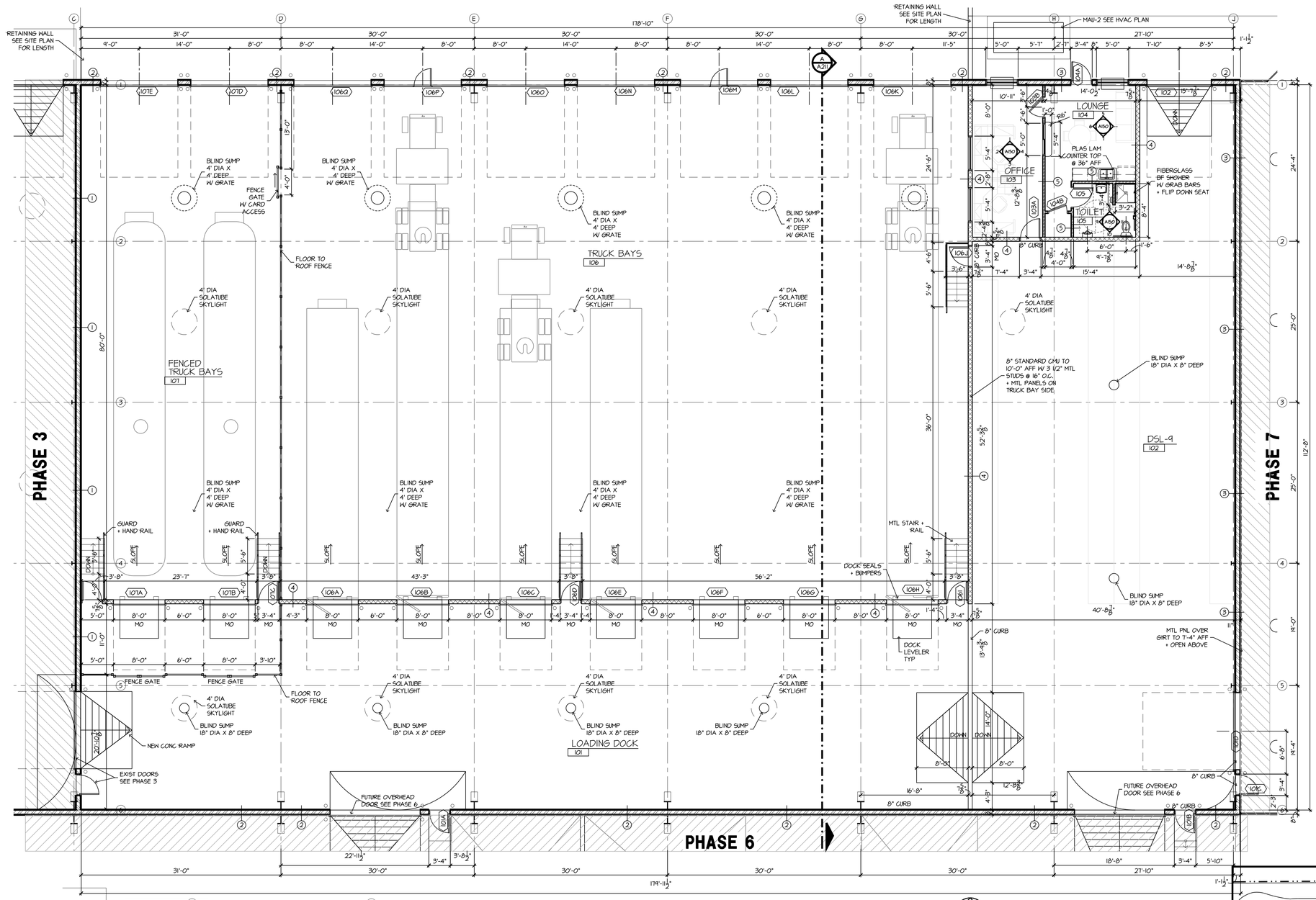
bosch
ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
8065 Vineyard Parkway
Kalamazoo, Michigan 49009
ph: 269-321-5151
www.boscharch.com

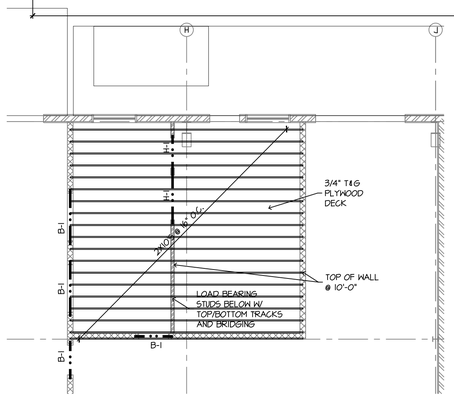
JOB NUMBER
21084E

SITE DEVELOPMENT PLAN

C001

210B4EC001.dwg

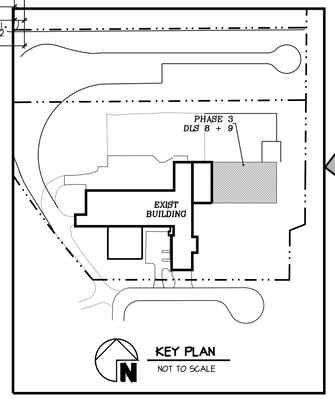




OFFICE / LOUNGE CEILING FRAMING PLAN
SCALE: 1/8" = 1'-0"

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

NO DOCK LOCK REQUIRED.



KEY PLAN
NOT TO SCALE

GENERAL NOTES:

1. ALL CUTTING AND PATCHING SHALL BE BY THE TRADE INVOLVED IN THE WORK.
2. SEE WALL KEY FOR WALL CONSTRUCTION.
3. VERIFY ALL DIMENSIONS IN THE FIELD BEFORE ORDERING ANY MATERIALS.
4. PROVIDE SOLID WOOD BLOCKING @ DOORS, CABINETS, SHELVING, BORROWED LITES, GRAB BARS, AND BEHIND DOOR STOPS, ETC.
5. ALL DIMENSIONS ARE NOMINAL TO FINISHED SURFACES UNLESS NOTED OTHERWISE.
6. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE PREMISES.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO OBTAIN CLARIFICATION OF ANY DISCREPANCIES.
8. ALL FIRE EXTINGUISHERS TO BE FINAL PLACED BY THE LOCAL FIRE MARSHAL.

FOAM FIRE SUPPRESSION SYSTEM TO BE INSTALLED PER CODE THROUGH OUT TRUCK BAYS AND FENCED TRUCK BAYS AREA.

WALL TYPES:

1. **EXTERIOR NEW** — EXISTING WALL TO REMAIN RESKIN AS REQ.
2. MTL PURLINS W/ 1 1/2" MTL SIDING ON EXTERIOR.
3. MTL PURLINS W/ 1 1/2" MTL SIDING ON INTERIOR TO 7'-4" AFF AND OPEN ABOVE. 1 1/2" MTL SIDING ON EXTERIOR FULL HGT
4. **INTERIOR NEW** — 8" STANDARD CMU TO 10'-0" AFF W/ 3-1/2" MTL STUDS @ 16" O.C. + MTL PANELS ON TRUCK BAY SIDE W/ 8" CONC COL.
5. 3 1/2" MTL STUDS @ 16" O.C. W/ 5/8" TYPE 'X' GYP BD ON BOTH SIDES. LOAD BEARING.

DLD Environmental Services, Inc.

Phase 3- DLS 8 North Loading Dock & DLS 9 Heated Storage
Broad Street
Plainwell, Michigan 49080

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ARCHITECTURE
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INTERIOR DESIGN
8065 Vineyard Parkway
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ph: 269-321-5151
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JOB NUMBER 21084E

FLOOR PLAN

A101

21084EA101.dwg

DOOR SCHEDULE

DOOR NUMBER	DOOR SIZE			TYPE	DOOR MAT.	FRAME	HDW GROUP	RATING	DETAILS			REMARKS
	WIDTH	HEIGHT	THICK.						J	J	H	
101A	3'-0"	7'-0"	1 3/4"	A1	HM	HM	1	-----				
101B	3'-0"	7'-0"	1 3/4"	A1	HM	HM	1	-----				
101C	3'-0"	7'-0"	1 3/4"	A1	HM	HM	1	-----				
101D	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
102	10'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
103A	3'-0"	7'-0"	1 3/4"	A2	HM	HM	2	-----				
103B	3'-0"	7'-0"	1 3/4"	A1	HM	HM	2	-----				
104A	3'-0"	7'-0"	1 3/4"	A1	HM	HM	1	-----				
104B	3'-0"	7'-0"	1 3/4"	A1	HM	HM	2	-----				
105	3'-0"	7'-0"	1 3/4"	A1	HM	HM	4	-----				
106A	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106B	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106C	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106D	3'-0"	7'-0"	1 3/4"	A2	HM	HM	3	-----				
106E	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106F	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106G	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106H	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106I	3'-0"	7'-0"	1 3/4"	A2	HM	HM	3	-----				
106J	3'-0"	7'-0"	1 3/4"	A2	HM	HM	3	-----				
106K	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106L	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106M	12'-0"	14'-0"	1 3/4"	C	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106N	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106O	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106P	12'-0"	14'-0"	1 3/4"	C	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106Q	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
107A	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
107B	8'-0"	10'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
106C	3'-0"	7'-0"	1 3/4"	A2	HM	HM	3	-----				
107D	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE
107E	12'-0"	14'-0"	1 3/4"	B	INSUL MTL	-----	-----	-----				OVERHEAD INSULATED DOOR W/ REMOTE

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	BASE	WALL		CEILING		CLG HGT	REMARKS
				MAT.	FIN.	MAT.	FIN.		
101	LOADING DOCK	CONC	-----	MTL / CMU	-----	EXPOSED	-----	-----	
102	STORAGE	CONC	-----	MTL / CMU	-----	EXPOSED	-----	-----	
103	OFFICES	CONC	VINYL / CONC	GYP BD / CMU	PNT	ACT	-----	9'-0"	
104	LOUNGE	CONC	VINYL / CMU	GYP BD / CMU	PNT	ACT	-----	9'-0"	
105	TOILET	CONC	VINYL / CMU	GYP BD / CMU	PNT	ACT	-----	9'-0"	
106	TRUCK BAYS	CONC	-----	CMU / CONC	-----	EXPOSED	-----	-----	
107	FENCED TRUCK BAYS	CONC	-----	CMU / CONC	-----	EXPOSED	-----	-----	

HARDWARE GROUPS

SET NO. 1 (EXTERIOR: 103, 108B)

1 1/2 PR	BUTTS
1 EA	EXIT DEVICE W/ EXTERIOR LEVER
1 EA	CLOSER
1 EA	THRESHOLD
1 EA	WEATHER SEAL + SWEEP
1 EA	CYLINDER
1 EA	STOP AS REQ

SET NO. 2 (GENERAL PASSAGE: 101B, 104, 105A, 105B, 105C, 106, 107, 108A, 109)

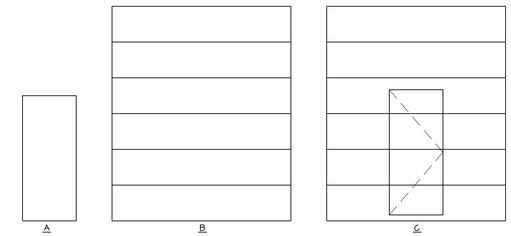
1 1/2 PR	BUTTS
1 EA	LOCKSET
1 EA	STOP AS REQ

SET NO. 3 (INNER ENTRY DOOR: 101A)

1 1/2 PR	BUTTS
1 EA	LOCKSET
1 EA	STOP AS REQ
1 EA	CLOSER

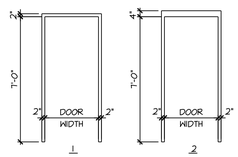
SET NO. 4 (TOILETS: 119, 133)

1 1/2 PR	BUTTS
1 EA	PRIVACY SET
1 EA	STOP AS REQ



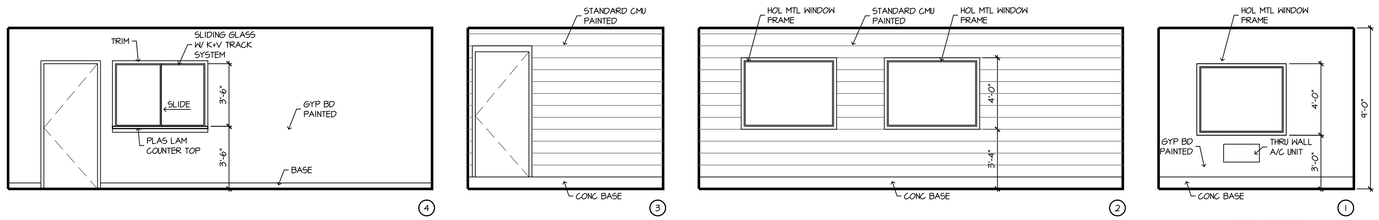
DOOR TYPES

SCALE: 1/4" = 1'-0"



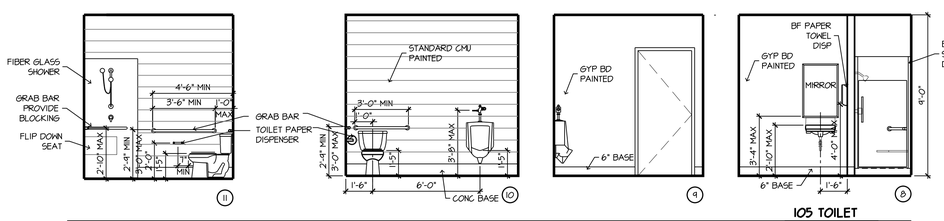
FRAME TYPES

SCALE: 1/4" = 1'-0"



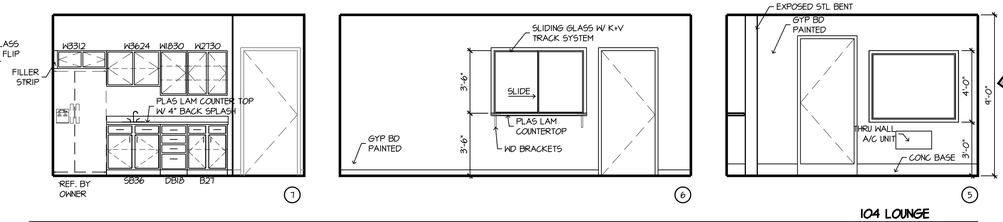
103 OFFICE

SCALE: 1/4" = 1'-0"



105 TOILET

SCALE: 1/4" = 1'-0"



104 LOUNGE

SCALE: 1/4" = 1'-0"

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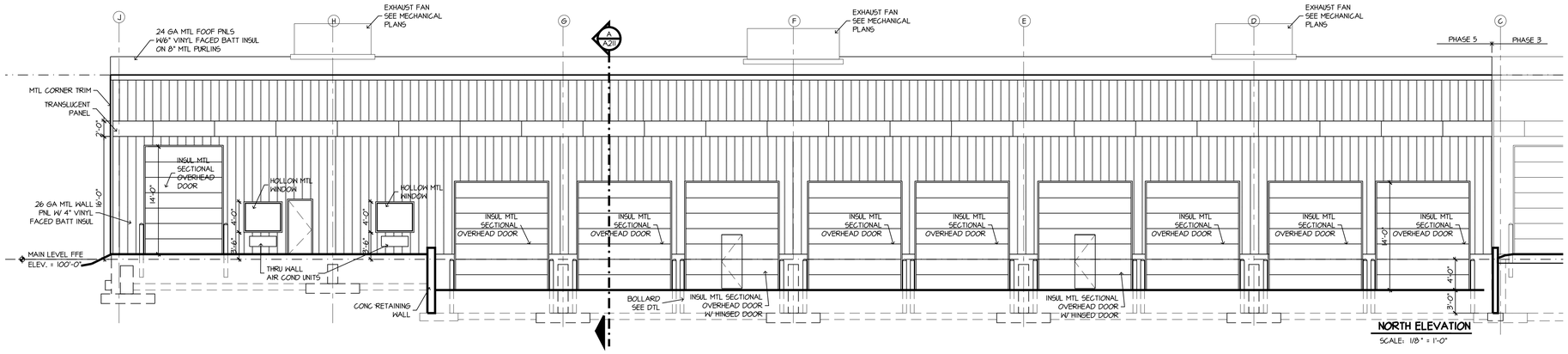
JOB NUMBER 21084E

DOOR & ROOM FINISH SCHEDULES + INT ELEV

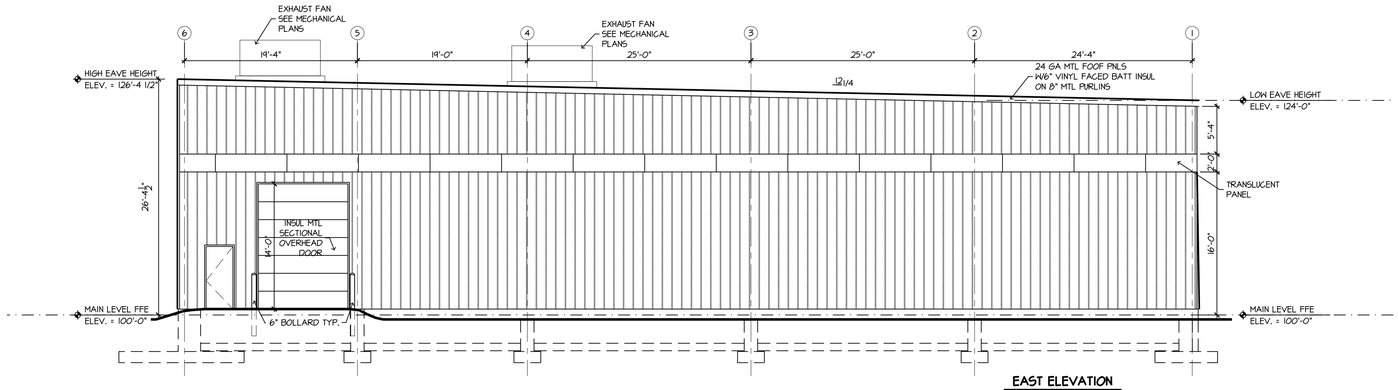
A150

21084EA150.dwg



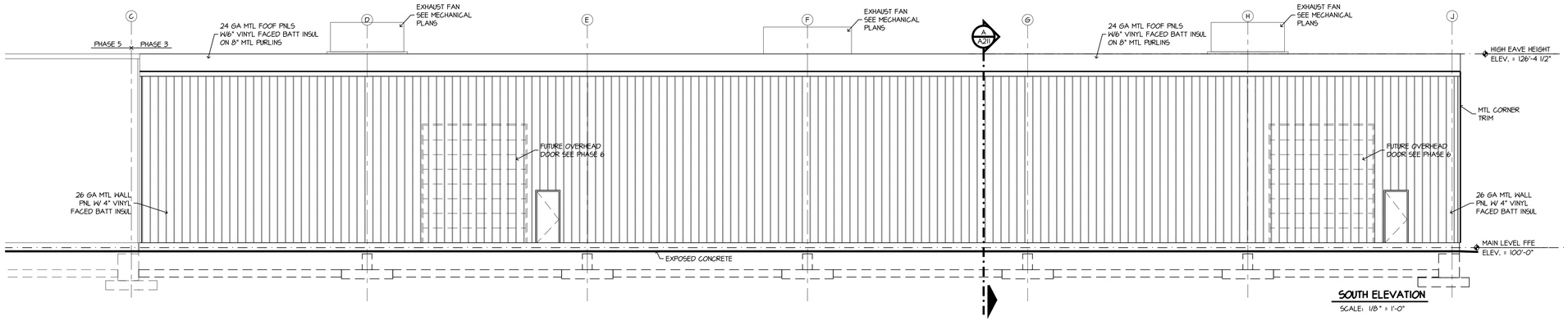
NORTH ELEVATION

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



EAST ELEVATION

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



SOUTH ELEVATION

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

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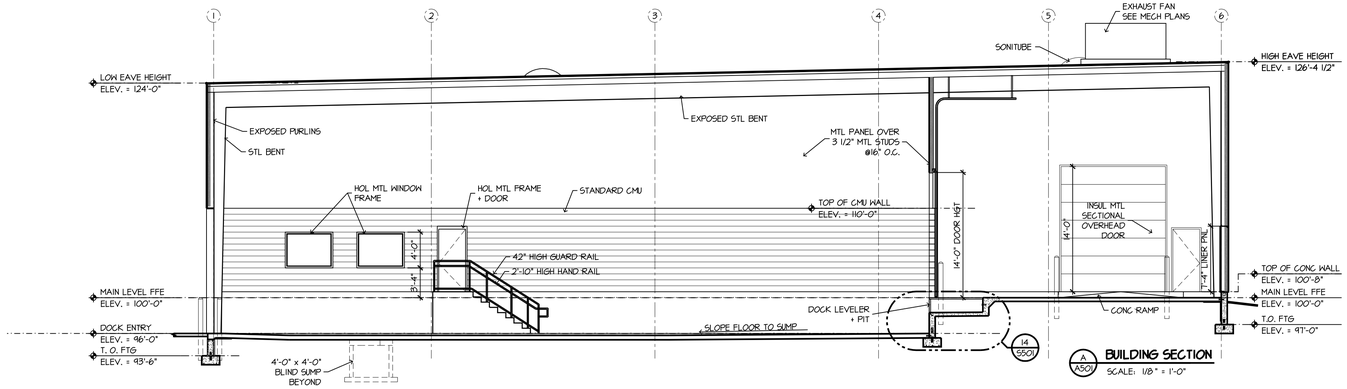
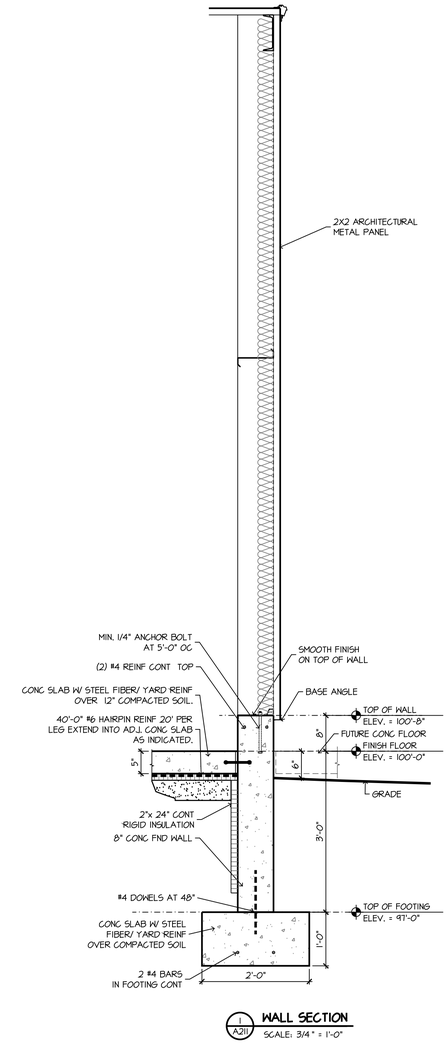
JOB NUMBER
21084E

EXTERIOR
ELEVATIONS

A201

21084EA201.dwg





Drug & Laboratory Disposal

Phase 5 - Loading Dock
Broad Street
Plainwell, Michigan 49080

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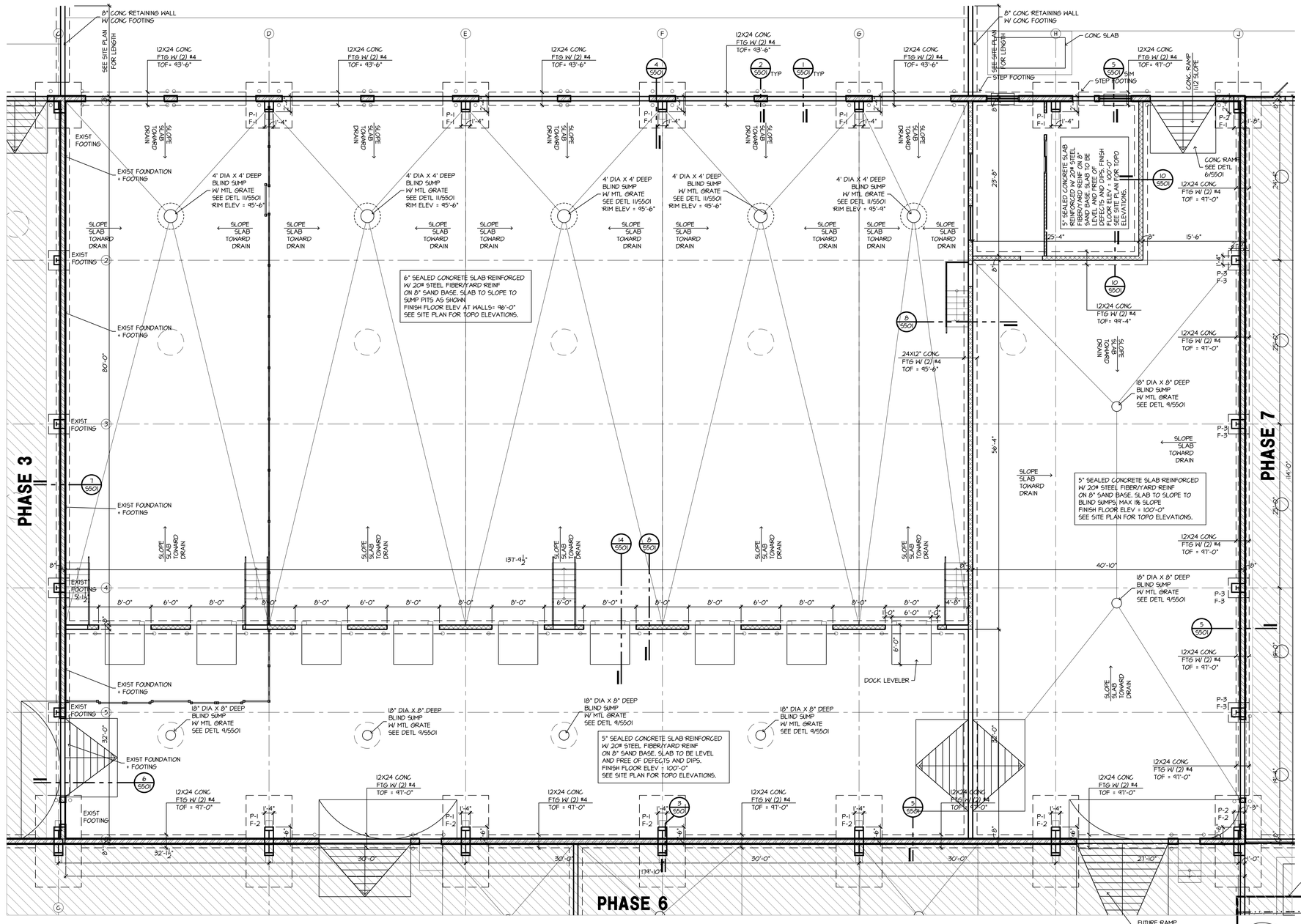
bosch
ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
8175 Creekside Drive, Ste. 220
Portage, Michigan 49024
ph: 269-321-5151
www.boscharch.com

JOB NUMBER
09024E

BUILDING SECTION
+ DETAILS

A211

09024EA211.dwg



CONCRETE

1. CONCRETE STRENGTH SHALL BE 4,000 PSI IN 28 DAYS FOR ALL INTERIOR SLABS, 3,500 PSI FOR FOUNDATION WALLS, 3,000 PSI FOR FOOTINGS. SEE SPECIFICATIONS DIVISION 3 FOR ADDITIONAL INFO.

2. MATERIAL PROPERTIES REINFORCING AND CONNECTION STEEL:

	FY PSI	ASTM
#3 BARS	40,000	A615
ALL BARS #4 AND LARGER, U.N	60,000	A615
WELDED WIRE FABRIC (SMOOTH)	65,000	A615

3. CONCRETE PROTECTION FOR REINFORCEMENT: THE FOLLOWING MINIMUM CONCRETE SHALL BE PROVIDED FOR REINFORCEMENT.

	MIN. COVER (IN)
1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.	3
2. CONCRETE EXPOSED TO EARTH OR WEATHER #6 THROUGH #18 BARS	2
#5 BAR, W31 OR D31 WIRE, AND SMALLER.	1 1/2
3. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND.	3/4

4. PROVIDE FOOTING/WALL DOWELS AND CORNER REBARS AS SHOWN ON THE DRAWINGS.

5. CONCRETE FINISHES:

1. EXTERIOR SLABS LIGHT BROOM FINISH.

2. INTERIOR SLABS STEEL TROWELED FINISH.

3. INTERIOR SLABS THAT DO NOT RECEIVE A FINISHED FLOORING MATERIAL SHALL BE SEALED AFTER CURING.

6. RECESS FOUNDATION WALL 8" AT DOORWAYS AND POUR SLAB THRU OPENING.

1. LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS FOR THE SLAB ONGRADE WILL BE THE CONTRACTOR'S RESPONSIBILITY.

2. ALL NON BEARING WALLS ON SLABS TO HAVE SILL PLATE ANCHORED WITH POWDER ACTUATED FASTENERS AT 24" O.C. HILTI OR EQUAL.

7. SOIL BEARING CAPACITY TO BE A MIN OF 3000 PSI AT THE WALLS AND 4000 PSI AT THE COLUMNS.
UNLESS NOTED OTHERWISE

ANCHOR BOLT NOTE:
FOR EXACT SIZE, LOCATION, AND NUMBER OF ANCHOR BOLTS SEE SHOP DRAWINGS BY METAL BUILDING COMPANY

PIER NOTE:
PIER SIZE SHALL BE DETERMINED BY SHOP DRAWINGS FROM METAL BUILDING COMPANY

SCHEDULE OF MINIMUM RECOMMENDED ANCHOR BOLT LENGTHS

DIAMETER	LENGTH
3 /4"	1'-3"
7 /8"	1'-6"
1"	1'-9"
1-1 /8"	2'-0"
1-1 /4"	2'-0"

ALL BOLT LENGTH AND DIAMETER TO BE AS SHOWN ON METAL BUILDING COMPANY SHOP DRAWINGS

ALL ANCHOR BOLTS TO PROJECT A MINIMUM OF 3" ABOVE FOOTING

FOUNDATION PLAN

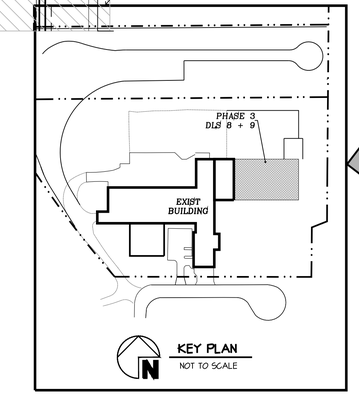
SCALE: 1/8" = 1'-0"

PIER SCHEDULE

MARK	MINIMUM PIER SIZE	REINFORCING	REMARKS
P-1	1'-4" X 2'-6"	4-#5 VERT & #3 TIES @ 10" OC	--
P-2	1'-8" X 2'-6"	4-#5 VERT & #3 TIES @ 10" OC	--
P-3	1'-4" X 2'-0"	4-#5 VERT & #3 TIES @ 10" OC	--
			--

FOOTING SCHEDULE

MARK	FOOTING SIZE	REINFORCING	REMARKS
F-1	1'-0"x 1'-0"x 1'-6"	(1) #5 EA. WAY T&B	--
F-2	1'-0"x 14'-0"x 2'-0"	#6@12" EA. WAY T&B	FOOTING IS LARGER FOR PHASE 6 FUTURE COLUMNS
F-3	3'-2"x 3'-0"x 12"	(4) #4 EA. WAY	--



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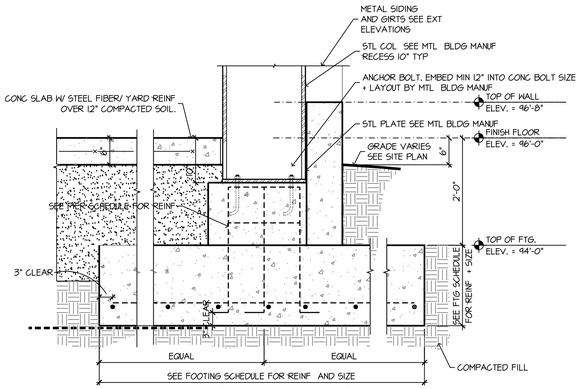
JOB NUMBER 21084E

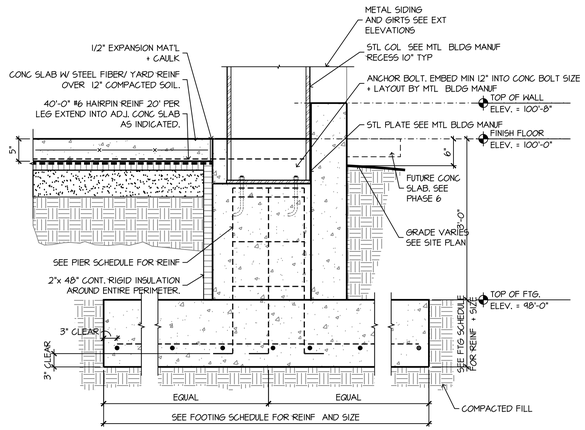
FOUNDATION PLAN

S100

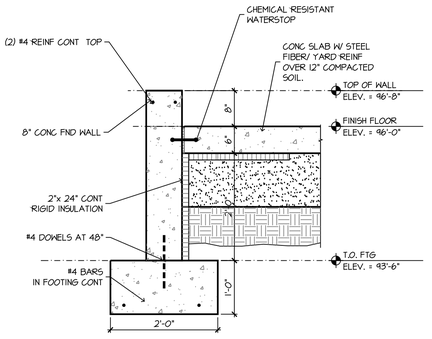
21084ES100.dwg



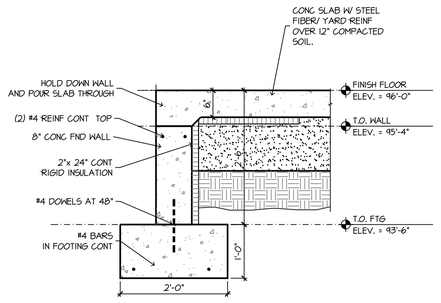
4 / S501 **TYPICAL MAIN PIER/FTG @ TRUCK BAY**
SCALE: 3/4" = 1'-0"



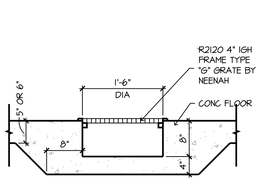
3 / S501 **TYPICAL MAIN PIER/FTG**
SCALE: 3/4" = 1'-0"



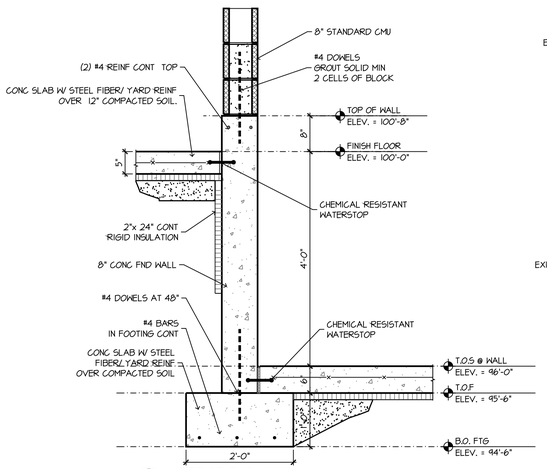
2 / S501 **TRUCK DOCK BETWEEN DOORS**
SCALE: 3/4" = 1'-0"



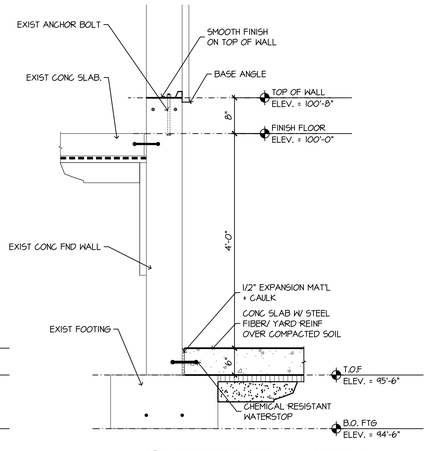
1 / S501 **TRUCK DOCK AT DOORS**
SCALE: 3/4" = 1'-0"



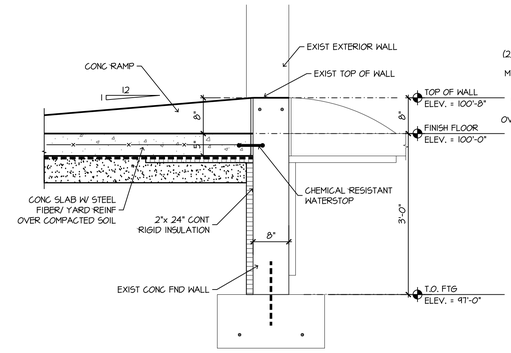
9 / S501 **SMALL BLIND SUMP**
SCALE: 3/4" = 1'-0"



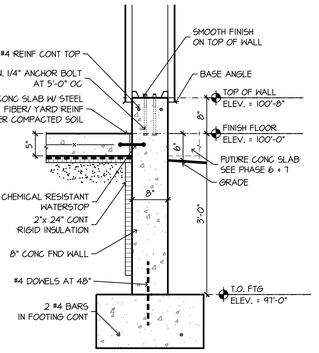
8 / S501 **INTERIOR FND WALL**
SCALE: 3/4" = 1'-0"



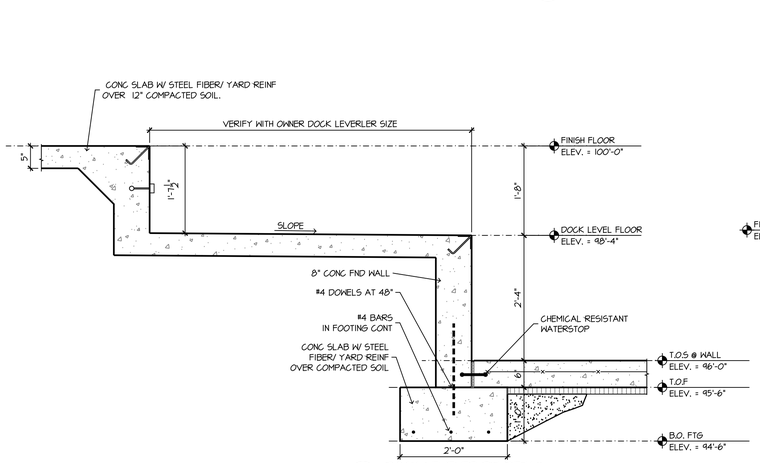
7 / S501 **PERIMETER FND WALL @ WEST WALL**
SCALE: 3/4" = 1'-0"



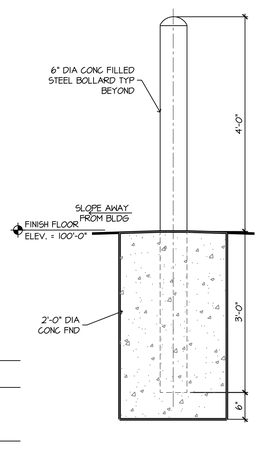
6 / S501 **RAMP DETAIL @ OH DOORS**
SCALE: 3/4" = 1'-0"



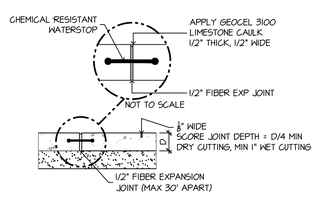
5 / S501 **PERIMETER FROST WALL**
SCALE: 3/4" = 1'-0"



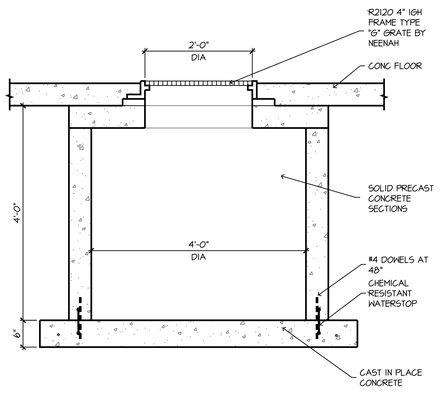
14 / S501 **DOCK LEVELER PIT DETAIL**
SCALE: 3/4" = 1'-0"



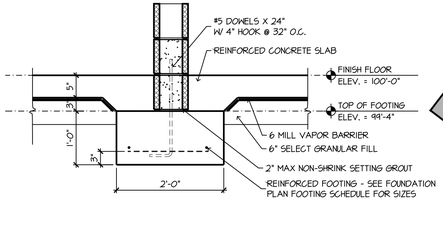
13 / S501 **BOLLARD DTL**
SCALE: 3/4" = 1'-0"



12 / S501 **CONCRETE DETAIL**
SCALE: 3/4" = 1'-0"



11 / S501 **LARGE BLIND SUMP**
SCALE: 3/4" = 1'-0"



10 / S501 **TYPICAL INTERIOR CMU WALL FOOTING**
SCALE: 3/4" = 1'-0"

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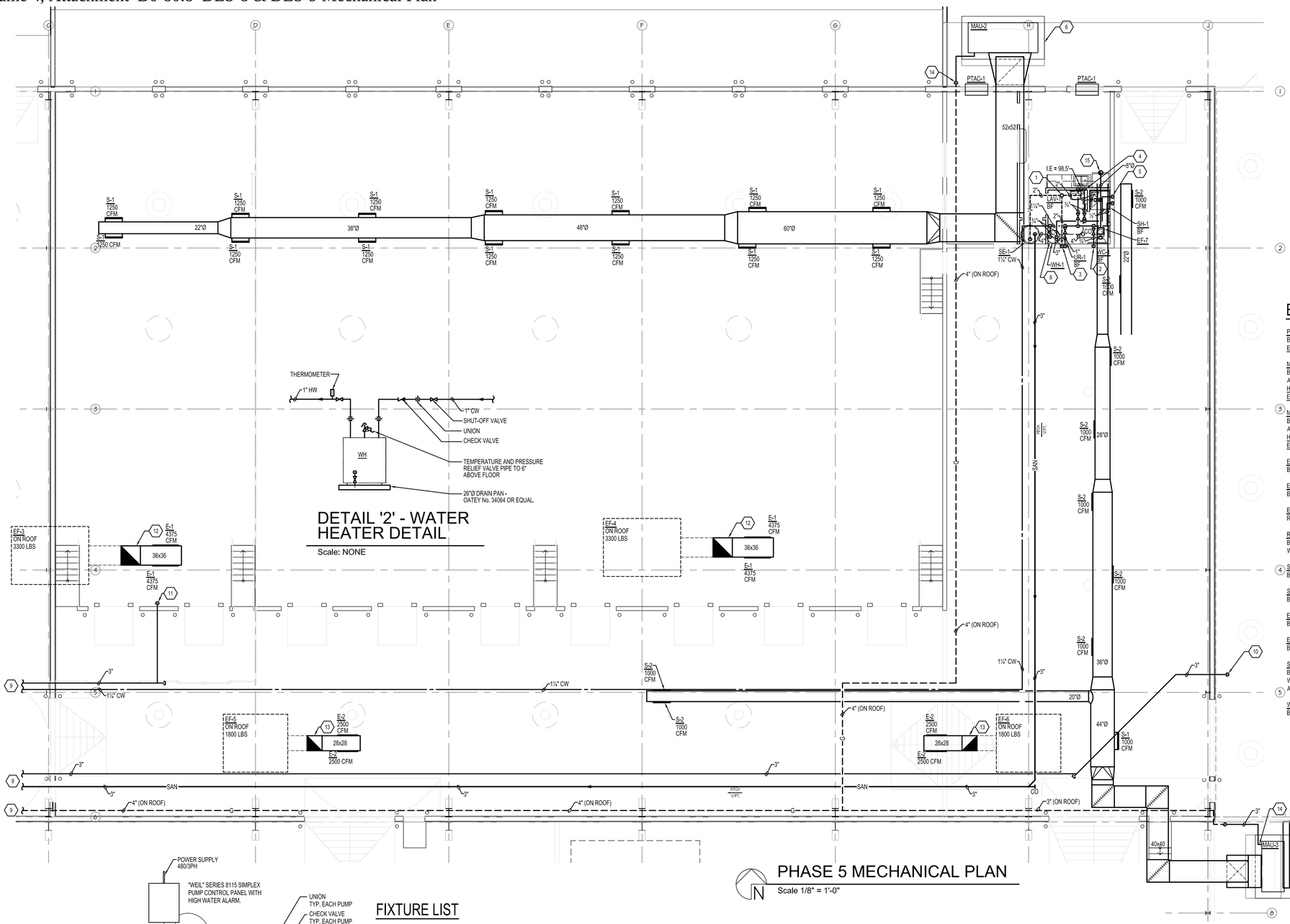
JOB NUMBER 21084F

FOUNDATION DETAILS

S501

21084ES501.dwg



DETAIL '2' - WATER HEATER DETAIL

Scale: NONE

PHASE 5 MECHANICAL PLAN

Scale 1/8" = 1'-0"

NOTES

1. 3" VENT UP, 4" VTR.
2. ¾" CW TO WATER CLOSET, 4" SANITARY DOWN.
3. 1" CW TO URINAL, 2" SANITARY DOWN, 2" VENT UP.
4. ½" CW AND HW TO LAVATORY/SINK, 2" SANITARY DOWN, 2" VENT UP.
5. ½" CW AND HW TO SHOWER, 3" SANITARY DOWN.
6. PROVIDE CONCRETE PAD 1'-0" IN EACH DIRECTION LARGER THAN FOOTPRINT OF UNIT.
7. MOUNT WATER HEATER ON STRUCTURE ABOVE. REFER TO DETAIL 2 ON THIS SHEET FOR PIPING. PROVIDE FUNNEL FLOOR DRAIN WITH TRAP PRIMER IN CORNER. PIPE RELIEF VALVE AND DRAIN PAN DOWN TO IT.
8. RUN WATER HEATER RELIEF VALVE DOWN TO FLOOR DRAIN.
9. REFER TO PHASE 3 SHEET M101 FOR CONTINUATION.
10. 3" PIPING DOWN FOR CONNECTION TO RAIL TANKER.
11. 3" PIPING DOWN FOR CONNECTION TO TANKER.
12. 36x36 DUCT UP THROUGH ROOF TO EXHAUST FAN.
13. 28x28 DUCT UP THROUGH ROOF TO EXHAUST FAN.
14. DROP GAS DOWN TO UNIT. PROVIDE PRESSURE REDUCING VALVE FROM ** TO 7".
15. TERMINATE UP THROUGH ROOF WITH GOOSENECK.

EQUIPMENT LIST

PACKAGED TERMINAL AIR CONDITIONER PTAC-1,2
BASED ON TRANE MODEL PTEE0901UAB, 9000 BTU, 3KW HEATER, 70 CFM OUTSIDE AIR. PROVIDE WITH THERMOSTAT.
ELECTRICAL DATA: 230-208/1/60, MCA = 17, MAX PROTECTION = 20 AMPS.

MAKE-UP AIR UNIT MAU-2
BASED ON TRANE MODEL DFOA220FNH, 17500 CFM, 15 HP, MODULATING ROOM TEMP CONTROL, FM GAS TRAIN, VERTICAL ARRANGEMENT 4 - SIDE DISCHARGE, MOTORIZED INLET DAMPER.
HEATING DATA: 1925/1800 MBH INPUT, NATURAL GAS.
ELECTRICAL DATA: 460/3/60

MAKE-UP AIR UNIT MAU-3
BASED ON TRANE MODEL DFOA215FNH, 10,000 CFM, 7½ HP, MODULATING ROOM TEMP CONTROL, FM GAS TRAIN, VERTICAL ARRANGEMENT 4 - SIDE DISCHARGE, MOTORIZED INLET DAMPER.
HEATING DATA: 1100/1125 MBH INPUT, NATURAL GAS.
ELECTRICAL DATA: 460/3/60

EXHAUST FAN EF-3,4
BASED ON AER CONTROL SYSTEMS LCC MODEL DC18000-HMC2, 8750 CFM, 7.5 HP, 460/3/60.

EXHAUST FAN EF-5,6
BASED ON AER CONTROL SYSTEMS LCC MODEL DC9000-HMC2, 5000 CFM, 5 HP, 460/3/60.

EXHAUST FAN SPECIFICATION
REFER TO TO PHASE 3 SHEET M101 FOR EXHAUST FAN SPECIFICATION.

RESTROOM EXHAUST FAN EF-7
BASED ON COOK MODEL GN164, 150 CFM. .25" SP, 3.3 SONES, 112 INPUT WATTS, 115/1/60, 1.3 NAMEPLATE AMPS. PROVIDE WITH WHITE ALUMINUM GRILLE, FAN SPEED CONTROLLER AND GEMINI ISOLATION KIT.

SUPPLY DIFFUSER S-1
BASED ON TITUS MODEL 301RL, 30x12 OPENING, 32x14 FACE SIZE, 1250 CFM. PROVIDE WITH OPTIONAL OPPOSED BLADE DAMPER.

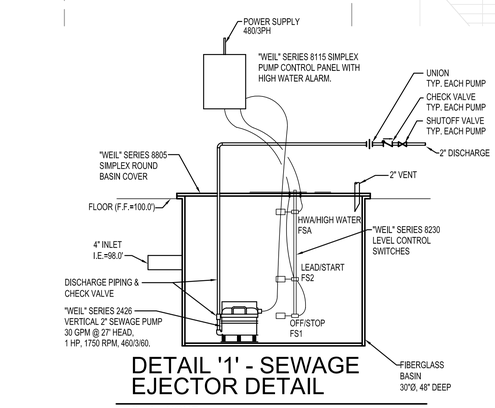
SUPPLY DIFFUSER S-2
BASED ON TITUS MODEL S301FL, 30x12 OPENING, 32x14 FACE SIZE, 1000 CFM. PROVIDE WITH OPTIONAL AIR SCOOP DAMPER.

EXHAUST GRILLE E-1
BASED ON TITUS MODEL 33RL, 46x34 OPENING, 48x36 FACE SIZE, 4375 CFM.

EXHAUST GRILLE E-2
BASED ON TITUS MODEL 33RL, 36x24 OPENING, 38x26 FACE SIZE, 2500 CFM.

SEWAGE EJECTOR SE-1
BASED ON WEIL SIMPLEX. PUMP IS A WEIL MODEL 2426, 30 GPM @ 27' HD, 1 HP, 1750 RPM. 460/3/60. BASIN IS 30" DIA. x 48" DEEP WITH SIMPLEX 8805 COVER, 34" OD. PROVIDE WITH SIMPLEX PUMP CONTROL PANEL MODEL 8115-T-040, 3-PHASE, , HIGH LEVEL ALARM, 8230 LEVEL CONTROL, HIGH WATER SWITCH, LEAD/START, OFF/STOP.

WATER HEATER WH-1
BASED ON LOCHINVAR MODEL RSV030K, 30 GALLON, 4500W ELEMENT, 480/1/60.



DETAIL '1' - SEWAGE EJECTOR DETAIL

Scale: NONE

FIXTURE LIST

WATER CLOSET WC-1
(FLOOR MOUNTED): BARRIER FREE, VITREOUS CHINA, SIPHON JET, ELONGATED BOWL WITH AQUA FORCE FLUSHING TECHNOLOGY, LOW CONSUMPTION WITH LARGE PASSAGEWAY AND WHITE IN COLOR, COMPLETE WITH OPEN FRONT SEAT. AMERICAN STANDARD "CADET RIGHT HEIGHT ELONGATED TOILET" MODEL 2998.012.

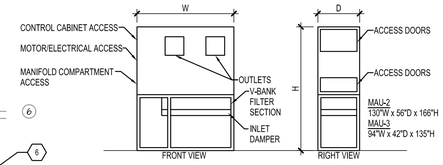
URINALS UR-1
(WALL MOUNTED): BARRIER FREE. VITREOUS CHINA, BLOWOUT WALL URINAL, WHITE IN COLOR, WITH INTEGRAL EXTENDED SHIELDS. FLUSHING RIM AND TRAP, 1-1/4" TOP SPUD, 2" I.P.S. FEMALE OUTLET CONNECTION AND SUPPORTING HANGER. AMERICAN STANDARD "LYNBROOK" MODEL 6601.0012 OR EQUAL. PROVIDE CARRIERS, AND FLUSH VALVE. FLUSH VALVE TO BE QUIET, EXPOSED DIAPHRAGM OPERATED URINAL FLUSH VALVE, CHROME PLATED, METAL OSCILLATION NON-HOLD-OPEN LOW FORCE/ADA COMPLIANT HANDLE, 1" I.P.S. SCREW DRIVER ANGLE STOP WITH PROTECTIVE CAP, ADJUSTABLE TAILPIECE, ESCUTCHEONS. VACUUM BREAKER FLUSH CONNECTION AND SPUD COUPLING FOR 1 ½" TOP SPUD FLANGES. SLOAN ROYAL MODEL 180-1 OR ZURN MODEL Z-6001-WS1 OR EQUAL. REFER TO MOUNTING HEIGHTS SCHEDULE FOR BARRIER-FREE REQUIREMENTS.

LAVATORY LAV-2
(WALL HUNG): BARRIER FREE, 20" X 18" VITREOUS CHINA LAVATORY WITH FAUCET LEDGE, FRONT OVERFLOW, 4" CENTER SET FOR FAUCETS, CONCEALED ARM SUPPORTS, WHITE IN COLOR. AMERICAN STANDARD "LUCERNE" MODEL 0355.012 OR EQUAL. FAUCET TO BE AMERICAN STANDARD "SEVA" SINGLE HANDLE MODEL 1480.115 OR EQUAL, POLISHED CHROME PLATED 4" CENTER SET, SPOUT WITH CHROME PLATED CONSTANT FLOW AERATOR, LESS POP-UP DRAIN. CHROME PLATED FIXED DRAIN STRAINER WITH CHROME PLATED 1¼" TAILPIECE AND TRAP. COMPLETE WITH SUPPLIES AND STOPS AND WALL CARRIER.

SHOWER SH-1
BARRIER FREE SHOWER STALL SHALL BE A ONE PIECE MOLDED ACRYLIC COMPLETE WITH TRANSFER SEAT, GRAB BAR, HAND HELD SHOWER WITH SLIDE BAR, VACUUM BREAKER, SUPPLY ELBOW, HOSE, SOAP DISH, SHOWER CURTAIN ROD AND PRESSURE BALANCING MIXING VALVE. LASCO MODEL 3636-BFS OR EQUAL WITH EXTERIOR DIMENSIONS OF 36"W X 36 ½"D X 81" H. SHOWER VALVE TO BE MOEN 62370 OR EQUAL WITH 'VILLETA' POSI-TEMP SINGLE HANDLE VALVE HANDLE. SHOWER VALVE AND SHOWERHEAD SHALL BE BACK MOUNTED FOR ADA USE. UNIT SHALL BE MOUNTED (RECESSED) IN FLOOR SO THAT SHOWER FLOOR IS NO GREATER THAN ½" ABOVE THE BUILDING FLOOR. PROVIDE WITH SHOWER DRAIN.

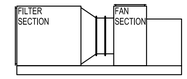
SINK SK-1
STAINLESS STEEL SINK (DOUBLE COMPARTMENT): 33" X 21 ½" X 8" 302 STAINLESS STEEL #4 FINISH, SOUND DEADENED SELF-RIMMING 18 GAGE DOUBLE COMPARTMENT SINK, THREE HOLE DRILLED FOR 8" CENTER FAUCET ELKAY MODEL LR-3321 WITH TWO LK-99 STAINLESS STEEL CRUMB CUP STRAINER WITH RUBBER SEAT STOPPER AND 1 ½" CHROME PLATED BRASS TAILPIECES. FAUCET SHALL BE CHICAGO MODEL 786-E3 WITH GOOSE NECK SPOUT AND 4"WRIST BLADE HANDLES AND AERATOR. PROVIDE WITH IN-SINK-ERATOR OR EQUAL, BADGER 1", 1/3 HP WITH POWER CORD KIT.

FIXTURE SUPPORTS
GENERAL: ALL FIXTURE SUPPORT CARRIERS TO CONFORM TO ANSI A112.6.1M (AMERICAN NATIONAL STANDARDS INSTITUTE).
A.LAVATORY SUPPORT CARRIERS: "WADE" MODEL W-520-M36 SERIES OR EQUAL CONCEALED ARM, FOOT SUPPORTED CARRIER WITH RECTANGULAR STEEL UPRIGHTS. CARRIER SHALL BE SECURELY BOLTED TO FLOOR CONSTRUCTION.
FITTINGS, TRIM AND ACCESSORIES
A.TOILET SEATS: ELONGATED, SOLID WHITE PLASTIC WITH MOLDED-IN BUMPERS, CLOSED BACK/OPEN FRONT, LESS COVER, AND HAVING BRASS CHECK HINGE. OLSONITE NO. 95 OR EQUAL. [OLSONITE 10CC]
B.SUPPLIES AND STOPS FOR LAVATORIES AND SINKS: POLISHED CHROME-PLATED, LOOSE-KEYED ANGLE STOP HAVING ½" INLET AND 3/8" O.D. X 12" LONG CHROME-PLATED BRASS TUBING OUTLET, AND WALL FLANGE AND ESCUTCHEON.
C.TRAPS: BRASS, CHROME PLATED ADJUSTABLE "P" TRAP WITH CLEANOUT AND WASTE TO WALL WITH ESCUTCHEON.
D.THERMOSTATIC MIXING VALVE FOR INDIVIDUAL LAVS OR SINKS: LAWLER SERIES 310 CONFORMING TO ASSE STANDARD 1070 WITH HIGH LIMIT SET AT 110ºF WITH CHECKSTOPS ON INLETS.
E.BARRIER-FREE LAVATORY TRAP WRAP: PROVIDE ADA-CONFORMING, WHEELCHAIR ACCESSIBLE LAVATORY P-TRAP AND ANGLE VALVE ASSEMBLY PROTECTIVE PIPE COVER. COVER SHALL BE SECURED WITH SNAP-CLIP FLUSH REUSABLE FASTENERS, ANGLE STOP SHALL HAVE LOCK-LID LOCKING ACCESS COVERS. TRUE-BRO LAV GUARD OR EQUAL.



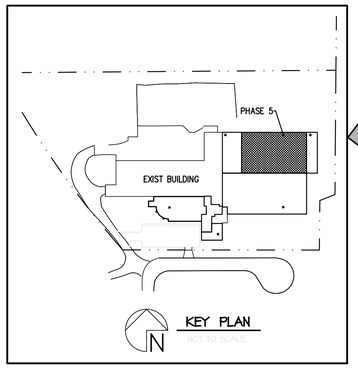
MAKE-UP AIR UNIT

Scale: None



EXHAUST FAN

Scale: None



Drug & Laboratory Disposal
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161 East Michigan Ave
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Kalamazoo, MI 49007
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01/29/10	FOR STATE SUBMITTAL	

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JOB NUMBER 09024E

PHASE 5 MECHANICAL PLAN

M101

GENERAL ELECTRICAL NOTES

1. PROVIDE COMPLETE AND ADEQUATE TEMPORARY POWER AND LIGHTS DURING CONSTRUCTION USING APPROVED LAMPHOLDERS AND GFCI CIRCUITING. MAINTAIN ALL LAMPS AS REQUIRED.
2. ELECTRICAL CONTRACTOR TO INCLUDE PLAN REVIEW FEES.
3. CUTTING AND PATCHING FOR ELECTRICAL ITEMS BY ELECTRICAL CONTRACTOR.
4. AS-BUILT DRAWINGS WILL BE REQUIRED TO BE UPDATED ON A WEEKLY BASIS THESE AS-BUILTS WILL BE EXPECTED TO BE IN A LEGIBLE AND NEAT FORM.
5. ALL WIRING TO BE COPPER. ALL WIRING ABOVE 50 VOLTS TO BE IN CONDUIT UNLESS NOTED OTHERWISE. PROPER WIRE TYPE AND SIZE AND CONDUIT SIZE IS REQUIRED FOR BRANCH CIRCUITS. AC/MC CABLE IS ACCEPTABLE PER CODE FOR BRANCH CIRCUITS EXCEPT FOR HOME RUNS.
6. MAKE SURE THAT EXPOSED CABLE IS RATED FOR THE ENVIRONMENT THAT IT IS IN.
7. PROVIDE TYPEWRITTEN DIRECTORIES ON ALL PANELS. LABEL ALL DISCONNECTS AND PANELS.
8. EXPOSED CABLE AND CONDUIT TO RUN PARALLEL WITH STRUCTURE AND SECURELY ATTACHED TO BUILDING STEEL.
9. CONNECT ALL EXIT SIGNS AHEAD OF LOCAL LIGHTING CIRCUIT
10. ELECTRICAL CONTRACTOR TO PROVIDE SUBMITTALS PRIOR TO ORDERING EQUIPMENT FOR LIGHTING, SWITCHGEAR, SPECIAL EQUIPMENT, ETC.
11. UNLESS NOTED OTHERWISE, ALL DEVICE ELEVATIONS REFER TO CENTER OF OUTLET BOX. ELECTRICAL CONTRACTOR SHALL VERIFY ALL OUTLET LOCATIONS WITH OTHER TRADES. MINIMUM OF 18" ABOVE FINISHED FLOOR TO MEET BARRIER FREE REQUIREMENTS.
12. SHARING NEUTRALS BETWEEN CIRCUITS IS NOT PERMITTED UNLESS WIRING IS COLOR CODED OR LABELED AT PANEL TO IDENTIFY THE PHASE. ALL HOME RUN NEUTRALS FOR ELECTRONIC EQUIPMENT AND FLUORESCENT LIGHTING TO BE #10.
13. REFER TO MECHANICAL DRAWINGS FOR ELECTRICAL DATA PERTAINING TO ALL MECHANICAL EQUIPMENT. VERIFY ACTUAL REQUIREMENTS WITH EQUIPMENT ORDERED AND MAKE ADJUSTMENTS ACCORDINGLY. LOCATIONS SHOWN ARE APPROXIMATE. FIELD VERIFY.
14. PROVIDE A CONNECTION, SWITCH AND SO FOR ALL SINK DISPOSERS. DISHWASHERS AND SIMILAR EQUIPMENT TO HAVE SSU OR EQUAL.
15. WIRING IN AREA SEPARATION WALLS TO COMPLY WITH ARTICLE 300-22 OF THE N.E.C.
16. PROVIDE FIRESTOPPING AT ALL REQUIRED PENETRATIONS.
17. SLEEVE ELECTRICAL PENETRATIONS FROM FERROUS SLEEVES AND ALL AREA SEPARATION WALLS.
18. AN ELECTRICAL PERMIT SHALL BE ACQUIRED BY A STATE LICENSED ELECTRICAL CONTRACTOR.
19. PROVIDE GROUNDING AS PER N.E.C. SECTION 250.
20. ALL ELECTRICAL WORK IS SUBJECT TO FIELD REVIEW BY THE ELECTRICAL INSPECTOR AND THE PROJECT ENGINEER.
21. PROVIDE PROPER WORKING CLEARANCES AT ALL ELECTRICAL EQUIPMENT.
22. MAXIMUM OF EIGHT (8) DUPLEX OUTLETS PER 20 AMP CIRCUIT UNLESS NOTED OTHERWISE.
23. ALL WORK TO COMPLY WITH STATE AND LOCAL CODES.
24. DO NOT LAY WIRES, FLEX, ETC. ON CEILING TILE.
25. WHERE A FLOOR COVERING OR FINAL FLOOR FINISH IS OTHER THAN CARPET OR VINYL TILE, CONDUIT SHALL NOT BE RUN WITHIN CONCRETE SLABS. 1" OF CONCRETE OVER THE TOP OF CONDUITS AND SLABS MUST BE MAINTAINED. 1-1/2" OVER IS PREFERRED.
26. PROVIDE SEAL-OFFS WHEN PIPING PASSES THROUGH AREAS OF DIFFERENT AMBIENT TEMPERATURES AND/OR HAZARDOUS AREAS.
27. PROPER PROTECTION AGAINST CORROSION REQUIRED FOR ALL ELECTRICAL EQUIPMENT. IT SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.
28. BRANCH CIRCUIT CONDUCTORS SUPPLYING A SINGLE MOTOR SHALL HAVE AN AMPACITY NOT LESS THAN 125% OF THE MOTOR FULL LOAD CURRENT RATING.
29. PROPER THERMAL OVERLOAD PROTECTION SHALL BE REQUIRED FOR ALL MOTORS.
30. FURNITURE SYSTEM PARTITIONS TO BE FED FROM UNDER FLOOR OR ADJACENT WALL. DO NOT FEED FROM OVERHEAD.
31. PROVIDE OPERATION AND MAINTENANCE MANUALS AT PROJECT COMPLETION.
32. PROVIDE NECESSARY TRAINING ON ELECTRICAL SYSTEMS TO OWNER.
33. PROPER TIME IS TO BE GIVEN TO PRE-CONSTRUCTION COORDINATION OF ALL OTHER SYSTEMS. ELECTRICAL CONTRACTOR TO VERIFY MOUNTING HEIGHTS OF DEVICES WITH FINAL FURNITURE AND CABINET PLANS. FLOOR OUTLETS TO BE FIELD VERIFIED FOR EXACT PLACEMENT.
34. PROVIDE PROPER SEPARATION BETWEEN LOW VOLTAGE CONDUCTORS AND HIGHER VOLTAGE CONDUCTORS.
35. MAKE SURE THERE ARE RECEPTACLES WITHIN 25 FEET OF MECHANICAL EQUIPMENT FOR SERVICEABILITY.

SOUND / SIGNAL

- SPEAKER
- VOLUME CONTROL
- MICROPHONE JACK
- INTERCOM JACK
- CATV COAX JACK
- DC — DOOR CONTACT
- MOTION DETECTOR (PROVIDED BY OTHERS)
- KP — KEY PAD
- CR — CARD READER
- MOTION DETECTOR
- BEAM DETECTOR
- CAMERA
- CAMERA LOCATION BOX. AND 3/4" STUB ONLY
- INTERCOM STATION BOX. 3/4" STUB ONLY
- SSCP — SECURITY SYSTEM CONTROL PANEL
- CCTV — CCTV CONTROL PANEL
- GAAP — GENERATOR ANNUNCIATOR PANEL

MISCELLANEOUS NOTES

- POINT OF CONNECTION BETWEEN NEW AND EXISTING
- POINT OF EXISTING TO REMAIN AND EXISTING TO BE REMOVED.
- KEY NOTE
- DEMOLITION NOTE
- REVISION NOTE (ADDENDUM)
- 1 / M900 — DETAIL BUBBLE: DETAIL NUMBER, PAGE LOCATION
- XX / XXXX — SECTION TAG & DIRECTION OF SECTION VIEW
- SECTION ARROW AND SECTION CUT LINE.

NURSE CALL

- NC M — MASTER CONSOLE
- NC B — EMERGENCY BATH STATION
- NC DU — DUTY STATION
- NC ST — STAFF STATION
- NC DA — DOOR ALARM
- NC P — SINGLE PATIENT STATION
- NC E — EMERGENCY PUSH BUTTON
- D — DOME LIGHT
- Z — ZONE LIGHT

FIRE ALARM

- SMOKE DETECTOR
- SMOKE DETECTOR INTERGATED WITH NURSE CALL
- HEAT DETECTOR
- DUCT SMOKE DETECTOR
- HORN
- V 15 — AUDIOVISUAL DEVICE WITH CANDELA RATING
- V 15 — VISUAL ONLY UNIT WITH CANDELA RATING
- PULL STATION
- FACP — FIRE ALARM CONTROL PANEL
- FAAP — FIRE ALARM ANNUNCIATOR PANEL
- C — INTERCOMMUNICATION CABINET
- FIRE ALARM BELL
- FS — FLOW SWITCH
- OSY — OUTSIDE STEM & YOKE VALVE
- TAMPER SWITCH (furnished by FP/C)
- EOL — END OF LINE DEVICE
- REMOTE INDICATING LIGHT, WALL MTD.
- REMOTE INDICATING LIGHT, CLG. MTD.
- MAGNETIC DOOR HOLDER
- MONITOR MODULE
- CONTROL MODULE
- DUCT SMOKE DAMPER

CONTROLS

- PHOTOCELL (voltage as required)
- TIME CLOCK (24 hour U.O.N.)
- 3 — PUSHBUTTON STATION (# of buttons indicated)
- LIGHTING CONTACTOR
- OC 1 — OCCUPANCY SENSOR: WALL MOUNT, WATTSTOPER WA-200
- OC 1-1 — OCCUPANCY SENSOR: WALL MOUNT, WATTSTOPER WA-300
- OC 2 — OCCUPANCY SENSOR: CLG MOUNT, DUAL TECHNOLOGY WATTSTOPER UT-300-2
- OC 3 — TIME SWITCH SET AT 2HR. MAX. WATTSTOPER TS-400
- OC 4 — OCCUPANCY SENSOR: WALL MOUNT, DIMMER, WATTSTOPPER WD-280
- PP — POWER PACK: WATTSTOPPER B120E-P.
- $ LVX — LOW VOLTAGE SWITCH
- T — THERMOSTAT
- SB — SWITCH BYPASS, BODINE GTD20 OR EQUAL

OUTLETS

- SINGLE RECEPTACLE (120 VOLT)
- EWC — ELECTRIC WATER COOLER RECEPTACLE (LOCATE PER EWC SHOP DRAWINGS)
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- GFI — GFI DUPLEX RECEPTACLE
- WP — WEATHER PROOF DUPLEX RECEPTACLE
- AC — GFI DUPLEX CONVENIENCE OUTLET MTD "ABOVE COUNTER"
- EM — EMERGENCY RECEPTACLE
- DUPLEX OUTLET WITH ISOLATED GROUND
- DUPLEX W/ ISOLATED GROUND & TVSS
- 208 / 240V RECEPTACLE
- F — FLUSH FLOOR BOX
- S — SURFACE FLOOR BOX
- SPECIAL EQUIPMENT RECEPTACLE
- RL — LOCKING RECEPTACLE
- TELEPHONE OUTLET
- DATA OUTLET
- TELEPHONE / DATA OUTLET
- FAX — FAX OUTLET
- F — FLUSH FLOOR TELEPHONE OUTLET
- S — SURFACE FLOOR TELEPHONE OUTLET
- TP — TELEPOWER POLE (T=telephone, P=power, C=computer)
- JUNCTION BOX
- WALL JUNCTION BOX
- PULL (JUNCTION) BOX
- UNDERFLOOR JUNCTION BOX
- JUNCTION BOX WITH FLEX PIGTAIL
- L — JUNCTION BOX UNDER CABINET LIGHTING (BY OTHERS)

CIRCUITING

- ELECTRICAL SERVICE
- TELEPHONE SERVICE
- CONDUIT
- UNDERGROUND CONDUIT
- "CONDUIT RUN CONTINUES" INDICATION
- CONDUIT STUB UP
- CONDUIT STUB DOWN
- END OF CONDUIT RUN
- END OF CONDUIT RUN, CAP AND STAKE
- WM — WIREMOLD AS SPECIFIED
- BD — BUS DUCT
- PP: 2 — CIRCUIT HOME RUN TO PANEL "PP".

POWER EQUIPMENT

- SINGLE PHASE MOTOR, # INDICATES HP
- 3Ø — THREE PHASE MOTOR, # INDICATES HP
- MD — MOTORIZED DAMPER (BY M/C U.O.N.)
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSION
- VFD — VARIABLE FREQUENCY DRIVE
- T — TRANSFORMER, DRY (KVA shown)
- T OR — TRANSFORMER, PAD MOUNTED
- SPECIAL CONNECTION
- 30A FU — FUSED DISCONNECT (SAFETY) SWITCH. AMP RATING SHOWN. "F" - FUSED "C" - CIRC BRKR
- UNFUSED DISCONNECT (SAFETY) SWITCH
- COMBINATION FUSABLE SWITCH
- 50A — COMB FUSABLE STARTER/SWITCH - FULL VOLTAGE
- 50A — COMB FUSABLE STARTER/SWITCH - REDUCED VOLTAGE
- MAGNETIC STARTER (BY E/C U.O.N.)
- COMB. STARTER (BY E/C U.O.N.)
- PANELBOARD, 208/120V SURFACE MNT
- PANELBOARD, 480/277V SURFACE MNT
- PANELBOARD, 208/120V FLUSH MNT
- PANELBOARD, 480/277V FLUSH MNT
- UTILITY METER, AS REQUIRED
- CT — CURRENT TRANSFORMERS
- SWITCHBOARD / MCC
- TTB — TELEPHONE TERMINAL BOARD
- GROUND CONNECTION PER N.E.C.
- WEATHERHEAD
- WW — WIREWAY
- TRANSFER SWITCH
- ENCLOSED CIRCUIT BREAKER
- CAPACITOR
- G OR GEN — GENERATOR, KW SHOWN
- TS OR — TRANSFER SWITCH
- SWITCHBOARD, SHOWN WITH FUSIBLE SWITCHES
- SWITCHBOARD, SHOWN WITH CIRCUIT BREAKERS

SWITCHES

- $ — SINGLE-POLE SWITCH
- $3 — THREE-WAY SWITCH
- $4 — FOUR-WAY SWITCH
- $P — SWITCH WITH PILOT LIGHT
- $TO — THERMAL OVERLOAD SWITCH
- $M — MANUAL MOTOR SWITCH (FUSED)
- $K — KEY SWITCH
- $T — TIME SWITCH
- $D — DOOR-OPERATED SWITCH
- $WP — WEATHERPROOF SWITCH
- D — DIMMER SWITCH

ELECTRICAL ABBREVIATIONS

A	AMPS	LC	LIGHT CONTROL
AC	ABOVE COUNTER	LT	LIGHT
ACS	ACCESSIBLE CEILING SPACE	LTG	LIGHTING
ACU-	AIR CONDITIONING UNIT	LT FLEX	LIQUID TIGHT FLEX. METAL CONDUIT
AFF	ABOVE FINISHED FLOOR		
AHJ	AUTHORITY HAVING JURISDICTION	MAX	MAXIMUM
AHU-	AIR HANDLING UNIT	MC	MECHANICAL CONTRACTOR
AIC	AMPS INTERRUPTING CAPACITY	MCC	MOTOR CONTROL CENTER
AS	ABOVE SHELF	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MLO	MAIN LUG ONLY
		MT	MOUNT
B-	BOILER	MTD	MOUNTED
BC	BELOW COUNTER	MTG	MOUNTING
BLDG	BUILDING	MUAU-	MAKE-UP AIR UNIT
CHLR-	CHILLER	NC	NORMALLY CLOSED
CND (C)	CONDUIT	NIC	NOT IN CONTRACT
CKT	CIRCUIT	NL	NIGHT LIGHT
CKT BKR	CIRCUIT BREAKER	NO	NORMALLY OPEN
CT-	COOLING TOWER	NTS	NOT TO SCALE
CU-	CONDENSING UNIT		
CUH-	CABINET UNIT HEATER	P	POLE
		P-	PUMP
DFU-	DUCT FURNACE	PB	PULL BOX
DISC	DISCONNECT	PNL	PANEL
DWG	DRAWING	PRV-	POWER ROOF VENTILATOR
DWH-	DOMESTIC WATER HEATER	PVC	POLY VINYL CHLORIDE
		PWR	POWER
EBB-	ELECTRIC BASEBOARD		
EC	ELECTRICAL CONTRACTOR	RECEPT	RECEPTACLE
EF-	EXHAUST FAN	RGC	RIGID GALVANIZED STEEL CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RTU-	ROOF TOP UNIT
EWC	ELECTRIC WATER COOLER		
EXIST (E)	EXISTING	SF-	SUPPLY FAN
		SPEC	SPECIFICATIONS
FLA	FULL LOAD AMPS	SW	SWITCH
FLEX	FLEXIBLE CONDUIT	SWBD	SWITCHBOARD
FLR	FLOOR		
FLUOR	FLUORESCENT	TCC	TEMPERATURE CONTROL CONTRACTOR
FU-	FURNACE	TR	TAMPER PROOF RECEPTACLE
		TS	TAMPER PROOF SWITCH
GC	GENERAL CONTRACTOR	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER		
GND	GROUND	UF	UNDER FLOOR
		UH-	UNIT HEATER
H-	HUMIDIFIER	UL	UNDERWRITERS' LABORATORIES, INC.
HID	HIGH INTENSITY DISCHARGE	UNO	UNLESS NOTED OTHERWISE
HOA	HAND-OFF-AUTO SWITCH		
HP	HORSEPOWER	V	VOLTS
HR	HOUR	VL	VERIFY LOCATION WITH OWNER
IG	ISOLATED GROUND	W	WATTS
IMC	INTERMEDIATE METAL CONDUIT	W/	WITH
		W/O	WITHOUT
JB	JUNCTION BOX	WP	WEATHER PROOF
		XFMR	TRANSFORMER

DEMOLITION NOTES

1. EXISTING LIGHT FIXTURE TO REMAIN.
2. EXISTING DEVICE TO REMAIN.
3. EXISTING EQUIPMENT TO REMAIN.
4. DISCONNECT & REMOVE EXISTING LIGHT FIXTURE. REMOVE ASSOCIATED CONDUIT & WIRE.
5. DISCONNECT & REMOVE EXISTING DEVICE. REMOVE ASSOCIATED CONDUIT & WIRE.
6. DISCONNECT & REMOVE EXISTING EQUIPMENT. REMOVE ASSOCIATED CONDUIT & WIRE.
7. DISCONNECT EQUIPMENT FOR REMOVAL BY OTHERS. REMOVE ASSOCIATED CONDUIT & WIRE.
8. DISCONNECT & RELOCATE EXISTING EQUIPMENT. EXTEND CONDUIT & WIRE TO NEW LOCATION.
9. DISCONNECT & RELOCATE EXISTING DEVICES. EXTEND EXISTING CONDUIT & WIRE TO NEW LOCATION.
10. DISCONNECT & REMOVE EXISTING LIGHT FIXTURES REINSTALL WHEN MECHANICAL WORK IS COMPLETED.
11. DISCONNECT & REMOVE EXISTING CONTROL PANEL. REMOVE ASSOCIATED CONDUIT & WIRE.
12.

ELECTRICAL PLAN NOTES:

1. JUNCTION BOX IN WALL WITH FLEX CONNECTIONS TO OFFICE FURNITURE. PROVIDE (6) CIRCUITS TO OFFICE FURNITURE. EC TO PROVIDE FINAL ELECTRICAL CONNECTIONS TO OFFICE FURNITURE
2. POWER CONNECTION TO SPECIFIED MACHINE. ALL WIRING TO BE CLASS 1, DIVISION 1
3. EXHAUST FAN TO OPERATE IN CONJUNCTION WITH LIGHTS
4. WALL MOUNT EXIT SIGN TYPE 'X2' CENTERED OVER DOORWAY. TIE INTO EXISTING GENERAL LIGHTING AHEAD OF SWITCHING. CLASS 1, DIV. 1 WIRING, 277V.
5. WALL MOUNT WALL-PAK TYPE 'H' CENTERED OVER OVERHEAD DOOR AT APPROXIMATELY 18'-0" ABOVE GRADE. TIE INTO LIGHTING CIRCUIT, 277V. WALL PACKS NOT OVER DOORWAYS TO BE MOUNTED TO WALL AT 18'-0" ABOVE GRADE.
6. PROVIDE 480V, 3 PHASE POWER TO OVERHEAD DOOR OPERATOR CONTROL PANEL. RUN CONTROL WIRING TO DOOR OPERATOR CONTROL SWITCH AT 48" AFF AND TO DOOR INTERLOCK SAFETY DEVICE. CLASS 1, DIV. 1 INSTALLATION.
7. PROVIDE 480V, 3 PHASE POWER TO MAIN LOCATED AT GRADE. PROVIDE WEATHERPROOF, 600V, 3 P FUSED SWITCH ON WALL NEAR UNIT. PROVIDE PROPERLY SIZED FUSES AND WIRE.
8. PROVIDE SIZE 1 COMBINATION, CLASS 1, DIV. 1 STARTER TO CONTROL EXHAUST FAN. STARTER TO BE 480V, 3 PHASE, 7½ HP, RED RUN PILOT, ON-OFF SWITCH. RUN POWER TO NON-FUSED, WEATHERPROOF, 30A, 600V SWITCH ON ROOF NEAR EXHAUST FAN FOR DISCONNECT.
9. PROVIDE 480V TO TRUCK DOCK LEVELER. RUN CONTROL WIRING TO LEVELER CONTROL PANEL AND OPERATOR STATION. RUN 120V TO TRUCK LOCK AND TIE INTO LOCK SIGNAL.
10. PROVIDE 208V TO PTAC UNIT UNDER WINDOW.
11. PROVIDE RED/GREEN SIGNAL ABOVE EACH DOOR WITH CLASS 1, DIV. 1 SWITCH INSIDE TO SWITCH SIGNAL. SIGNAL TO SIGNIFY OCCUPIED (RED)/UNOCCUPIED (GREEN) TRUCK BAY.
12. PROVIDE RED/GREEN TRUCK LOCK SIGNAL, CLASS 1, DIV. 1. TIE SIGNAL INTO TRUCK LOCK TO SIGNIFY WHEN TRUCK IS LOCKED/UNLOCKED.
13. CLASS 1, DIV. 1 CARGO LIGHT. MOUNT AT 48" AFF AND TIE INTO 277V LIGHTING CIRCUIT.

Drug & Laboratory Disposal
Phase 5 - Loading Dock
Broad Street
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E2W ENGINEERING
161 East Michigan Ave
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Kalamazoo, MI 49007
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FAX: (269) 373-5641
E2W JOB # 2008-146

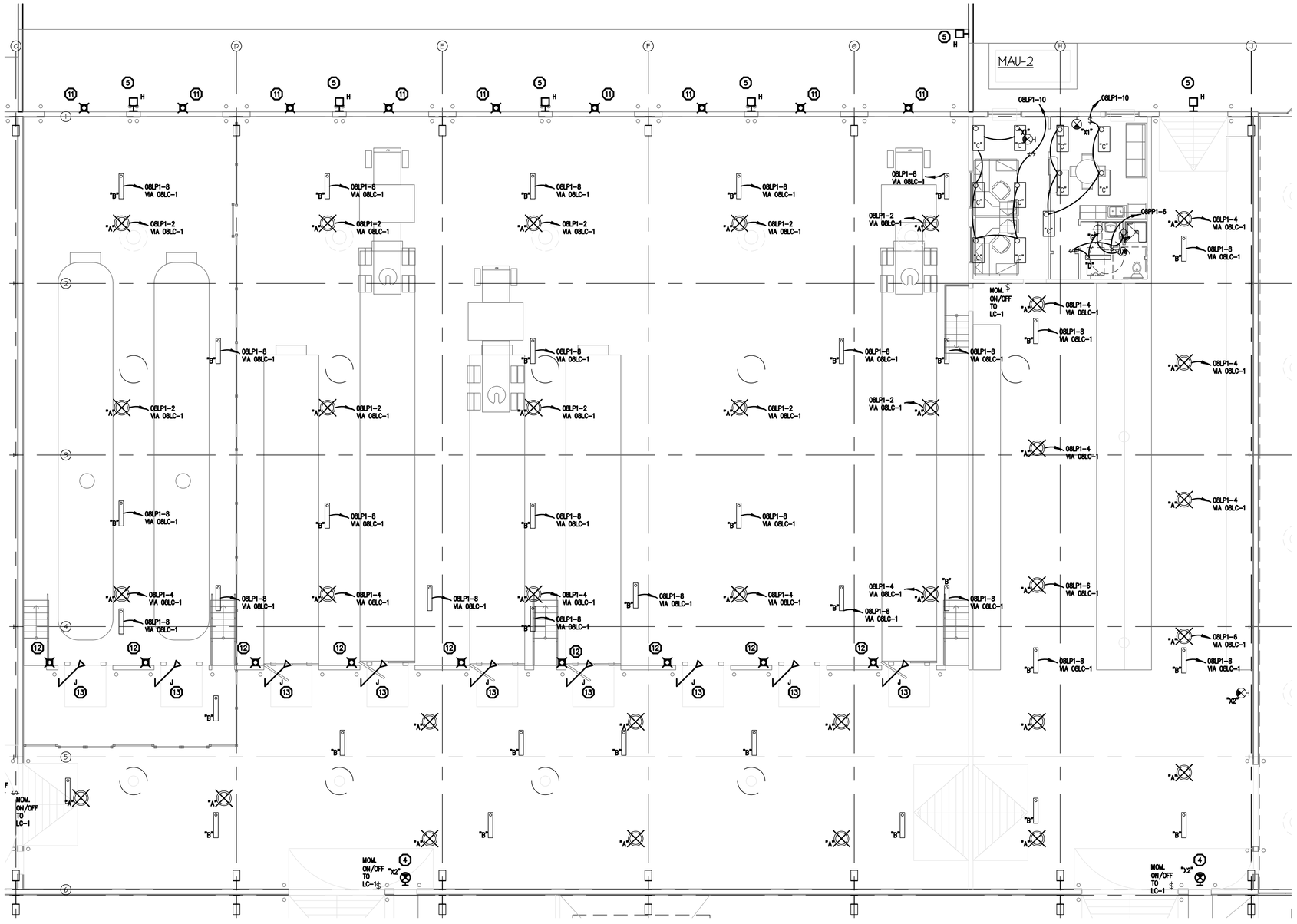
ISSUED
01/29/10 FOR STATE SUBMITTAL

bosch
ARCHITECTURE
ENGINEERING
INTERIOR DESIGN
8175 Creekside Drive, Ste. 220
Portage, Michigan 49024
ph: 269-321-5151
www.boscharch.com

JOB NUMBER 09024E

ELECTRICAL SYMBOLS & NOTES

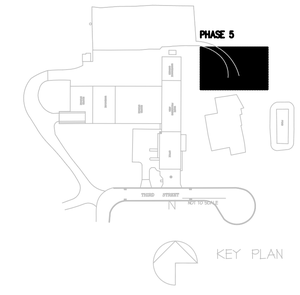
E100



FLOOR PLAN - LIGHTING - NEW

Scale 1/8" = 1'-0"

LIGHT FIXTURE SCHEDULE								
TYPE	MANUFACTURER	MODEL NUMBER	LAMPS	INPUT WATTS	INPUT VOLTS	DESCRIPTION	NOTES	TAG
A	RIG A LITE	SXP4QH04-GG-C	M59 400W MH	430	277	METAL HAUDE AREA LIGHT, CLASS 1, DIV. 1 LIGHT FIXTURE		A
B	RIG A LITE	XP265-4-2L-C-EM	(2) F32 T8	72	277	FLUORESCENT (2) F32 T8 LAMP CLASS 1, DIV. 1 LIGHT FIXTURE W/ EM BALLAST		B
C	LITHONIA	2SP G B 3 32 A12 MVOLT	(3) F32 T8	108	120	2x4 FLUORESCENT (3) F32 T8 LAMP PRISMATIC TROFFER		C
D	LITHONIA	SP G B 2 32 A12 MVOLT	(2) F32 T8	72	120	1x4 FLUORESCENT (3) F32 T8 LAMP PRISMATIC TROFFER		D
F	LITHONIA	LF6 2/18DTT F6LF3 MVOLT	(2) 18W DTT	39	120	6" SHOWER RECESSED 18W FLUORESCENT		F
G	LITHONIA	WP 2 32 MVOLT	(2) F32 T8	72	120	WALL MOUNT 4' (2) F32 T8 LAMP WALL MOUNT		G
H	LITHONIA	TWH-250M-MVOLT-PE	(1) 250W MH	300	120/277	METAL HAUDE WALL PACK		H
J	PHEONIX	DLX-70MH-277	(1) 70W MH	94	277	METAL HAUDE DOCK LITE CLASS 1, DIV. 1		J
X1	LITHONIA	LQC W 1 R EL N	INCLUDED LED	0.7	277			X1
X2	RIG A LITE	XPEX LED sign / exit sign	INCLUDED LED	0.7	277	CLASS 1, DIVISION 1 EXIT SIGN		X2



Drug & Laboratory Disposal

Phase 5 - Loading Dock

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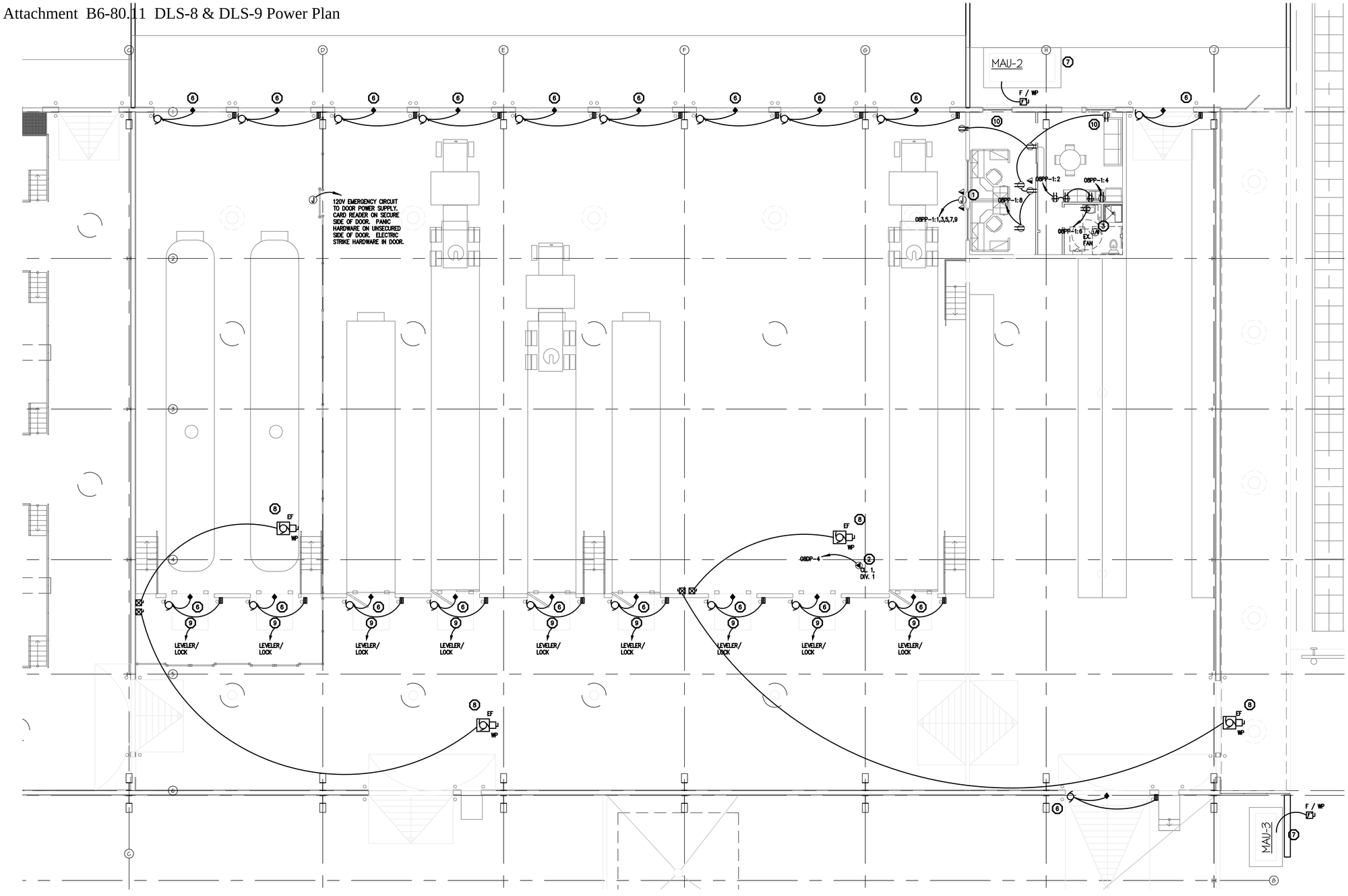
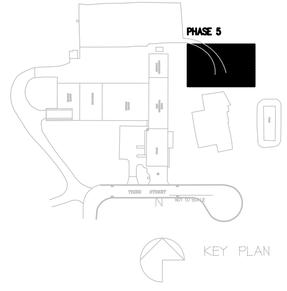
PHASE 5 LIGHTING PLAN

E400



FLOOR PLAN - POWER - NEW

Scale 1/8" = 1'-0"



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JOB NUMBER 09024

PHASE 5 POWER PLAN

E500

FORM EQP 5111 TEMPLATE

C1: USE AND MANAGEMENT OF CONTAINERS

(Volume 4)

This document is an attachment to the Michigan Department of Environment, Great Lakes, and Energy's *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*. See Form EQP 5111 for details on how to use this attachment.

R 299.9614 of the administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); R 29.4101 to R 29.4505 promulgated pursuant to the provisions of the Michigan Fire Protection Act, PA 207, as amended (Act 207); and Title 40 of the Code of Federal Regulations (CFR) §§270.14(d), 270.15, and Part 264, Subpart I, establish requirements for the use and management of containers. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses requirements for the use and management of containers at the *DLD Environmental Services, Inc. (DLD)* facility in *Plainwell*, Michigan. This template addresses the condition of containers, compatibility of waste with containers, management of containers, inspections, containment, special requirements for ignitable or reactive waste, special requirements for incompatible wastes, and closure.

(Check as appropriate)

Applicant for Operating License for Existing Facility:

☐ R 299.9614 use and management of containers

Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility:

☒ R 299.9614 use and management of containers

Table of Contents

This template is organized as follows:

INTRODUCTION

Reference is made to Volume 1, Attachment "Introduction"

C1.A DESCRIPTION OF CONTAINERS
[R 299.9614 and 40 CFR §264.171]

Reference is made to Volume 1, Attachment C1.A

C1.B CONDITION OF CONTAINERS
[R 299.9614 and 40 CFR §264.171]

Reference is made to Volume 1, Attachment C1.B

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS
[R 299.9614 and 40 CFR §264.172]

Reference is made to Volume 1, Attachment C1.C

C1.D MANAGEMENT OF CONTAINERS
[R 299.9614 and 40 CFR §264.173]

Reference is made to Volume 1, Attachment C1.D

C1.E INSPECTIONS
[R 299.9614 and 40 CFR §264.174]

Reference is made to Volume 1, Attachment C1.E

C1.F CONTAINMENT
[R 299.9614 and 40 CFR §264.175 and 270.15]

Note that the primary purpose of the DLS-8 containment area is to function as a dock bay for loading and unloading vehicles. Secondary containment is provided as a precaution in the event that a vehicle is carrying a leaky or ruptured container.

C1.F.1 Secondary Containment System Design and Operation for Containers with Free Liquids
[R 299.9614 and 40 CFR §264.175(a) and 270.15(a)]

Detailed design drawings for the secondary containment systems and container storage areas are provided in Volume 4, Section B6.

C1.F.1(a) Requirement for Base or Liner
[R 299.9614 and 40 CFR §264.175(b)(1) and 270.15(a)(1)]

Reference is made to Volume 1, Attachment C1.F.1(a)

C1.F.1(b) Containment System Drainage
[R 299.9614 and 40 CFR §264.175(b)(2) and 270.15(a)(2)]

Reference is made to Volume 1, Attachment C1.F.1(b)

C1.F.1(c) Containment System Capacity
[R 299.9614 and 40 CFR §§264.175(b)(3) and 270.15(a)(3)]

Containment area DLS-8 will be limited to a maximum of 42,075 gallons of hazardous waste. Following regulation 40 CFR §264.175(b)(3), this area would require a total containment capacity of 4,208 gallons (10% of the volume of containers). The total containment capacity for DLS-8 is 8,440 gallons, which exceeds what is required.

Containment area DLS-9 will limited to a maximum of 28,160 gallons of hazardous waste. Following regulation 40 CFR §264.175(b)(3), this area would require a total containment capacity of 2,816 gallons (10% of the volume of containers). The total containment capacity for DLS-9 is 19,304 gallons, which exceeds what is required by over 16,000 gallons.

(See DLS-8 & DLS-9 floor plan drawings in Volume 4, Attachment B6-80.2, and corresponding containment calculations shown in Volume 4, Attachments C1-80 and Attachment C1-90, respectively.)

C1.F.1(d) Control of Run-on
[R 299.9614 and 40 CFR §§264.175(b)(4) and 270.15(a)(4)]

Reference is made to Volume 1, Attachment C1.F.1(d)

C1.F.1(e) Removal of Liquids from Containment System
[R 299.9614 and 40 CFR §§264.175(b)(5) and 270.15(a)(5)]

Reference is made to Volume 1, Attachment C1.F.1(e)

C1.F.2 Secondary Containment System Design and Operation for Containers with No Free Liquids

[R 299.9614 and 40 CFR §264.175 and 270.15(b)(1)]

Within DLS-8 & DLS-9, DLD shall manage containers with no free liquids using the operating guidelines presented in Volume 4, Section C1.F.1.

C1.F.2(a) Containment System Drainage

[R 299.9614 and 40 CFR §264.175 and 270.15(b)(2)]

Within DLS-8 & DLS-9, DLD shall manage containers with no free liquids using the operating guidelines presented in Volume 4, Section C1.F.1.

C1.F.2(b) Containment Management

[R 299.9614 and 40 CFR §264.175 and 270.15(b)(2)]

Within DLS-8 & DLS-9, DLD shall manage containers with no free liquids using the operating guidelines presented in Volume 4, Section C1.F.1.

C1.G SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

[R 299.9614 and 40 CFR §264.176 and 270.15(b)(2)]

Reference is made to Volume 1, Attachment C1.G

C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

[R 299.9614 and 40 CFR §264.177(c) and 270.15(b)(2)]

Reference is made to Volume 1, Attachment C1.H

C1.I CLOSURE

[R 299.9614 and 40 CFR §264.178]

Reference is made to Volume 1, Attachment C1.I

C1: CONTAINERS

Index of Attachments

ATTACHMENT	DESCRIPTION
C1-80	Spreadsheet DLS-8 Containment Capacity Calculations
C1-90	Spreadsheet DLS-9 Containment Capacity Calculations

DLS - 8 Containment Capacity Calculations

* All Lengths are East/West Measurements
* All Widths are North/South Measurements
**Assuming containment curb built into base of wall

Length (ft)	Width (ft)	Height (ft)	+ Volume	- Volume (ft^3)	
137.67	60	0.17	688		Floor Slope Volume South of Sumps
137.67	20	0.17	229		Floor Slope Volume North of Sumps
Number of	Radius (ft)	Height (ft)			
4	1	0.75	9.42		Sump necks
4	2	4	201		Sumps
			1,128	0	
		DLS - 8			
		Total Volume (ft^3)	1,128		
		Total Volume (gal)	**8,440**		

DLS - 9 Containment Capactiy Calculations

* All Lengths are East/West Measurements
* All Widths are North/South Measurements
**Assuming containment curb built into base of wall

Length (ft)	Width (ft)	Height (ft)	+ Volume	- Volume (ft^3)	
42.03	112.67	0.67	3157		Storage Area Floor Space Volume
26.00	24.33	0.67		422	Office Area Floor Space Volume
10	8	0.67		27	Ramp to North exit
25	8	0.67		67	Ramps to DLS-10
8	11	0.67		29	Ramp to Rail Transfer
8	12	0.67		32	Ramp to DLS-8
			3,157	576	
		DLS - 9			
		Total Volume (ft^3)	2,581		
		Total Volume (gal)	**19,304**		

C4: TREATMENT

(Volume 4)

Table of Contents

This template is organized as follows:

C4: TREATMENT

(Volume 4)

C4.A LAB PACKING

Lab packing conducted in the DLS-8 and DLS-9 Containment Areas will follow the guidelines presented in Volume 1, Section C4.A: Lab Packing.

C4.B COMMINGLING

Reference is made to Volume 1, Section C4.B.

C4.G STORAGE

See Volume 4, Attachment C1, Containers, for storage information.

FORM EQP 5111 Template

C13: AIR EMISSIONS FROM EQUIPMENT LEAKS, TANKS, AND CONTAINERS

(Volume 4)

See Volume 1

C13: Air Emissions from Equipment Leaks, Tanks, and Containers