

**FORM EQP 5111 ATTACHMENT TEMPLATE C1
USE AND MANAGEMENT OF CONTAINERS**

This document is an attachment to the Michigan Department of Environmental Quality's *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*.

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 Dow Michigan Operations & Salzburg Landfill facilities in Midland, 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

There are no containers stored, and no container storage areas, at the Dow Salzburg Landfill facility in Midland, MI.

This template is organized as follows:

INTRODUCTION

C1.A DESCRIPTION OF CONTAINERS

C1.B CONDITION OF CONTAINERS

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

C1.D MANAGEMENT OF CONTAINERS

C1.E INSPECTIONS

C1.F CONTAINMENT

C1.F.1 Secondary Containment System Design and Operation for Containers with Free Liquids

C1.F.1(a) Requirement for Base or Liner

C1.F.1(b) Containment System Drainage

C1.F.1(c) Containment System Capacity

C1.F.1(d) Control of Run-on

C1.F.1(e) Removal of Liquids from Containment System

- C1.F.2 Secondary Containment System Design and Operation for Containers with No Free Liquids
 - C1.F.2(a) Containment System Drainage
 - C1.F.2(b) Container Management
- C1.G SPECIAL REQUIREMENTS OF IGNITABLE OR REACTIVE WASTE
- C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES
- C1.I CLOSURE

APPENDIX A – CONTAINER STORAGE AREA DRAWINGS

INTRODUCTION

The Dow Michigan Operations Site contains six distinct container storage areas; Waste Storage Area I (WSA I), 32 Building Container Storage Area (32 Pack Room), 830 Building Container Storage Area (830 Building), Offload Spots at the Incinerator, 703 Tank Farm Spots, and Rail Car Spots. All are long-term (greater than 90-day) storage areas for containerized waste designed for storage prior to further processing on-site or prior to off-site shipment. Wastes can be received into the container storage areas from off-site or on-site generators.

C1.A DESCRIPTION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

WSA I consists of a containment building (1143) surrounded by a larger outside dike that provides additional capacity for storage. WSA I is used to store/stage containerized (e.g., packs, tanker trucks, isotainers, roll-on/roll-off transport boxes, etc.) wastes prior to further processing on-site or prior to off-site shipment. WSA I has a design capacity of 443,685 gallons for storage of hazardous waste.

32 Pack Room is used to store/stage containerized (i.e., packs, drums, etc.) wastes for feeding to the 32 Incinerator. 32 Pack Room has a design capacity of 133,250 gallons for storage of hazardous waste.

830 Building is mainly used to handle overflow from 32 Pack Room. Overflow containers stored in 830 Building are transferred to 32 Pack Room for feeding to the 32 Incinerator. 830 Building has a design capacity of 125,000 gallons for storage of hazardous waste, of which only 100,000 gallons can be used for storage of liquid hazardous waste.

Offload Spots at the Incinerator consist of two spots for dempster offloading (LS-2010 & LS-2020), two spots for dino offloading (LS-2030 & LS-2040), five spots for tanker truck/isotainer offloading (LS-2050, LS-2060, LS-2070, LS-2080 & LS-2090), and one spot for tanker truck/isotainer storage (LS-2100). Each dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste. Each dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste. Each tanker truck/isotainer offload spot has a design capacity of 7,000 gallons for storage of hazardous waste. The tanker truck/isotainer storage spot (LS-2100) has a design capacity of 7,000 gallons for storage of hazardous waste.

703 Tank Farm Spots consist of one spot for dempster storage (LS-1202/2E), one spot for dino storage (LS-1203/3E), six spots for tanker truck/isotainer storage (SS-5E, SS-6E, SS-7E, SS-8E, LS-1213 & LS-1214) and one spot for tanker truck/isotainer offloading (LS-101/4E) into the Incinerator Tank Farm. In addition, the tanker truck/isotainer spots can be used for transferring

materials from containers to rail cars at the Rail Car Spots and vice versa. The dempster spot has a design capacity of 750 gallons for storage of hazardous waste. The dino spot has a design capacity of 2,500 gallons for storage of hazardous waste. The tanker truck/isotainer offload spot (LS-101/4E) has a design capacity of 7,000 gallons for the storage of hazardous waste. Four of the tanker truck/isotainer storage spots (SS-5E, SS-6E, LS-1213 &LS-1214) have a design capacity of 7,000 gallons for storage of hazardous waste and two spots (SS-7E & SS-8E) have a design capacity of 6,000 gallons for storage of hazardous waste.

Rail Car Spots consist of two spots (LS-1215 & LS-1216) used mainly for rail car offloading to the 32 Incinerator. In addition, the rail car spots can be used for transferring materials from containers to rail cars and vice versa. The Rail Car Spots has a design capacity of 38,000 gallons for storage of hazardous waste.

The wastes stored in these container storage areas can include: containerized sludges, organic liquids, inorganic liquids, solid and liquid wastes and gases. See Appendix A of Attachment XIV.A2, Chemical and Physical Analysis, of this operating license reapplication, for a list of acceptable waste types that can be managed in these container storage areas (WSA I & INCIN STORAGE).

Each of the container storage areas may be used to store other containerized materials (e.g., non-hazardous wastes and raw materials) other than those described above, as long as the design capacity for each area is not exceeded.

C1.B CONDITION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

Containers holding hazardous waste are inspected prior to acceptance and regularly during storage, as specified in Attachment XIV.A5, Inspection Schedule, to assure that they are in good condition. If an inspection reveals that a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or shows signs of leaking, the hazardous waste will either be transferred to a container in good condition, incinerated, if safe to do so, or, if possible, the container will be repaired to prevent any further leaking.

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

[R 299.9614 and 40 CFR §264.172]

Generators are required to assure that packaging materials are compatible with the waste to be stored. The appropriate container is chosen by considering the chemical compatibility of the waste with the container material of construction. Both compatibility and the expected life of the container are taken into consideration for the appropriate selection of containers. No container is selected that will knowingly fail prior to final processing on-site or off-site. Container selection and definition is determined in accordance with the Waste Analysis Plan, Attachment XIV.A3 of this operating license reapplication, through use of the Generator Waste Characterization Form.

C1.D MANAGEMENT OF CONTAINERS

[R 299.9614 and 40 CFR §264.173]

Containers are closed prior to delivery to any of the container storage areas. They are not opened when placed in the container storage areas except for sampling or in the event that it is necessary to transfer the contents to other containers. In the event it is necessary to transfer the contents of a container, procedures will be used that will minimize the exposure of hazardous

waste to workers and the environment. Special attention is given to safe handling to avoid damaging or rupturing the containers.

Smaller waste containers, like packs and drums, are placed on pallets for transportation and storage. Packs and drums are moved in and out of container storage areas by forklift. Packs and drums can be stacked no more than three high. Sufficient aisle space of approximately 2-feet will be provided between each container and row of pallets to allow for complete inspection of the containers and to provide space for any response to emergencies involving the containers. Containers are stored so that the labels are visible for inspection.

C1.E INSPECTIONS

[R 299.9614 and 40 CFR §264.174]

Containers and container storage areas are inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication.

C1.F CONTAINMENT

[R 299.9614 and 40 CFR §§264.175 and 270.15]

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)]

The container storage area's secondary containment systems are of sufficient capacity to contain either ten percent of the volume of the maximum number of containers of free liquid that could be stored in the area or the entire volume of the largest container of free liquid stored in the area.

WSA I

The underlying steel fiber reinforced concrete slab measures 145 ft. x 365 ft. and is eight inches thick. A dike to contain accumulated liquids extends around three sides of this concrete slab and varies in height from six to twelve inches as the concrete base slopes to collection sumps. The north side of the containment is ramped to allow access by forklifts or other vehicles. A 50 ft. x 84 ft. pole building (1143 Building) is erected on top of this concrete slab. The pole building has a six-inch dike under the building. The pole building is constructed on top of this six-inch dike. The building walls isolate the inner building from the outside dike. On the north and south faces of the building there are garage doors. Access through the garage doors is ramped (six inches high at its crown) to prevent run-on or run-off from the building. Design parameters, dimensions, and materials of construction for WSA I can be found in drawings B2-102-927122, B2-103-927122, B2-104-927122, and B2-105-927122, located at the end of this Attachment.

32 Pack Room

The Pack Room has an impervious concrete floor approximately 8,800 square ft. in size. The floor is sloped to a trench which is approximately 1ft. wide. The trench drains by gravity to a 16,500 gallon containment sump on the exterior of the building. Design parameters, dimensions, and materials of construction for 32 Pack Room can be found in drawing B2-4230-960530, located at the end of this Attachment.

830 Building

The 830 Building has an impervious concrete floor approximately 8,730 square ft. in size. There are two main storage areas within 830 Building consisting of an area approximately 101 ft. by 82 ft. and a second area of approximately 14 ft. by 32 ft. The floor is sloped to a trench which is approximately 1ft. wide. The trench drains by gravity to Tank System V-101 that is 10,150 gallons in volume. Design parameters, dimensions, and materials of construction for 830 Building can be found in drawing B2-410-870005, located at the end of this Attachment.

Offload Spots at the Incinerator

Containment for the six tanker truck/isotainer offloading/storage spots (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100) is provided by a dike that extends around three sides of each spot and varies in height as the coated, concrete base slopes to a containment sump at the rear of each spot. The south side of the containment for each spot is ramped to allow access by forktrucks or other vehicles. The design of the six tanker truck/isotainer offloading/storage spots also provides for the unlikely event that if the containment is full, it would then flow into the adjoining spot's containment rather than to be uncontained. The two dino offload spots (LS-2030 & LS-2040) sit over a concrete slab diked on all sides. Drainage collection is provided at the rear of the containment. The two dempster offload spots (LS-2010 & LS-2020) are diked on three sides and the fourth side, the south side, of the containment for each spot is ramped to allow access by the transport vehicle. Drainage collection is provided at the rear of the containment. Design parameters, dimensions, and materials of construction for the Offload Spots at the Incinerator can be found in drawings B2-4201-960530, B2-4205-960530, B2-4206-960530, B2-4207-960530, B2-4208-960530, B24210-960530, B2-4211-960530, B2-4215-960530, and B2-4216-960530, located at the end of this Attachment.

703 Tank Farm Spots

Containment for the one dempster storage spot (LS-1202/2E) is provided by diked walls on three sides, with a concrete base sloped to a containment pit with an open drain that gravity feeds to Tank System V-101 that is 10,150 gallons in volume. The open side of the containment is ramped to allow access by transport vehicles. The one dino storage spot (LS-1203/3E) sits over a concrete slab diked on all sides and drainage is provided to Tank System V-101 that is 10,150 gallons in volume. Containment for the tanker truck/isotainer offload spot (LS-101/4E) is provided by diked walls on three sides, sloped to a containment pit with an open drain that gravity feeds to Tank System V-601 that is 7,000 gallons in volume. Containment for four of the tanker truck/isotainer storage spots (SS-7E, SS-8E, LS-1213, & LS-1214) is provided by a dike that extends around three sides of each spot and varies in height as the concrete base slopes to a containment sump at the rear of each spot. Containment for Spot SS-5E is provided by diked walls on three sides, with a concrete base sloped to a containment pit with an open drain that gravity feeds to Tank System V-101 that is 10,150 gallons in volume. Containment for Spot SS-6E is provided by diked walls on three sides, sloped to a containment pit with an open drain that gravity feeds to Tank System V-601 that is 7,000 gallons in volume. The open side of the containment for each spot is ramped to allow access by forktrucks or other vehicles. Design parameters, dimensions, and materials of construction for these areas can be found in drawings B2-002-830235, B2-005-830235, B2-404-874008, B2-405-874008, B2-001-880527, B2-002-880527, and B2-402-870005, located at the end of this Attachment.

Rail Car Spots

The Rail Car Spots sit over a concrete pit sloped to a containment sump at the rear of the spots. Design parameters, dimensions, and materials of construction for the Rail Car Spots can be found in drawing B2-230-014207, located at the end of this Attachment.

C1.F.1(a) Requirement for Base or Liner

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

The entire base and dikes are constructed of poured concrete. All construction, expansion, and cold seam joints are sealed completely with a sealant and all exterior dike to concrete base joints were constructed with a plastic water stop placed prior to pouring the concrete. The secondary containment of each container storage area is inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication to ensure they are free of cracks or gaps.

C1.F.1(b) Containment System Drainage

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

WSA I

The floor inside the containment building (1143) is flat, but containers (e.g., packs and drums) stored there are placed on pallets to keep them elevated. The west end of the outside dike is sloped away from the building toward two collection sumps, one on either side of the building. The east end of the outside dike floor is sloped to two additional collection sumps located on the south side of the container storage area.

32 Pack Room

The floor is sloped to a trench which drains by gravity to a collection sump outside of the building. Water from the containment sump is then pumped back to the V-701 Tank System. Containers (e.g., packs and drums) stored in 32 Pack Room are placed on pallets.

830 Building

The floor is sloped to a trench that drains by gravity to Tank System V-101. Containers (e.g., packs and drums) stored in 830 Building are placed on pallets.

Offload Spots at the Incinerator

The bases for the six tanker truck/isotainer offloading/storage spots are sloped to a containment sump at the rear of each spot. Also, by nature of their design, the container portion of a tanker truck and isotainer are elevated by the frame and tires of the unit which would prevent them from contacting any accumulated liquids. The dempsters and dinos are positioned on platforms at their respective offload spots, above the secondary containment, that would prevent them from contacting any accumulated liquids.

703 Tank Farm Spots

The bases for all of the tanker truck/isotainer, dino, and dempster offloading/storage spots are sloped to either a containment sump at the rear of each spot or to a drain that gravity feeds to a Tank System. Also, by nature of their design, the container portion of a tanker truck and isotainer are elevated by the frame and tires of the unit which would prevent them from contacting any accumulated liquids. Also, the dempster and dino are positioned on platforms at their respective storage spots, above the secondary containment, that would prevent them from

contacting any accumulated liquids.

Rail Car Spots

The Rail Car Spots sit over a concrete pit sloped to a containment sump at the rear of the spots. Also, by nature of their design, the container portion of a rail car is elevated by the frame and wheels of the unit which would prevent it from contacting any accumulated liquids.

The container storage areas are inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication for the presence of accumulated liquids (i.e., leaks, spills, or precipitation) and if detected, they are removed in a timely manner.

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

WSA I

WSA I has a design capacity of 443,685 gallons for storage of hazardous waste, which would require a containment system with a capacity of 44,369 gallons to contain 10% of the volume of the containers. The WSA I containment system has a capacity of approximately 143,335 gallons, which is in excess of the required 10% capacity.

32 Pack Room

32 Pack Room has a design capacity of 133,250 gallons for storage of hazardous waste, which would require a containment system with a capacity of 13,325 gallons to contain 10% of the volume of the containers. The containment system for 32 Pack Room has a capacity of 16,500 gallons, which is in excess of the required 10% capacity.

830 Building

830 Building has a design capacity of 125,000 gallons for storage of hazardous waste, of which only 100,000 gallons can be used for storage of liquid hazardous waste, which would require a containment system with a capacity of 10,000 gallons to contain 10% of the volume of the containers. The containment system for 830 Building has a capacity 10,150 gallons, which is in excess of the required 10% capacity.

Offload Spots at the Incinerator

Each dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste, which is the maximum size dempster allowed to be stored in these spots. Each dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste, which is the maximum size dino allowed to be stored in these spots. Each tanker truck/isotainer offload/storage spot has a design capacity of 7,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots.

703 Tank Farm Spots

The dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste, which is the maximum size dempster allowed to be stored in this spot. The dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste, which is the maximum size dino allowed to be stored in this spot. Five of the tanker truck/isotainer offload/storage spots (LS-101/4E, SS-5E, SS-6E, LS-1213 & LS-1214) have a design capacity of 7,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots. Two of the tanker truck/isotainer offload/storage spots (SS-7E & SS-8E)

have a design capacity of 6,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots.

Rail Car Spots

The Rail Car Spots have a design capacity of 38,000 gallons for storage of hazardous waste, which is the maximum size rail car allowed to be stored in these spots.

C1.F.1(d) Control of Run-on

[R 299.9614 and 40 CFR §§264.175(b)(4) and 270.15(a)(4)]

WSA I, Offload Spots at the Incinerator, 703 Tank Farm Spots & Rail Car Spots

Run-on into these container storage areas is prevented by dike walls and contour sloping of the areas surrounding them which redirect precipitation into the site sewer system. These container storage areas (with the exception of 1143 Building which is constructed of four walls, a roof and various entryways into the building, all of which are designed to prevent precipitation from entering the building) are open to the environment and do accumulate precipitation periodically. When accumulated precipitation is found in the secondary containment during inspections, it is removed in a timely manner.

32 Pack Room & 830 Building

32 Pack Room and 830 Building are constructed of four walls, a roof and various entryways into these buildings, all of which are designed to prevent precipitation from entering the buildings. The 32 Pack Room secondary containment system is located outside of the building. Run-on into this containment system is prevented by dike walls and contour sloping of the area surrounding it which redirects precipitation into the site sewer system. The containment system is open to the environment and does accumulate precipitation periodically. When accumulated precipitation is found in the secondary containment during inspections, it is removed in a timely manner.

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)]

When accumulated liquids (e.g., spilled or leaked waste or precipitation) are discovered in the secondary containment of a container storage area, they are removed in a timely manner. Accumulated liquids in the secondary containment of these container storage areas are treated within Michigan Operations integrated waste management facilities in accordance with the requirements of Part 111 of Act 451 and the rules.

Accumulated liquids can be removed by a multi-purpose portable pump, by a vacuum tank truck, or other means as appropriate. Removal of small quantity liquids from small leaks or spills can be managed by absorbing the liquid with an appropriate absorbent material.

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

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

This is not applicable, as all of the container storage areas are managed as if they are always storing containers with free liquids, even though this is not always the case.

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

Not Applicable

C1.F.2(b) Container Management
[R 299.9614 and 40 CFR §§264.175(c)(2) and 270.15(b)(2)]

Not Applicable

C1.G SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE
[R 299.9614 and 40 CFR §§264.176 and 270.15(b)(2)]

The RCRA Part A Facility Map, drawing B2-010-927122, provided with this operating license reapplication shows that all waste storage units are located greater than 50 feet from any facility property line and as such provides adequate buffer zone for ignitable or reactive wastes.

To prevent accidental ignition or reaction of ignitable or reactive waste, special precautions are taken. The entire Michigan Operations site has a no smoking policy within the facility fence line. A sign indicating the no smoking policy is located at each access gate into Michigan Operations. Appropriate disciplinary action is taken if someone is caught violating this policy.

The use of open flames, cutting or welding, spark producing equipment or other potential sources of ignition in an area that handles reactive and/or ignitable waste requires a hot work permit from trained personnel responsible for managing the areas. Prior to issuing a hot work permit the area must be checked for flammable and combustible materials and appropriate fire prevention and protection precautions must be implemented. These permits must be reissued at least daily and are suspended if a safe condition no longer exists. The hot work permit procedures are consistent with the requirements of 29 CFR 1910.119 (k): Hot Work Permit.

Areas that handle ignitable or reactive waste are designed, constructed and maintained to minimize the potential for ignition of the waste. These practices are consistent with the requirements of NFPA 70, "National Electric Code", NFPA 497, "Recommended Practice for Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas", NFPA 30, "Flammable and Combustible Liquids Code" and other appropriate codes and standards.

Documentation of compliance with these procedures and practices described in this section are maintained in the operating record. The documentation will be made available to MDEQ upon request.

C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES
[R 299.9614 and 40 CFR §§264.177(c) and 270.15(b)(2)]

Each waste to be stored in containers will be evaluated prior to storage for its effect, if any, upon other stored wastes. This information is evaluated with the aid of the generator waste characterization form. When a new waste is considered for storage, a comparison is made of the nature of that waste with the nature of all other wastes currently in storage at the facility to ensure compatibility. If a new waste is deemed incompatible with one or more of the wastes in storage at the time, the material will be managed as follows:

- The waste will not be stored at the facility, or
- The waste will be stored remotely from the wastes with which it is incompatible. This would include inside versus outside storage (separated by a dike or a wall) or by storing it in an area within the facility that itself is separated from the rest of the facility.

In the event insufficient information is available from published reference literature to adequately evaluate a waste for compatibility, the waste material in question will be managed as follows:

1. The waste will be isolated from all materials presently stored at the unit.
2. The waste generator will be notified of the status of the material with suggested treatment and disposal alternatives.
3. The waste will be treated or disposed of by the appropriate method.

C1.I CLOSURE

[R 299.9614 and 40 CFR §264.178]

See section A11.A.5(a), Closure of Container Storage Areas, of Attachment XIV.A11, Closure and Postclosure Care Plans, of this operating license reapplication, for details pertaining to the closure and postclosure care of WSA I, 32 Pack Room, 830 Building, Offload Spots at the Incinerator, 703 Tank Farm Spots, and Rail Car Spots.

APPENDIX A – CONTAINER STORAGE AREA DRAWINGS

<u>Container Storage Area</u>	<u>Drawing Number(s)</u>	<u>Drawing Description</u>
Waste Storage Area I (WSA I) (1143 Building Area)	B2-102-927122	WSA I Dike Addition Plan
	B2-103-927122	WSA I Modifications Dike Addition Plan and Sections
	B2-104-927122	WSA I Modifications Dike Addition Earth Profiles
	B2-105-927122	WSA I Modification Dike Addition Concrete Details
32 Building Container Storage Area (32 Pack Room)	B2-4230-960530	Bldg 32 Foundation Plan
830 Building Container Storage Area (830 Building)	B2-410-870005	Bldg 830 Foundation Plan
Offload Spots at the Incinerator LS2010 = Spot 1 LS2020 = Spot 2 LS2030 = Spot 3 LS2040 = Spot 4 LS2050 = Spot 5 LS2060 = Spot 6 LS2070 = Spot 7 LS2080 = Spot 8 LS2090 = Spot 9 LS2100 = Spot 10	B2-4201-960530	Dempster, Dino, and Tanker Truck/Isotainer Foundation Location Plan (LS-2010, LS-2020, LS-2030, LS-2040, LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4205-960530	Tanker Truck/Isotainer Foundation Plan (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4206-960530	Tanker Truck/Isotainer Sections (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4207-960530	Tanker Truck/Isotainer Sections and Details (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4208-960530	Tanker Truck/Isotainer Detail 10 (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4210-960530	Dino Foundation Plan (LS-2010 & LS-2020)
	B2-4211-960530	Dino Details and Sections (LS-2010 & LS-2020)
	B2-4215-960530	Dempster Foundation Plan (LS-2030 & LS-2040)
	B2-4216-960530	Dempster Foundation Section and Details (LS-2030 & LS-2040)
	703 Tank Farm Spots LS-1202/2E = 703 Spot 2 LS-1203/3E = 703 Spot 3 LS-101/4E = 703 Spot 4 SS-5E = 703 Spot 5 SS-6E = 703 Spot 6 SS-7E = 703 Spot 7 SS-8E = 703 Spot 8 LS-1213 = 830 Spot 13 LS-1214 = 830 Spot 14	B2-002-830235
B2-005-830235		Dino Platform Foundation (LS-1203/3E)
B2-404-874008		Tanker Truck/Isotainer Plan & Details (SS-5E)
B2-405-874008		Tanker Truck/Isotainer Plan & Details (SS-6E)
B2-001-880527		Tanker Truck/Isotainer Foundations (SS-7E & SS-8E)
B2-002-880527		Tanker Truck/Isotainer Foundations (SS-7E & SS-8E)
B2-402-870005		Tanker Truck/Isotainer Plan & Details (LS-1213 & LS-1214)
Rail Car Spots LS-1215 = Spot 15 LS-1216 = Spot 16	B2-230-014207	Rail Car Volume & Grating (LS-1215 & LS-1216)

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This document is an attachment to the Michigan Department of Environmental Quality's *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*.

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 Dow Michigan Operations & Salzburg Landfill facilities in Midland, 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

There are no containers stored, and no container storage areas, at the Dow Salzburg Landfill facility in Midland, MI.

This template is organized as follows:

INTRODUCTION

C1.A DESCRIPTION OF CONTAINERS

C1.B CONDITION OF CONTAINERS

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

C1.D MANAGEMENT OF CONTAINERS

C1.E INSPECTIONS

C1.F CONTAINMENT

C1.F.1 Secondary Containment System Design and Operation for Containers with Free Liquids

C1.F.1(a) Requirement for Base or Liner

C1.F.1(b) Containment System Drainage

C1.F.1(c) Containment System Capacity

C1.F.1(d) Control of Run-on

C1.F.1(e) Removal of Liquids from Containment System

- C1.F.2 Secondary Containment System Design and Operation for Containers with No Free Liquids
 - C1.F.2(a) Containment System Drainage
 - C1.F.2(b) Container Management
- C1.G SPECIAL REQUIREMENTS OF IGNITABLE OR REACTIVE WASTE
- C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES
- C1.I CLOSURE

APPENDIX A – CONTAINER STORAGE AREA DRAWINGS

INTRODUCTION

The Dow Michigan Operations Site contains six distinct container storage areas; Waste Storage Area I (WSA I), 32 Building Container Storage Area (32 Pack Room), 830 Building Container Storage Area (830 Building), Offload Spots at the Incinerator, 703 Tank Farm Spots, and Rail Car Spots. All are long-term (greater than 90-day) storage areas for containerized waste designed for storage prior to further processing on-site or prior to off-site shipment. Wastes can be received into the container storage areas from off-site or on-site generators.

C1.A DESCRIPTION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

WSA I consists of a containment building (1143) surrounded by a larger outside dike that provides additional capacity for storage. WSA I is used to store/stage containerized (e.g., packs, tanker trucks, isotainers, roll-on/roll-off transport boxes, etc.) wastes prior to further processing on-site or prior to off-site shipment. WSA I has a design capacity of 443,685 gallons for storage of hazardous waste.

32 Pack Room is used to store/stage containerized (i.e., packs, drums, etc.) wastes for feeding to the 32 Incinerator. 32 Pack Room has a design capacity of 133,250 gallons for storage of hazardous waste.

830 Building is mainly used to handle overflow from 32 Pack Room. Overflow containers stored in 830 Building are transferred to 32 Pack Room for feeding to the 32 Incinerator. 830 Building has a design capacity of 125,000 gallons for storage of hazardous waste, of which only 100,000 gallons can be used for storage of liquid hazardous waste.

Offload Spots at the Incinerator consist of two spots for dempster offloading (LS-2010 & LS-2020), two spots for dino offloading (LS-2030 & LS-2040), five spots for tanker truck/isotainer offloading (LS-2050, LS-2060, LS-2070, LS-2080 & LS-2090), and one spot for tanker truck/isotainer storage (LS-2100). Each dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste. Each dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste. Each tanker truck/isotainer offload spot has a design capacity of 7,000 gallons for storage of hazardous waste. The tanker truck/isotainer storage spot (LS-2100) has a design capacity of 7,000 gallons for storage of hazardous waste.

703 Tank Farm Spots consist of one spot for dempster storage (LS-1202/2E), one spot for dino storage (LS-1203/3E), six spots for tanker truck/isotainer storage (SS-5E, SS-6E, SS-7E, SS-8E, LS-1213 & LS-1214) and one spot for tanker truck/isotainer offloading (LS-101/4E) into the Incinerator Tank Farm. In addition, the tanker truck/isotainer spots can be used for transferring

materials from containers to rail cars at the Rail Car Spots and vice versa. The dempster spot has a design capacity of 750 gallons for storage of hazardous waste. The dino spot has a design capacity of 2,500 gallons for storage of hazardous waste. The tanker truck/isotainer offload spot (LS-101/4E) has a design capacity of 7,000 gallons for the storage of hazardous waste. Four of the tanker truck/isotainer storage spots (SS-5E, SS-6E, LS-1213 &LS-1214) have a design capacity of 7,000 gallons for storage of hazardous waste and two spots (SS-7E & SS-8E) have a design capacity of 6,000 gallons for storage of hazardous waste.

Rail Car Spots consist of two spots (LS-1215 & LS-1216) used mainly for rail car offloading to the 32 Incinerator. In addition, the rail car spots can be used for transferring materials from containers to rail cars and vice versa. The Rail Car Spots has a design capacity of 38,000 gallons for storage of hazardous waste.

The wastes stored in these container storage areas can include: containerized sludges, organic liquids, inorganic liquids, solid and liquid wastes and gases. See Appendix A of Attachment XIV.A2, Chemical and Physical Analysis, of this operating license reapplication, for a list of acceptable waste types that can be managed in these container storage areas (WSA I & INCIN STORAGE).

Each of the container storage areas may be used to store other containerized materials (e.g., non-hazardous wastes and raw materials) other than those described above, as long as the design capacity for each area is not exceeded.

C1.B CONDITION OF CONTAINERS

[R 299.9614 and 40 CFR §264.171]

Containers holding hazardous waste are inspected prior to acceptance and regularly during storage, as specified in Attachment XIV.A5, Inspection Schedule, to assure that they are in good condition. If an inspection reveals that a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or shows signs of leaking, the hazardous waste will either be transferred to a container in good condition, incinerated, if safe to do so, or, if possible, the container will be repaired to prevent any further leaking.

C1.C COMPATIBILITY OF WASTE WITH CONTAINERS

[R 299.9614 and 40 CFR §264.172]

Generators are required to assure that packaging materials are compatible with the waste to be stored. The appropriate container is chosen by considering the chemical compatibility of the waste with the container material of construction. Both compatibility and the expected life of the container are taken into consideration for the appropriate selection of containers. No container is selected that will knowingly fail prior to final processing on-site or off-site. Container selection and definition is determined in accordance with the Waste Analysis Plan, Attachment XIV.A3 of this operating license reapplication, through use of the Generator Waste Characterization Form.

C1.D MANAGEMENT OF CONTAINERS

[R 299.9614 and 40 CFR §264.173]

Containers are closed prior to delivery to any of the container storage areas. They are not opened when placed in the container storage areas except for sampling or in the event that it is necessary to transfer the contents to other containers. In the event it is necessary to transfer the contents of a container, procedures will be used that will minimize the exposure of hazardous

waste to workers and the environment. Special attention is given to safe handling to avoid damaging or rupturing the containers.

Smaller waste containers, like packs and drums, are placed on pallets for transportation and storage. Packs and drums are moved in and out of container storage areas by forklift. Packs and drums can be stacked no more than three high. Sufficient aisle space of approximately 2-feet will be provided between each container and row of pallets to allow for complete inspection of the containers and to provide space for any response to emergencies involving the containers. Containers are stored so that the labels are visible for inspection.

C1.E INSPECTIONS

[R 299.9614 and 40 CFR §264.174]

Containers and container storage areas are inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication.

C1.F CONTAINMENT

[R 299.9614 and 40 CFR §§264.175 and 270.15]

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)]

The container storage area's secondary containment systems are of sufficient capacity to contain either ten percent of the volume of the maximum number of containers of free liquid that could be stored in the area or the entire volume of the largest container of free liquid stored in the area.

WSA I

The underlying steel fiber reinforced concrete slab measures 145 ft. x 365 ft. and is eight inches thick. A dike to contain accumulated liquids extends around three sides of this concrete slab and varies in height from six to twelve inches as the concrete base slopes to collection sumps. The north side of the containment is ramped to allow access by forklifts or other vehicles. A 50 ft. x 84 ft. pole building (1143 Building) is erected on top of this concrete slab. The pole building has a six-inch dike under the building. The pole building is constructed on top of this six-inch dike. The building walls isolate the inner building from the outside dike. On the north and south faces of the building there are garage doors. Access through the garage doors is ramped (six inches high at its crown) to prevent run-on or run-off from the building. Design parameters, dimensions, and materials of construction for WSA I can be found in drawings B2-102-927122, B2-103-927122, B2-104-927122, and B2-105-927122, located at the end of this Attachment.

32 Pack Room

The Pack Room has an impervious concrete floor approximately 8,800 square ft. in size. The floor is sloped to a trench which is approximately 1ft. wide. The trench drains by gravity to a 16,500 gallon containment sump on the exterior of the building. Design parameters, dimensions, and materials of construction for 32 Pack Room can be found in drawing B2-4230-960530, located at the end of this Attachment.

830 Building

The 830 Building has an impervious concrete floor approximately 8,730 square ft. in size. There are two main storage areas within 830 Building consisting of an area approximately 101 ft. by 82 ft. and a second area of approximately 14 ft. by 32 ft. The floor is sloped to a trench which is approximately 1ft. wide. The trench drains by gravity to Tank System V-101 that is 10,150 gallons in volume. Design parameters, dimensions, and materials of construction for 830 Building can be found in drawing B2-410-870005, located at the end of this Attachment.

Offload Spots at the Incinerator

Containment for the six tanker truck/isotainer offloading/storage spots (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100) is provided by a dike that extends around three sides of each spot and varies in height as the coated, concrete base slopes to a containment sump at the rear of each spot. The south side of the containment for each spot is ramped to allow access by forktrucks or other vehicles. The design of the six tanker truck/isotainer offloading/storage spots also provides for the unlikely event that if the containment is full, it would then flow into the adjoining spot's containment rather than to be uncontained. The two dino offload spots (LS-2030 & LS-2040) sit over a concrete slab diked on all sides. Drainage collection is provided at the rear of the containment. The two dempster offload spots (LS-2010 & LS-2020) are diked on three sides and the fourth side, the south side, of the containment for each spot is ramped to allow access by the transport vehicle. Drainage collection is provided at the rear of the containment. Design parameters, dimensions, and materials of construction for the Offload Spots at the Incinerator can be found in drawings B2-4201-960530, B2-4205-960530, B2-4206-960530, B2-4207-960530, B2-4208-960530, B24210-960530, B2-4211-960530, B2-4215-960530, and B2-4216-960530, located at the end of this Attachment.

703 Tank Farm Spots

Containment for the one dempster storage spot (LS-1202/2E) is provided by diked walls on three sides, with a concrete base sloped to a containment pit with an open drain that gravity feeds to Tank System V-101 that is 10,150 gallons in volume. The open side of the containment is ramped to allow access by transport vehicles. The one dino storage spot (LS-1203/3E) sits over a concrete slab diked on all sides and drainage is provided to Tank System V-101 that is 10,150 gallons in volume. Containment for the tanker truck/isotainer offload spot (LS-101/4E) is provided by diked walls on three sides, sloped to a containment pit with an open drain that gravity feeds to Tank System V-601 that is 7,000 gallons in volume. Containment for four of the tanker truck/isotainer storage spots (SS-7E, SS-8E, LS-1213, & LS-1214) is provided by a dike that extends around three sides of each spot and varies in height as the concrete base slopes to a containment sump at the rear of each spot. Containment for Spot SS-5E is provided by diked walls on three sides, with a concrete base sloped to a containment pit with an open drain that gravity feeds to Tank System V-101 that is 10,150 gallons in volume. Containment for Spot SS-6E is provided by diked walls on three sides, sloped to a containment pit with an open drain that gravity feeds to Tank System V-601 that is 7,000 gallons in volume. The open side of the containment for each spot is ramped to allow access by forktrucks or other vehicles. Design parameters, dimensions, and materials of construction for these areas can be found in drawings B2-002-830235, B2-005-830235, B2-404-874008, B2-405-874008, B2-001-880527, B2-002-880527, and B2-402-870005, located at the end of this Attachment.

Rail Car Spots

The Rail Car Spots sit over a concrete pit sloped to a containment sump at the rear of the spots. Design parameters, dimensions, and materials of construction for the Rail Car Spots can be found in drawing B2-230-014207, located at the end of this Attachment.

C1.F.1(a) Requirement for Base or Liner

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

The entire base and dikes are constructed of poured concrete. All construction, expansion, and cold seam joints are sealed completely with a sealant and all exterior dike to concrete base joints were constructed with a plastic water stop placed prior to pouring the concrete. The secondary containment of each container storage area is inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication to ensure they are free of cracks or gaps.

C1.F.1(b) Containment System Drainage

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

WSA I

The floor inside the containment building (1143) is flat, but containers (e.g., packs and drums) stored there are placed on pallets to keep them elevated. The west end of the outside dike is sloped away from the building toward two collection sumps, one on either side of the building. The east end of the outside dike floor is sloped to two additional collection sumps located on the south side of the container storage area.

32 Pack Room

The floor is sloped to a trench which drains by gravity to a collection sump outside of the building. Water from the containment sump is then pumped back to the V-701 Tank System. Containers (e.g., packs and drums) stored in 32 Pack Room are placed on pallets.

830 Building

The floor is sloped to a trench that drains by gravity to Tank System V-101. Containers (e.g., packs and drums) stored in 830 Building are placed on pallets.

Offload Spots at the Incinerator

The bases for the six tanker truck/isotainer offloading/storage spots are sloped to a containment sump at the rear of each spot. Also, by nature of their design, the container portion of a tanker truck and isotainer are elevated by the frame and tires of the unit which would prevent them from contacting any accumulated liquids. The dempsters and dinos are positioned on platforms at their respective offload spots, above the secondary containment, that would prevent them from contacting any accumulated liquids.

703 Tank Farm Spots

The bases for all of the tanker truck/isotainer, dino, and dempster offloading/storage spots are sloped to either a containment sump at the rear of each spot or to a drain that gravity feeds to a Tank System. Also, by nature of their design, the container portion of a tanker truck and isotainer are elevated by the frame and tires of the unit which would prevent them from contacting any accumulated liquids. Also, the dempster and dino are positioned on platforms at their respective storage spots, above the secondary containment, that would prevent them from

contacting any accumulated liquids.

Rail Car Spots

The Rail Car Spots sit over a concrete pit sloped to a containment sump at the rear of the spots. Also, by nature of their design, the container portion of a rail car is elevated by the frame and wheels of the unit which would prevent it from contacting any accumulated liquids.

The container storage areas are inspected as specified in Attachment XIV.A5, Inspection Schedule, of this operating license reapplication for the presence of accumulated liquids (i.e., leaks, spills, or precipitation) and if detected, they are removed in a timely manner.

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

WSA I

WSA I has a design capacity of 443,685 gallons for storage of hazardous waste, which would require a containment system with a capacity of 44,369 gallons to contain 10% of the volume of the containers. The WSA I containment system has a capacity of approximately 143,335 gallons, which is in excess of the required 10% capacity.

32 Pack Room

32 Pack Room has a design capacity of 133,250 gallons for storage of hazardous waste, which would require a containment system with a capacity of 13,325 gallons to contain 10% of the volume of the containers. The containment system for 32 Pack Room has a capacity of 16,500 gallons, which is in excess of the required 10% capacity.

830 Building

830 Building has a design capacity of 125,000 gallons for storage of hazardous waste, of which only 100,000 gallons can be used for storage of liquid hazardous waste, which would require a containment system with a capacity of 10,000 gallons to contain 10% of the volume of the containers. The containment system for 830 Building has a capacity 10,150 gallons, which is in excess of the required 10% capacity.

Offload Spots at the Incinerator

Each dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste, which is the maximum size dempster allowed to be stored in these spots. Each dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste, which is the maximum size dino allowed to be stored in these spots. Each tanker truck/isotainer offload/storage spot has a design capacity of 7,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots.

703 Tank Farm Spots

The dempster offload spot has a design capacity of 750 gallons for storage of hazardous waste, which is the maximum size dempster allowed to be stored in this spot. The dino offload spot has a design capacity of 2,500 gallons for storage of hazardous waste, which is the maximum size dino allowed to be stored in this spot. Five of the tanker truck/isotainer offload/storage spots (LS-101/4E, SS-5E, SS-6E, LS-1213 & LS-1214) have a design capacity of 7,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots. Two of the tanker truck/isotainer offload/storage spots (SS-7E & SS-8E)

have a design capacity of 6,000 gallons for storage of hazardous waste, which is the maximum size tanker truck/isotainer allowed to be stored in these spots.

Rail Car Spots

The Rail Car Spots have a design capacity of 38,000 gallons for storage of hazardous waste, which is the maximum size rail car allowed to be stored in these spots.

C1.F.1(d) Control of Run-on

[R 299.9614 and 40 CFR §§264.175(b)(4) and 270.15(a)(4)]

WSA I, Offload Spots at the Incinerator, 703 Tank Farm Spots & Rail Car Spots

Run-on into these container storage areas is prevented by dike walls and contour sloping of the areas surrounding them which redirect precipitation into the site sewer system. These container storage areas (with the exception of 1143 Building which is constructed of four walls, a roof and various entryways into the building, all of which are designed to prevent precipitation from entering the building) are open to the environment and do accumulate precipitation periodically. When accumulated precipitation is found in the secondary containment during inspections, it is removed in a timely manner.

32 Pack Room & 830 Building

32 Pack Room and 830 Building are constructed of four walls, a roof and various entryways into these buildings, all of which are designed to prevent precipitation from entering the buildings. The 32 Pack Room secondary containment system is located outside of the building. Run-on into this containment system is prevented by dike walls and contour sloping of the area surrounding it which redirects precipitation into the site sewer system. The containment system is open to the environment and does accumulate precipitation periodically. When accumulated precipitation is found in the secondary containment during inspections, it is removed in a timely manner.

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)]

When accumulated liquids (e.g., spilled or leaked waste or precipitation) are discovered in the secondary containment of a container storage area, they are removed in a timely manner. Accumulated liquids in the secondary containment of these container storage areas are treated within Michigan Operations integrated waste management facilities in accordance with the requirements of Part 111 of Act 451 and the rules.

Accumulated liquids can be removed by a multi-purpose portable pump, by a vacuum tank truck, or other means as appropriate. Removal of small quantity liquids from small leaks or spills can be managed by absorbing the liquid with an appropriate absorbent material.

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

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

This is not applicable, as all of the container storage areas are managed as if they are always storing containers with free liquids, even though this is not always the case.

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

Not Applicable

C1.F.2(b) Container Management
[R 299.9614 and 40 CFR §§264.175(c)(2) and 270.15(b)(2)]

Not Applicable

C1.G SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE
[R 299.9614 and 40 CFR §§264.176 and 270.15(b)(2)]

The RCRA Part A Facility Map, drawing B2-010-927122, provided with this operating license reapplication shows that all waste storage units are located greater than 50 feet from any facility property line and as such provides adequate buffer zone for ignitable or reactive wastes.

To prevent accidental ignition or reaction of ignitable or reactive waste, special precautions are taken. The entire Michigan Operations site has a no smoking policy within the facility fence line. A sign indicating the no smoking policy is located at each access gate into Michigan Operations. Appropriate disciplinary action is taken if someone is caught violating this policy.

The use of open flames, cutting or welding, spark producing equipment or other potential sources of ignition in an area that handles reactive and/or ignitable waste requires a hot work permit from trained personnel responsible for managing the areas. Prior to issuing a hot work permit the area must be checked for flammable and combustible materials and appropriate fire prevention and protection precautions must be implemented. These permits must be reissued at least daily and are suspended if a safe condition no longer exists. The hot work permit procedures are consistent with the requirements of 29 CFR 1910.119 (k): Hot Work Permit.

Areas that handle ignitable or reactive waste are designed, constructed and maintained to minimize the potential for ignition of the waste. These practices are consistent with the requirements of NFPA 70, "National Electric Code", NFPA 497, "Recommended Practice for Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas", NFPA 30, "Flammable and Combustible Liquids Code" and other appropriate codes and standards.

Documentation of compliance with these procedures and practices described in this section are maintained in the operating record. The documentation will be made available to MDEQ upon request.

C1.H SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES
[R 299.9614 and 40 CFR §§264.177(c) and 270.15(b)(2)]

Each waste to be stored in containers will be evaluated prior to storage for its effect, if any, upon other stored wastes. This information is evaluated with the aid of the generator waste characterization form. When a new waste is considered for storage, a comparison is made of the nature of that waste with the nature of all other wastes currently in storage at the facility to ensure compatibility. If a new waste is deemed incompatible with one or more of the wastes in storage at the time, the material will be managed as follows:

- The waste will not be stored at the facility, or
- The waste will be stored remotely from the wastes with which it is incompatible. This would include inside versus outside storage (separated by a dike or a wall) or by storing it in an area within the facility that itself is separated from the rest of the facility.

In the event insufficient information is available from published reference literature to adequately evaluate a waste for compatibility, the waste material in question will be managed as follows:

1. The waste will be isolated from all materials presently stored at the unit.
2. The waste generator will be notified of the status of the material with suggested treatment and disposal alternatives.
3. The waste will be treated or disposed of by the appropriate method.

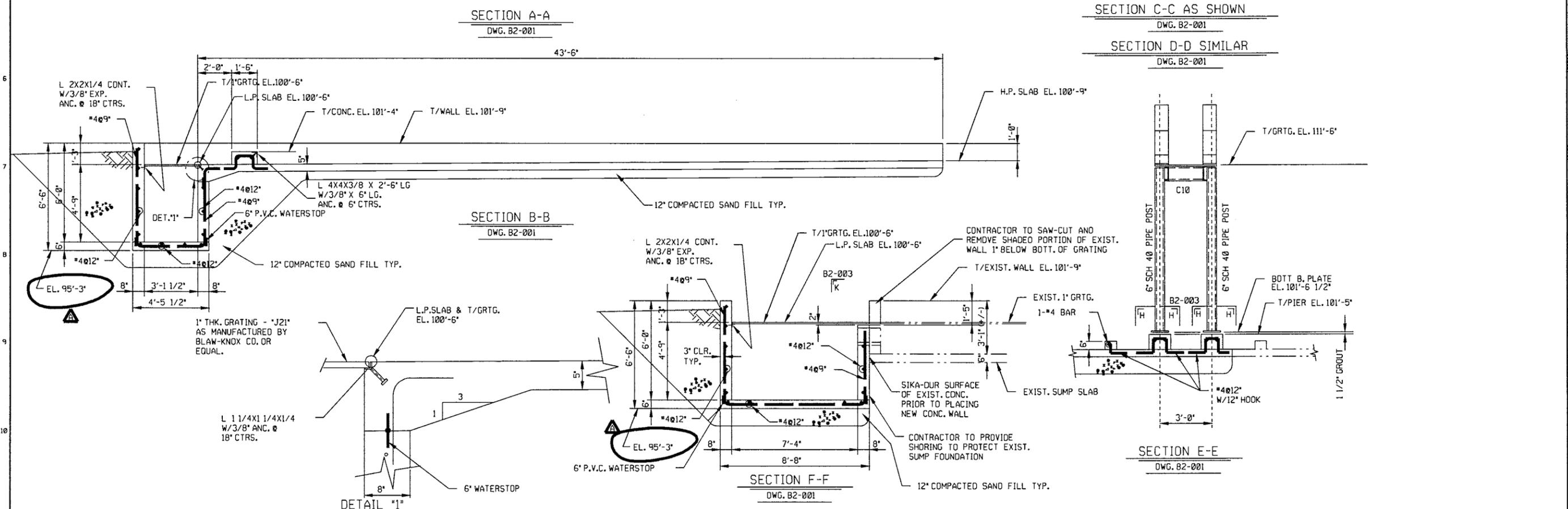
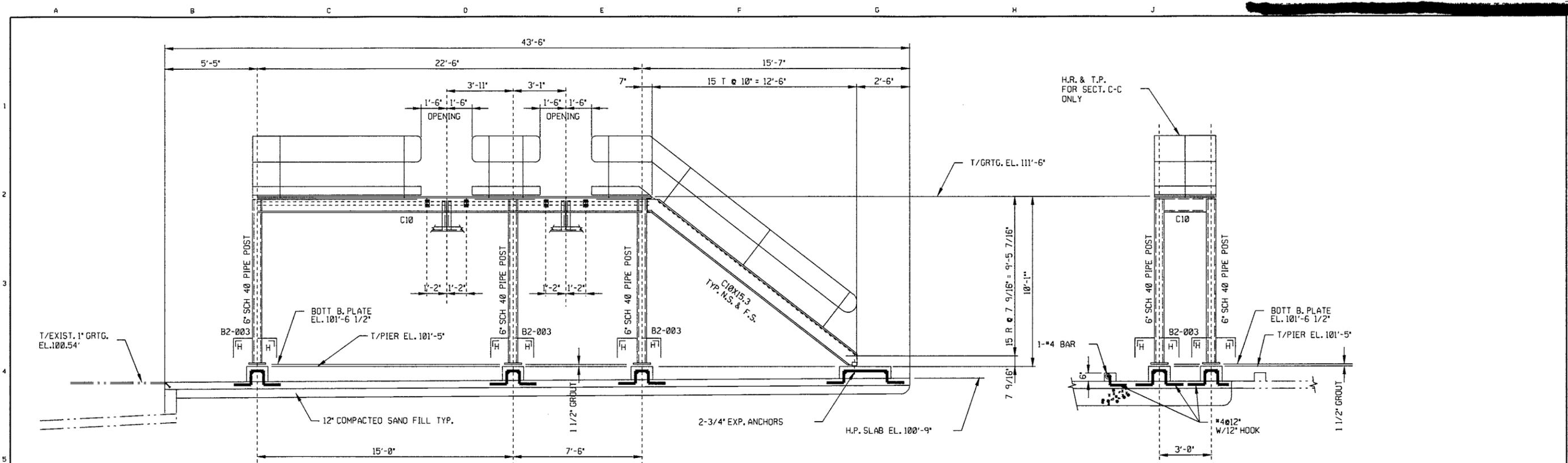
C1.I CLOSURE

[R 299.9614 and 40 CFR §264.178]

See section A11.A.5(a), Closure of Container Storage Areas, of Attachment XIV.A11, Closure and Postclosure Care Plans, of this operating license reapplication, for details pertaining to the closure and postclosure care of WSA I, 32 Pack Room, 830 Building, Offload Spots at the Incinerator, 703 Tank Farm Spots, and Rail Car Spots.

APPENDIX A – CONTAINER STORAGE AREA DRAWINGS

<u>Container Storage Area</u>	<u>Drawing Number(s)</u>	<u>Drawing Description</u>
Waste Storage Area I (WSA I) (1143 Building Area)	B2-102-927122	WSA I Dike Addition Plan
	B2-103-927122	WSA I Modifications Dike Addition Plan and Sections
	B2-104-927122	WSA I Modifications Dike Addition Earth Profiles
	B2-105-927122	WSA I Modification Dike Addition Concrete Details
32 Building Container Storage Area (32 Pack Room)	B2-4230-960530	Bldg 32 Foundation Plan
830 Building Container Storage Area (830 Building)	B2-410-870005	Bldg 830 Foundation Plan
Offload Spots at the Incinerator LS2010 = Spot 1 LS2020 = Spot 2 LS2030 = Spot 3 LS2040 = Spot 4 LS2050 = Spot 5 LS2060 = Spot 6 LS2070 = Spot 7 LS2080 = Spot 8 LS2090 = Spot 9 LS2100 = Spot 10	B2-4201-960530	Dempster, Dino, and Tanker Truck/Isotainer Foundation Location Plan (LS-2010, LS-2020, LS-2030, LS-2040, LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4205-960530	Tanker Truck/Isotainer Foundation Plan (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4206-960530	Tanker Truck/Isotainer Sections (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4207-960530	Tanker Truck/Isotainer Sections and Details (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4208-960530	Tanker Truck/Isotainer Detail 10 (LS-2050, LS-2060, LS-2070, LS-2080, LS-2090, & LS-2100)
	B2-4210-960530	Dino Foundation Plan (LS-2010 & LS-2020)
	B2-4211-960530	Dino Details and Sections (LS-2010 & LS-2020)
	B2-4215-960530	Dempster Foundation Plan (LS-2030 & LS-2040)
	B2-4216-960530	Dempster Foundation Section and Details (LS-2030 & LS-2040)
	703 Tank Farm Spots LS-1202/2E = 703 Spot 2 LS-1203/3E = 703 Spot 3 LS-101/4E = 703 Spot 4 SS-5E = 703 Spot 5 SS-6E = 703 Spot 6 SS-7E = 703 Spot 7 SS-8E = 703 Spot 8 LS-1213 = 830 Spot 13 LS-1214 = 830 Spot 14	B2-002-830235
B2-005-830235		Dino Platform Foundation (LS-1203/3E)
B2-404-874008		Tanker Truck/Isotainer Plan & Details (SS-5E)
B2-405-874008		Tanker Truck/Isotainer Plan & Details (SS-6E)
B2-001-880527		Tanker Truck/Isotainer Foundations (SS-7E & SS-8E)
B2-002-880527		Tanker Truck/Isotainer Foundations (SS-7E & SS-8E)
B2-402-870005		Tanker Truck/Isotainer Plan & Details (LS-1213 & LS-1214)
Rail Car Spots LS-1215 = Spot 15 LS-1216 = Spot 16	B2-230-014207	Rail Car Volume & Grating (LS-1215 & LS-1216)

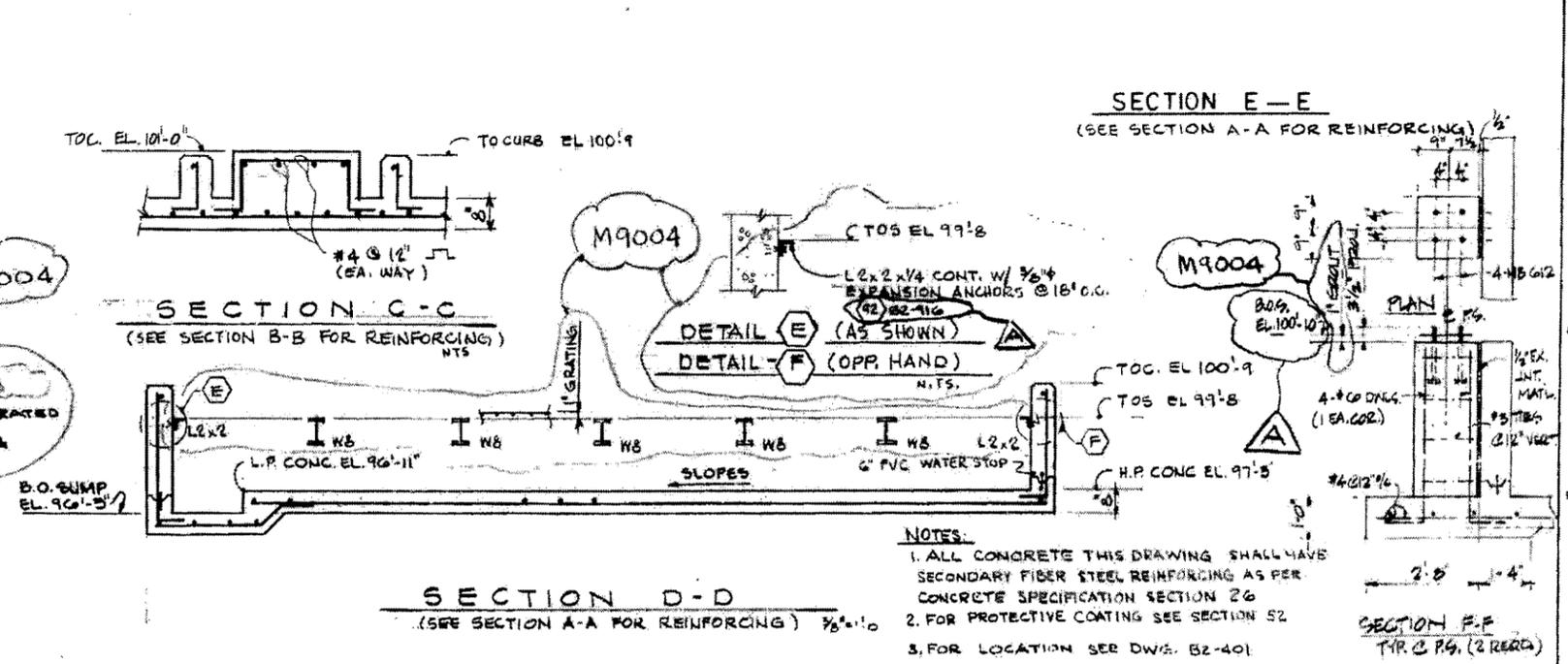
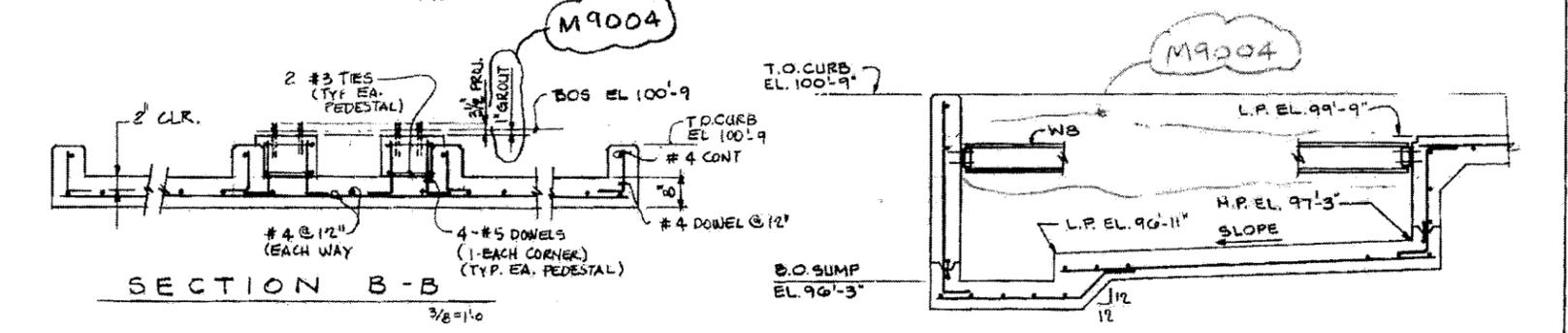
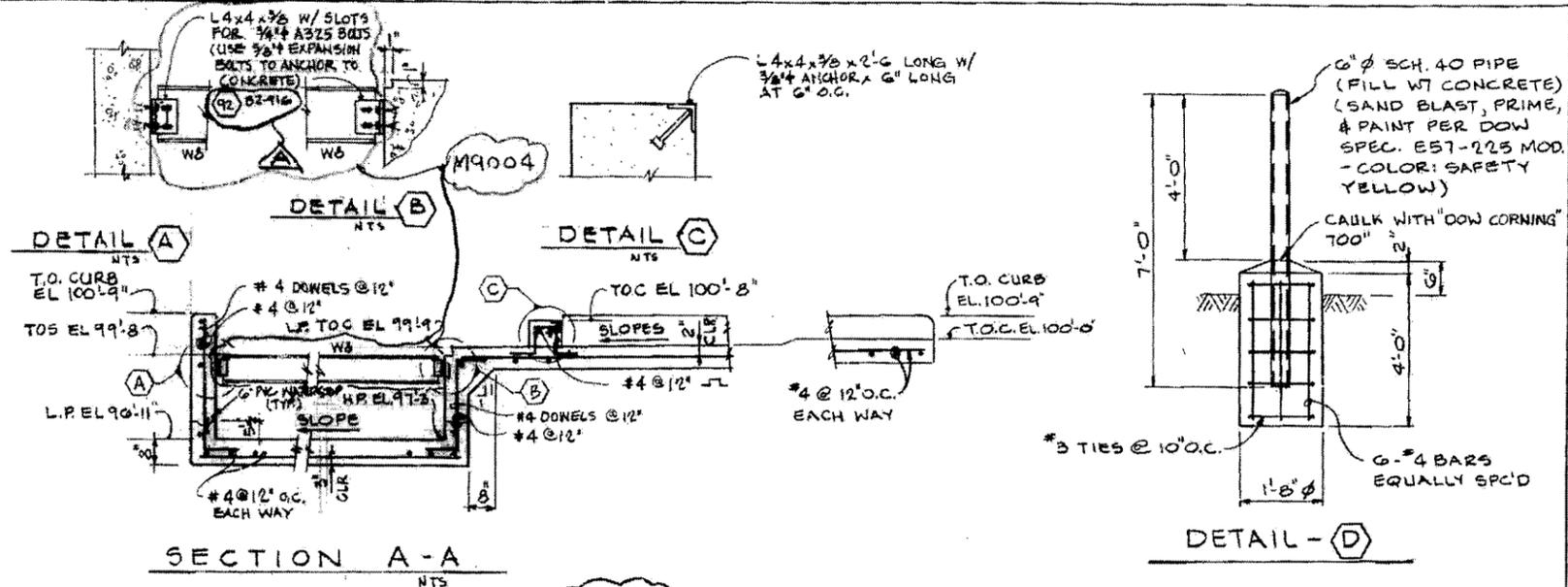
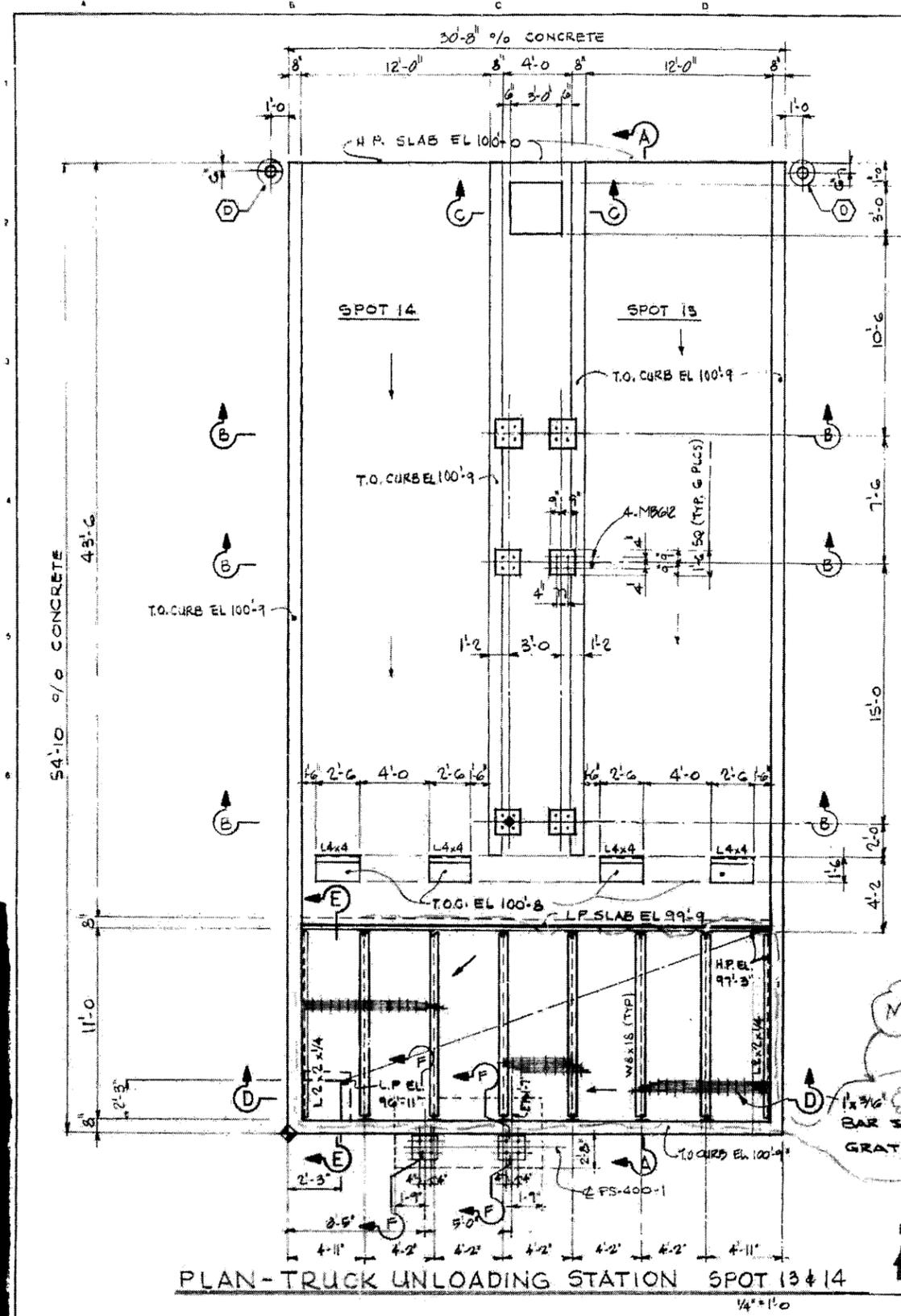


REV. NO.	REVISION	BY	CHK	APP	DATE	REV. NO.	REVISION	BY	CHK	APP	DATE	DESIGNED	STATUS	PLANT NO.

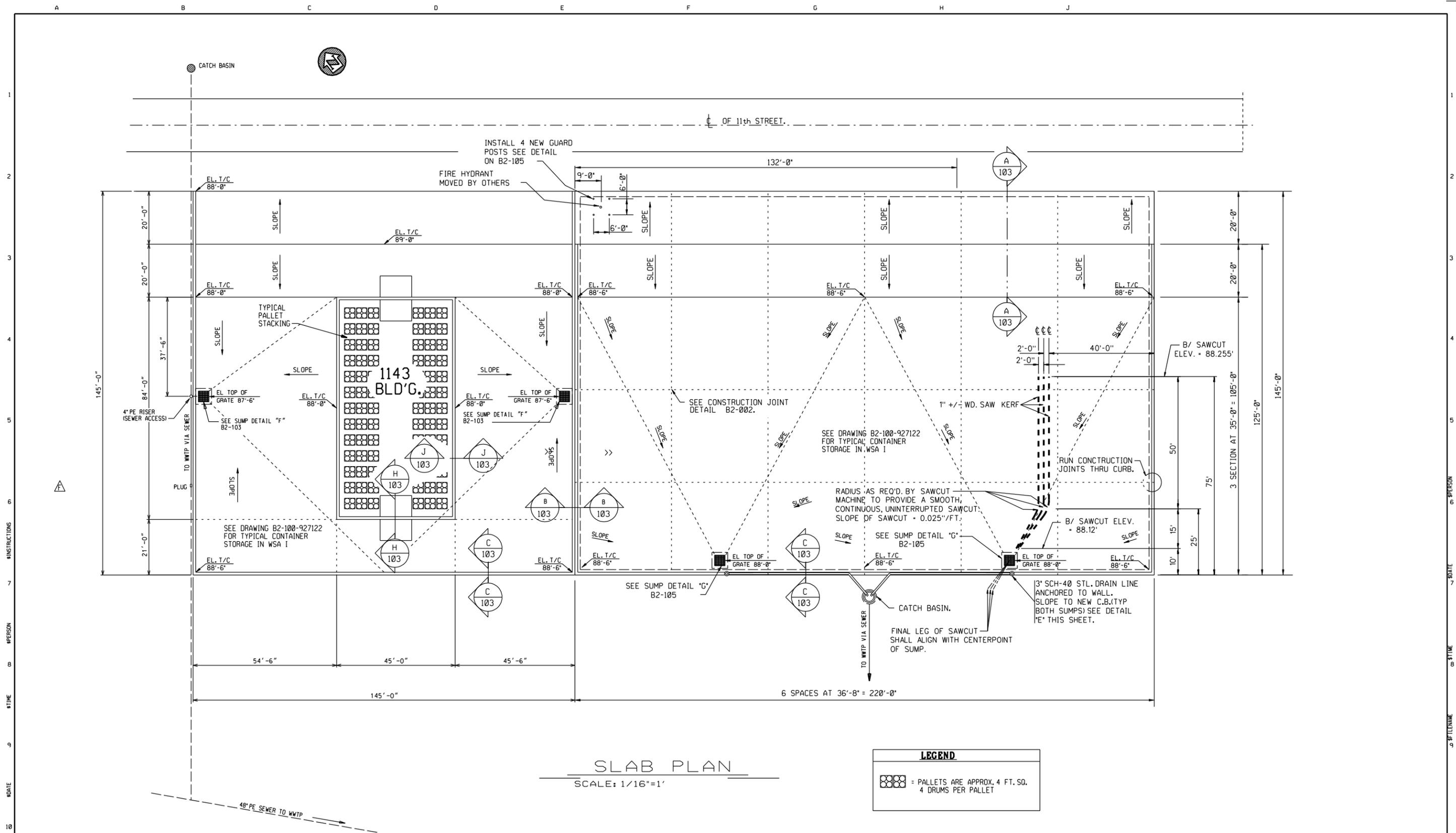
ISSUE NO.	REV.	MATERIAL OR JOB SPEC.	BID	FAB	CONST	REF	DATE ISSUED FOR

DESIGNED	CHECKED	APPROVED	PROJ. ENGR.	MFG. REP.
J. HUSLEY				

THE DOW CHEMICAL COMPANY		SCALE	PROJECT NO.	REV.
MICHIGAN DIVISION	MIDLAND, MICHIGAN	3/8" = 1'-0"	B2-002-880527	
INCINERATION COMPLEX				
TRUCK UNLOADING STATION FOUNDATIONS				
880527				PIP



DET. NUMBER 92 ADDED, ONLY DELETED PEDESTAL B.O.S. CHANGED REV. DATE 1 10/80 2 11/80 3 6/81 4 7/81 5 7/81 6 7/81		DRAWING ISSUE RECORD 1 A 870005-M9004 10/80 2 A 870005-M9005 11/80 3 A 870005-M9006 6/81 4 A 870005-M9007 7/81 5 A 870005-M9008 7/81 6 A 870005-M9009 7/81				DRAWING ISSUE RECORD DESIGNED: G. CASTILLO 10/80 CHECKED: G. CASTILLO 11/80 DRAWN: [Signature] 6/81 IN CHARGE: [Signature] 7/81 APPROVED: [Signature] 7/81				THE DOW CHEMICAL COMPANY MICHIGAN DIVISION MIDLAND, MICH. 48847 PROJECT 108 TRUCK UNLOADING STATION SPOT 13 & 14 DRAWING NUMBER: 870005 SCALE: AS NOTED SHEET: B2-402-870005 PRINTED	
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REV. MARK	REVISION	BY	CHK	APP	DATE
A	ADDED 1143 DIKE AREA	DS			12/95
B	CHANGED DRAWING NO. TO B2-102-927122 & SWR ACCESS AT WEST END OF DIKE	LG			3/96
C	ADDED PALLET STACKING INSIDE 1143 BLDG.	LEG	KC		6/02
D	UPDATED CONTAINER LAYOUT	LEG			6/04
E	ADDED SAWCUTS TO SLAB	JSS	CEP	CEP	6/23/04
F	REVISED PER STEVE RIVET'S AS-BUILT DRAWINGS	DL	DL	SR	3/25/14

REV. MARK	REVISION	BY	CHK	APP	DATE

ISSUE NO.	REV.	MATERIAL OR JOB SPEC.	BID	FAB	CONST	REF

DESIGNED R. KLODES	10/88
DRAWN MARK LEWIS	10/88
CHECKED	
APPROVED	
PROJ. ENGR.	
MFG. REP.	
DATE ISSUED FOR	02/94

THE DOW CHEMICAL COMPANY

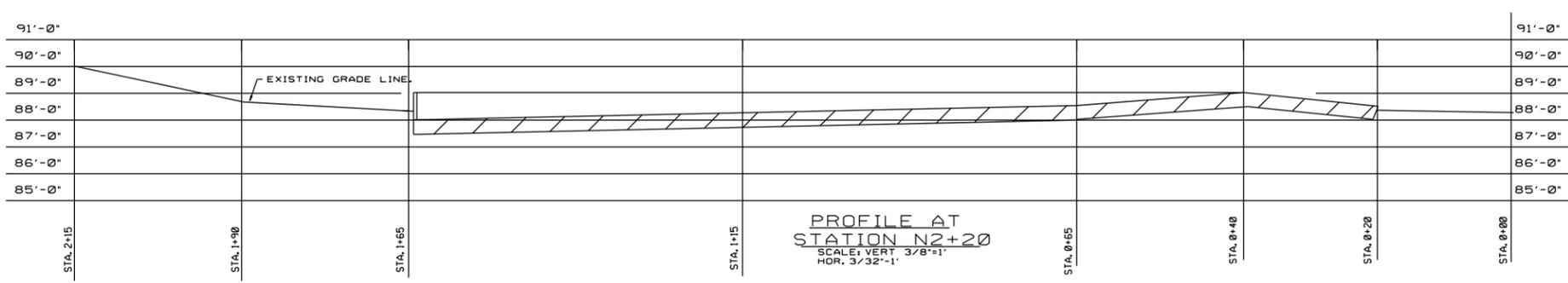
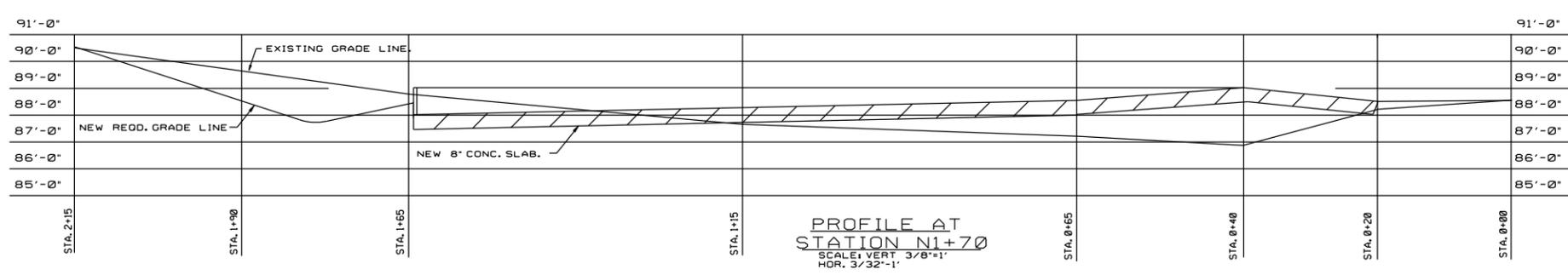
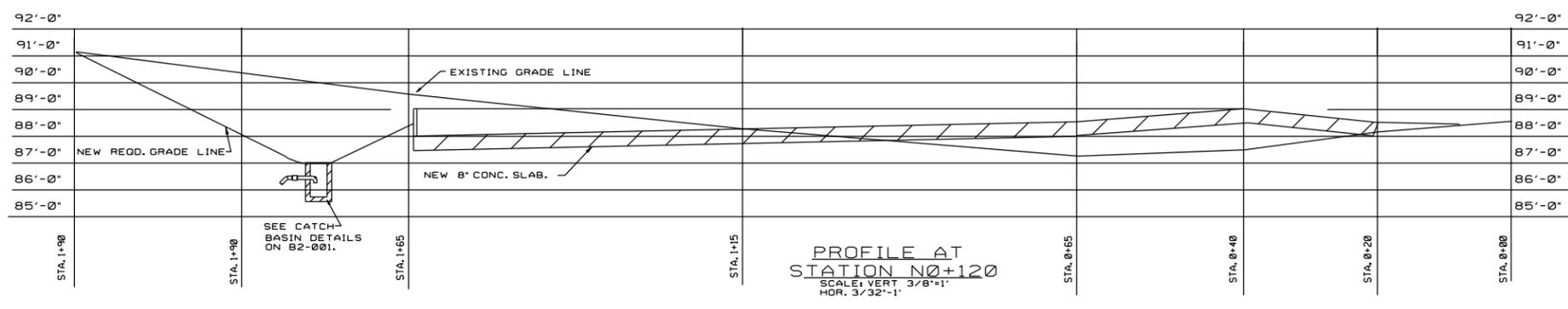
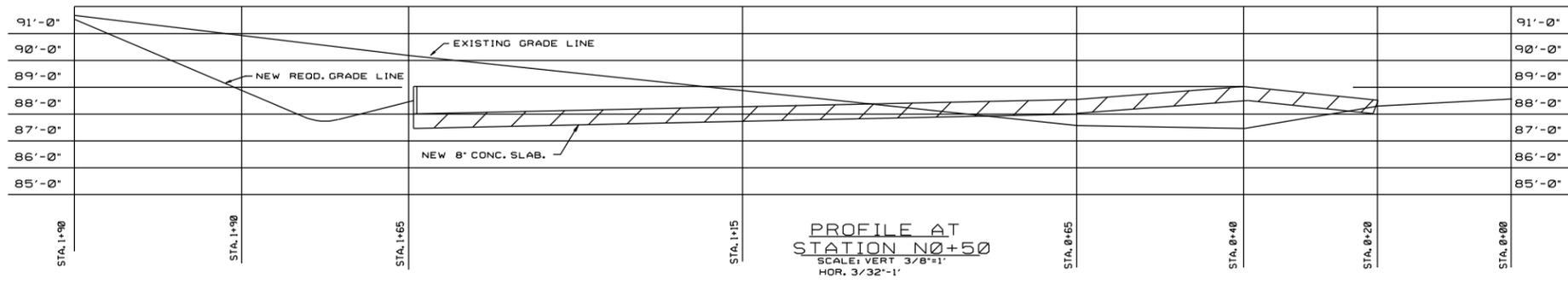
MICHIGAN DIVISION
ENVIRONMENTAL

WASTE STORAGE AREA I
DIKE ADDITION PLAN

MIDLAND, MICHIGAN
1143

PROJECT NUMBER 927122	SCALE 1/16"=1'-0"	B2-102-927122	REV. F
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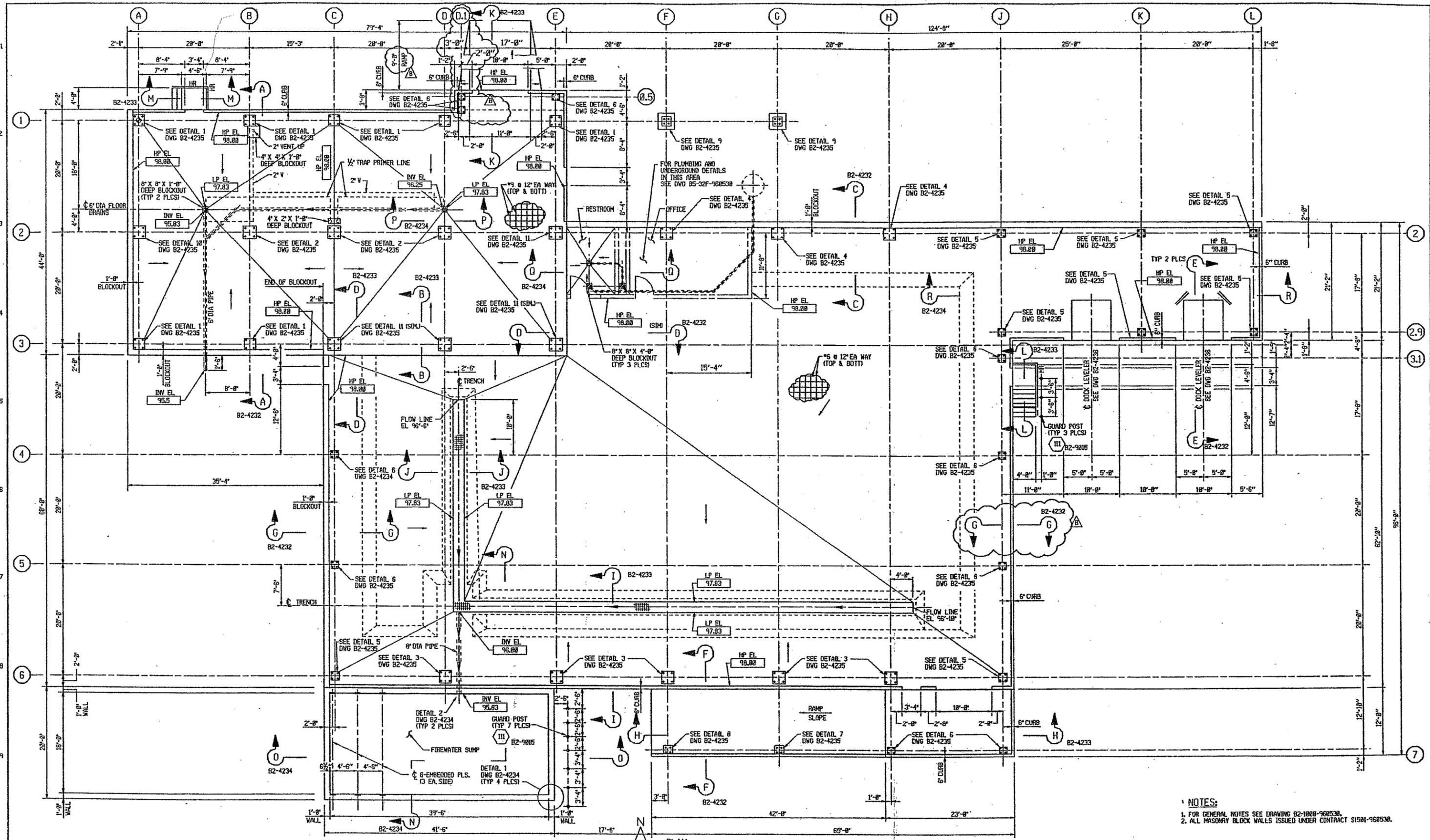
2 PAV



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REV. MARK		REVISION				BY	CHK	APP	DATE	REV. MARK	REVISION				BY	CHK	APP	DATE	DRAWING ISSUE RECORD				DESIGNED	10/88	STATUS	PLANT NO.	THE DOW CHEMICAL COMPANY MICHIGAN DIVISION ENVIRONMENTAL WASTE STORAGE AREA I MODIFICATIONS DIKE ADDITION EARTH PROFILES PROJECT NUMBER: 927122 SCALE: NONE B2-104-927122 1143 2 UND			
A		CHANGED DRAWING NO. TO B2-104-927122				LG			3/96												R. KLOES		FILE SEAL							
																				MARK LEWIS	10/88									
																				CHECKED										
																				APPROVED										
																				PROJ. ENGR.										
																				MFG. REP.										
																						02/94								



NOTES:
 1. FOR GENERAL NOTES SEE DRAWING B2-1000-960530.
 2. ALL MASONRY BLOCK WALLS ISSUED UNDER CONTRACT S1501-960530.

REV. MARK	REVISION	BY	CHK	APP	DATE
A	ADDED EXTENSION @ EAST END OF BUILDING; ADDED PLATES	FC	JM		
B	ADDED COLUMN LINE D.I. & REVISED RAMP LENGTH	FC	JM		

REV. MARK	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD						DESIGNED	DATE	STATUS	PLANT NO.
5	B	S1601-960530				J. MAO	6/01		
4	B	S1501C-960530				V. GIBBS	7/01		
3	A	S1301A-960530			09/28/01	J. MAO	7/01		
2	-	S1301-960530			09/13/01	H. DELGADO	6/01		
5	B	S1301B-960530			10/24/01	MICHAEL VAN HERK	6/01		
1						A. POTOFF	6/01		

THE DOW CHEMICAL COMPANY

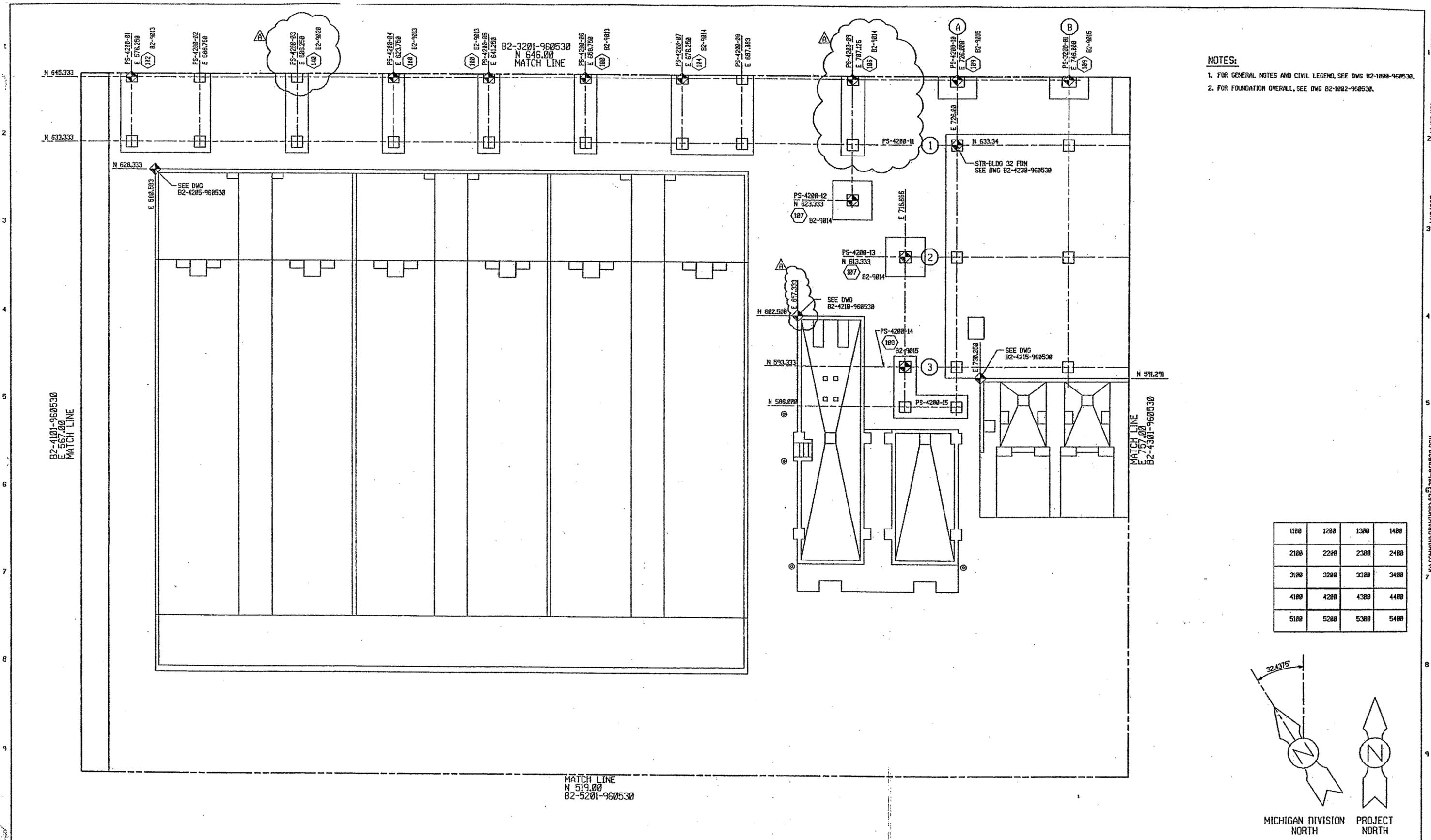
MICHIGAN OPERATIONS
 830 INCUBATOR UPGRADE

STR-BLDG 32
FOUNDATION PLAN

32 BLDG
 114

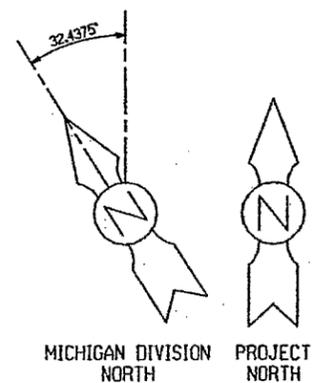
CHANGE NUMBER: 103078
 SCALE: 1/8" = 1'-0"
 DRAWING NO.: B2-4230-960530

ENCOMMONDRAWINGS.B2-4230-960530.DWG
 PROJECT DRAWINGS



NOTES:
 1. FOR GENERAL NOTES AND CIVIL LEGEND, SEE DWG B2-1000-960530.
 2. FOR FOUNDATION OVERALL, SEE DWG B2-1002-960530.

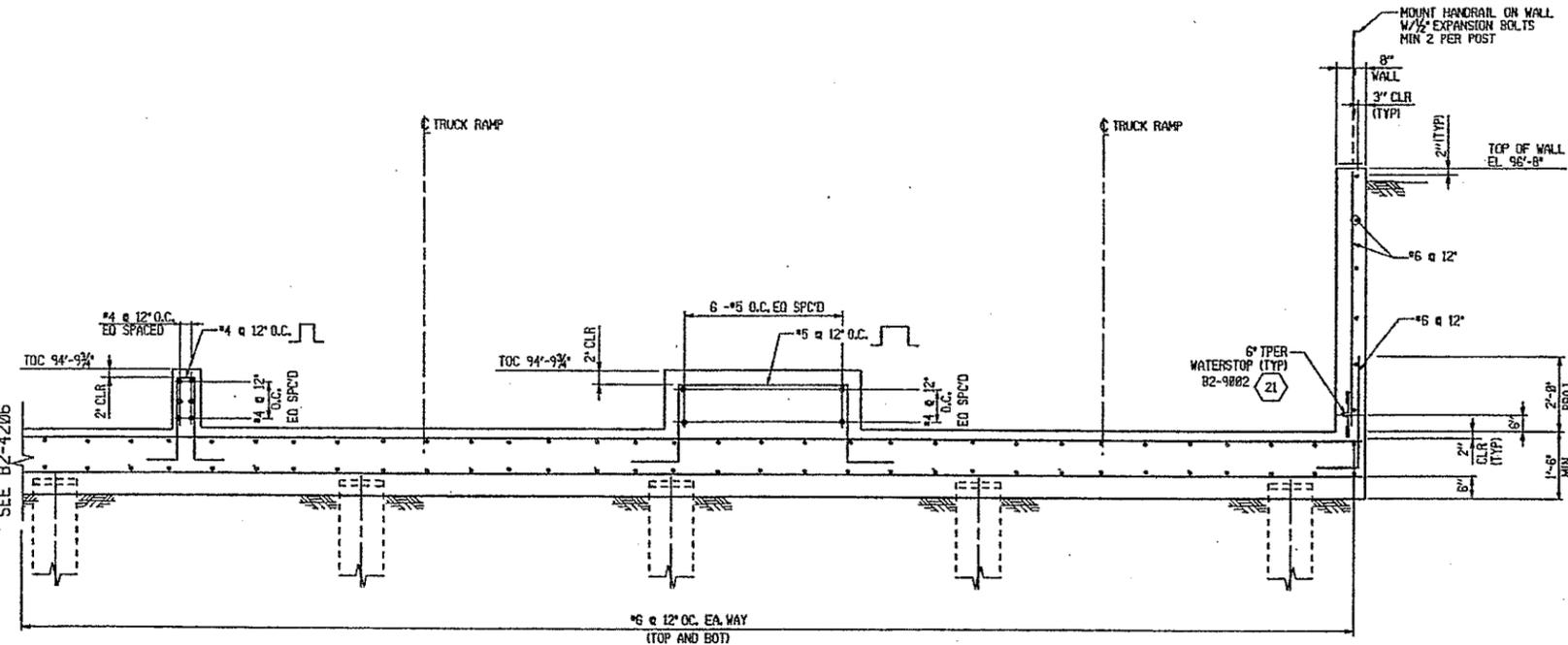
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2100	2200	2300	2400
3100	3200	3300	3400
4100	4200	4300	4400
5100	5200	5300	5400



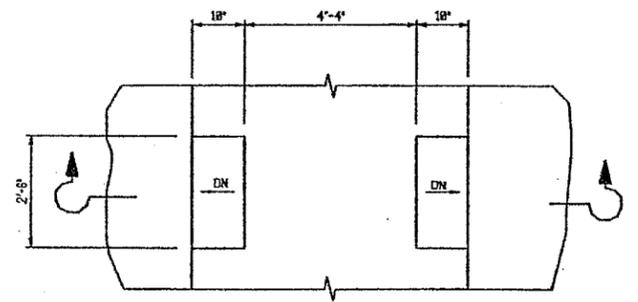
REV. MARK	REVISION	BY	CHK	APP	DATE	REV. MARK	REVISION	BY	CHK	APP	DATE	DRAWING ISSUE RECORD		DESIGNED	STATUS	PLANT NO.	THE DOW CHEMICAL COMPANY	
A	REVISED AS NOTED	SK	SB	HD	09/28/01							5	A	S1601-960530	07/01		MICHIGAN OPERATIONS 830 INCINERATOR UPGRADE	
												4	A	S1501C-960530	07/01		MIDLAND, MICHIGAN 32 BLDG	
												3	A	S1301A-960530	07/01		FOUNDATION LOCATION PLAN GRID 4200	
												2	-	S1301-960530	07/01		105	
												1	-	S1301-960530	07/01		REV. A	
																	SCALE 1/8"=1'-0"	
																	CHARGE NUMBER 960530	
																	B2-4201-960530	
																	REV. A	

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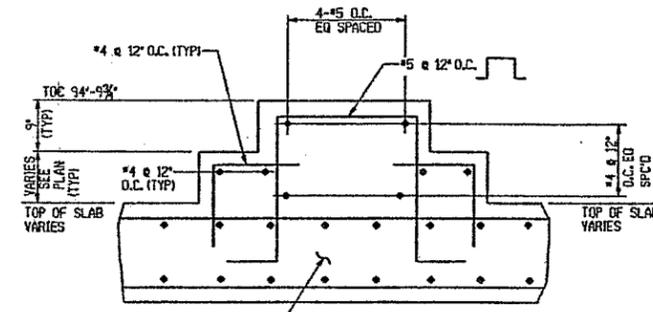
FOR CONTINUATION
SEE B2-4206



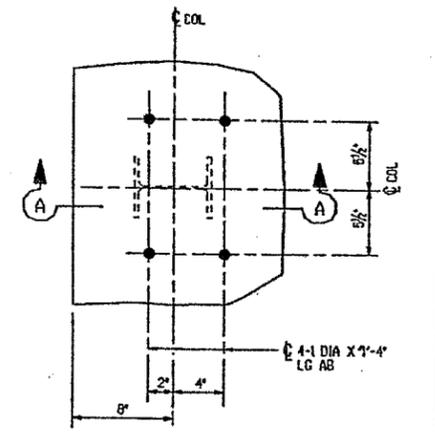
SECTION 'B-B'
SEE PLAN FOR ORIENTATION
SCALE: 3/4" = 1'-0" B2-4205



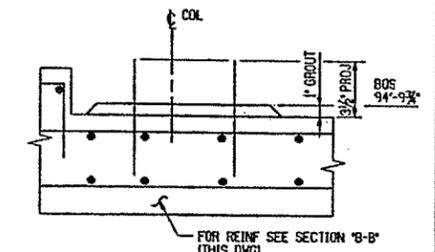
PLAN
SEE PLAN FOR LOCATION



DETAIL '11'
SCALE: 1/2" = 1'-0" B2-4205



ANCHOR BOLT PLAN

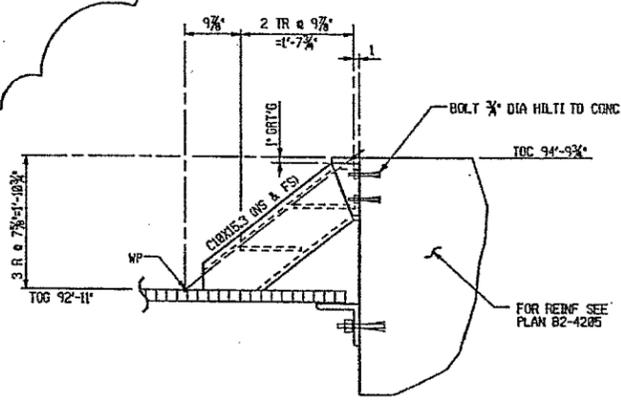


SECTION 'A-A'
LOOKING NORTH

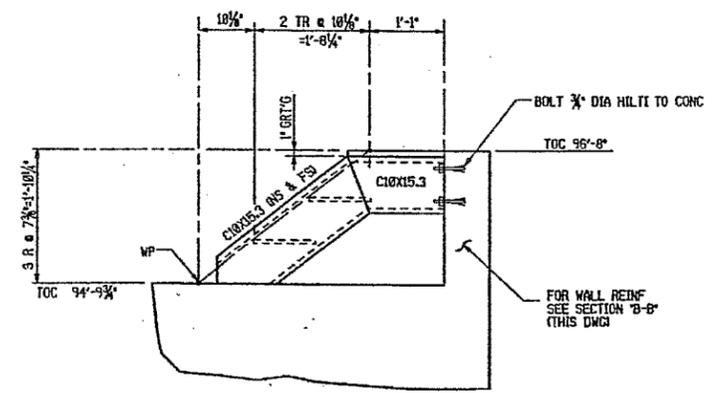
DETAIL '12'

PS-4208-10A THRU PS-4208-26
B2-4205

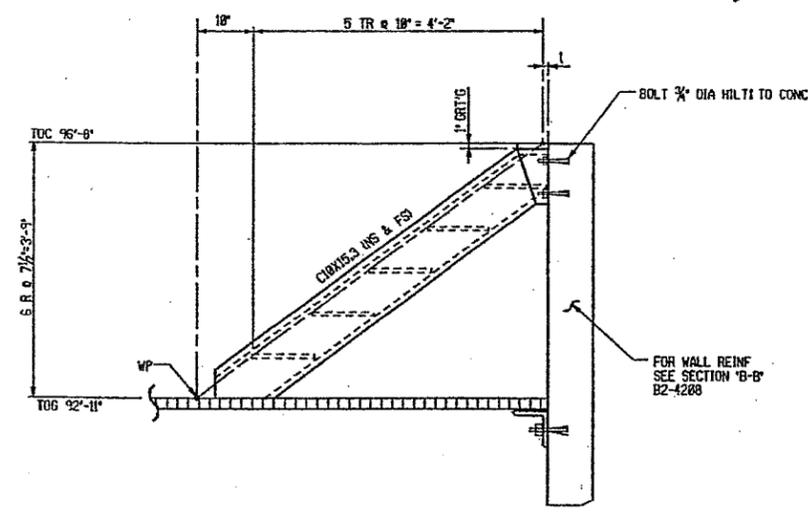
S1501-960530



DETAIL '13'
SCALE: 3/4" = 1'-0" B2-4208



SECTION 'C-C'
SCALE: 3/4" = 1'-0" B2-4205

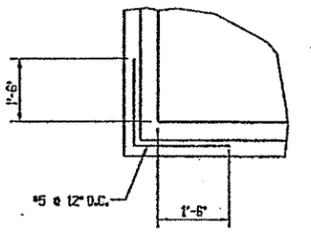
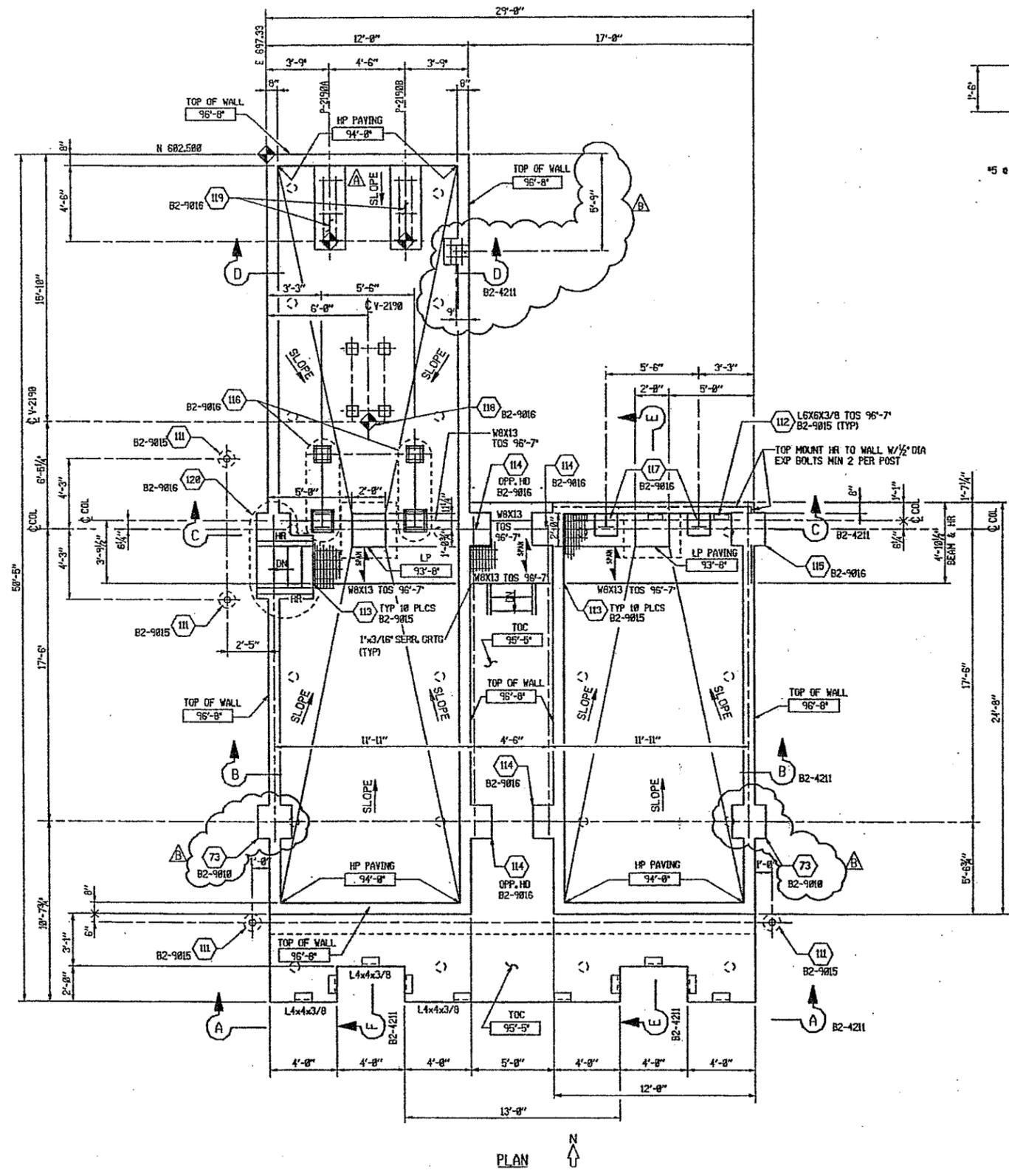


SECTION 'D-D'
SCALE: 3/4" = 1'-0" B2-4205

REV. MARK	REVISION	BY	CHK	APP	DATE	REV. MARK	REVISION	BY	CHK	APP	DATE	DRAWING ISSUE RECORD		DESIGNED	DATE	STATUS	PLANT NO.	THE DOW CHEMICAL COMPANY	
														S. BANTHIYA	5/01			MICHIGAN OPERATIONS	
														F. M. COLEMAN	03/01	P.E. SEAL		MIDLAND, MICHIGAN	
														S. BANTHIYA	5/01			830 INCINERATOR UPGRADE	
														H. DEL GADO	5/01			32 BLDG	
														M. VAN HERK	5/01			TANK TRUCK UNLOADING AREA	
														A. POTOFF	5/01			SECTIONS AND DETAILS	
																		108	
																		960530	
																		B2-4207-960530	
																		AS NOTED	

1185927
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 PROJECT DRAWINGS
 K:\COMMON\DRAWINGS\B2-4207-960530.DGN

NOTES:
 1. FOR GENERAL NOTES SEE DWG B2-1000.
 2. FOR LOCATION PLAN SEE DRAWING B2-4201.



PLAN
 TYPICAL CORNER DETAIL
 FOR WALL REINFORCEMENT

REV. MARK	REVISION	BY	CHK	APP	DATE
A	REVISED PUMP PAD AS SHOWN	SK	SB	HO	09/28/01
B	ADDED PEDESTAL / REV. DET. NUMBER AS SHOWN	SK	SB	HO	

REV. MARK	REVISION	BY	CHK	APP	DATE

ISSUE NO.	REV	MATERIAL OR JOB SPEC	ISS	PREP	CONST	DATE ISSUED FOR
5	B	S1601-960530				11/02
4	B	S1301B-960530				10/24/01
3	A	S1301A-960530				09/28/01
2	-	S1301-960530				09/13/01
1	-	S1301-960530				08/15/01

DESIGNED	DATE	STATUS	PLANT NO.
SAM BANTHIYA	06/01		
DRAWN			
S. KURTH	06/01		
CHECKED			
H. DELGADO	06/01		
APPROVED			
HENRY DELGADO	06/01		
FIELD ENGINEER			
MICHAEL VAN HERK	06/01		
INFO. REP.			
A. POTOFF	06/01		

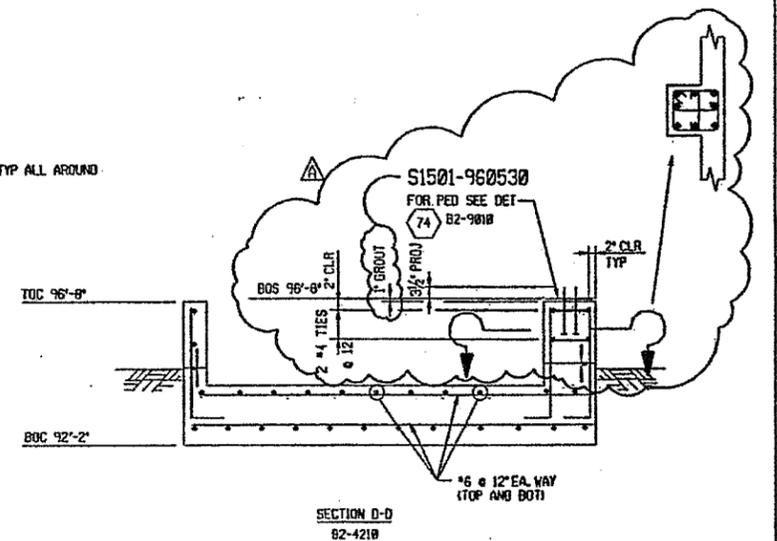
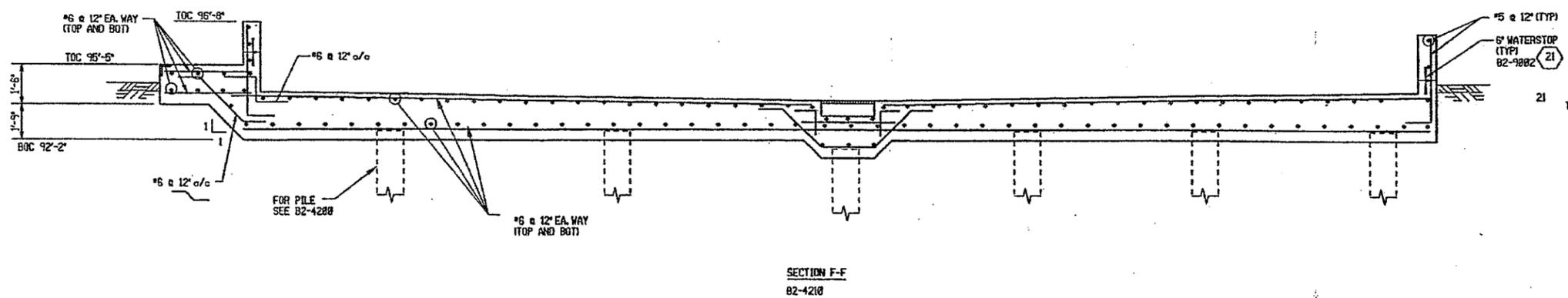
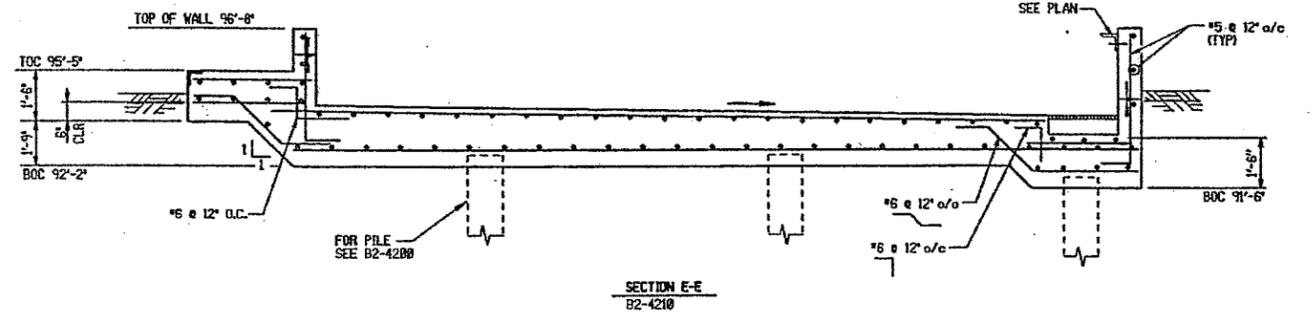
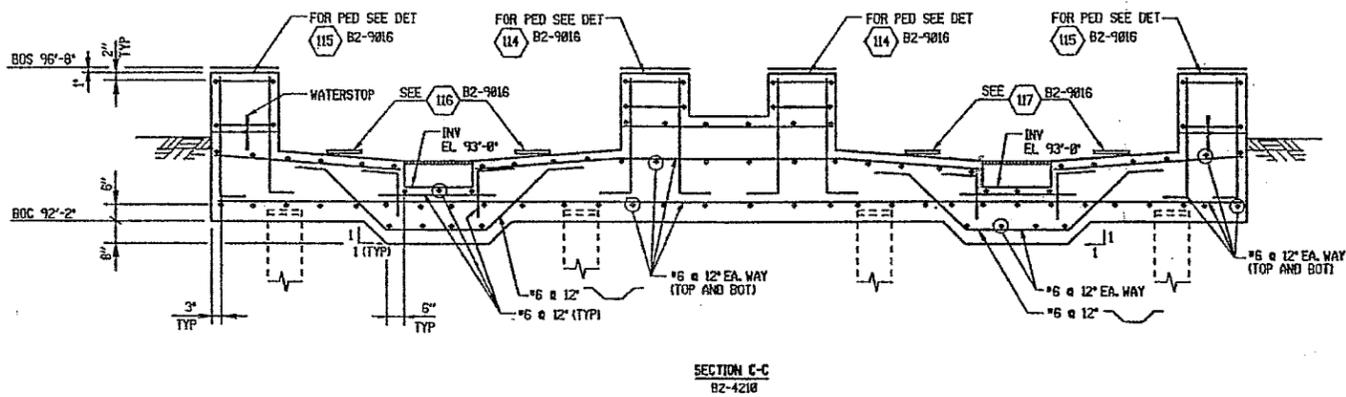
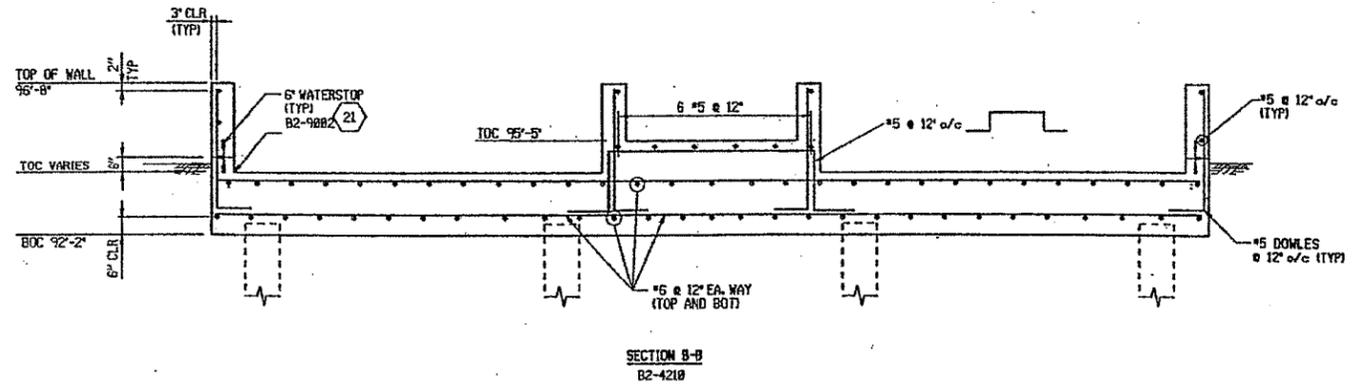
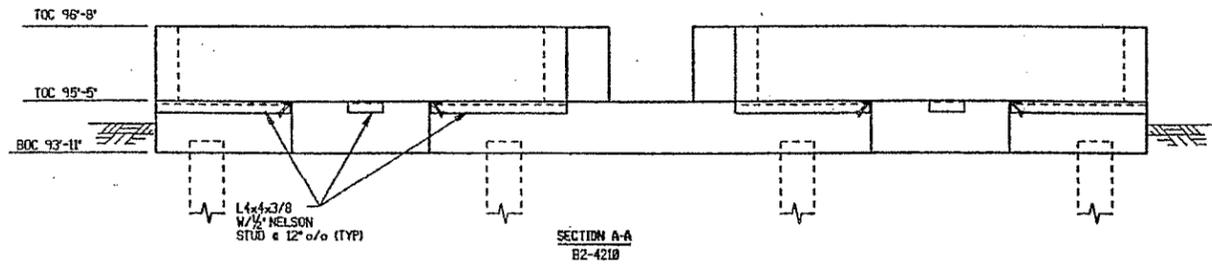
THE DOW CHEMICAL COMPANY

MICHIGAN OPERATIONS MIDLAND, MICHIGAN
 830 INCINERATOR UPGRADE 32 BLDG

DINO AREA FOUNDATION PLAN

CHANCE NUMBER: 960530
 SCALE: 1/4"=1'-0"
 DRAWING NO.: B2-4210-960530

1212124
 10/25/01
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 PROJECT DRAWINGS



REV. MARK	REVISION	BY	CHK	APP	DATE
A	ADDED PEDESTAL SECT. D	SK	SB	HD	10/12/01

REV. MARK	REVISION	BY	CHK	APP	DATE

ISSUE NO.	REV	MATERIAL OR JOB SPEC	ISS	FIN	CONST	REF
4	A	S1501-960530				01/07
3	A	S1301B-960530				10/24/01
2	-	S1301-960530				07/13/01
1	-	S1301-960530				08/15/01

DESIGNED	DATE	STATUS
SAM BANTHUYA	06/01	
S. KURTH	05/01	
H. DELGADO	05/01	
HENRY DELGADO	05/01	
MICHAEL VAN HERK	06/01	
A. POTOFF	06/01	

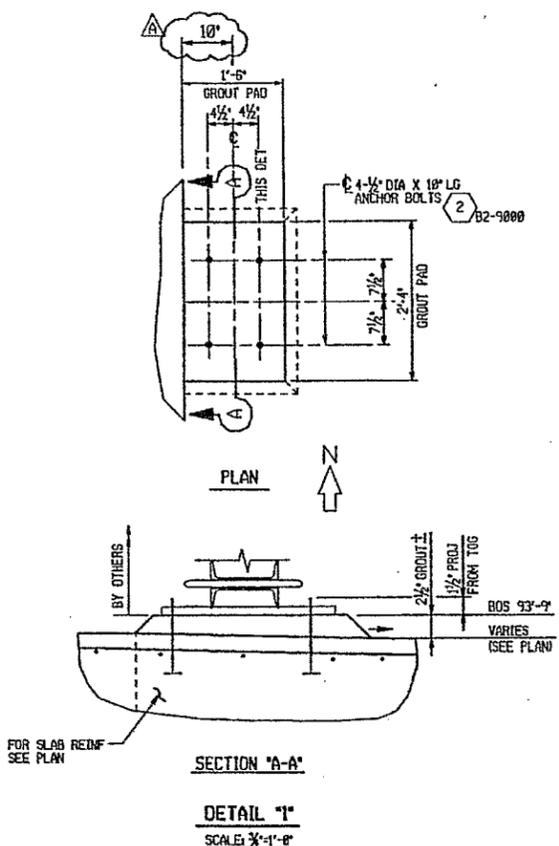
PLANT NO.	SCALE
	3/8" = 1'-0"

THE DOW CHEMICAL COMPANY
 MICHIGAN OPERATIONS
 830 INCINERATOR UPGRADE
 MIDLAND, MICHIGAN 32 BLDG

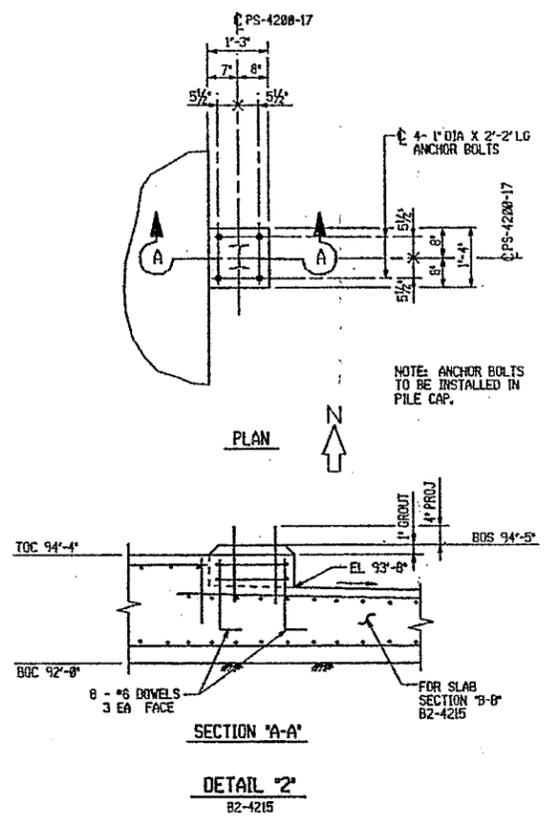
**DINO AREA
 DETAILS AND SECTIONS**

OWNER NUMBER: 960530
 SCALE: 3/8" = 1'-0"
 DRAWING NUMBER: B2-4211-960530

121226
 10/25/01
 N443757
 960530-DRAWINGS-B2-4211-960530-DON
 PROJECT DRAWINGS



SECTION "A-A"
DETAIL "1"
SCALE: 3/4"=1'-0"



SECTION "A-A"
DETAIL "2"
B2-4215

REV. NO.	REVISION	BY	CHK	APP	DATE
A	ADDED 10" DIM. AS SHOWN	SK	SB	HD	10/24/01

REV. NO.	REVISION	BY	CHK	APP	DATE

DRAWING ISSUE RECORD					
ISSUE NO.	REV	MATERIAL OR JOB SPEC	ISSUED FOR	DATE	BY
4	A	S1601-960530			
3	A	S1301B-960530		10/24/01	
2	-	S1301-960530		09/13/01	
1	-	S1301-960530		08/15/01	

DESIGNED	S. BANTHIYA	7/01
DRAWN	D. SAMARA	7/01
CHECKED	S. BANTHIYA	7/01
APPROVED	H. DELGADO	7/01
PROJ. ENGR.	M. VAN HERK	7/01
WFL. MGR.	A. POTOFF	7/01

STATUS	PLANT NO.
FILE SEAL	

DOW ENGINEERING COMPANY
MICHIGAN OPERATIONS
830 INCINERATOR UPGRADE
MIDLAND, MICHIGAN 32 BLDG

DEMPSTER FOUNDATION SECTION AND DETAILS

CHARGE NUMBER: 960530
SCALE: 3/4"=1'-0"
B2-4216-960530

REV. A
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121503B
10/25/01
AKA3757
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PROJECT DRAWINGS

