Appendix D: Facility Assessment

Appendix E: Environmental Assessment

Appendix F: Notices of Interest Received

# REUSE PLAN Newport Chemical Depot

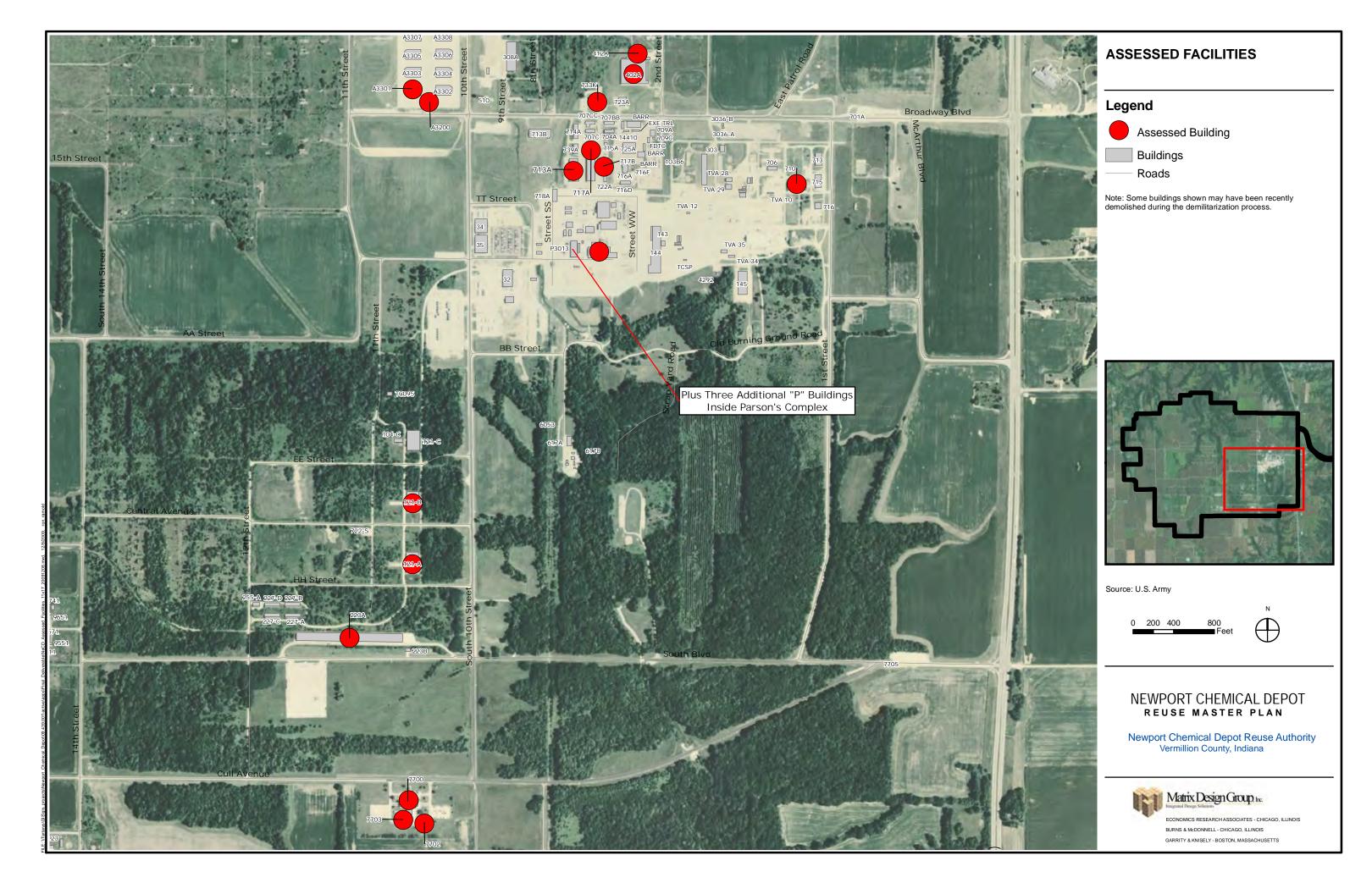






NEWPORT CHEMICAL DEPOT REUSE AUTHORITY VERMILLION COUNTY, INDIANA

### **Appendix D: Facility Assessment**



BLDG No.

121A

Name: Warehouse

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00121A

Facility ID: 121A Warehouse
Category Code: STORAGE GP INST

Current Use: Warehouse

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government:

July 1942

Government

Cost: \$169,463.35

**Approximate** 

Dimensions 192' x 120'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 23,040

#### **ARCHITECTURAL**

- WWII wood frame single-story warehouse refurbished with modern metal siding and metal roof, 15' x 15' exposed column spacing throughout building



South Elevation



North Elevation



Typical Interior View

### 121A

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- No paved walks to building

#### **STRUCTURE**

Foundation Continuous concrete strip footing for exterior columns

Exterior Wall Structure Framing Type: Wood stud frame walls

Roof Structure Metal roof over wood plank Framing Type: deck supported by 2x10 joists
Floor Cast-in-place concrete slab on

Structure: grade

Interior Wall None

Construction Type:

Lateral Force
Resisting System: Wood Frame

#### **ELECTRICAL**

- 120/208V for florescent lighting, previously 480V used for electric unit heaters



Interior view

Interior view of roof framing

#### шилс

- None presently, formerly electric unit heaters



Interior view of exterior wall

BLDG No. **121A** 

#### **PLUMBING**

- Original siding replaced with modern metal siding against original wood stud walls.

#### SITE

- None

#### **ROOFING**

#### **INTERIOR**

#### **MISC**

- Newer metal roof over wood plank deck supported by 2x10 wood joists

### **EXTERIOR**

#### **INSULATION**

Grass lot surrounds building on all sides

#### **FIRE ALARM SYSTEM**

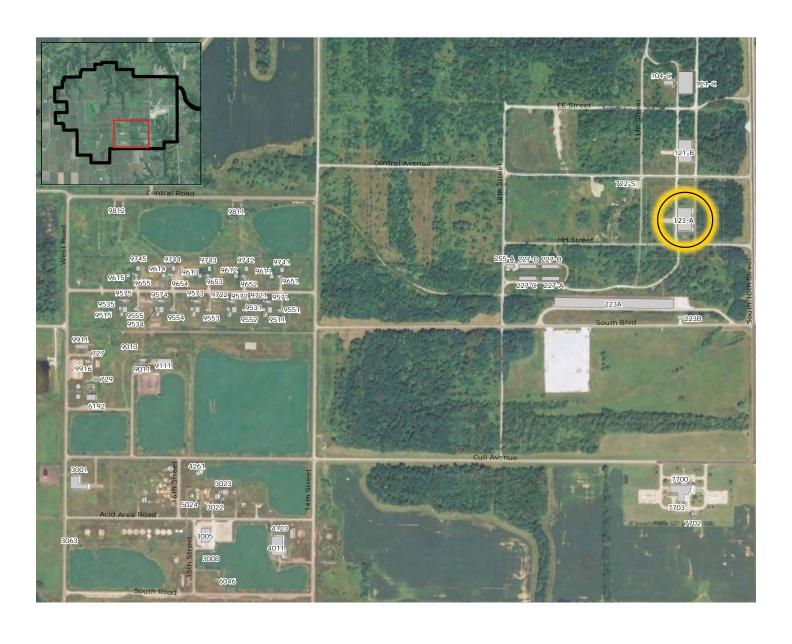
- Currently used as a warehouse by base O&M contractor

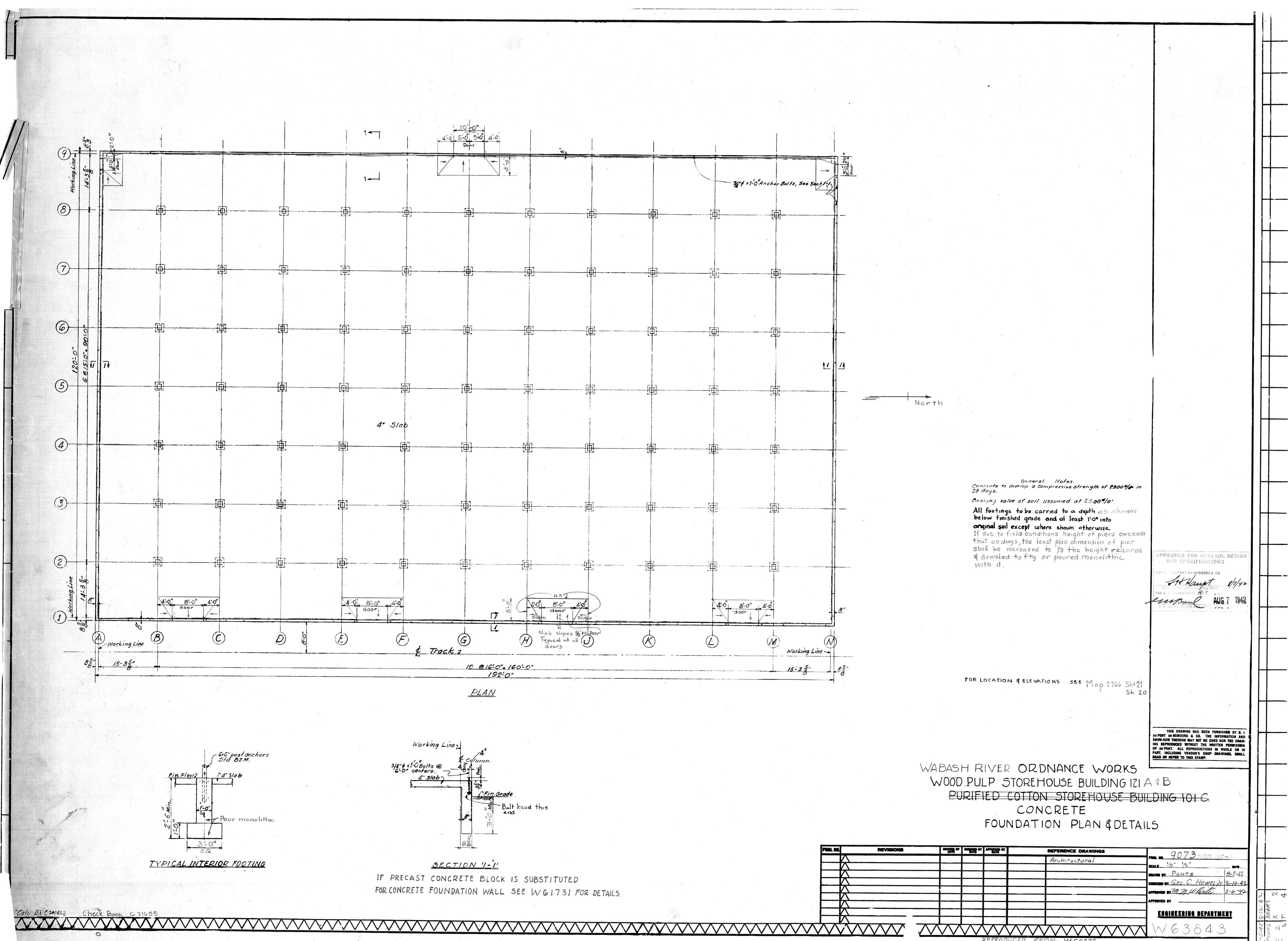
### **SPRINKLER SYSTEM**

#### **NOTED DEFICIENCIES**

- Open warehouse space with 15' x 15' wood columns

121A





BLDG No.

121B

Name: Warehouse

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00121B

Facility ID: 121B Warehouse
Category Code: STORAGE GP INST

Current Use: Warehouse

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government: July 1942

Government

Cost: \$52,032.51

**Approximate** 

Dimensions 192' x 120'

 $(L \times W \times H)$ :

Approximate

Area (Sq. ft.): 23,040

#### **ARCHITECTURAL**

- WWII wood frame single-story warehouse, 15' x 15' interior column spacing throughout building



South Elevation



Door at SE corner of facility



Typical Interior View

#### BLDG No.

### 121B

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- No paved walks to building

#### **STRUCTURE**

Foundation Continuous concrete strip footing for exterior columns

Type: footing for exterior column Exterior Wall Struc-

ture Framing Type: Wood stud frame walls

Roof Structure Metal roof over wood plank framing Type: deck supported by 2x10 joists
Floor Cast-in-place concrete slab on

Structure: grade

Interior Wall None

Construction Type:

Lateral Force
Resisting System: Wood Frame

#### **ELECTRICAL**

- 120/208V for florescent lighting, previously 480V used for electric unit heaters





South Elevation



Interior view of exterior wall



Concrete floor inside, sporadic cracks typical

### **Newport Chemical Depot**

### **Property Condition Assessment**

#### **PLUMBING**

- None

#### SITE

Grass lot surrounds building on all sides

#### **ROOFING**

Metal roof over wood plank deck supported by 2x10 wood joists

#### **INTERIOR**

- Open warehouse space with 15' x 15' wood columns

#### **MISC**

#### **EXTERIOR**

- Original metal siding with peeling suspected asbestos coating, no roll-up doors

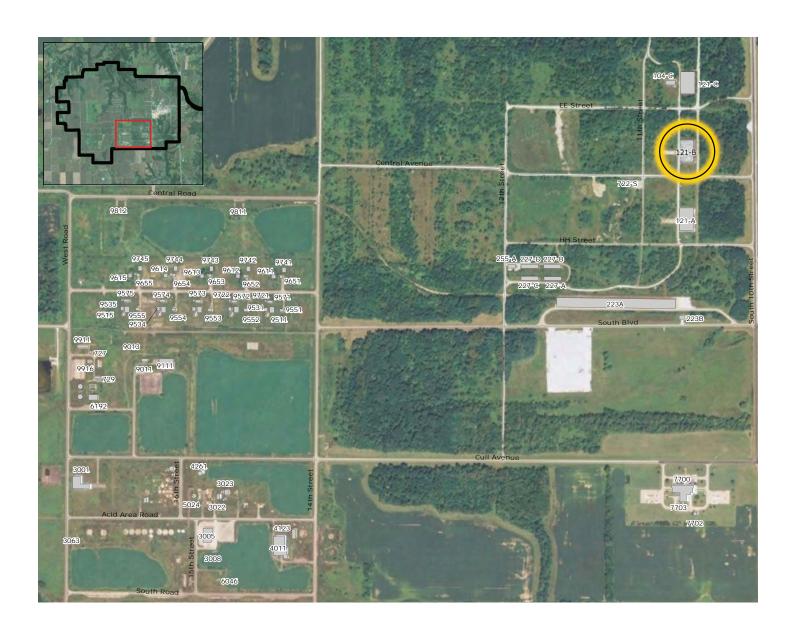
#### **NOTED DEFICIENCIES**

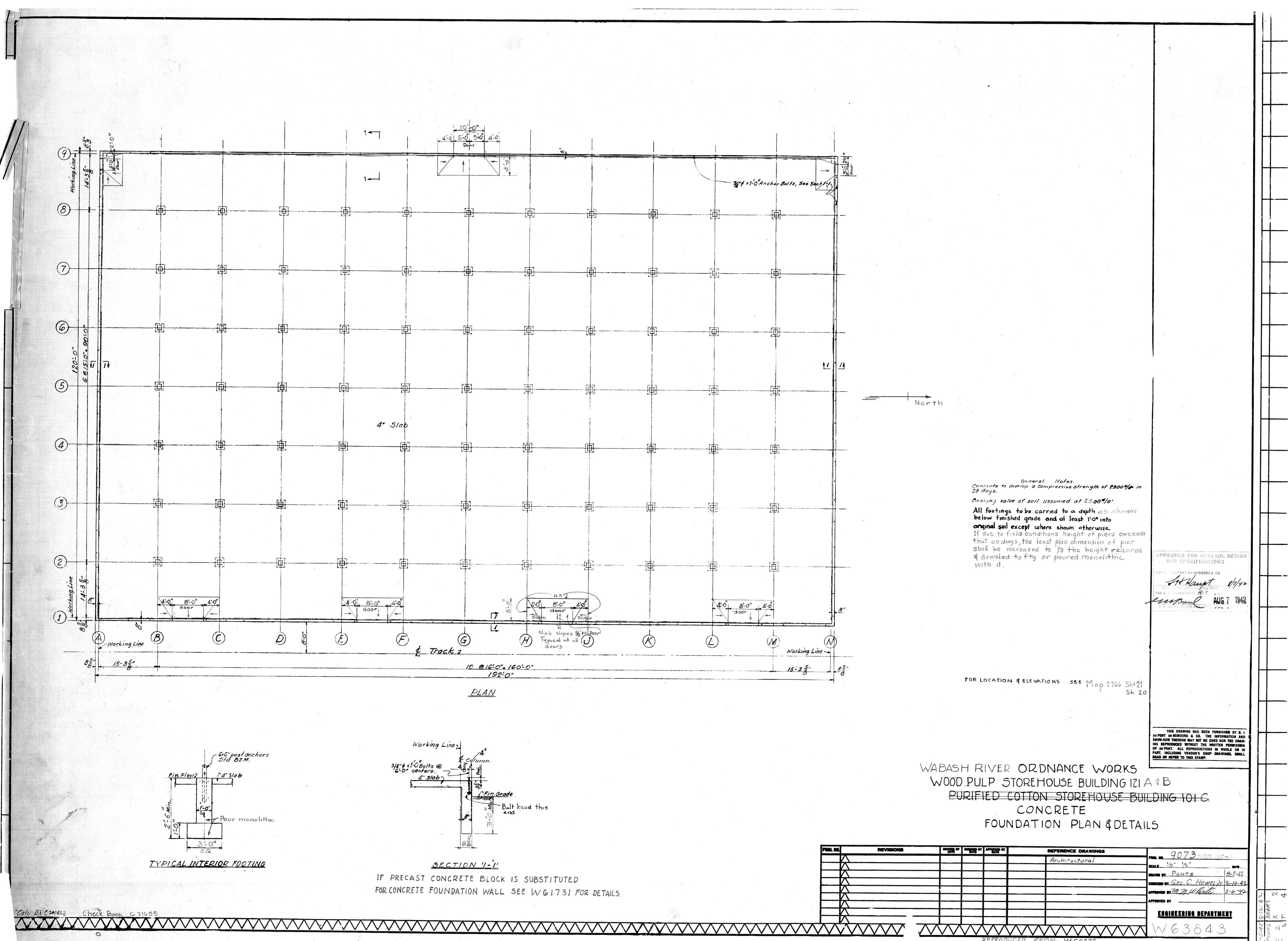
**INSULATION** 

**FIRE ALARM SYSTEM** 

**SPRINKLER SYSTEM** 

### 121B





BLDG No.

223A

Name: Warehouse

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00223A

Facility ID: 223A Warehouse NECDF

Category Code: STORAGE GP INST

Current Use: Storage Warehouse

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government: July 1942

Government

Cost:

Approximate

Dimensions 77.5' x 1040'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 80,600

#### **ARCHITECTURAL**

- Single-story 1942 storage warehouse constructed of 2x6 frame with corrugated steel siding. Separated into 5 bays by 16" masonry fire walls with fire doors. 8' wide fire door between Bay 1 & 2; 5' wide sliding fire doors between other bays. Each bay interior space is approximately 75' x 205'. 15'x15' interior column grid throughout warehouse. Truck loading dock on East end only.



South West Elevation



South East Elevation



Typical interior space, Bays 1 & 2

### 223A

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation Cinder block foundation with Type: concrete cast-in-place floor

Exterior Wall Structure Framing Type: Wood frame walls

Roof Structure
Framing Type:

Solid sawn 2x8 joists support plank wood deck, rolled roof

Cast-in-place floor, Bay 4 has

Structure: broken floor slabs

Interior Wall Masonry fire walls separate

Construction Type: building into 5 bays

Lateral Force Wood frame structure

Resisting System: Wood frame structure

#### **ELECTRICAL**

- 2 Each 480V, 120V/240V 60A services
- 103 incandescent lights, 56 each vapor light fixtures
- 4 each 4' flourescent light fixtures in the office area



Typical Interior Space, Bays 1 & 2



5' wide fire door between bays



Fire suppression line for building

#### HVAC

- 1 Each wall mounted space heater in the sprinkler control
- 1 each wall mounted heater in office on SE corner of bldg
- No HVAC in the main warehouse

### **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No. **223A** 

#### **PLUMBING**

- 10" fire suppression line enters building. Limited restroom facility on SE corner of facility (1 sink, 1 toilet, 1 urinal, not currently operational)

#### **ROOFING**

- Built Up roof over plank wood deck, supported by 2x12 wood roof joists. Roof leaks in many places, particularly on North and South eaves. Leaks are causing deterioration of roof deck, wood wall planking. Suspected asbestos in built up roofing underlayment and mastic.

#### **INTERIOR**

- Primarily open bay warehouse storage areas. Exposed structure interior. Only interior walls are in the East end of the building.

#### **EXTERIOR**

- Deteriorating metal siding.

#### **INSULATION**

- None

#### **FIRE ALARM SYSTEM**

- Audible fire alarms in some bays.

#### **SPRINKLER SYSTEM**

- Bays 1~3 (East half of building) have dry pipe sprinkler system overhead.

#### SITE

- South Boulevard parallels structure on South side of building. Former narrow gauge rail bed parallels structure on North side of building. Loading dock on East end of building.

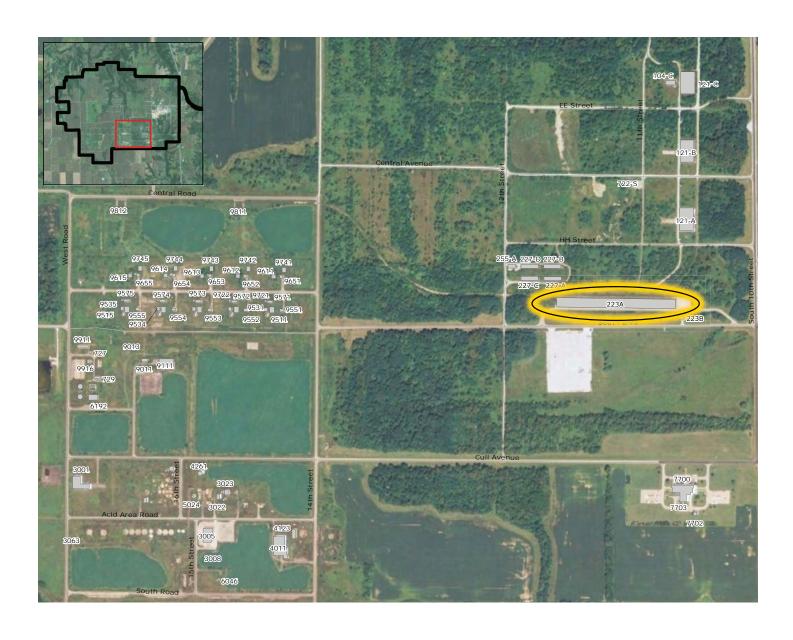
#### **MISC**

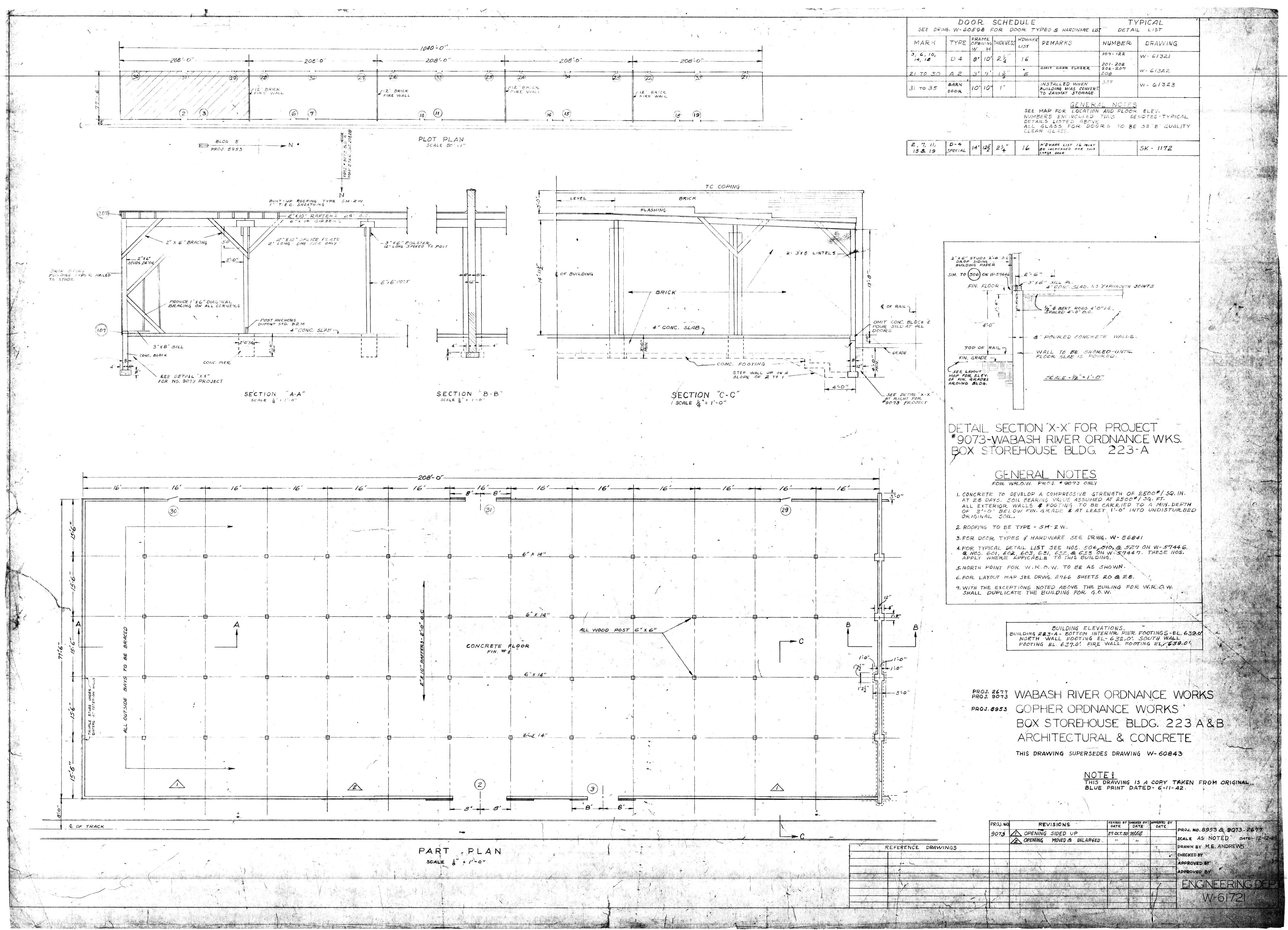
- NECDF contractor uses Bays 1  $\sim$  3 (East half of building), which are in noticeably better condition than Bays 4  $\sim$  5. Roof leaks and wood deterioration are more prevalent in Bays 4  $\sim$  5.

#### **NOTED DEFICIENCIES**

- Leaking roof and 5' wide openings between fire walls on most bays.

223A





BLDG No.

402A

Name: Raw Water Inlet House & Reservoir

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00402A Facility ID: 402A

Category Code: WATER STG BLDG

Raw water inlet house and 7M Current Use:

gallon storage reservoir

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

July 1942 Government:

Government

\$317,488.53 Cost:

**Approximate** 

27' x 32' & 240' x 242' **Dimensions** 

 $(L \times W \times H)$ :

**Approximate** 

59,808 Area (Sq. ft.):

#### **ARCHITECTURAL**

Two-story wood frame 27'x32' Inlet House and single-story reinforced concrete 240' x 242' Raw Water Reservoir



South West Elevation



Inlet House, East Elevation



Inlet House: 2 each 36" inlet pipes

#### BLDG No.

## Newport Chemical Depot **Property Condition Assessment**

### 402A

#### **ACCESSIBILITY**

First floor of inlet house accessible. Only stairs to second floor of inlet house.

#### **STRUCTURE**

Foundation Cast in place concrete

Type: foundation

Exterior Wall Struc- Reinforced concrete frame, ture Framing Type: except 2F inlet house wood

Roof Structure Wood frame, wood plank deck Framing Type: supporting built-up roof

Floor Concrete floors Structure:

Interior Wall Reinforced concrete frame,
Construction Type: except 2F inlet house wood

Lateral Force Concrete Frame with concrete

Resisting System: shear walls

#### **ELECTRICAL**



- 3 Natural Gas Forced Air Heaters



View into covered raw water reservoir



**East Elevation** 



North West Elevation

### **Newport Chemical Depot**

### **Property Condition Assessment**

402A

#### **PLUMBING**

- None except large service water mains.

#### **ROOFING**

- Built-Up roof, recently replaced

#### **INTERIOR**

- Industrial use only, no offices or admin areas.

#### **EXTERIOR**

- Inlet house has orange clay masonry walls with metal sided wood frame on second story. Reservoir has white painted concrete walls.

#### **INSULATION**

- None

#### **FIRE ALARM SYSTEM**

- None

#### **SPRINKLER SYSTEM**

- None

#### SITE

- Facility is near old power plant, surrounded by grass lawn.
- Physically adjoined to Facility 412A (Pump House)

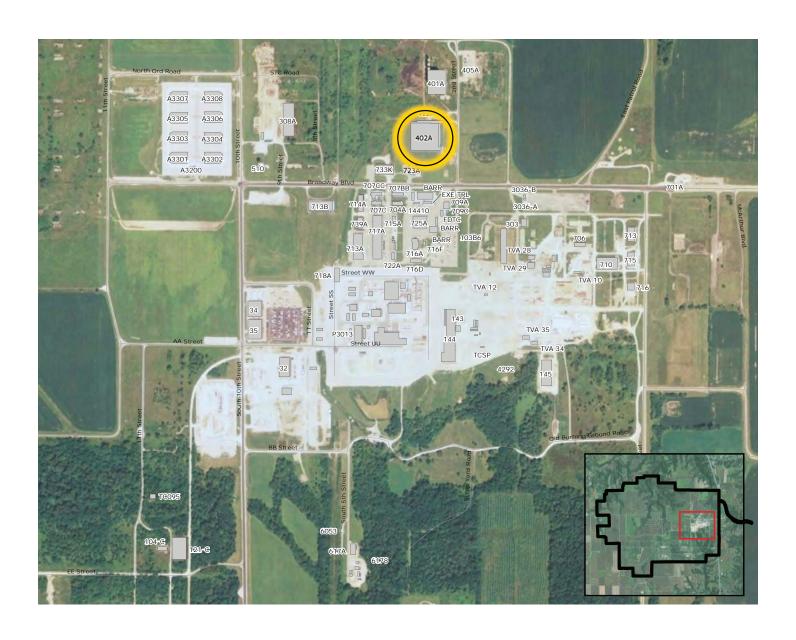
#### **MISC**

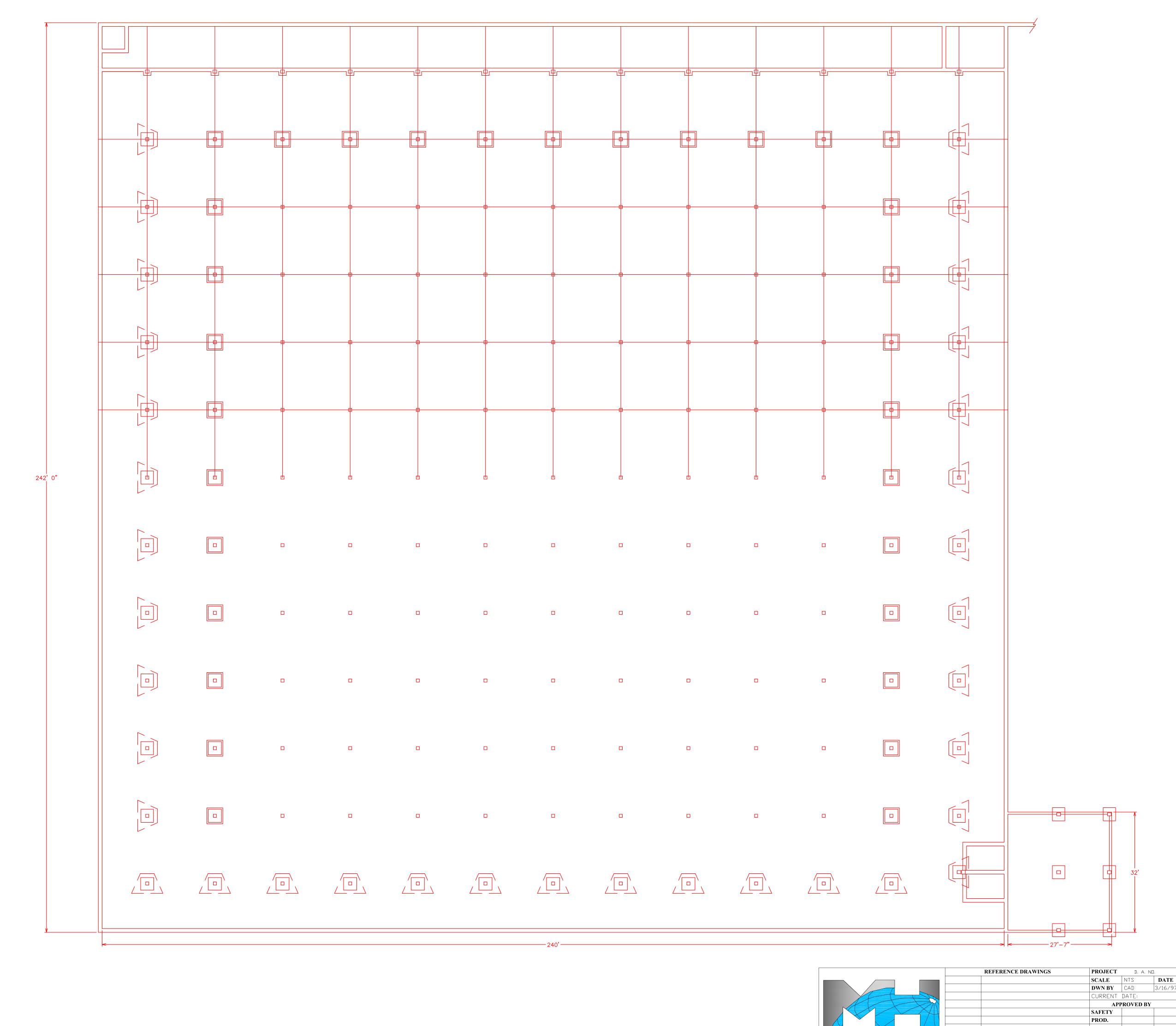
- Connected to 3 wells near Wabash River (6 wells there, 3 currently owned by Army). Well pump is 1000 Gal/Min capacity. 2 of the wells are currently operational, only 1 used at a time. 48" water line runs to the reservoir from the wells, then line goes to 2 each 36" lines at Inlet House. 1 well pump used 3 days of the month currently to keep reservoir full. 7M gallon reservoir capacity, with 3M reserve maintained at all times for fire fighting. Reservoir floor slants from 14' deep at inlet house to 21' deep at Pump House. Roof is relatively new, but reservoir needs drained and refurbished/repaired for leaks.

#### **NOTED DEFICIENCIES**

Reservoir needs drained, cleaned of sediment, and leaks repaired.

402A





REFERENCE DRAWINGS

PROJECT
D. A. ND.

SCALE
NTS
DATE
DWN BY
CAD
3/16/97

CURRENT DATE:
APPROVED BY
SAFETY
PROD.
PROD.
PROD.
PROD.
PROD.
ARCHITECTURAL PLAN

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NEWPORT CHEMICAL DEPOT
NEWPORT, INDIANA

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RESERVOIR
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BLDG No.

412A

Name: Reservoir Pump Room

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00412A Facility ID: 402A

Category Code: WATER SUP BLDG NP

Current Use: Water Pump Station

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government: July 1942

Government

Cost: \$507,979.76

**Approximate** 

Dimensions 20' x 225' & 20' x 80'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 6,100

#### **ARCHITECTURAL**

First story reinforced concrete chlorination room, pump rooms. Second story electrical and alarm room is reinforced concrete frame with clay masonry in-fill walls.



North West Elevation



North Elevation



Chorinator Room - NW Elevation

### 412A

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

Steps throughout facility with no elevator. No restrooms.

#### **STRUCTURE**

Foundation Cast in place concrete

Type: foundation

Exterior Wall Structure Framing Type:

Reinforced concrete frame

Roof Structure Wood frame, wood plank deck Framing Type: supporting built-up roof

Floor Concrete floors Structure:

Interior Wall Reinforced concrete frame

Construction Type:

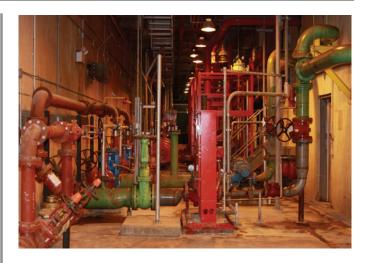
Lateral Force
Resisting System:
Concrete Frame

#### **ELECTRICAL**

 2300V transformer outside feeds fire water pumps. 300 KVA transformer inside for other pumps

#### **HVAC**

- 3 Natural Gas Forced Air Heaters



**Pump House: Interior View** 



Fire suppression water supply pumps (3)



2F of Pumphouse; Electrical Switches

### **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No.

412A

#### **PLUMBING**

- Industrial water mains and pumps.

#### **ROOFING**

- Built Up roof

#### **INTERIOR**

- Industrial use only, no offices or admin areas.

#### **EXTERIOR**

- First story reinforced concrete frame and walls, second floor reinforced concrete frame with clay masonry in-fill

#### **INSULATION**

- None

#### **FIRE ALARM SYSTEM**

- None

#### **SPRINKLER SYSTEM**

- None

#### SITE

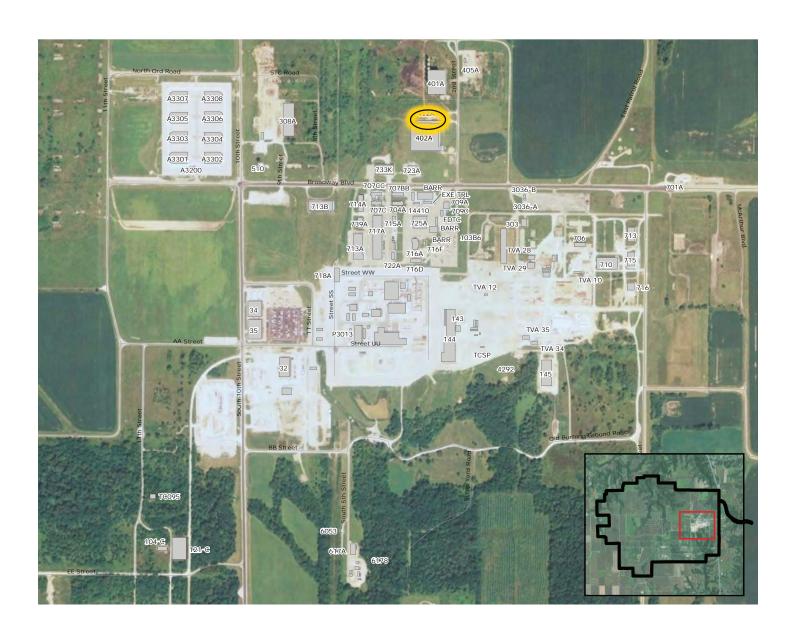
- Facility is near old power plant, surrounded by grass lawn.
- Physically adjoined to Facility 402A (Inlet House and Raw Water Reservoir)

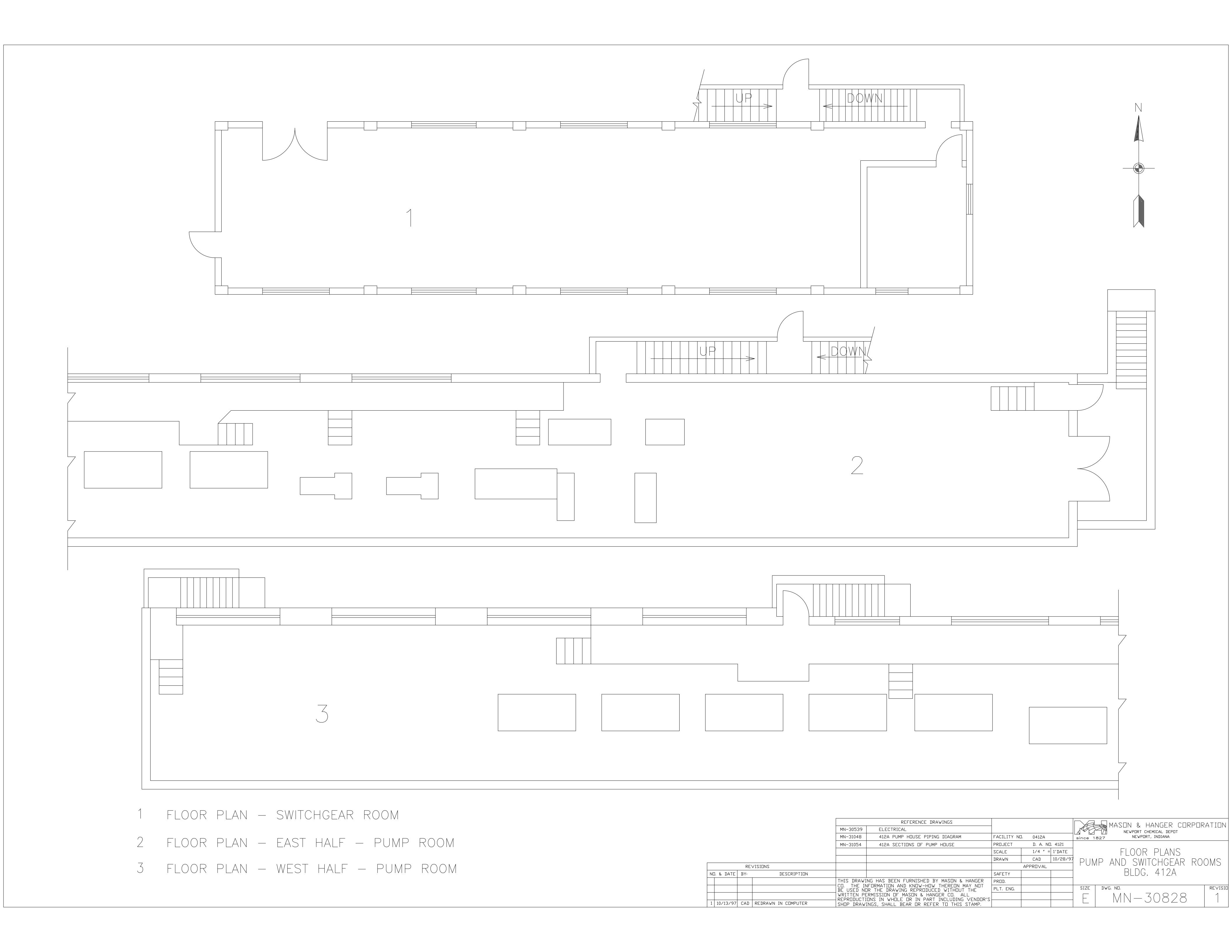
#### **MISC**

- 7 pumps inside (2 for Potable Water, 2 for Service Water, 3 for Fire Fighting), all pull from 7M gallon reservoir. 2300V transformer outside feeds fire water pumps. 300 KVA transformer inside for other pumps. Onan emergency power generator outside building. Alarm present for power outage notice.

#### **NOTED DEFICIENCIES**

412A





BLDG No.

710

Name: Warehouse

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00710

Facility ID: 710 Warehouse
Category Code: VEH STG. BD DEP

Current Use: Vehicle Storage Facility

**Newport Present** 

Value:

Year Built: 1951

Date acquired by

Government: July 1951

Government

Cost: \$161,910

**Approximate** 

Dimensions 98.5' x 181.5'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 17,878

#### **ARCHITECTURAL**

- Metal frame storage warehouse. Used as a shelter for vehicles only. No insulation or heat, minimal electricity, no plumbing.



**East Elevation** 



West Elevation



Interior - Looking East

#### BLDG No.

### 710

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation Cast-in-place concrete

Type:

Exterior Wall Structure Framing Type:

Steel frame

Roof Structure

Framing Type:

Light-gage steel roof joints

Floor

Cast-in-place concrete

Structure:

Interior Wall None

Construction Type:

**Lateral Force** 

Resisting System: Metal frame

#### **ELECTRICAL**

- Formerly power was provided for construction activity. Currently only minimal power is provided for lights and a few wall outlets.





West Elevation



Interior - Looking West



Typical Interior View - Looking North

BLDG No.

710

#### **PLUMBING**

- None

#### SITE

 Asphalt drive leads to vehicle entrances on West and East ends. Primarily West entrance is used. Grass lawn on North side of facility, asphalt drive parallel on structure on South side of facility.

#### **ROOFING**

- Sheet metal roof supported on steel roof joints (leaks). Translucent panels in roofing provide light during day.

#### **INTERIOR**

- Open interior, exposed structural framework

### MISC

- Currently used to store tractors and heavy equipment.

#### **EXTERIOR**

- Sheet metal panel exterior

#### **INSULATION**

- None

#### **FIRE ALARM SYSTEM**

- None

#### **SPRINKLER SYSTEM**

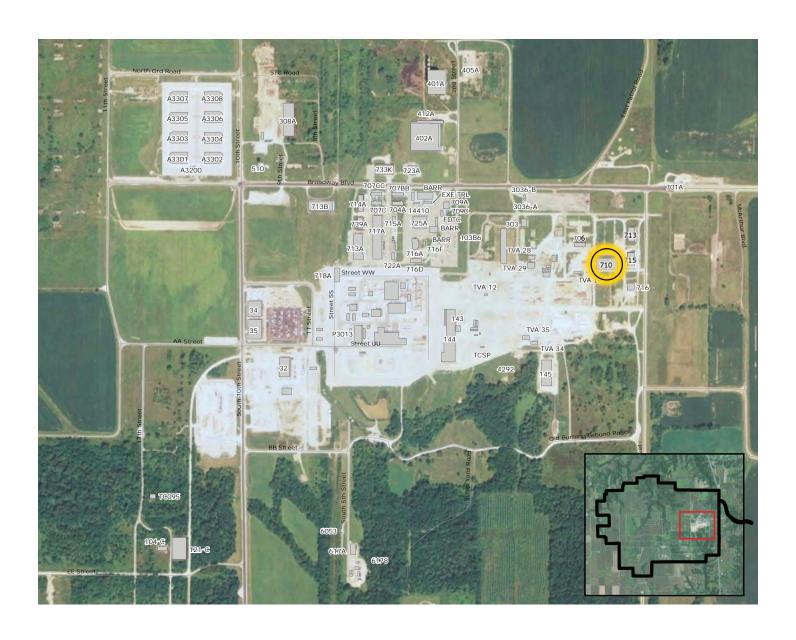
- None

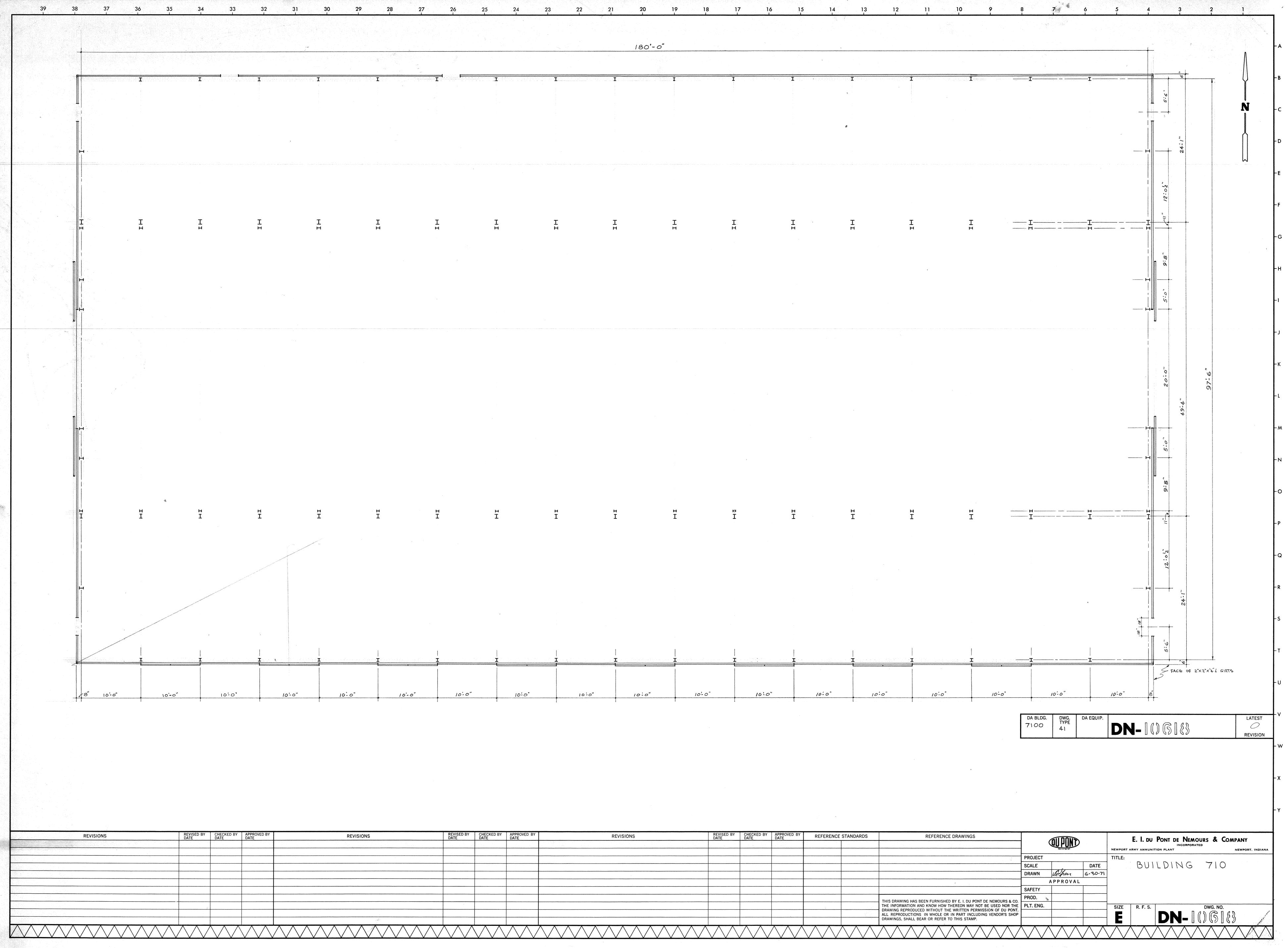
#### **NOTED DEFICIENCIES**

#### **Newport Chemical Depot** BLDG No.

### **Property Condition Assessment**

**710** 





BLDG No.

713A

**Name: Stores and Procurement** 

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 713A Stores and Procurement

Facility ID: 00713A

Category Code: STORAGE GP INST

Current Use: Supply Storage and Procurement

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government: July 1942

Government

Cost: \$41,657

**Approximate** 

Dimensions 80' x 220'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 17,600

#### **ARCHITECTURAL**

- Single-story wood frame 1942 warehouse structure. 60' x 220' area is open bay warehouse space, 20' x 220' is drop ceiling office/classroom/utility space.



North East Elevation



South East Elevation



Loading dock on SE Corner of Building

### 713A

## Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation Unknown, but typical construction is wall footing

Exterior Wall Structure Framing Type: Wood frame construction

Roof Structure Wood frame supporting built-

Framing Type: up roof

Floor Cast in place slab on grade

Structure: construction

Interior Wall Wood frame with drywall for

Construction Type: office/classroom area

Lateral Force

Resisting System: Wood frame

#### **ELECTRICAL**

- 110/220/440V power throughout the facility

#### **HVAC**

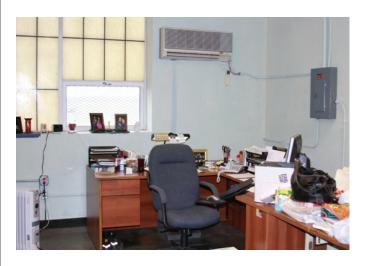
- 2 hot water boilers provide radiant hot water heat for building. These boilers were replaced in 1994 with new boilers, 2 each at 296,000 BTU/HR output, natural gas fed. Ceiling fans in warehouse portion of building. Central HVAC no longer operational for building. Isolated window AC units provide limited cooling.



Interior view of supply warehouse area



Interior view of supply warehouse area



Interior view, typical office area

BLDG No. **713A** 

#### **PLUMBING**

- Mens and womens bathrooms including 1 shower stall in each, old fixtures and exposed plumbing.

#### **SITE**

- Asphalt drives and grass or gravel area surround building

#### **ROOFING**

- Built Up roof

#### **INTERIOR**

- Open warehouse for 3/4 of building area, 10' ceiling office space in other 1/4 of building including interior walls.

#### **MISC**

#### **EXTERIOR**

- Metal exterior wall panels with transite coating (1952 construction)

#### **INSULATION**

- roof insulation below wood deck recently as energy savings measure.

#### **FIRE ALARM SYSTEM**

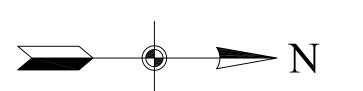
#### **SPRINKLER SYSTEM**

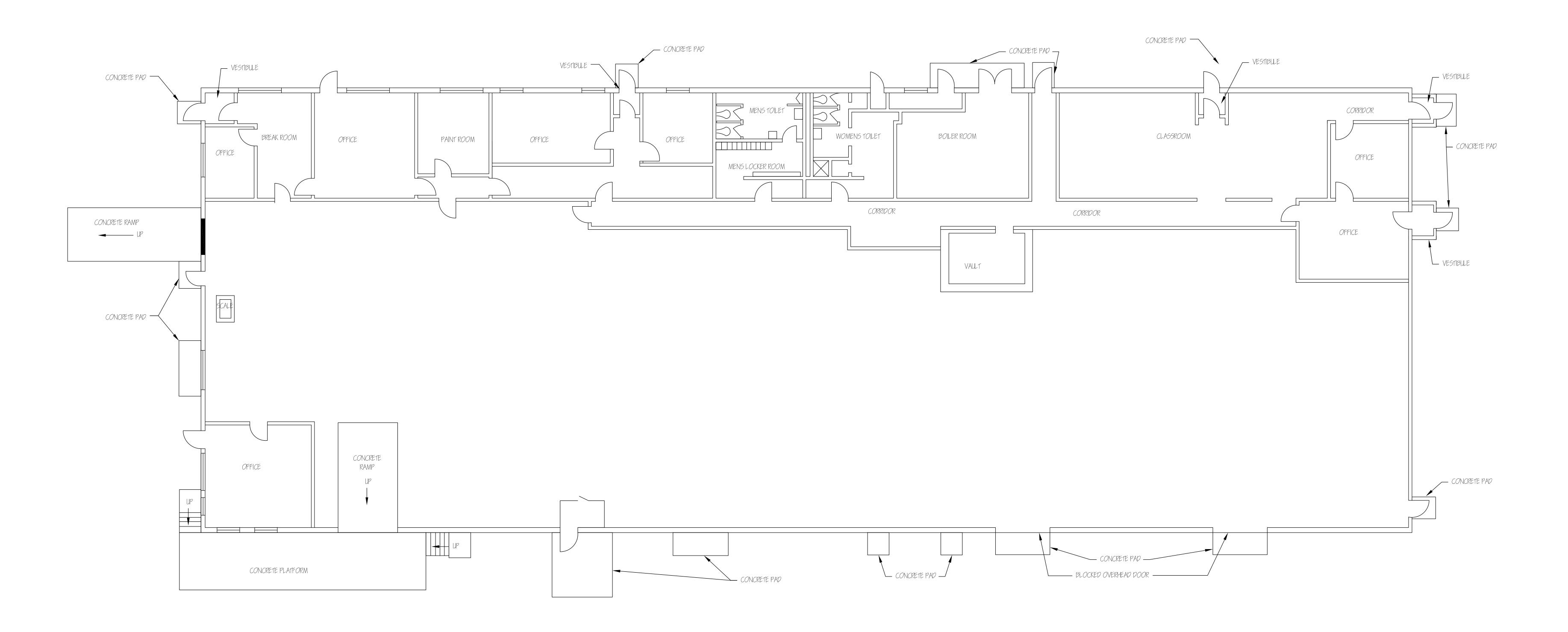
- Wet pipe sprinkler system

#### **NOTED DEFICIENCIES**

### 713A







# BUILDING 713A

|                            |                  | REFERENCE DRAWINGS   | PROJECT    | D. A. NE   | ],      | MA   | SON & HANGER CORPO      | RATION   |
|----------------------------|------------------|--|------------|------------|---------|------|-------------------------|----------|
|                            | MN-30936         | BLDG. 713A HVAC PLAN   | SCALE      | 1/8″=1′-0″ | DATE    | 1,11 | NEWPORT CHEMICAL DEPO   |          |
|                            | INDEX 745        | PIPING 713A  | DWN BY     | BAW        | 2/18/95 |      | <b>NEWPORT, INDIANA</b> |          |
|                            | INDEX 899        | ELECTRICAL 713A  |            |            |         |      |                         |          |
|                            |                  |  | API        | PROVED BY  |         |      |                         |          |
|                            |                  |  | SAFETY     |            |         |      | BUILDING 7700           |          |
|                            |                  |  | PROD.      |            |         |      | BASEMENT FLOOR PI       | AN       |
| Masan ( Uangar             |                  |  | PROJ. ENG. |            |         | _    |                         |          |
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BLDG No.

717A

Name: Maintenance Combined Shops

### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 717A MX Combined Shops Area

Facility ID: 00717A

Category Code: ENG/HOUSING MNT

Current Use: Base Maintenance and Shops

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government:

July 1942

Government

\$940,673.83

Approximate

Cost:

Dimensions

80' x 380'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 30,400

### **ARCHITECTURAL**

- Single-story wood frame 1942 warehouse structure. 80' x 380' area is primarily open bay shop areas with exposed structural framing and sporadic modular office spaces.



North East Elevation



South East Elevation



South West Elevation

### 717A

### Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

- Accessible

### **STRUCTURE**

Foundation Unknown

Type:

Exterior Wall Structure Framing Type: Wood frame construction

Roof Structure Wood frame supporting built-

Framing Type: up roof

Floor Cast in place slab on grade

Structure: construction

Interior Wall Wood frame with drywall for

Construction Type: office/classroom area

**Lateral Force** 

Resisting System: Wood frame

#### **ELECTRICAL**

220/440V power, 240V lights. 2 Onan 100KW, 3-phase, natural gas fed back-up generators in 717B provide building with back-up power.

#### **HVAC**

2 hot water boilers provided radiant hot water heat for building. Boilers are in 717B on south side of building, natural gas fed. Ceiling fans over shop areas. Central HVAC no longer operational for building. Isolated window AC units provide limited cooling.



Interior view of shops area



Roof insulation, lift monorail, and lights



Interior view of shops area

BLDG No. **717A** 

#### **PLUMBING**

- Men's and Women's bathrooms, old fixtures and exposed plumbing.

### SITE

- Asphalt drives and grass or gravel area surround building

### **ROOFING**

- Built Up roof

### **INTERIOR**

- Exposed structural framing, large open floor areas for maintenance work, sporadic modular office areas.

- Metal exterior wall panels with transite coating (1952 construction).

#### **EXTERIOR**

### INSULATION

- roof insulation below wood deck recently as energy savings measure.

### **FIRE ALARM SYSTEM**

### **SPRINKLER SYSTEM**

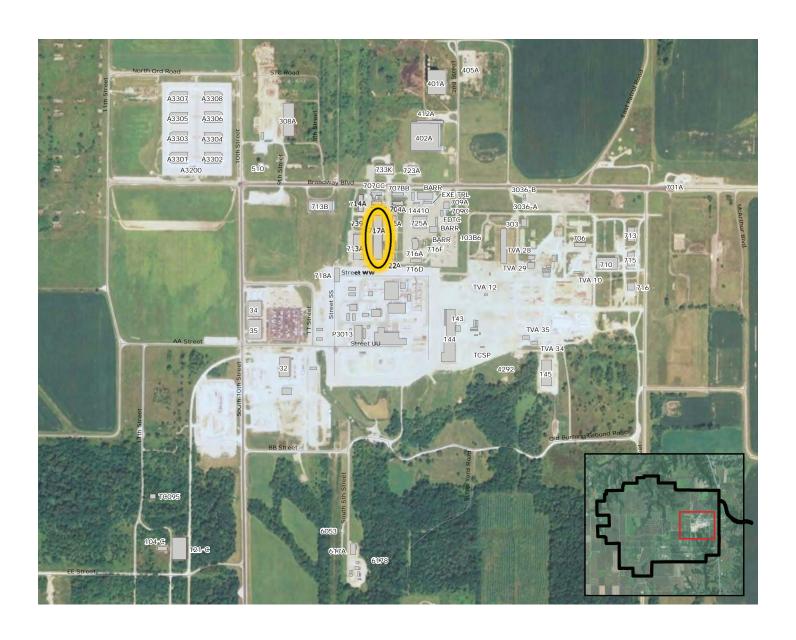
- Wet pipe sprinkler system. 9" water line feeds building for fire suppression.

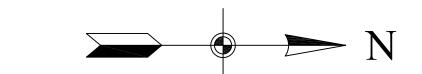
### **MISC**

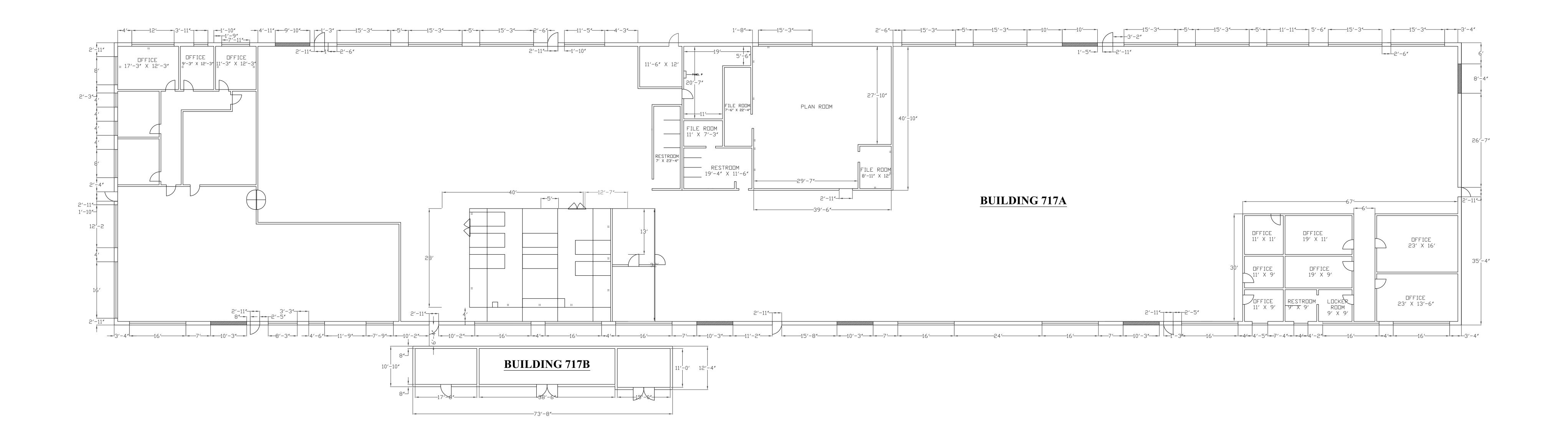
Compressed air from Bldg 717B feeds into building. Paint booth with fume hood inside building. One drywall partition does separate some portions of inside. Open bay set-up except for sporadic modular offices. Old monorail hoist provides capability to move machinery throughout shop.

#### **NOTED DEFICIENCIES**

717A







|                            | REFERENCE DRAWINGS  | PROJECT     | D. A. N□   | ,    | MASON & HANGER CORPORATION |  |  |  |
|----------------------------|---|-------------|------------|------|----------------------------|--|--|--|
|                            |   | SCALE       | 1/4"=4'-0" | DATE | NEWPORT CHEMICAL DEPOT     |  |  |  |
|                            |   | DWN BY      | DWM        |      | NEWPORT, INDIANA           |  |  |  |
|                            |   | APPROVED BY |            |      |                            |  |  |  |
|                            |   | SAFETY      |            |      | BUILDING 717A              |  |  |  |
|                            |   | PROD.       |            |      | FLOOR PLAN                 |  |  |  |
| Mason&Hanger               |   | PROJ. ENG.  |            |      |                            |  |  |  |
| Mashidufi                  |   | DFT. MNGR.  |            |      |                            |  |  |  |
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BLDG No.

717B

Name: Boilerhouse

### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00717B

Facility ID: 717B Boilerhouse
Category Code: PWR PLT BLDG

Current Use: Utility Building for 717A

**Newport Present** 

Value:

Year Built:

Date acquired by Government:

Government

Cost:

Approximate

Dimensions 10' x 70'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.):

### **ARCHITECTURAL**

Single-story Concrete Masonry Unit utility building. Supplies back-up power, heat, and compressed air to 717A.



North Elevation



South Elevation

### BLDG No.

### Newport Chemical Depot **Property Condition Assessment**

### 717B

### **ACCESSIBILITY**

- Accessible, however tight corners inside when working around equipment.

### **STRUCTURE**

Foundation Cast-in-place concrete slab

Type:

Exterior Wall Struc- Concrete Masonry Unit (CMU)

ture Framing Type: block walls

Roof Structure

Flat built-up roof

Floor Cast-in-place concrete slab on

Structure: grade

Interior Wall CMU block interior walls
Construction Type: separate building into 3 rooms

Lateral Force

Resisting System: CMU block shear walls

### **ELECTRICAL**

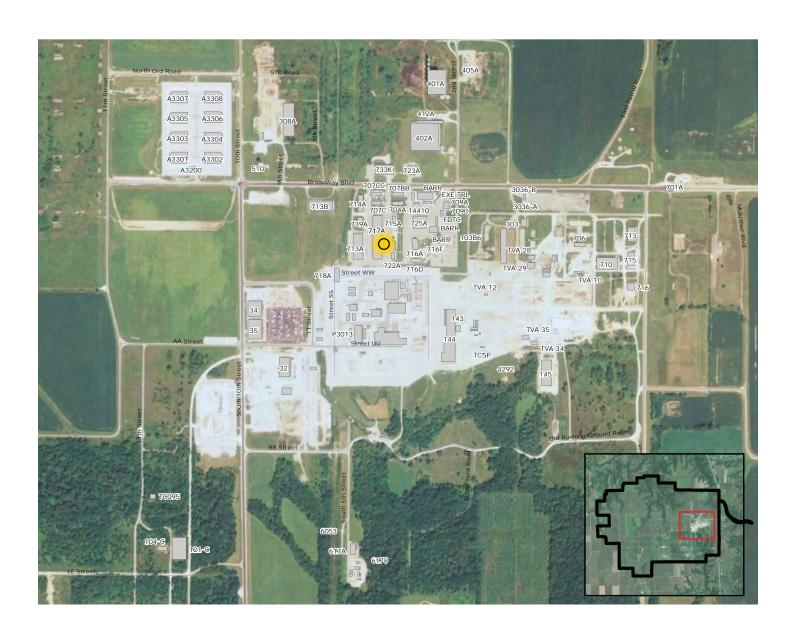
- Lighting for maintenance work only.

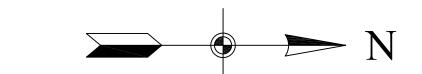
#### **HVAC**

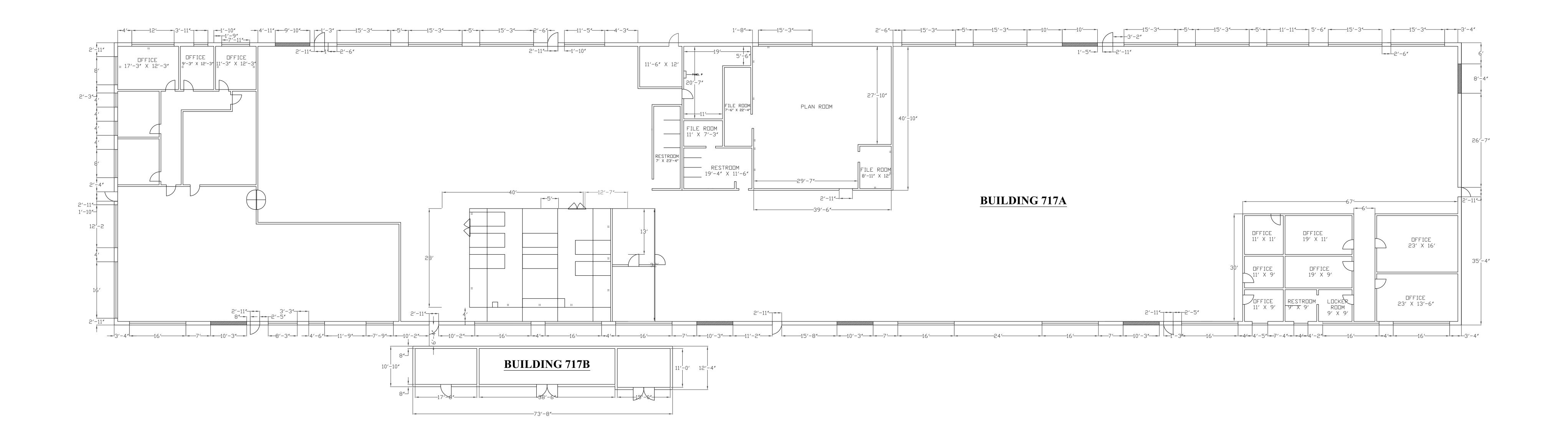
BLDG No. **717B** 

| PLUMBING  | SITE - Building 717A on West side and asphalt drive on East side.  |
|---|--|
| ROOFING<br>- Built Up roof                                |  |
| INTERIOR - Exposed concrete block wall and concrete floor | MISC  - Building is broken into 3 parts by partition walls. One for a 100KW generator and air compressor, second for 2 boilers, third for 100KW generator. |
| EXTERIOR<br>- Painted CMU block                           |  |
| INSULATION  | NOTED DEFICIENCIES   |
| FIRE ALARM SYSTEM   |  |
| SPRINKLER SYSTEM  |  |

717B







|                            | REFERENCE DRAWINGS  | PROJECT     | D. A. N□   | ,    | MASON & HANGER CORPORATION |  |  |  |
|----------------------------|---|-------------|------------|------|----------------------------|--|--|--|
|                            |   | SCALE       | 1/4"=4'-0" | DATE | NEWPORT CHEMICAL DEPOT     |  |  |  |
|                            |   | DWN BY      | DWM        |      | NEWPORT, INDIANA           |  |  |  |
|                            |   | APPROVED BY |            |      |                            |  |  |  |
|                            |   | SAFETY      |            |      | BUILDING 717A              |  |  |  |
|                            |   | PROD.       |            |      | FLOOR PLAN                 |  |  |  |
| Mason&Hanger               |   | PROJ. ENG.  |            |      |                            |  |  |  |
| Mashidufi                  |   | DFT. MNGR.  |            |      |                            |  |  |  |
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BLDG No.

733A

Name: Surety Storage and Training

### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 00733A

Facility ID: 733A Surety Storage & Training

Category Code: VEH STG. BD DEP

Current Use: Vehicle Storage, Training

**Newport Present** 

Value:

Year Built: 1942

Date acquired by

Government: July 1942

Government

Cost: \$156,807.40

**Approximate** 

Dimensions 80' x 160'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 12,800

### **ARCHITECTURAL**

Single-story high bay vehicle storage warehouse with 45' x 60' classroom space walled off inside. 1942 structure renovated with new doors and siding. Last renovated in approximately 2000.



South East Elevation



South East Elevation



Vehicle Storage

### 733A

### Newport Chemical Depot **Property Condition Assessment**

### **ACCESSIBILITY**

- Accessible

### **STRUCTURE**

Floor

Foundation Cast in place concrete floor, with wall & column footings

Exterior Wall Structure Framing Type: Wood frame structure

Roof Structure Built-up roof over wood plank framing Type: deck supported by wood truss

Cast in place concrete, slab on

Structure: grade

Interior Wall Classroom portion has modern Construction Type: drywall construction walls

Lateral Force

Resisting System: Wood frame structure

#### **ELECTRICAL**

- Mercury vapor lights in warehouse, florescent lights in classroom.

#### . . . . . .

 4 natural gas heat units, sporadic window A/C units. No central HVAC.



Vehicle Storage Area



General Storage in Warehouse Area



Classroom Space

BLDG No. **733A** 

#### **PLUMBING**

- Eye wash station

### SITE

- Asphalt drive, surrounded by grass lawn

### **ROOFING**

- Built-up roof with single pitch

### **INTERIOR**

- Warehouse area is exposed structural frame, classroom has drywall modern interior construction.

### **MISC**

- Originally built for railcar maintenance. Renovated in 2000 for current use. Needs new roof. Back-up power supplied by generator shared with Bldg 723A. Classroom portion of building is  $45' \times 60'$ .

#### **EXTERIOR**

- Recently installed corrosion resistant corrugated metal siding. Doors: Personnel doors, 2 each 10'-6" tall Roll-Up Doors + 3 each 12'-8" tall Roll-Up Doors.

### **INSULATION**

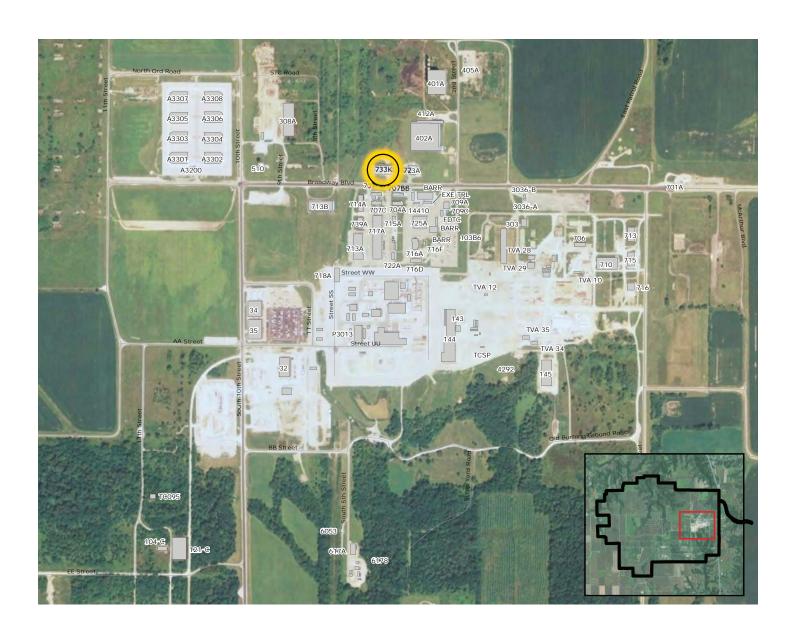
**FIRE ALARM SYSTEM** 

### **SPRINKLER SYSTEM**

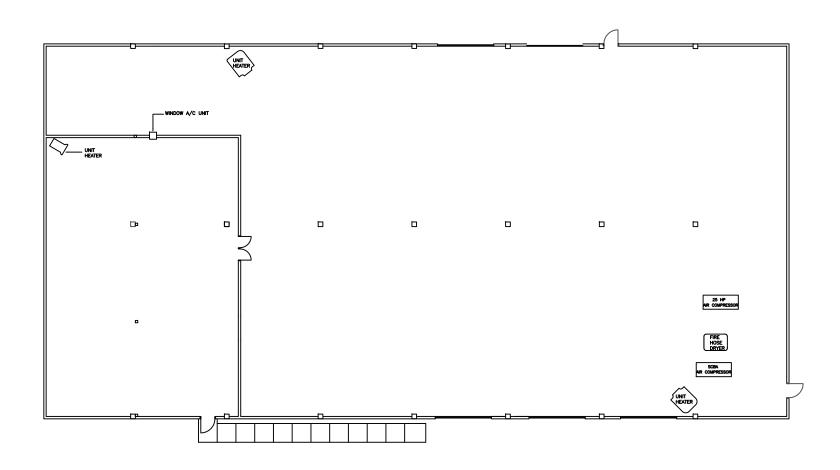
- Wet pipe sprinkler system overhead.

#### **NOTED DEFICIENCIES**

733A







| _                          |   | REFERENCE DRAWINGS  | PROJECT    | BAN      |         | MA   | SON & HANGER CORPORATION |
|----------------------------|---|---|------------|----------|---------|------|--------------------------|
| 4                          |   |   | SCALE      | 1,-0,-4, | DATE    |      | NEWPORT CHEMICAL DEPOT   |
|                            |   |   | DWN BY     | ¥        | 2/27/98 |      | NEWPORT, INDIANA         |
|                            |   |   |            | ROVED BY |         |      | DITH DING 5221/          |
|                            |   |   | SAFETY     |          |         |      | BUILDING 733K            |
|                            |   |   | PROD.      |          |         |      | FLOOR PLAN               |
| Macon C Hongon             |   |   | PROJ. ENG. |          |         |      | LEGGREEN                 |
| I Masanna Kanner           |   |   | DFT, MNGR. |          |         |      |                          |
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|                            |   |   |            |          |         |      |                          |

BLDG No.

**7700** 

Name: Administration Building

### **GENERAL INFORMATION**

Type Code per IBC: Type I Property Number: 07700

Facility ID: 7700 Administration Building

Category Code:

Current Use: Administration, Medical, Emergency Ops Center (EOC),

Water Testing Laboratory

**Newport Present** 

Value:

Year Built: 1973

Date acquired by

Government: July 1973

Government

Cost: \$2,623,480

**Approximate** 

Dimensions 158'-6" x 55"-0" and 75'-0" x 48'-0

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 31,480

### **ARCHITECTURAL**

Three story (basement, two levels above ground) steel frame building. Slab on grade basement with concrete walls.



**Facility Sign** 



North East Elevation



South Elevation

### 7700

### Newport Chemical Depot **Property Condition Assessment**

#### **ACCESSIBILITY**

Does not meet the requirements of the Americans with Disabilities Act No ramp at main entrance Multi-story building, no elevators Restroom facilities not compliant

### **STRUCTURE**

Foundation Full depth CMU walls on continuous concrete footing

Exterior Wall Struc- Steel frame with concrete ture Framing Type: masonry unit infill

Roof Structure EPDM on concrete with metal deck, open web steel joists
Floor Concrete on metal deck with

Structure: open web joists

Interior Wall Mix of 4" CMU and 2x4 metal

Construction Type: joist

**Lateral Force** 

Resisting System: Structural Steel Frame

#### **ELECTRICAL**

3-phase, 7200 V power is reduced to single phase 120/208 at a 750KVA transformer in the basement.

#### LIV/AC

Roof Top AC Units with Variable Air Volume distribution Sheet metal ducting enclosed in ceiling plenum Natural gas fired boiler (2.5M BTUh) heat



Floor framing as viewed from basement



Typical hallway in basement



Roof

### BLDG No.

### Newport Chemical Depot **Property Condition Assessment**

**7700** 

### **PLUMBING**

Raw "service" water is chlorinated in a chlorine contact vessel at the facility

Copper piping

Connected to sewer system

### **ROOFING**

EPDM on concrete with metal deck supported by open web steel joists

### **INTERIOR**

Vinyl Asbestos Tile or exposed concrete flooring Painted CMU or gypsum board on metal stud partitions Suspended acoustical tile ceiling Hollow metal doors on metal frames Double hung, metal frame windows

#### **EXTERIOR**

Painted CMU and brick Hollow metal doors on metal frames Double hung, metal frame windows

#### **INSULATION**

Possible asbestos in floor tile mastic

#### **FIRE ALARM SYSTEM**

Halon fire suppression system in EOC and ADP area

### **SPRINKLER SYSTEM**

Wet pipe system with 20" fire suppression water main.

#### SITE

- Surrounded by landscaped lawn with asphalt parking areas. Radio repeater tower adjacent to building. Modular building next tower is owned by Indiana State Police.
- 7702 (Vehicle Storage) and 7703 (Emergency Generator) are immediately adjacent to 7700.

### **MISC**

#### **COMMUNICATIONS:**

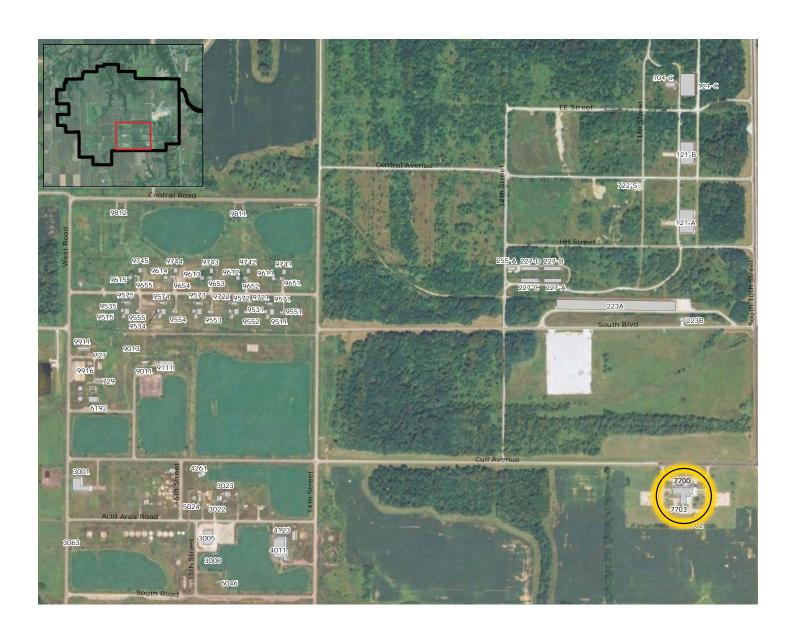
- Facility is wired for computer and telephone.
- UPS in basement for computer power back-up.
- Intercom with speakers throughout building.
- Telephone rack room and switch room attached to bldg, accessible from exterior stand-alone door only.

#### SECURITY:

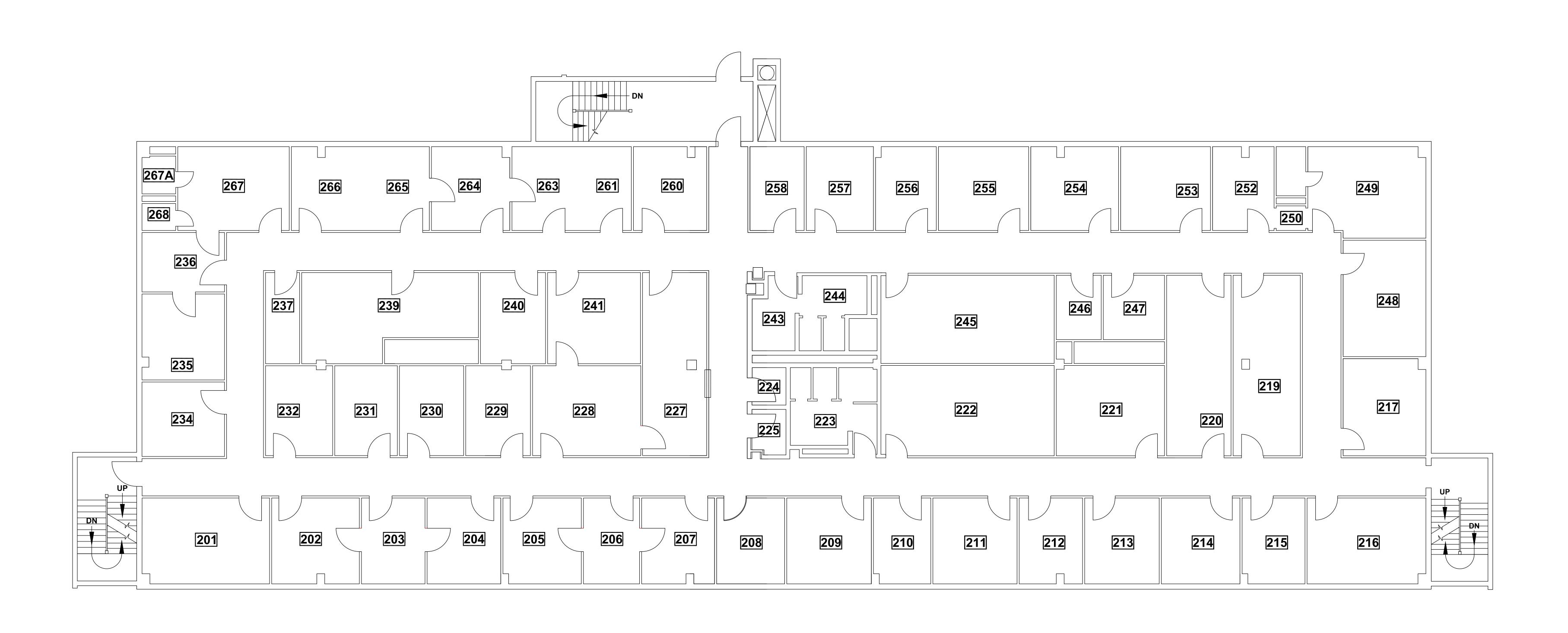
- Exterior doors lockable, interior office doors have locks
- Biometric accessibility system (in-op) for Emerg Ops Ctr

#### **NOTED DEFICIENCIES**

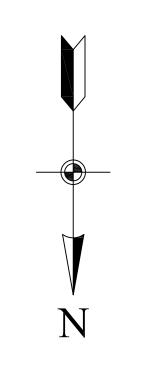
*7700* 







|                            |   |   | NO.              |                    |               |           | RE                              | VISION              | DATE    | BY:             |
|----------------------------|---|---|------------------|--------------------|---------------|-----------|---------------------------------|---------------------|---------|-----------------|
|                            |   |   | 1                | REVIS              | SED TO AS-BUI | LT CONDIT | IONS                            |                     | 11/4/08 | WCH             |
|                            |   | REFERENCE DRAWINGS                                      | PRO.             | JECT               | D. A. NO.     |           | MA                              | SON & HANGER CORP   | )RATI(  | $\overline{ON}$ |
|                            | MN-31249  | BUILDING 7700 BASEMENT FLOOR PLAN                       | SCAI             | LE                 | 2"=1'-0"      | DATE      |                                 | NEWPORT CHEMICAL DE |         |                 |
|                            | MN-31250  | BUILDING 7700 FIRST FLOOR PLAN                          | DWN              | N BY               | DWM           | 4/15/03   |                                 | NEWPORT, INDIANA    |         |                 |
|                            | INDEX 567   | ARCHITECTURAL ADMINISTRATION BUILDING SECOND FLOOR PLAN |                  | A DI               | DOVED DV      |           |                                 |                     |         |                 |
|                            | INDEX 566 ARCHITECTURAL ADMINISTRATION BUILDING FIRST FLOOR PLAN S.   |   | SAFE             | APPROVED BY SAFETY |               |           | BUILDING 7700 SECOND FLOOR PLAN |                     |         |                 |
|                            | INDEX 565   | ARCHITECTURAL ADMINISTRATION                            | PROD. PROJ. ENG. |                    |               |           |                                 |                     |         |                 |
| Mason&Hanger               |   | BUILDING BASEMENT FLOOR PLAN                            |                  |                    |               |           | SECOND LEGGRIFIAN               |                     |         |                 |
| Mason                      |   |   | DFT.             | MNGR.              |               |           |                                 |                     |         |                 |
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|                            |   | REFERENCE DRAWINGS                                      | PROJEC   | T D. A. N    | 10.          | MA            | SON & HANGER CORPOR     | ATIC    | <del>N</del> |  |
|                            | MN-31250  | BUILDING 7700 FIRST FLOOR PLAN                          | SCALE    | 2"=1'-0"     | DATE         |               | NEWPORT CHEMICAL DEPO   | ľ       |              |  |
|                            | MN-31251  | BUILDING 7700 SECOND FLOOR PLAN                         | DWN BY   | DWM          | 4/7/03       |               | <b>NEWPORT, INDIANA</b> |         |              |  |
|                            | INDEX 567   | ARCHITECTURAL ADMINISTRATION BUILDING SECOND FLOOR PLAN |          | A DDD OVED D | <b>X</b> 7   |               |                         |         |              |  |
|                            | INDEX 566 ARCHITECTURAL ADMINISTRATION BUILDING FIRST FLOOR PLAN S  |   | SAFETY   | APPROVED B   | • <b>Y</b>   | BUILDING 7700 |                         |         |              |  |
|                            |   |   |          | PROD.        |              |               | BASEMENT FLOOR PLA      |         |              |  |
| Mason&Hanger               |   | BUILDING BASEMENT FLOOR PLAN                            | PROJ. EN | G.           |              | _             |                         | 12 42 4 |              |  |
| Masononanuer               |   |   | DFT. MN  | GR.          |              |               | _                       |         |              |  |
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BLDG No.

7702

Name: Vehicle Storage

### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 07702

Facility ID: 7702 Vehicle Storage

Category Code: Veh Stg Bd Dep

Current Use: Vehicle Storage

**Newport Present** 

Value:

Year Built: 1973

Date acquired by

Government: July 1973

Government

Cost: \$23,251

**Approximate** 

Dimensions 29'-4" x 28'-0"

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 821

### **ARCHITECTURAL**

- Single story, two bay CMU garage
- One 10' x 10' and one 10' x 12' overhead door



North Elevation



South Elevation



North Elevation

### 7702

### Newport Chemical Depot **Property Condition Assessment**

### **ACCESSIBILITY**

- Single story, ground level; Accessible

### **STRUCTURE**

Foundation Concrete Slab on Grade (6")

Type:

Exterior Wall Struc- Concrete Masonry Units

ture Framing Type:

Roof Structure Framing Type:

Floor Cast-in-place concrete slab on

Structure: grade

Interior Wall

Construction Type:

Lateral Force Resisting System:

### **ELECTRICAL**

- 200 A 120/208V 3 phase service



- 1 Electric Unit Heater



North Elevation



North Elevation



South Elevation

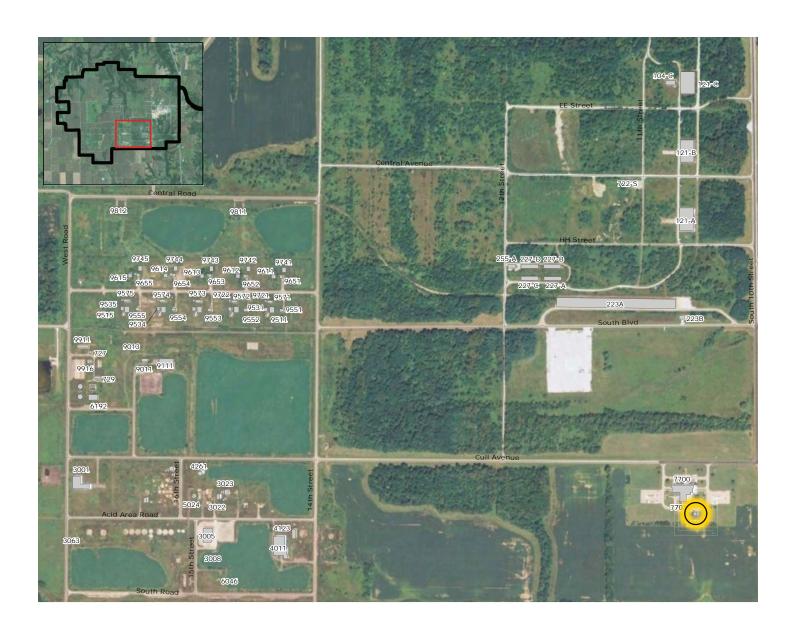
### BLDG No.

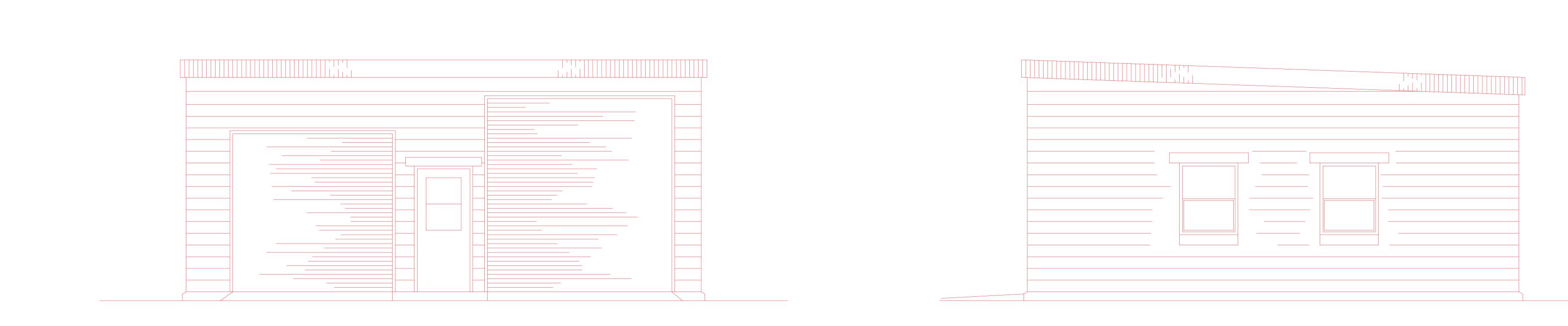
## Newport Chemical Depot **Property Condition Assessment**

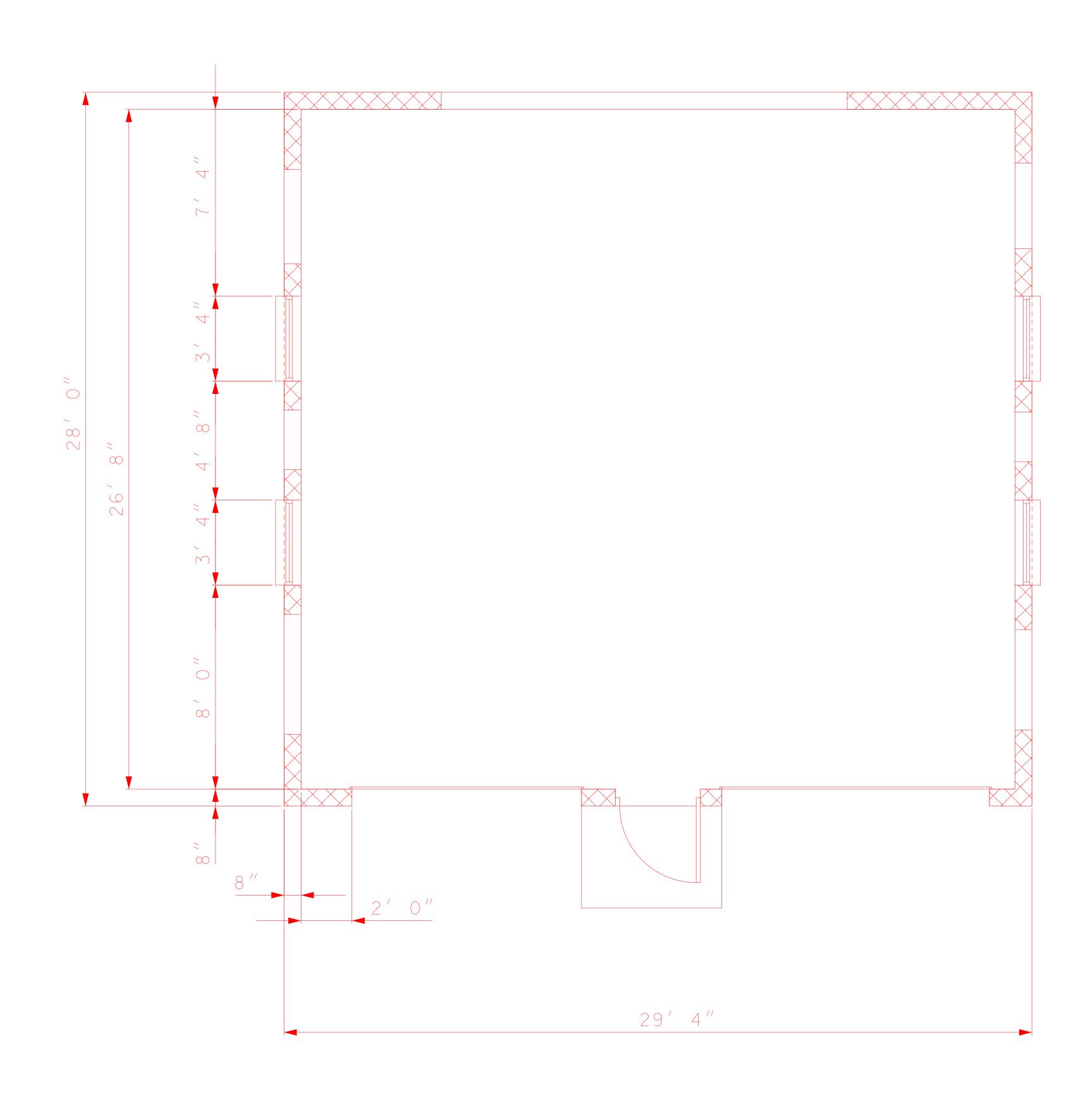
7702

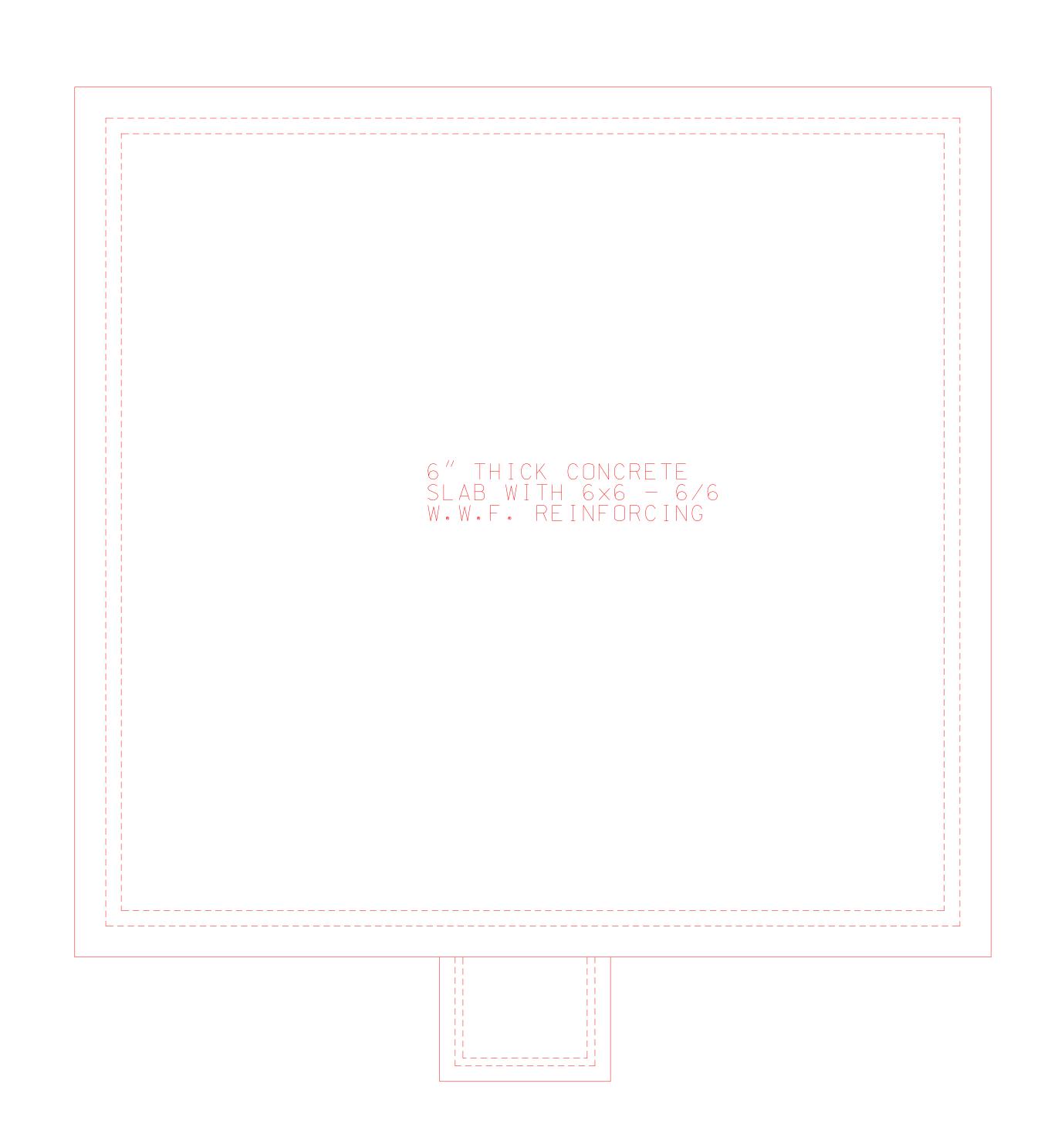
| PLUMBING - Painted CMU                             | SITE<br>- None             |
|--|----------------------------|
|  |                            |
|  |                            |
|  |                            |
|  |                            |
| ROOFING  |                            |
|  |                            |
|  |                            |
|  |                            |
|  |                            |
| INTERIOR<br>- None                                 | MISC<br>- Built Up Asphalt |
|  |                            |
|  |                            |
|  |                            |
| EXTERIOR   |                            |
| - None   |                            |
|  |                            |
|  | NOTED DEFICIENCIES         |
| INSULATION   | - Painted CMU              |
| - Asphalt ramp front of building, lawn other sides |                            |
| FIRE ALARM SYSTEM                                  |                            |
|  |                            |
| SPRINKLER SYSTEM                                   |                            |
|  |                            |

*7702* 









|   |   | T          |           |          |               |                        |          |  |
|---|---|------------|-----------|----------|---------------|------------------------|----------|--|
|   | REFERENCE DRAWINGS  | PROJECT    | D. A. 1   | NO.      | MA            | SON & HANGER CORPORAT  | IION     |  |
|   |   | SCALE      | NTS       | DATE     |               | NEWPORT CHEMICAL DEPOT |          |  |
|   |   | DWN BY     | BAW       | 3/27/98  |               | NEWPORT, INDIANA       |          |  |
|   |   | API        | PROVED BY | <u>Y</u> | BUILDING 7702 |                        |          |  |
|   |   | PROD.      |           |          |               |                        |          |  |
|   |   | PROJ. ENG. |           |          | FLOOR PLAN    |                        |          |  |
| Mason&Hanger  |   | DFT. MNGR. |           |          |               |                        |          |  |
| i i i a a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i i a i | THIS DRAWING HAS BEEN FURNISHED BY MASON & HANGER CO. THE INFORMATION   | ENG. SUP.  |           |          | SIZE          | DRAWING NO.            | REVISION |  |
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BLDG No.

7703

Name: Generator Building

### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: 07703

Facility ID: 7703 Generator Building

Category Code: PWR PLT BLDG

Current Use: Emergency Generator Shelter

**Newport Present** 

Value:

Year Built: 1990

Date acquired by

Government: July 1990

Government

Cost: \$82,743

**Approximate** 

Dimensions 12'-3" x 16'-3"

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 200

### **ARCHITECTURAL**

- 10' Tall Metal Pre-Fabricated Utility Shelter



South West Elevation



North East Elevation



550 Gallon UST, South Side of 7703

### 7703

### Newport Chemical Depot **Property Condition Assessment**

### **ACCESSIBILITY**

Accessible

### **STRUCTURE**

Foundation

Cast-in-Place Slab on Grade

Type:

**Exterior Wall Struc-**

ture Framing Type:

Pre-Fab Steel Frame

Roof Structure Framing Type:

Floor

Concrete Slab on Grade

Structure:

Interior Wall

None

Construction Type:

Resisting System:

**Lateral Force** 

Pre-Fab Steel Frame

#### **ELECTRICAL**

- Indoor and Outdoor Lighting



250KW Cummins Generator

#### **HVAC**

- 1 Electric Unit Heater

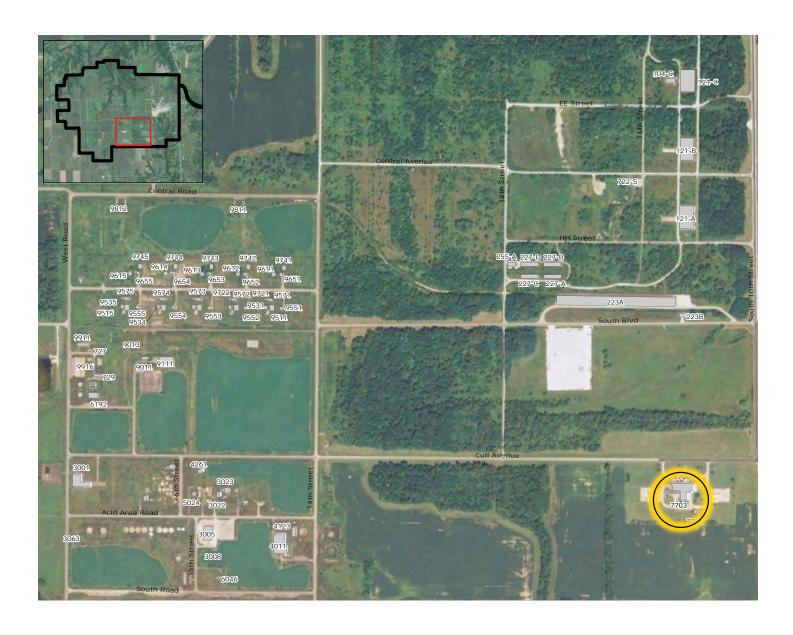
### BLDG No.

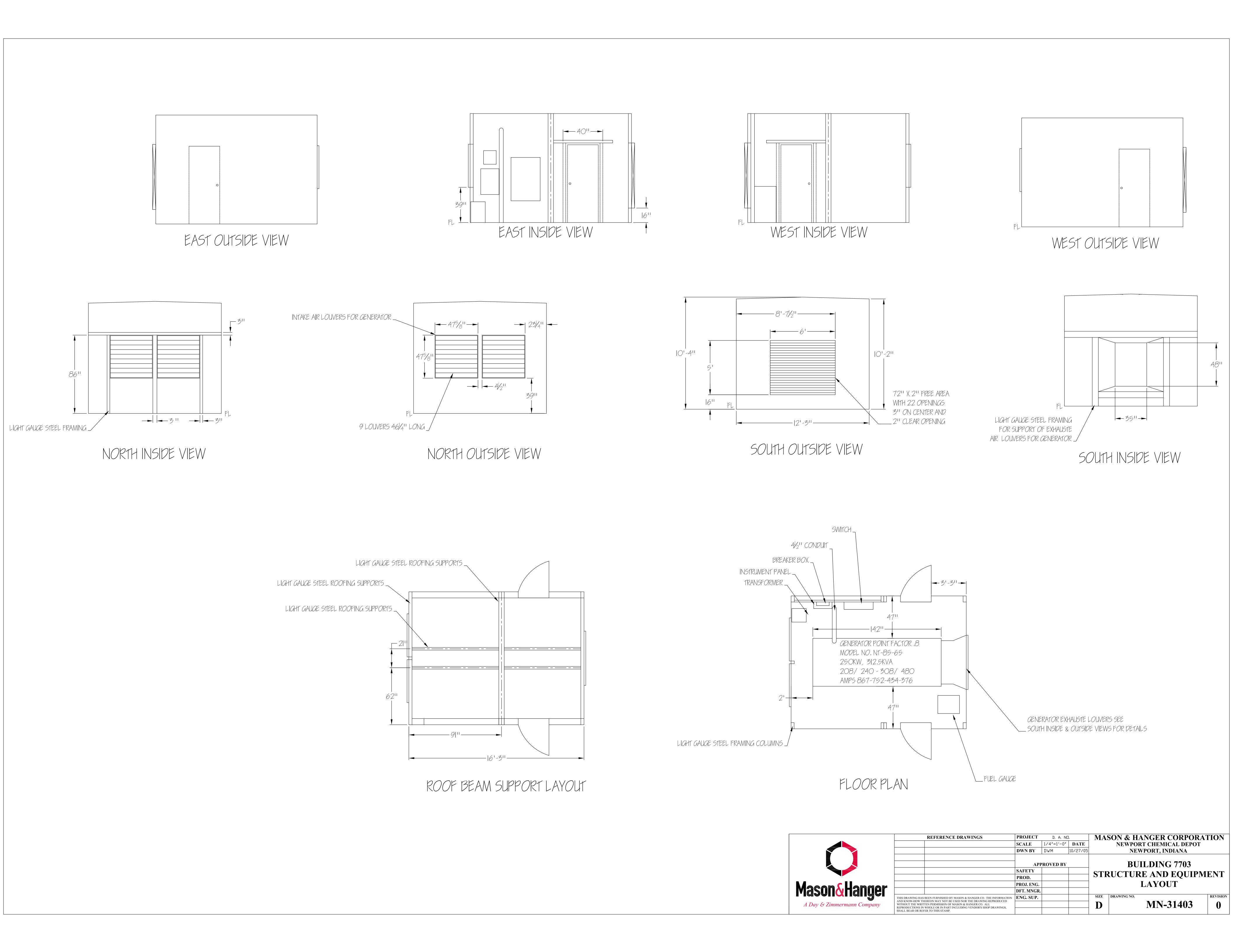
## Newport Chemical Depot **Property Condition Assessment**

7703

| PLUMBING   | SITE<br>- None       |
|--|----------------------|
| ROOFING  |                      |
| INTERIOR   | MISC<br>- Metal Roof |
| EXTERIOR   |                      |
|  | NOTED DEFICIENCIES   |
| INSULATION<br>Concrete pedestrian walk to door on West side, lawn  |                      |
| FIRE ALARM SYSTEM  |                      |
| - Emergency back-up power generation for Building 7700   |                      |
| SPRINKLER SYSTEM   |                      |
| EXTERIOR  INSULATION Concrete pedestrian walk to door on West side, lawn  FIRE ALARM SYSTEM - Emergency back-up power generation for Building 7700 | - Metal Roof         |

*7703* 





BLDG No.

A3200

Name: Entry Control Facilty

**GENERAL INFORMATION** 

Type Code per IBC:

Property Number: A3200 Entry Control Facility

Facility ID: A3200

**Category Code:** 

Current Use: Entry Control Facility (empty)

**Newport Present** 

Value:

Year Built: 2002

Date acquired by

Government: July 2002

Government

Cost:

**Approximate** 

Dimensions 30' x 50'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 1,500

### **ARCHITECTURAL**

- Single-story solid reinforced concrete structure for munitions storage area security and entry control. Back-up generator inside building and windows are bullet proof glass.



South Elevation



North Elevation

### BLDG No.

### **Newport Chemical Depot Property Condition Assessment**

**A3200** 

### **ACCESSIBILITY**

- Accessible

### **STRUCTURE**

Foundation Cast in place concrete continuous foundation Type:

**Exterior Wall Struc-**

Solid reinforced concrete walls ture Framing Type:

**Roof Structure** 

Reinforced concrete roof Framing Type:

Floor Cast in place concrete slab on

grade Structure:

Interior Wall

Reinforced concrete Construction Type:

**Lateral Force** 

Reinforced concrete box Resisting System:

### **ELECTRICAL**

- Power provided from outside transformer. Back-up power provided by generator inside facility with exhaust piped out.

- Electric forced air furnace, air conditioned.

BLDG No. **A3200** 

#### **PLUMBING**

- Potable water, restroom, eye wash station.

#### SITE

- Entry control point for munitions storage area. Facility surrounded by a fence and gravel landscape.

#### **ROOFING**

- Concrete roof deck with built-up roof overtop

#### **INTERIOR**

- Limited workspace, for security operations only.

- Reinforced concrete with steel doors and bullet proof glass windows.

#### **EXTERIOR**

#### INSULATION

- None, facility is solid reinforced concrete.

**FIRE ALARM SYSTEM** 

**SPRINKLER SYSTEM** 

#### **MISC**

- Built as security guard house for chemical agent storage area. 125KW, 480V Cummins back-up generator inside guard house. 550 gallon diesel UST outdoors for back-up generator, scheduled to be removed soon.

#### **NOTED DEFICIENCIES**

A3200



BLDG No.

A3301

Name: Ammunition Storage Igloo

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: A3301

Facility ID: A3301 Ammo Storage Igloo

Category Code: IGLOO

Current Use: IGLOO (Empty)

**Newport Present** 

Value:

Year Built: 2002

Date acquired by

Government: July 2002

Government

Cost: \$972,218.63

Approximate

Dimensions 25' x 125'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 3,125

#### **ARCHITECTURAL**

Ammunition bunker with blast doors on front and covered with earth/rock. Typical of 8 identical igloos in the same area.



North East Elevation



**East Elevation** 



**South East Elevation** 

#### BLDG No.

## **Newport Chemical Depot Property Condition Assessment**

### A3301

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation Type:

Cast in place concrete continuous wall footing

**Exterior Wall Struc**ture Framing Type:

Corrugated steel plates covered by crushed rock

**Roof Structure** 

Corrugated steel plates

Framing Type: Floor

Cast in place concrete slab on

Structure:

grade

Interior Wall

Cast in place concrete walls at

Construction Type:

front and back, no partitions

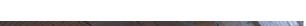
Lateral Force

Plate arch Resisting System:

#### **ELECTRICAL**

- Electrical for mercury vapor lighting provided.







Inside Igloo, Looking East

Inside Igloo, Looking West



South East Elevation)



**HVAC** - No HVAC

BLDG No. **A3301** 

#### **PLUMBING**

- None

#### SITE

- Asphalt roads lead to concrete drive at facility entrance. Igloo is surrounded by crushed rock on all sides.

#### **ROOFING**

- Corrugated metal plate shell covered with earth/rock.

#### **INTERIOR**

- Concrete floor is sealed and is sloped to provide spill containment.

#### **MISC**

#### **EXTERIOR**

- Ballast rock over earth, steel blast door at front is only entry/exit.

#### **NOTED DEFICIENCIES**

#### **INSULATION**

- None

#### **FIRE ALARM SYSTEM**

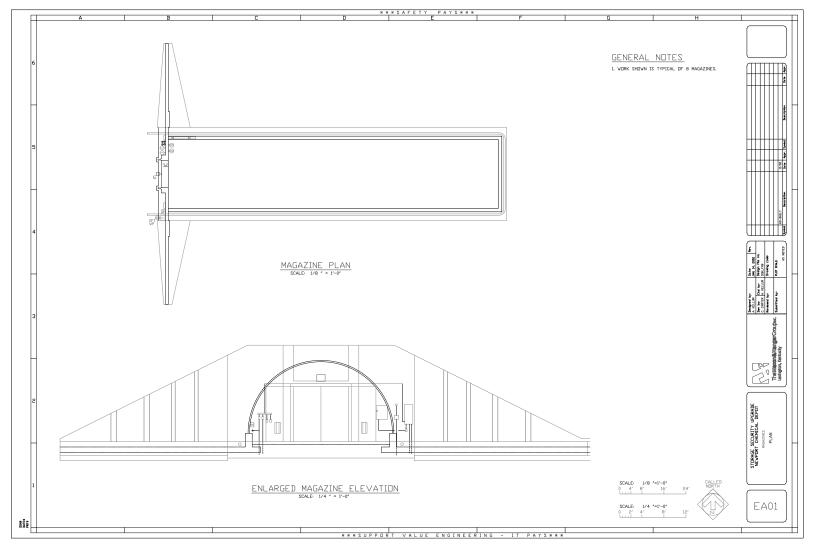
- None

#### **SPRINKLER SYSTEM**

- None

A3301





BLDG No.

P1034

Name: Modular Office Building (North)

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: P1034

Facility ID: P1034 Parsons North Office Comp

Category Code:

Current Use: Modular office building

**Newport Present** 

Value:

Year Built: 2002

Date acquired by

Government: March 2002

Government

Cost:

**Approximate** 

Dimensions 120' x 135'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 16,260

#### **ARCHITECTURAL**

Pre-fabricated modular building on an anchor pier system. 2x4 exterior wall framing with 1x4 rough sawn boards and smart panel siding with grooves, sandstone color, 12x22 partially covered entry deck with handicap accessible ramp and handrails. 20'x60'deck.

P1034

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation

Anchor pier system

Type:

**Exterior Wall Struc-**

ture Framing Type:

2x4 exterior wall framing

**Roof Structure** 

Framing Type:

Flat truss wood

Floor Raised floor typical of modular

buildings

Interior Wall

Structure:

Construction Type:

2x4 wall framing

construction type.

Lateral Force Pre-fab modular wood frame

Resisting System: building

#### **ELECTRICAL**

120/208V, 3 Phase, 4 Wire, 60HZ W/Ground. 3 Phase, 4 Wire main distribution panels 2 Each. 100 Amp 3 Phase sub panels 20 each. 24x48 recessed 4 tube troffer with parabolic lens 147 each. H.P. Sodium 70 watt exterior light with photo cell 6 each. Recessed can lights with PAR 38 lamps 16 each. Duplex outlet 125V 211 each.

#### HVAC

15 KW heat strip, 20 each 36,000 BTU, 208V 3-Phase roof mount A/C 20 each.

### **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No. **P1034** 

#### **PLUMBING**

- 1 1 1/2" Potable water supply type "L" copper
- 1 4" Sanitary Sewer Line PVC Pipe
- 3 E-Max 5 gallon on demand water heaters
- 8 Water closets
- 4 Lavatories
- 2 Urinals
- 1 Sink
- 1 Drinking Fountain

#### **ROOFING**

Flat truss 16" on-center. 3 layers 3/4" plywood. 6" R19 insulation with 0.045 black EPDM rubber fully adhered. Asphalt shingles on porch roof.

#### **INTERIOR**

- Modular office building with systems furniture. Wired for officer work including 120V electrical outlets, phone, and computer connectivity. Conference room and break room are in the center of the facility.

#### **EXTERIOR**

- Sandstone colored siding

#### **INSULATION**

- 6" R19 roof insulation

#### **FIRE ALARM SYSTEM**

- 5 each pull stations, 19 each smoke detectors, 4 each fire doors, 1 each MS-5024 fire control communicator

#### **SPRINKLER SYSTEM**

- 20 LB ABC fire extinguishers 6 each

#### SITE

- Surrounded by gravel landscape, parking lot on East side of facility. Adjoined to P1035 on the South end by a 25' long covered walkway.

#### **MISC**

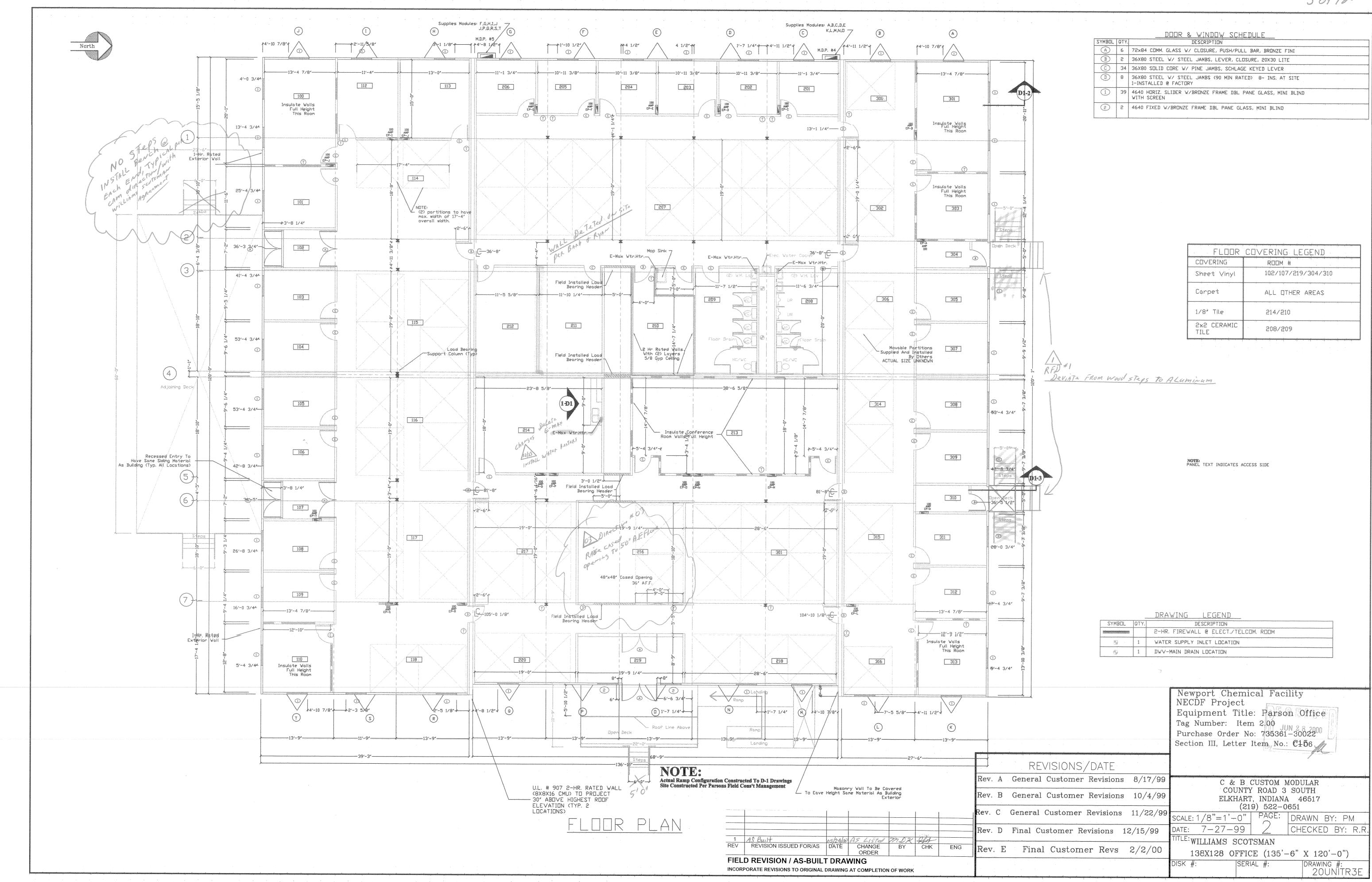
- Built in 3 sections with 2 firewalls (firewall between each section)

#### **NOTED DEFICIENCIES**

P1034



3 of 12



BLDG No.

P1035

Name: Modular Office Building (South)

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: P1035

Facility ID: P1035 Parsons South Office Cmpx

Category Code:

Current Use: Modular office building

**Newport Present** 

Value:

Year Built: 2000

Date acquired by

Government: March 2000

Government

Cost:

**Approximate** 

Dimensions 120' x 170"

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 20,160

#### **ARCHITECTURAL**

Pre-fabricated modular building on an anchor pier system. 2x4 exterior wall framing with 1x4 rough sawn boards and smart panel siding with grooves, sandstone color, 12x22 partially covered entry deck with handicap accessible ramp and handrails.

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation

Anchor pier system

Type:

**Exterior Wall Struc-**

ture Framing Type:

2x4 exterior wall framing

**Roof Structure** 

Framing Type:

Flat truss wood

Floor Raised floor typical of modular

buildings

Interior Wall

Structure:

**Construction Type:** 

2x4 wall framing

**Lateral Force** Pre-fab modular wood frame

Resisting System: building

#### **ELECTRICAL**

120/208V, 3 Phase, 4 Wire, 60HZ W/Ground. 3 Phase, 4 Wire main distribution panels 2 Each. 100 Amp 3 Phase sub panels 26 each. 24x48 recessed 4 tube troffer with parabolic lens 181 each. H.P. Sodium 70 watt exterior light with photo cell 6 each. Recessed can lights with PAR 38 lamps 16 each. Duplex outlet 125V 211 each.

15 KW heat strip, 20 each 36,000 BTU, 208V 3-Phase roof mount A/C 20 each.

## **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No. **P1035** 

#### **PLUMBING**

- 1 1 1/2" Potable water supply type "L" copper
- 1 4" Sanitary Sewer Line PVC Pipe
- 3 E-Max 5 gallon on demand water heaters
- 8 Water closets
- 4 Lavatories
- 2 Urinals
- 1 Sink
- 1 Drinking Fountain

#### **ROOFING**

Flat truss 16" on-center. 3 layers 3/4" plywood. 6" R19 insulation with 0.045 black EPDM rubber fully adhered. Asphalt shingles on porch roof.

#### **INTERIOR**

- Modular office building with systems furniture. Wired for officer work including 120V electrical outlets, phone, and computer connectivity. Conference room and break room are in the center of the facility.

#### **EXTERIOR**

- Sandstone colored siding

#### **INSULATION**

- 6" R19 roof insulation

#### **FIRE ALARM SYSTEM**

- 5 each pull stations, 19 each smoke detectors, 4 each fire doors, 1 each MS-5024 fire control communicator

#### **SPRINKLER SYSTEM**

- 20 LB ABC fire extinguishers 6 each

#### SITE

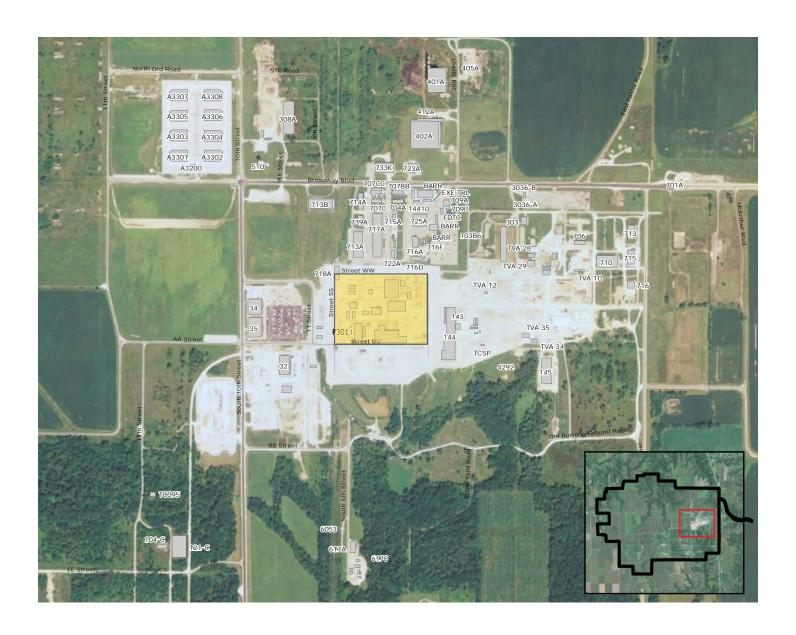
- Surrounded by gravel landscape, parking lot on East side of facility. Adjoined to P1034 on the north end by a 25' long covered walkway.

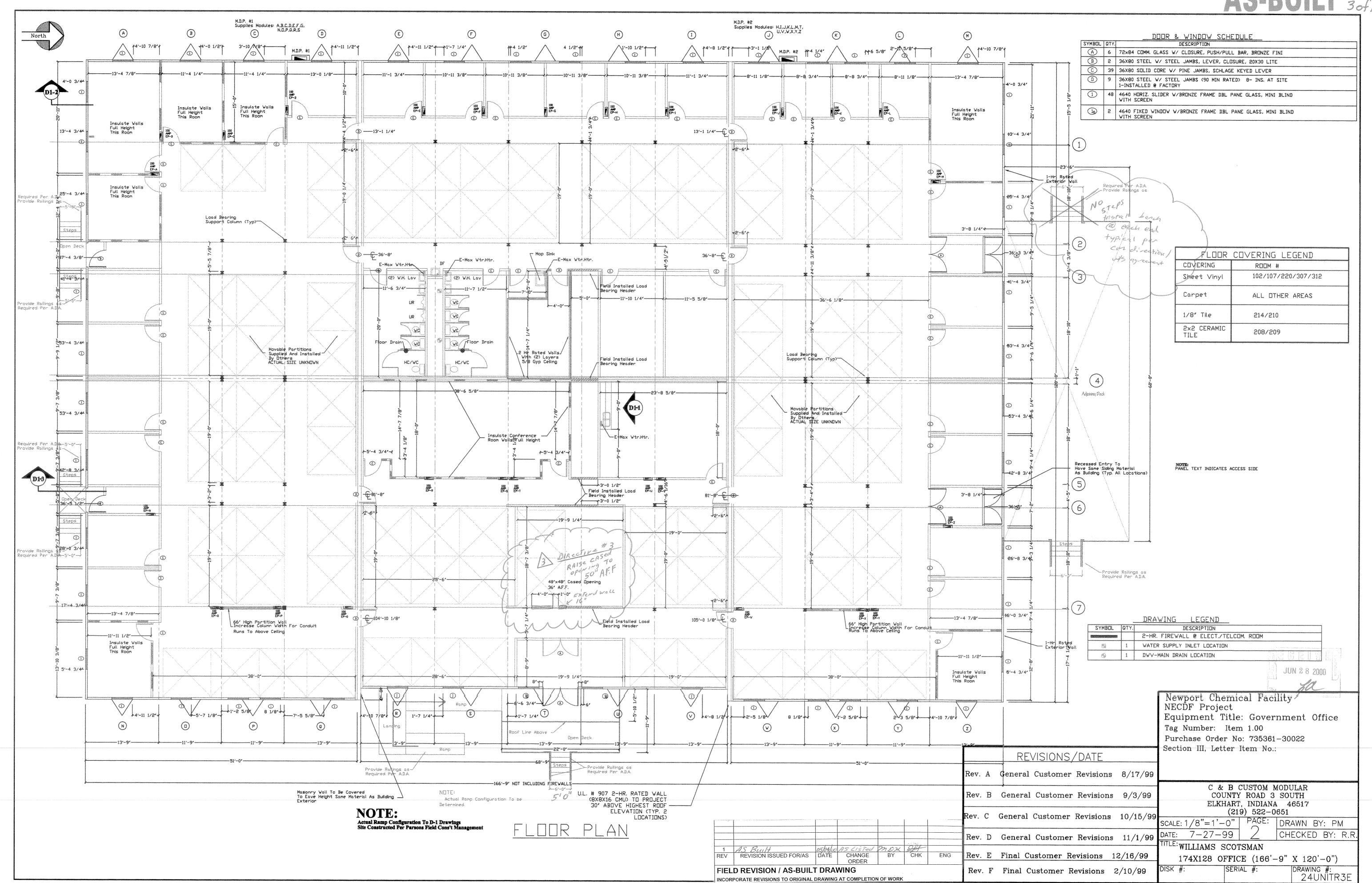
#### **MISC**

- Built in 3 sections with 2 firewalls (firewall between each section)

#### **NOTED DEFICIENCIES**

P1035





BLDG No.

P2032

Name: Warehouse - NECDF

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: P2032

Facility ID: P2032 - Warehouse NECDF

Category Code: STORAGE GP INST

Current Use: Warehouses and Office Space

**Newport Present** 

Value:

Year Built: 2002

Date acquired by

Government: June 2002

Government

Cost:

**Approximate** 

Dimensions 100' x 160'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 16,000

#### **ARCHITECTURAL**

- Single-story pre-engineered metal building with 2 each overhead doors on west side, 1 on east side. Approximately 2/3 open warehouse and 1/3 drop ceiling office areas.



**South West Corner Elevation** 



Typical Interior View - Warehouse



Typical Interior View - Warehouse

### P2032

### **Newport Chemical Depot Property Condition Assessment**

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Column footings and concrete Foundation

slab on grade Type:

**Exterior Wall Struc-**Steel frame

ture Framing Type:

**Roof Structure** Metal roof over steel frame Framing Type:

Floor Cast-in-place concrete slab on

grade, good condition Structure:

Interior Wall Metal studs and drywall

Construction Type:

**Lateral Force** Steel frame Resisting System:

#### **ELECTRICAL**

- 1 EA 480V 4 Wire 400 Amp Service

#### HVAC

- 1 EA 69,000 BTU Heating/AC Unit
- 4 EA 36,000 BTU Heat Pumps



Heating/AC Unit for warehouse area



Name plate for warehouse HVAC unit



Smaller heat pumps for office areas

### **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No. **P2032** 

#### **PLUMBING**

- Potable water supplied
- 2 each 4" sewer pipe
- 4 each stools
- 4 each lavatories
- 3 each single basin sinks
- 1 each 40 gallon water heater
- 1 each 50 gallon water heater

#### **ROOFING**

- Metal roofing panels over channel joists and I-beam frame

#### **INTERIOR**

- Warehouse area with office areas on the east and north sides of the building. Concrete floor in the warehouse. Vinyl tile in the office areas.

#### **EXTERIOR**

- Beige metal siding

#### **INSULATION**

#### **FIRE ALARM SYSTEM**

- Fire alarm system installed

#### **SPRINKLER SYSTEM**

- Viking Model "M" quick response sprinkler system, 12 each sprinklers in office, 110 each in warehouse, 20 each in S office

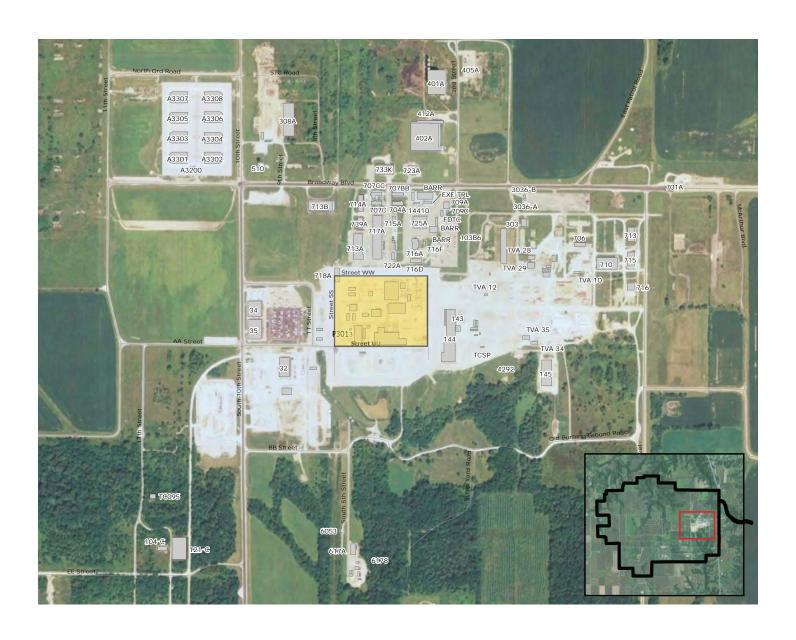
#### SITE

- Asphalt roads in area, crushed gravel surrounds building and provides additional parking.

#### **MISC**

#### **NOTED DEFICIENCIES**

P2032



BLDG No.

P3001

Name: Maintenance Shop - NECDF

#### **GENERAL INFORMATION**

Type Code per IBC:

Property Number: P3001

Facility ID: P3001 MX Shop - NECDF

Category Code: ENG/HOUSING MNT

Current Use: Maintenance Shops

**Newport Present** 

Value:

Year Built: 2003

Date acquired by

Government: Feb 2003

Government

Cost:

Approximate

Dimensions 216' x 100'; 40' x 63'

 $(L \times W \times H)$ :

**Approximate** 

Area (Sq. ft.): 62,795

#### **ARCHITECTURAL**

- Single-story, high bay steel frame building. Central heat and air conditioning. Originally built for chemical agent destruction, but changed to maintenance function prior to use.



**South West Corner Elevation** 



South Elevation



**Typical Interior View** 

P3001

#### **ACCESSIBILITY**

- Accessible

#### **STRUCTURE**

Foundation Concrete column footings, Type: concrete slab on grade

Exterior Wall Struc-

ture Framing Type:

Steel frame structure

Roof Structure Metal roof over steel channel

Framing Type: joints

Floor 8" Cast-in-Place concrete slab,

Structure: good condition

Interior Wall 8' tall modular interior offices Construction Type: only, otherwise open bay

**Lateral Force** 

Resisting System: Steel frame

#### **ELECTRICAL**

- Metal halide lights, industrial power for maintenance activities

#### **HVAC**

2 EA: 1 TON Through Wall A/C Units 1 EA: 3 TON Slab mounted A/C Unit

1 EA: 6KW Electric heater 1 EA: 1.5KW Heater 4 EA: 10KW Heaters



12' tall partition walls in some areas



Roll-up doors and personnel doors



Unfinished 45' x 90' addition on NW side

### **Newport Chemical Depot**

### **Property Condition Assessment**

BLDG No.

### P3001

#### **PLUMBING**

- 1 each lavatories, sanitary sewer line, 1 1/2" potable water line, 40 gallon hot water heater.

#### SITE

- Surrounded by asphalt roads and gravel. Currently located in secure area within the site associated with chemical agent destruction/de-mil activities.

#### **ROOFING**

- Modern metal roofing. 20' tall single-slope roof framing. Roof has lightening protection system.

#### **INTERIOR**

- Most areas exposed structural, no ceiling, for maintenance activities. Smaller officer areas framed in with drywall and 10' ceilings.

#### **EXTERIOR**

- Beige metal siding

#### **MISC**

- 45' x 90' attachment framed and partial concrete floor placed, but not finished, on North West side of building.
- Room on East end of building is 15'x30' with 10' and 20' long rooms separated by concrete wall with door between rooms, 12" thick concrete walls and 12" thick concrete ceiling/roof, 10' tall ceiling.
- 5' overhang frame (no roofing material) on West end of building

#### **INSULATION**

- Foam filled insulated wall and roof panels covered with steel siding

#### **FIRE ALARM SYSTEM**

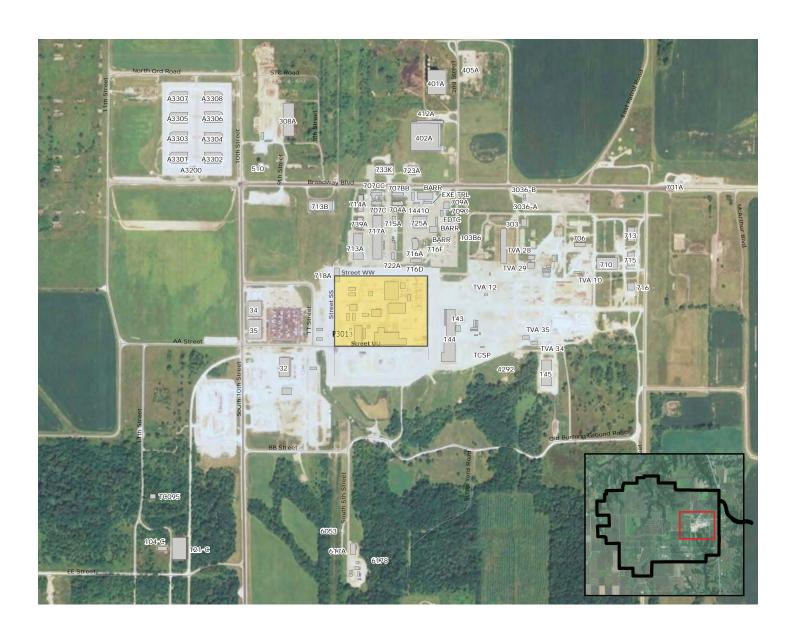
- Audible alarms

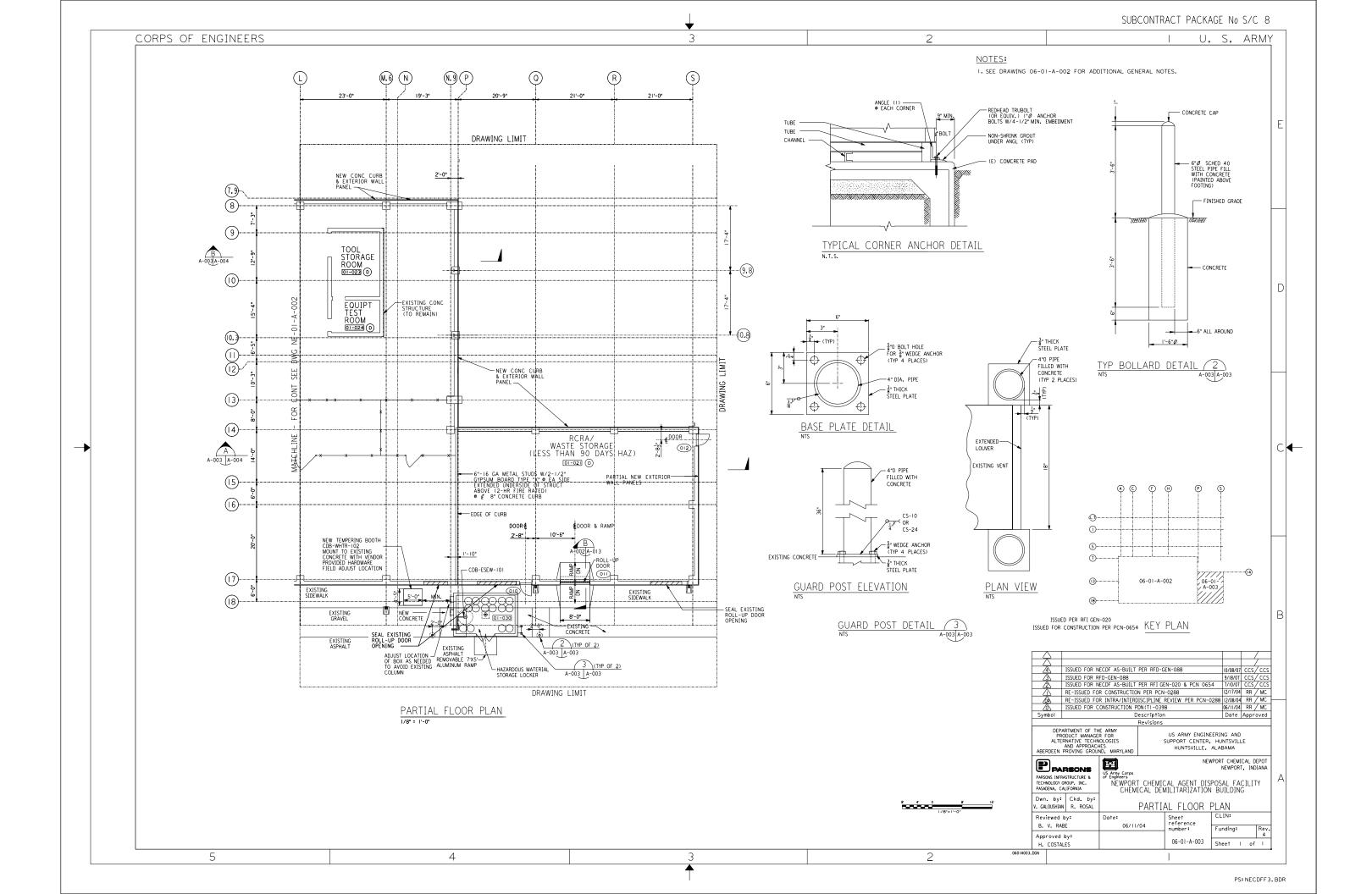
#### **SPRINKLER SYSTEM**

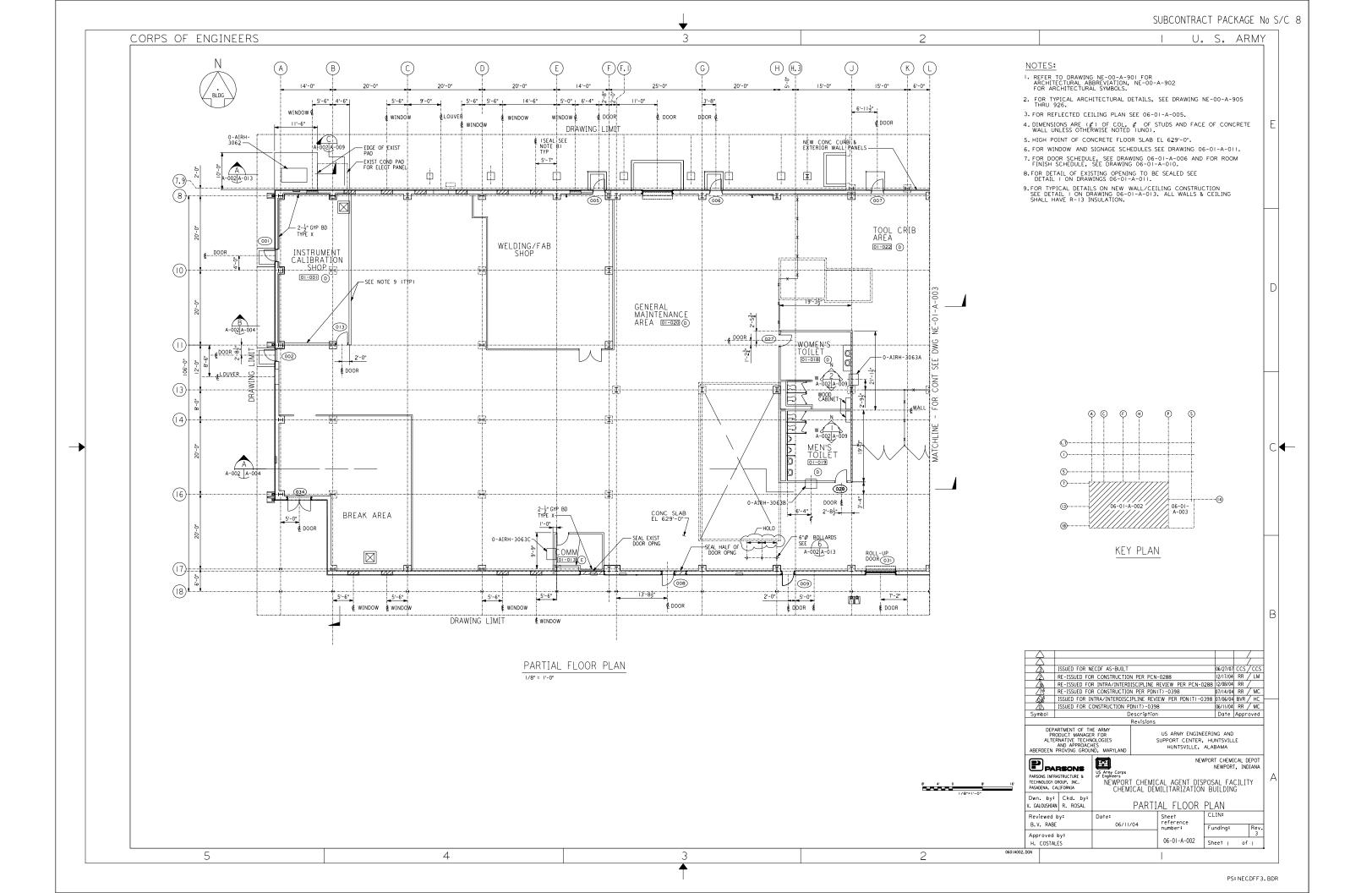
- Wet pipe sprinkler system overhead

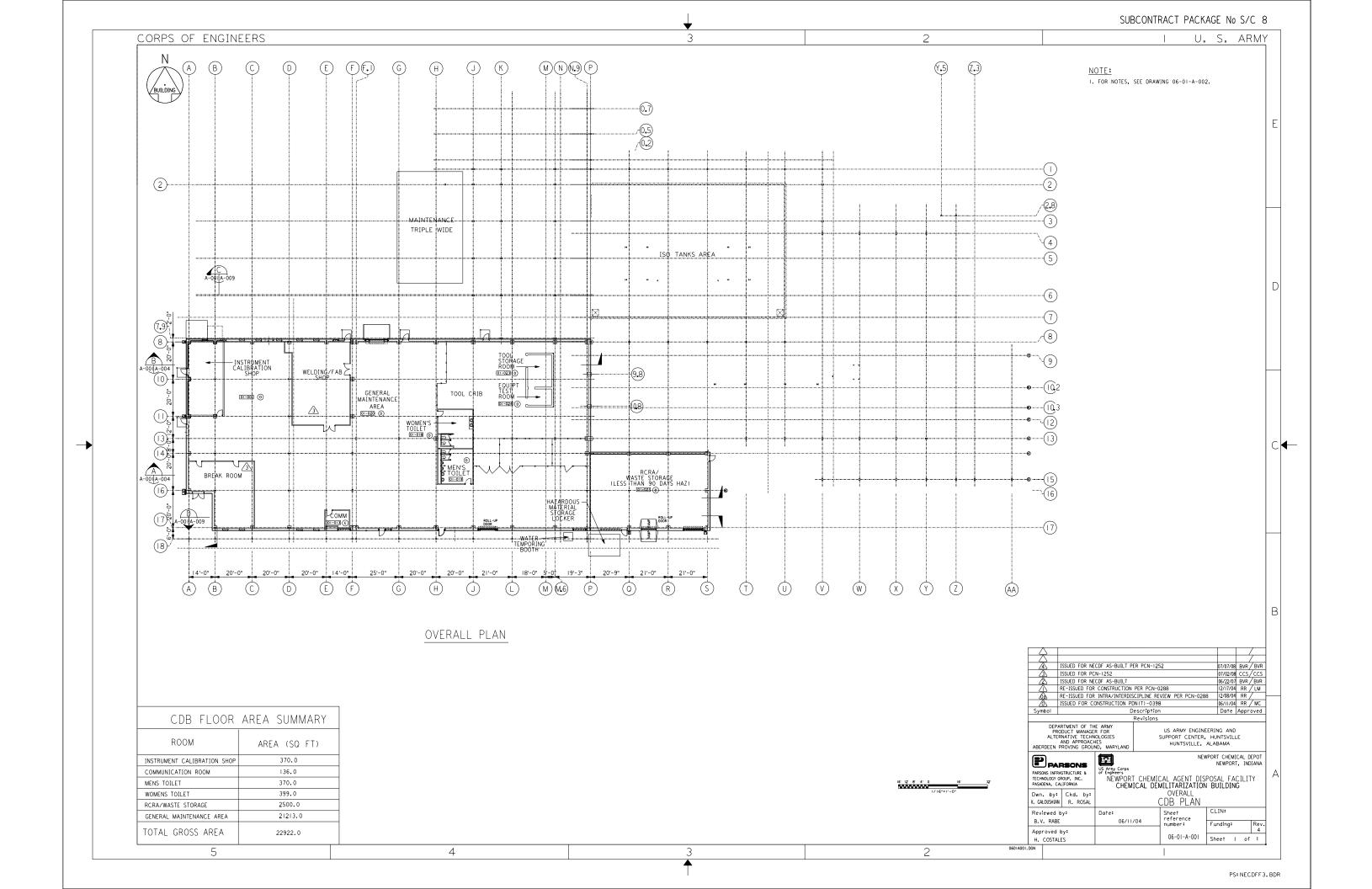
#### **NOTED DEFICIENCIES**

P3001









### **Appendix E: Environmental Assessment**

### Appendix E: Environmental Assessment

- Supplemental Material
- ▶ Environmental Data Gaps Table
- ▶ Environmental Conditions Table
- ► Environmental Conditions Maps

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Figure 4. Existing Land Use Controls, Study Area 8 Figure 5. Potential Environmental Constraints

APPENDIX. Wabash River Ordnance Works Map, 1961

### Acronyms List

| 1,2-DCB       | 1,2-Dichlorobenzene   |  |
|---------------|---|--|
| 1,3,5-TNB     | 1,3,5-Trinitrobenzene   |  |
| 1,4-DCB       | 1,4-Dichlorobenzene   |  |
| 2,4-DNT       | 2,4-Dinitrotoluene  |  |
| 2,4-DNT       | 2,6-Dinitrotoluene  |  |
| 2-A-4,6-DNT   | 2-Amino-4,6-Dinitrotoluene  |  |
| ACM           | Asbestos-containing Material  |  |
| ACSIM         | Assistant Chief of Staff for Installation Management                          |  |
| AEC           |   |  |
| AEC<br>AEDB-R | U.S. Atomic Energy Commission Army Environmental Database – Restoration       |  |
| AEDB-K<br>AM  |   |  |
| AMC           | Amplitude Modulation  |  |
| ANG           | Army Materiel Command Air National Guard                                      |  |
|               |   |  |
| AOC           | Area of Concern   |  |
| AOP           | Ammonia Oxidation Plant   |  |
| AP            | Affirmative Procurement   |  |
| AR            | Army Regulation   |  |
| ARPA          | Archaeological Resources Protection Act                                       |  |
| ASR           | Archives Search Report  |  |
| AST           | Aboveground Storage Tank  |  |
| BLS           | Below Land Surface  |  |
| BNA           | Base/Neutral and Acid Extractable   |  |
| BRAC          | Base Realignment and Closure  |  |
| BRRM          | Base Redevelopment and Realignment Manual                                     |  |
| CAA           | Clean Air Act   |  |
| CAMU          | Corrective Action Management Unit   |  |
| CBOD          | Carbonaceous Biochemical Oxygen Demand  |  |
| CCA           | Chromated Copper Arsenate   |  |
| CDB           | Chemical Demilitarization Building  |  |
| CDD           | Construction Debris Dump  |  |
| CEQ           | Council on Environmental Quality  |  |
| CERCLA        | Comprehensive Environmental Response, Compensation, and Liability Act         |  |
| CERCLIS       | Comprehensive Environmental Response, Compensation, and Liability Information |  |
|               | System  |  |
| CFR           | Code of Federal Regulations   |  |
| CIL           | Canadian Industries Limited   |  |
| cis-1,2-DCE   | Cis-1,2-Dichloroethene  |  |
| CMA           | (U.S. Army) Chemical Materials Agency   |  |
| CMI           | Corrective Measures Implementation  |  |
| CMS           | Corrective Measures Study   |  |
| COC           | Chemical of Concern   |  |
| CPAB          | Chemical Plant Coal Ash Basin   |  |
| CPRB          | Chemical Plant Retention Basin  |  |
| CRM           | Cultural Resources Manager  |  |
| CSEPP         | Chemical Stockpile Emergency Preparedness Program                             |  |
| CSL 1         | Closed Sanitary Landfill  |  |
| CTS           | Cooling Tower Sump  |  |
| CTT           | Closed, Transferring, and Transferred   |  |

CURL Cultural Resources
CV Phosphonotionate
CWA Clean Water Act

CWM Chemical Warfare Material

D&R Disposal and Reuse

DA U.S. Department of the Army

DARA Department of the Army Radiation Authorization
DARP Department of the Army Radiation Permit

DCB Dichlorobenzene
DCE Dichloroethene

DERP Defense Environmental Restoration Program
DI/SY Demilitarization Incinerator/Scrap Yard

DMM Discarded Military Munitions

DN Denitration
DNT Dinitrotoluene

DOD U.S. Department of Defense U.S. Department of Energy

DOPAA Description of Proposed Action and Alternatives

du Pont E.I. du Pont de Nemours and Company DWBG Decontaminated Waste Burial Ground

EA Environmental Assessment
EBS Environmental Baseline Survey
ECBC Edgewood Chemical Biological Center
ecoCOPC Ecological Chemical of Potential Concern

ECOP Environmental Condition of Property (formerly used acronym)

ECP Environmental Condition of Property EDR. Environmental Database Resources, Inc.

EIS Environmental Impact Statement

EM Electromagnetic

EMPA Ethyl Methylphosphonic Acid EOD Explosive Ordnance Disposal

EP Extraction Procedure

EPA U.S. Environmental Protection Agency

EPIC Environmental Photographic Information Center

EPCRA Emergency Planning and Community Right-to-Know Act

EQCC Environmental Quality Control Committee

ERDA Energy Research and Development Administration

ESA Endangered Species Act

ESMP Endangered Species Management Plan

F&P Finishing and Packaging

FAA Federal Aviation Administration FCC Federal Communications Commission

FESOP Federally Enforceable, State Operating Permit
FIFRA Federal Insecticide, Fungicide, and Rodenticide Act

FMC Food Machinery Corporation
FONSI Finding of No Significant Impact
FPF Former Production Facility

FS Feasibility Study

FUDS Formerly Used Defense Sites

FY Fiscal Year

GAC Granular Activated Carbon

GIS Geographic Information System

GOCO Government-Owned/Contractor-Operator

gpm Gallons per Minute
GPS Global Positioning System
GSA General Services Administration

GSB Gypsum Sludge Basin

HABS/HAER Historic American Buildings Survey/Historic American Engineering Record

HI Hazard Index

HMX Cyclo-1,3,5,7-tetramethylene-2,4,6,8-tetranitramine

HQ Hazard Quotient

HRR Historical Records Review

ICRMP Integrated Cultural Resources Management Plan
IDEM Indiana Department of Environmental Management

IDNRIndiana Department of Natural ResourcesIMPAIsopropyl Methyl Methylphosphonic AcidINRMPIntegrated Natural Resources Management Plan

IPMP Integrated Pesticide Management Plan IRP Installation Restoration Program

ISWMP Installation Solid Waste Management Plan

KB 2-Diisopropylaminoethanol

KV Kilovolt

LBP Lead-based Paint

LQG Large Quantity Generator
LTM Long-term Monitoring
LUC Land Use Control

LUCIP Land Use Control Implementation Plan

MACOM Major Command
MC Munitions Constituents
MCD Memorial Chapel RDX Dump

MEC Munitions and Explosives of Concern

MED Manhattan Engineer District

MES Matrix Environmental Services, LLC
MILES Multi-Integrated Laser Engagement System
MMRP Military Munitions Response Program

MNA Monitored Natural Attenuation

MNT Mononitrotoluene
MPA Methylphosphonic Acid

mph Miles per Hour
MR Munitions Response
MSDS Material Safety Data Sheet

msl Mean Sea Level

N&P Nitrification and Purification
NAAP Newport Army Ammunition Plant

NAC Nitric Acid Concentration

NATR Natural Resources
NE Elemental Sulfur

NECD Newport Chemical Depot

NECDF Newport Chemical Agent Demilitarization Facility
NECDRA Newport Chemical Depot Redevelopment Authority

NEPA National Environmental Policy Act

NFA No Further Action

NFRAP No Further Remedial Action Planned NGVD National Geodetic Vertical Datum NHPA National Historic Preservation Act

NOI Notice of Intent NOV Notice of Violation

NPDES National Pollutant Discharge Elimination System

NPL National Priorities List

NRC Nuclear Regulatory Commission
NRCS Natural Resources Conservation Service
NRHP National Register of Historic Places
NSCMP Nonstockpile Chemical Materiel Project

NSP Night Soil Pit

O&M Operations and Maintenance OB/OD Open Burn/Open Detonation

OCMCDA Old Chemical Munitions Component Detonation Area

ORO Operation Roving Osprey

OSHA Occupational Safety and Health Act

OWS
P2
Pollution Prevention
PAB
Process Auxiliary Building

PAH Polynuclear Aromatic Hydrocarbon

PAM Pamphlet

Parsons Infrastructure & Technology

PCB Polychlorinated Biphenyl PCC Pollution Control Center

PCCRP Pollution Control Center Retention Pond

pCi/L picoCuries per Liter

PER Programmatic Environmental Review

PETN Pentaerythritol Tetranitrate
PHCP Power House Coal Pile

PM-10 Particulate Matter 10 Microns in Diameter or Less
PM-NSCM Program Manager for Non-Stockpile Chemical Materiel

PMCD Program Manager for Chemical Demilitarization

PMECW Program Manager for the Elimination of Chemical Weapons

PMP Pesticide Management Plant

POC Point of Contact

POL Petroleum, Oils, and Lubricants

ppm Parts per Million

PRG Preliminary Remediation Goal
PWSID Public Water System Identification

OA Ouality Assurance

QB thyl 2-Diisopropylaminoethyl Methylphosphonate

RCRA Resource Conservation and Recovery Act

RDX 1,3,5-Trinitro-1,3,5-triazine
RDX-BG RDX Burning Ground
RDX-MA RDX Manufacturing Area

RfD Reference Dose

RFI RCRA Facility Investigation
RI Remedial Investigation
RL Reporting Limit

RMW Regulated Medical Waste

ROD Record of Decision
RQ Reportable Quantity
RWAB Red Water Ash Basin

SAIC Science Applications International Corporation

SAR Sulfuric Acid Regeneration SAW Squad Automatic Weapon

SBCCOM U.S. Army Soldier and Biological Chemical Command

SDWA Safe Drinking Water Act

SERA Screening-level Ecological Risk Assessment

SHPO State Historic Preservation Officer

SI Site Investigation

SPCC Spill Prevention, Control, and Countermeasure

STP Sewage Treatment Plant

SVOC Semivolatile Organic Compound
SW Methylphosphorus Dichloride
SWAR Solid Waste and Recycling
SWMU Solid Waste Management Unit
SWPPP Stormwater Pollution Prevention Plan

T&E Threatened and Endangered TAR Temporary Authorization Request

TC Ton Container TCE Trichloroethene

TCLP Toxicity Characteristic Leaching Procedure

TCP Traditionally Cultural Property

TDS Total Dissolved Solids
TEPO Triethyl Phosphate
TH Phosphorus Trichloride

TLI TLI Solutions

Toxic Maintenance Area TMA 2,4,6-Trinitrotoluene TNT TNT-BG TNT Burning Ground TNT-CTS TNT Cooling Tower Sump TNT-MA TNT Manufacturing Area Trans-1,2-Dichloroethene trans-1,2-DCE Diethyl Methylphosphonite TR TRO Diethyl Methylphosphonate Toxic Substances Control Act **TSCA** 

TSDF Treatment, Storage, and Disposal Facility

TSS Total Suspended Solids
TVA Tennessee Valley Authority

UB Utility Building

USACE U.S. Army Corps of Engineers

USACHPPM U.S. Army Center for Health Promotion and Preventive Medicine

USAEC U.S. Army Environmental Command

USAEHA A U.S. Army Environmental Hygiene Agency

USATHAMA A U.S. Army Toxic and Hazardous Materials Agency

USCG U.S. Coast Guard

USFWS U.S. Fish and Wildlife Service
USGS U.S. Geological Survey
USMC U.S. Marine Corps

UST Underground Storage Tank

| UTM  | Universal Transverse Mercator                                |
|------|--|
| UW   | Universal Waste  |
| UXO  | Unexploded Ordnance  |
| VCP  | Voluntary Cleanup Program                                    |
| VOC  | Volatile Organic Compound                                    |
| VSI  | Visual Site Inspection                                       |
| VX   | O-ethyl-S-(2-diisopropylaminoethyl) Methyl Phosphonothiolate |
| WWII | World War II   |
| XRF  | X-Ray Fluorescence   |
| ZS   | Ethanol  |
|      |  |

#### 1.0 Introduction

Matrix Environmental Services, LLC, (MES) prepared this report for the Newport Chemical Depot Redevelopment Authority (NECDRA) to summarize environmental conditions and identify data gaps for use as a portion of the final Base Reuse Plan for the Newport Chemical Depot (NECD), Vermillion Township, Indiana (Site). The primary objective of this analysis is to evaluate existing environmental conditions and potential data gaps for the Site and their potential to affect the Reuse Plan. This analysis is summarized in a separate section in the Reuse Plan currently under preparation by the NECDRA's planning team.

The information contained in this report is primarily based on our review of the "Environmental Condition of Property Report, Newport Chemical Depot, Indiana" prepared by SAIC, dated August 2007 (SAIC 2007), and the "U.S. Army BRAC 2005 Site Inspection Report, Newport Chemical Depot, Newport, Indiana" dated May 2009 (SAIC 2009). Additional documents reviewed for this evaluation are included in Section 6.0 (References). This evaluation has been prepared for the exclusive use of the NECDRA in its ongoing reuse planning efforts, and should not be relied upon by others.

During the preparation of this environmental analysis, the Draft Reuse Plan was in preparation. Although the exact configuration of the Plan is unknown as of this writing, it is assumed that reuse will primarily be limited to Industrial and Agricultural uses. The data gaps identified herein will not change significantly with adjustment to the Plan, but may require updating when the final Plan is selected. For example, known or potential environmental issues will still exist regardless of the intended future use; however, the type of future use may require different levels of cleanup or analysis, or different land use controls. Additionally, MES has identified potential environmental issues that the NECDRA may have to address in the future, regardless of whether the Army may or may not have to address the issues prior to property transfer (e.g., asbestos and lead based paints). It is important for the NECDRA and community to understand these issues, potential cost implications, and their potential to impact future development activities.

#### 1.1 Limitations

MES' environmental services were conducted in accordance with practices and procedures generally accepted by the environmental consulting industry. The analysis presented herein includes statements of professional opinion and are based on documents and information provided by and produced by others. MES has not performed a site walk or sampling of environmental media of any kind. The potential exists for unreported and unknown environmental issues associated with the Site or surrounding areas that are not identified herein. The data gaps identified herein are continuously changing based on additional information generated by the Army and the environmental regulatory agency governing the Site, the Indiana Department of Environmental Management (IDEM). No warranties, expressed or implied, are presented herein. However, MES has provided its best professional opinion regarding the environmental conditions at the Site.

The remainder of this report presents a background of the Site, summary of the various environmental programs in place at the Site, and an analysis of the data gaps by Site Study Area.

### 1.2 Report Organization

This report is organized into five primary sections, as follows:

- Section 1 presents the objectives for this report, limitations, and report organization
- Section 2 provides background information including a brief site history, a discussion of future land uses planned for the site, and the environmental investigation process that has occurred at NECD
- Section 3 presents a summary of environmental conditions on the Site.
- Section 4 provides an overview of the environmental data gaps for both known environmental sires, and those areas or issues that have not yet been investigated at the Site.
- Section 5 presents conclusions regarding the environmental condition of the Site.
- Section 6 presents references cited in preparation of this report
- Tables and figures are provided at the back of the report.

## 2.0 Background

This section of the report presents summary background information on the Site, and a brief description of the environmental investigation, study, and cleanup that have occurred at the Site.

### 2.1 Newport Chemical Depot

NECD is located in Vermillion County in west-central Indiana. Vermillion County falls within the area known as the Central Corn Belt Plains. NECD currently occupies approximately 7,130 acres, most of which are enclosed by a fenced boundary. The property's main features include active and inactive buildings, roads, leased agricultural land, woodlands, and four streams. Approximately 22,000 acres of land that formerly comprised NECD was originally purchased by the War Department in 1941 for the purposes of constructing a 1,3,5-Trinitro-1,3,5-triazine (also known as Royal Demolitions Explosive [RDX]) explosives production facility, known as the Wabash River Ordnance Works. This facility was operational beginning in 1942 until it was placed on standby status in 1946. The RDX facility was reactivated in 1952 to support the Korean War. In 1943, production facilities for the manufacturing of heavy water related to the Manhattan Project were constructed at NECD for the Atomic Energy Commission (AEC). The heavy water plant was placed on standby status in 1946, but was reactivated from 1952 until 1957. A chemical plant for the production of the nerve agent O-ethyl-S-(2diisopropylaminoethyl) methyl phosphonothiolate (VX) was constructed in 1958 by the Food Machinery Corporation (FMC) in the area of the former heavy water production facility. From 1960 to 1968, all of the United States' VX was produced at NECD until chemical weapons production was halted by President Nixon. The VX was stored at NECD until its destruction at the Newport Chemical Demilitarization Facility from 2002 until 2008. In 1970, a 2,4,6-trinitrotoluene (TNT) production facility was constructed to support the Vietnam War. Only two of the five production lines operated, and the production was discontinued in 1975.

In 1999, the Tennessee Valley Authority (TVA) was contracted to demolish the Former Chemical Agent VX Production Plant. Parsons Infrastructure and Technology (Parsons) was contracted to build the Newport Chemical Demilitarization Facility (NECDF), destruct chemical weapons and demolish the NECDF. Construction of the NECDF was completed in 2003, and the last container of VX was destroyed in 2008. The facility is currently operated by Mason and Hangar. Mason and Hangar is a caretaker only, and does not produce or manufacture any products. Active buildings at NECD include facilities formerly used to store the onsite chemical agent inventory, as well as administrative, security, and maintenance buildings used to support the military mission. Inactive buildings include facilities associated with former production of TNT and RDX.

The activities conducted at NECD have resulted in known and potential contamination of soils, groundwater, surface water, and structures. Numerous landfills and dumps are present at the site. Contaminants at NECD include, but are not limited to, explosives,

chemical agent components, volatile and semivolatile organic compounds, metals, petroleum hydrocarbons, and asbestos.

Environmental laws governing the storage, disposal, and cleanup of hazardous wastes, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), are applicable to contamination at NECD. NECD has been the subject of various environmental actions, studies, and cleanup actions since the 1970s, and is currently regulated under a RCRA Part B Permit. The most recent RCRA Part B permit was issued by the Indiana Department of Environmental Management (IDEM) on January 5, 2006. Many sites have been investigated by the Army under the Department of Defense (DOD) Installation Restoration Program (IRP) in accordance with CERCLA requirements. The IRP was developed by the DOD to comply with federal guidelines for managing and controlling past hazardous waste disposal actions. The IRP focuses on cleaning up contamination from past hazardous waste operations and past hazardous material spills. Because this Site is governed by both RCRA (for transfer, storage, and disposal of wastes) and CERCLA (for cleanup of historical contamination), there are sometimes separate identification numbers and names assigned to the same area. For the purposes of this report, only the RCRA Solid Waste Management Unit (SWMU) numbers as described in the RCRA Part B Permit are used to identify a particular area. Additionally, all SWMUs will require closure under the RCRA permit.

### 2.2 Environmental Investigation, Study, and Cleanup Overview

The NECD has been the subject of various environmental actions, studies, and cleanup actions since the 1970s. Military activities since the Depot's establishment have included the production of RDX, VX, and TNT as well as heavy water related to the Manhattan Project. Some manufacturing and disposal processes were carried out without modern safeguards and environmentally appropriate disposal practices. In addition, other activities that may have resulted in an adverse environmental impact include the use of underground and aboveground storage tanks (USTs and ASTs) for storage of petroleum products, the use of asbestos-containing materials (ACM) and lead-based paint (LBP) in industrial products site-wide.

## 3.0 Summary of Environmental Conditions

This section presents a summary of environmental conditions for each known environmental site, segregated by Study Section as shown in the ECP Report produced by SAIC on behalf of the Army (SAIC 2007). The narrative text in this section is supplemented by the following figures:

- Figure 1: Known Environmental Sites
- Figure 2: Known Environmental Sites, Study Area 8
- Figure 3: Existing Land Use Controls
- Figure 4: Existing Land Use Controls, Study Area 8

Tables are also referenced in various sections throughout this report. Both tables and figures are located at the end of this report. The Text, Figures, and Tables should all be referenced together to understand the environmental conditions.

#### 3.1 Documents Reviewed

A number of documents were obtained and reviewed during the creation of this report. These documents were obtained from various sources, including the Army, Mason & Hangar, and IDEM. A list of the documents reviewed is provided in Section 6, References.

#### 3.2 Known Environmental Sites

Historically, industrial operations were present at NECD to support a variety of Army missions, including the manufacture of explosives (RDX and TNT), heavy water, and chemical agent. Currently, there are known environmental sites in active and inactive phases of investigation and remediation at NECD. These sites are being investigated and/or remediated by the Army under the supervision and guidance of the IDEM. A summary table of known information about each site, by Study Area, as defined by the Environmental Condition of Property (ECP) report prepared for the DOD by SAIC is included in Table 1. Maps showing known and potential environmental constraints are provided as Figures 1 and 2, and Figure 5.

There are 72 SWMUs and 10 areas of concern (AOCs) identified in the RCRA Permit. Sixty-four of the sites have been issued No Further Action (NFA) letters by IDEM, indicating that no further investigation or remedial action is required. Many of the sites also have Land Use Controls specifying restrictions in place to protect human health and the environment. Specific issues related to each of the active and closed known environmental sites are listed in Table 1, and include: potential need for further sampling/analysis for additional contaminants, requirements for institutional controls, clarification of type of NFA letter issued for the site (e.g., restricted NFA limiting some types of uses at the site or unrestricted indicating no restrictions on future land uses).

In addition to the known SWMUs and AOCs included in the RCRA permit, the Army identified an additional 35 sites that required investigation in the Environmental Condition of Property (ECP) report dated August 2007 prepared for the Army by SAIC (SAIC 2007). Results of these investigations were presented in the Site Investigation Report dated May 2009 (SAIC 2009). Based on the sampling results, many of the 35 additional sites have been ruled out as environmental concerns, although some indicate the need for Land Use Controls or additional investigation. A summary of each of the sites identified by the Army is included in Table 1 and shown on Figures 1 and 2.

# 4.0 Environmental Data Gaps by Study Section Area

Although many environmental issues at the Site have been well documented, environmental data gaps exist for some of the identified (known) IRP sites. Environmental data gaps also exist for sites that have not been formally assessed under any of the Army's ongoing environmental assessment and remediation programs. At the IRP sites, although the Army has conducted some investigation and in some cases, remediation, MES has identified issues that have not been assessed or require reassessment due to the intended reuse of the Site. Table 2 presents identified data gaps in terms of both known and unknown areas. To illustrate the potential impact of data gaps on redevelopment, each Study Section is evaluated with regard to Army identified sites and uninvestigated potential environmental areas of concern where impacts may have occurred. The Potential Areas of Environmental Concern are shown in Figure 5. The section that follows describes potential data gaps related to sitewide and specific sites by Study Area.

#### 4.1 Sitewide Data Gaps

#### 4.1.1 Land Use Controls

The Final Newport Chemical Depot Land Use Control Implementation Plan dated October 2005 (SAIC 2005) outlines procedures to ensure proper enforcement of restrictions imposed on current or future use of NECD at 11 known contaminated areas, one of which has two LUCs, for a total of 12 areas. The document provides information on the location of hazardous waste and disposal sites, and enacts land use restrictions in the form of administrative controls including prohibiting one or more of the following: excavation, groundwater use, agricultural use, and residential use, as shown in Figures 3 and 4: Existing Land Use Controls, and Existing Land Use Controls, Study Area 8, respectively. Where specific land use controls are not considered appropriate for the planned reuse, they are noted in Tables 1 and 2. For example, it should be noted that many agricultural use areas have groundwater use restrictions, prohibiting the use of groundwater for any purpose including irrigation or livestock watering. Additionally, certain areas restrict residential use, but not industrial use (e.g., RDX Manufacturing Area). However, it is likely that explosives are still present beneath the former building foundations that were not removed, and construction in these areas may require specialized equipment and qualified construction personnel, as well as remediation of explosives to enable industrial development.

Additionally, many sites identified in the ECP and ECP Phase II Site Investigation Reports (SAIC, 2007; SAIC 2009) require implementation of additional land use controls. The Land Use Control Implementation Plan requires updating, along with the RCRA Part B Permit.

#### 4.1.2 Residual Explosives

All buildings, foundations, utilities, and piping within former explosives or acid manufacturing areas could contain residual explosives. Although buildings have been burned and demolished in the RDX Manufacturing Area, and the land use controls only prohibit residential reuse, there likely are explosives beneath the remaining building foundations because the Army has not removed the foundations. Although industrial redevelopment is permitted in the area, the NECDRA should be aware that removal of former building foundations and utilities and ditches may expose explosives contamination that will require remediation prior to redevelopment. Additionally, in the TNT MA, many buildings remain in the area. Historical reports state that the equipment within the buildings underwent decontamination, but does not specify that the buildings themselves were decontaminated. These buildings and below the foundations may contain explosives that will require decontamination prior to reuse, demolition, or redevelopment.

#### 4.1.3 Underground Utilities to be Abandoned in Place

It is expected that many of the existing utilities at NECD will be abandoned in place. In addition, historical underground utilities may have been abandoned in place in the past, especially in the western portions of the facility where military operations formerly occurred. These utilities may have leaked, or may have provided a preferential pathway for contaminant migration. Additionally, it is possible that many of the existing utilities were never flushed or cleaned after use and may contain hazardous materials or contaminants that could leak in the future, or be encountered during development activities.

The existing utilities, especially in the Demilitarization Area, are located under very thick concrete foundations (approximately 10' thick) which may present difficulty in assessment or removal when the active facilities are closed. In addition, process sewers from historical activities are located throughout the former production areas and should be investigated to determine if adverse environmental impacts exists from either leaks in the existing, abandoned lines or at the sewer outfalls.

Utilities that are composed of Transite piping, and asbestos containing material, will require special handling and disposal if encountered and removed during development activities. Steam lines from boilers or heat plants may be asbestos wrapped, and will also require special handling and disposal if removed during development activities. Remaining piping from any underground storage tanks may also require special handling and disposal if encountered during redevelopment activities.

## 4.1.4 Asbestos-Containing-Material and Lead-Based Paint

Due to the age of some of the buildings at NECD, asbestos and lead-based paint is likely to be present in the majority of buildings onsite. Comprehensive asbestos and lead-based pain surveys suitable for demolition purposes have not been performed, although more limited information is available. All buildings on NECD should be considered to contain

ACM and LBP, with the exception of newly constructed buildings, such as the NECDF. The cost of abatement and proper disposal of these materials during redevelopment can be significant, and should be considered during preparation of budgets and for planning purposes.

### 4.1.5 NFA, Permit, and Follow-on Investigation or Remediation Issues

The RCRA Part B Permit will be required to be updated with all new information, and the status of each site should be confirmed with IDEM. Prior to land transfer, the Permit should be reviewed to exclude property that is clean, or areas where contamination has been cleaned up to allow for transfer of property that is unencumbered by a RCRA permit. Boundaries of the RCRA Facility should be redefined to exclude as much property as possible from the RCRA Facility, allowing for quicker sale and transfer of property. Each NFA should be reviewed with IDEM to determine restricted vs. unrestricted NFAs. Concurrence letters should be obtained from IDEM for sites where the Army has recommended NFA, but the NFA has not yet been granted.

Follow up will be required with the Army and IDEM to obtain additional information regarding additional sampling and/or remediation, or additional land use controls to be implemented at the site. Data gaps identified herein should be discussed and followed up with the Army and IDEM.

### 4.1.6 Underground and Above Ground Storage Tanks

The exact number of existing and active above ground and underground storage tanks is unclear. The USTs and ASTs should be confirmed with the Army and IDEM, and details regarding the tanks and permit status should be obtained by the NECDRA from the Army.

## 4.1.7 Potential Radiological Contamination

The ECP report references potential radiological contamination at the "P-9" plant. No other references to the P-9 Plant were reviewed, and it is unknown where the P-9 plant is located, or what if any investigation has been conducted at the P-9 Plant. Follow up with the Army is recommended.

# 4.2 Study Section 1 Data Gaps

Study Section 1, located generally in the northwestern corner of the Site, contains two sites that have been investigated sufficiently and have or will have No Further Action determinations in place, and/or land use controls. The West Pine Tree Area was investigated during the ECP Phase II Site Investigation, and the Army recommended a NFA for this area. The NFA requires IDEM concurrence five sites with real or potential

environmental impacts. Additionally, one site, the Night Soil Pits area was investigated and received a No-Further Action designation with LUCs restricting use of the area so that no excavation may be conducted during future development.

Four additional sites have potential data gaps and may require additional investigation: the Loading Dock, Richmond Magazines, the National Guard Training Area, and the Small Arms Range.

A loading dock was identified west of the Richmond Magazines where raw explosives were loaded/unloaded. No documentation related to investigation of the potential presence of explosives in soils due to spills or releases was identified during this review.

The Richmond Magazines were used for storage of raw explosives, as well as finished ammunition products. The magazines are currently in a deteriorated condition, and are collapsing. Two "representative" magazines were included in the ECP Site Investigation, and explosives were identified inside one magazine, but not at the drainage areas outside the magazines. All of the Richmond Magazines have the potential for explosives or explosives residue to be present inside and outside the magazines, and should be inspected and decontaminated, remediated, or demolished as necessary. Asbestos containing material has been confirmed in the Magazines, and due to the deterioration, is likely in a friable condition.

The Small Arms range is located in Study Section 1 and has been used for small arms munitions training and qualification. The Small Arms Range was identified for further lead testing as part of the ECP. The results of that investigation are pending. A map from 1961 for the Wabash River Ordnance Area indicated that the area now known as the Small Arms Range was once labeled the "Explosives Testing Area." A copy of this map is included in the Appendix. It is unknown whether the existing Small Arms Range was indeed used for explosives testing, but further investigation should be conducted into this possibility. Contaminants other than lead may be present, and depending on the types of "explosives testing", the possibility for MEC also exists.

Approximately 350 acres in the northwest corner of NECD were used as the National Guard Training Area for the training of troops. The Indiana Air National Guard trained in this area in 1988, and reportedly used smoke grenades during training activities. The Illinois National Guard trained there in 1996, and possibly two other guard units trained there as well, but limited information exists regarding training events and durations, as well as munitions used. In 1999 the National Guard used the property as a training area numerous times. The Cultural Resources management Plan also states that various National Guard and Reserve units from Indiana and Illinois used the property for light infantry training. After September 11, 2001, National Guard units were stationed at NECD to provide security for the VX. The Guard left the Site in 2004, and reportedly only used the Small Arms Ranges for training thereafter. Because the area was considered an "Active Training Area" during the Historical Records Review (HRR), no investigation was recommended for this site. The potential exists for MEC in this area. A portion of the 350 acres is currently leased for agricultural use, and has presumably

been plowed or farmed. However, much of the 350 acres is forested and has the potential for MEC.

### 4.3 Study Section 2 Data Gaps

Study Section 2 consists of the RDX Manufacturing Area (RDX-MA). The area is located in the north-central area of the Site and was constructed in the 1940s to supply explosives for the World War II (WWII) war effort. This area has been previously investigated and contaminants of concern were identified in the soil and groundwater. Based on remedial measures taken to compost soils containing explosives and subsequent risk assessment for soil, groundwater, and surface water, the RDX-MA has been recommended for No Further Action by the Army, with land use controls to prevent residential development and groundwater use. Many structures associated with the former explosives manufacturing or storage and loading areas have been demolished, burned, and/or otherwise removed. However, many concrete foundations in the RDX MA area were not removed. Limited explosives contaminated soils removal was conducted in the manufacturing areas, but not beneath the concrete structures. Additionally, it is unclear from review of existing documentation whether underground piping and ditches were decontaminated and/or removed. Explosives contamination may remain in residual structures and beneath foundations in the former explosives manufacturing areas at NECD. Land use controls in place may not be protective of industrial development if removal of foundations is required for redevelopment activities.

### 4.4 Study Section 3 Data Gaps

Study Section 3 forms the northeastern corner and eastern boundary of the NECD. The section contains eight sites with potential or identified environmental impacts, or that require some follow up with the Army and IDEM.

The RDX-MA Area F Parking Lot (Site 3-1) has historically been used to store ton containers (TCs) containing VX. Environmental investigation was conducted as part of the ECP Phase II process to detect VX-related compounds in surface and near-surface soils. No further action was recommended by the Army, and this site requires IDEM concurrence and NFA follow up.

During a site inspection, unidentified drums were found south of the North Patrol Lot. Environmental investigation of this site (Site 3-2) was conducted as part of the ECP Phase II. No further action was recommended by the Army, and this site requires IDEM concurrence and NFA follow up.

Site 3-3, the former skeet range is located in Study Section 3. Based on a review of historical documents, it appears that the range was used at some point between the 1950s and the 1970s. Environmental investigation of this site (Site 3-3) was conducted as part of the ECP Phase II. No further action was recommended by the Army, and this site requires IDEM concurrence and NFA follow up.

Site 3-4 represented a data gap related to a site where batteries were discovered north of the railroad bed. Batteries contain acid and metals and can pose a source of environmental contamination. Investigation of possible soil contamination, as well as removal of the batteries, was conducted as part of the ECP Phase II activities. Further investigation was recommended by the Army. Soil removal and additional sampling is likely at this site. Follow up with the Army and IDEM is required.

The Hazardous Waste Storage Building (Site 3-5) in Study Section 3 is used by Mason & Hanger, the operators of NECD, for storing hazardous materials. The site is listed as No Further Action in the 2006 RCRA Permit. Further sampling was conducted as part of the Phase II ECP to confirm via analysis of soil samples taken surrounding the building, that no hazardous compounds are present. Results indicated likely releases inside the building. The Army recommended NFA; follow up with the Army and IDEM is required for this site. Decontamination of the inside of the building should be conducted prior to transfer.

In addition to the hazardous waste storage facility noted above for Mason & Hanger, Parsons also has a hazardous waste storage facility in the same area (Site 3-6). This site was proposed for additional investigation in the ECP recommendations (SAIC 2007). However, no sampling was proposed in the Field Sampling Plan for the Phase II Site Investigation, and the Army stated that the site would be closed under the IRP program. The current status of this site is unknown. Follow up with the Army and IDEM is required for this site.

Finally, the igloos (Site 3-7) in Study Section 3 also appear to have been used to store hazardous materials. This site was proposed for additional investigation in the ECP recommendations (SAIC 2007). However, no sampling was proposed in the Field Sampling Plan for the Phase II Site Investigation. The current status of this site is unknown. Follow up with the Army and IDEM is required for this site.

# 4.5 Study Section 4 Data Gaps

Three sites in Study Section 4 require follow up, clarification, or recommended additional information gathering. The largest data gap in this area is Site 4-3, the Old Chemical Munitions Component Detonation Area (NAAP-64). This site has an unrestricted NFA from IDEM. However, no investigation of Munitions and Explosives of Concern (MEC) has been conducted in this area. Open detonation (OD) areas are known for having extensive amounts of MEC and munitions debris, and potentially unexploded ordnance. M23 landmines and M55 rockets were reportedly detonated at this site. However, historical reports state that the location of the OD area is really not defined, and "may be co-located with the RDX burning ground" or may be in the "northern portion of the RDX burning area". However, limited investigation into the actual location of the OD area, and no investigation of the potential presence of MEC have been conducted. The OD area should be further investigated for the location, activities conducted, and potential for MEC. Follow up with the Army and IDEM on this issue is necessary.

The sanitary landfill is located in Study Area 4. The landfill is not included in the Land Use Control Implementation Plan. It was likely closed through the State of Indiana separately from the RCRA Part B permit, and may have land use controls prohibiting excavation. This would limit this area in terms of agricultural reuse. Follow up with the Army and IDEM is recommended for this site to determine LUC status.

The TNT Burning Ground (Site 4-6) has long term groundwater monitoring requirements in place, and no NFA. These long term monitoring requirements may extend beyond the property transfer date.

### 4.6 Study Section 5 Data Gaps

Study Section 5, located in the south-central area of NECD, formerly contained TNT manufacturing-related activities. These areas include the TNT Acid Area and the TNT Manufacturing Area. Many of the process and manufacturing areas have been investigated, but a review of historical records and interviews of onsite personnel suggest that several chemical spills and otherwise unidentified substances represent data gaps that should be investigated prior to any planned redevelopment.

Sites 5-1, 5-2, 5-3, and 5-8 represents spills of various substances in Study Section 5. All of the spills present the possibility that contaminants were introduced to the ground and may not have been adequately remediated. Sites 5-1 and 5-2 are a sulfuric acid spill and oleum spill, respectively, that occurred at the TNT-MA in the 1970s. These sites were identified in the ECP report (SAIC 2007). No sampling was proposed in the ECP Phase II Site Investigation for either of these two sites. Acid can mobilize metals in soils. IDEM concurrence with no sampling in these two areas is required.

Site 5-3 is a red water spill that occurred during operation of the TNT Manufacturing Area when a tanker truck overflowed. Sampling results identified in the ECP Phase II Site Investigation Report (SAIC 2009) showed concentrations of explosives below industrial reuse values. The Army recommended "future land use risk management decision". Follow up with IDEM on IDEM concurrence and restricted NFA for this site is required.

Site 5-8 represents a spill results from an overflow of toluene from tanks in the TNT-MA. Sampling was conducted during the ECP Phase II Site Investigation, and volatile organic compounds (VOCs) were below screening values. The Army recommended NFA for this site. Follow up with IDEM on IDEM concurrence and the NFA is required.

The South Water Tower (Site 5-7) was further investigated because, due to the age of the structure, the possibility existed that lead-based paint has been used on the tower, and may have peeled or chipped off the tower and in the soils below. Results of the Phase II Site Investigation showed lead concentrations above screening values below the tower. The Army recommended a NFA for this area. The NECDRA should not concur with this recommendation, and request that the Army conduct remediation of peeling paint on the

tower, and in the soils below. Follow up on this site is recommended with the Army and IDEM.

More generally, the TNT-MA, the TNT Acid Area, and the Pollution Control Center (PCC) have been previously investigated. According to the reviewed documents a status of "No Further Action" has either been approved or, in the case of the PCC, been requested. However, remaining buildings, piping, and foundations all have the potential for explosives contamination. Steam tunnels from the heat plant could contain asbestos containing materials. Redevelopment in this area will likely require additional remediation of explosives or other contaminants that remain in buildings, beneath foundations, in utilities, or in ditches in the area, as well as removal of an extensive amount of concrete foundations prior to redevelopment.

### 4.7 Study Section 6 Data Gaps

Study Section 6 contained relatively less historical activity compared to some of the other study sections. The only two sites that have been identified to date as a potential location of adverse environmental impact is Site 6-1 where unknown drums were observed north of Cull Avenue and west of 12<sup>th</sup> Street, and Site 6-2 where underground piping for fuel oil tanks were present. The drum contained a tarry substance of unknown origin and was investigated as part of the ECP Phase II Site Investigation. Soil sampling results were below screening values and the drum was removed. The Army recommended NFA, and IDEM concurrence and NFA follow up is recommended.

Site 6-2 was also investigated as part of the ECP Phase II Site Investigation. Soil borings showed contamination below screening values, and the Army recommended NFA and removal of the piping. Follow up with IDEM and the Army to remove and drain the piping, and document piping condition is recommended. If the piping shows holes or stained soils are encountered, additional remediation and/or sampling may be required.

# 4.8 Study Section 7 Data Gaps

Study Section 7 contains a number of formerly-used industrial area and several active facilities. Study Section 7 is located in the southeastern area of the site and is surrounded by Study Sections 3 (south and east), 6 (west), and 8 (north).

Little Raccoon Creek runs through Study Section 7 and has been thought to contain debris, especially in the area around the Decontaminated Waste Burial Ground (DWBG). In addition, Little Raccoon Creek may be receiving contaminated leachate from the burial ground itself and other sites in the area. A specific area of concern was pinpointed on the west bank of Little Raccoon Creek where drums were found to contain an unknown black tarry substance. Little Raccoon Creek is Site 7-1 while the drums on the west bank are Site 7-2 and both sites were further investigated during the ECP Phase II Site Investigation. Exceedances of VOCs, explosives, metals, and polychlorinated bi-phenols (PCBs) were detected. The Army recommended further sampling along the DWBG, and

NFA for the area west of the scrap yard. Follow up with the Army and IDEM is recommended for these sites.

Several burial areas, known and unknown, have been identified in Study Section 7 which require more investigation to determine if environmental contamination is present. Currently these sites represent data gaps. These sites, Sites 7-3, 7-4, 7-5, and 7-6 are areas where drums or leaking munitions were temporarily buried, a mine burial area at the Scrap Yard, and Burial Area 5 at the DWBG respectively. Sites 7-3 is a drum on the bank of Little Raccoon Creek and was investigated during the Phase II ECP SI. VOCs were detected in surface soils directly beneath the drum, but the Army did not analyze for SVOCs or explosives or other metals besides lead as an oversight during the field program. The Army recommended NFA for this site. The NECDRA should not concur with this recommendation, and follow up with the Army and IDEM on this issue. VOCs in surface soils readily volatilize, and surface soil samples are poor indicators of VOCs in soils. Additional samples are recommended below the surface and should be analyzed for all constituents recommended in the Field Sampling Plan.

Site 7-4 is an area where mines and munitions are thought to have been buried. The Leaking Munitions Area has not been definitively identified based on information reviewed to date and more investigation will be required to narrow down the possible areas of contamination and to assess if contamination is present.

Site 7-5 is the mine burial area at the Scrap Yard. ECP Phase II SI sampling results showed results below screening levels. The Army recommended NFA; IDEM concurrence and NFA follow up is recommended.

Burial Area 5 (Site 7-6) represents an area where containers of VX agent were discarded and buried according to interviews with personnel and may be a source of contamination from VX and VX-related compounds and metals. Benzene, toluene, ethylbenzene, and xylenes (BTEX) and metals were detected above background concentrations during the ECP Phase II SI. The Army recommended geophysical investigation to determine if the sampled location was appropriate. Follow up with the Army and IDEM on this site is recommended.

A 300-gallon tank containing phosphorus compounds (Site 7-8) is thought to have been buried somewhere in the western portion of the DWBG. The exact location of this tank is not known, although an electromagnetic survey identified several possible locations. Until this tank has been located and investigated, it remains a data gap and possible source of environmental contamination. In addition, unknown waste related to the DWBG may have been buried in the DWBG East Pine Tree Area (Site 7-14). This area was assessed for possible contamination during the ECP Phase II SI. Buried debris was not encountered and contaminants were detected below screening values. The Army recommended NFA. IDEM concurrence and follow up on the NFA is recommended.

The Closed Sanitary Landfill (CSL) has been previously investigated and been issued an NFA designation based on no metals contamination found in the groundwater. However

the CSL (Site 7-10) was not investigated for the presence of pesticides and possible other compounds likely to be found in a closed landfill. The former landfill is planned to be investigated under the ECP Phase II for the presence of pesticides. Pesticides were not detected in groundwater during the Phase II ECP SI. The Army recommended NFA. IDEM concurrence and follow up on the NFA is recommended.

The Sewage Treatment Plant (STP, Site 7-13) has been used since the 1940s but it is unknown if the sludge beds at the plant have maintained their integrity. It is possible that leaks may have developed, allowing sludge drying to introduce contaminants to the environment. Low concentrations of VOCs and metals were detected in soils during the ECP Phase II SI. The Army recommended an NFA. IDEM concurrence and follow up on the NFA is recommended.

Several possible asbestos burial areas have been identified in Study Section 7. These sites, referred to as Asbestos Burial Area (Site 7-15), Asbestos Burial Area East of the MCD (7-16), Asbestos Burial Area West of the STP (7-17) and Asbestos Burial Area East of the Pine Trees and West of 1<sup>st</sup> Street (7-18) represent possible areas of asbestos contamination. Environmental investigation conducted as part of the ECP Phase II investigation. For the Asbestos Burial Area East of the MCD, the Asbestos Burial Area West of the STP, and the Asbestos Burial Area East of the Pine Trees and West of 1<sup>st</sup> Street, the Army has recommended LUCs restricting intrusive activities and future land use based risk management decisions. IDEM concurrence with these proposed LUCs and follow up on the NFA is recommended. If debris is exposed in any of these areas, capping should be considered.

The final data gap in Section 7 is an area south of the Chemical Plant where pine trees have been replanted (See Figure 5). Historical information states that areas where burial fill areas were located were replanted with pine trees. Based on information reviewed to date, this area has not been investigated and should be assessed for potential environmental impacts. Follow up with the Army and IDEM is recommended for this site.

# 4.9 Study Section 8 Data Gaps

Study Section 8 is the section which contains the bulk of the current activity at the NECD. The demilitarization facilities operated by Parsons are in this area as well as other support facilities. According to a letter from IDEM (IDEM 2004), the entire Chemical Plant area will have Land Use Controls prohibiting any use other than industrial within the former Chemical Plant boundaries. This will require new LUCs, an update of the LUCIP, and deed restrictions. Follow up with the Army and IDEM on this issue is recommended. Additionally, most of the Chemical Plant area has thick concrete foundations and underlying utilities. The utilities have reportedly been cut but not "run to ground" in terms of emptying and cleaning the lines. All utilities should be removed if possible, or if not possible, grouted in place following cleaning and removal of residual liquids and sludges in the pipes. The potential for explosives and VX compounds in concrete foundations and utilities or in or beneath any remaining structures in the

decontamination area or former chemical plant area remains. Once the decommissioning of the demilitarization facility is complete, the Army will complete a subsurface investigation. It is recommended that the NECDRA follow up on these results with the Army and IDEM.

Several sites including the Chemical Plant Coal Ash Basin (Site 8-5), the RDX Manufacturing Area (Site 8-1), and several locations of former USTs (Site 8-4) have been investigated and been granted an NFA (with land use controls in the case of the Chemical Plant Coal Ash Basin). However, in the RCRA Permit under the RDX MA-Acid Area, "NFA" was crossed out. Clarification from IDEM is recommended for this site. Additionally, the RDX MA Acid Area still has cement foundations and piping that remain in place. The status of decontamination of the process serwers and return lines is unclear. There remains the possibility of explosives or acids beneath foundations and in utility lines.

The Fire Training Pit (Site 8-11) was investigated as part of the ECP Phase II SI. VOCs and PAHs were detected in soils, but the Army has recommended NFA. The NECDRA should not concur with this recommendation. Additional sampling should be conducted to evaluate impacts to soil and groundwater at depth. Fire training pits are known sources of contaminants, and shallow soils likely have had volatilization of the VOCs. Additionally, burning can generate dioxins, which are a typical byproduct of incomplete combustion and should be added to the analyte list. Follow up with the Army and IDEM on this issue is recommended.

The Former Locomotive House (Site 8-13) was investigated for similar compounds which may pose a source of environmental contamination stemming from locomotive repair and maintenance activities. Results obtained during the ECP Phase II SI indicated contaminants were detected at concentrations below screening levels. It is unclear if this area was investigated because of the former UST at this site, or because of surface spills. Samples were collected above the depth of the former UST. NFA was recommended by the Army. Additional sampling would be required to evaluate impacts from the former UST. IDEM concurrence and follow up is recommended.

Similarly to the South Water Tower previously discussed in Study Section 5, the North Water Tower (Site 8-13) is a possible source of lead contamination based on the likely use of lead-based paint on the structure due to its age. Lead contamination was detected in soils at concentrations above screening values. The Army recommended NFA. The NECDRA should not concur with this recommendation, and request that peeling paint be removed from the structure and remediated from the soils below the tower. Follow up with the Army and IDEM on this issue is recommended.

Several buildings have historical uses which pose a possible source of environmental contamination. These buildings in Study Section 8 include a power house (Building 401A; Site 8-16), two vehicle maintenance shops (Buildings 716A and 716D, Sites 8-17 and 8-18 respectively) and three pesticide storage areas (Buildings 722A, 723A, and 726C, Sites 8-19, 8-20, and 8-21). The possibility for environmental impacts exist inside

and around these buildings due to their historical uses with PCBs, solvents, petroleum products and pesticides. These sites were investigated during the ECP Phase II SI. Site 8-16, the power house (Building 401A) showed PCBs in the concrete and surrounding soils of the building. The plant is partially dismantled and demolished, and PCB containing concrete is currently exposed to the atmosphere. The boilers that remain in the building are covered in asbestos. The building is a safety hazard. The Army recommended additional evaluation. NECDRA should request that the Army demolish the building and remediate impacted soils. Follow up with the Army and IDEM is recommended for the power house.

Site 8-17, Building 716A had contamination from former vehicle maintenance activities. The Army recommended additional investigation. Follow up with the Army and IDEM is recommended for this site. Site 8-18, Building 716D showed concentrations below screening values. The Army recommended NFA. IDEM concurrence and follow up on the NFA is recommended. Site 8-19, Building 722A had documented contamination inside the building, but pesticides at concentrations below screening values in soils outside the building. The building should be decontaminated prior to transfer. The Army recommended NFA for surrounding soils. IDEM concurrence and follow up on the NFA is recommended.

Site 8-20, Building 723A contained pesticides. One composite sample of surrounding soils was collected during the ECP Phase II SI. Historical information indicates that pesticides were washed down the drain inside the building or poured on the ground. The inside of the building and beneath the building foundation may be impacted, and has not been investigated. The Army recommended NFA. The NECDRA should request additional sampling. IDEM concurrence and follow up are recommended.

Site 8-21, Building 726C showed exceedances of screening values for pesticides in surface soil composite samples. The Army recommends additional sampling for this site. The inside of the building may also be contaminated with pesticides, and should be decontaminated prior to transfer. Historical information indicates that pesticides may have been washed down the drain of this building. Soil samples beneath the building foundation may contain pesticides. Follow up with the Army and IDEM is recommended for this Site.

Two additional sites (Sites 8-22 and 8-23) represent possible asbestos burial areas within Study Section 8 near Building 401A. A review of historical records suggests that ACM may have been disposed of in this area. The asbestos burial area west of Building 401A indicated that VOCs, metals, and SVOCs were detected, but no buried debris was identified in the two soil borings installed. The Army recommended "land use based risk management decisions including no intrusive activities" for the area. However, the actual burial area has not been identified so potential impacts have not really been assessed. It is to the NECDRA's advantage to limit or minimize areas where LUCs are imposed. It is recommended that the NECDRA follow up with the Army and IDEM to request that the burial area be defined, and impacts from it be evaluated.

The Asbestos Burial Area North of Building 401A showed chemical concentrations below screening values. The Army recommended LUCs for produce and intrusive restrictions. IDEM concurrence and follow up on the NFA is recommended.

Site 8-26, the VX Storage Area (Building 144) was not investigated during the ECP Phase II SI, although the ECP report stated that "yellow soils" were identified south of Building 144. Additional information is required, and it is recommended that follow up with the Army and IDEM on this issue occur.

The former fuel oil tanks at the RDX MA Acid Area (Site 8-27) were further investigated as part of the ECP Phase II SI. It is unclear whether this is the same site as 8-15, Leaking Petroleum UST. Soil sampling indicated that VOCs and SVOCs were not detected. The Army recommended NFA. IDEM concurrence and follow up on the NFA is recommended, and clarification from the Army about Site 8-15 and 8-27 is recommended.

#### 5.0 Conclusions

Study Areas 1 through 8 all have data gaps associated with known environmental sites and/or areas that have not been investigated. The ECP report and Site Investigation report of sites identified in the ECP report prepared by SAIC on behalf of the Army are excellent documents for describing environmental conditions, but do not offer a comprehensive analysis of all issues that could impact redevelopment. The NECDRA must have a thorough documentation of the existing environmental conditions on the site in order to:

- ► Accurately estimate costs for development in areas where environmental conditions may still exist
- Understand land use controls and their impact on future development activities
- ▶ Understand development schedules and timeframes for remediation
- ▶ Negotiate reasonable terms for insurance coverage and premium costs
- Understand regulatory standards and requirements for the site after property transfer.

Significant environmental concerns or issues that could affect property values and future reuse/redevelopment plans include:

- ▶ Discovery of MEC or MC could significantly delay development or reuse due to the nature and length of time it takes to assess and remediate. Additionally, discovery of MEC after development can significantly impact existing businesses or infrastructure (e.g., roadways and access routes) due to the safety arcs that must be imposed during investigation and remediation activities. Potential areas that may require additional assessment for MEC or MC include the OCMCDA, National Guard Training Area, and the "Explosives Testing Area" at the current site of the Small Arms Range.
- ▶ Existing land use controls do not alleviate the possibility of encountering explosives beneath building foundations, inside remaining buildings in explosives manufacturing areas, and in existing infrastructure, during redevelopment activities. New land use controls will likely be implemented based on results of the 2009 Site Investigation. These need to be reviewed for potential impacts on development.
- ▶ Inadequate assessment or abandonment of existing utilities could result in remediation of contamination, removal and replacement of asbestos utility lines, or continuing conduits for potential contamination migration.
- ▶ Demolition of dilapidated structures such as the Richmond Magazines and the former Power House (401A) require remediation of asbestos, PCBs, and potential explosives prior to remediation. These structures are dilapidated, a safety hazard, and are currently exposing contaminants to the environment.
- ▶ All buildings are assumed to have asbestos and lead based paint. The NECDRA should account for abatement costs prior to any demolition.
- ▶ The NECDRA must confirm number and locations of all active USTs and ASTs. There have been varying reports of the number still in operation and information related to removal has not been reviewed.
- ▶ Utilities that will be abandoned should be removed or grouted in place to prevent preferential flow of any contaminants that may remain in the subsurface.

- Additional areas that have been clear cut and replanted with pine trees have been identified, and should be investigated for the potential presence of buried debris.
- ▶ Potential radiological contamination from an area known as the "P-9 Plant" should be investigated for potential impacts to the Site.
- ▶ The Chemical Demilitarization Area is still undergoing remediation and demolition. After demilitarization and demolition are complete, additional investigations will be required to assess potential contamination beneath the chemical plant and demilitarization areas. Additional environmental evaluation will be required at that time.
- ▶ The IDEM should be consulted to confirm the status of all NFAs and LUCs, update the permit, and discuss the potential for removing non-impacted property from the "Facility" boundary and reissuing the RCRA Part B permit. This will allow quicker reuse of unimpacted property that will not be incumbered by a RCRA Permit.

The ultimate goal prior to transfer is to characterize contamination throughout the Site, and take the appropriate remedial actions to allow for economically viable and market based reuse in a manner that is protective of human health and the environment. Investigation and cleanup take time, and the goal is for the Army to complete as much of the remediation as possible prior to transfer so that the property is immediately available to support a redevelopment plan, on a defined schedule.

#### 6.0 References

Dames & Moore. 1991. Site Investigation Report, Night Soils Pits, TNT Manufacturing Area, Chemical Plant, Decontaminated Waste Burial Ground, Little Raccoon Creek, Newport Army Ammunition Plant, Indiana. December.

Dames & Moore. 1991b. Remedial Investigation Report, TNT Burning Ground, Newport Army Ammunition Plant, Indiana. December.

Indiana Department of Environmental Management (IDEM). 2007. Newport Chemical Depot RCRA Permit, Appendix J.

IDEM. 2004. Letter to Cathy Collins of Newport Chemical Depot regarding No Further Action Memorandum, Newport Chemical Depot. January 9.

Mason and Hanger. 2004. NPDES Permit Number IN0003506, Corrective Measure Implementation and Removal Action.

Mason and Hanger. 2008. Newport Chemical Depot Infrastructure Assessment. Newport Chemical Depot, Newport, Indiana. March

Mason and Hanger. 2008. Depot Utilities Management Plan. Newport Chemical Depot, Newport, Indiana. March.

Pathfinders. 1998. Newport Chemical Facility Feasibility of Reuse Phase I Strategy. October

Pathfinders. 2000. Newport Chemical Depot Redevelopment Plan Phase II.1 Final Report. January.

Personal Communication. 2009. Meeting Notes from Status Meeting. Newport Chemical Depot, Newport, Indiana. February.

SAIC. 1995. Corrective Measures Study, TNT Burning Ground. September.

SAIC 2000a. Newport Chemical Depot Partial Clean Closure Plan Addendum. March.

SAIC. 2000b. Technical Memorandum-Risk Assessment for Human Consumption of Beef from Cattle Grazing at the RDX Manufacturing Area. Newport Chemical Depot, Newport, Indiana. May.

SAIC 2001a. Newport Chemical Depot RCRA Treatability Study Report. TNT Burning Ground. March.

SAIC 2001b. Newport Chemical Depot RCRA Facility Investigation SWMU 27 – Closed Sanitary Landfill, SWMU 65-Scrap Yard/Demilitarization Incinerator, Little Raccoon Creek. April.

SAIC. 2001c. Newport Chemical Depot Conceptual Design: Bioremediation of TNT Burning Ground. July.

SAIC. 2002a. Newport Chemical Depot RDX Manufacturing Area Corrective Measures Study. July.

SAIC. 2002b. Newport Chemical Depot Treatability Study Report, RDX Manufacturing Area. December.

SAIC. 2003a. RCRA Facility Investigation Report, Newport Chemical Depot, Newport, Indiana. August.

SAIC. 2003b. Newport Chemical Depot Construction Debris Dump and Decontaminated Waste Burial Ground Corrective Measures Study. September.

SAIC 2004a. Newport Chemical Depot Corrective Measures Implementation TNT Manufacturing Area Completion Report. January.

SAIC. 2004b. Newport Chemical Depot No Further Action Memorandum. Newport Chemical Depot, Newport, Indiana. June.

SAIC. 2005a. Newport Chemical Depot, Land Use Control Implementation Plan. Newport Chemical Depot, Newport, Indiana. October

SAIC 2005b. Newport Chemical Depot Construction RDX Manufacturing Area Corrective Measures Implementation Completion Report. February.

SAIC 2005c. Newport Chemical Depot Construction Debris Dump Corrective Measures Implementation Completion Report. March.

SAIC 2005d. Newport Chemical Depot Decontamination Waste Burial Ground Corrective Measures Implementation Completion Report. March.

SAIC 2005e. Newport Chemical Depot Cooling Tower Sump Removal Action Completion Report. April.

SAIC 2005f. Newport Chemical Depot Hazardous Waste Closure Report Former Production Facility, Ton Container Storage Area. December.

SAIC. 2006. Newport Chemical Depot Update on Environmental Remediation/Restoration Projects, RAB Meeting presentation. July.

SAIC 2007a. Newport Chemical Depot Technical Memorandum, SWMUs NAAP-6 and NAAP-7, North Chemical Plant Area. February.

SAIC 2007b. Newport Chemical Depot Asbestos Removal Report for the Construction Debris Dump and Decontaminated Waste Burial Ground. September.

SAIC. 2008a. Environmental Condition of Property Report: Phase II Recommendations. Final. Newport Chemical Depot, Newport, Indiana. June

SAIC. 2008b. Environmental Condition of Property Report. Final. Newport Chemical Depot, Newport, Indiana. October

SAIC. 2008c. Field Sampling Plan Site Inspection. Final. Newport Chemical Depot, Newport Indiana. November.

SAIC. 2009. U.S. Army BRAC 2005 Site Inspection report, Newport Chemical Depot, Newport, Indiana. Draft. May.

Staubach. 2006. Site Assessment Report. Final. Newport Chemical Depot, Newport, Indiana. May.

TLI Solutions, 2007. Military Munitions Response Program, Historical Records Review, Newport Chemical Depot, Newport, Indiana. May.

U.S. Army. 2004. FY2005 Newport Chemical Depot Indiana Installation Action Plan. Newport Chemical Depot, Newport, Indiana.

U.S. Army Chemical Materials Agency. 2009. Presentation on Utilities at Newport Chemical Depot. Newport Chemical Depot, Newport, Indiana. February.

U.S. Army Corps of Engineers and TLI Solutions. 2007. Military Munitions Response Program, Final, Historical Records Review, Newport Chemical Depot, Newport, Indiana. May.

U.S. Army Toxic and Hazardous Materials Agency. 1979. Installation Assessment of Newport Army Ammunition Plant, Record Evaluation Report No. 133. January.

| Figure Site         |                  |  |                   |                                      |                          |            |   |  |                                |   |  |  |  |
|---------------------|------------------|--|-------------------|--------------------------------------|--------------------------|------------|---|--|--------------------------------|---|--|--|--|
| Reference<br>Number | Study<br>Section | Site   | SWMU No.          | Description                          | Dates of<br>Operation    | Size       | Constituents Disposed/Used at<br>Site   | Contaminants of<br>Concern                                     | Previous or<br>Current Studies | Previous Actions  | Remediation<br>Status  | Existing Land Use<br>Controls                    | DATA GAPS/Notes  |
| 1-1                 | 1                | Richmond Magazines 33 and 47                                 | N/A               | Representative of magazine area uses |                          |            | Explosives Storage  | Metals, explosives, ACM  |                                | SI for soils outside<br>two magazines at<br>floor gutter drains     | none   | none   | Magazines in disrepair, safety hazard, ACM releases; Army recommended NFA for environmental media. Recommend visual survey of all magazines. Explosives in magazines require decontamination. Recommend visual survey of all outfalls for evidence of staining. If staining noted, recommend sampling of soils. If soils test positive for explosives, potential for contamination under slabs. Army recommended NFA although they state that "powdery residue" needs to be addressed. Do not agree with NFA based on these results. |
| 1-2                 | 1                | Small Arms Range   |                   |                                      | 1946 - present           | 0 27 arres | Ammunition  | metals in soil   | ECP SI Site                    |   |  |  | Results pending from Army for a lead survey. 1961 map shows area labeled as "Explosives Testing Area". Potential for explosives and MEC. Further investigation and follow up recommended.  |
| 1-2                 |                  | Small Anns Nange   |                   |                                      | 1940 - present           | U.ZI acres |   | ITTE CAIS IIT SOII   | LOI SI SILE                    |   |  |  | recommended.   |
| 1-3                 | 1                | Night Soil Pits (NSPs)                                       | NAAP-1 and NAAP-2 | Disposal area                        | 1940s,1968,<br>1977      |            | Human waste, decontaminated VX<br>manufacturing waste, razed<br>building debris | metals in groundwater  | SI, RFI                        | None  | NFA (restricted)   | No excavation of soil or waste                   | None   |
| . 0                 |                  | angin con the (the c)  | TO U T GIRT TO U  | _ 10 p 0 0 0 1 0 1 0 0               |                          | 200 X 200  | Summing doorne  | motale in groundwater  | 0., 1                          | . 10110   | ru / (roomotoa)  | Hadio  | No debris identified but low level VOCs  |
|                     |                  |  |                   | Possible burial                      |                          |            |   | VOCs. SVOCs. metals.   |                                |   | None; NFA  |  | detected. NFA recommended by<br>Army. Requires IDEM concurrence  |
| 1-4                 | 1                | West Pine Tree Area  | N/A               | area                                 |                          |            | Burial of unknown material  | VX, explosives   | ECP SI Site                    | SI, soil borings  | recommended  | none   | and NFA follow up.   |
| 2-1                 |                  | RDX-Manufacturing Area (RDX-MA) and<br>associated open ditch | NAAP-3 / AOC A    |                                      | 1942-46, 51-57           | 275 acres  |   | RDX in soil, VOCs,<br>explosives in surface and<br>groundwater | RFI, CMS, CMI                  | 6700 cy soil<br>removed,<br>composted (@<br>TNT-BG) and<br>replaced | Soil remediation<br>complete; Cattle<br>Grazing allowed;<br>Long-term<br>monitoring ongoing;<br>no NFA | No residential development<br>or groundwater use | Buildings removed but foundations, sewer ditches, and underground piping remains. Potential contaminants beneath building foundations and in piping is a data gap. Existing LUCs do not exclude excavation or industrial redevelopment, but explosives likely under concrete foundations. Concrete removal should be conducted by UXO trained personnel using armored equipment and crusher. Redevelopment hindered in current condition.  |
|                     |                  |  |                   |                                      |                          |            |   |  |                                |   |  |  | NFA recommended by Army; no VX   |
| 3-1                 |                  | RDX-Manufacturing Area A Area F Parking<br>Lot               | N/A               | VX Storage                           |                          | 1.1 acres  | Storage of Ton Containers   | VX products  | ECP SI site                    | SI, soil borings  | none   | none   | compounds detected. Requires IDEM concurrence and NFA follow up.   |
| 3-2                 | 3                | Drums South of North Patrol Road                             | N/A               | Drums found<br>during Visual SI      | unknown                  |            | black tarry substance in drums  | VOCs, SVOCs, metals,<br>VX, explosives                         | ECP SI site                    | SI, soil borings  | recommend further investigation for PAHs   | none   | Army recommends further investigation. Recommend soil removal action and confirmation sampling, and removal of drums. Offsite disposal.  |
| 3-3                 | 2                | Former Skeet Range   | N/A               | former skeet range                   | 1950s-1970s              | 0.13 acres | amunition   | metals   | ECP SI site                    | SI, soil sampling   | none   | none   | Soil samples below screening levels;<br>NFA recommended by Army.   |
| 3-3                 | 3                | Tomor Sheet Italiye  | I W/A             | range                                | 10005-18708              | U. 10 auto | amaillion   | metais   | LOT OF SILE                    | or, son sampling  | none, further  | none   | Mercury in soils above screening   |
| 3-4                 | 3                | Batteries North of Railroad Bed                              | N/A               |                                      |                          |            | Battery acid  | metals, pH   | ECP SI site                    | SI, soil sampling   | investigation recommended  | none   | levels. Further investigation recommended by Army.   |
| 3-5                 |                  | Mason & Hanger Hazardous Waste                               | N/A               | Hazardous<br>waste storage           | currently<br>operational |            |   | VOCs, SVOCs, metals, explosives, PCBs                          |                                |   | none   | none   | Results indicated contaminants below screening values. NFA recommended by Army. Detections suggest spills and releases. Recommend Army decon inside of building before transfer.   |
| 3-6                 |                  | Parsons Hazardous Waste Storage<br>Building (729A)           | NAAP-55           | Container storage area               | 1981-present             |            |   |  |                                |   | NFA per 2006<br>RCRA permit but<br>possible storage of<br>waste after NFA?                             |  | Recommended for further investigation in ECP recommendations. No sampling proposed in FSP; will be closed under IRP. Status unknown  |

| Figure Site         |                  |  |  |  |   |                              |   |  |   |  |  |   |   |
|---------------------|------------------|--|--|--|---|------------------------------|---|--|---|--|--|---|---|
| Reference<br>Number | Study<br>Section | Site   | SWMU No.                                 | Description  | Dates of<br>Operation                         | Size                         | Constituents Disposed/Used at<br>Site   | Contaminants of<br>Concern   | Previous or<br>Current Studies  | Previous Actions   | Remediation<br>Status                              | Existing Land Use<br>Controls   | DATA GAPS/Notes   |
|                     |                  |  | N/A                                      | N. Q.  |   |                              |   |  |   |  |  |   | Recommended for further investigation in ECP recommendations. No sampling proposed in FSP; will be  |
| 3-7                 | 3                | Igloos (Buildings A3301 - A3308)                                     | N/A                                      | VX Storage   |   |                              |   | Metals, VOCs, SVOCs in   | 1975-Water Quality  |  |  |   | closed under IRP. Status unknown  |
| 4-1                 | 4                | Red Water Ash Basins (RWABs)   | NAAP-29, NAAP-30, NAAP-<br>31, & NAAP-32 | 3 basins and<br>holding sump<br>(NAAP-32)                            |   | 250x300' ea. and 60x60' sump | Wastewater, ash, sludges from red water associated with TNT production                              | groundwater; metals & SVOCs in soil; metals, SVOCs, & explosives in surface water/sediment | Study, 1985-<br>Installation<br>Assessment, 1991-<br>RI, 2000-RFI                         |  | NFA (unrestricted).<br>IDEM concurrence<br>1/9/04  | None  | Basins remain, sump still active water, pumped to PCCRP   |
| 4-2                 | 4                | RDX-Burning Ground   | NAAP-33                                  |  | sporadic 1942-<br>46, 1951-57,<br>and 1968-76 | 41.92 acres                  | waste RDX, waste explosives components of M23 land mines and M55 rockets                            | explosives, SVOCs,<br>metals, & VOCs in<br>groundwater; metals &<br>VOCs in soil           | 1979 & 1985<br>Installation<br>Assessment, 1991-<br>RI, 2000-RFI,                         |  | NFA (unrestricted).<br>IDEM concurrence<br>1/9/04  | None  |   |
| 4-3                 | 4                | Old Chemical Munitions Component<br>Detonation Area (OCMCDA)         | NAAP-64                                  |  | sporadic 1942-<br>46, 1951-57,<br>and 1968-76 | 15 acres                     | chemical munitions parts (  | explosives   | 1997 RFI  |  | NFA (unrestricted).                                | None  | History of this area sparse. M23 landmines and M55 rockets reportedly detonated here. High potential for UXO. No geophysical investigation. Past experience shows high potential for MEC contamination in OD areas and surrounding areas. Recommend additional geophysical investigation. |
| 4-4                 | 4                | Gypsum Sludge Basins (GSBs)  | NAAP-34, NAAP-35, & NAAP<br>36           |  | 1973-74                                       | 400x400x10' ea.              | gypsum sludge from neutralization of acidic wastewater  | metals   | 1979 & 1985-<br>Installation<br>Assessment, RI,<br>1997-8-RFI, 2000-<br>Facility-wide RFI |  | NFA (restricted)                                   | No residential, no<br>groundwater use, no<br>agricultural use in northern-<br>most GSB (NAAP-34 only) |   |
| 4-5                 | 4                | Pollution Control Center Retention Pond (PCCRP) and drainage ditches | NAAP-49, AOC B                           | Addressed with<br>GSBs (above)<br>in environmental<br>investigations | 1973-74                                       | 275x275x5'                   | wastewater from GSBs, RWABs   | No soil exceedances;<br>metals in groundwater  | 1979 & 1985-<br>Installation<br>Assessment, RI,<br>1997-8-RFI, 2000-<br>Facility-wide RFI |  | NFA (restricted)                                   | No residential, no groundwater use  | Electricity still on to pump out water that accumulates at PCCRP.   |
| 4-6                 | 4                | TNT Burning Ground (TNT-BG)  | NAAP-50                                  |  | 1973-   | 4 acres                      | TNT, TNT residue, dinitrotoluene, mononitrotoluene  |  | RI, CMS, CMI<br>Treatability Study  | 7,000 cy soil<br>remediated<br>(composted);<br>groundwater<br>treated with carbon<br>filters. Ongoing<br>GW monitoring | No NFA   | No residential or GW use  |   |
| 4-7                 |                  | Sanitary Landfill  | NAAP-51                                  |  | 1981-87                                       | 0.67 acres (30 acres total)  | sanitary landfill   |  | closed in accordance with Closure and Post Closure Plans                                  | groundwater<br>monitoring<br>complete  | NFA  | Land Use Restrictions unclear, not currently in LUCIP   | Permitted under State of Indiana solid waste permit. Closed in accordance with closure plan. Assume "no dig" restrictions in place which would limit agricultural reuse. Need documents to confirm status.  |
| 5-1                 |                  | Sulfuric Acid Spill in TNT Area                                      | N/A                                      |  | 1970s   | ,                            |   | metals   |   |  | No NFA/no concurrence                              |   | No sampling proposed in ECP Phase II. Data Gap as acids can mobilize metals, and sampling recommended. Need IDEM concurrence and follow up.   |
| 5-2                 |                  | Oleum Spill near Cull Avenue   | N/A                                      |  | 1973  |                              |   | metals   |   | neutralized with soda ash  | No NFA/ no concurrence                             |   | No sampling recommended in ECP; requires IDEM concurrence and follow up.  |
| 5-3                 | 5                | Red Water Spill at TNT-MA  | N/A                                      | red water  |   |                              | Red water   | explosives   | ECP SI site   | SI, soil borings   | none   | none  | TNT breakdown products detected below industrial screening levels. Army recommends land use based risk management decision. No further action planned.  |
| 5-4                 | 5                | TNT Manufacturing Area (TNT-MA)                                      | NAAP-37 through NAAP-47                  |  | 1973-74                                       |                              | TNT components (5 production lines, 5 wastewater and handling areas, wastewater treatment facility) | metals, explosives   | SI  | Hot gas decontamination  | NFA (unrestricted)<br>per RCRA permit<br>from IDEM |   | Need confirmation of equipment and piping decontamination only or whole building decontamination. Potential for explosives under concrete foundations. Potential explosives hazard inside remaining buildings and in piping.  |

| <b>-</b> 1. |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   |   |
|-------------|------------------|---|--|-------------------------------|-----------------------|------------|---|---|--------------------------------|----------------------------------|---------------------------------|---|---|
|             | Study<br>Section | Site  | SWMU No.   | Description                   | Dates of<br>Operation | Size       | Constituents Disposed/Used at Site                    | Contaminants of Concern                             | Previous or<br>Current Studies | Previous Actions                 | Remediation<br>Status           | Existing Land Use<br>Controls                 | DATA GAPS/Notes   |
|             |                  |   | NAAP-56, NAAP-57, NAAP-<br>58, NAAP-59, NAAP-60,   |                               |                       |            |   |   |                                |                                  | NFA (unrestricted)              |   |   |
|             | _                |   | NAAP-61, NAAP-62, & NAAP                           |                               |                       |            |   |   |                                |                                  | per RCRA permit                 |   |   |
| 5-5         | 5                | TNT-MA Acid Area  | 63   | system<br>Industrial          | 1971-74               |            | TNT   | explosives  |                                |                                  | from IDEM                       |   | see comment above.  |
| 5-6         | 5                | Pollution Control Center / ditches  | NAAP-48 / AOC B                                    | wastewater<br>treatment plant | 1971-74               |            | gypsum  |   |                                |                                  | NFA                             |   |   |
| 0.0         |                  | r ordinar control control valuence  | 1000 4077600                                       | trodunont plant               | 107174                |            | урост   |   |                                |                                  | 1477                            |   |   |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | Army recommends NFA but lead concentrations exceed screening levels         |
| 5-7         | _                | Water Tower - South (Structure 4261)  | N/A  |                               | built 1969            | N/A        | lead-based paint                                      | lead in soils                                       | ECP SI site                    | SI soil samplking                | nono                            | none  | below water tower. Recommend soil removal and confirmation sampling.        |
| 3-7         | 3                | Water Tower - South (Structure 4201)  | IN/A   |                               | Duilt 1909            | IN/A       | lead-based pallit                                     | lead III Solis                                      | ECF 31 Site                    | 31 Soli Sampiking                | none                            | none  | VOCs detected at concentrations   |
| 5.0         | _                | Toluene Spill in TNT Area - Building  |  |                               | 4070                  |            | talian a  | V00-  | EOD 01 - #-                    | Clasilhada                       |                                 |   | below screening values; Army  |
| 5-8         | 5                | 9511/9512   |  |                               | 1973                  |            | toluene   | VOCs  | ECP SI site                    | SI soil borings                  | none                            | none  | recommends NFA. Soil results below screening levels.                        |
| 6-1         | 6                | Drum located north of Cull Ave, W of 12th St. Containing Black Tarry Material |  | Drums found during VSI        | unknown               | N/A        | black tarry substance                                 | VOCs, SVOCs, metals, explosives                     | ECP SI site                    | SI soil sample                   | Drum removed                    | none  | Drum removed. Army recommends NFA.  |
| 0.          |                  | on containing short rany material   |  | duning voi                    | di ilitio viii        | 1471       | Sider tarry substants                                 | expisor rec   | 20. 0. 0.0                     | or con campio                    |                                 |   | Recommend removal of piping. Low  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | concentrations of VOCs detected. Fuel remains in piping and should be       |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | drained. Additional sampling should be                                      |
| 6-2         | 6                | Underground piping for fuel oil tanks   | N/A  |                               |                       |            |   | VOCs, SVOCs   | ECP SI site                    | SI, soil sampling                | none                            | none  | conducted if visual inspection of piping shows holes or soil is stained.    |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | Fundada and a state of MOCa. BALLA  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | Exceedances of VOCs, PAHs, explosives and metals identified in              |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | northern area. Army recommends additional investigation adjacent to the     |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | DWBG. Recommend additional  |
| 7-1         | 7                | Little Racoon Creek Bank along DWBG   | N/A  |                               |                       |            | buried debris, TCE and degradation products near DWBG | VOCs, SVOCs, metals,<br>VX. explosives              | ECP SI site                    | SI soil sampling                 | none                            |   | investigation of Pine Tree Area directly east.                              |
|             |                  |   |  |                               |                       |            | leacheate from landfills, TCE and                     | ,             |                                | 3                                |                                 |   |   |
| 7-2         | 7                | Little Racoon Creek (AOC-N)   | AOC-N  |                               | N/A                   | N/A        | degradation products near DWBG                        | VOCs  | ECP SI Site                    |                                  |                                 |   | Results pending from Army   |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | Although recommended, did not   |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | analyze soil sample for SVOCs or explosives. Low levels VOCs below          |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | screening levels detected in surface  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | sample. Surface samples do not likely show highest concentrations of VOCs   |
|             |                  | Drum located on west bank of Little   |  |                               |                       |            |   |   |                                |                                  |                                 |   | due to volatilization. Recommend additional soil sampling for omitted       |
|             |                  | Raccoon Creek, south of South Blvd.   |  |                               |                       |            |   | VOCs, SVOCs, metals,                                |                                |                                  |                                 |   | analytes at a 1 foot depth, along with                                      |
| 7-3         | 7                | containing black tarry material   | N/A  |                               | unknown               | 55 gallons | black tarry substance                                 | explosives  | ECP SI site                    | SI soil sampling                 | Drum removed                    | none  | VOCs subsurface.  |
|             |                  | Area where Leaking filled Munitions were                                      |  |                               |                       |            |   |   |                                |                                  |                                 |   |   |
| 7-4         | 7                | temporarily buried.   | N/A  |                               |                       |            |   |   |                                |                                  |                                 |   | Army cannot locate  Results below screening levels. Army                    |
| 7-5         | 7                | Mine Burial Area at Scrap Yard  | N/A  |                               |                       |            | formerly filled mines                                 | Explosives, VX, metals                              | ECP SI site                    | SI soil sampling                 | none                            | none  | recommends NFA.   |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | BTEX and metals detected above  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | background. Drums were not  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | discovered during investigation and no evidence of PAHs to suggest burning  |
|             |                  |   |  |                               |                       |            |   |   |                                |                                  |                                 |   | of drums with a fuel oil igniter. Army recommends geophysical investigation |
|             |                  |   |  |                               |                       |            |   | VOCs, SVOCs, metals,                                |                                |                                  |                                 |   | to confirm location of trench and   |
| 7-6         | 7                | Burial Area 5 at DWBG   | N/A  |                               |                       |            | buried debris   | VX, explosives                                      | ECP SI site                    | SI soil sampling                 | none                            |   | drums.  |
|             |                  |   |  |                               |                       |            | VX production equipment, possibly                     |   |                                |                                  |                                 | No intrusive activities, no                   |   |
| 7-7         | 7                | Decontaminated Waste Burial Ground (DWBG)                                     | NAAP-23, NAAP-24, NAAP-<br>25, NAAP-26, & NAAP-26A |                               | 1963, 68, 74          | 23 acres   | weapoons components, asbestos, sulfur wastes,         | mercury in soil, VOCs in<br>surface and groundwater | EM survey, 2005<br>CMI         | One foot soil cover<br>installed | No NFA; Long term<br>monitoring | residential, agricultural, or groundwater use |   |
|             |                  | 300-gallon buried chemical sewer tank (has                                    |  |                               |                       |            |   | ,   |                                |                                  |                                 |   |   |
| 7-8         | 7                | not been found)   | NAAP-54  | in DWBG area                  |                       |            | phosphorus compounds                                  |   |                                |                                  |                                 |   | Army cannot locate  |
|             |                  |   |  |                               |                       |            |   |   | 1979. 85 Installation          |                                  |                                 | No agricultural, residential,                 |   |
| 7.0         |                  | Demilitarization Incinerator/Scrapyard  | NAAD CE  |                               | 4070-                 | 5          |   | PAHs, SVOCs, VOCs,                                  | Assessment, 1991-              |                                  | NEA (m. 12.1.                   | or groundwater use, no                        | MEC harranta de 11 de   |
| 7-9         | 7                | (DI/SY)   | NAAP-65  |                               | 1970s                 | 5 acres    | empty land mines                                      | explosives  | RI, 1996-RFI                   | 3' graded soil cover             | INFA (restricted)               | excavation                                    | MEC hazard; no build  |

| Figure Site<br>Reference<br>Number | Study<br>Section | Site  | SWMU No.                 | Description  | Dates of<br>Operation | Size   | Constituents Disposed/Used at<br>Site    | Contaminants of<br>Concern                  | Previous or<br>Current Studies      | Previous Actions                    | Remediation<br>Status   | Existing Land Use<br>Controls   | DATA GAPS/Notes  |
|------------------------------------|------------------|---|--------------------------|--------------|-----------------------|--|--|---|-------------------------------------|-------------------------------------|---|---|--|
| 7-10                               | 7                | Closed Sanitary Landfill (CSL)                                    | NAAP-27                  |              | 1950-77               | 4 acres  | explosives, SVOCs, metals,<br>PAHs, VOCs | metals, pesticides                          | ECP SI site (for pesticides in GW)  |                                     | NFA (restricted) per<br>IDEM letter 1/9/2004                              |   | NFA in place but pesticides in GW was data gap. Groundwater sampling for pesticides during SI did not detect pesticides. NFA recommended for CSL by Army.  |
| 7-11                               | 7                | Memorial Chapel RDX Dump (MCD)                                    | NAAP-28A                 |              | unknown               |  | metals, SVOCs                            |   | 1997 RFI                            | No cap                              | NFA (restricted)  | No intrusive activities or agriculture  |  |
| 7-12                               | 7                | Construction Debris Dump (CDD)                                    | NAAP-28                  | capped in 04 | unknown               | 4.2 acres  | metals (As, Pb), PAHs                    |   | 2003 CMS/CMI                        | capped, LTM of surface water        | LF response<br>complete, ongoing<br>monitoring<br>requirements; No<br>NFA | No intrusive activities within cap boundary, no residential or agricultural use |  |
| 7-13                               | 7                | Sewage Treatment Plant Sludge                                     | NAAP-52                  |              | since 1942            |  | sewage                                   | VOCs, SVOCs, metals                         | ECP SI site                         | SI Soil Sampling                    | NFA per RCRA<br>permit  |   | Low concentrations of VOCs and metals detected. Army conclusions state "It is possible that the integrity of the sludge drying beds have been compromised" However, NFA requested due to only one sample for arsenic exceeding screening levels.   |
| 7-14                               | 7                | East Pine Trea Area   | N/A                      |              | unknown               |  | buried unknowns                          | VOCs, SVOCs, metals, explosives, ACM        | ECP SI site                         | SI Soil Sampling                    | none  | none  | Soil samples indicated no waste in this area, and low levels of contaminants below screeningn levels. NFA recommended by Army.   |
| 7-15                               | 7                | DWBG Asbestos Burial Area   | N/A                      |              | unknown               |  | ACM                                      | VOCs, SVOCs, metals, explosives, ACM        | ECP SI Site                         |                                     |   |   | Results pending from Army  |
| 7-16                               |                  | Asbestos Burial Area East of the MCD                              | N/A                      |              | unknown               |  | buried construction debris               | VOCs, SVOCs, metals,                        | ECP SI site                         | SI Soil Sampling                    | none  |   | LUC recommended to prohibit intrusive activities. No contaminants above screening levels detected during SI.   |
| 7-17                               | 7                | Asbestos Burial Area West of the STP                              | N/A                      |              | unknown               |  | buried construction debris               | VOCs, SVOCs, metals, explosives, ACM, VX    | ECP SI Site                         | SI Soil Sampling                    | none  | "Future land use based risk<br>management decision"<br>recommended by Army      | One detection of nitrobenzene above residential screening levels, but not above industrial levels, was detected in soil samples. The source of nitrobenzene was not discovered. Army recommends land use based risk management decision. Recommend additional investigation of source area for nitrobenzene. |
| 7-18                               | 7                | Asbestos Burial Area East of the Pine<br>Trees and West of 1st St | N/A                      |              | unknown               |  | buried construction debris               | VOCs, SVOCs, metals,<br>explosives, ACM, VX | ECP SI Site                         | SI soil sampling                    | none  | "LUC restricting intrusive activity" recommended by Army                        | VOCs and metals detected above background antimony and arsenic above Human Health screening values. Debris encountered. Army recommends a "no intrusive activity" LUC and should the LUC be implemented, NFA. Recommend additional investigation, potential capping of burial area.                          |
| Section 8                          |                  | All   |                          |              |                       |  |  |   |                                     |                                     |   |   | Pursuant to IDEM letter dated Jan. 9, 2004 regarding NFAs, entire Chemical Plant Area will have a LUC restricting reuse to Industrial uses.  |
| 8-1                                | 8                | RDX-MA Acid Area  | NAAP-3A                  |              | 1942-46, 1951-<br>57  |  |  |   | 1991 SI                             |                                     | per 2005 RCRA<br>permit, NFA  |   | "NFA" crossed out on RCRA permit<br>although ECP states "NFA". Concrete<br>foundations remain. Confirm process<br>sewers emptied and decontaminated.<br>NFA Status unknown   |
| 8-2                                | 8                | Chemical Plant Retention Basins (CPRBs)                           | NAAP-10, NAAP-11, NAAP-1 | 2            | 1950-1980?            | approx 436 x 192<br>x 10' (2 basins) or<br>208 x 138 x 10' |  | VOCs, SVOCs                                 | 2001 RFI                            | Unlined basins backfilled with soil | NFA (restricted)  | No residential, agricultural, or groundwater use                                | Will likely have LUC due to chem plant area  |
| 8-3                                | 8                | Waste Oil Tank near Bldg 716A                                     | NAAP-53                  | AST          |                       |  |  |   | 1993 closure<br>1998 - Final SI for |                                     | NFA   | No LUCs; assume unrestricted  | RCRA permit states "partial closure"   |
| 8-4                                | 8                | Removed USTs (5)  | NAAP-66                  | leaking USTs | 1941-1990             |  | petroleum, oils, lubricants              |   | Risk-Based<br>Corrective Action     |                                     | per 2005 RCRA<br>permit, NFA  | No LUCs; assume unrestricted  | Need NFA terms   |

| Figure Site         |                  |   |                        |                                |                       |                 |   |   |                                |                                 |                       |  |   |
|---------------------|------------------|---|------------------------|--------------------------------|-----------------------|-----------------|---|---|--------------------------------|---------------------------------|-----------------------|--|---|
| Reference<br>Number | Study<br>Section | Site  | SWMU No.               | Description                    | Dates of<br>Operation | Size            | Constituents Disposed/Used at Site  | Contaminants of<br>Concern                | Previous or<br>Current Studies | Previous Actions                | Remediation<br>Status | Existing Land Use<br>Controls                    | DATA GAPS/Notes   |
|                     |                  |   |                        |                                |                       | 0.00            |   |   |                                |                                 |                       | No agricultural, residential, or groundwater use |   |
| 8-5                 | 8                | Chemical Plant Ash Basin  | NAAP-67                |                                | 1941-1957?            | 250x300x6'      | sluiced coal ash  | VOCs, SVOCs, metals in soils and sediment | 2001 RFI                       |                                 | NFA (restricted)      | (commercial or industrial use only)              |   |
|                     |                  | Onomical Flamentin Education  |                        |                                | 1011 10011            | LOCACOCAC       | Craised Coar don  | 1,2-DCB, 1,4-DCB, VX-                     | 20011111                       | Basin demolished                | Till Pit (Hoodingtod) | C.n.y/   |   |
| 8-6                 | 8                | Chemical Plant Agent Free Area Detoxification Basins                                      | NAAP-4, NAAP-6, NAAP-7 |                                |                       | 290x43x7'       | treated waste from production of VX                                       | related products in sediment              |                                | and backfilled with concrete    | No NFA                |  |   |
|                     |                  | Chemical Plant Agent Free Area Deep Well  |                        |                                |                       |                 |   |   |                                |                                 |                       |  | Will likely have LUCs due to Chem   |
| 8-7                 | 8                | Surge Tank  | NAAP-8                 |                                |                       |                 |   |   |                                | Removed in 1999<br>Abandoned in | NFA                   |  | Plant location  |
|                     |                  | Charried Black Asset Fore Asse Base   |                        |                                |                       |                 |   |   |                                | accordance with                 |                       |  | Mail Block house LLICo due to Obser   |
| 8-8                 | 8                | Chemical Plant Agent Free Area Deep<br>Injection Well                                     | NAAP-9                 | capped in Dec<br>1985          | ?-1971                |                 |   |   |                                | EPA requirements<br>in 1985     | NFA                   |  | Will likely have LUCs due to Chem<br>Plant location   |
| 8-9                 | 8                | Power House Coal Pile (PHCP)  | NAAP-69                |                                | 1942-1957             | approx 300x300' | coal  | metals, SVOCs in soil                     | 2001-RFI                       |                                 | NFA                   |  | Will likely have LUCs due to Chem Plant location  |
| 0.0                 |                  | Chemical Plant Pre-Agent Manufacturing  | 1000                   | Waste Surge<br>Tank - 97,000   | 10.12.1001            | аррток осохосо  | wastewater from Chemical Plant  | ·   | waste surge tank               |                                 |                       |  | Will likely have LUCs due to Chem   |
| 8-10                | 8                | Facility  | NAAP-5                 | gal                            | 1961-68               | 15 acres        | Process Areas   |   | removed in 2000.               |                                 | NFA                   |  | Plant location  |
| 8-11                | 8                | Fire Training Pit (near Building 710)   |                        |                                | 1960s                 |                 | waste petroleum oil and lubricants  | VOCs, SVOCs, metals                       | ECP SI site                    | SI soil sampling                | none                  | NFA recommended by Army                          | VOCs, SVOCs, and lead detected at concentrations below screening values. NFA recommended by Army. However, soil samples were collected only at depths of 0 and 1 foot. Additional investigation recommended to evaluate concentrations at depth and in groundwater. Fire training pits are known sources of contaminants and any VOCs in surface and near surface soils are likely volatilized and are not a good indicator of contamination. |
|                     |                  | Fuel Oil Spill at Former Railroad near West<br>Chemical Plant (southeast corner of Former |                        |                                |                       |                 |   |   |                                |                                 |                       |  | No cleanup reported, fuel oil remains.  |
| 8-12                |                  | Building 103)  Former Locomotive House (Former Building 718A) and Surrounding Area        | N/A                    |                                |                       |                 | solvents, petroleum products from locomotive maintenance                  | VOCs, SVOCs, metals                       | ECP SI site                    | SI Soil Sampling                | none                  | NFA recommended by Army                          | No NFA from IDEM. Soil samples detected VOCs and metals above background but below screening levels. NFA recommended by Army. It is unclear if this area is investigated because of a release from the former UST or from surface spills. Soil samples were collected at a depth of 6 feet, need to confirm that these are below the bottom of the former tank. Additional investigation recommended.   |
| 8-14                | 8                | Water Tower - North (Structure 510)   | N/A                    |                                |                       |                 | lead-based paint  | lead in soils                             | ECP SI site                    | SI Soil Sampling                | none                  | NFA recommended by Army                          | Soil samples indicated elevated concentrations of lead in soils and peeling paint from the structure. NFA recommended by Army. Recommend abatement of peeling paint from structure as it is a continuous source and remediation of lead in soils beneath and near structure.  |
|                     |                  | Leaking Petroluem from 1,000 gallon UST in southern portion of the RDX Acid Area          |                        |                                |                       |                 |   |   |                                |                                 |                       |  | No cleanup, petroleum hydrocarbons  |
| 8-15                | 8                | discovered in 2007  | N/A                    |                                |                       |                 | petroleum products  |   |                                |                                 |                       |  | remain. No NFA from IDEM.   |
| 8-16                | 8                | Building 401A Powerhouse- West Side   | N/A                    | Former power house             | 1942 - 1957           |                 | PCB in concrete floor and soil  | PCBs                                      | ECP SI site                    | SI Soil Sampling                | none                  |  | PCBs in soils detected. PCB contaminated concrete remains exposed to the atmosphere. Army recommends further evaluation.  |
| 8-17                | 8                | Building 716A   | N/A                    | Vehicle<br>maintenance<br>shop | 1945 to present       |                 | petroleum products and solvents<br>associated with vehicle<br>maintenance | VOCs, SVOCs, metals                       | ECP SI site                    | SI Soil Samplng                 | none                  |  | VOCs, PAHs, and metals above background. Additional investigation recommended by Army.  |

| Figure Site Reference Study Dates of Constituents Disposed/Used at Contaminants of Previous or Number Section Site SWMU No. Description Operation Size Site Concern Current Studies Previous Ac |                    |   |   |
|---|--------------------|---|---|
|   | Remediation Status | n Existing Land Use Controls  | DATA GAPS/Notes   |
| Vehicle petroleum products and solvents   |                    |   | Low concentraitons of VOCs and  |
| maintenance associated with vehicle   |                    |   | metals detected below screening   |
| 8-18 8 Building 716D N/A shop 1945 to present maintenance VOCs, SVOCs, metals ECP SI site SI Soil Sample  | ng none            | NFA recommended by Arn  | my values. NFA recommended by Army.   |
| Pesticide 8-19 8 Building 722A N/A storage building since 1988 pesticides/herbicides pesticides/herbicides ECP SI site SI soil sampli   | ig none            | NFA recommended by Arm  | Results of one composit sample showed detected concentrations of pesticides. Known contamination inside building. Composit sampling not indicative of potential contamination. Grassy area on east side or nearest doors most indicative of potential contamination, remaining sides of building asphalt covered. |
| Pesticide Storage Building/chemic al operations   |                    |   | Results showed one composit sample showed detected concentrations of pesticides below human health screening levels. NFA recommended  |
| 8-20 8 Building 723A N/A building pesticides/herbicides pesticides/herbicides ECP SI site SI soil sampli  | ng none            | NFA recommended by Arn  |   |
| Pesticide 8-21 8 Building 726C N/A storage building pesticides/herbicides pesticides/herbicides ECP SI site SI soil sampli  | ng none            |   | Pesticides detected above human health screening levels. Additional evaluation recommended by Army.   |
| 8-22 8 Asbestos Burial Area West of Building 401A N/A buried construction debris VX, explosives, ACM ECP SI site SI soil sampli   | ig none            | Army recommends land us based risk management decision including no intrusive activities. | VOCs, metals and SVOCs detected above background. Two SVOCs exceed human health screening values be but not industrial screening values. Army recommends future land use based risk management including a LUC prohibiting intrusive activities.  |
| Asbestos Burial Area North of Building  8-23  8   401A  N/A    VOCs, SVOCs, metals, buried construction debris   VX, explosives, ACM   ECP SI site   SI soil sampli                             |                    | Army recommends land us controls for produce and intrusive restrictions                   | VOCs and metals detected above background and arsenic above human   |
| 8 above ground tanks with Chemical Plant Agent Manufacturing Facility capacity of Tanks remove  | d,                 |   | All utilites beneath Chem Plant area should be emptied and cleaned. If not accessible, grout all utilities in place.  |
| 8-24 8 VX storage tank farm NAAP 13 - 20 360,000 gallons 1961 - 1969 decontaminat   | ed NFA             |   | Reroute utilities so accessible.  |
| 8-25 8 Chemical Plant Scrubber Towers NAAP-21 Demolished in   | 2004NFA            |   | Concrete foundations remain. Potential for contamination to be underneath or in concrete.   |
| VX Storage Area (Building 144) and 8-26 8 tanks/containers inside bldg 143 NAAP-22, AOC D 1977 -  | NFA                |   | Building foundations remain, could have contaminants underneath. ECP cites "yellow soil" south of Building 144 and states additional information required.  |
| Former fuel Oil tanks at RDX MA Acid 8-27 8 manufacturing area N/A VOCs, SVOCs ECP SI Site tanks remove   | d none             | none  | Army recommends NFA. IDEM concurrence and NFA required.   |
| Truck Transfer Stations AOC E   | NFA                |   | Confirm investigation location and results  |
|   |                    |   | results   |
| Building 0159 AOC J   | NFA                |   |   |
| 8 Building 714A AOC L materials shed  | NFA                |   |   |
| 8 Drainage ditches around chem plant AOC M  | No NFA             |   |   |
| 101 PSA Valve pit AOC O   | No NFA             |   | confirm location  |
| Sodium Hydroxide Tank AOC P   | No NFA             |   | confirm location  |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps   |
|------------|---|---|
| 1          | <ul> <li>Site 1-1: Richmond Magazines</li> <li>Army investigated two magazines for explosives as part of ECP Phase II.</li> <li>Results showed powdery residue is explosives. No explosives detected at outfalls during ECP Phase II Site Investigation.</li> </ul> | National Guard training area. Guard<br>reportedly used smoke grenades during<br>training exercises. Potential for MEC. Area<br>has not been assessed. Data Gap. |
|            | <ul> <li>Raw explosives stored in these magazines. Potential for releases to the<br/>environment. Recommend additional survey and testing and do not agree with<br/>Army's recommendation for NFA.</li> </ul>   | Loading dock west of Richmond Magazines<br>used for loading and unloading raw<br>explosives. Has not been assessed.<br>Potential for explosives.                |
|            | <ul> <li>All magazines are dilapidated and in disrepair. Known ACM in roofing materials<br/>that is falling down and potentially friable.</li> </ul>  |   |
|            | <ul> <li>Extensive concrete in foundation and three sides of magazines. Potential for<br/>explosives under slabs.</li> </ul>  |   |
|            | <ul> <li>Safety hazard due to structure instability.</li> </ul>   |   |
|            | Site 1-1: Small Arms Range  |   |
|            | <ul> <li>Lead investigation being conducted by Army as part of ECP Phase II Site<br/>Investigation. Results not included in SI report, pending.</li> </ul>  |   |
|            | <ul> <li>Based on a 1961 map from Wabash River Ordnance Works, Small Arms Range<br/>labeled "Explosives Testing Area". Potential for explosives and MEC.<br/>Additional investigation recommended.</li> </ul>   |   |
|            | West Pine Tree Area   |   |
|            | <ul> <li>Unknown buried materials here. Army investigated as part of ECP Phase II Site<br/>Investigation. Army recommended NFA. Requires IDEM concurrence and NFA<br/>follow up.</li> </ul>   |   |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites  | Other Environmental Data Gaps  |
|------------|--|--|
| 2          | <ul> <li>Site 2-1: RDX Manufacturing Area and Open Ditch (NAAP-3 and AOC A)</li> <li>Ongoing groundwater and surface water monitoring obligations.</li> <li>Extensive concrete foundations, underground piping, and open ditches remain. Potential for explosives beneath slabs and in piping trenches and pipes. Has not been assessed.</li> <li>Land use controls in place may not be protective of industrial development if explosives remain beneath building foundations. Requires additional IDEM input.</li> </ul> |  |
| 3          | <ul> <li>Site 3-1: RDX Manufacturing Area Parking Area F</li> <li>ECP Phase II Site Investigation. No VX detected. NFA recommended. Requires IDEM concurrence and NFA follow up.</li> <li>Site 3-2: Drums south of North Patrol Road</li> <li>ECP Phase II Site Investigation. Army recommended further action. IDEM</li> </ul>  | Site 3-7: Igloos (Buildings A3301 - 3308).     Proposed for sampling under the ECP.     However, not included in Phase II Site     Investigation Field Sampling Plan. Status of     any sampling unknown. IDEM concurrence     required and follow up recommended. |
|            | <ul> <li>Concurrence, soil removal, and drum removal and follow-on NFA required.</li> <li>Site 3-3: Former Skeet Range</li> <li>ECP Phase II Site Investigation. NFA recommended by Army. Requires IDEM concurrence and NFA follow up.</li> </ul>  |  |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps |
|------------|---|-------------------------------|
|            | Site 3-4: Batteries North of Railroad Bed   |                               |
|            | <ul> <li>ECP Phase II Site Investigation. Mercury in soils above screening levels.</li> <li>Further investigation recommended by Army. Soil removal and additional sampling likely. Requires follow up.</li> </ul>  |                               |
|            | • Site 3-5: Mason and Hangar Haz Waste Storage Building (729A)  |                               |
|            | <ul> <li>ECP Phase II Site Investigation soil sample results suggest releases inside<br/>building. Army recommends NFA. Decontamination of inside of building<br/>recommended prior to transfer. Requires IDEM concurrence and NFA follow<br/>up.</li> </ul>  |                               |
|            | • Site 3-6: Parsons Haz Waste Storage Building (729B)   |                               |
|            | <ul> <li>Recommended for further investigation in ECP recommendations. No sampling<br/>proposed in Phase II Site Investigation Field Sampling Plan. Army says site will<br/>be closed under the Installation Restoration Program. Status unknown. IDEM<br/>concurrence required, and follow up recommended.</li> </ul>      |                               |
| 4          | <ul> <li>Site 4-1: Red Water Ash Basins (NAAP-29 - 32)</li> <li>Unrestricted NFA in place. Basins remain. Sump remains and is still actively pumping water to the PCCRP. Electricity active in this area. PCCRP has a pump that removes water to the creek.</li> </ul>  |                               |
|            | Site 4-3: Old Chemical Munitions Component Detonation Area (NAAP-64)  |                               |
|            | <ul> <li>Unrestricted NFA in place. M23 landmines and M55 rockets reportedly<br/>detonated here. No MEC investigation conducted. Potential for MEC and<br/>explosives. History and location unclear. Recommend follow up with Army and<br/>IDEM on additional archive search and MEC investigation of this area.</li> </ul> |                               |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites  | Other Environmental Data Gaps   |
|------------|--|---|
|            | Site 4-6: TNT Burning Ground (TNT-BG) (NAAP-50)  | ·   |
|            | <ul> <li>Land use controls in place prohibiting residential development and groundwater<br/>use. Long term monitoring required for groundwater. No NFA in place.</li> </ul>  |   |
|            | Site 4-7: Sanitary Landfill  |   |
|            | <ul> <li>NFA in place. Need to confirm LUCs with IDEM as landfill is not included in<br/>Land Use Control Implementation Plan; assume no excavation which would<br/>limit agricultural reuse.</li> </ul>   |   |
| 5          | Site 5-3: Red Water Spill at TNT MA  | Surfuric Acid Spill in TNT Area: No sampling  |
| Ü          | <ul> <li>ECP Phase II Site Investigation showed concentrations of explosives below<br/>industrial reuse values. Army recommends "future land use risk management<br/>decision". IDEM concurrence and restricted NFA required, follow up<br/>recommended.</li> </ul>  | proposed in ECP. Sampling should be conducted as acid was spilled and can mobilize metals. Needs IDEM concurrence on no sampling. |
|            | • Site 5-4: TNT MA (NAAP-37 - 47)  | Oleum Spill in TNT Area: No sampling  |
|            | <ul> <li>Unrestricted NFA. Need confirmation of equipment and piping decontamination only or whether whole building decontaminated. Potential for explosives in buildings, beneath concrete foundattions, and in below ground piping. Steam tunnels from heat plant could contain ACM. Industrial development will require additional remediation beneath existing foundations and in remaining buildings prior to development activities. Unrestricted NFA does not accurately represent remaining environmental constraints to development. Follow up recommended</li> <li>Extensive concrete foundations in place.</li> </ul> | proposed in ECP. Needs IDEM concurrence on no sampling.   |
|            | Site 5-7: Water Tower  ECP Phase II Site Investigation results show lead concentrations exceed screening levels beneath tower. Army recommends NFA. Do not concur, soil and lead removal beneath water tower recommended, IDEM and Army follow up recommended.   |   |
|            | • Site 5-8: Toluene spill in TNT Area  |   |
|            | <ul> <li>ECP Phase II Site Investigation showed results of VOCs below screening<br/>values. Army recommends NFA. IDEM concurrence and NFA required.</li> </ul>   |   |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps   |
|------------|---|---|
| 6          | • Site 6-1: Drum North of Cull Ave.   |   |
|            | <ul> <li>ECP Phase II Site Investigation showed results below screening values. Drum<br/>removed. Army recommends NFA. IDEM concurrence and NFA required.</li> </ul>  |   |
|            | • Site 6-2: Underground piping for fuel oil tanks.  |   |
|            | <ul> <li>ECP Phase II Site Investigation installed soil borings near piping and results<br/>below screening values. Site Investigation recommended removal of piping and<br/>a NFA. Recommend follow up with IDEM and Army to remove and drain piping,<br/>and if soil staining or holes in piping detected, additional sampling and/or soil<br/>removal recommended. IDEM concurrence and NFA required.</li> </ul>   |   |
|            | Site 7-1 and 7-2: Little Racoon Creek (AOC N)   |   |
|            | <ul> <li>ECP Phase II Site Investigation showed exceedances in soils of VOCs, PAHs, explosives and metals. Army recommends additional sampling at the northern end along the DWBG; and NFA for area west of the Scrap Yard. IDEM concurrence and follow up required for both areas.</li> </ul>  | Area South of Chem Plant. Large area where pine trees were replanted. Historical information states that areas where burial or fill areas were located were replanted with pine trees. Area should be assessed for potential contamination. |
|            | • Site 7-3: Drum on bank of Little Racoon Creek   | Area where leaking and filled munitions were<br>buried. Army cannot locate. Additional<br>research should be conducted.   |
|            | ECP Phase II Site Investigation showed concentrations of VOCs in surface soil sample beneath the drum. Army did not analyze for SVOCs or explosives or other metals besides lead as an oversight during their field program. Surface samples are not ideal for detecting VOCs, as VOCs volatilize readily in surface soils. Army recommends NFA. Do not concur. Additional samples should be collected below the surface and analyzed for all constituents recommended in the FSP. IDEM concurrence and follow up with IDEM and Army recommended. | 300 gallon buried chemical sewer tank. Army<br>cannot locate. Additional research should be<br>conducted.   |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites  | Other Environmental Data Gaps |
|------------|--|-------------------------------|
|            | Site 7-5: Mine burial at Scrap Yard  |                               |
|            | <ul> <li>ECP Phase II Site Investigation showed results below screening levels. Army<br/>recommends NFA. IDEM concurrence and NFA required.</li> </ul>   |                               |
|            | • Site 7-6: Burial Area 5 at DWBG  |                               |
|            | <ul> <li>ECP Phase II Site Investigation showed BTEX and metals above background in<br/>soils. Drums were not discovered during the investigation. Army recommends<br/>geophysical investigation to confirm location of trench and drums. Follow up<br/>with Army and IDEM recommended.</li> </ul> |                               |
|            | • Site 7-10: Closed Sanitary Landfill (NAAP-27).   |                               |
|            | <ul> <li>NFA in place but IDEM stated pesticides in groundwater were a datagap. ECP Phase II Site Investigation showed no detection of pesticides in groundwater. Army recommended NFA. IDEM concurrence and NFA required.</li> </ul>  |                               |
|            | • Site 7-13: Sewage Treatment Plant Sludge (NAAP-52).  |                               |
|            | <ul> <li>ECP Phase II Site Investigation showed low concentrations of VOCs and metals<br/>detected. Army recommends NFA. IDEM concurrence and NFA required.</li> </ul>   |                               |
|            | • Site 7-14: East Pine Tree Area.  |                               |
|            | <ul> <li>ECP Phase II Site Investigation did not detect buried debris and chemical<br/>concentrations were below screening levels. Army recommends NFA. IDEM<br/>concurrence and NFA required.</li> </ul>  |                               |
|            | • Site 7-15: DWBG Asbestos Burial Area.  |                               |
|            | Results pending from Army. IDEM and Army follow up recommended.  |                               |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites  | Other Environmental Data Gaps  |
|------------|--|--|
|            | <ul> <li>Site 7-16: Asbestos Burial Area East of the Memorial Chapel Dump.</li> <li>ECP Phase II Site Investigation showed ACM and buried debris but no chemical contamination above screening levels. Army recommends Land Use Controls prohibiting excavation. IDEM concurrence, Restricted NFA, and implementation of LUCs required. If debris exposed, capping should be considered.</li> <li>Site 7-17: Asbestos Burial Area West of the STP.</li> </ul>  |  |
|            | <ul> <li>ECP Phase II Site Investigation showed nitrobenzene concentrations above<br/>human health screening levels. Army recommends "future land use risk<br/>management decision". Follow up with IDEM, restricted NFA, and<br/>implementation of land use controls required. If debris exposed, capping<br/>should be considered.</li> </ul>  |  |
|            | <ul> <li>Site 7-18: Asbestos Burial Area East of the Pine Trees and West of 1st Street.</li> <li>ECP Phase II Site Investigation showed contaminants above background and human health screening levels. Army recommends a "no intrusive activity" LUC and if the LUC is implemented, Army recommends NFA. IDEM concurrence, restricted NFA, and implementation of a LUC required. Exposed debris should be capped, and capping should be considered to prevent future groundwater impacts. Follow up with IDEM and Army recommended.</li> </ul> |  |
| 8          | <ul> <li>RDX MA Acid Area (NAAP-3A)</li> <li>ECP States "NFA" but on RCRA permit the NFA is crossed out. Cement foundations and piping remains in place. Status of decontamination of process sewers and return lines unclear. Possible explosives beneath foundations and in lines. Status of NFA requires confirmation from IDEM. Follow up recommended.</li> </ul>  | Pursuant to the IDEM 2004 letter, the entire<br>Chemical Plant area will have Land Use<br>Controls prohibiting any use other than<br>Industrial within chemical plant boundaries.<br>Will require new LUCs and deed restrictions.<br>Follow up with IDEM and Army recommended. |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps  |
|------------|---|--|
|            | Site 8-11: Fire Training Pit near Building 710.   |  |
|            | <ul> <li>ECP Phase II Site Investigation soil samples collected at depths of 0 and 1 foot. VOCs and PAHs detected. Army recommends NFA. Do not concur. Additional sampling should be conducted to evaluate impacts to soil and groundwater. Fire training pits are known sources of contaminants, and shallow soils likely have had volatilization of VOCs. IDEM and Army follow up recommended.</li> </ul>   | All areas beneath Chemical Plant have thick concrete foundations and utilities beneath the foundations. Utilities have been reportedly cut but not "run to ground" in terms of emptying and cleaning them out. All utilities should be grouted in place following cleaning if they cannot be removed. Potential for CWM or explosives in concrete foundations and utilities and any remaining structures within chem plant area. |
|            | <ul> <li>Site 8-12: Fuel Oil Spill at former RR near West Chem Plant.</li> <li>No clean up reported. No additional sampling. Fuel Oil remains. Follow up with IDEM and Army recommended.</li> <li>Site 8-13: Former Locomotive House</li> <li>ECP Phase II Site Investigation results indicated detections of VOCs and metals below screening levels. Unclear if this area investigated because of former UST or because of surface spills. Samples collected above depth of bottom of tank. NFA recommended by Army. Additional sampling recommended to evaluate impacts to soil and groundwater from potential UST releases. IDEM concurrence and follow up for potential NFA required.</li> <li>Site 8-14: Water Tower North</li> <li>ECP Phase II Site Investigation results showed concentrations of lead from peeling paint above screening criteria. Army recommended NFA. Do not concur. Peeling paint should be abated from the water tower, paint and lead should be removed from soil beneath the water tower. IDEM and Army follow up recommended.</li> </ul> | Leaking petroleum from 1,000 gallon UST (Site 8-15) in southern portion of the RDX Acid Area remains in soils. Could impact development. No NFA from IDEM. Requires Army and IDEM follow up. Confirm with Army if this is same site as removed fuel oil tanks?   |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps |
|------------|---|-------------------------------|
|            | Site 8-16: Building 401A  |                               |
|            | <ul> <li>ECP Phase II Site Investigation results indicate that PCBs are present in the<br/>surrounding soils and in concrete in the power house. PCB concrete flooring is<br/>currently exposed to the atmosphere. Additionally, the plant is partially<br/>dismantled and the boilers contain ACM. The building is a hazard and safety<br/>issue. Army recommends additional evaluation. Recommend follow up with<br/>IDEM and Army for decontamination and demolition of the building.</li> </ul> |                               |
|            | Site 8-17: Building 716 A     ECP Phase II Site Investigation results showed impacts to the environment from vehicle maintenance activities. Additional investigation recommended by Army. IDEM and Army follow up recommended.   |                               |
|            | Site 8-18: Building 716D     ECP Phase II Site Investigation showed detected concentrations below screening values. Samples were biased toward "worst case" areas of impact. Army recommends NFA. IDEM concurrence and NFA required.  |                               |
|            | Site 8-19: Building 722A  |                               |
|            | <ul> <li>ECP Phase II Site Investigation results showed pesticides at concentrations<br/>below screening values in grassy area. Contamination documented inside<br/>building. Building should be decontaminated prior to transfer. Army<br/>recommends NFA for soils. IDEM concurrence and NFA required.</li> </ul>   |                               |

Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

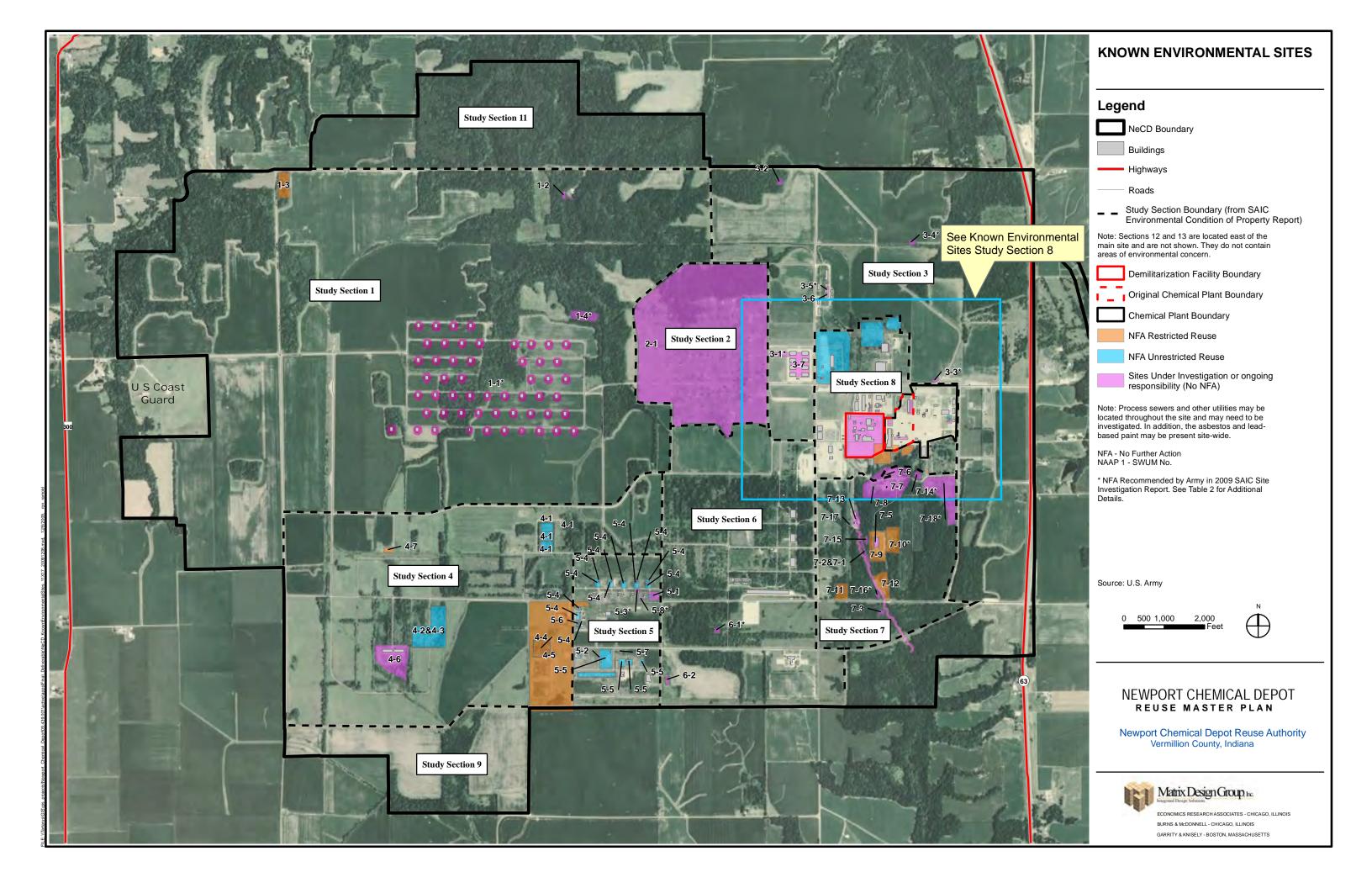
| Study Area | Data Gaps for Known Environmental Sites  | Other Environmental Data Gaps |
|------------|--|-------------------------------|
|            | Site 8-20: Building 723A   |                               |
|            | CP Phase II Site Investigation results showed detections of pesticides below screening levels in one composite sample. Historical information indicates that pesticides were washed down the drain inside the building or poured on the ground. One composite sample of surface soils does not characterize potential pesticide contamination associated with historical practices at this building. Inside of the building is likely contaminated with pesticides, and subsurface soils beneath building not investigated. Composite samples likely to bias results toward the low concentrations, discrete samples should be collected. NFA recommended by Army. Do not concur. IDEM and Army follow up recommended. |                               |
|            | Site 8-21: Building 726C   |                               |
|            | <ul> <li>ECP Phase II Site Investigation results showed exceedances of pesticides in<br/>surface soil composite sample. Army recommends additional investigation and<br/>soil removal of impacted soils. Inside of building likely contaminated, and<br/>potential for subsurface contamination due to pesticides being washed down<br/>the drain. IDEM concurrence and follow up recommended.</li> </ul>  |                               |
|            | Site 8-22: Asbestos Burial Area West of Building 401A  |                               |
|            | <ul> <li>ECP Phase II Site Investigation results indicate that VOCs, metals, and SVOCs were detected, although the location of the burial area was not determined from two soil borings. Additional evaluation of the suspected burial area is recommended, and sampling should be conducted in the vicinity of the buried debris. Army recommends "land use based risk management decision including no intrusive activities". Follow up with IDEM and the Army recommended for this area since the burial area was not identified, and the soil samples were randomly collected.</li> </ul>  |                               |

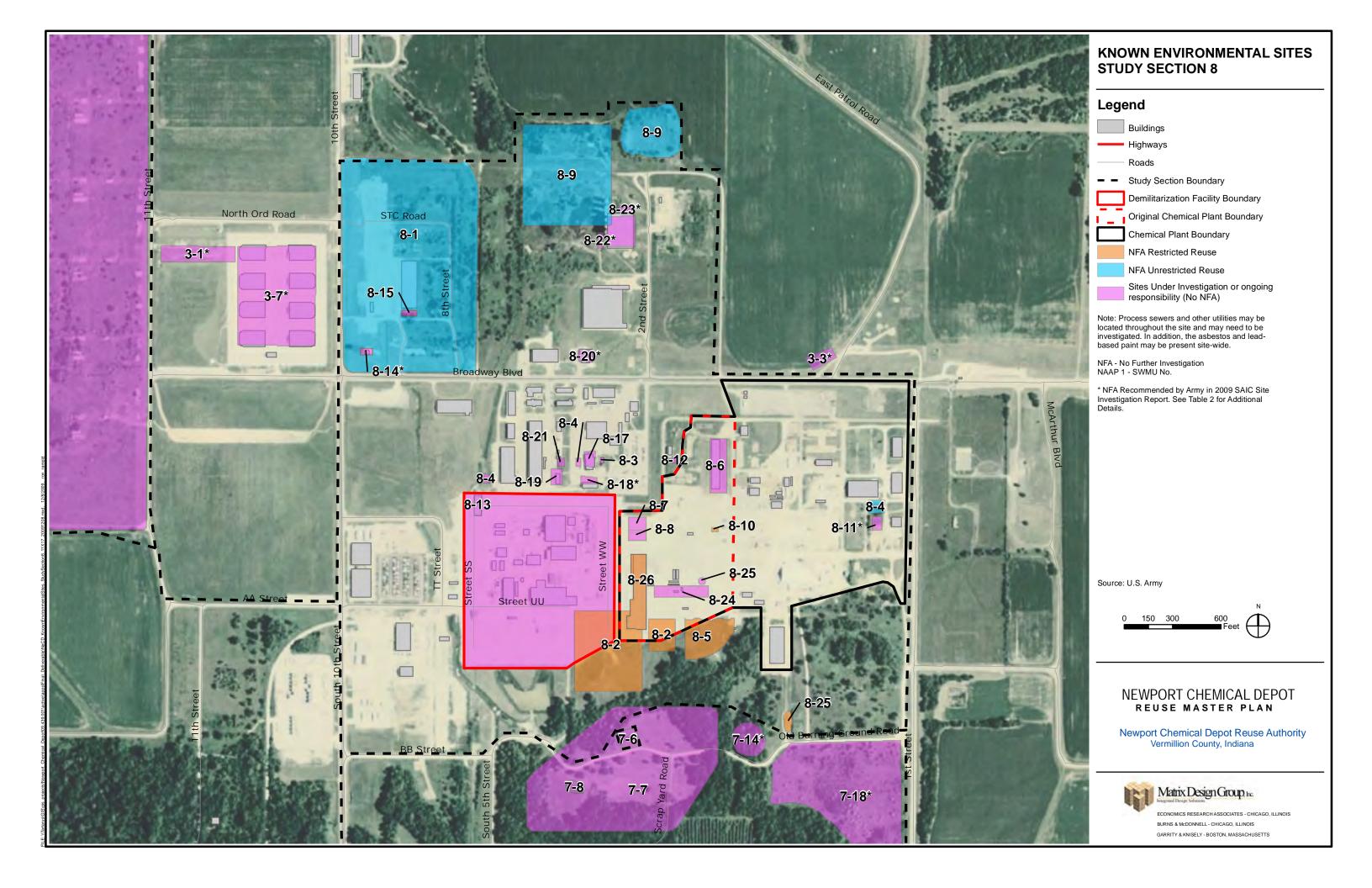
Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

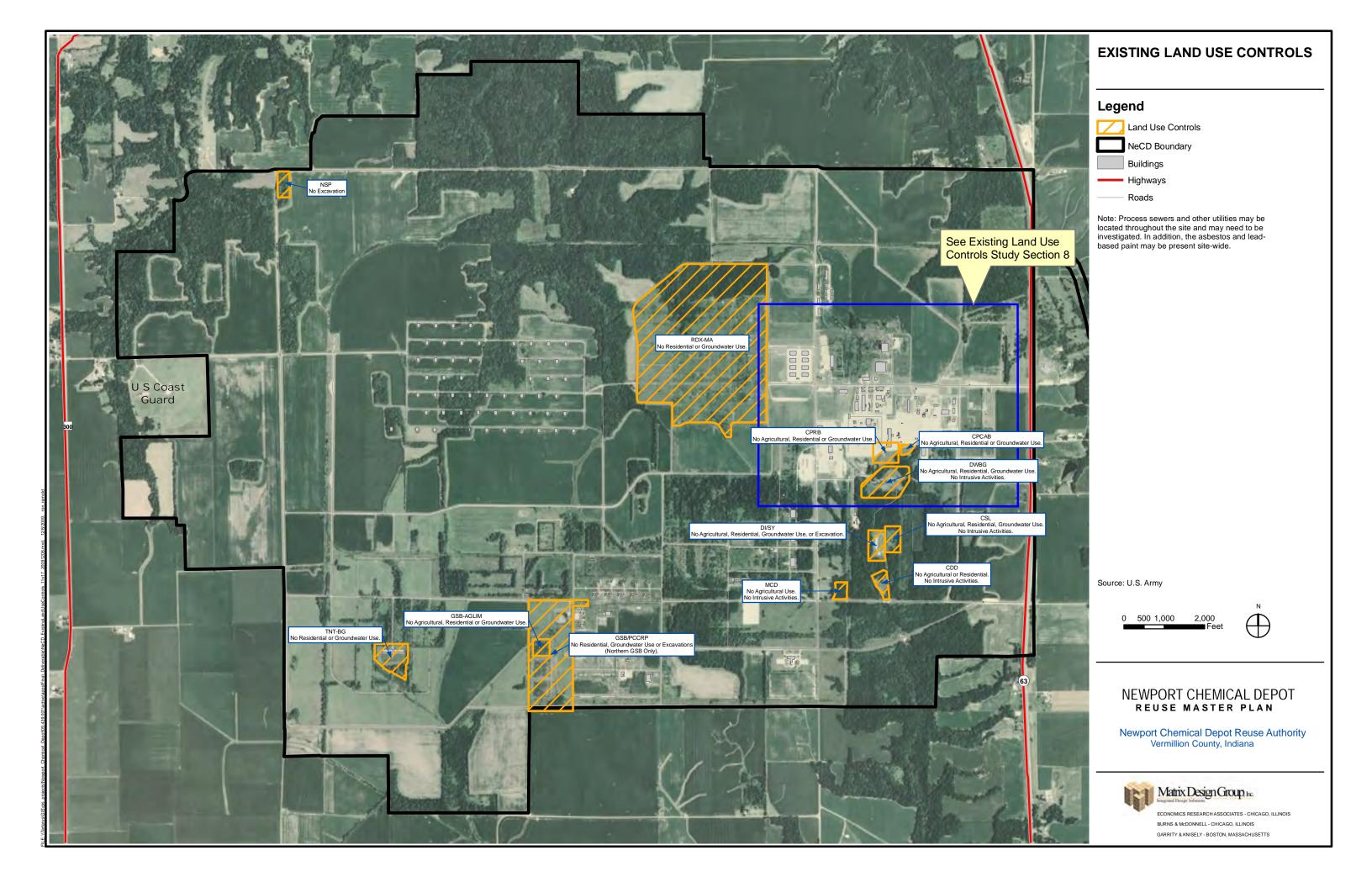
| Study Area           | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps  |
|----------------------|---|--|
|                      | <ul> <li>Site 8-23: Asbestos Burial Area North of Building 401A</li> <li>ECP Phase II Site Investigation results indicate that chemical contaminants below industrial screening levels. Army recommends land use controls for produce and intrusive restrictions. IDEM concurrence and resticted NFA required, land use control implementation required.</li> </ul> |  |
|                      | Site 8-26: VX Storage Area (Building 144)   |  |
|                      | <ul> <li>ECP states Yellow Soil south of Building 144. Additional information required.</li> <li>Follow up with IDEM and Army recommended.</li> </ul>   |  |
|                      | Site 8-27: Former Fuel Oil tanks at RDX-MA Acid Manufacturing Area  |  |
|                      | <ul> <li>ECP Phase II Site Investigation did not detect VOCs or SVOCs in the soil<br/>samples. Army recommended NFA. Confirm whether this site is the same site<br/>as 8-15 leaking petroleum UST. IDEM concurrence and NFA required.</li> </ul>  |  |
| Sitewide or Multiple | <ul> <li>All Sites</li> <li>Confirm NFA status for all NFA Sites. Conditional vs. Unconditional. LUCIP requires updating. RCRA Permit should be updated. Sites where location is unknown should be confirmed with Army and IDEM.</li> </ul>   |  |
|                      | <ul> <li>Confirm concurrence from IDEM on all Army-recommended NFAs and confirm<br/>conditional vs. unconditional. For sites not specifically in the RCRA Permit,<br/>IDEM should concur or writhe a letter regarding status of all identified areas of<br/>concern within the ECP, including those not sampled.</li> </ul>   | <ul> <li>Reference to potential radiological<br/>contamination at the "P-9" plant was noted in<br/>the ECP. P-9 Plant location and any<br/>investigation requires review.</li> </ul>   |
|                      | Follow up with Army and IDEM on all proposed additional sampling results.   | <ul> <li>All buildings, foundations, utilities and piping<br/>within former explosives or Chemical Plant<br/>areas could contain contamination within the<br/>structure or beneath the foundations. Many<br/>foundations and utilities remain in place, and<br/>may hinder development opportunities,<br/>regardless of NFA status.</li> </ul> |

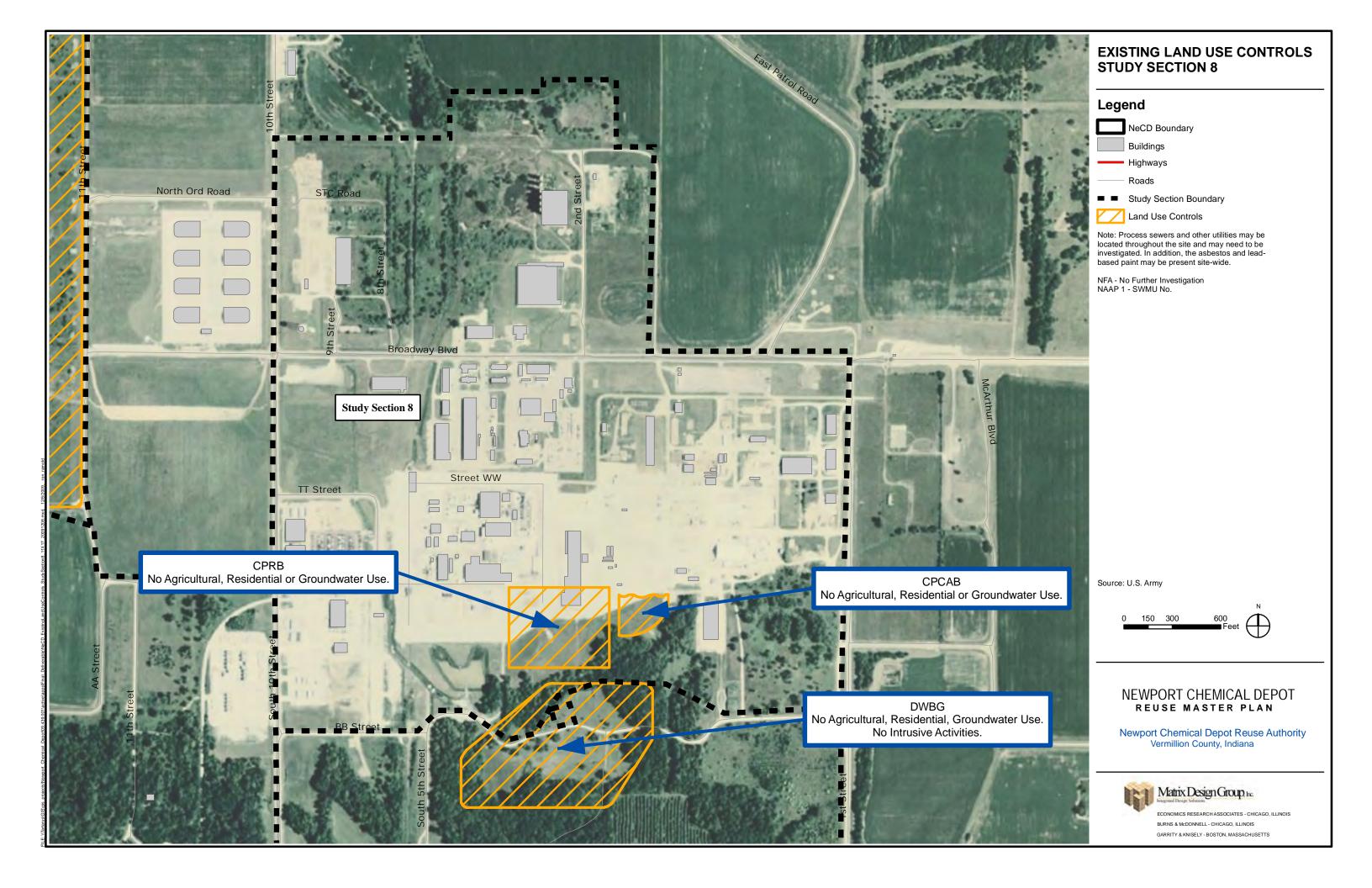
Table 2. ENVIRONMENTAL DATA GAPS BY STUDY AREA

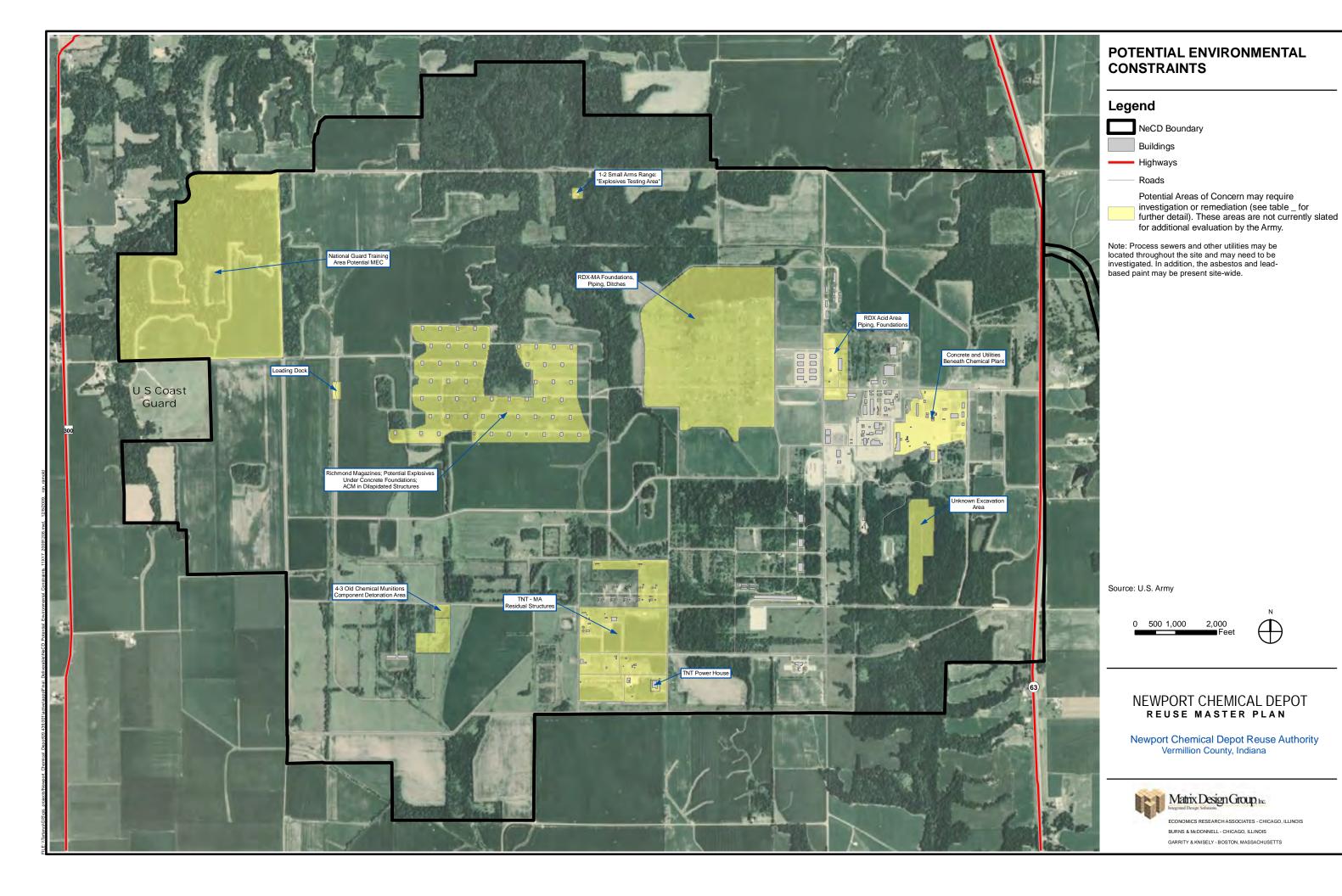
| Study Area | Data Gaps for Known Environmental Sites   | Other Environmental Data Gaps  |
|------------|---|--|
|            | <ul> <li>Follow up with Army and IDEM on other identified data gaps from this study.</li> </ul>   | <ul> <li>Transite utility lines (asbestos material) will<br/>require special handling and disposal if<br/>encountered during construction. Force<br/>mains are Transite. Steam lines may be<br/>asbestos wrapped.</li> </ul> |
|            | <ul> <li>Potential residual contamination from asbestos wrapped steam lines.</li> </ul>   | <ul> <li>Many buildings have ACM, and all are<br/>assumed to have lead based paint. These<br/>need to be addressed prior to any demolition<br/>or remodeling of existing structures.</li> </ul>                              |
|            | <ul> <li>Potential residual petroleum hydrocarbon contamnation from active, closed in<br/>place, and removed ASTs/USTs and ancillary piping.</li> </ul>   | <ul> <li>Storm/sanitary combined sewers can<br/>contaminate sediments within the lines and at<br/>discharge points. Sediments at outfall<br/>locations should be investigated if not<br/>investigated already.</li> </ul>    |
|            | <ul> <li>4 active USTs are permitted and have leak detection. 3 aboveground storage<br/>tanks are currently active with no known leaks. Confirm all UST and AST status<br/>with Army and IDEM as the data reported vary from place to place.</li> </ul> |  |











# **Appendix F: Notices of Interest Received**

### Appendix F: Notices of Interest Received

- ▶ Indiana Department of Natural Resources
- Sycamore Trails Resource Conservation and Development Council
- Vermillion County Park and Recreation Board
- ▶ Wabash River Heritage Corridor Commission





March 20, 2009

Newport Chemical Depot Local Reuse Authority c/o Vermillion County Economic Development Council 2250 N. Main Street Clinton, IN 47842

RE: Notice of Interest for use of the Newport Chemical Depot by the Indiana Department of Natural Resources

Less than 4% of the land of Indiana is available for public use. This is especially true in the Central portion of Indiana. It would be the intention of the Indiana Department of Natural Resources (Department) to manage approximately 7,000 acres of the Newport Army Ammunition Plant (NAAP) less the developed industrial area (approximately 1,500 acres) specifically for natural ecosystem protection, hunting and fishing as well as other compatible public uses.

The management process would require that vegetation regimes, approximately 3,353 acres, currently in grass or farm fields be periodically disturbed so as to maintain the conditions of these lands in an early stage of vegetative succession. This would typically be accomplished by using minimal agricultural practices, fire, etc to maintain vegetative condition in stages at something less than seen in woodlands. The Division of Fish and Wildlife (DFW) will convert the existing large agricultural lands into smaller units of wildlife habitat over a period of several years. It is imperative that soil disturbance practices such as the typical small agricultural operations be implemented and maintained in order to retain value for upland wildlife. It is the intent there be steady progress on this conversion to small agricultural processes, but it is noted that this will take several years to complete. As we are going through that conversion process, we would continue to keep a portion of the land in agricultural row crop production of small size to affect plant succession so to create plant regimes necessary for optimum upland wildlife production. Tenant farmers are a common practice on our wildlife management areas and are used to maintain the plant succession at an optimum stage for upland species.

Approximately 213 acres are described as wetland. However most of this is described as being along creeks and the Wabash River. These acres would be retained as creeks and river frontage. The area along the Wabash River affords some special opportunity to provide river access to our fishing public as well as boat access for other recreational interests. We would plan to construct a boat launching facility somewhere along the Wabash River. The section of the Wabash River included in this project is within the project area of concern of the Wabash River Heritage Corridor Commission (WRHCC) and will offer opportunity for the Department to collaborate with this organization. This commission seeks to protect and enhance the natural, cultural, historical, and recreational resources along the river. The Department would partner with WRHCC to provide the most appropriate Wabash River access.

Approximately 2,080 acres are in woodland and would be managed as such for forest wildlife species.

The DFW currently operates 21 fish and wildlife areas across the State providing approximately 150,000 acres for use by the public. Funding for our wildlife management efforts comes from the sale for hunting, fishing and trapping licenses. A property of this size would normally employ a biologist/property manager, one clerical and several laborers. Some seasonal workers may also be hired. Benefits to the local community would include several new jobs necessitated by the need to actively manage the property. This active management regime would require expenditures for parts, materials and supplies to sustain the property staff and equipment. Additionally, there would be the intangible benefit of having wild open space available to the citizens of the immediate community that would enhance their quality of life.

A more tangible benefit would be the economic boost provided by both resident hunters and out-of-state hunters coming to use the property. It is anticipated that the property would be managed to enhance wildlife populations at levels targeted to support higher hunting-use opportunities than the surrounding private lands. This management model typically attracts hunters. The Newport property has the potential to become one of the most popular upland game bird areas anywhere in Indiana. It should be noted that properties of similar size and varieties of recreational opportunities normally host approximately 50,000 to 75,000 wildlife related user-days, which includes about 5,000 hunter days. Approximately \$2.2 billion is spent on wildlife related recreation in Indiana annually, or about \$56 per user-day.

In addition to hunting, the property could develop into a popular destination spot for wildlife watchers. According to the 2006 National Survey on hunting, fishing and other wildlife associated recreation; Indiana had 1.8 million citizens that considered themselves as wildlife watchers. The creation of this unique combination of grasslands, forests and wetland habitats, and the close proximity to the North-South migratory bird corridor (flyway), has a high likelihood of bringing a wide variety of wildlife species to the area for public viewing.

This property has the potential to become a premier destination for a wide variety of outdoor enthusiasts. While the property would be primarily managed for upland bird hunting, the unique combination of habitat types would allow for the pursuit of deer and turkey as well. The aquatic attributes of the property will provide anglers, boaters, canoeists and waterfowl hunters the opportunity to get out and enjoy the Wabash River. Rare and unique plant species will also attract Hoosiers to enjoy spring flowers, grasslands and species that are hard to find elsewhere. And finally, wildlife watchers will be able to enjoy wildlife in their natural environment. In today's fast paced world, the ability to enjoy Indiana's tremendous wildlife resources, on a rare and unique property such as Newport, should not be underestimated

Approximately 1760 acres in the NW corner of the site are of particular interest to the Division of Nature Preserves and have been identified as a priority protection area based upon a concentration of high value conservation targets. Two wooded drainage systems

currently separated by agriculture would be connected with a prairie and wetland restoration to recreate the presettlement landscape mosaic most beneficial to both game and non-game species of native wildlife and plants. Within the above two wooded drainages, approximately 550 acres of the highest quality forest communities could be dedicated as nature preserves. This area harbors many of the sites more uncommon species. All of this area would still be available for hunting.





American ginseng and yellow ladiesslipper orchids can still be found in the Newport facility's woodlands

Presettlement Conditions: 150 years ago, the land occupied by the Newport Chemical Depot looked quite differently than it does today. Much of the property was covered in rolling tallgrass prairie spreading out and over the broad terraces of the Wabash here in Vermillion County. Rich woodland groves lined the valleys of the smaller tributary streams dissecting the prairie plain. Prairie, woodland, wetland, small stream and big river ecosystems all came together here, resulting in a landscape mosaic of great interest and home to many unique plants and animals, many of which are very rare.

**Prairie restoration**: While the prairies of Vermillion County have largely been converted to agriculture, the critical silt loam soils and significant woodland remnants remain intact. Opportunities to restore entire landscapes of this significance are very few and provide great purpose to our work.

At one time 14 percent of the State of Indiana was covered with prairie grasses. Today less than one-tenth of one percent exists. Today, in the 21st century, prairies and the grassland animals dependent upon them are considered globally threatened. The importance of prairie to endangered grassland species, floodwater retention, groundwater recharge, watershed protection, return of carbon to soils, erosion control, and aesthetics, among many other realized benefits, has caused prairie conservation to become an increasingly important issue. A restoration of prairie on this scale would be of national significance.

The accompanying map delineates the boundaries of the NAAP which includes an interior dashed red line to indicate the general maximum area that may be considered industrial due to past activities at NAAP. Reuse of the former industrial area for new commercial or industrial purposes is compatible with the Department's uses described above.

The Department of Natural Resources is a flexible and creative partner with communities all across Indiana. We hope to work closely with the local Reuse Authority, the Vermillion County Commissioners and County Council, local economic development authorities, and your consultants to make the reuse of NAAP most beneficial to the citizens of Vermillion County and the State of Indiana.

Please contact me if you have any questions or for more information.

Since yely,

John M. Davis

Deputy Director

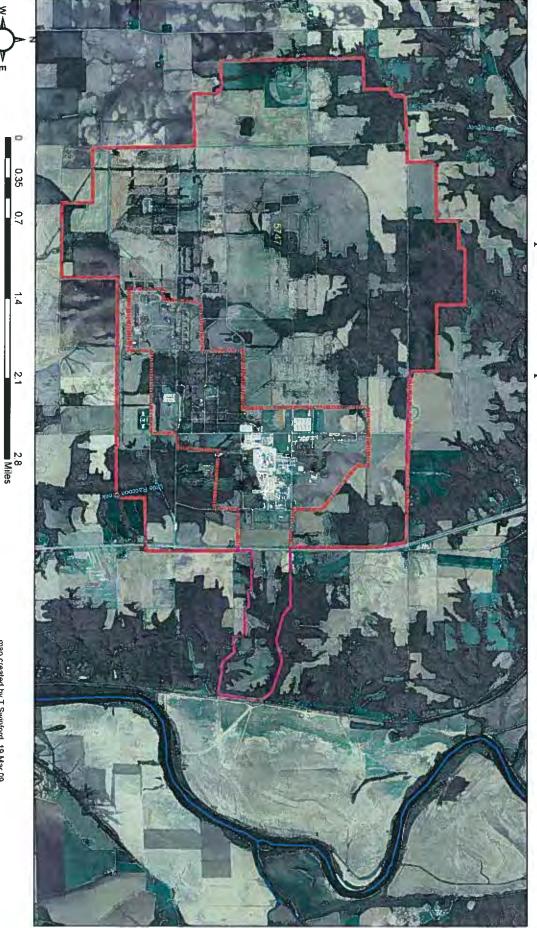
IN Department of Natural Resources 402 West Washington Street - Rm. 256

Indianapolis, IN 46204

317-232-4025

# IDNR potential 5,747 acre configuration (dashed red line) to include access to Wabash River Newport Chemical Depot DoD Vermillion Co





map created by T Swinford 19 Mar 09



## SYCAMORE TRAILS

# Resource Conservation and Development Council, Inc.

1007 Mill Pond Lane, Suite B Greencastle, IN 46135-1887 (765) 653-9785 FAX (765) 653-9455 strcd@sycamoretrails.org www.sycamoretrails.org

Serving Clay, Fountain, Montgomery, Owen, Parke, Putnam, Sullivan, Vermillion, and Vigo Counties

# COUNCIL OFFICERS

Gerald "Bud" Sharp President

John Gettinger
1st Vice-President

Frank Cottengim 2<sup>nd</sup> Vice-President

Steven Sean Rose Secretary

> Jim Spence Treasurer

March 19, 2009

Vermillion County Economic Development Council Newport Chemical Depot Local Redevelopment Authority Attn: Susie Jones

2250 N. Main St. Clinton, IN 47842

### NOTICE of INTEREST

Sycamore Trails Resource Conservation and Development Council, Inc. (STRC&D) is interested in owning and assuming stewardship of certain tracts within the Newport Chemical Depot (NeCD) site. STRC&D is a 501(c)(3) not-for-profit corporation, founded in 1970 as part of a USDA program to provide natural and human resource conservation and development in communities across the nation. STRC&D is an all-volunteer organization, with directors appointed by its sponsors: Soil and Water Conservation Districts, County Commissioners, and the Purdue Extension Service. All activities are accomplished through standing volunteer committees. It enjoys office space and program coordinators provided by USDA's Natural Resources Conservation Service. STRC&D covers Vermillion, Fountain, Parke, Montgomery, Vigo, Sullivan, Clay, Owen and Putnam Counties.

Sycamore Trails RC&D has a history of working with many partners, including governmental agencies, conservation organizations, universities, corporations and other non-profits. Our organization is interested in participating in the stewardship of the NeCD lands, including potential ownership via public benefit conveyance. Our skills and experience could enhance the management of the property's forested land, reconstructed prairie area, agricultural land, and possibly other areas. We are willing to work with partners for the benefit of the local community for the future use of this property. An example of our work with partners on this property is the prescribed fire training that has taken place at NeCD via Sycamore Trails in cooperation with the IDNR Division of Forestry and other sponsors in 2007 and 2009.

STRC&D proposes that the reuse of the NeCD incorporate multiple sustainable uses for the enormous agricultural, forestry and wildlife resources. We recognize that other entities, such as the IDNR Division of Fish & Wildlife, might have a natural resource oriented interest in the property. If so, we would work with such groups to achieve a mutually beneficial agreement including habitat improvement and public access.

STRC&D has several committees that will bring the expertise of their members to the stewardship of the property. These people include professionals in various fields, university professors and other educators, and landowners, all with a passion for the wise use of natural resources. Among these is our Forestry Committee, which has worked to educate woodland owners throughout the RC&D area and to promote the sustainability of our woodland resources. The Invasive Plants Committee was formed as a spin-off of the Forestry Committee and remains closely affiliated with that committee. Its members are concerned about the negative impact of invasive plants on the health and sustainability of Indiana woodlands. The Fish & Wildlife Committee is dedicated to educating the public about habitat management, including providing access to prescribed-burn training. It also sponsors youth hunts and hunter education.

STRC&D has a Land Trust and Stewardship Committee which has recently been incubating a new land trust. The **Ouabache Land Conservancy** (OLC) is currently a Sycamore Trails committee, but will become an independent 501(c)(3) Non-Profit Corporation by the end of 2009. At that time, OLC will manage two properties in adjacent northern Vigo County: Jackson/Schnyder Nature Preserve (which OLC will own) and a Conservation Easement on 250-acres that are being managed for wildlife habit. OLC's mission is to protect undeveloped land in order to create natural preserves, provide habitat for wildlife, maintain natural scenic beauty, and to improve air and water quality, in accordance with the goals prescribed by the landowner. OLC will also acquire conservation easements on farms and forested lands and will monitor the uses of the land to insure compliance with the restrictions detailed in the easements.

### Compatible Uses for the Land

### Maintaining Wildlife Habitat

The combination of multiple habitat types at NeCD has made it widely recognized as a local center for biodiversity. This provides a unique opportunity to conserve and expand wildlife habitat in west central Indiana. The first priority must be habitat supporting any endangered, threatened, or unique plant, bird or animal wildlife. The 336 acres of reconstructed prairie is an important local example of this critically endangered habitat. Woodlands, natural wetlands, fens and marshes provide additional biodiversity habitat and protect water quality. Several rare animals that commonly occur on the depot include Henslow's sparrow, the pickerel frog, the Bald eagle and the federally-endangered Indiana bat. There are several locations on this site that could provide habitat for declining populations of pheasant and quail to increase in numbers. In addition to these animals and plants that occur on the site, it is also home to many rare species of plants including both ferns and orchids.

High Quality Natural Communities on the property that need protection include:

- Mesic Floodplain Forest (25 ac.) critically imperiled in State
- Wet Mesic Floodplain Forest (35 ac.) rare in State
- Dry Mesic Upland Forest (70+ ac.) widespread and apparently secure in State
- Mesic Upland Forest (115 ac.) rare in State
- Circumneutral Seep (1 ac.) critically imperiled in State
- Mesic Prairie (formally 1,900 ac.) imperiled in State
- 5 Natural Areas also identified (680 acres)

### Forest management

All aspects of woodland utilization are valued by STRC&D, including education of woodland owners and the general public, hunting, recreation, habitat restoration, with all these aspects included in a

management plan. STRC&D stewardship of NeCD woodlands would result in a magnificent showplace of sustainable forest management practices on private land in the State of Indiana.

Invasive plants can quickly form monocultures and successfully prevent or inhibit the growth of native species. The result can be the loss of natural habitat for a variety of species as well as lowering or eliminating economic returns on woodlands. By having STRC&D involved in the project area educated eyes would be there to spot invasives early when they are much easier to address, rather than later after they have had a chance to become firmly established and bank more seeds.

### Education

A Vermillion County permanent site could be used to host field days to help educate area landowners and managers about fish and wildlife habitat management; sustainable forest management; invasive plants, their impacts, and treatment options. Proximity to high schools and colleges on both sides of the Wabash makes the site ideal for educational & scientific research purposes. STRC&D and OLC will provide access to preserves and property that they might own for educational and recreational use by local schools and the general public.

### Recreational opportunities

Various non-destructive and non-intrusive forms of outdoor recreation would be permitted as the seasons change to include bird watching, wildlife watching, hiking, mushroom hunting, wildlife photography, etc. The limited open water resources would be stocked with game fish as needed; and possible ways to increase open water fishing resources would be explored.

Hunting is a very valuable tool that can help us manage the delicate balance between the diverse ecosystems of the Depot. This would include deer, turkey and small game hunting for the general public, as well as, special youth hunts and hunter education. The hunting could be organized in cooperation with the IDNR Division of Fish & Wildlife in a way that multiple land uses could remain compatible for the agricultural, forested and other wildlife areas.

### Income potential

- Sustainably harvesting woodlands
- Hunting/fishing user fees and/or outdoor recreation user fees
- Agricultural land leases

In conclusion, we believe we can work with the Local Redevelopment Authority to develop a mutually beneficial and financially sustainable plan for the future use of the NeCD property. We have Vermillion County citizens who are active in our organization. We offer expertise in multiple areas of natural resource management, and a history of successful partnerships in our projects. Any land managed or owned by STRC&D will have the direct attention of our committees—we will not be managing from afar. We look forward to participating in the next step of this redevelopment plan by adding our resources to the other partners involved, with the goal of giving back to the community.

Respectfully submitted,

Gerdel Sharp

Gerald Sharp, President

# Vermillion County Park and Recreation Board PO Box 693 Dana, 7N 47847

March 23, 2009

Vermillion County Economic Development Council 2250 N Main Street Clinton, IN 47842

### LETTER OF INTENT

The Wabash River is Vermillion County's greatest natural resource. The Vermillion County Parks Department is supportive and welcomes the opportunity to network with the Banks of the Wabash organization, the Wabash River Heritage Corridor Commission, as well as the Vermillion County Sheriff's Department in acquiring the NECD property that is adjacent to the river and includes the wells, particularly well #1.

How will Vermillion County, as a whole, Benefit?

- \*Provide citizens a perfect place to camp by the river.
- \*Provide an access point via the access road to the river. This access would be public but would also provide an additional point for emergency situations. (Currently, the only public access point to the Wabash River on the Vermillion County side is in Clinton.)
- \*This could provide an additional training opportunity and site for water-rescue teams.
- \*Increase tourism to/through the county. Folks could "put in" at Eugene, Covington, or Sugar Creek and this could be a designated pick up point. Folks could also "put in" at this point and canoe/boat to Montezuma or Clinton (hopefully, Clinton to increase tourism in Vermillion County!)
- \*It would be a project that, once approved, could be taken slowly, advertised that this point of access is available, and folks could enjoy the beautiful, historic Wabash River!

The Wabash River is Indiana's State River and is the entire eastern county line of Vermillion County, running the entire length of the county. Let's protect and promote OUR river, the Wabash!

Sincerely,

Ira Jones, President

Vermillion County Park Board



Wabash River Heritage Corridor Commission 102 North Third Street, Suite 302 Lafayette, IN 47901 Phone: 765.427.1505

www.in.gov/wrhcc

March 20, 2009

Vermillion County Economic Development Council Attn: Susie Jones 2250 N. Main St. Clinton, In. 47842

Re: Newport Chemical Depot Reuse Authority ~36 A river frontage plus access road easement

My Commission is interested, along with other local and regional groups (including the Vermillion County Parks, NICHES Land Trust, Ouabache Land Trust, Izaak Walton League of America – Indiana Division, Banks of the Wabash, Inc., Pheasants Forever, DNR – Fish & Wildlife, etc.) in the public use of the undeveloped land, including the river access and river riparian buffer area of the Newport Depot. Our interest is in the access road and ~36 acres along the approximately one mile of river frontage (at a variable depth of around 300 feet – possibly narrower at the northern reach of the property as the existing levee approaches the main stem river).

We have partnered with Indiana's Department of Natural Resources, Division of Fish & Wildlife, in the past to include Wabash River public access points in our award-winning Wabash River Water Trail program. We view the Newport Depot property as holding great promise as an addition to that mutual program as well as a possible link in our visionary Wabash Heritage Trail program. These programs, and the public's Master Plan for the Wabash River, may be found at our website: www.in.gov/wrhcc/.

We would like to see: 1) a public access point, initially perhaps an undeveloped 'hand-carry' site but ideally for boats and personal craft with handicap accessibility; 2) a minimally developed 'boat camp' area, which may be as little as a 'pack-in/pack-out' flat area where an overnight stop for river travelers would not be discouraged. Ultimately, if the Vermillion Park Department or other agency can be brought on board, this could have further amenities with potable water, shower, and restroom facilities; 3) a conservation easement riparian corridor with an embedded right-of-way easement for ultimate use as a trail/linear route of travel parallel to the river bank (non-motorized); and, 4) in conjunction with the parking for the access point, a 'trail head' kiosk for both the Water Trail and the Heritage Trail.

From our Water Trail Map 6, <a href="www.in.gov/wrhcc/pdfs/Map 6.pdf">www.in.gov/wrhcc/pdfs/Map 6.pdf</a>, the location is approximately mid-way between Waterman access and Montezuma access; and mid-way down the river as a whole (Mile 269 in the Hay ascending series; ~Mile 224 in the Stallsmith descending series). It is just downstream of the confluence with the Sugar Creek (already a frequented paddle from Shades State Park to Turkey Run State Park - "one of the most scenic waterways of the state" Hay, 1997) making it an attractive distance for enticing paddlers on from Turkey Run onto the Wabash, either as a good take-out site or layover. A right-of-way easement from SR 63 to the water would not be inconsistent with the agricultural use of the west of levee ~39 acres nor the existing well sites (though all but the well sites could be just as easily adapted



Wabash River Heritage Corridor Commission 102 North Third Street, Suite 302 Lafayette, IN 47901

Phone: 765.427.1505 www.in.gov/wrhcc

Vermillion Co. Economic Development Council Page 2

to longer term uses or wildlife habitat). A trail right-of-way and conservation or wildlife easement on the east side of the levee (up to & on top of the levee) could likewise coexist nicely with only slightly altered existing use & the need for a riparian buffer to the river. Finally, a couple of acres set aside for a 'boat camp' and access point would provide an excellent amenity to the trip from Lafayette to Terre Haute or from Turkey Run State Park to an easy paddle the next morning to lunch in Montezuma!

With nearly one million people living within ten miles of this Corridor, in Indiana alone, and over five million within an easy day trip, adding a central link to the corridor promises more than a brochure-builder for Vermillion County. Indiana's officially designated "State River", the Wabash, is the focus of Indiana's effort to capitalize on its central to U.S. population location and natural resources - from a variety of directions: historical, recreational, and environmental. With the Wabash River Master Plan, the attention of the Corridor Commission, and the rising number of fit, yet retired, people attracted to flat water paddling, this access point could become a magnet for outfitters and fishing enthusiasts (a side note – Vermillion County's reach of the Wabash River produces record-sized fish with regularity, its most recent being the 2008 record for Goldeye at 2.3 pounds!).

The Newport Depot river frontage has the potential to be a wonderful access point and trail head. It would provide Newport, and Vermillion County, with an added presence on the developing, nationally- significant Wabash River Heritage Corridor, both its Water Trail and the multi-use Heritage Trail. The provision of a public outdoor recreation site is one element of nearly every major employer's list when choosing locations for plants or facilities. Indeed, both service and white collar facilities are more likely to be sited where outdoor recreation is available and valued.

Public preservation of the riparian buffer, public conservation of the river-side of the levee, and public access to the river and river frontage, for all of the above reasons, is the highest and best use of this portion of the Depot real estate. Please consider this notice of our interest, and of the interest of Vermillion County, in determining your plan for the 'reuse' of the Newport Depot real estate. Thank you, in advance, for your consideration.

Sincerely,
John Gettinger
President,
Wabash River Heritage Corridor Commission

Approved by motion duly made and unanimously passed at the duly noticed, March 11, 2009 public meeting of the Wabash River Heritage Corridor Commission, at which a quorum was in attendance.

Ron James, Executive Director