

3006-0604190006

CH2M HILL
Mound, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, OH
45343-3030



SMO-054/05
April 25, 2005

Ms. Margaret L. Marks, Director
Miamisburg Closure Project
U. S. Department of Energy
1075 Mound Road
Miamisburg, OH 45342

ATTENTION: Paul Lucas

SUBJECT: Contract No. DE-AC24-03OH20152
Contract Clause C.2.1.1
Contract Deliverable #36
VARIOUS DOCUMENTS

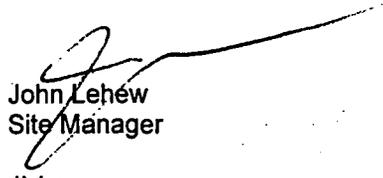
Dear Ms. Marks:

Attached are the following Final, Revision 1 documents:

- Buildings 40 and 99, Closeout Report, Final, Rev. 1
- Building 47, Closeout Report, Final, Rev. 1
- Buildings G-GW-W, Closeout Report, Final, Rev. 1

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,



John Lehew
Site Manager

JL/ms

Enclosures

- cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
F. Schmaltz, DOE/MCP, (1) w/attachments
L. Rawls, MCP, w/o attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
CERCLA Documents, CH2M Hill, (1) w/attachs
C. Watson, CH2M Hill, (1) w/attachs
F. Bullock, MMCIC (2) w/attachments
Public Reading Room (4) w/attachments

- ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
Admin Record (2) w/attachments
J. Lehew, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
V. Darnell, CH2M Hill, w/o attachments
B. Wier, CH2M Hill, w/o attachments
W. Webb, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
MOAT Coordinator, w/o attachments
file

3006-0604190006



Environmental
Restoration
Program



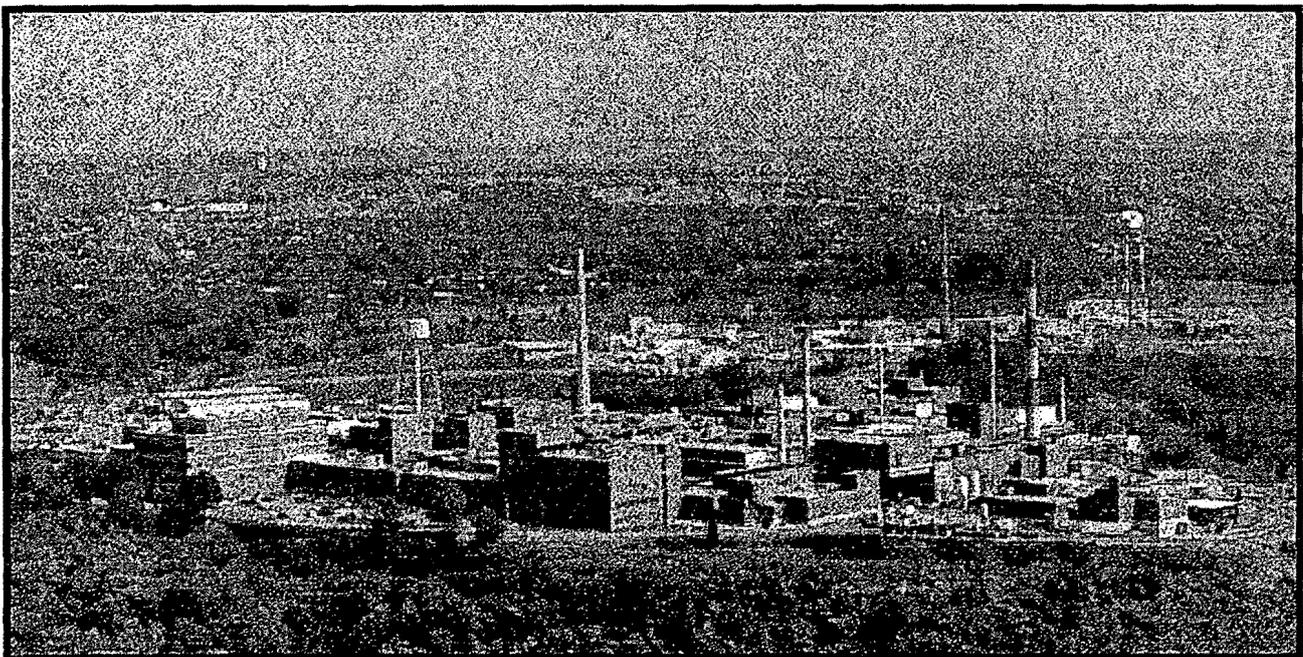
OhioEPA

Miamisburg Closure Project CLOSEOUT REPORT

Building 47

(Demolition)

Final, Rev. 1
April 2005



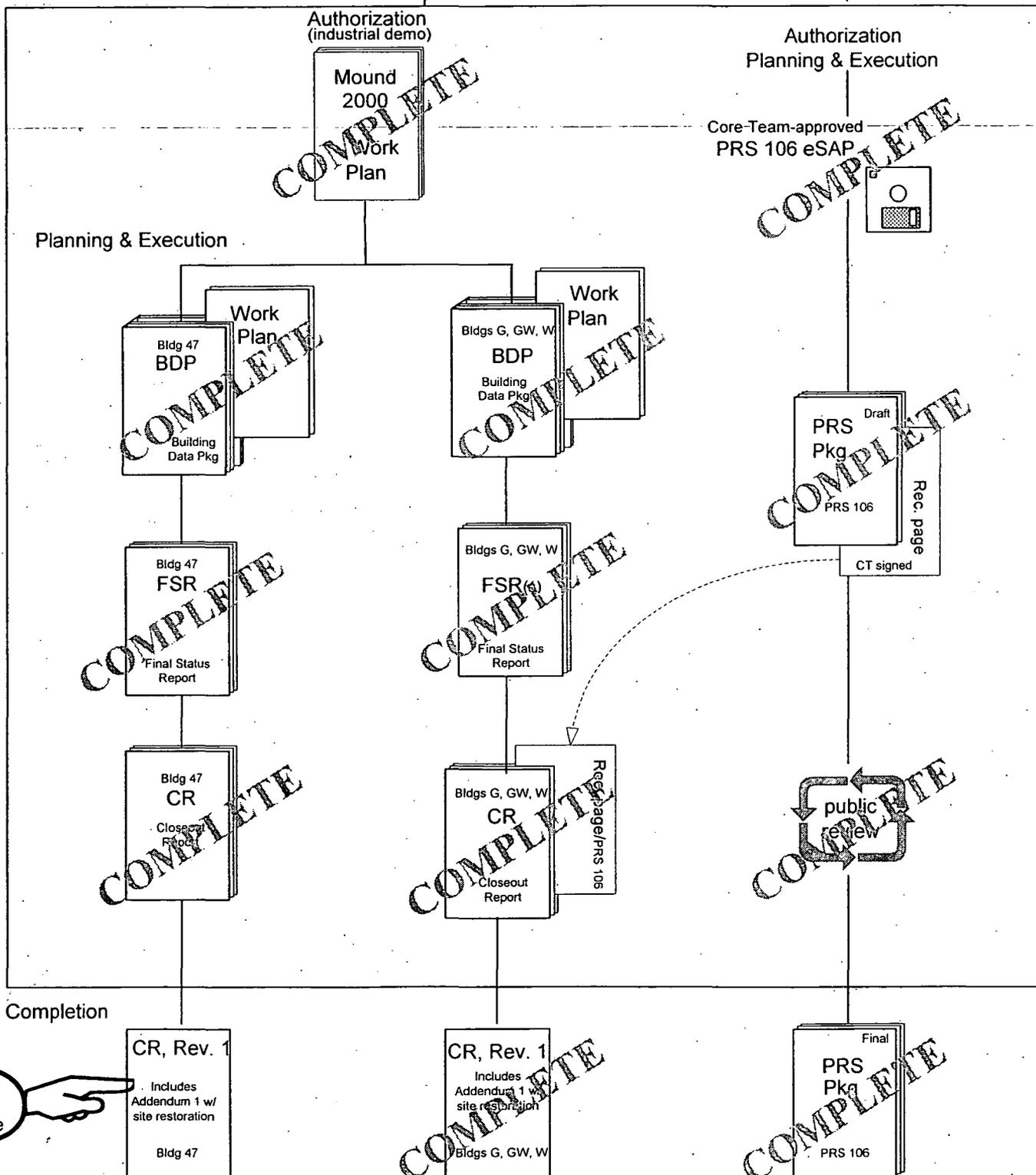
Bldgs 47, G, GW, & W + PRS 106



Bldgs 47, G, GW, & W



PRS 106



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**Revision 1 of this Closeout Report includes the
Buildings 40, 47, 99, G, GW, and W
Closeout Report Addendum 1 in Appendix C.**

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1.0 PURPOSE

This is the final report documenting completion of the demolition of Building 47 located at the DOE Miamisburg Closure Project (MCP) Site, as shown in the figures provided in Appendix A. The building demolition, including its slab and footers, was accomplished per the Work Package for Building 47 Demolition #SMPP/TFV-35695, a copy of which was included in Appendix O of the Building 47 Building Data Package (BDP). The scope of work relating to this building is considered complete. Final site restoration will be completed after staged concrete debris has been removed.

2.0 BACKGROUND

2.1 Building 47

Constructed in 1969, Building 47 was located on the north central portion of the site, immediately east of W Building. The facility was a single-story, slab-on-grade structure constructed of concrete block with brick facing and a built-up membrane roof. Building 47 contained 3,611 square feet of floor space, including a mezzanine for HVAC equipment.

Building 47 was built to serve as the Central Fire Station. The building included areas for fire equipment storage, offices, and living quarters for Fire Department personnel.

In 1989, when Building 98 was constructed and became the Central Fire Station, Building 47 was converted to serve as the Security Facility for Mound's protective force. Interior areas were remodeled to provide an administrative area, a weapons storage area, and a classified waste storage area. Waste storage was limited to classified paper that was collected onsite and stored in Building 47 prior to being transferred to an offsite facility for incineration.

In late 2002, the building was renovated again to serve as the Central Fire Station (allowing Building 98 to be demolished in support of the PRS 66 removal action). After Fire Services were delegated to the City of Miamisburg, Building 47 was no longer needed.

Based upon available process information, Building 47 was never used as a processing facility or as a manufacturing facility, and was not contaminated with any radioactive or energetic materials.

2.2 Potential Release Sites (PRSs)

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and site contractor tabulated all the PRS's identified under the various regulatory programs in effect at the site. Of these 440 PRS's, three are near the former location of Building 47 (listed on Table 1, and locations shown on Figure 2). None of the PRSs were associated with Building 47, and all three have been binned No Further Assessment (NFA).

Table 1: PRSs in Proximity to Building 47

PRS	CERCLA or Bldg. Related	Binning Status	Comments
99	CERCLA	Removal Action Complete – NFA	Area 6, WD Building Filter-Cleaning Waste
100	CERCLA	NFA	Area F, Chromium Trench
241	CERCLA	NFA	Northwest Parking Lots

3.0 ACTIONS TAKEN

The Building 47 BDP was available for public review from 19 May through 18 June 2003.

Prior to demolition, a Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) study of Building 47 was performed. The Final Status Report (Appendix G of the Final BDP) provides details of the survey design and results, and indicates that Building 47 met applicable surface release criteria.

The demolition of Building 47 commenced on 14 July 2003 and was completed on 29 July 2003. Photographs taken before, during, and after demolition are provided in Appendix A.

Post-demolition radiological surveys of the ground-contact surface of the slab and foundations showed no elevated readings (Appendix B).

Building debris was loaded into haulers and taken to a local sanitary landfill.

After building demolition, the site was used to stage clean foundation demolition rubble from various buildings. As a result of this follow-on use, final site restoration was postponed. Prior to parcel transfer, the site will be cleared, graded, and seeded.

This Closeout Report documents the completion of the demolition and removal of Building 47. All preparation and demolition activities, except for final site restoration, were performed in accordance with the detailed Work Plan.

Table 2 - Materials Disposition

Building 47 Material	Quantity	Disposal Method	Destination
Asbestos Abatement (Debris)	1.35 cubic feet	Landfill	Stoney Hollow
Construction Debris (concrete and rebar)	14,985 cubic feet	Landfill	Stoney Hollow
PCB Light Ballast	6.75 cubic feet	Treatment	Clean Harbors
Glycol	935 liters	Treatment	Clean Harbors

4.0 PROBLEMS ENCOUNTERED

Building 47 was successfully demolished per the Work Package. As noted in section 3.0, final site restoration was postponed, but will be completed prior to parcel transfer.

5.0 RESOURCES COMMITTED

5.1 Personnel Organization

Table 3 lists the personnel organization for the demolition.

Table 3 - Personnel Organization for the Demolition

Agency or Party Involved	Contact	Description of Participation
US EPA (SR-6J) 77 W. Jackson Chicago, IL 60604 312-886-7058	David Seely	Federal agency responsible for MCP oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel	State agency responsible for MCP oversight.
DOE/ MCP P.O. Box 66 1 Mound Road Miamisburg, OH 45343-0066 847-8350, ext. 304	Frank Schmaltz	DOE/ MCP Project Manager responsible for project oversight and success.

Table 3 - Personnel Organization for the Demolition

Agency or Party Involved	Contact	Description of Participation
CH2M Hill Mound, Inc. BOSS Project P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-608-8007	Chris Watson	Provided the DOE/ MCP Project Manager with technical assistance, administrative support, sampling, decontamination, photo and site documentation, site safety, and report preparation.
CH2M Hill Mound, Inc. General Superintendent and Equipment Manager P.O. Box 3030 1 Mound Road Miamisburg, OH 45343-3030 937-865-4278	Max Edington	Provided the equipment necessary for the demolition.

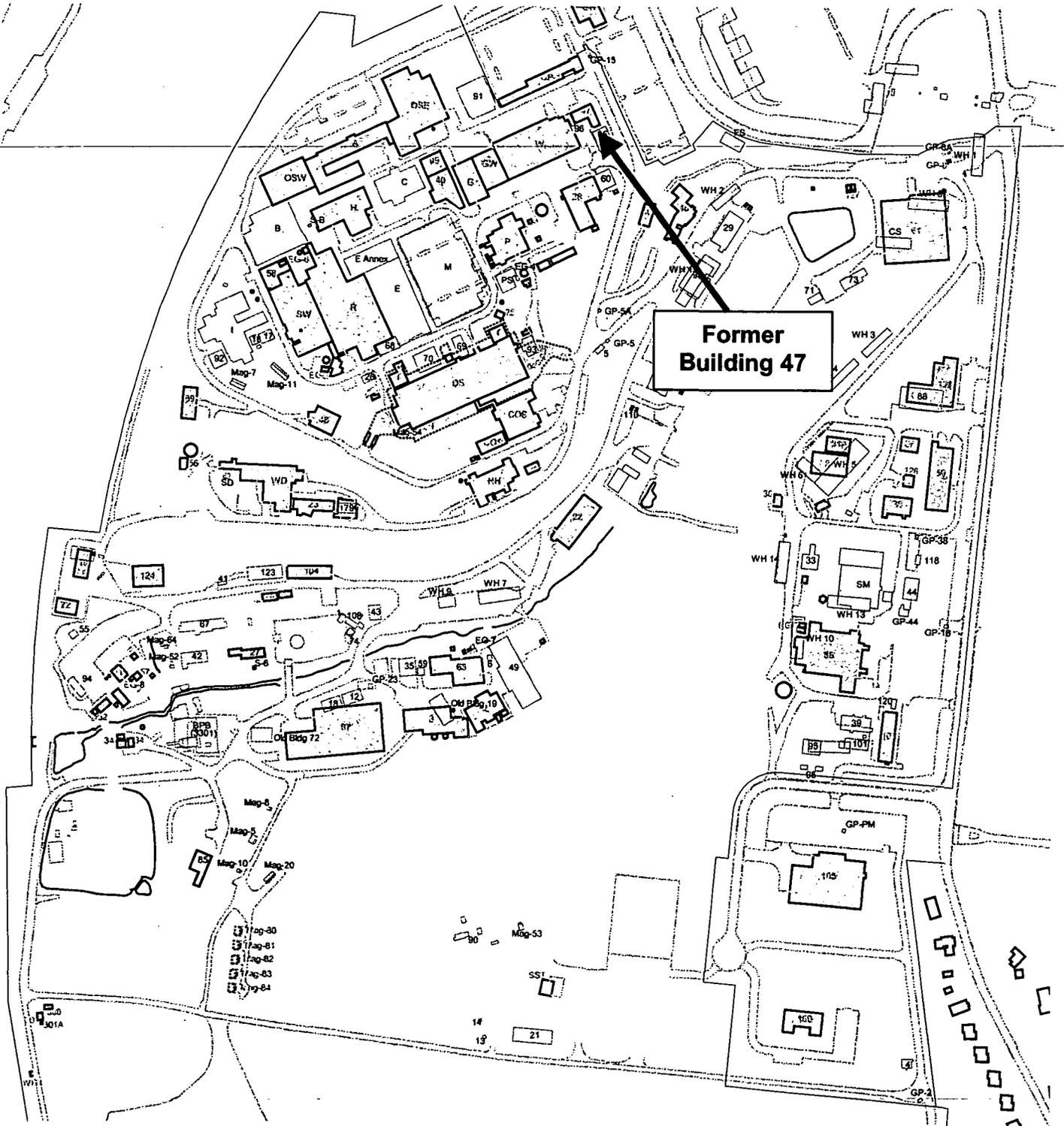
5.2 Demolition Cost

In accordance with the site contract, CH2M Hill Mound, Inc. has elected to cluster financial data for multiple buildings together. Building 47 is part of Cluster W, which also includes G, GW, and W Buildings. The total cluster cost will be presented in the G, GW, W Buildings Closeout Report.

APPENDIX A

Figures

Figure 1 - Location of Building 47



A1064



Legend

-  Structures
-  PRS Point
-  PRS Area
-  PRS Line



SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
DATE																							
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
DATE																							
PART CLASSIFICATION																							
UNCLASSIFIED																							
PROJECT NUMBER		Building 47 Square 2-100																					
JOB NUMBER																							
DRAWN BY		GREEN																					
CHECKED BY		A2064																					
SCALE																							
SHEET 1 OF																							

**Figure 2
Building 47
and Vicinity**

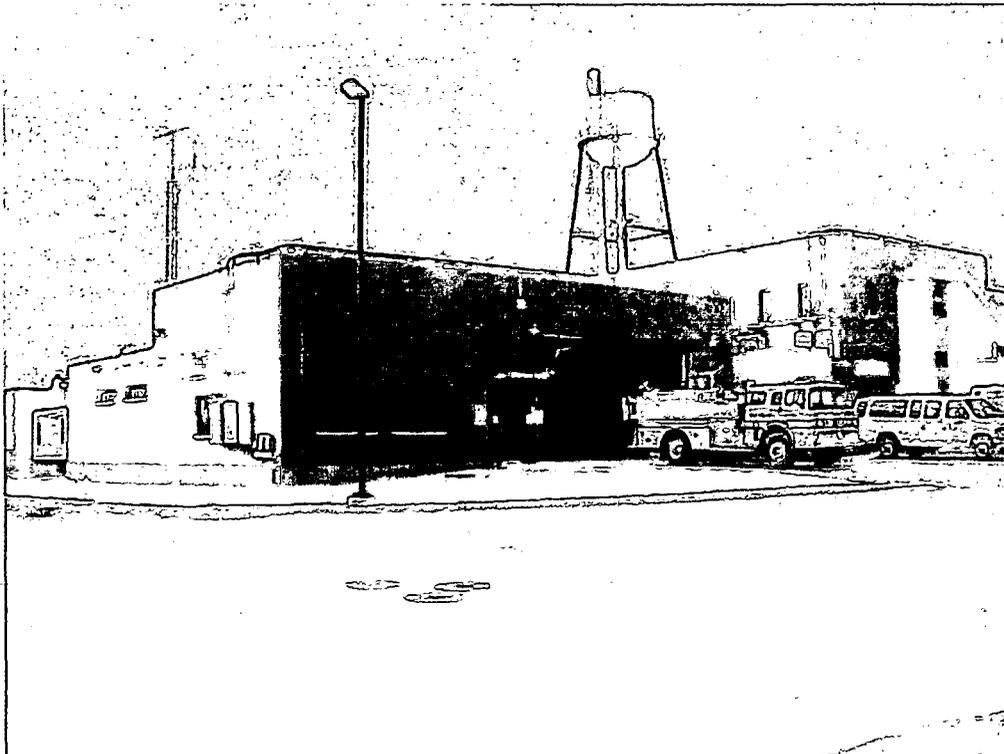
REV	DATE	REVISION	BY	CHKD	ENG	INSP	APVD	M

A2064

Figure 3 - Building Photos



Bldg. 47 as Security Station



Bldg. 47 as Fire Station

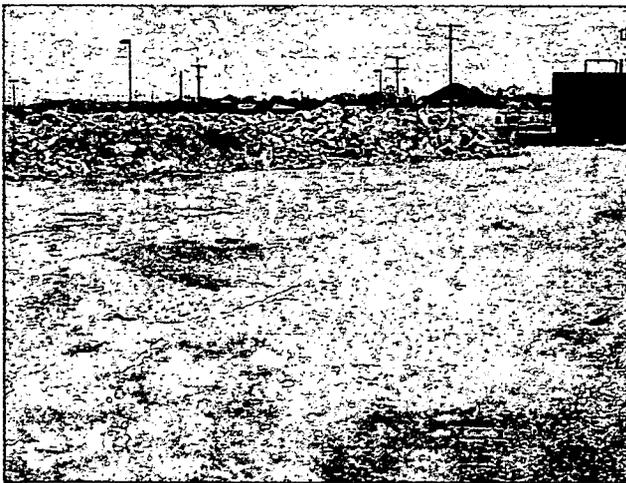
A3064



Bldg. 47 During Demolition



Bldg. 47 Slab Removal



Present State of Area at Bldg. 47

A4 of 4

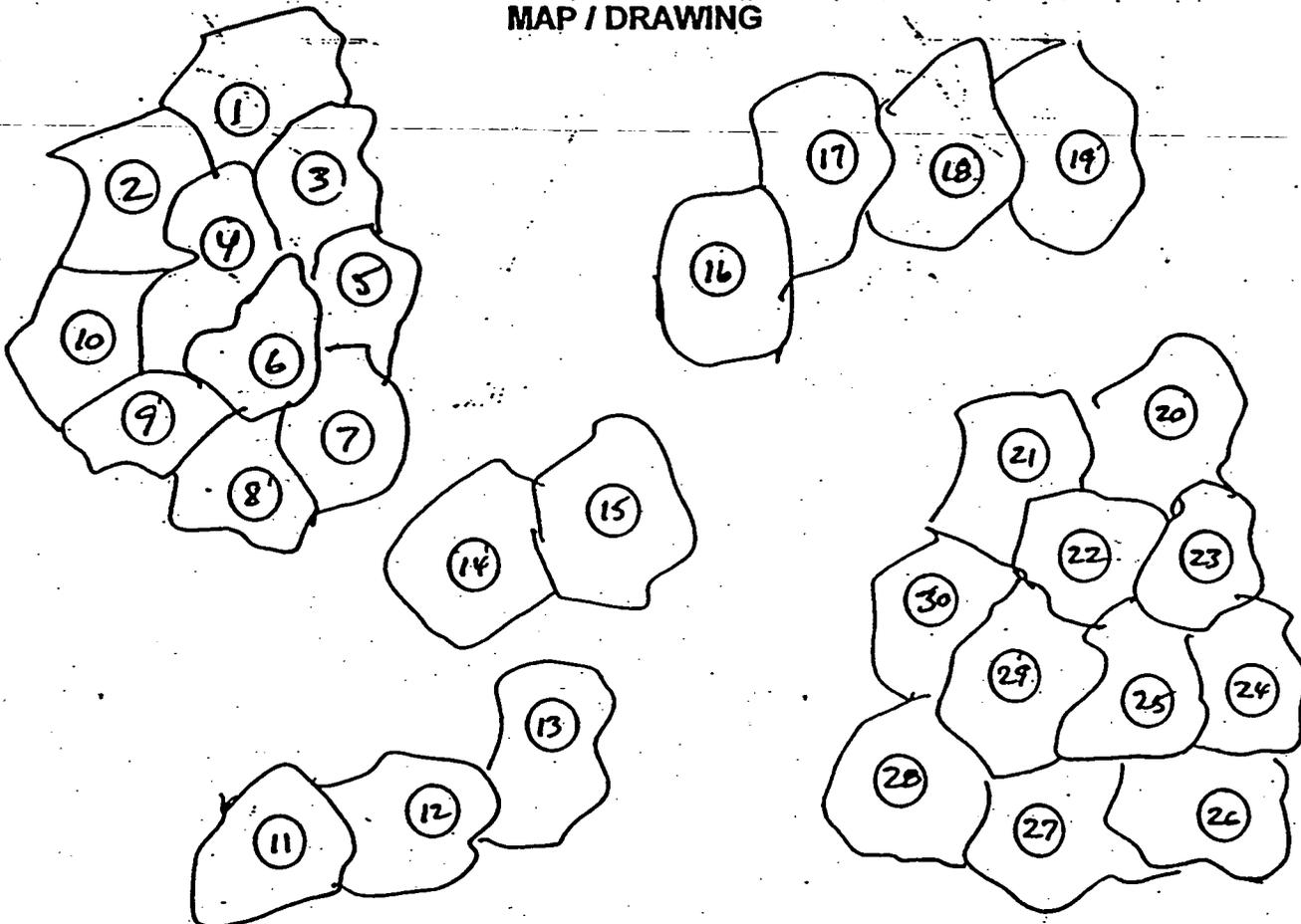
APPENDIX B

**Post-Final Status Survey Report
Radiological Surveys**

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) 47.CONCRETE SLAB	SURVEY NO 03-TF-0172
PURPOSE: RELEASE CONCRETE TO WASTEMANAGEMENT	RWP NO: N/A
	DATE: 7-22-2003
	TIME: 1530

MAP / DRAWING



- NOTE: BICRON FIDLER USED FOR INDICATION ONLY. RESULTS WERE NON-DETECTABLE.
- INTEGRATED READING TAKEN IF AUDIBLE ALPHA DETECTED ALL RESULTS:
 $<100 \text{ dpm}/100\text{cm}^2$ ALPHA AND $<5\text{K dpm}/100\text{cm}^2$ BETA NO AUDIBLE DETECTED

LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr ($\beta + \eta + \gamma$) extremity on contact.
- K = factor of 1000
- = radiological boundary
- \triangle # = mrem/hr neutron
- \circ # = swipe number
- \square # = air sample number
- \circ #/a or β = direct contamination measurement in $\text{dpm}/100 \text{ cm}^2$

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5833/5847	3-13-2004
FIDLER	3953/3954	3-11-2004
N/A		

6178 Date: 7-22-2003

NA Date: NA

244 Date: 8/25-03

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm ²)				Comments
Sample #	β _γ	Alpha	Tritium	
1-30	SEE ATTACHED	DTA	CONCRETE	
N/A				

Removable Contamination				
Swipes (dpm/100cm ²)				Comments
Sample #	β _γ	Alpha	Tritium	
N/A				

COMMENTS:

N/A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β_γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

Alpha/Beta Analysis

COPY

Batch ID: Smear Unit 2 - 200307221601

Count Date: 7/22/2003

Group: E

Count Minutes: 1.5

Serial Number: 78218-2

Count Mode: Simultaneous

Batch ID: 03-TF-0172 HARVEY-30 BSB

Operating Volts: 1380

Selected Geometry: Swipe/Smear

Cal Due Date: 6/19/2004

Efficiency (%)

Spillover (%)

Alpha: 35.30 ± 0.11
Beta: 44.94 ± 0.12

Alpha to Beta: 9.38 ± 0.00
Beta to Alpha: 0.85 ± 0.00

Sample ID	Carrier ID	Alpha (dpm)	σ	Beta (dpm)	σ
1	44	0.00	0.18	139.50	15.51
2	49	2.01	1.89	1.16	1.49
3	100	0.00	0.02	1.28	1.48
4	19	4.01	2.67	2.32	2.11
5	33	1.99	1.89	2.44	2.10
6	54	0.00	0.00	0.00	0.00
7	4	0.00	0.02	1.28	1.48
8	88	0.00	0.02	1.28	1.48
9	91	0.00	0.00	0.00	0.00
10	60	4.03	2.67	1.04	1.50
11	95	0.00	0.02	1.28	1.48
12	22	0.00	0.00	0.00	0.00
13	36	0.00	0.02	1.28	1.48
14	43	1.99	1.89	2.44	2.10
15	65	0.00	0.02	1.28	1.48
16	51	0.00	0.02	1.28	1.48
17	27	0.00	0.02	2.56	2.10
18	5	0.00	0.03	5.12	2.97
19	21	1.99	1.89	2.44	2.10
20	23	0.00	0.02	1.28	1.48
21	36	0.00	0.02	1.28	1.48
22	35	1.97	1.89	3.72	2.58
23	100	1.96	1.89	5.00	2.97
24	40	1.97	1.89	3.72	2.58
25	98	0.00	0.00	0.00	0.00
26	74	0.00	0.02	1.28	1.48
27	55	0.00	0.00	0.00	0.00
28	42	0.00	0.02	2.56	2.10
29	59	4.03	2.67	1.04	1.50
30	37	0.00	0.02	2.56	2.10

By Brown

29/11

29/11

Batch ID: 03-TF-0172 HARVEY-30 BSB

3 of 3
Page 1 of 1
29/11 7-22-03

APPENDIX C

Buildings 40, 47, 99, G, GW, and W Closeout Report Addendum 1

Buildings 40, 47, 99, G, GW, and W

Closeout Report

Addendum 1

April 2005

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PURPOSE

The purpose of this addendum is to document the removal of the remaining foundation wall associated with the demolition of Buildings 40 and 99, and to document the final site restoration associated with the demolition of Buildings 40, 47, 99, G, GW, and W.

REFERENCES

- 1) Buildings 40 and 99 Closeout Report, Final, June 2004
- 2) Building 47 Closeout Report, Final, May 2004
- 3) Buildings G, GW, W Closeout Report, Final, January 2005

BACKGROUND

Section 3.0 of Reference 1 states that all preparation and demolition activities associated with the demolition and removal of Buildings 40 and 99 were complete except for the removal of one foundation wall that was delayed until after OSE Building power was redirected to allow shutdown of an adjacent electrical duct bank.

Section 3.0 of References 1, 2, and 3 states that all preparation and demolition activities associated with the demolition and removal of Buildings 40, 47, 99, G, GW, and W were complete except for the final site restoration. After the buildings were demolished, the site was used to stage clean foundation demolition rubble from various buildings. As a result of this follow-on use, final site restoration was postponed.

ACTION TAKEN

The remaining foundation wall of Buildings 40 and 99 was removed after power to OSE Building was redirected, allowing the shutdown of an adjacent electrical duct bank.

Site restoration was completed for the site of the former Buildings 40, 47, 99, G, GW, and W. Contract No. DE-AC24-03-OH20152, Section C.2.1.1.6 was modified by Letter MCP-025-05, dated October 27, 2004, authorizing the use of a crushed gravelized finished surface in lieu of seeding for this area.

A photograph taken after removal of the foundation wall and after completion of site restoration is provided in Appendix A.

DEMOLITION COST

Under the new site contract, CH2M Hill Mound, Inc. has elected to cluster financial data for multiple buildings together. Buildings G, GW, W, and 47 are identified as Cluster W. Building 40 is the only building in Cluster 40, and Building 99 is the only building in Cluster 99. The total costs for Clusters 40, 99, and W are presented in Table 1.

Table 1 – Clusters 40, 99, and W Total Costs

Cluster 40 Cost

Activity	Cost
Work Planning	\$23K
Demolition	\$57K
Total	\$80K

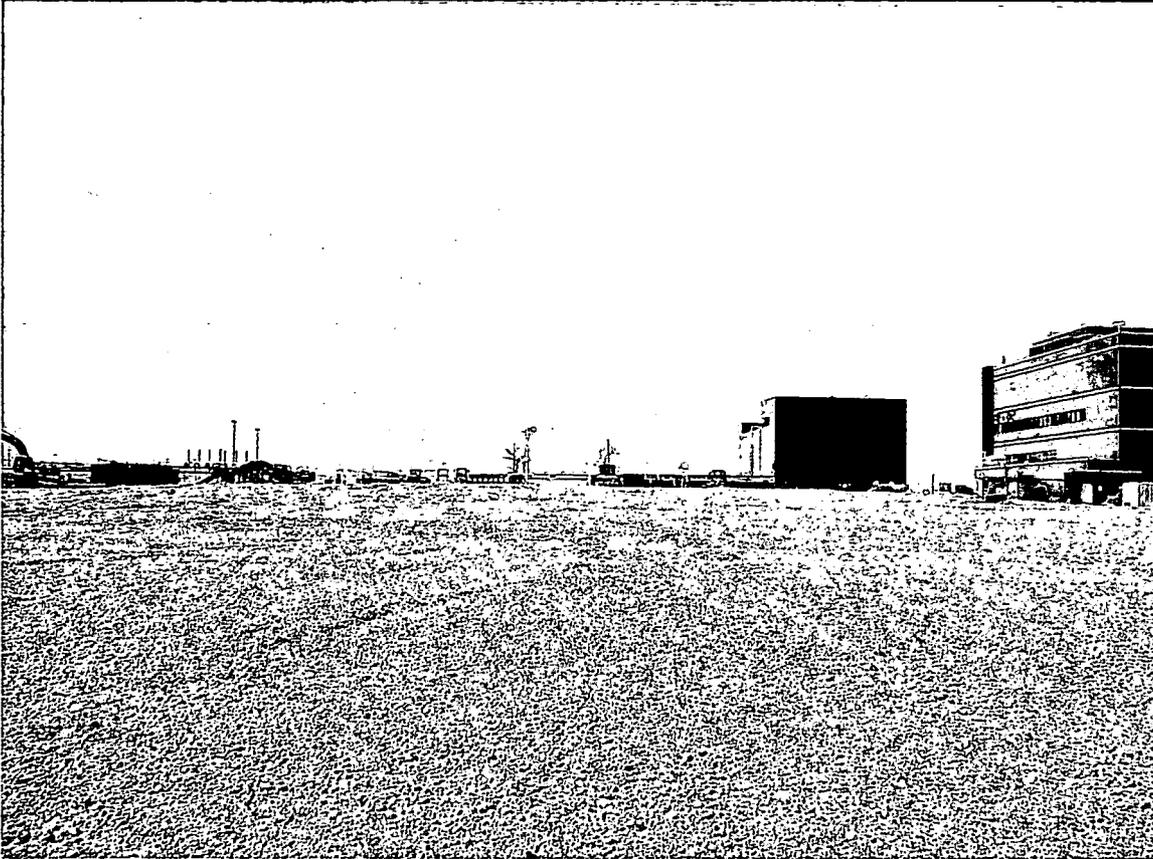
Cluster 99 Cost

Activity	Cost
Work Planning	\$14K
Facility Prep	\$78K
Demolition	\$115K
Total	\$207K

Cluster W Cost

Activity	Cost
Work Planning	\$44,000
Facility Prep	\$359,000
Demolition	\$225,000
Total	\$628,000

Appendix A



**Building 40, 47, 99, G, GW, and W Area After Final Grade
(view looking west)**