# AR TARGET SHEET

The following document was too large to scan as one unit, therefore, it has been broken down into sections.

| | |
|---|---|
| EDMC#: | 0027913 |
| SECTION: | 2 of 4 |
| DOCUMENT #: | DOE/RL-92-67, DRAFT B |
| TITLE: | Draft LFI/FFS for 1100-EM-2, 1100-EM-3, and 1100-IU-1 |

# SELECTED DRAWINGS OF 1100-EM-3 AND 1100-IU-1

9312941748

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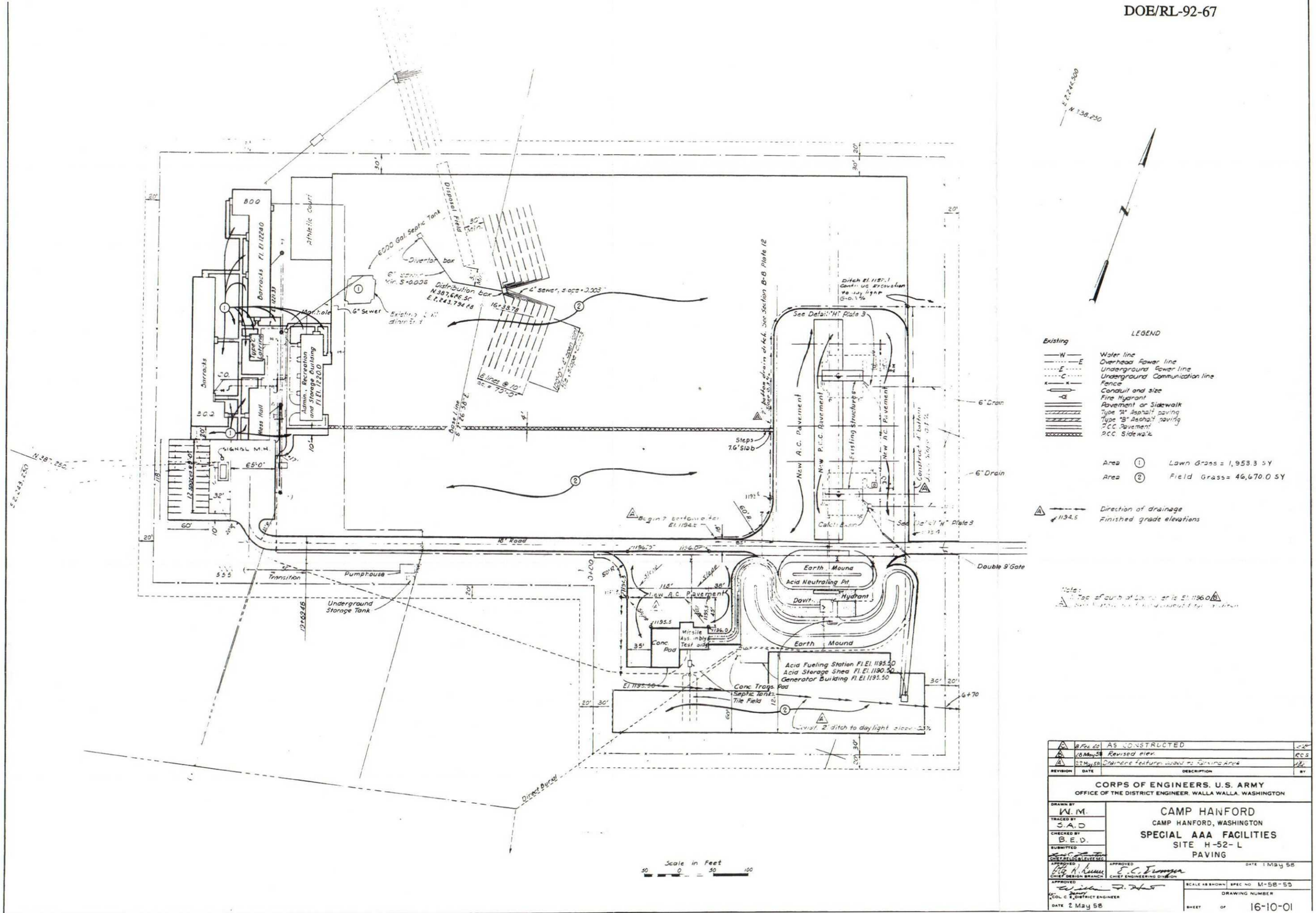
9312541269




LEGEND

Existing

- —W— Water line
- —E— Overhead Power line
- ···E··· Underground Power line
- ···C··· Underground Communication line
- —x—x— Fence
- Conduit and size
- Fire Hydrant
- Pavement or Sidewalk
- Type "A" Asphalt paving
- Type "B" Asphalt paving
- P.C.C. Pavement
- P.C.C. Sidewalk

Area ① Lawn Grass = 1,953.3 SY

Area ② Field Grass = 46,670.0 SY

Direction of drainage

1194.5 Finished grade elevations

Note:
1. Top of curb at Lo. No. grade El. 1196.0

| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| A | 18 Feb 60 | AS CONSTRUCTED | |
| A | 28 May 58 | Revised elev. | RCS |
| A | 22 May 58 | Drainage features added to Parking Area | |

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

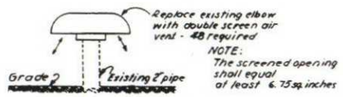
DRAWN BY W.M.
TRACED BY S.A.D.
CHECKED BY B.E.D.
SUBMITTED
CHIEF, DESIGN SECTION

CAMP HANFORD
CAMP HANFORD, WASHINGTON
SPECIAL AAA FACILITIES
SITE H-52-L
PAVING

APPROVED CHIEF DESIGN BRANCH
APPROVED CHIEF ENGINEERING DIVISION
DATE 1 May 58
APPROVED COL. C. S. DISTRICT ENGINEER
DATE 2 May 58
SCALE AS SHOWN
SPEC NO. M-58-55
DRAWING NUMBER
SHEET OF 16-10-01

9312943411350

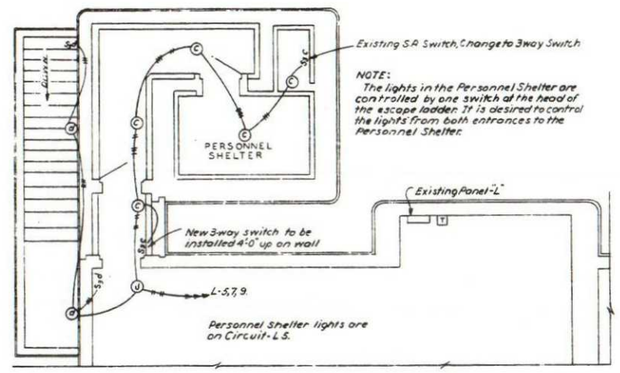
CORPS OF ENGINEERS — U.S. ARMY



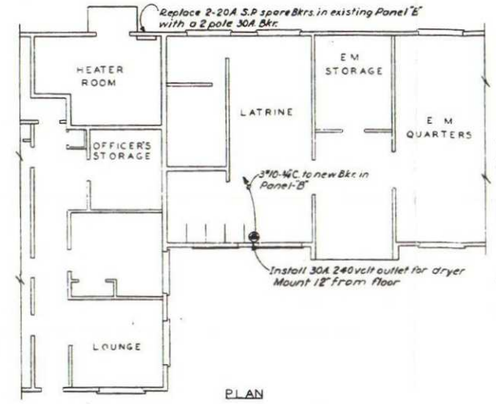

DEHUMIDIFIER REACTIVATION AIR INLET AND AIR OUTLET

UNDER GROUND MISSILE STORAGE STRUCTURE

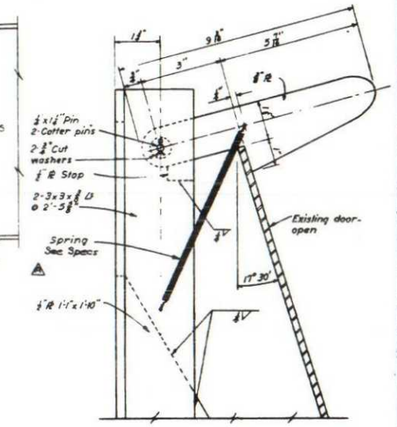
NOT TO SCALE




PLAN
PERSONNEL SHELTER
UNDER GROUND MISSILE STORAGE STRUCTURE
TYPE "B"
NOT TO SCALE

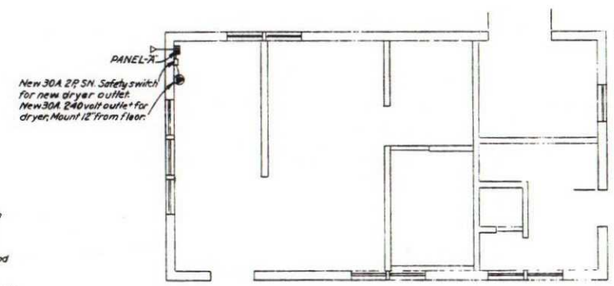



PLAN
EXISTING QUARTERS FOR 4 OFFICERS, AND 42 ENLISTED MEN
TYPICAL H-12-C H-52

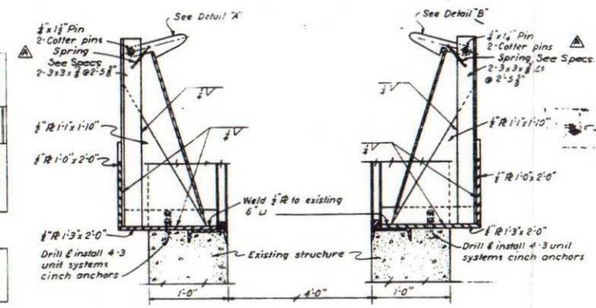



DETAIL "A"
SCALE: HALF SIZE

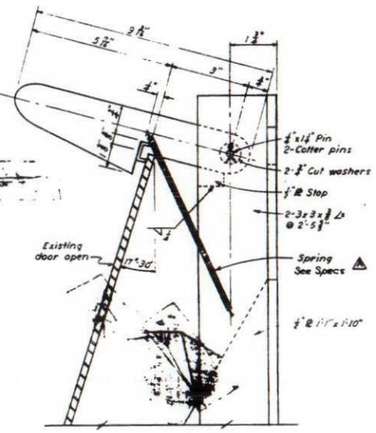
NOTE: TYPICAL H-06-L, H-12-L, H-52-L AND H-83-L, 2 STORAGE STRUCTURES AT EACH SITE. TOTAL OF 8 STRUCTURES.




PLAN
EXISTING LATRINE
TYPICAL H-06-C H-52-L H-83-C




SECTION A/10
SCALE 1 1/2"=1'-0"

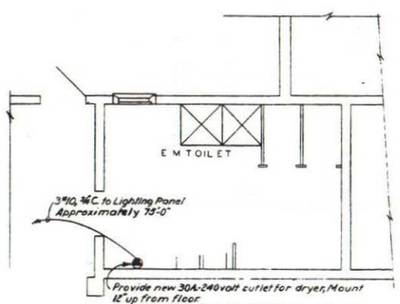



DETAIL "B"
SCALE: HALF SIZE

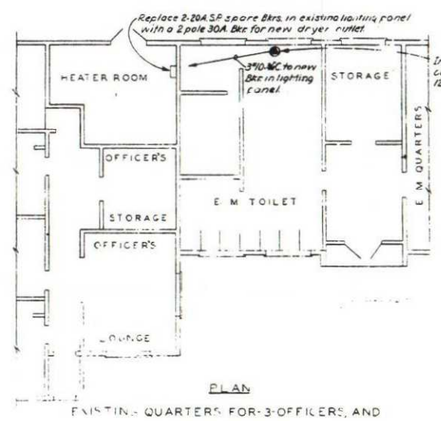
GENERAL NOTES:

1. Replace the elevator warning bell on 2 underground structures at each of the following Launcher Sites with a Benjamin Type SWP weatherproof Howler Catalog No. 6590-110 volt, or approved equal; H-06-L, H-12-L, H-52-L and H-83-L. The bell is 24 volts A.C., however the bell transformer and 110 volt source are within 4 feet of each other. Stock pile the replaced bells and transformers with the Post Engineer as directed by Contracting Officer

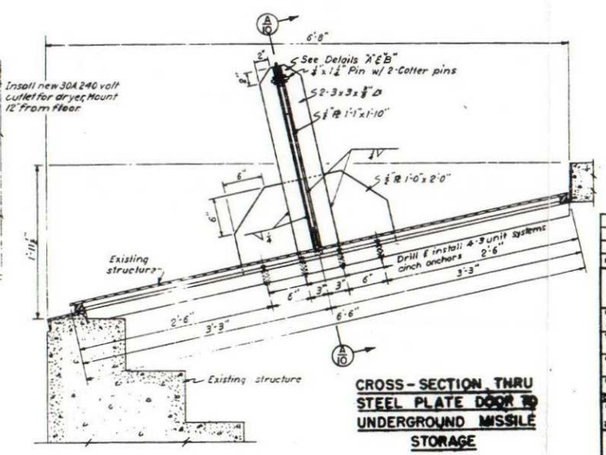
2. Place an insulating mat: "Salisbury Protector Blanket" 27" x 36" or approved equal in the conduit manhole for the Generator Building at Launcher Sites H-06-L, H-12-L, H-52-L and H-83-L. The cover for these manholes is formed by ten-2" x 12" x 2'-6" creosoted planks. Bolt these planks to a 3'-2" x 10'-0" x 16 Ga. galvanized steel sheet with 4-3/4" stove bolts per plank thus forming a sandtight cover for the manhole. Provide one of these metal sheets for H-06-L, H-12-L, H-52-L and H-83-L




PLAN
E M TOILET H-52-C




PLAN
EXISTING QUARTERS FOR 3 OFFICERS, AND 54 ENLISTED MEN
TYPICAL H-12-L




CROSS-SECTION THRU STEEL PLATE DOOR TO UNDERGROUND MISSILE STORAGE

| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 2 | 23 DEC 57 | AS CONSTRUCTED | |
| 1 | 25 Apr 57 | Deleted size of spring for doors of US Structures | |

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

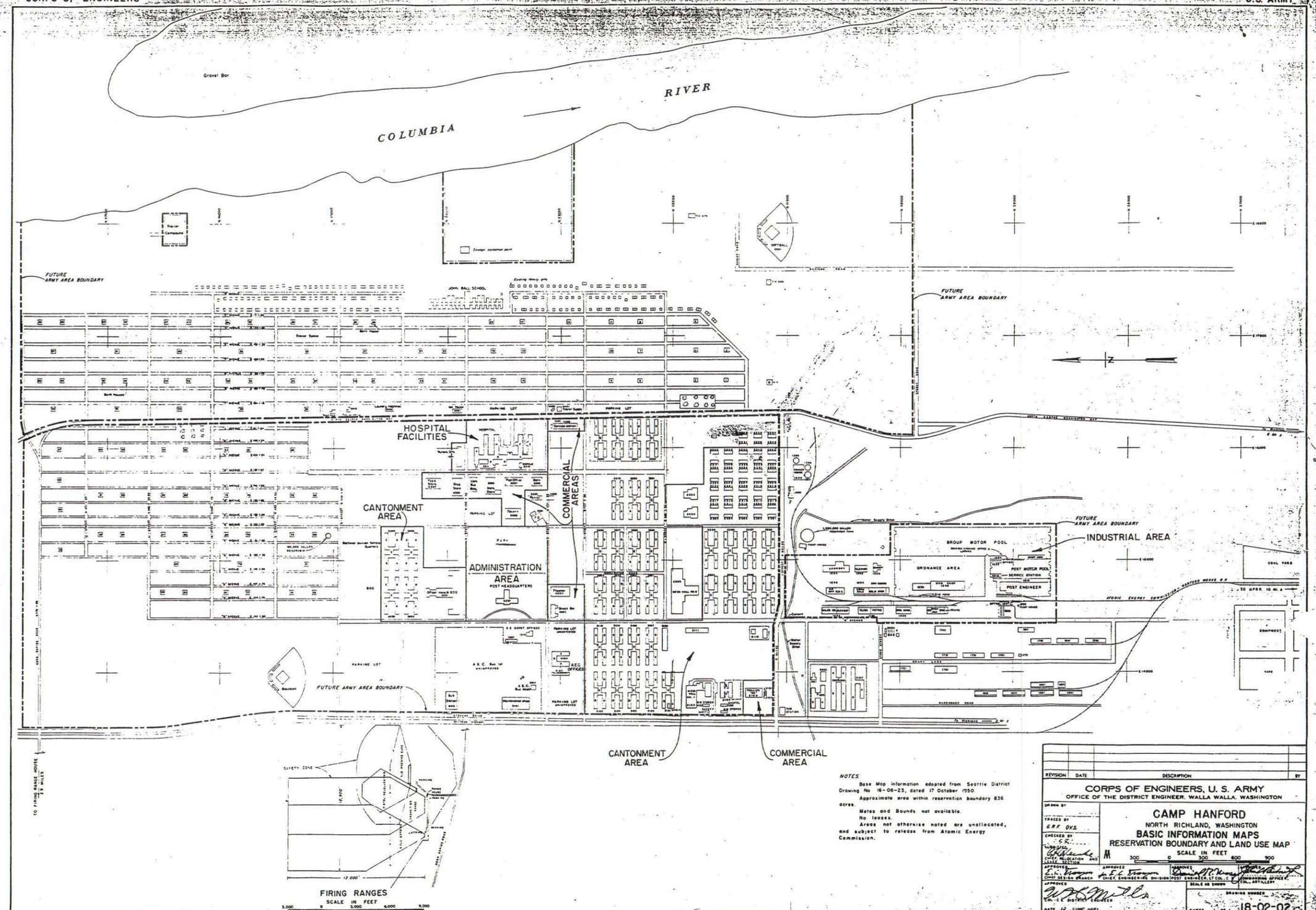
DRAWN BY: B.H.F.
TRACED BY: B.H.F.
CHECKED BY: F.E.B.
SUBMITTED: Recommended

CAMP HANFORD
CAMP HANFORD, WASHINGTON
NIKE I - SAM PROJECT
IMPROVEMENTS TO NIKE FACILITIES
MISCELLANEOUS DETAILS

DATE: 5 APR 57
SCALE AS SHOWN
SPEC. NO. M-57-59
DRAWING NUMBER
SHEET 10 OF 26-03-03

LINE ITEM 730

9 3 1 2 9 3 4 1 3 5 1


COLUMBIA
RIVER
Gravel Bar
FUTURE ARMY AREA BOUNDARY
JOHN BALL SCHOOL
HOSPITAL FACILITIES
CANTONMENT AREA
COMMERCIAL AREAS
ADMINISTRATION AREA
POST HEADQUARTERS
GROUP MOTOR POOL
ORDNANCE AREA
POST MOTOR POOL
POST ENGINEER
INDUSTRIAL AREA
COAL YARD
EQUIPMENT
YARD
FIRING RANGES
SCALE IN FEET
3,000 0 3,000 6,000 9,000
SAFETY ZONE
12,000'
CANTONMENT AREA
COMMERCIAL AREA
NOTES:
Base Map information adapted from Seattle District Drawing No. 16-06-23, dated 17 October 1950.
Approximate area within reservation boundary 836 acres.
Metes and Bounds not available.
No leases.
Areas not otherwise noted are unallocated, and subject to release from Atomic Energy Commission.
REVISION DATE DESCRIPTION BY
CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON
CAMP HANFORD
NORTH RICHLAND, WASHINGTON
BASIC INFORMATION MAPS
RESERVATION BOUNDARY AND LAND USE MAP
SCALE IN FEET
300 0 300 600 900
DRAWN BY
TRACED BY
CHECKED BY
SUBMITTED
CHIEF LOCATION AND LANDS SECTION
APPROVED
CHIEF DESIGN BRANCH
APPROVED
CHIEF ENGINEERING DIVISION
APPROVED
POST ENGINEER, LT. COL. C.E.
COMMANDING OFFICER COL. ARTILLERY
APPROVED
COL. C.E. DISTRICT ENGINEER
DATE 12 JUNE 1951
SCALE AS SHOWN
DRAWING NUMBER
SHEET OF
18-02-02

9312941352

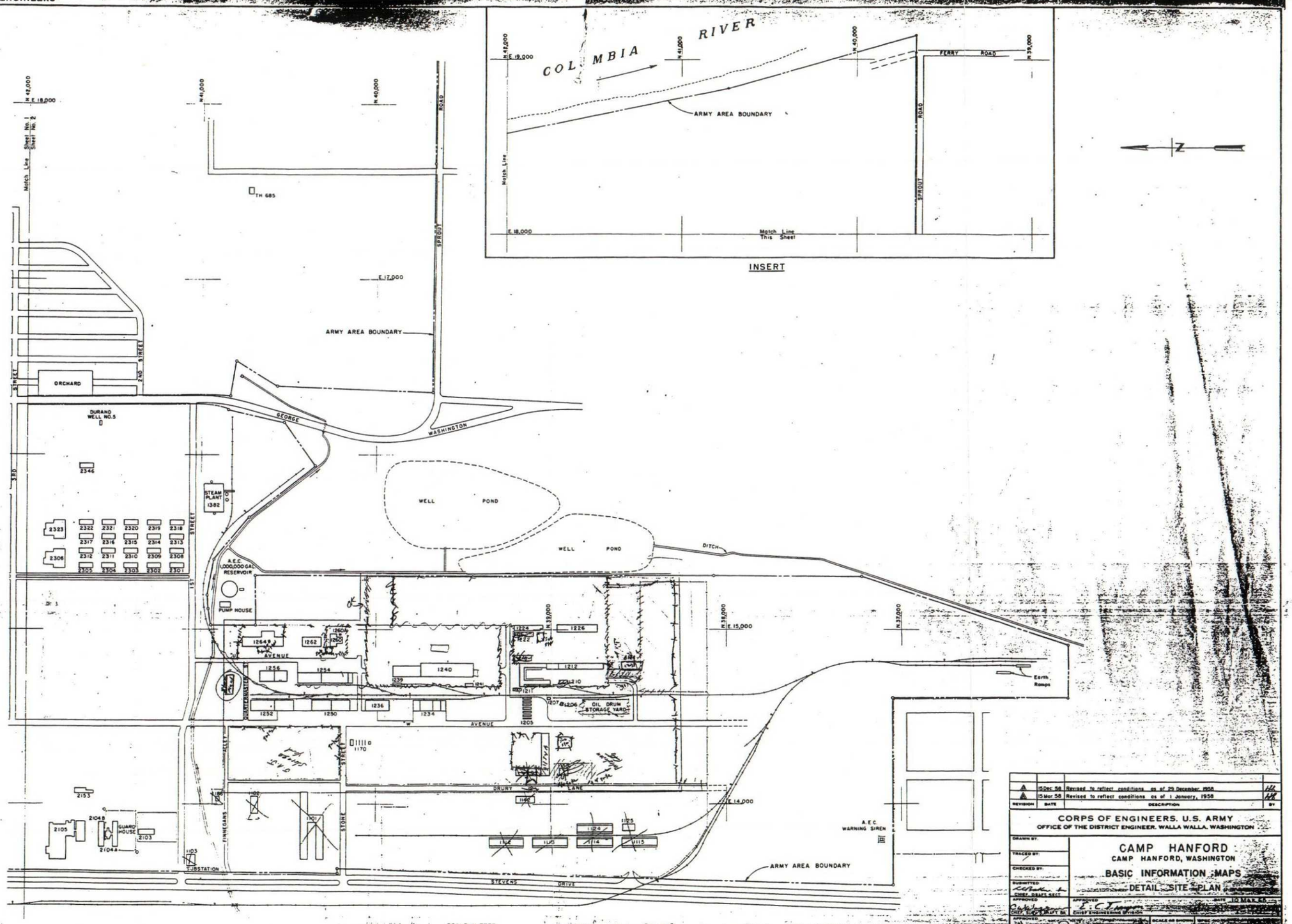
# INDEX SHEET TO GENERAL AND DETAIL SITE PLAN AND BUILDING USE MAP

| BLDG. NO. | DESIGNATION | DRAWING NO. | TYPE OF CONSTRUCTION | YEAR CONST. | MATERIAL OF CONSTRUCTION | CAPACITY | COND. OF BLDG. | UTILITIES, CONDITION: WIRING | PLUMBING | HEATING | ECON. OF MAINT. | RECM. FOR RETENTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1205 | Gasoline Storage and Dispensing System | 7??-42?? | Temporary | 1951 | | 60,000 Gal. Stor. | Good | Good | Good | Good | Good | Yes |
| 1206 | Gasoline Pump House | 7?-09-22 | • | • | Wood Frame | | • | • | • | • | • | • |
| 1207 | Oil Storage and Office, Gasoline Dispensing System | 7?-09-22 | • | • | • • | 294 Sq.Ft. | • | • | • | • | • | • |
| 1212 | Post Engineer Shops, Office and Storehouse | 35-32-41 | • | • | • • | 21,075 Sq.Ft. | • | • | • | • | • | • |
| 1218 | Service Station | 36-21-21 | • | • | • • | | • | • | • | • | • | • |
| 1222 | Office, Vehicle Storage and Latrine | 36-31-21 | • | • | • • | 2,400 Sq.Ft. | • | • | • | • | • | • |
| 1224 | Dispatch and Records Office and Vehicle Storage | 36-31-31 | • | • | • • | 4,844 Sq.Ft. | • | • | • | • | • | • |
| 1226 | Production Line Maintenance Shop | 35-32-31 | • | • | • • | 9,430 Sq.Ft. | • | • | • | • | • | • |
| 1234 | Warehouse-Chem., Med., Engrg., Signal and Transportation. | 36-07-21 | • | • | • • | 8,620 Sq.Ft. | • | • | • | • | • | • |
| 1236 | Warehouse, Ordnance | 33-24-21 | • | • | • • | 8,100 Sq.Ft. | • | • | • | • | • | • |
| 1239 | Artillery Repair and Maintenance Shop | 35-32-21 | • | • | • • | 10,800 Sq.Ft. | • | • | • | • | • | • |
| 1240 | Automotive Repair and Maintenance Shop | 35-32-21 | • | • | • • | 24,000 Sq.Ft. | • | • | • | • | • | • |
| 1250 | Whse.-T/A-20 Goods & Cl. III Drum & pkg. Petroleum Products | 33-02-21 | • | • | • • | 660 Sq.Ft. | • | • | • | • | • | • |
| 1252 | Warehouse-Class II and IV Supply, Sales and Issue | 33-02-31 | • | • | • • | 660 Sq.Ft. | • | • | • | • | • | • |
| * 1254 | Whse.-Dry Goods Stor., Cold Stor., Com. Sales & Storehouse | 33-02-41 | • | • | • • | 16,720 Sq.Ft. | • | • | • | • | • | • |
| 1260 | Bakery | 36-01-22 | • | • | • • | 4,100 Sq.Ft. | • | • | • | • | • | • |
| 1262 | Dry Cleaning Plant | 34-04-31 | • | • | • • | 9,900 Sq.Ft. | • | • | • | • | • | • |
| 1264 | Laundry | 36-04-21 | • | • | • • | 5,800 Sq.Ft. | • | • | • | • | • | • |
| 2104 | Guardhouse | None | Old Dormitory | 1947 | • • | 10,000 Sq.Ft. | Fair | • | • | • | Fair | • |
| 2105 | Consolidated Mess | • | Old Civilian Mess | 1947 | • • | 1,500 Men | • | • | • | • | • | • |
| 2110 | Engineer Shops (2 Bldgs.) | • | Temporary | 1941 | • • | 980 Sq.Ft. | • | • | • | • | • | • |
| 2201 | Troop Housing | • | Hanford | 1942 | • • | 184 Men | • | • | • | • | Fair | • |
| 2202 | Troop Housing A-B-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| | Orderly Room, Office etc. C | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 2203 | Troop Housing C-D | • | • | • | • • | 92 Men | • | • | • | • | • | • |
| | Orderly room supply, Storage etc. A | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Prov. Marshal - Library B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 2204 | P. B. X. D | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Court Martial Rooms, T. I. & E. Etc. C. | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Offices B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Headquarters 5th Group A | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 2206 | Troop Housing A-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| | Administration and Supply B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 2207 | Office, Storerooms, etc. B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing A-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| 2208 | Troop Housing A-D | • | • | • | • • | 92 Men | • | • | • | • | • | • |
| | Office, Storerooms, Guard House B-C | • | • | • | • • | 6,668 Sq.Ft. | • | • | • | • | • | • |
| 2209 | Office, Orderly room, etc. A | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing B-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| 2301 | Offices and Supply Room | • | Pasco | 1941 | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2302 | Office and Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2303 | Offices and Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2304 | Infirmary | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| * 2306 | Mess Hall | 3?-05-22 | Temporary | • | • • | 10,990 Sq.Ft. | • | • | • | • | • | • |
| 2308 | Troop Housing | None | Pasco | • | • • | 48 Men | • | • | • | • | • | • |
| 2309 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2310 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2311 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2312 | Office and Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2313 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2314 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2315 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2316 | Service Club | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2317 | N. C. O. Mess | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2318 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2319 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2320 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2321 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2322 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2323 | Mess Hall | 3?-05-22 | Temporary | • | • • | 10,990 Sq.Ft. | • | • | • | • | • | • |
| 2325 | Battalion Headquarters | None | Pasco | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2326 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2327 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2328 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2329 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2330 | Storage, Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2331 | Guard House, 519th Gun Battalion | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2332 | Wards for Infirmary | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2333 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2334 | Office and Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2337 | Hobby Shop, 5th A.A.A. | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2338 | Class Rooms, Gun Battalion | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2339 | Class Rooms, Gun Battalion | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2340 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2341 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2342 | Storage, Battalion Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| 2343 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2344 | Troop Housing | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| 2345 | Storage, Battalion Supply | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |
| * 2346 | Signal Office and Warehouse | • | • | • | • • | 3,240 Sq.Ft. | • | • | • | • | • | • |

| BLDG. NO. | DESIGNATION | DRAWING NO. | TYPE OF CONSTRUCTION | YEAR CONST. | MATERIAL OF CONSTRUCTION | CAPACITY | COND. OF BLDG. | UTILITIES, CONDITION: WIRING | PLUMBING | HEATING | ECON. OF MAINT. | RECM. FOR RETENTION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3101 | Battery Headquarters A | None | Hanford | 1942 | Wood Frame | 3,334 Sq.Ft. | Fair | Good | Good | Good | Fair | Yes |
| | Battalion Headquarters B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing C-D | • | • | • | • • | 92 Men | • | • | • | • | • | • |
| 3102 | Troop Housing A-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| | Battery Headquarters B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 3103 | Battery Headquarters B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing A-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| 3104 | Troop Housing A-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| | Battery Headquarters B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 3105 | Battery Headquarters A | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing B-C-D | • | • | • | • • | 138 Men | • | • | • | • | • | • |
| 3107 | Officers Mess, Bachelor Officer Quarters A-B-C-D | • | • | • | • • | 13,336 Sq.Ft. | • | • | • | • | • | • |
| 3108 | Equipment Rooms, Radar, etc. A | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing B | • | • | • | • • | 46 Men | • | • | • | • | • | • |
| | Civilian Dormitory C | • | • | • | • • | 46 Men | • | • | • | • | • | • |
| | C. I. D. Offices D | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| 3109 | Post Engineer, Ordnance, Publications C | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Special Services D | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Troop Housing A-B | • | • | • | • • | 92 Men | • | • | • | • | • | • |
| 3110 | Troop Housing A | • | • | • | • • | 46 Men. | • | • | • | • | • | • |
| | Ordnance and Supply Rooms B | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Post Headquarters C | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| | Office, Staff Sections D | • | • | • | • • | 3,334 Sq.Ft. | • | • | • | • | • | • |
| * 5281 | Post Headquarters | 30-05-21 | Temporary | 1951 | • • | 27,280 Sq.Ft. | Good | • | • | • | • | • |
| 5311 | Hospital | 32-03-31 | • | • | • • | 62,750 Sq.Ft. | • | • | • | • | • | • |
| 6311 | Nurses Quarters | 25-07-21 | • | • | • • | 4,340 Sq.Ft. | • | • | • | • | • | • |
| (39) | Chapel | None | Quonset Hut | 1947 | Metal & Wood | 1,200 Sq.Ft. | Fair | • | None | • | • | • |
| (43) | Q. M. Stores | • | • | • | • • | 1,200 Sq.Ft. | • | • | Good | • | • | • |
| (44) | Safety | • | • | • | • • | 800 Sq.Ft. | • | • | • | • | • | • |
| (72) | Battalion Supply Office | • | Temporary | • | Wood Frame | | Fair | • | • | • | • | • |
| (74) | Automotive Maintenance | • | • | • | • • | | • | • | • | • | • | • |
| (78) | Office and Shops | • | • | • | • • | | • | • | • | • | • | • |
| None | Q. M. Stores | • | Quonset Hut | • | Metal & Wood | 1,200 Sq.Ft. | • | • | • | • | • | • |
| None | Battalion S-4 | • | • | • | • • | 800 Sq.Ft. | • | • | • | • | • | • |
| * 2349 | Troop Housing | • | Pasco | 1941 | Wood Frame | 48 Men | • | • | • | • | • | • |
| * 2354 | • • | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| * 2355 | • • | • | • | • | • • | 48 Men | • | • | • | • | • | • |
| * 1256 | C & E Repair; Post Quartermaster Office | 33-02-51 | Temporary | 1951 | • • | 9,300 Sq.Ft. | Good | • | • | • | Good | • |
| * 2305 | Post Exchange | None | Pasco | 1941 | • • | 3,240 Sq.Ft. | Fair | • | • | • | Fair | • |
| * 5310 | Morgue and Garage | 36-31-23 | Temporary | 1951 | • • | 1,276 Sq.Ft. | Good | • | • | • | Good | • |

9312934135 3

CORPS OF ENGINEERS




| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 4 | 15 Dec 58 | Revised to reflect conditions as of 29 December 1958 | HH |
| 3 | 15 Mar 58 | Revised to reflect conditions as of 1 January, 1958 | HH |

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

DRAWN BY:
TRACED BY:
CHECKED BY:
SUBMITTED: CHIEF, DRAFT. SECT.
APPROVED: CHIEF, SURV. & DRAFT. BR.
APPROVED: CHIEF ENGINEERING DIVISION
DATE 10 MAR 58

# CAMP HANFORD

CAMP HANFORD, WASHINGTON

## BASIC INFORMATION MAPS

DETAIL SITE PLAN

SCALE AS SHOWN

18-02-364

PLATE 4

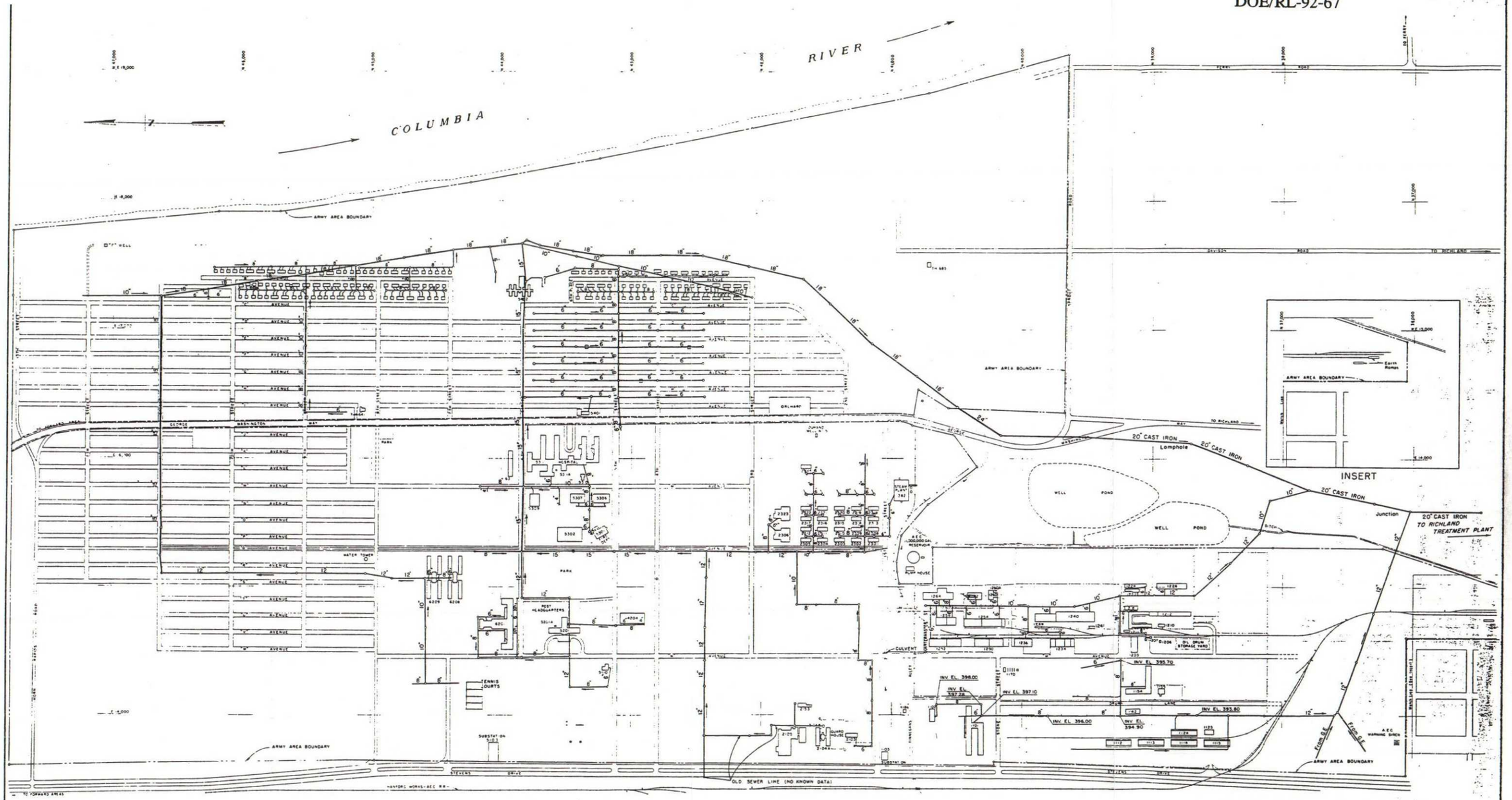
9 3 1 2 9 4 1 3 5 4

# INDEX SHEET TO GENERAL SITE PLAN AND BUILDING USE MAP

| BUILDING NUMBER | DESIGNATION | DRAWING NUMBER | TYPE OF CONST. | MATERIAL OF CONSTRUCTION | YEAR OF CONST. | OUTSIDE DIMENSIONS | CAPACITY SQUARE FEET | CAPACITY CUBIC FEET | CONDITION OF BUILDING | CONDITION OF UTILITIES WIRING | CONDITION OF UTILITIES PLUMBING | CONDITION OF UTILITIES HEATING | ECONOMY OF MAINT. | RECOMM. FOR RETENT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1101 | Administrative Offices: Engineer, Quartermaster Ordnance | HWH-11-3557 | Temp | Wood Frame | 1948 | | 21240 | | Good | Good | Good | Good | Good | Yes |
| 1102 | Misc. Storage | HWH-11-4016 | Perm | Conc. Block | 1948 | 100 x 40 | 4000 | | Good | Good | Poor | None | Good | Yes |
| 1103 | Sub-Station | 17-03-21 | Perm | Conc. Pad | 1951 | 16 x 20 | 320 | Trans 69KVA-7.2 KVA, 5000 KVA | Good | Good | None | None | Good | Yes |
| 1112 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | Bldg. 40x200 Docks 2-10x200 | 8000 4000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1113 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | Bldg. 40x200 Docks 2-10x200 | 8000 4000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1114 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | Bldg. 40x200 Docks 2-10x200 | 8000 4000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1115 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | Bldg. 40x200 Docks 2-10x200 | 8000 4000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1124 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | Bldg. 40x200 Docks 2-10x200 | 8000 4000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1125 | Pipe Shop - A.E.C. | None | Temp | Steel Frame | 1948 | 40 x 75 | 3000 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1142 | Warehouse - A.E.C. | HWH-12-115 | Temp | Wood Frame | 1948 | 40 x 104 | 4160 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1154 | Warehouse - Signal Maintenance Shop | 35-34-01 HWH-11-3050 | Semi Temp | Concrete Block Wood Frame | 1957 1948 | 200 x 40 120 x 40 | 8000 7920 | | V. Good V. Poor | V. Good V. Poor | V. Good V. Poor | V. Good V. Poor | V. Good V. Poor | Yes No |
| 1155 | Welding Shop - A.E.C. | None | Temp | Wood Frame | 1948 | 40 x 40 | 1600 | | V. Poor | V. Poor | V. Poor | V. Poor | V. Poor | No |
| 1186 | Telephone Bldg. - A.E.C. | HWH-11-4026 | Perm | Conc. Block | 1948 | 30 x 23 | 690 | | Good | Poor | Poor | Poor | Good | Yes |
| 1205 | O.M. Motor Fuel Storage | 78-09-25 CH-PE-175 | Perm | Conc. Drive | 1951 | 50 x 120 | 60,000 gal St 6000 | | Good | Good | Good | Good | Good | Yes |
| 1206 | Motor Fuel Pump House | 78-09-22 | Temp | Wood Frame | 1951 | 18 x 13 | 234 | | Good | Good | Good | Good | Good | Yes |
| 1207 | Office & Oil Storage | 36-31-32 | Temp | Wood Frame | 1951 | Bldg. 14x21 20x50 Conc. Dr. | 294 1000 | | Good | Good | Good | Good | Good | Yes |
| 1210 | Paint & Sign Lettering Shop | CH-PE-50 | Temp | Wood Frame | 1948 | 20 x 50 | 1000 | | Good | Good | Good | Good | Good | Yes |
| 1211 | Refrigeration & Air Cond. Repair | CH-PE-96 | Temp | Wood Frame | 1948 | 12 x 20 | 240 | | Good | Good | Good | Good | Good | Yes |
| 1212 | Post Engineer Warehouse & Shops | 35-32-41 | Temp | Wood Frame | 1951 | 25 x 173 & 43 x 25 475 x 35 | 22025 | | Good | Good | Good | Good | Good | Yes |
| 1218 | 5th Group Motor Pool | 36-21-21 | Temp | Wood Frame | 1951 | 32 x 100 | 3200 | | Good | Good | Good | Good | Good | Yes |
| 1222 | Offices & Latrine, Motor Pool | 36-31-21 | Temp | Wood Frame | 1951 | 24 x 110 | 2640 | | Good | Good | Good | Good | Good | Yes |
| 1224 | Dispatch, Records, Vehicle Storage | 36-31-31 | Temp | Wood Frame | 1951 | 30 x 167 | 5010 | | Good | Good | Good | Good | Good | Yes |
| 1226 | Ordnance Nike Maintenance Shop | 35-32-31 | Temp | Wood Frame | 1951 | 41 x 230 | 9430 | | Good | Good | Good | Good | Good | Yes |
| 1234 | Warehouse - Transportation & Ordnance | 36-07-21 | Temp | Wood Frame | 1951 | 60 x 250 | 15000 | | Good | Good | Good | Good | Good | Yes |
| 1236 | Warehouse - Ordnance | 33-24-21 | Temp | Wood Frame | 1951 | 60 x 135 | 8100 | | Good | Good | Good | Good | Good | Yes |
| 1239 | End Loading Ramp | None | Perm | Earth-W. Conc. HDWL | 1951 | | | | Poor | None | None | None | Poor | Yes |
| 1240 | Ordnance - Automotive Repair & Maintenance | 35-32-21 | Temp | Wood Frame | 1951 | 168 x 60 & 80 x 300 | 34080 | | Good | Good | Good | Good | Good | Yes |
| 1250 | Warehouse - O.M. Class III Supplies | 33-02-31 | Temp | Wood Frame | 1951 | 60 x 220 | 13200 | | Good | Good | Good | Good | Good | Yes |
| 1252 | Warehouse - O.M. Class II & IV Supplies | 33-02-31 | Temp | Wood Frame | 1951 | 60 x 220 | 13200 | | Good | Good | Good | Good | Good | Yes |
| 1254 | Commissary Sales, Cold Storage | 33-02-41 | Temp | Wood Frame | 1951 | 60 x 313 | 18780 | | Good | Good | Good | Good | Good | Yes |
| 1256 | Clothing Sales, C & E Repair, Typewriter | 33-02-51 | Temp | Wood Frame | 1951 | 60 x 155 | 9300 | | Good | Good | Good | Good | Good | Yes |
| 1260 | Signal Maintenance Shop | 36-01-22 CH-PE-19 | Temp | Wood Frame | 1951 | 36 x 37 30 x 75 | 4107 | | Good | Good | Good | Good | Good | Yes |
| 1260A | Emergency Power Plant, Signal Shop | CH-PE-54 | Perm | Conc. Block | 1954 | 11 x 15 | 165 | | Good | Good | Good | Good | Good | Yes |
| 1262 | Signal Photo Lab | 36-04-31 | Temp | Wood Frame | 1951 | 54 x 108 | 5832 | | Good | Good | Good | Good | Good | Yes |
| 1264 | Property Disposal | 36-04-21 | Temp | Wood Frame | 1951 | 34 x 234 46 x 72 | 15228 | | Good | Good | Good | Good | Good | Yes |
| 1241 | Car Washing Facilities | CH-PE-338 | Temp | Metal & Conc. Block | 1957 | 20 x 48 | 960 | | Good | Good | Good | None | Good | Yes |
| 1382 | Central Steam Plant | HW-12-401 to 12-476 | Perm | Steel Frame | 1949 | 169 x 144 | 24336 | 20008 LB. HP | Fair | Fair | Fair | Fair | Fair | Yes |
| 2103 | Post Exchange Gas Station | HWH-12-792 | Perm | [illegible] | 1948 | 93 x 31 | 2883 | 1600 gal St. | Good | Good | Good | Good | Good | Yes |
| 2104A | Guard House | 27-02-22 | Temp | Wood Frame | 1948 | 146 x 30 | 4380 | | Good | Fair | Poor | Poor | Fair | Yes |
| 2104B | Provost Marshal | 27-02-22 | Temp | Wood Frame | 1948 | 146 x 30 | 4380 | | Good | Fair | Poor | Poor | Fair | Yes |
| 2105 | Special Service Club, Library | HW-CH-PE-14 | Temp | Wood Frame | 1948 | 117 x 64 | 7488 | | Poor | Poor | Poor | Poor | Poor | No |
| 2105A | Bowling Alley | CH-PE-395 | Temp | Wood Frame | 1948 | 120 x 50 | 6000 | | Good | Good | Good | Good | Good | Yes |
| 2153 | Craft Auto Shop | None | Temp | Wood Frame | 1942 | 29 x 40 67 x 32 | 2944 | | Poor | Poor | Poor | Poor | Poor | No |
| 2301 | H.Q. Btry. 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2302 | Barracks 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2303 | Barracks 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2304 | Barracks 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2305 | Barracks 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2306 | Consolidated Mess Hall | 36-05-22 | Temp | Wood Frame | 1951 | 44 x 110 66 x 74 | 10884 | | Poor | Fair | Poor | Poor | Poor | Yes |
| 2308 | Barracks 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2309 | Barracks Transient Quarters 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2310 | Barracks Transient Quarters 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2311 | Barracks H.Q. Co. 6017 | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2312 | Barracks 72nd Army Band | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2313 | Barracks H.Q. 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2314 | Barracks 518 Pass & Casual | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2315 | Barracks 519 Pass & Casual | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2316 | Barracks H.Q. Co. | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2317 | Barracks H.Q. Co. Office | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2318 | Barracks H.Q. Co. 5th Group | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2319 | Barracks Casual Det., 6017 | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2320 | Barracks Casual Det., 6017 | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2321 | Barracks H.Q. Co., 6017 | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2322 | Barracks H.Q. Co., 6017 | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| 2323 | P.X. Store | 36-05-22 | Temp | Wood Frame | 1951 | 46 x 74 68 x 110 | 10664 | | Poor | Fair | Poor | Poor | Poor | Yes |
| 2346 | Barracks, Company Supply & Storage | 21-01-02 | Temp | Wood Frame | 1942 | 30 x 80 30 x 80 | 4800 | | Poor | Poor | Poor | Poor | Poor | Yes |
| | Durand Well No. 5, A.E.C. | None | Temp | Wood Frame | 1948 | 10 x 24 | 240 | | - | - | - | - | - | - |
| 4204 | Theater | HWC-137 | Temp | Wood Frame | 1948 | 78 x 188 | 14664 | | Poor | Poor | Poor | Poor | Poor | No |
| 5103 | Sub-Station | HWH-11-2308 | Temp | Wood Poles | 1948 | 150 x 100 | 15000 | | Poor | Poor | None | None | Poor | Yes |
| 5110 | [illegible] | HWH-12-319 | Temp | Wood Frame | 1948 | 50 x 54 | 2700 | | Good | Good | Good | Good | Good | Yes |
| 5201 | Post & 5th AAA Group Headquarters | 30-05-21 | Semi Perm | Wood Frame | 1951 | 42 x 242 42 x 80 | 13524 | | Good | Good | Good | Good | Good | Yes |
| 5201A | Emergency Power Plant for Communications | CH-PE-53 | Perm | Conc. Block | 1954 | 11 x 15 | 165 | | Good | Good | None | Good | Good | Yes |
| 5301 | Fire Station | CH-PE-177 | Semi Perm | Wood Frame | 1948 | 62 x 103 | 6386 | | Good | Good | Good | Good | Good | Yes |
| 5302 | Self Service Supply Center | CH-PE-240 | Semi Perm | Wood Frame | 1948 | 112 x 192 | 21504 | | Good | Good | Good | Good | Good | Yes |
| 5306 | Bank & Finance | CH-PE-257 | Semi Perm | Wood Frame | 1948 | 72 x 112 | 8064 | | Good | Good | Good | Good | Good | Yes |
| 5307 | Post Office & S.M. | CH-PE-252 | Semi Perm | Wood Frame | 1948 | 72 x 112 | 8064 | | Good | Good | Good | Good | Good | Yes |
| 5309 | Medical Supply | CH-PE-153 | Temp | Wood Frame | 1948 | 72 x 96 | 6912 | | Good | Good | Good | Good | Good | Yes |
| 5310 | Ambulance Garage & Morgue | 38-03-21 | Temp | Wood Frame | 1948 | 19 x 80 24 x 50 | 2000 | | Good | Good | Good | Good | Good | Yes |
| 5311 | Post Hospital | 32-03-21 | Temp | Wood Frame | 1948 | 10 Wings | 63004 | | Good | Good | Good | Good | Good | Yes |
| 5311A | Emergency Power Plant - Post Hospital | 32-01-01 | Perm | Conc. Block | 1954 | 10 x 14 | 140 | | Good | Good | None | Good | Good | Yes |
| 5401 | Chapel | None | Temp | Hut | 1953 | 37 x 82 | 3034 | | Poor | Poor | Poor | Poor | Poor | No |
| 5402 | N.C.O. Club | HW-12-217 | Temp | Hut | 1948 | Combined Bldgs. | 32510 | | Poor | Poor | Poor | Poor | Poor | No |
| 6201 | B.O.Q., Club, Open Mess | 25-02-22 | Semi Perm | Wood Frame | 1951 | T-Type | 68352 | | Good | Good | Good | Good | Good | Yes |
| 6208 | Bachelor Civilian Quarters, Female | 25-06-32 | Temp | Wood Frame | 1942 | H-Type | 18880 | | Good | Good | Good | Good | Good | Yes |
| 6209 | Bachelor Civilian Quarters, Female | 25-06-32 | Temp | Wood Frame | 1942 | H-Type | 18880 | | Good | Good | Good | Good | Good | Yes |
| 6311 | Medical Det. Quarters | 25-07-21 | Semi Perm | Wood Frame | 1951 | 36 x 200 36 x 200 | 14400 | | Good | Good | Good | Good | Good | Yes |
| | Elevated Water Tank - A.E.C. (Not used) | None | Perm | Steel | 1948 | 136 Ft. high | 100,000 gal | | - | None | Poor | None | - | - |
| | 3000 F° Well A.E.C. | None | Semi Perm | Wood Frame | 1942 | 10 x 17 | 170 | | | Poor | Poor | None | Poor | |
| | Bath House (4) | HWH-12-341 | Temp | Wood Frame | 1948 | 30 x 34 | 1020 | | Fair | Fair | Fair | Fair | Fair | Yes |
| T-H-641 | Tract House | HWSK-12-844 | Temp | Wood Frame | 1900 | 42 x 43 | 1806 | | Good | Good | Good | Good | Good | Yes |
| T-H-685 | Tract House | None | Temp | Wood Frame | 1900 | 36 x 38 | 1368 | | Good | Good | Good | Good | Good | Yes |
| | Bremerton Type Houses (63) 2 - Bedroom | HW 12-381 | Temp | Wood Frame | 1942 | 28 x 24 | 672 | | V. Poor | V. Poor | V. Poor | V. Poor | V. P | |
| | Bremerton Type Houses (31) 3 - Bedroom | H-11-3658 | Temp | Wood Frame | 1942 | 32 x 24 | 768 | | V. Poor | V. Poor | V. Poor | V. Poor | | |
| | Bremerton Type Houses (45) 2 Family | HW-12-381 | Temp | Wood Frame | 1942 | 56 x 24 | 1344 | | V. Poor | V. Poor | V. Poor | V. Poor | | |
| | Bremerton Type Houses (2) 1 - Bedroom | SK-12-843 | Temp | Wood Frame | 1942 | 24 x 23 | 552 | | V. Poor | V. Poor | V. Poor | V. | | |

COMPANION SHEET TO 18-02-36 PLATE 6

9312934135 6




SCALE IN FEET

LEGEND
- MAN HOLE
- CLEAN OUT
- MAINS ALL CONCRETE EXCEPT AS NOTED

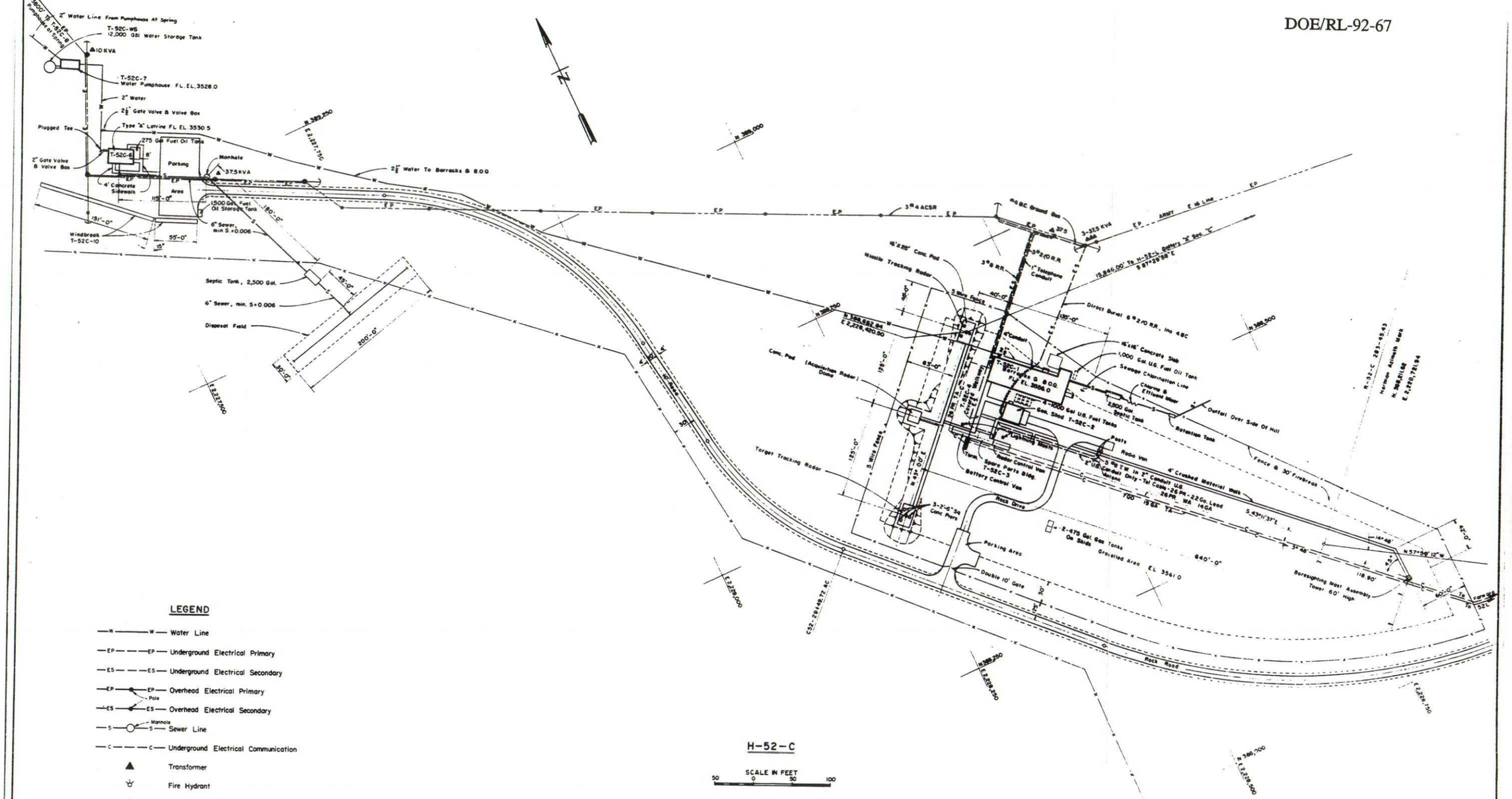
NOTES:
SERVICE CONNECTION TO HOUSES ARE 6" DIAMETER

| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| A | 15 Dec 58 | Revised to reflect conditions as of 29 December, 1958 | HH |
| A | 15 Mar 58 | Revised to reflect conditions as of 1 January, 1958 | LLB |

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

DRAWN BY:
TRACED BY: B. CHAPMAN
CHECKED BY:
SUBMITTED: CHIEF, DRAFT SECT
APPROVED: CHIEF, R.E. & DRAFT BR
APPROVED: E. C. Turner, CHIEF ENGINEERING DIVISION
DATE: 10 MAR 59
APPROVED:
SCALE AS SHOWN
SPEC. NO.
DRAWING NUMBER

# CAMP HANFORD
CAMP HANFORD, WASHINGTON
## BASIC INFORMATION MAPS
## SANITARY SEWER SYSTEM




## LEGEND

- Water Line
- Underground Electrical Primary
- Underground Electrical Secondary
- Overhead Electrical Primary (Pole)
- Overhead Electrical Secondary
- Sewer Line (Manhole)
- Underground Electrical Communication
- Transformer
- Fire Hydrant
- Street Light
- Overhead Lighting
- Floodlight
- Hose Bibb
- Heliport or Helicopter Landing

H-52-C

SCALE IN FEET 50 0 50 100

| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|

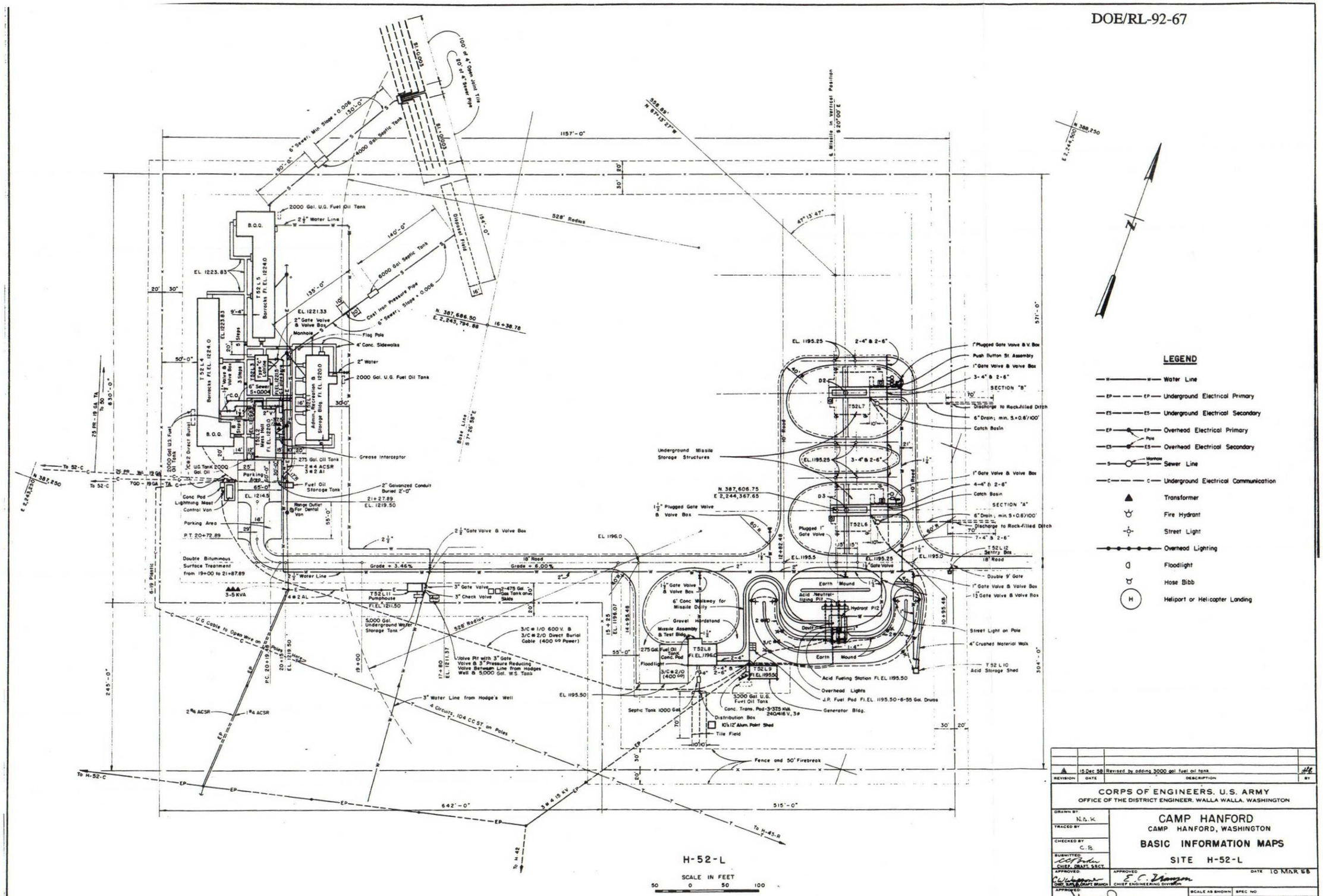
CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

DRAWN BY H.K.
TRACED BY
CHECKED BY C.B.
SUBMITTED CHIEF, DRAFT SECT.
APPROVED CHIEF, SURV. & DRAFT BRANCH
APPROVED CHIEF ENGINEERING DIVISION
APPROVED COL. C.E. DISTRICT ENGINEER

CAMP HANFORD
CAMP HANFORD, WASHINGTON
BASIC INFORMATION MAPS
SITE H-52-C

DATE 10 MAR 58
SCALE AS SHOWN
SPEC NO
DRAWING NUMBER

9312293413357




| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| A | 15 Dec 58 | Revised by adding 3000 gal fuel oil tank | |

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

DRAWN BY: N.A.K.
TRACED BY:
CHECKED BY: C.B.
SUBMITTED: CHIEF, DRAFT. SECT.
APPROVED: CHIEF, DRAFT. BRANCH
APPROVED: CHIEF ENGINEERING DIVISION
APPROVED: COL. C. E. DISTRICT ENGINEER
DATE 10 MAR 58

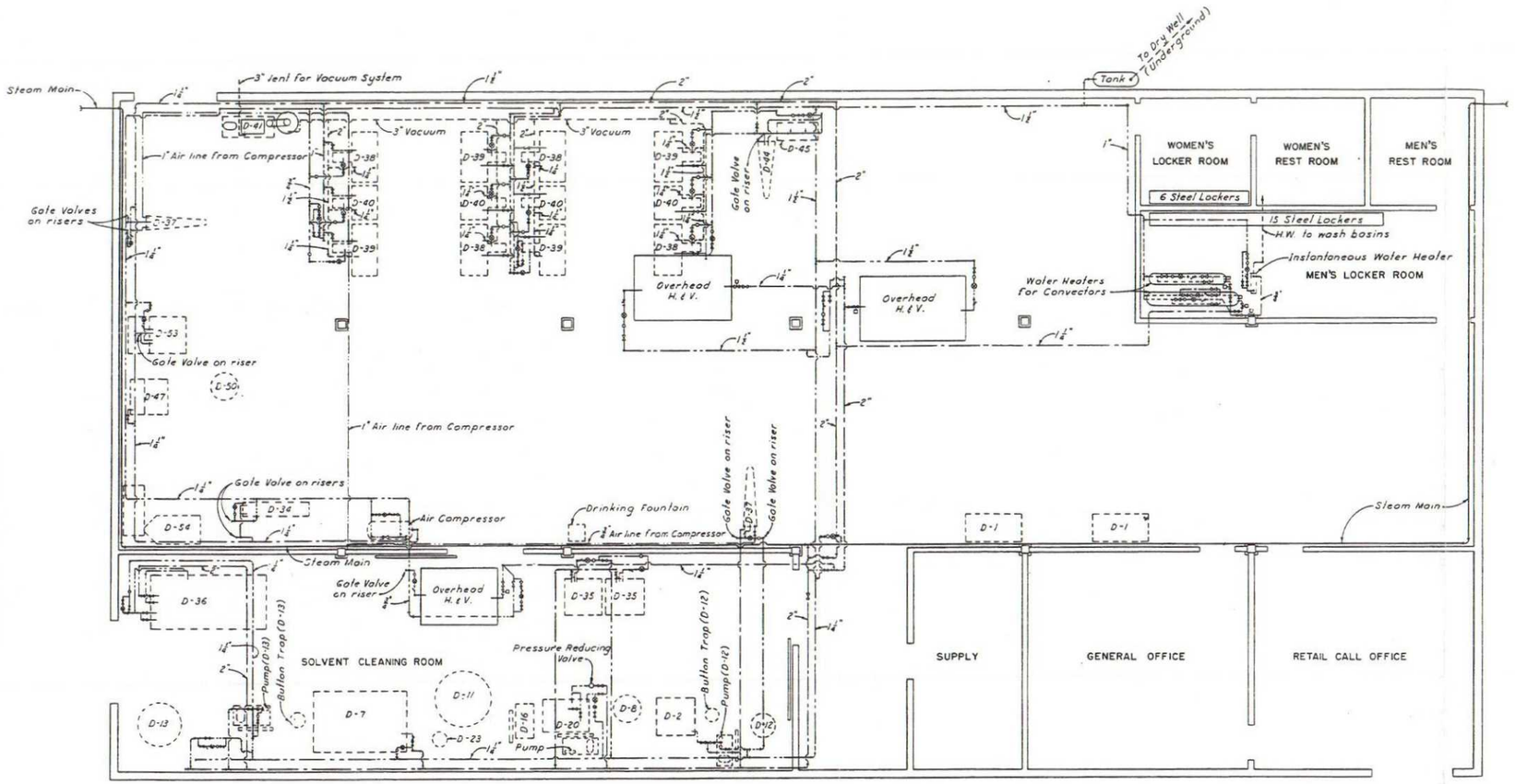
# CAMP HANFORD
CAMP HANFORD, WASHINGTON

## BASIC INFORMATION MAPS

SITE H-52-L

SCALE AS SHOWN | SPEC NO | DRAWING NUMBER

9312963 341358




LEGEND

- Steam Main from Central Heating Plant
- Steam Supply
- Steam Return
- Vacuum System Lines
- Air Lines from Compressor
- Bucket Trap
- Check Valve
- Gate Valve
- Regulating Valve
- Strainer
- Vertical run of piping
- Equipment

EQUIPMENT AND STEAM PIPING LAYOUT

## FLOOR PLAN - DRY CLEANING PLANT

SCALE IN FEET 4 0 4 8 12

BUILDING NO. 1262

| REVISION | DATE | DESCRIPTION | BY |
|---|---|---|---|
| A | 5 Mar 59 | As constructed | |

CORPS OF ENGINEERS U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER, WALLA WALLA, WASHINGTON

DRAWN BY:
TRACED BY:
CHECKED BY:
SUBMITTED:
APPROVED: CHIEF DESIGN BRANCH
APPROVED: CHIEF ENGINEERING DIVISION
APPROVED: COLONEL, C. E. DISTRICT ENGINEER
DATE

ARMY INSTALLATION
NORTH RICHLAND, WASHINGTON

DRY CLEANING PLANT

STEAM PIPING LAYOUT

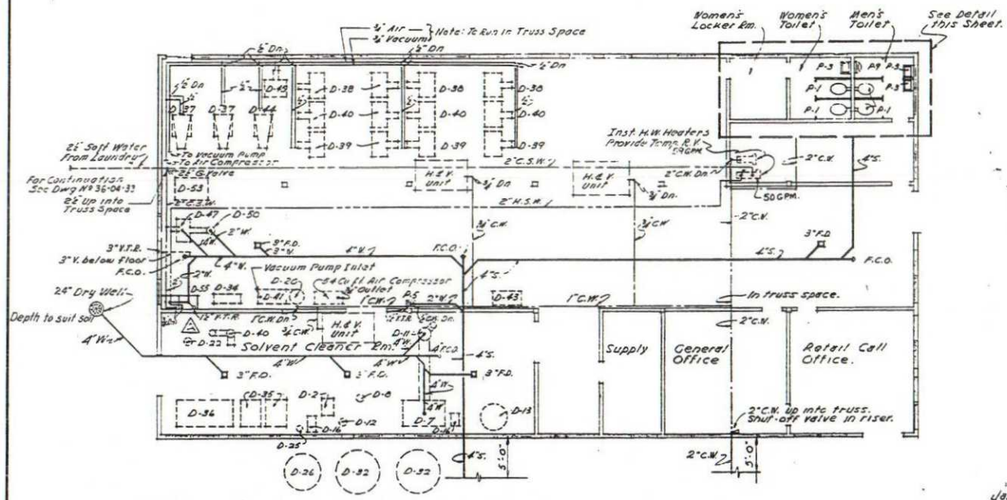
SCALE AS SHOWN | SPEC. No.

DRAWING NUMBER

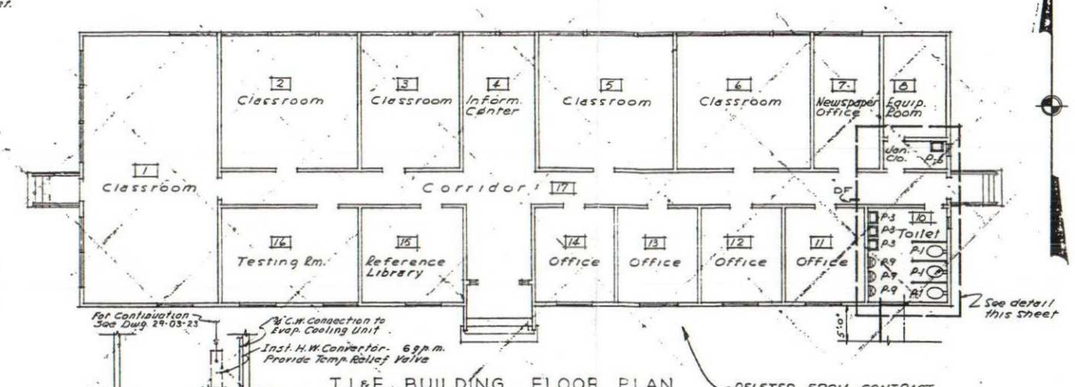
SHEET 2.1 OF 2 36-04-31

DISTRICT FILE NO. 50S-36-04-31

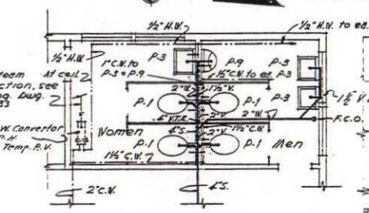
9312934159



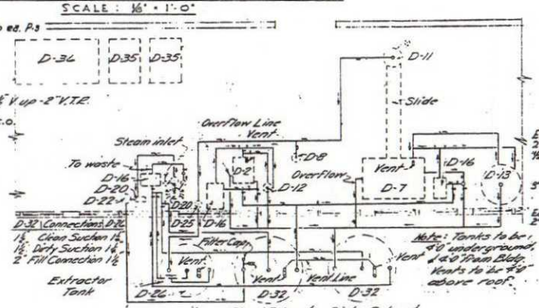

FLOOR PLAN - CLEANING PLANT
SCALE : 1/8" = 1'-0"



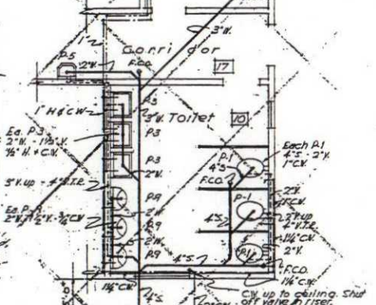

T. I. & E. BUILDING FLOOR PLAN
SCALE : 1/8" = 1'-0"




TOILET ROOMS
CLEANING PLANT
SCALE : 1/4" = 1'-0"



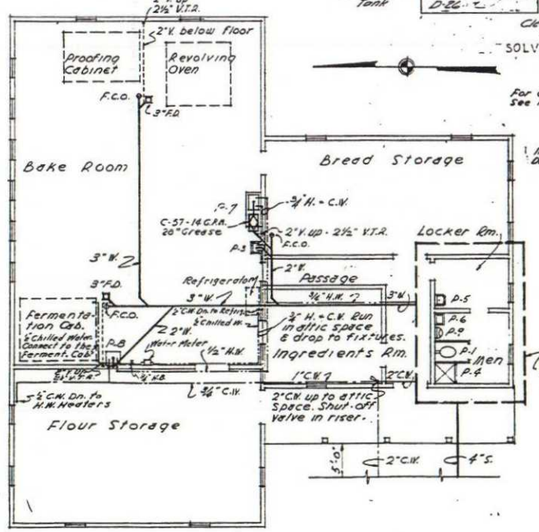

SOLVENT FLOW PLAN
SCALE 3/16" = 1'-0"



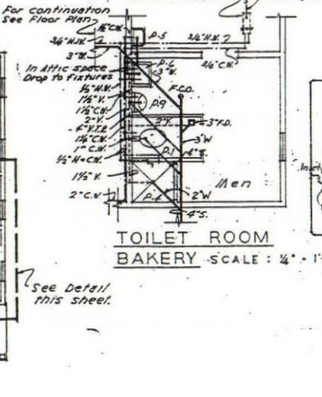

TOILET ROOMS
T. I. & E. BUILDING.
SCALE : 1/4" = 1'-0"

DELETED FROM CONTRACT

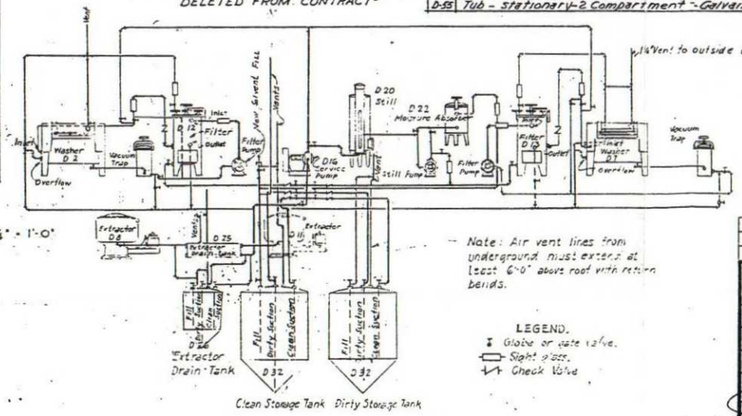
| No | Dry Cleaning Equipment Schedule | Size & Cap. | Connections |
|---|---|---|---|
| D-2 | Washer - Dry Clean - Ref. w/exp. proof motor | 30"x30" | 2" Drain - 2½" overflow - 2" Inlet - 1" St. |
| D-7 | Washer - " " " " " | 54"x70" | 4" Drain - 3" overflow - 3" Inlet - 1" St. |
| D-8 | Extractor - " " " " " | 20" | 2" Drain |
| D-11 | " " " " " " | 48" | 4" Drain |
| D-12 | Filter - Press - screen scrap w/motor & pump | 600 G.P.H. | —— |
| D-13 | " " " " " " | 8000 G.P.H. | —— |
| D-16 | Pump - Service : Dry Clean, with motor △ | 90 G.P.H. | —— |
| D-20 | Still Vacuum w/motor & pump | 250 G.P.H. | 1¼" St. + Ret. - 1" C.W. |
| D-22 | Absorber - moisture - Dry Clean | | |
| | | | |
| | | | |
| D-25 | Tank - Extractor drain | 20 gal. | |
| D-26 | " " " | 100 gal. | |
| D-32 | Tank - Solvent. | 1125 gal. | |
| D-34 | Former - Trouser - Dry Clean | | ½" St. & Ret. |
| D-35 | Tumbler - Dry Clean - Non revers. | 36"x30" | 1" St. - 3/4" Ret. |
| D-36 | " " " " " " | 42"x90" | 1½" St. - 1¼" Ret. |
| D-37 | Unit Spot Steam (Spot gun & Vacuum) | | ½" St. + Ret. - ½" Air. |
| D-38 | Press - Dry Clean. - Utility - hand oper. w/air. & vacuum | | ½" St. + Ret. - 1¼" Vac. - ½" Air |
| D-39 | " " " - Trouser - man. oper. w/air. & vacuum | | ½" St. + Ret. - 1¼" Vac. - ½" Air |
| D-40 | " " " - Mushroom - " " " | | ½" St. + Ret. - 1¼" Vac. - ½" Air |
| D-41 | Vacuum System complete | | —— |
| D-43 | | | |
| D-44 | Board - steam - Finishing w/steam iron | | ½" St. + Ret. |
| D-45 | Iron - steam - Puff shoulder & mushroom w/stand | | ½" St. - 3/4" Ret. - 1¼" Air. |
| D-47 | Washer - Laundry - Metal - open end △ | 19"x30" | 4" Drain - 2" W. - C.W. - 3/4" St. - ½" Ret |
| D-50 | Extractor - Laundry | 20" | 1½" Drain |
| D-53 | Tumbler - Laundry - Non - Revers. | 36"x30" | 3/4" St. + Ret. |
| | | | |
| D-55 | Tub - stationary - 2 Compartment - Galvanized | 62"x21" | 2" Waste - 1¼" Vent - ¾" H & C.W. |




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




TOILET ROOM
BAKERY SCALE : 1/4" = 1'-0"




PIPING DIAGRAM FOR SOLVENT
NO SCALE

Note: Air vent lines from underground must extend at least 6'-0" above roof with return bends.

LEGEND.
Globe or gate valve.
Sight glass.
Check Valve

GENERAL NOTES:

1. For symbols & abbreviations, fixtures (other than special equipment) & connections see standard detail drawing No 21-D1-25 sheet 1 of 1.
2. H. & C.W. Lines run in attic or Truss Space & drop to fixtures
3. Air and Vacuum Lines run above Truss Line & drop to equipment as indicated on plan.

| Revision | Date | Description | By | Approved |
|---|---|---|---|---|
| 1 | 11 Nov 51 | As Constructed | | |
| 2 | 3/28/52 | Rev./basic memo 10 Aug 51 from P.E. N. Richland to NPWVH | | |

PARKER & HILL
KNAPPEN TIPPETTS ABBETT ENGR. CO.
ARCHITECTS AND ENGINEERS
SEATTLE NEW YORK SAN FRANCISCO

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF DISTRICT ENGINEER
SEATTLE WASHINGTON

Drawn by D.S.
Traced by
Checked by
Prepared
Approved
Submitted
Submitted

ARMY INSTALLATION
NORTH RICHLAND, WASHINGTON

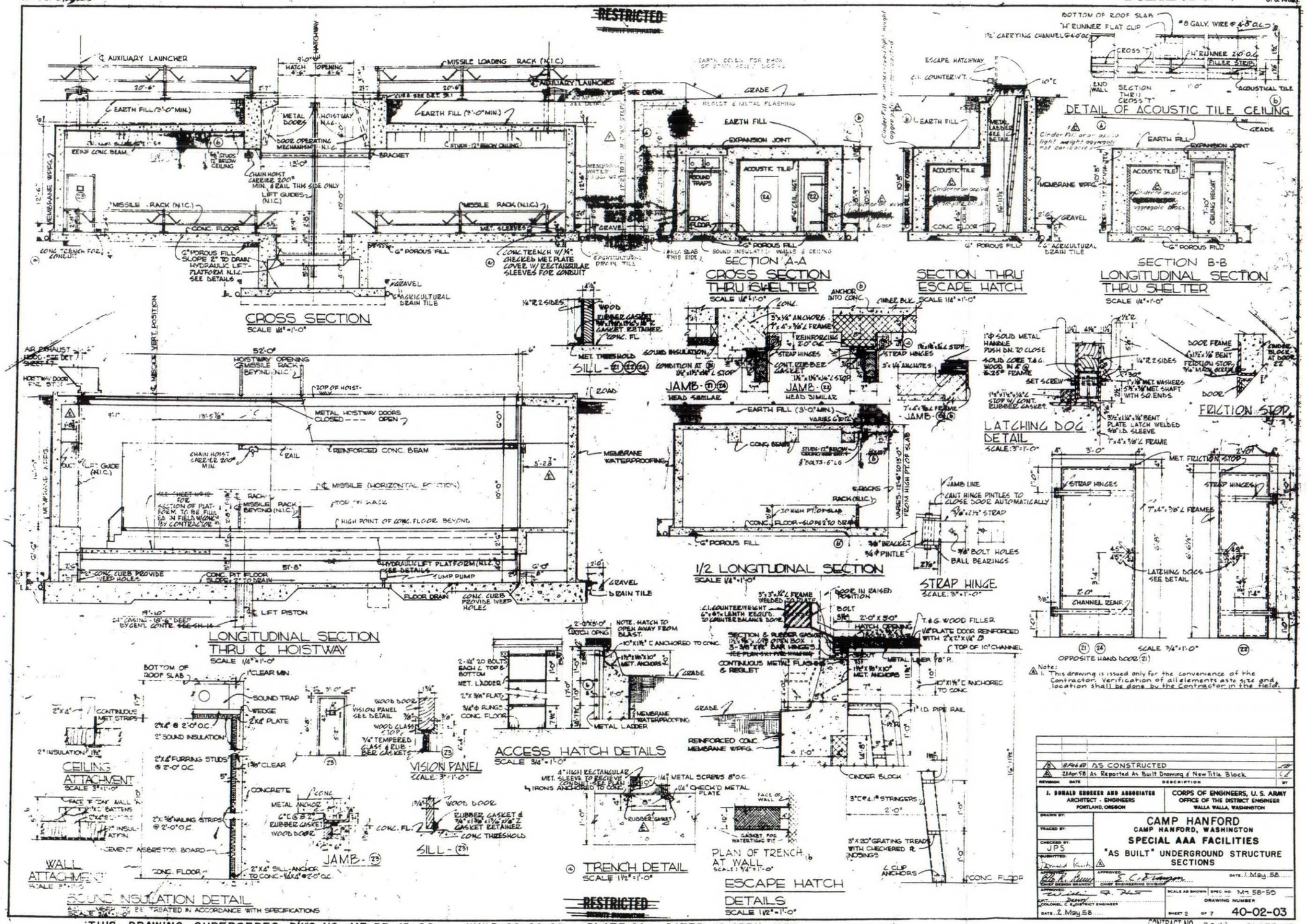
T. I. & E. BUILDING,
CLEANING PLANT
& BAKERY
PLUMBING

Date 20 Mar. 1951
Scale As Noted
Drawing Number 36-04-35
Sheet 1 of 1

DISTRICT FILE NO. 50S-36-04-35

9312934360

RESTRICTED




RESTRICTED

THIS DRAWING SUPERSEDES DWG. NO. ME 33-15-20 W.W.D. 60-08-02 PLATE 28 DATED 16 APRIL 1954

CONTRACT NO. 3357 PLATE 45

9341361

9312969

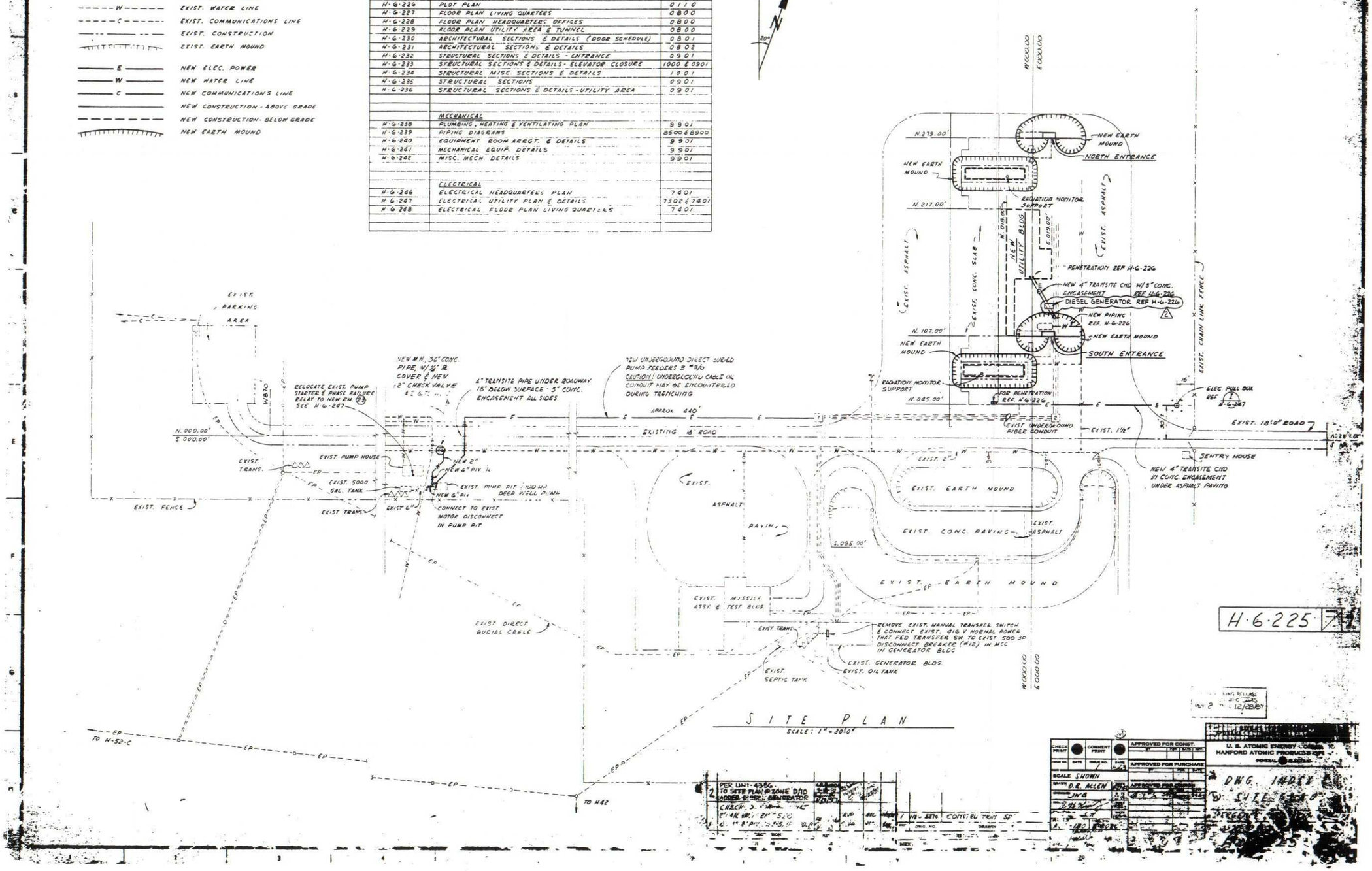
9312934341362

## LEGEND

- EXIST. ELEC. POWER
- EXIST. WATER LINE
- EXIST. COMMUNICATIONS LINE
- EXIST. CONSTRUCTION
- EXIST. EARTH MOUND
- NEW ELEC. POWER
- NEW WATER LINE
- NEW COMMUNICATIONS LINE
- NEW CONSTRUCTION - ABOVE GRADE
- NEW CONSTRUCTION - BELOW GRADE
- NEW EARTH MOUND

## DRAWING INDEX

| DRAWING NO. | TITLE | INDEX NO. |
|---|---|---|
| | ARCHITECTURAL | |
| H-6-225 | SITE PLAN & DRAWING INDEX | 0110 |
| H-6-226 | PLOT PLAN | 0110 |
| H-6-227 | FLOOR PLAN LIVING QUARTERS | 0800 |
| H-6-228 | FLOOR PLAN HEADQUARTERS OFFICES | 0800 |
| H-6-229 | FLOOR PLAN UTILITY AREA & TUNNEL | 0800 |
| H-6-230 | ARCHITECTURAL SECTIONS & DETAILS (DOOR SCHEDULE) | 0801 |
| H-6-231 | ARCHITECTURAL SECTIONS & DETAILS | 0802 |
| H-6-232 | STRUCTURAL SECTIONS & DETAILS - ENTRANCE | 0901 |
| H-6-233 | STRUCTURAL SECTIONS & DETAILS - ELEVATOR CLOSURE | 1000 & 0901 |
| H-6-234 | STRUCTURAL MISC. SECTIONS & DETAILS | 1001 |
| H-6-235 | STRUCTURAL SECTIONS | 0901 |
| H-6-236 | STRUCTURAL SECTIONS & DETAILS - UTILITY AREA | 0901 |
| | MECHANICAL | |
| H-6-238 | PLUMBING, HEATING & VENTILATING PLAN | 9901 |
| H-6-239 | PIPING DIAGRAMS | 8500 & 8900 |
| H-6-240 | EQUIPMENT ROOM ARRGT. & DETAILS | 9901 |
| H-6-241 | MECHANICAL EQUIP. DETAILS | 9901 |
| H-6-242 | MISC. MECH. DETAILS | 9901 |
| | ELECTRICAL | |
| H-6-246 | ELECTRICAL HEADQUARTERS PLAN | 7401 |
| H-6-247 | ELECTRICAL UTILITY PLAN & DETAILS | 7302 & 7401 |
| H-6-248 | ELECTRICAL FLOOR PLAN LIVING QUARTERS | 7401 |




SITE PLAN
SCALE: 1" = 30'-0"

PER UNI-4386 TO SITE PLAN & ZONE D/O ADDED DIESEL GENERATOR

U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION

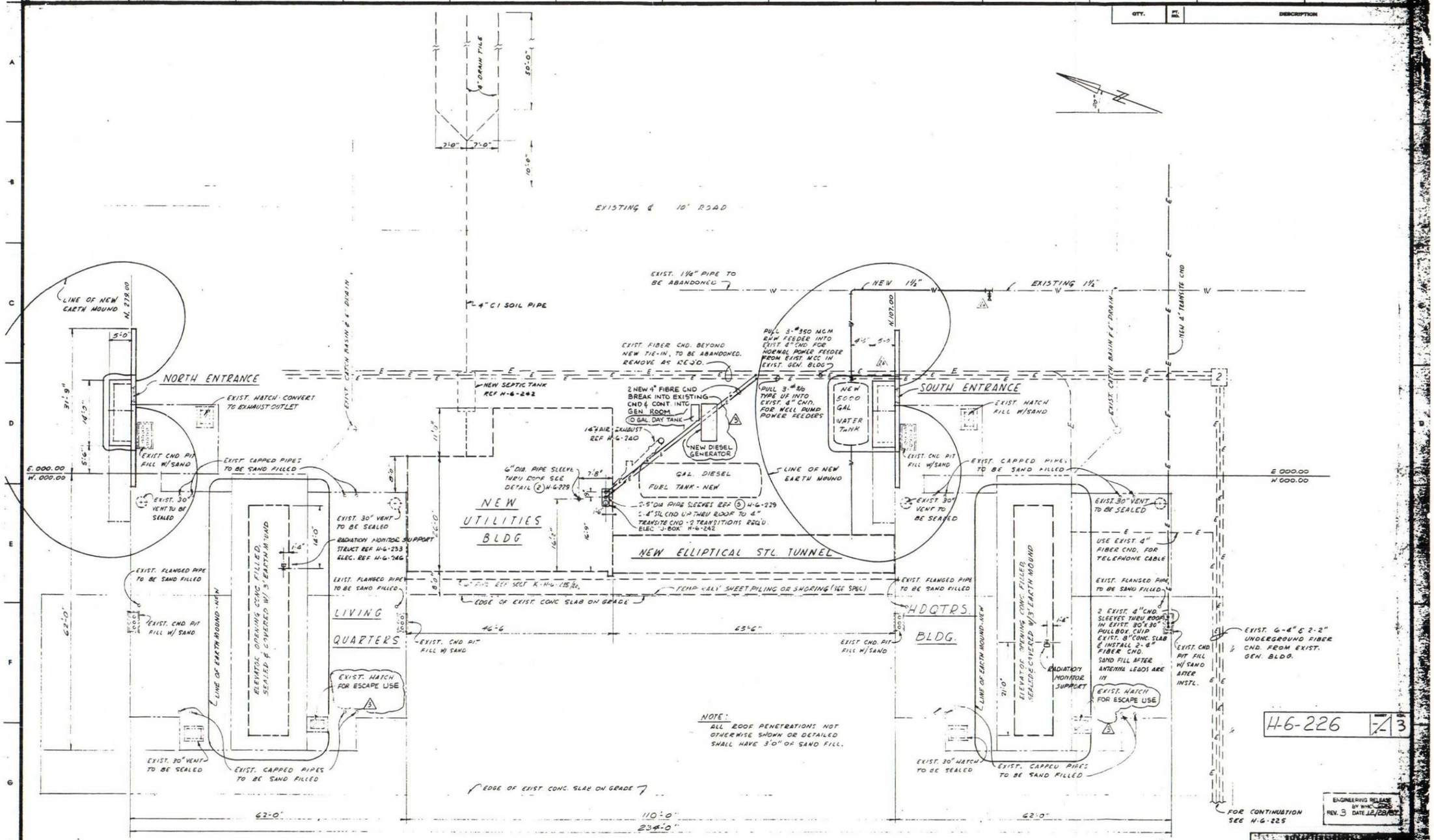
DWG. INDEX & SITE PLAN

SCALE SHOWN
D.R. ALLEN
JWG

APPROVED FOR CONST.
APPROVED FOR PURCHASE

9312934163

| QTY. | PT. NO. | DESCRIPTION |
|---|---|---|




PLOT PLAN

| NO. | DESCRIPTION | REV. BY DATE | APPD BY | FOR | DATE |
|---|---|---|---|---|---|
| 3 | FIELD VERIFICATION. ATOR & 2IN. D/T PER UNI-4356 ADDED NEW DIESEL GENER- | H.E. BURCH 4-2-87 11/14/87 | | | |
| 2 | CHECKED FOR AS BUILT (1) ADDED 6" PIPE ON E-5 BUC-10, (b) ADDED VALVE BU D-8 (c) NEW VALVE WAS EXISTING | DEL Fisher (Jones) | RUD GWR | ARC VEC | Whole (Jones) |
| 1 | MODIFIED DRAINAGE SYS. | 5/23/83 | GWR | Jones | 4/14/83 |

REVISIONS

| NO. | DWG. NO. | DRAWING TITLE |
|---|---|---|
| 3 | H-6-229 | ARCH. PLAN & SECTS. UTILITY AREA & TUNNEL |
| 2 | H-6-225 | DWG. INDEX & SITE PLAN |
| 1 | WHS 8874 | CONST. SPECS. |

REFERENCE DRAWINGS

NEXT USED ON

CHECK PRINT | COMMENT PRINT | APPROVED FOR CONST. | APPROVED FOR PURCHASE | APPROVED FOR DESIGN

SCALE 1/8" = 1'-0"

Langlois

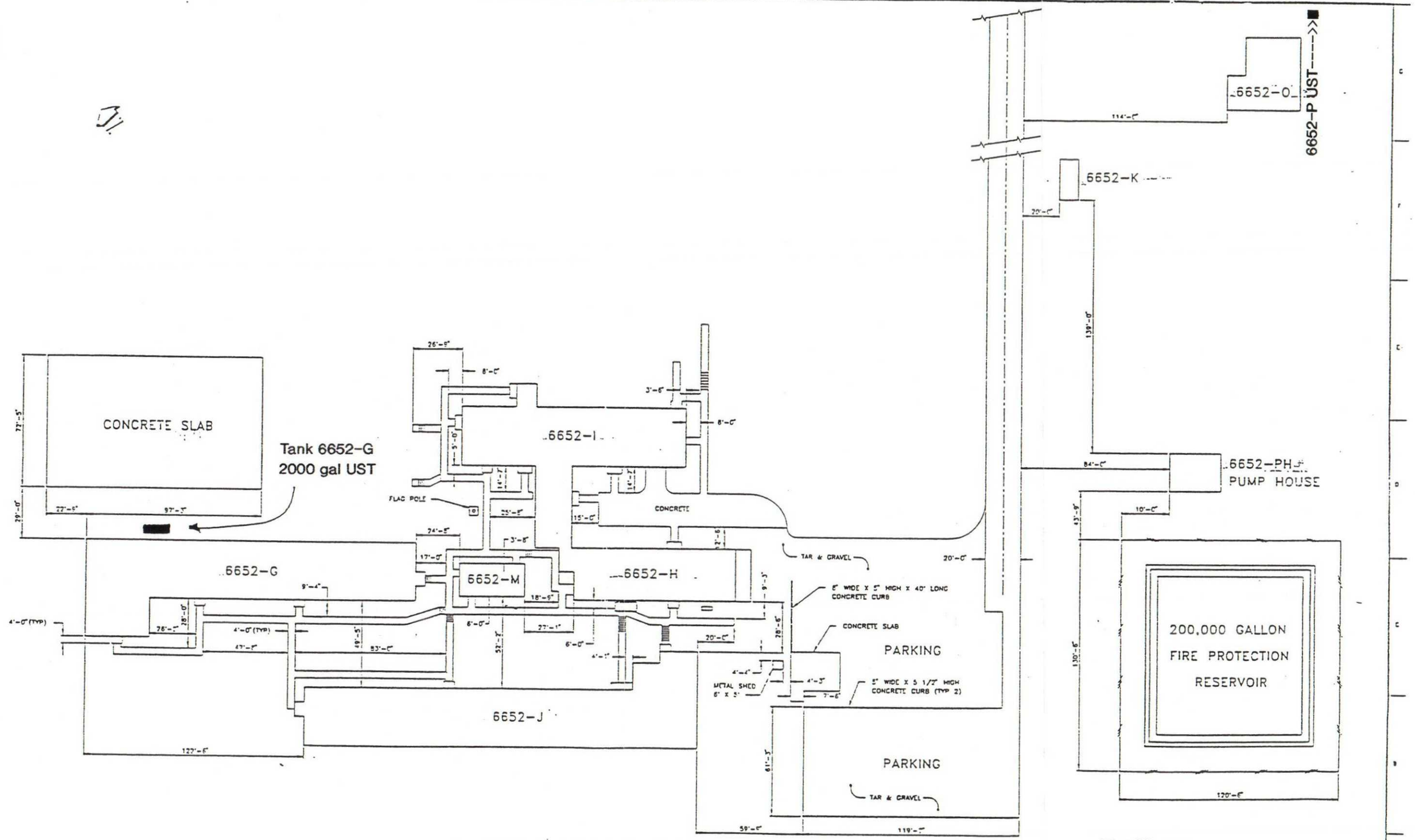
AEC-100 440201

U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC

PLOT PLAN

ENGINEERING RELEASE BY WHC REV. 3 DATE 12/28/87

9312934 1364




SITE PLAN

DRAWER #14

| REFERENCE DRAWINGS | |
|---|---|
| H-4-756 | 17100 DRAW |
| H-4-621 | 13000 |
| H-4-543 | 10800 |
| H-4-533 | 10800 |
| H-4-531 | 10800 |
| H-4-530 | 10800 |
| H-4-525 | 10800 |
| H-4-524 | 10800 |

| REVISIONS | |
|---|---|
| LJS | REMOVED TRAILER 1 AND 2 (OF ORIGINAL) ADDED 6652-PH (REDRAWN DUE TO CONTROL) 11/10/89 |

U. S. DEPARTMENT OF ENERGY
PACIFIC NORTHWEST LABORATORY
OPERATED BY BATTELLE MEMORIAL INSTITUTE

L.H. HUTCHENS 11/07/89
G.L. SLAGER 11/07/89
J.W. SADLER 11/07/89
J.W. SADLER
J.W. SADLER 11/07/89

SITE PLAN

F 1 600 10110 H-6-635

| ENDANGERED, THREATENED, AND CANDIDATES -- WILDLIFE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Peregrine falcon* (Falco peregrinus) | X | | | | | X | | | | | | | |
| Bald eagle (Haliaeetus leucocephalus) | | X | | | | | X | | | | | | |
| Aleutian Canada goose* (Branta canadensis leucopareia) | | X | | | | X | | | | | | | |
| American white pelican (Pelecanus erythrorhynchos) | | | | | | x | | | | | | | |
| Sandhill crane (Grus canadensis) | | | | | | x | | | | | | | |
| Pygmy rabbit* (Brachylagus idahoensis) | | | | X | | | X | | | | | | |
| Ferruginous hawk (Buteo regalis) | | | | X | | | X | | | | | | |
| Western Sage grouse (Centrocercus urophasianus) | | | | X | | | | | X | | | | |
| Pacific western big-eared bat (Plecotus townsendii) | | | | X | | | | | X | | | | |
| Columbia pebble snail (Fluminicola columbianus) | | | | X | | | | | X | | | | |
| Loggerhead shrike (Lanius ludovicianus) | | | | X | | | | | X | | | | |
| Black tern (Chlidonias niger) | | | | X | | | | | | X | | | |
| Swainson's hawk (Buteo swainsoni) | | | | | X | | | | X | | | | |
| Northern goshawk* (Accipiter gentilis) | | | | X | | | | | X | | | | |
| Common loon (Gavia immer) | | | | | | | | | X | | | | |
| Golden eagle (Aquila chrysaetos) | | | | | | | | | X | | | | |
| Flammulated owl* (Otus flammeolus) | | | | | | | | | X | | | | |
| Burrowing Owl (Athene cunicularia) | | | | | | | | | X | | | | |

| ENDANGERED, THREATENED, AND CANDIDATES -- WILDLIFE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Sage thrasher (Oreoscoptes montanus) | | | | | | | | | X | | | | |
| Sage sparrow (Amphispiza belli) | | | | | | | | | X | | | | |
| Shortfaced lanx (Fisherola nuttalli) | | | | | | | | | X | | | | |
| Merriam's shrew (Sorex merriami) | | | | | | | | | X | | | | |
| Striped whipsnake (Masticophis taeniatus) | | | | | | | | | X | | | | |
| Trumpeter swan* (Cygnus columbianus) | | | | X | | | | | | | | | |
| Lewis' woodpecker* (Melanerpes lewis) | | | | | | | | | X | | | | |
| Western bluebird* (Sialia mexicana) | | | | | | | | | X | | | | |
| Mountain sucker (Catostomus platyrhynchus) | | | | | | | | | | X | | | |
| Sand roller (Percopsis transmontana) | | | | | | | | | | X | | | |
| Piute sculpin (Cottus beldingi) | | | | | | | | | | X | | | |
| Reticulate sculpin (Cottus perplexus) | | | | | | | | | | X | | | |
| Woodhouse's toad (Bufo woodhousei) | | | | | | | | | | X | | | |
| Night snake (Hypsiglena torquata) | | | | | | | | | | X | | | |
| Horned grebe (Podiceps auritus) | | | | | | | | | | X | | | |
| Red-necked grebe* (Podiceps grisegena) | | | | | | | | | | X | | | |
| Western grebe (Aechmophorus occidentalis) | | | | | | | | | | X | | | |

| ENDANGERED, THREATENED, AND CANDIDATES -- WILDLIFE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Clark's grebe (Aechmophorus clarkii) | | | | | | | | | | X | | | |
| Great blue heron (Ardea herodias) | | | | | | | | | | X | | | |
| Great egret (Casmerodius albus) | | | | | | | | | | X | | | |
| Black-crowned night heron (Nycticorax nycticorax) | | | | | | | | | | X | | | |
| Turkey vulture* (Cathartes aura) | | | | | | | | | | X | | | |
| Osprey (Pandion haliaetus) | | | | | | | | | | X | | | |
| Merlin (Falco columbarius) | | | | | | | | | | X | | | |
| Gyrfalcon* (Falco rusticolus) | | | | | | | | | | X | | | |
| Prairie falcon (Falco mexicanus) | | | | | | | | | | X | | | |
| Black-necked stilt* (Himantopus mexicanus) | | | | | | | | | | X | | | |
| Long-billed curlew (Numenius americanus) | | | | | X | | | | | X | | | |
| Caspian tern (Sterna caspia) | | | | | | | | | | X | | | |
| Arctic tern* (Sterna paradisaea) | | | | | | | | | | X | | | |
| Forster's tern (Sterna forsteri) | | | | | | | | | | X | | | |
| Snowy owl (Nyctea scandiaca) | | | | | | | | | | X | | | |
| Barred owl* (Strix varia) | | | | | | | | | | X | | | |
| Ash-throated flycatcher (Myiarchus cinerascens) | | | | | | | | | | X | | | |

| ENDANGERED, THREATENED, AND CANDIDATES -- WILDLIFE | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Grasshopper sparrow (Ammodramus savannarum) | | | | | | | | | | X | | | |
| Lesser goldfinch* (Carduelis psaltria) | | | | | | | | | | X | | | |
| Pallid bat (Antrozus pallidus) | | | | | | | | | | X | | | |
| Northern grasshopper mouse (Onychomys leucogaster) | | | | | | | | | | X | | | |
| Sagebrush vole (Lagurus curtatus) | | | | | | | | | | X | | | |
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| ENDANGERED, THREATENED, AND CANDIDATES -- PLANTS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | $C_{3b}$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Northern wormwood (Artemisia campestris ssp. borealis var. wormskioldii) | | | X | | | | X | | | | | | | |
| Columbia yellowcress (Rorippa columbiae) | | | | X | | | X | | | | | | | |
| Columbia milk-vetch (Astragalus Columbianus) | | | | X | | | | X | | | | | | |
| Hoover's desert-parsley (Lomatium tuberosum) | | | | X | | | | X | | | | | | |
| Thompson's sandwort (Arenaria franklinii var. thompsonii | | | | | | X | | | | | | | X | |
| Dense sedge (Carex densa) | | | | | | | | | X | | | | | |
| Bristly cryptantha (Cryptantha interrupta) | | | | | | | | | X | | | | | |
| Gray cryptantha (Cryptantha leucophaea) | | | | | | | | | X | | | | | |
| Shining flatsedge (Cyperus rivularis) | | | | | | | | | X | | | | | |
| Piper's daisy (Erigeron piperianus) | | | | | | | | | X | | | | | |
| Southern mudwort (Limosella acaulis) | | | | | | | | | X | | | | | |
| False pimpernel (Lindernia anagallidea) | | | | | | | | | X | | | | | |
| Dwarf desert-primrose (Oenothera Pygmaea) | | | | | | | | | X | | | | | |
| Desert dodder (Cuscuta denticulata) | | | | | | | | | | | | X | | |
| Robinson's onion (Allium robinsonii) | | | | | | | | | | | | | | X |
| Squill onion (Allium scillioides) | | | | | | | | | | | | | | X |
| Columbia River mugwort (Artemisia lindleyana) | | | | | | | | | | | | | | X |

| ENDANGERED, THREATENED, AND CANDIDATES -- PLANTS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPECIES | FEDERAL | | | | | | STATE | | | | | | | |
| COMMON NAME / SCIENTIFIC | E | T | $C_1$ | $C_2$ | $C_3$ | $C_{3b}$ | E | T | S | C | M | $M_1$ | $M_2$ | $M_3$ |
| Stalked-pod milk-vetch (Astragalus sclerocarpus) | | | | | | | | | | | | | | X |
| Medick milk-vetch (Astragalus speirocarpus) | | | | | | | | | | | | | | X |
| Crouching milk-vetch (Astragalus succumbens) | | | | | | | | | | | | | | X |
| Rosy balsamroot (Balsamorhiza rosea) | | | | | | | | | | | | | | X |
| Palouse thistle (Cirsium brevifolium) | | | | | | | | | | | | | | X |
| Smooth cliffbrake (Pellaea glabella) | | | | | | | | | | | | | | X |
| Fuzzy beardtongue (Penstemon eriantherus) | | | | | | | | | | | | | | X |
| | | | | | | | | | | | | | | |
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Federal listings as of 2/21/90 - 55 FR 6184.
State listings as of 6/90 - Washington Natural Heritage Program.

General

* Species that are considered very rare or observed only once or twice.

Federal

E Federal Endangered. A species in danger of extinction throughout all or a significant portion of its range.

T Federal Threatened. A species which is likely to become endangered within the foreseeable future.

$C_1$ Candidate taxa for which enough substantive information is available to support listing as threatened or endangered by the federal government.

$C_2$ Candidate taxa for which there is evidence of vulnerability, but not enough data to support listing proposals at this time.

$C_3$ Taxa that were once considered for listing as threatened or endangered, but are no longer candidates for listing.

$C_{3b}$ Sub-category. Includes names that. on the basis of current taxonomic understanding, do not represent distinct taxa meeting the Endangered Species Act of 1973 definition of "species."

State

E Endangered. Species that are in danger of becoming extinct within the near future if factors contributing to their decline continue.

T Threatened. Species that are likely to become endangered within the near future if factors contributing to their population decline or habitat degradation continue.

S Sensitive. Species that are vulnerable or declining, and could become endangered or threatened without active management or removal of threats.

C Candidate. Wildlife species native to the state of Washington that the Department of Wildlife will review for possible listing as endangered, threatened or sensitive.

M Monitored. Wildlife species native to Washington that are of special interest because: 1) they were at one time classified as endangered, threatened, or sensitive; 2) they require habitat that has limited availability during some portion of their life cycle; 3) they are indicators of environmental quality; 4) further field investigations are required to determine their population status; 5) there are unresolved taxonomic problems which may bear upon their status classification; 6) they may be competing with and impacting other species of concern; or 7) they have significant popular appeal.

$M_1$ Monitor Group 1. Taxa for which there is insufficient data to support listing as threatened, endangered, or sensitive.

$M_2$ Monitor Group 2. Taxa with unresolved taxonomic questions.

$M_3$ Monitor Group 3. Taxa that are more abundant and/or less threatened than previously assumed.

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# COST ESTIMATES

9 1 2 9 3 4 1 3 7 5

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# 1100-EM-2 OPERABLE UNIT OFFSITE DISPOSAL ALTERNATIVE COST ESTIMATE

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HANFORD: REMEDIATION
1.4.10.1.1.23.02.2.2
1100-EM-2 OPERABLE UNIT
WASTE SITE COST ESTIMATES
Revised Quantities/Sites

Designed By:
Estimated By:

Prepared By:
USACE/CENPW COST ENGR BRANCH

Date: 03/09/93
Est Construction Time: 15 Days

M C A C E S G O L D E D I T I O N
Composer GOLD Copyright (C) 1985, 1988, 1990, 1992
by Building Systems Design, Inc.
Release 5.20J

HANFORD: 1.4.10.1.1.23.02.2.2 1100-EM-2 Cost Estimate Considerations

This is the structure for the Subproject and Operable Unit remediation cost estimates. The Work Breakdown Structure (WBS) is based on the DOE-HQ WBS and a site specific remediation WBS being developed for Hanford.

"1.4.10.1.1" is DOE, Richland Operations, Hanford Environmental Restoration, Remedial Action.
".23" is the Subproject (ie. 1100-EM)
".02" is the Operable Unit
".2" is Remediation
".2" is Remedial Action

In this MCACES estimate project breakdown, the first level is the individual Waste Site. The numbers for the next two to three levels (2nd thru 4th) are from the Hanford Remedial Action WBS. The fourth thru sixth levels are user defined, being either a Title or cost detail.

The Price Level for the estimate dollars is FY 93. S & A is estimated at 20%, and consists of NPW's Project Management @ 5%, Construction Management @ 10%, and Engineering During Construction @ 5%. See Contingency Notes (Title Page 3) for explanation of Contingency percentages. Contingency was applied at Level 1 & Level 4/5 in the estimate, to allow use of different percentages for the various types of work (see Settings for which percentage was applied). See Detail Page 1 for explanation of Contractor Indirect percentages used. E&D and Escalation will be added by the NPW-Hanford Project Manager.

List of Waste Sites: 1100-EM-2

Steam Pad Tank #2, 4,000 Gal f.g. tank
Steam Pad Tank #3 "
700 Area Waste Sovent Tank (Unit 703-1) (No Remedial Cost Estimated)
Tar Flow
Stained Sands
Neptunes Potato & Separator Tank (Trident)
Bus Lot Dry Wells (5)

THIS estimate is a revision of the January estimate, based on new quantities supplied by NPW-EN-EE, 3/9/93.

1. Contingency of 15%-25% is normal for this level of detail, percentage used based on a high to low confiedence in numbers. Use as overall contingency, applied at Level 1, or at lower levels as needed to better define variable risks/difficulties.

2. Contingency is based on uncertainty of the amount of time required to do the work represented in the estimate, etc.

3. Contingency is based on the uncertainty of the quantities presented.

4. Contingency based on the unit costs obtained by Vendor and therefore may be different by the time work will actually be accomplished.

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9513126.1438

SUMMARY REPORTS — SUMMARY PAGE

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LABOR BACKUP.....2
EQUIPMENT BACKUP.....3

* * * END TABLE OF CONTENTS * * *

Tue 09 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** PROJECT OWNER SUMMARY - LEVEL 1 (Rounded to 1000's) **



| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| A | Steam Pad Tank #2 | | 12,000 | 2,000 | 3,000 | 18,000 | | |
| B | Steam Pad Tank #3 | | 12,000 | 2,000 | 3,000 | 18,000 | | |
| C | 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | | |
| D | Tar Flow | | 52,000 | 10,000 | 15,000 | 78,000 | | |
| E | Stained Sands | | 25,000 | 5,000 | 7,000 | 38,000 | | |
| F | Neptunes Potato & Separator Tank | | 8,000 | 2,000 | 2,000 | 11,000 | | |
| G | Bus Lot Dry Wells (5) | | 30,000 | 6,000 | 9,000 | 45,000 | | |
| OA | MOBILIZATION/DEMOB & PREPWORK | | 18,000 | 4,000 | 5,000 | 26,000 | | |
| OB | COE QA/SAFETY MONITORING | | 9,000 | 2,000 | 2,000 | 12,000 | | 2 |
| | HANFORD: REMEDIATION | | 166,000 | 33,000 | 47,000 | 246,000 | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| A Steam Pad Tank #2 | | | | | | | |
| A-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 280 | 60 | 80 | 420 | | |
| A-10 TANKS/MISC DEMOLITION & REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| Steam Pad Tank #2 | | 11,770 | 2,350 | 3,480 | 17,600 | | |
| B Steam Pad Tank #3 | | | | | | | |
| B-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 280 | 60 | 80 | 420 | | |
| B-10 TANKS/MISC DEMOLITION & REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| Steam Pad Tank #3 | | 11,770 | 2,350 | 3,480 | 17,600 | | |
| C 700 Area Waste Solvent Tank | | | | | | | |
| 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | | |
| D Tar Flow | | | | | | | |
| D-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 4,350 | 870 | 1,040 | 6,270 | | |
| D-08 SOLIDS COLLECTION & CONTAINMENT | | 47,660 | 9,530 | 14,290 | 71,490 | | |
| Tar Flow | | 52,010 | 10,400 | 15,340 | 77,760 | | |
| E Stained Sands | | | | | | | |
| E-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 5,140 | 1,030 | 1,230 | 7,410 | | |
| E-08 SOLIDS COLLECTION & CONTAINMENT | | 20,290 | 4,060 | 6,050 | 30,400 | | |
| Stained Sands | | 25,430 | 5,090 | 7,280 | 37,800 | | |
| F Neptunes Potato & Separator Tank | | | | | | | |
| F-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| Neptunes Potato & Separator Tank | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| G Bus Lot Dry Wells (5) | | | | | | | |
| G-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 3,950 | 790 | 950 | 5,680 | | |
| G-08 SOLIDS COLLECTION & CONTAINMENT | | 26,520 | 5,300 | 7,930 | 39,760 | | |
| Bus Lot Dry Wells (5) | | 30,470 | 6,090 | 8,870 | 45,440 | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | 10,320 | 2,060 | 2,890 | 15,270 | | |
| 0A-21 DEMOBILIZATION | | 7,780 | 1,560 | 1,870 | 11,200 | | |
| MOBILIZATION/DEMOB & PREPWORK | | 18,100 | 3,620 | 4,750 | 26,470 | | |
| 0B COE QA/SAFETY MONITORING | | | | | | | |
| 0B-91 QA/Safety Monitoring | | 8,510 | 1,700 | 2,040 | 12,250 | | |
| COE QA/SAFETY MONITORING | | 8,510 | 1,700 | 2,040 | 12,250 | | 2 |
| HANFORD: REMEDIATION | | 165,790 | 33,160 | 47,320 | 246,260 | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| A Steam Pad Tank #2 | | | | | | | |
| A-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| A-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| A-02 06 01 SURFACE SOIL | | 280 | 60 | 80 | 420 | | |
| SAMPLING SOIL, SED & SOLID WASTE | | 280 | 60 | 80 | 420 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 280 | 60 | 80 | 420 | | |
| A-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| A-10 02 TANK REMOVAL | | | | | | | |
| A-10 02 01 FG UST Tank Excavation & Removal | 1.00 EA | 1,070 | 210 | 320 | 1,600 | 1602.81 | 2,3 |
| A-10 02 02 Excav/Load Contaminated Soils | 20.00 CY | 170 | 30 | 60 | 270 | 13.53 | 2,3 |
| A-10 02 03 Transport Cont. Soils, Arlington | 20.00 CY | 8,900 | 1,780 | 2,670 | 13,340 | 667.20 | 3,4 |
| A-10 02 04 PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1473.23 | 1,2 |
| A-10 02 05 Site Re-grading | | 330 | 70 | 100 | 490 | | 1,2 |
| TANK REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| TANKS/MISC DEMOLITION & REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| Steam Pad Tank #2 | | 11,770 | 2,350 | 3,480 | 17,600 | | |
| B Steam Pad Tank #3 | | | | | | | |
| B-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| B-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| B-02 06 01 SURFACE SOIL | | 280 | 60 | 80 | 420 | | |
| SAMPLING SOIL, SED & SOLID WASTE | | 280 | 60 | 80 | 420 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 280 | 60 | 80 | 420 | | |
| B-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| B-10 02 TANK REMOVAL | | | | | | | |
| B-10 02 01 FG UST Tank Excavation & Removal | 1.00 EA | 1,070 | 210 | 320 | 1,600 | 1602.81 | 2,3 |
| B-10 02 02 Excav/Load Contaminated Soils | 20.00 CY | 170 | 30 | 60 | 270 | 13.53 | 2,3 |
| B-10 02 03 Transport Cont. Soils, Arlington | 20.00 CY | 8,900 | 1,780 | 2,670 | 13,340 | 667.20 | 3,4 |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| B-10 02 04 PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1473.23 | 1,2 |
| B-10 02 05 Site Re-grading | | 330 | 70 | 100 | 490 | | 1,2 |
| TANK REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| TANKS/MISC DEMOLITION & REMOVAL | | 11,490 | 2,300 | 3,400 | 17,180 | | |
| Steam Pad Tank #3 | | 11,770 | 2,350 | 3,480 | 17,600 | | |
| C 700 Area Waste Solvent Tank | | | | | | | |
| 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | | |
| D Tar Flow | | | | | | | |
| D-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| D-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| D-02 06 01 SURFACE SOIL | | 4,350 | 870 | 1,040 | 6,270 | | |
| SAMPLING SOIL, SED & SOLID WASTE | | 4,350 | 870 | 1,040 | 6,270 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 4,350 | 870 | 1,040 | 6,270 | | |
| D-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| D-08 01 EXCAVATION | | | | | | | |
| D-08 01 01 Excav/Load Contaminated Soils | 110.00 CY | 940 | 190 | 340 | 1,460 | 13.29 | 2,3 |
| D-08 01 02 Transport Cont. Soils, Arlington | 110.00 CY | 45,540 | 9,110 | 13,660 | 68,310 | 620.97 | 2,4 |
| D-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1473.23 | 1,2 |
| D-08 01 04 Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| EXCAVATION | | 47,660 | 9,530 | 14,290 | 71,490 | | |
| SOLIDS COLLECTION & CONTAINMENT | | 47,660 | 9,530 | 14,290 | 71,490 | | |
| Tar Flow | | 52,010 | 10,400 | 15,340 | 77,760 | | |
| E Stained Sands | | | | | | | |
| E-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| E-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| E-02 06 01 SURFACE SOIL | | 5,140 | 1,030 | 1,230 | 7,410 | | |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| | SAMPLING SOIL, SED & SOLID WASTE | | 5,140 | 1,030 | 1,230 | 7,410 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 5,140 | 1,030 | 1,230 | 7,410 | | |
| E-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| E-08 01 | EXCAVATION | | | | | | | |
| E-08 01 01 | Excav/Load Contaminated Soils | 45.00 CY | 380 | 80 | 140 | 600 | 13.29 | 2,3 |
| E-08 01 02 | Transport Cont. Soils, Arlington | 45.00 CY | 18,720 | 3,740 | 5,620 | 28,080 | 623.99 | 2,4 |
| E-08 01 03 | PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1473.23 | 1,2 |
| E-08 01 04 | Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| | EXCAVATION | | 20,290 | 4,060 | 6,050 | 30,400 | | |
| | SOLIDS COLLECTION & CONTAINMENT | | 20,290 | 4,060 | 6,050 | 30,400 | | |
| | Stained Sands | | 25,430 | 5,090 | 7,280 | 37,800 | | |
| F | Neptunes Potato & Separator Tank | | | | | | | |
| F-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| F-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| F-02 06 01 | SURFACE SOIL | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| | Neptunes Potato & Separator Tank | | 7,720 | 1,540 | 2,070 | 11,340 | | |
| G | Bus Lot Dry Wells (5) | | | | | | | |
| G-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| G-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| G-02 06 01 | SURFACE SOIL | | 3,950 | 790 | 950 | 5,680 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 3,950 | 790 | 950 | 5,680 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 3,950 | 790 | 950 | 5,680 | | |
| G-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| G-08 01 EXCAVATION | | | | | | | |
| G-08 01 01 Excav/Load Contaminated Soils | 60.00 CY | 510 | 100 | 180 | 800 | 13.29 | 2,3 |
| G-08 01 02 Transport Cont. Soils, Arlington | 60.00 CY | 24,830 | 4,970 | 7,450 | 37,240 | 620.67 | 2,4 |
| G-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1473.23 | 1,2 |
| G-08 01 04 Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| EXCAVATION | | 26,520 | 5,300 | 7,930 | 39,760 | | |
| SOLIDS COLLECTION & CONTAINMENT | | 26,520 | 5,300 | 7,930 | 39,760 | | |
| Bus Lot Dry Wells (5) | | 30,470 | 6,090 | 8,870 | 45,440 | | |
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | 3,500 | 700 | 840 | 5,040 | | 1,3 |
| MOB OF EQUIPMENT & PERSONNEL | | 3,500 | 700 | 840 | 5,040 | | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | 100.00 HR | 3,790 | 760 | 1,140 | 5,680 | 56.83 | 2,3 |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | 3,030 | 610 | 910 | 4,550 | | |
| SETUP/CONSTRUCT TEMP FACILITIES | | 6,820 | 1,360 | 2,050 | 10,230 | | |
| MOBILIZATION AND PREPATORY WORK | | 10,320 | 2,060 | 2,890 | 15,270 | | |
| 0A-21 DEMOBILIZATION | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | 7,780 | 1,560 | 1,870 | 11,200 | | 1,2 |
| DEMOB OF EQUIPMENT & PERSONNEL | | 7,780 | 1,560 | 1,870 | 11,200 | | |
| DEMOBILIZATION | | 7,780 | 1,560 | 1,870 | 11,200 | | |
| MOBILIZATION/DEMOB & PREPWORK | | 18,100 | 3,620 | 4,750 | 26,470 | | |
| 0B COE QA/SAFETY MONITORING | | | | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | |

| | QUANTITY | UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| 0B-91 01 QA/Safety Monitoring | | | | | | | | |
| QA/Safety Monitoring | 2.00 | WK | 8,510 | 1,700 | 2,040 | 12,250 | 6125.23 | |
| QA/Safety Monitoring | | | 8,510 | 1,700 | 2,040 | 12,250 | | |
| COE QA/SAFETY MONITORING | | | 8,510 | 1,700 | 2,040 | 12,250 | | 2 |
| HANFORD: REMEDIATION | | | 165,790 | 33,160 | 47,320 | 246,260 | | |

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** PROJECT INDIRECT SUMMARY - LEVEL 1 (Rounded to 10's) **

| | | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| A | Steam Pad Tank #2 | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| B | Steam Pad Tank #3 | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| C | 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D | Tar Flow | | 39,130 | 5,870 | 2,250 | 3,780 | 470 | 510 | 52,010 | |
| E | Stained Sands | | 19,130 | 2,870 | 1,100 | 1,850 | 230 | 250 | 25,430 | |
| F | Neptunes Potato & Separator Tank | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| G | Bus Lot Dry Wells (5) | | 22,920 | 3,440 | 1,320 | 2,210 | 280 | 300 | 30,470 | |
| OA | MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 160 | 180 | 18,100 | |
| OB | COE QA/SAFETY MONITORING | | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |
| | HANFORD: REMEDIATION | | 124,720 | 18,710 | 7,170 | 12,050 | 1,500 | 1,640 | 165,790 | |
| | S & A | | | | | | | | 33,160 | |
| | SUBTOTAL | | | | | | | | 198,940 | |
| | CONTINGENCY | | | | | | | | 47,320 | |
| | TOTAL INCL OWNER COSTS | | | | | | | | 246,260 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| A Steam Pad Tank #2 | | | | | | | | | |
| A-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| A-10 TANKS/MISC DEMOLITION & REMOVAL | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| Steam Pad Tank #2 | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| B Steam Pad Tank #3 | | | | | | | | | |
| B-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| B-10 TANKS/MISC DEMOLITION & REMOVAL | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| Steam Pad Tank #3 | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| C 700 Area Waste Solvent Tank | | | | | | | | | |
| 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D Tar Flow | | | | | | | | | |
| D-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 3,270 | 490 | 190 | 320 | 40 | 40 | 4,350 | |
| D-08 SOLIDS COLLECTION & CONTAINMENT | | 35,860 | 5,380 | 2,060 | 3,460 | 430 | 470 | 47,660 | |
| Tar Flow | | 39,130 | 5,870 | 2,250 | 3,780 | 470 | 510 | 52,010 | |
| E Stained Sands | | | | | | | | | |
| E-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 3,870 | 580 | 220 | 370 | 50 | 50 | 5,140 | |
| E-08 SOLIDS COLLECTION & CONTAINMENT | | 15,260 | 2,290 | 880 | 1,470 | 180 | 200 | 20,290 | |
| Stained Sands | | 19,130 | 2,870 | 1,100 | 1,850 | 230 | 250 | 25,430 | |
| F Neptunes Potato & Separator Tank | | | | | | | | | |
| F-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| Neptunes Potato & Separator Tank | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| G Bus Lot Dry Wells (5) | | | | | | | | | |
| G-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,970 | 450 | 170 | 290 | 40 | 40 | 3,950 | |
| G-08 SOLIDS COLLECTION & CONTAINMENT | | 19,950 | 2,990 | 1,150 | 1,930 | 240 | 260 | 26,520 | |
| Bus Lot Dry Wells (5) | | 22,920 | 3,440 | 1,320 | 2,210 | 280 | 300 | 30,470 | |

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** PROJECT INDIRECT SUMMARY - LEVEL 2 (Rounded to 10's) **

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | 7,770 | 1,160 | 450 | 750 | 90 | 100 | 10,320 | |
| 0A-21 DEMOBILIZATION | | 5,850 | 880 | 340 | 570 | 70 | 80 | 7,780 | |
| MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 160 | 180 | 18,100 | |
| 0B COE QA/SAFETY MONITORING | | | | | | | | | |
| 0B-91 QA/Safety Monitoring | | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |
| COE QA/SAFETY MONITORING | | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |
| HANFORD: REMEDIATION | | 124,720 | 18,710 | 7,170 | 12,050 | 1,500 | 1,640 | 165,790 | |
| S & A | | | | | | | | 33,160 | |
| SUBTOTAL | | | | | | | | 198,940 | |
| CONTINGENCY | | | | | | | | 47,320 | |
| TOTAL INCL OWNER COSTS | | | | | | | | 246,260 | |

| | QUANTITY | UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| A Steam Pad Tank #2 | | | | | | | | | | |
| A-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | |
| A-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | |
| A-02 06 01 SURFACE SOIL | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| A-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | |
| A-10 02 TANK REMOVAL | | | | | | | | | | |
| A-10 02 01 FG UST Tank Excavation & Removal | 1.00 | EA | 800 | 120 | 50 | 80 | 10 | 10 | 1,070 | 1068.54 |
| A-10 02 02 Excav/Load Contaminated Soils | 20.00 | CY | 130 | 20 | 10 | 10 | 0 | 0 | 170 | 8.67 |
| A-10 02 03 Transport Cont. Soils, Arlington | 20.00 | CY | 6,690 | 1,000 | 380 | 650 | 80 | 90 | 8,900 | 444.80 |
| A-10 02 04 PPEquip, Modified Class D | 1.00 | DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1023.08 |
| A-10 02 05 Site Re-grading | | | 250 | 40 | 10 | 20 | 0 | 0 | 330 | |
| TANK REMOVAL | | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| TANKS/MISC DEMOLITION & REMOVAL | | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| Steam Pad Tank #2 | | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| B Steam Pad Tank #3 | | | | | | | | | | |
| B-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | |
| B-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | |
| B-02 06 01 SURFACE SOIL | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | 210 | 30 | 10 | 20 | 0 | 0 | 280 | |
| B-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | |
| B-10 02 TANK REMOVAL | | | | | | | | | | |
| B-10 02 01 FG UST Tank Excavation & Removal | 1.00 | EA | 800 | 120 | 50 | 80 | 10 | 10 | 1,070 | 1068.54 |
| B-10 02 02 Excav/Load Contaminated Soils | 20.00 | CY | 130 | 20 | 10 | 10 | 0 | 0 | 170 | 8.67 |
| B-10 02 03 Transport Cont. Soils, Arlington | 20.00 | CY | 6,690 | 1,000 | 380 | 650 | 80 | 90 | 8,900 | 444.80 |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| B-10 02 04 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1023.08 |
| B-10 02 05 Site Re-grading | | 250 | 40 | 10 | 20 | 0 | 0 | 330 | |
| TANK REMOVAL | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| TANKS/MISC DEMOLITION & REMOVAL | | 8,640 | 1,300 | 500 | 830 | 100 | 110 | 11,490 | |
| Steam Pad Tank #3 | | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| C 700 Area Waste Solvent Tank | | | | | | | | | |
| 700 Area Waste Solvent Tank | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D Tar Flow | | | | | | | | | |
| D-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| D-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| D-02 06 01 SURFACE SOIL | | 3,270 | 490 | 190 | 320 | 40 | 40 | 4,350 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 3,270 | 490 | 190 | 320 | 40 | 40 | 4,350 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 3,270 | 490 | 190 | 320 | 40 | 40 | 4,350 | |
| D-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| D-08 01 EXCAVATION | | | | | | | | | |
| D-08 01 01 Excav/Load Contaminated Soils | 110.00 CY | 700 | 110 | 40 | 70 | 10 | 10 | 940 | 8.52 |
| D-08 01 02 Transport Cont. Soils, Arlington | 110.00 CY | 34,260 | 5,140 | 1,970 | 3,310 | 410 | 450 | 45,540 | 413.98 |
| D-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1023.08 |
| D-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 35,860 | 5,380 | 2,060 | 3,460 | 430 | 470 | 47,660 | |
| SOLIDS COLLECTION & CONTAINMENT | | 35,860 | 5,380 | 2,060 | 3,460 | 430 | 470 | 47,660 | |
| Tar Flow | | 39,130 | 5,870 | 2,250 | 3,780 | 470 | 510 | 52,010 | |
| E Stained Sands | | | | | | | | | |
| E-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| E-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| E-02 06 01 SURFACE SOIL | | 3,870 | 580 | 220 | 370 | 50 | 50 | 5,140 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLING SOIL, SED & SOLID WASTE | | 3,870 | 580 | 220 | 370 | 50 | 50 | 5,140 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 3,870 | 580 | 220 | 370 | 50 | 50 | 5,140 | |
| E-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| E-08 01 EXCAVATION | | | | | | | | | |
| E-08 01 01 Excav/Load Contaminated Soils | 45.00 CY | 290 | 40 | 20 | 30 | 0 | 0 | 380 | 8.52 |
| E-08 01 02 Transport Cont. Soils, Arlington | 45.00 CY | 14,080 | 2,110 | 810 | 1,360 | 170 | 190 | 18,720 | 416.00 |
| E-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1023.08 |
| E-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 15,260 | 2,290 | 880 | 1,470 | 180 | 200 | 20,290 | |
| SOLIDS COLLECTION & CONTAINMENT | | 15,260 | 2,290 | 880 | 1,470 | 180 | 200 | 20,290 | |
| Stained Sands | | 19,130 | 2,870 | 1,100 | 1,850 | 230 | 250 | 25,430 | |
| F Neptunes Potato & Separator Tank | | | | | | | | | |
| F-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| F-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| F-02 06 01 SURFACE SOIL | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| Neptunes Potato & Separator Tank | | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| G Bus Lot Dry Wells (5) | | | | | | | | | |
| G-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| G-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| G-02 06 01 SURFACE SOIL | | 2,970 | 450 | 170 | 290 | 40 | 40 | 3,950 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 2,970 | 450 | 170 | 290 | 40 | 40 | 3,950 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 2,970 | 450 | 170 | 290 | 40 | 40 | 3,950 | |
| G-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| G-08 01 EXCAVATION | | | | | | | | | |
| G-08 01 01 Excav/Load Contaminated Soils | 60.00 CY | 380 | 60 | 20 | 40 | 0 | 10 | 510 | 8.52 |
| G-08 01 02 Transport Cont. Soils, Arlington | 60.00 CY | 18,680 | 2,800 | 1,070 | 1,800 | 220 | 250 | 24,830 | 413.78 |
| G-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1023.08 |
| G-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 19,950 | 2,990 | 1,150 | 1,930 | 240 | 260 | 26,520 | |
| SOLIDS COLLECTION & CONTAINMENT | | 19,950 | 2,990 | 1,150 | 1,930 | 240 | 260 | 26,520 | |
| Bus Lot Dry Wells (5) | | 22,920 | 3,440 | 1,320 | 2,210 | 280 | 300 | 30,470 | |
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | 2,640 | 400 | 150 | 250 | 30 | 30 | 3,500 | |
| MOB OF EQUIPMENT & PERSONNEL | | 2,640 | 400 | 150 | 250 | 30 | 30 | 3,500 | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | 100.00 HR | 2,850 | 430 | 160 | 280 | 30 | 40 | 3,790 | 37.88 |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | 2,280 | 340 | 130 | 220 | 30 | 30 | 3,030 | |
| SETUP/CONSTRUCT TEMP FACILITIES | | 5,130 | 770 | 290 | 500 | 60 | 70 | 6,820 | |
| MOBILIZATION AND PREPATORY WORK | | 7,770 | 1,160 | 450 | 750 | 90 | 100 | 10,320 | |
| 0A-21 DEMOBILIZATION | | | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | 5,850 | 880 | 340 | 570 | 70 | 80 | 7,780 | |
| DEMOB OF EQUIPMENT & PERSONNEL | | 5,850 | 880 | 340 | 570 | 70 | 80 | 7,780 | |
| DEMOBILIZATION | | 5,850 | 880 | 340 | 570 | 70 | 80 | 7,780 | |
| MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 160 | 180 | 18,100 | |
| 0B COE QA/SAFETY MONITORING | | | | | | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | | | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| 0B-91 01 QA/Safety Monitoring | | | | | | | | | |
| QA/Safety Monitoring | 2.00 WK | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | 4253.64 |
| QA/Safety Monitoring | | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |
| COE QA/SAFETY MONITORING | | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |
| HANFORD: REMEDIATION | | 124,720 | 18,710 | 7,170 | 12,050 | 1,500 | 1,640 | 165,790 | |
| S & A | | | | | | | | 33,160 | |
| SUBTOTAL | | | | | | | | 198,940 | |
| CONTINGENCY | | | | | | | | 47,320 | |
| TOTAL INCL OWNER COSTS | | | | | | | | 246,260 | |

| | QUANTITY UOM | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST |
|---|---|---|---|---|---|---|---|
| A. Steam Pad Tank #2<br>AA REMEDIAL GENERAL CONTRACTOR | | 30 | 840 | 440 | 380 | 7,190 | 8,850 |
| B. Steam Pad Tank #3<br>AA REMEDIAL GENERAL CONTRACTOR | | 30 | 840 | 440 | 380 | 7,190 | 8,850 |
| C. 700 Area Waste Solvent Tank<br><<< Non-Contracted Work >>> | | 0 | 0 | 0 | 0 | 0 | 0 |
| D. Tar Flow<br>AA REMEDIAL GENERAL CONTRACTOR | | 30 | 1,130 | 1,720 | 720 | 35,560 | 39,130 |
| E. Stained Sands<br>AA REMEDIAL GENERAL CONTRACTOR | | 20 | 940 | 240 | 380 | 17,570 | 19,130 |
| F. Neptunes Potato & Separator Tank<br>AA REMEDIAL GENERAL CONTRACTOR | | 0 | 480 | 0 | 0 | 5,330 | 5,810 |
| G. Bus Lot Dry Wells (5)<br>AA REMEDIAL GENERAL CONTRACTOR | | 20 | 980 | 300 | 1,070 | 20,580 | 22,920 |
| OA. MOBILIZATION/DEMOB & PREPWORK<br>AA REMEDIAL GENERAL CONTRACTOR | | 0 | 4,500 | 8,940 | 180 | 0 | 13,620 |
| OB. COE QA/SAFETY MONITORING<br>AA REMEDIAL GENERAL CONTRACTOR | | 0 | 6,400 | 0 | 0 | 0 | 6,400 |

Tue 09 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** CONTRACTOR INDIRECT SUMMARY - LEVEL 1 (Rounded to 10's) **



| | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|
| A. Steam Pad Tank #2 | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| B. Steam Pad Tank #3 | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 8,850 | 1,330 | 510 | 860 | 110 | 120 | 11,770 | |
| C. 700 Area Waste Solvent Tank | | | | | | | | |
| <<< Non-Contracted Work >>> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| D. Tar Flow | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 39,130 | 5,870 | 2,250 | 3,780 | 470 | 510 | 52,010 | |
| E. Stained Sands | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 19,130 | 2,870 | 1,100 | 1,850 | 230 | 250 | 25,430 | |
| F. Neptunes Potato & Separator Tank | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 5,810 | 870 | 330 | 560 | 70 | 80 | 7,720 | |
| G. Bus Lot Dry Wells (5) | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 22,920 | 3,440 | 1,320 | 2,210 | 280 | 300 | 30,470 | |
| OA. MOBILIZATION/DEMOB & PREPWORK | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 13,620 | 2,040 | 780 | 1,320 | 160 | 180 | 18,100 | |
| OB. COE QA/SAFETY MONITORING | | | | | | | | |
| AA REMEDIAL GENERAL CONTRACTOR | 6,400 | 960 | 370 | 620 | 80 | 80 | 8,510 | |

| 0-AA. REMEDIAL GENERAL CONTRACTOR | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|

0-AA. REMEDIAL GENERAL CONTRACTOR

Overhead Percentage Explanation:

Field office Overhead (FOOH): Normal is 10%, using 15% to allow for extra safety and Hanford related items.

Home office Overhead (HOOH): 4-5% is normal for this size of job.

PROFIT: 7-8% is normal for this size of job. However, PROFIT may be calculated separately for each job using the Weighted-Guide Line Method.

BOND: Calculated per dollar amount of job using B Bond rates by GOLD.

B&O TAX: 1% covers the 0.5% WA State B&O tax, and the 0.5% TARO tax.

0-AA AB. Geophysical Survey SubContractor
Assume using Sub Quotes, so no further Sub markup needed.

0-AA AC. Soil Gas Sampling SubContractor
Assume using Sub Quotes, so no further Sub markup needed.

A. Steam Pad Tank #2
Waste Site: Steam Pad Tank #2, 4,000 gal fiberglass tank, last contained waste water.

Site Considerations:
None given.

Potential Remedial Activity:
Remove UST, ship contaminated soil to TSDF.

A-02. MONITOR, SAMPLE, TEST, ANALYSIS

A-02 06. SAMPLING SOIL, SED & SOLID WASTE

A-02 06 01. SURFACE SOIL

A-02 06 01 01. Soil Samples & Analyses
Sample & analyze soil. TPH analyses cost given at $150.

| | | | | | | |
|---|---|---|---|---|---|---|
| Soil Samples & Analyses | 0 | 60 | 0 | 0 | 150 | 210 |
| SURFACE SOIL | 0 | 60 | 0 | 0 | 150 | 210 |
| SAMPLING SOIL, SED & SOLID WASTE | 0 | 60 | 0 | 0 | 150 | 210 |
| MONITOR, SAMPLE, TEST, ANALYSIS | 0 | 60 | 0 | 0 | 150 | 210 |

| A-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A-10. TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | | |
| A-10 02. TANK REMOVAL | | | | | | | | | | | |
| A-10 02 01. FG UST Tank Excavation & Removal<br>Steam Pad Tank #2 is a 4,000 gal fiberglass tank, that last contained wastewater. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate soil around UST | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Assumes 8' D x 10' L tank, with tank taking up 25 CY. | 100.00 | CY | XXQMV | 25.00 | 8 | 202 | 168 | 0 | 0 | 369 | 3.69 |
| L USR AA <02220 0000 > Remove & Load UST to Flatbed Trk | | | | | 2.00 | 50.42 | 41.89 | 0.00 | 125.00 | 217.31 | |
| for disposal by Contractor. Allow $250 for disposal. | 2.00 | HR | XXQMV | 1.00 | 4 | 101 | 84 | 0 | 250 | 435 | 217.31 |
| FG UST Tank Excavation & Removal | 1.00 | EA | | | 12 | 303 | 251 | 0 | 250 | 804 | 803.86 |
| A-10 02 02. Excav/Load Contaminated Soils<br>Quantity of 20 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Quantity of con. soil given by Env Engr (assumed under tank) | 22.40 | LCY | XXQMV | 25.00 | 2 | 45 | 38 | 0 | 0 | 83 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil | | | | | 0.03 | 0.68 | 1.46 | 0.00 | 0.00 | 2.13 | |
| Load in 28-ton dump trucks - DOT approved hazardeous waste hauler. Assume 3,100 lb/bcy. | 22.40 | LCY | XXQMG | 40.00 | 1 | 15 | 33 | 0 | 0 | 48 | 2.13 |
| Excav/Load Contaminated Soils | 20.00 | CY | | | 2 | 60 | 70 | 0 | 0 | 130 | 6.52 |
| A-10 02 03. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 400.00 | 400.00 | |
| 1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 2.00 | TRK | | 0.00 | 0 | 0 | 0 | 0 | 800 | 800 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee | 34.10 | TON | | 0.00 | 0 | 0 | 0 | 0 | 4,569 | 4,569 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 34.10 | TON | | 0.00 | 0 | 0 | 0 | 0 | 1,023 | 1,023 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |

| A-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| Transport Cont. Soils, Arlington | 20.00 CY | | 0 | 0 | 0 | 0 | 6,692 | 6,692 | 334.62 |
| A-10 02 04. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 4.00 PR N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>80 | 0.00<br>0 | 19.94<br>80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 1.00 DAY ULABA | 0.13 | 10.00<br>10 | 234.30<br>234 | 1.45<br>1 | 34.83<br>35 | 0.00<br>0 | 270.58<br>271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>27 | 0.00<br>0 | 26.95<br>27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 8.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>207 | 0.00<br>0 | 25.87<br>207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>100 | 100.00<br>100 | 100.00 |
| PPEquip, Modified Class D | 1.00 DAY | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| A-10 02 05. Site Re-grading<br>Allow for refill of tank hole and site re-grading after site is certified clean. | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.50 DAY XXQNA | 0.13 | 14.00<br>7 | 365.22<br>183 | 126.91<br>63 | 0.00<br>0 | 0.00<br>0 | 492.13<br>246 | 492.13 |
| Site Re-grading | | | 7 | 183 | 63 | 0 | 0 | 246 | |
| TANK REMOVAL | | | 31 | 780 | 442 | 379 | 7,042 | 8,642 | |

| A-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TANKS/MISC DEMOLITION & REMOVAL | | | | | 31 | 780 | 442 | 379 | 7,042 | 8,642 | |
| Steam Pad Tank #2 | | | | | 31 | 840 | 442 | 379 | 7,192 | 8,852 | |

| B-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|

B. Steam Pad Tank #3
Waste Site: Steam Pad Tank #3, 4,000 gal fiberglass tank, last contained wastewater.

Site Considerations:
None given.

Potential Remedial Activity:
Remove UST, ship contaminated soil to TSDF.
B-02. MONITOR, SAMPLE, TEST, ANALYSIS

B-02 06. SAMPLING SOIL, SED & SOLID WASTE

B-02 06 01. SURFACE SOIL

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| B-02 06 01 | 01. Soil Samples & Analyses<br>Sample & analyze soil. TPH analyses cost given at $150.<br>Soil Samples & Analyses | | 0 | 60 | 0 | 0 | 150 | 210 |
| | SURFACE SOIL | | 0 | 60 | 0 | 0 | 150 | 210 |
| | SAMPLING SOIL, SED & SOLID WASTE | | 0 | 60 | 0 | 0 | 150 | 210 |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 0 | 60 | 0 | 0 | 150 | 210 |

| B-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-10. TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | | |
| B-10 02. TANK REMOVAL | | | | | | | | | | | |
| B-10 02 01. FG UST Tank Excavation & Removal<br>Steam Pad Tank #2 is a 4,000 gal fiberglass tank, that last contained wastewater. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate soil around UST | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Assumes 8' D x 10' L tank, with tank taking up 25 CY. | 100.00 | CY | XXQMV | 25.00 | 8 | 202 | 168 | 0 | 0 | 369 | 3.69 |
| L USR AA <02220 0000 > Remove & Load UST to Flatbed Trk | | | | | 2.00 | 50.42 | 41.89 | 0.00 | 125.00 | 217.31 | |
| for disposal by Contractor. Allow $250 for disposal. | 2.00 | HR | XXQMV | 1.00 | 4 | 101 | 84 | 0 | 250 | 435 | 217.31 |
| FG UST Tank Excavation & Removal | 1.00 | EA | | | 12 | 303 | 251 | 0 | 250 | 804 | 803.86 |
| B-10 02 02. Excav/Load Contaminated Soils<br>Quantity of 20 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Quantity of con. soil given by Env Engr (assumed under tank) | 22.40 | LCY | XXQMV | 25.00 | 2 | 45 | 38 | 0 | 0 | 83 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil | | | | | 0.03 | 0.68 | 1.46 | 0.00 | 0.00 | 2.13 | |
| Load in 28-ton dump trucks - DOT approved hazardeous waste hauler. Assume 3,100 lb/bcy. | 22.40 | LCY | XXQMG | 40.00 | 1 | 15 | 33 | 0 | 0 | 48 | 2.13 |
| Excav/Load Contaminated Soils | 20.00 | CY | | | 2 | 60 | 70 | 0 | 0 | 130 | 6.52 |
| B-10 02 03. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 400.00 | 400.00 | |
| 1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 2.00 | TRK | | 0.00 | 0 | 0 | 0 | 0 | 800 | 800 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee | 34.10 | TON | | 0.00 | 0 | 0 | 0 | 0 | 4,569 | 4,569 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 34.10 | TON | | 0.00 | 0 | 0 | 0 | 0 | 1,023 | 1,023 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |

| B-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Transport Cont. Soils, Arlington | 20.00 | CY | | | 0 | 0 | 0 | 0 | 6,692 | 6,692 | 334.62 |

B-10 02 04. PPEquip, Modified Class D
This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 4.00 | PR | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>80 | 0.00<br>0 | 19.94<br>80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 1.00 | DAY | ULABA | 0.13 | 10.00<br>10 | 234.30<br>234 | 1.45<br>1 | 34.83<br>35 | 0.00<br>0 | 270.58<br>271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 1.00 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>27 | 0.00<br>0 | 26.95<br>27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 8.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>207 | 0.00<br>0 | 25.87<br>207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 1.00 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>100 | 100.00<br>100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |

B-10 02 05. Site Re-grading
Allow for refill of tank hole and site re-grading after site is certified clean.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.50 | DAY | XXQNA | 0.13 | 14.00<br>7 | 365.22<br>183 | 126.91<br>63 | 0.00<br>0 | 0.00<br>0 | 492.13<br>246 | 492.13 |
| Site Re-grading | | | | | 7 | 183 | 63 | 0 | 0 | 246 | |
| TANK REMOVAL | | | | | 31 | 780 | 442 | 379 | 7,042 | 8,642 | |

Tue 09 Mar 1993

DETAILED ESTIMATE

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
B. Steam Pad Tank #3

TIME 16:59:40

DETAIL PAGE 8

| B-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TANKS/MISC DEMOLITION & REMOVAL | | | | | 31 | 780 | 442 | 379 | 7,042 | 8,642 | |
| Steam Pad Tank #3 | | | | | 31 | 840 | 442 | 379 | 7,192 | 8,852 | |

| | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C. 700 Area Waste Solvent Tank | | | | | | | | | | | |
| Waste Site: 700 Area Waste Solvent Tank (Unit 703-1) | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| Review Analyses. | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| NONE given. | | | | | | | | | | | |
| 700 Area Waste Solvent Tank | | | | | 0 | 0 | 0 | 0 | 1 | 1 | |
| D. Tar Flow | | | | | | | | | | | |
| Waste Site: Tar Flow (no other info given) | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| 100 x 30 x 1 | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Take soil sample, Remove waste to TSDF (110 CY given) | | | | | | | | | | | |
| D-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| D-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| D-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| D-02 06 01 01. Soil/Waste Samples & Analyses | | | | | | | | | | | |
| Sampling Equipment cost only. | | | | | | | | | | | |
| Soil/Waste Samples & Analyses | | | | | 0 | 0 | 1,250 | 0 | 0 | 1,250 | |
| D-02 06 01 02. Confirmatory Samples & Analyses | | | | | | | | | | | |
| Confirmatory sample & analyses. | See detail items. | | | | | | | | | | |
| M HTW AA <01954 7625 > TPH, In-field test | | | | | 0.00 | 0.00 | 0.00 | 161.70 | 0.00 | 161.70 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 162 | 0 | 162 | 161.70 |
| USR AA <01954 76 > PCB, In-field test | | | | | 0.00 | 0.00 | 0.00 | 183.26 | 0.00 | 183.26 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 183 | 0 | 183 | 183.26 |
| USR AA <01954 76 > 8080, PCB/Pesticides - soil | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 165.00 | 165.00 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 660 | 660 | 165.00 |
| USR AA <01954 76 > 8015, TRPH - total recoverable petroleum hydrocarbons - mod. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 135.00 | 135.00 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 540 | 540 | 135.00 |
| USR AA <01954 76 > Labor to take Samples - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 345 | 1,200 | 2,025 | |

| D-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURFACE SOIL | | | | | 0 | 480 | 1,250 | 345 | 1,200 | 3,275 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 1,250 | 345 | 1,200 | 3,275 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 1,250 | 345 | 1,200 | 3,275 | |

| D-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| D-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| D-08 01. EXCAVATION | | | | | | | | | |
| D-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 110 CY Contaminated Soils given by Env Engr. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Quantity of con. soil given by Env Engr. Use 1.1 swell fact. | 121.00 LCY XXQMV | 25.00 | 10 | 244 | 203 | 0 | 0 | 447 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil | | | 0.03 | 0.68 | 1.46 | 0.00 | 0.00 | 2.13 | |
| Load in 28-ton dump trucks - DOT approved hazardeous waste hauler. Assume 3,100 lb/bcy. | 121.00 LCY XXQMG | 40.00 | 3 | 82 | 176 | 0 | 0 | 258 | 2.13 |
| Excav/Load Contaminated Soils | 110.00 CY | | 13 | 326 | 379 | 0 | 0 | 705 | 6.41 |
| D-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | 0.00 | 0.00 | 0.00 | 0.00 | 400.00 | 400.00 | |
| 1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 8.00 TRK | 0.00 | 0 | 0 | 0 | 0 | 3,200 | 3,200 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee | 187.55 TON | 0.00 | 0 | 0 | 0 | 0 | 25,132 | 25,132 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 187.55 TON | 0.00 | 0 | 0 | 0 | 0 | 5,627 | 5,627 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 EA | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 110.00 CY | | 0 | 0 | 0 | 0 | 34,258 | 34,258 | 311.44 |
| D-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 4.00 EA N/A | 0.00 | 0 | 0 | 46 | 0 | 0 | 46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 4.00 EA N/A | 0.00 | 0 | 0 | 0 | 30 | 0 | 30 | 7.55 |

| D-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 4.00 | PR | N/A | 0.00 | 0 | 0 | 9 | 0 | 0 | 9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 80 | 0 | 80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 1.00 | DAY | ULABA | 0.13 | 10 | 234 | 1 | 35 | 0 | 271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 27 | 0 | 27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 207 | 0 | 207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| D-08 01 04. Site Re-grading Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 0.25 | DAY | XXQNA | 0.13 | 4 | 91 | 32 | 0 | 0 | 123 | 492.13 |
| Site Re-grading | | | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | | | 26 | 652 | 467 | 379 | 34,358 | 35,856 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 26 | 652 | 467 | 379 | 34,358 | 35,856 | |
| Tar Flow | | | | | 26 | 1,132 | 1,717 | 724 | 35,558 | 39,131 | |

| E-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|

E. Stained Sands
Waste Site: Stained Sands (no other info given)

Site Considerations:
20 x 20 x 3

Potential Remedial Activity:
Remove Waste (to TSDF, 45 CY given)
E-02. MONITOR, SAMPLE, TEST, ANALYSIS

E-02 06. SAMPLING SOIL, SED & SOLID WASTE

E-02 06 01. SURFACE SOIL

E-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. See detail below.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <01954 76 > 8270, BNA - soil<br>Base neutral acid | 6.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 360.00<br>2,160 | 360.00<br>2,160 | 360.00 |
| USR AA <01954 76 > 8240, VOA - soil (volatile org) | 6.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 205.00<br>1,230 | 205.00<br>1,230 | 205.00 |
| USR AA <01954 76 > Labor to take Samples - 2 men | 16.00 HR N/A | 0.00 | 0.00<br>0 | 30.00<br>480 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>480 | 30.00 |
| Confirmatory Samples & Analyses | | | 0 | 480 | 0 | 0 | 3,390 | 3,870 | |
| SURFACE SOIL | | | 0 | 480 | 0 | 0 | 3,390 | 3,870 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | 0 | 480 | 0 | 0 | 3,390 | 3,870 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | 0 | 480 | 0 | 0 | 3,390 | 3,870 | |

| E-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | | | |
| E-08 01. EXCAVATION | | | | | | | | | | | |
| E-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 45 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil<br>Quantity of con. soil given by Env Engr. Use 1.1 swell factor | 49.50 | CY | XXQMV | 25.00 | 0.08<br>4 | 2.02<br>100 | 1.68<br>83 | 0.00<br>0 | 0.00<br>0 | 3.69<br>183 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil<br>Load in 28-ton dump trucks - DOT approved hazardeous waste hauler. Assume 3,100 lb/bcy. | 49.50 | CY | XXQMG | 40.00 | 0.03<br>1 | 0.68<br>34 | 1.46<br>72 | 0.00<br>0 | 0.00<br>0 | 2.13<br>106 | 2.13 |
| Excav/Load Contaminated Soils | 45.00 | CY | | | 5 | 133 | 155 | 0 | 0 | 288 | 6.41 |
| E-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 3.00 | TRK | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>1,200 | 400.00<br>1,200 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 76.72 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>10,281 | 134.00<br>10,281 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax. | 76.72 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>2,302 | 30.00<br>2,302 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |
| Transport Cont. Soils, Arlington | 45.00 | CY | | | 0 | 0 | 0 | 0 | 14,083 | 14,083 | 312.95 |
| E-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |

| E-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 4.00 | PR | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>80 | 0.00<br>0 | 19.94<br>80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 1.00 | DAY | ULABA | 0.13 | 10.00<br>10 | 234.30<br>234 | 1.45<br>1 | 34.83<br>35 | 0.00<br>0 | 270.58<br>271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 1.00 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>27 | 0.00<br>0 | 26.95<br>27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 8.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>207 | 0.00<br>0 | 25.87<br>207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 1.00 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>100 | 100.00<br>100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| E-08 01 04. Site Re-grading<br>Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.25 | DAY | XXQNA | 0.13 | 14.00<br>4 | 365.22<br>91 | 126.91<br>32 | 0.00<br>0 | 0.00<br>0 | 492.13<br>123 | 492.13 |
| Site Re-grading | | | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | | | 19 | 459 | 243 | 379 | 14,183 | 15,264 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 19 | 459 | 243 | 379 | 14,183 | 15,264 | |
| Stained Sands | | | | | 19 | 939 | 243 | 379 | 17,573 | 19,134 | |

| F-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| F. Neptunes Potato & Separator Tank | | | | | | | | | | | |
| Waste Site: Neptunes Potato & Separator Tank (TRIDENT) | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| 1 cement tank. Trench is appx. 4'W & 2,600' L. Original L = 3,600'. | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Soil Samples (20 soil samples + 10 point soil gas survey if needed) | | | | | | | | | | | |
| F-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| F-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| F-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| F-02 06 01 01. Soil/Waste Samples & Analyses | | | | | | | | | | | |
| Sample & analyze soil/waste, 20 samples, for TOC, TOX & pH. | | | | | | | | | | | |
| Analyses cost in detail. | | | | | | | | | | | |
| USR AA <01954 76 > 415.1, TOC - total organic C | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 37.00 | 37.00 | |
| | 20.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 740 | 740 | 37.00 |
| USR AA <01954 76 > 9020, TOX - | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 77.00 | 77.00 | |
| | 20.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 1,540 | 1,540 | 77.00 |
| USR AA <01954 76 > pH | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 | 15.00 | |
| | 20.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 15.00 |
| USR AA <01954 76 > Labor to take Samples - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Soil/Waste Samples & Analyses | | | | | 0 | 480 | 0 | 0 | 2,580 | 3,060 | |
| F-02 06 01 02. Soil Gas Survey (Contingent) | | | | | | | | | | | |
| Soil Gas Survey, Contingent on Soil sample analyses. Use: 10 sample points for soil gas survey. Cost from Tracer Research Corp., based on taking many samples over a couple day period. | | | | | | | | | | | |
| Soil Gas Survey (Contingent) | 10.00 | EA | | | 0 | 0 | 0 | 0 | 2,750 | 2,750 | 275.00 |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 0 | 5,330 | 5,810 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 0 | 5,330 | 5,810 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 0 | 5,330 | 5,810 | |
| Neptunes Potato & Separator Tank | | | | | 0 | 480 | 0 | 0 | 5,330 | 5,810 | |

G. Bus Lot Dry Wells (5)
Waste Site: Bus Lot Dry Wells (6)

Site Considerations:
Prepare storm water drainage plan.

Potential Remedial Activity:
Take soil samples, remove waste (to TSDF, 60 CY given)
G-02. MONITOR, SAMPLE, TEST, ANALYSIS

G-02 06. SAMPLING SOIL, SED & SOLID WASTE

G-02 06 01. SURFACE SOIL

G-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. See detail items.

| G-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01954 7625 > TPH, In-field test | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 161.70<br>323 | 0.00<br>0 | 161.70<br>323 | 161.70 |
| USR AA <01954 76 > PCB, In-field test | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 183.26<br>367 | 0.00<br>0 | 183.26<br>367 | 183.26 |
| USR AA <01954 76 > 8080, PCB/Pesticides - soil | 6.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 165.00<br>990 | 165.00<br>990 | 165.00 |
| USR AA <01954 76 > 8015, TRPH - total recoverable petroleum hydrocarbons - mod. | 6.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 135.00<br>810 | 135.00<br>810 | 135.00 |
| USR AA <01954 76 > Labor to take Samples - 2 men | 16.00 | HR | N/A | 0.00 | 0.00<br>0 | 30.00<br>480 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 690 | 1,800 | 2,970 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 690 | 1,800 | 2,970 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 690 | 1,800 | 2,970 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 690 | 1,800 | 2,970 | |

| G-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | | | |
| G-08 01. EXCAVATION | | | | | | | | | | | |
| G-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 60 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Quantity of con. soil given by Env Engr. | 66.00 | CY | XXQMV | 25.00 | 5 | 133 | 111 | 0 | 0 | 244 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil | | | | | 0.03 | 0.68 | 1.46 | 0.00 | 0.00 | 2.13 | |
| Load in 28-ton dump trucks - DOT approved hazardeous waste hauler. Assume 3,100 lb/bcy. | 66.00 | CY | XXQMG | 40.00 | 2 | 45 | 96 | 0 | 0 | 141 | 2.13 |
| Excav/Load Contaminated Soils | 60.00 | CY | | | 7 | 178 | 207 | 0 | 0 | 384 | 6.41 |
| G-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 400.00 | 400.00 | |
| 1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 4.00 | TRK | | 0.00 | 0 | 0 | 0 | 0 | 1,600 | 1,600 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee | 102.30 | TON | | 0.00 | 0 | 0 | 0 | 0 | 13,708 | 13,708 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 102.30 | TON | | 0.00 | 0 | 0 | 0 | 0 | 3,069 | 3,069 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 60.00 | CY | | | 0 | 0 | 0 | 0 | 18,677 | 18,677 | 311.29 |
| G-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 46 | 0 | 0 | 46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 30 | 0 | 30 | 7.55 |

| G-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 4.00 PR N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>80 | 0.00<br>0 | 19.94<br>80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 1.00 DAY ULABA | 0.13 | 10.00<br>10 | 234.30<br>234 | 1.45<br>1 | 34.83<br>35 | 0.00<br>0 | 270.58<br>271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>27 | 0.00<br>0 | 26.95<br>27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 8.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>207 | 0.00<br>0 | 25.87<br>207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>100 | 100.00<br>100 | 100.00 |
| PPEquip, Modified Class D | 1.00 DAY | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| G-08 01 04. Site Re-grading Allow for site re-grading after site is certified clean. | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.25 DAY XXQNA | 0.13 | 14.00<br>4 | 365.22<br>91 | 126.91<br>32 | 0.00<br>0 | 0.00<br>0 | 492.13<br>123 | 492.13 |
| Site Re-grading | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | 20 | 503 | 295 | 379 | 18,777 | 19,954 | |
| SOLIDS COLLECTION & CONTAINMENT | | | 20 | 503 | 295 | 379 | 18,777 | 19,954 | |
| Bus Lot Dry Wells (5) | | | 20 | 983 | 295 | 1,069 | 20,577 | 22,924 | |

| OA-01. MOBILIZATION AND PREPATORY WORK | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OA. MOBILIZATION/DEMOB & PREPWORK<br>This item will cover all costs for Mob/Demob & Prepwork associated with the 1100-EM-2 Area waste sites, as it is assumed one Contractor will do all sites at one time.<br>OA-01. MOBILIZATION AND PREPATORY WORK | | | | | | | | | | | |
| OA-01 01. MOB OF EQUIPMENT & PERSONNEL | | | | | | | | | | | |
| OA-01 01 01. Mob of Equipment & Facilities<br>Mob of equipment, equipment list from Summary. A 100-mi Radius assumed. | | | | | | | | | | | |
| USR AA <01505 1101 > Mob, Field Office Trailer | | | | | 0.00 | 0.00 | 250.00 | 0.00 | 0.00 | 250.00 | |
| 100-mi Radius | 1.00 | EA | | 0.00 | 0 | 0 | 250 | 0 | 0 | 250 | 250.00 |
| CIV AA <01505 2103 > Mob, Hyd Excav, 1.1-1.5 CY, Cwlr | | | | | 0.00 | 0.00 | 525.00 | 0.00 | 0.00 | 525.00 | |
| Mtd, 100-mi Rad | 1.00 | EA | N/A | 0.00 | 0 | 0 | 525 | 0 | 0 | 525 | 525.00 |
| USR AA <01505 3235 > Mob, FEnd Ldr, wheel 1.5-3 CY | | | | | 0.00 | 0.00 | 750.00 | 0.00 | 0.00 | 750.00 | |
| Atriculated Fr, 100-mi Radius | 1.00 | EA | | 0.00 | 0 | 0 | 750 | 0 | 0 | 750 | 750.00 |
| USR AA <01505 6115 > Mob, Dozer, Crawler, 50-100 hp | | | | | 0.00 | 0.00 | 750.00 | 0.00 | 0.00 | 750.00 | |
| w/blade, incl set up 100 mi radius | 1.00 | EA | | 0.00 | 0 | 0 | 750 | 0 | 0 | 750 | 750.00 |
| USR AA <01505 7131 > Mob, Water Tank, 3,000 Gal, | | | | | 0.00 | 0.00 | 150.00 | 0.00 | 0.00 | 150.00 | |
| Mtd/FT800 Trk, 100-mi Radius | 1.00 | EA | | 0.00 | 0 | 0 | 150 | 0 | 0 | 150 | 150.00 |
| USR AA <01505 8921 > Mob, Decontamination Trailer | | | | | 0.00 | 0.00 | 135.00 | 0.00 | 0.00 | 135.00 | |
| w/25,000 GVW Trk, 100-mi Radius | 1.00 | EA | | 0.00 | 0 | 0 | 135 | 0 | 0 | 135 | 135.00 |
| USR AA <01505 8952 > Mob, Hot Water Blstr, 3,200 psi | | | | | 0.00 | 0.00 | 75.00 | 0.00 | 0.00 | 75.00 | |
| 100-mi Radius | 1.00 | EA | | 0.00 | 0 | 0 | 75 | 0 | 0 | 75 | 75.00 |
| Mob of Equipment & Facilities | | | | | 0 | 0 | 2,635 | 0 | 0 | 2,635 | |
| MOB OF EQUIPMENT & PERSONNEL | | | | | 0 | 0 | 2,635 | 0 | 0 | 2,635 | |
| OA-01 03. SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | | | | | |
| OA-01 03 01. TRAILERS AND BUILDINGS<br>Allow 100 mhrs for setup of Contractor's trailer, equipment, and site layout. An allowance for some equipment and materials has been added. | | | | | | | | | | | |
| TRAILERS AND BUILDINGS | 100.00 | HR | | | 0 | 2,500 | 250 | 100 | 0 | 2,850 | 28.50 |
| OA-01 03 02. DECONTAMINATION FACILITIES | | | | | | | | | | | |

| OA-01. MOBILIZATION AND PREPATORY WORK | | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| OA-01 03 02 | 01. Personnel Decon Facilities<br>Allow 80 mhrs for setup of the Personnel Decon trailer. Self contained unit includes changing rooms and showers. An allowance for some material and equipment has been included. | | | | | | | | | |
| | Personnel Decon Facilities | 80.00 HR | | 0 | 2,000 | 200 | 80 | 0 | 2,280 | 28.50 |
| OA-01 03 02 | 02. Equip/Vehicle Decon Facilities<br>A equipment/vehicle washdown facility exists in the 1100-EM-2 area, so assume it will be used for all waste site equipment decontamination. Decon water will be transported by a WHC truck to an on-site (Hanford) disposal area. | | | | | | | | | |
| | Equip/Vehicle Decon Facilities | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| | DECONTAMINATION FACILITIES | | | 0 | 2,000 | 200 | 80 | 0 | 2,280 | |
| | SETUP/CONSTRUCT TEMP FACILITIES | | | 0 | 4,500 | 450 | 180 | 0 | 5,130 | |
| | MOBILIZATION AND PREPATORY WORK | | | 0 | 4,500 | 3,085 | 180 | 0 | 7,765 | |

| OA-21. DEMOBILIZATION | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OA-21. DEMOBILIZATION | | | | | | | | | | | |
| OA-21 04. DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | | | | | |
| OA-21 04 01. Demob Equipment/Facilities<br>Allow 75% of Mob & Setup for Demob.<br>Demob Equipment/Facilities | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| DEMOB OF EQUIPMENT & PERSONNEL | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| DEMOBILIZATION | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| MOBILIZATION/DEMOB & PREPWORK | | | | | 0 | 4,500 | 8,935 | 180 | 0 | 13,615 | |

| OB-91. QA/Safety Monitoring | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|

OB. COE QA/SAFETY MONITORING
This item will cover all costs associated with COE QA/Safety Monitoring for the 1100-EM-2 Area waste sites.
OB-91. QA/Safety Monitoring

OB-91 01. QA/Safety Monitoring
Safety/QA Crew:

| | | | |
|---|---|---|---|
| WHC HPT: | $50/hr x 0 hrs = | $ 0 | (HPT not need for the 1100-EM area, non rad) |
| COE Safety: | $70/hr x 40 hrs = | $2,800 | |
| COE Special Assist. QA: | $50/hr x 8 hrs = | $ 400 | |
| Total cost/week | | $3,200 | |

The duration of remediation actions for the 1100-EM-2 area is estimated at 2 weeks.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| QA/Safety Monitoring | 2.00 | WK | | | 0 | 6,400 | 0 | 0 | 0 | 6,400 | 3200.00 |
| QA/Safety Monitoring | | | | | 0 | 6,400 | 0 | 0 | 0 | 6,400 | |
| COE QA/SAFETY MONITORING | | | | | 0 | 6,400 | 0 | 0 | 0 | 6,400 | |
| HANFORD: REMEDIATION | | | | | 128 | 16,114 | 12,074 | 3,108 | 93,424 | 124,720 | |

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Tue 09 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** CREW BACKUP **

TIME 17:07:20

BACKUP PAGE 1

| SRC | ITEM ID | DESCRIPTION | NO. | UOM | RATE | **** LABOR **** HOURS | COST | **** EQUIP **** HOURS | COST | TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|
| | ULABA | 1 B-laborer + Small Tools | | | PROD = 100% | | | | CREW HOURS = | 40 |
| MIL | B-LABORER F | Laborer (Semi-Skilled) | 0.25 | HR | 23.83 | 0.25 | 5.96 | | | 5.96 |
| MIL | B-LABORER L | Laborer (Semi-Skilled) | 1.00 | HR | 23.33 | 1.00 | 23.33 | | | 23.33 |
| MIL | XMIXX020 E | Small Tools | 0.13 | HR | 1.39 | | | 0.13 | 0.18 | 0.18 |
| | TOTAL | | | | | 1.25 | 29.29 | 0.13 | 0.18 | 29.47 |
| | XXQMG | 1 X-eqoprmed + 1 Front End Ldr, 5-1/4 Cy, Wheel | | | PROD = 100% | | | | CREW HOURS = | 7 |
| MIL | L40CA007 E | LDR,FE,WH, 5-1/4 CY ARTIC,980-C | 1.00 | HR | 58.23 | | | 1.00 | 58.23 | 58.23 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| | TOTAL | | | | | 1.00 | 27.09 | 1.00 | 58.23 | 85.32 |
| | XXQMV | 1 X-eqoprmed + 1 Hydr. Excavator, 1-1/2 Cy, Cwlr | | | PROD = 100% | | | | CREW HOURS = | 23 |
| MIL | H25JD009 E | HYD EXCAV,CRWLR,1.5 CY BKT | 1.00 | HR | 41.74 | | | 1.00 | 41.74 | 41.74 |
| MIL | XMIXX020 E | Small Tools | 0.11 | HR | 1.39 | | | 0.11 | 0.15 | 0.15 |
| MIL | X-LABORER L | Outside Laborer | 1.00 | HR | 23.33 | 1.00 | 23.33 | | | 23.33 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| | TOTAL | | | | | 2.00 | 50.42 | 1.11 | 41.89 | 92.31 |
| | XXQNA | 1 X-eqoprmed + 1 Dozer, Cat D-3C, 65 Hp | | | PROD = 100% | | | | CREW HOURS = | 14 |
| MIL | T10CA001 E | BLADE,POWER ANGLE TILT,FOR D3 | 1.00 | HR | 1.92 | | | 1.00 | 1.92 | 1.92 |
| MIL | T15CA003 E | DOZER,CWLR,D-3C,PS,(ADD BLADE) | 1.00 | HR | 13.94 | | | 1.00 | 13.94 | 13.94 |
| MIL | X-LABORER L | Outside Laborer | 0.50 | HR | 23.33 | 0.50 | 11.67 | | | 11.67 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| MIL | X-EQOPRMEDF | Outside Equip. Op. Medium | 0.25 | HR | 27.59 | 0.25 | 6.90 | | | 6.90 |
| | TOTAL | | | | | 1.75 | 45.65 | 2.00 | 15.86 | 61.52 |

Tue 09 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM2R: HANFORD: REMEDIATION - 1.4.10.1.1.23.02.2.2
1100-EM-2, Waste Site Cost Estimates, REVISED
** LABOR BACKUP **

TIME 17:07:20

BACKUP PAGE 2

| SRC | LABOR ID | DESCRIPTION | BASE | OVERTM | TXS/INS | FRNG | TRVL | RATE | UOM | UPDATE | **** TOTAL **** DEFAULT | HOURS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIL | B-LABORER | Laborer/Helper | 23.33 | 0.0% | 0.0% | 0.00 | 0.00 | 23.33 | HR | 10/15/92 | 22.36 | 50 |
| MIL | X-EQOPRMED | Outside Equipment Oper. Medium | 27.09 | 0.0% | 0.0% | 0.00 | 0.00 | 27.09 | HR | 10/15/92 | 25.84 | 48 |
| MIL | X-LABORER | Outside Laborer | 23.33 | 0.0% | 0.0% | 0.00 | 0.00 | 23.33 | HR | 10/15/92 | 22.36 | 30 |

| SRC | EQUIP ID | DESCRIPTION | DEPR | CAPT | FUEL | FOG | EQ REP | TR WR | TR REP | TOTAL | UOM | ** TOTAL HOURS ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIL | H25JD009 | HYD EXCAV,CRWLR,1.5 CY BKT | 14.34 | 5.11 | 4.87 | 1.8 | 15.56 | | | 41.74 | HR | 23 |
| MIL | L40CA007 | LDR,FE,WH, 5-1/4 CY ARTIC,980-C | 17.46 | 7.15 | 7.97 | 2.3 | 15.74 | 6.54 | 0.98 | 58.23 | HR | 7 |
| MIL | T10CA001 | BLADE,POWER ANGLE TILT,FOR D3 | 0.75 | 0.27 | | 0.0 | 0.82 | | | 1.92 | HR | 14 |
| MIL | T15CA003 | DOZER,CWLR,D-3C,PS,(ADD BLADE) | 3.51 | 1.39 | 2.14 | 0.7 | 6.14 | | | 13.94 | HR | 14 |
| MIL | XMIXX020 | Small Tools | 0.46 | 0.17 | 0.13 | 0.0 | 0.57 | | | 1.39 | HR | 8 |

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9 3 1 2 5 1 4 3 0

** PROJECT SETTINGS **

ESTIMATE TYPE : A-Crews with Auto Reprice

SALES TAX : 7.80%

DATE OF ESCALATION SCHEDULE : 10/01/93

PROJECT DIRECT COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | H | L | E | M | U |
| Rep Width | 8 | 10 | 10 | 12 | 10 |
| Title | MHRS | LABR | EQUIP | MAT | OTHER |

PROJECT INDIRECT COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | O | U | P | B | U |
| Rep Width | 9 | 9 | 9 | 9 | 9 |
| Title | FOOH | HOOH | PROF | BOND | B&O TAX |

PROJECT OWNER COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | U | U | X | X | X |
| Rep Width | 12 | 12 | 0 | 0 | 0 |
| Title | S & A | CONTG | (Unused) | (Unused) | (Unused) |

PROJECT BREAKDOWN

| PROJECT ID | Length | Trail Sep | Level Title | 2nd View Order |
|---|---|---|---|---|
| Level 1 ID : | 2 | - | WastSite | 0 |
| Level 2 ID : | 2 | | Feature | 0 |
| Level 3 ID : | 2 | | SubFeat | 0 |
| Level 4 ID : | 2 | | CostL1 | 0 |
| Level 5 ID : | 4 | | CostL2 | 0 |
| Level 6 ID : | 4 | | CostL3 | 0 |

Owner Cost Level : 1

** PROJECT SETTINGS **

---

2ND VIEW COLUMNS
Quantity Column Width : 10

| | | | | | |
|---|---|---|---|---|---|
| Col Type | X | X | X | X | X |
| Rep Width | 0 | 0 | 0 | 0 | 0 |
| Title | (Unused) | (Unused) | (Unused) | (Unused) | (Unused) |
| Shadow | X | X | X | X | X |

DETAIL REPORT FORMATTING

PAGE OPTIONS
Page Break Levels : 2
Table of Contents Levels : 3

| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| ROW OPTIONS | Print Titles at Levels : | | Y | Y | Y | Y | Y | N | |
| | Print Totals at Levels : | | Y | Y | Y | Y | Y | N | |
| | Print Notes at Levels : | Y | Y | Y | Y | Y | Y | Y | Y |
| | Print Unit Cost Row : | Y | | | | | | | |
| | Print Page Footer : | N | | | | | | | |
| | Show Cost Codes : | Y | | | | | | | |
| COLUMNS OPTIONS | Print Crew Id : | Y | | | | | | | |
| | Crew Output : | Y | | | | | | | |
| | Unit Cost : | Y | | | | | | | |
| UPB TITLES | No. of Levels to Print : | 0 | | | | | | | |
| | Bracket Titles With : | - : | | | | | | | |
| | Include titles Notes : | Y | | | | | | | |

** PROJECT SETTINGS **

OTHER REPORT FORMATTING

COLUMN TITLES FOR SUMMARY REPORTS

Column 1 FOOH : JOB OFFICE OVERHEAD
Column 2 HOOH : HOME OFFICE OVERHEAD
Column 3 PROF : PROFIT
Column 4 BOND : PERFORMANCE BOND
Column 5 B&O TAX : B & O AND OTHER TAXES

Column 1 S & A : S & A
Column 2 CONTG : CONTINGENCY
Column 3 (Unused) :
Column 4 (Unused) :
Column 5 (Unused) :

STANDARD COLUMN WIDTHS

Quantity Columns : 10
Total cost Columns : 12
Unit Cost Columns : 12

SUMMARY FEATURES

Round Totals Column : T-Tens
Contingency Notes : Yes
Show Project Totals : Yes

REPORT SELECTION

Project Settings : Y
Contractor Settings : Y
Link Listing : N

Measurement Units : Original

| | REPORT FORMAT TYPE | | | FOR LEVEL (S) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Direct | Indirect | Owner | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Detail : | Y | | | | | | | | | |
| Project : | N | Y | Y | | Y | Y | N | Y | N | N |
| Contractor : | Y | Y | | N | Y | N | N | N | N | N |
| Division : | N | N | N | Y | N | N | N | N | N | N |
| System : | N | N | N | Y | N | N | N | N | N | N |
| 2nd View : | N | | | | | | | | | |
| Crew : | Y | | | Y | N | N | N | N | N | N |
| Labor : | Y | | | | | | | | | |
| Equipment : | Y | | | | | | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| Project Information Record | | | | | | | |
| A Steam Pad Tank #2 | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| A-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| A-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| A-02 06 01 SURFACE SOIL | | | | | | | |
| A-02 06 01 01 Soil Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| A-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| A-10 02 TANK REMOVAL | | | | | | | |
| A-10 02 01 FG UST Tank Excavation & Removal | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| A-10 02 02 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 30.00 | | | | |
| A-10 02 03 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| A-10 02 04 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| A-10 02 05 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| B Steam Pad Tank #3 | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| B-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| B-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| B-02 06 01 SURFACE SOIL | | | | | | | |
| B-02 06 01 01 Soil Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| B-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| B-10 02 TANK REMOVAL | | | | | | | |
| B-10 02 01 FG UST Tank Excavation & Removal | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| B-10 02 02 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 30.00 | | | | |
| B-10 02 03 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| B-10 02 04 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| B-10 02 05 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| C 700 Area Waste Solvent Tank | | | | | | | |
| S & A | P | | 0.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| D Tar Flow | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| D-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| D-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| D-02 06 01 SURFACE SOIL | | | | | | | |
| D-02 06 01 01 Soil/Waste Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| D-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| D-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| D-08 01 EXCAVATION | | | | | | | |
| D-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 30.00 | | | | |
| D-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| D-08 01 03 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| D-08 01 04 Site Re-grading | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| E Stained Sands | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |
| E-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| E-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| E-02 06 01 SURFACE SOIL | | | | | | | |
| E-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| E-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| E-08 01 EXCAVATION | | | | | | | |
| E-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 30.00 | | | | |
| E-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| E-08 01 03 PPEquip, Modified Class D | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| E-08 01 04 Site Re-grading | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| F Neptunes Potato & Separator Tank | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |
| F-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| F-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| F-02 06 01 SURFACE SOIL | | | | | | | |
| F-02 06 01 01 Soil/Waste Samples & Analyses | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| F-02 06 01 02 Soil Gas Survey (Contingent) | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| G Bus Lot Dry Wells (5) | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| G-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| G-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| G-02 06 01 SURFACE SOIL | | | | | | | |
| G-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| G-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| G-08 01 EXCAVATION | | | | | | | |
| G-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 30.00 | | | | |
| G-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| G-08 01 03 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| G-08 01 04 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | | | | | | |
| 0A-01 03 02 01 Personnel Decon Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A-01 03 02 02 Equip/Vehicle Decon Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| 0A-21 DEMOBILIZATION | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| 0B COE QA/SAFETY MONITORING | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | |
| 0B-91 01 QA/Safety Monitoring | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | O | | | | | |

** CONTRACTOR SETTINGS **

| | | AMOUNT | PCT | PCT S | RISK | DIFF | SIZE | PERIOD | INVEST | ASSIST | SUBCON |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AA REMEDIAL GENERAL CONTRACTOR | | | | | | | | | | | |
| JOB OFFICE OVERHEAD | P | | 15.00 | | | | | | | | |
| HOME OFFICE OVERHEAD | P | | 5.00 | | | | | | | | |
| PROFIT | P | | 8.00 | | | | | | | | |
| PERFORMANCE BOND | C | | | (Class: B) | | | | | | | |
| B & O AND OTHER TAXES | P | | 1.00 | | | | | | | | |
| GS Geophysical Survey SubContractor | | | | | | | | | | | |
| JOB OFFICE OVERHEAD | P | | 0.00 | | | | | | | | |
| HOME OFFICE OVERHEAD | P | | 0.00 | | | | | | | | |
| PROFIT | P | | 0.00 | | | | | | | | |
| PERFORMANCE BOND | P | | 0.00 | | | | | | | | |
| B & O AND OTHER TAXES | P | | 0.00 | | | | | | | | |
| SG Soil Gas Sampling SubContractor | | | | | | | | | | | |
| JOB OFFICE OVERHEAD | P | | 0.00 | | | | | | | | |
| HOME OFFICE OVERHEAD | P | | 0.00 | | | | | | | | |
| PROFIT | P | | 0.00 | | | | | | | | |
| PERFORMANCE BOND | P | | 0.00 | | | | | | | | |
| B & O AND OTHER TAXES | P | | 0.00 | | | | | | | | |

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9413210.1474

# 1100-EM-3 OPERABLE UNIT OFFSITE DISPOSAL ALTERNATIVE COST ESTIMATE

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9513293141472

HANFORD: REMEDIATION
1.4.10.1.1.23.03.2.2
1100-EM-3 OPERABLE UNIT
WASTE SITE COST ESTIMATES
*Revised Quantities/Sites*

Designed By:
Estimated By:

Prepared By:
USACE/CENPW COST ENGR BRANCH

Date: 03/10/93
Est Construction Time: 40 Days

M C A C E S G O L D E D I T I O N
Composer GOLD Copyright (C) 1985, 1988, 1990, 1992
by Building Systems Design, Inc.
Release 5.20J

HANFORD: 1.4.10.1.1.23.02.2.2 1100-EM-3 Cost Estimate Considerations

This is the structure for the Subproject and Operable Unit remediation cost estimates. The Work Breakdown Structure (WBS) is based on the DOE-HQ WBS and a site specific remediation WBS being developed for Hanford.

"1.4.10.1.1" is DOE, Richland Operations, Hanford Environmental Restoration, Remedial Action.
".23" is the Subproject (ie. 1100-EM)
".02" is the Operable Unit
".2" is Remediation
".2" is Remedial Action

In this MCACES estimate project breakdown, the first level is the individual Waste Site. The numbers for the next two to three levels (2nd thru 4th) are from the Hanford Remedial Action WBS. The fourth thru sixth levels are user defined, being either a Title or cost detail.

The Price Level for the estimate dollars is FY 93. S & A is estimated at 20%, and consists of NPW's Project Management @ 5%, Construction Management @ 10%, and Engineering During Construction @ 5%. See Contingency Notes (Title Page 3) for explanation of Contingency percentages. Contingency was applied at Level 1 & Level 3/4 in the estimate, to allow use of different percentages for the various types of work (see Settings for which percentage was applied). See Detail Page 1 for explanation of Contractor Indirect percentages used. E&D and Escalation will be added by the NPW-Hanford Project Manager.

List of Waste Sites: 1100-EM-3

1234 Storage Yard (No Remedial Action Planned)
1240 Suspect Spill Area
JA Jones Yard, Hazardous Waste Staging Area (No Remedial Action Planned)
Unplanned Release (of mixed waste) (No Remedial Action Planned)
1208 Sandblast Area
JA Jones Oil Storage Tanks (2), Unknown volume
1262 Transformer Pad
1262 Solvent Tanks (4), Last contained Carbon Tetrachloride, 20 - 1,125 Gal
1240 Hazardous Waste Staging Area (No Remedial Action Planned)
1240 French Drain
1218 Service Station
1212/1227 Suspect Battery Acid Disposal Area
1226 Suspect Waste Oil Disposal Area
JA Jones Steam Plant Drain Pad

EM-3 Monitoring Wells (5 @ 70 LF)

THIS estimate is a revision of the January estimate, based on new quantities supplied by NPW-EN-EE, 3/9/93.

1. Contingency of 15%-25% is normal for this level of detail, percentage used based on a high to low confidence in numbers. Use as overall contingency, applied at Level 1, or at lower levels as needed to better define variable risks/difficulties.

2. Contingency is based on uncertainty of the amount of time required to do the work represented in the estimate, etc.

3. Contingency is based on the uncertainty of the quantities presented.

4. Contingency based on the unit costs obtained by Vendor and therefore may be different by the time work will actually be accomplished.

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9 4 7 1 4 3 6 2 1 5 6

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Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** PROJECT OWNER SUMMARY - LEVEL 1 (Rounded to 1000's) **

TIME 12:32:47
SUMMARY PAGE 1

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| OA | MOBILIZATION/DEMOB & PREPWORK | | 18,000 | 4,000 | 5,000 | 26,000 | | |
| OB | COE QA/SAFETY MONITORING | | 25,000 | 5,000 | 6,000 | 37,000 | | 2 |
| OC | EM-03 Monitoring Wells | | 434,000 | 87,000 | 104,000 | 626,000 | | 2 |
| AA | 1240 Suspect Spill Area | | 5,000 | 1,000 | 2,000 | 8,000 | | |
| BB | 1240 French Drain | | 11,000 | 2,000 | 3,000 | 16,000 | | |
| CC | 1212/1227 Suspect Battery Acid | | 106,000 | 21,000 | 32,000 | 159,000 | | |
| DD | 1218 Service Station | | 14,000 | 3,000 | 4,000 | 20,000 | | |
| EE | 1208 Sandblast Area | | 92,000 | 18,000 | 28,000 | 138,000 | | |
| FF | JA Jones Oil Storage Tanks (2) | | 25,000 | 5,000 | 7,000 | 38,000 | | |
| GG | 1262 Transformer Pad | | 7,000 | 1,000 | 2,000 | 11,000 | | |
| HH | 1262 Solvents Tanks (4) | | 28,000 | 6,000 | 8,000 | 42,000 | | |
| II | 1226 Suspect Waste Oil Disposal | | 116,000 | 23,000 | 35,000 | 175,000 | | |
| JJ | JA Jones Steam Plant Drain Pad | | 5,000 | 1,000 | 2,000 | 8,000 | | |
| | HANFORD: REMEDIATION | | 889,000 | 178,000 | 237,000 | 1,304,000 | | |

Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** PROJECT OWNER SUMMARY - LEVEL 2 (Rounded to 10's) **

TIME 12:20:10
SUMMARY PAGE 2

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| OA MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| OA-01 MOBILIZATION AND PREPATORY WORK | | 10,310 | 2,060 | 2,880 | 15,260 | | |
| OA-21 DEMOBILIZATION | | 7,770 | 1,550 | 1,860 | 11,190 | | |
| MOBILIZATION/DEMOB & PREPWORK | | 18,080 | 3,620 | 4,750 | 26,450 | | |
| OB COE QA/SAFETY MONITORING | | | | | | | |
| OB-91 QA/Safety Monitoring | | 25,500 | 5,100 | 6,120 | 36,720 | | |
| COE QA/SAFETY MONITORING | | 25,500 | 5,100 | 6,120 | 36,720 | | 2 |
| OC EM-03 Monitoring Wells | | | | | | | |
| OC-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 434,400 | 86,880 | 104,260 | 625,540 | | |
| EM-03 Monitoring Wells | | 434,400 | 86,880 | 104,260 | 625,540 | | 2 |
| AA 1240 Suspect Spill Area | | | | | | | |
| AA-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,330 | 470 | 560 | 3,360 | | |
| AA-08 SOLIDS COLLECTION & CONTAINMENT | | 3,140 | 630 | 950 | 4,720 | | |
| 1240 Suspect Spill Area | | 5,470 | 1,090 | 1,510 | 8,080 | | |
| BB 1240 French Drain | | | | | | | |
| BB-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 710 | 140 | 170 | 1,030 | | |
| BB-08 SOLIDS COLLECTION & CONTAINMENT | | 10,240 | 2,050 | 3,020 | 15,310 | | |
| 1240 French Drain | | 10,960 | 2,190 | 3,190 | 16,340 | | |
| CC 1212/1227 Suspect Battery Acid | | | | | | | |
| CC-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,830 | 570 | 680 | 4,080 | | |
| CC-08 SOLIDS COLLECTION & CONTAINMENT | | 103,250 | 20,650 | 31,100 | 155,000 | | |
| 1212/1227 Suspect Battery Acid | | 106,080 | 21,220 | 31,780 | 159,070 | | |
| DD 1218 Service Station | | | | | | | |
| DD-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,940 | 390 | 490 | 2,820 | | |
| DD-10 TANKS/MISC DEMOLITION & REMOVAL | | 11,810 | 2,360 | 3,490 | 17,660 | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| 1218 Service Station | | 13,750 | 2,750 | 3,980 | 20,480 | | |
| EE 1208 Sandblast Area | | | | | | | |
| EE-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,420 | 480 | 580 | 3,490 | | |
| EE-08 SOLIDS COLLECTION & CONTAINMENT | | 89,790 | 17,960 | 26,950 | 134,700 | | |
| 1208 Sandblast Area | | 92,210 | 18,440 | 27,530 | 138,190 | | |
| FF JA Jones Oil Storage Tanks (2) | | | | | | | |
| FF-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,130 | 430 | 560 | 3,120 | | |
| FF-10 TANKS/MISC DEMOLITION & REMOVAL | | 23,350 | 4,670 | 6,900 | 34,920 | | |
| JA Jones Oil Storage Tanks (2) | | 25,480 | 5,100 | 7,460 | 38,040 | | |
| GG 1262 Transformer Pad | | | | | | | |
| GG-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 780 | 160 | 190 | 1,130 | | |
| GG-08 SOLIDS COLLECTION & CONTAINMENT | | 6,420 | 1,280 | 1,870 | 9,580 | | |
| 1262 Transformer Pad | | 7,210 | 1,440 | 2,060 | 10,710 | | |
| HH 1262 Solvents Tanks (4) | | | | | | | |
| HH-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,820 | 560 | 680 | 4,050 | | |
| HH-10 TANKS/MISC DEMOLITION & REMOVAL | | 25,520 | 5,100 | 7,490 | 38,120 | | |
| 1262 Solvents Tanks (4) | | 28,340 | 5,670 | 8,170 | 42,180 | | |
| II 1226 Suspect Waste Oil Disposal | | | | | | | |
| II-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,160 | 430 | 520 | 3,120 | | |
| II-08 SOLIDS COLLECTION & CONTAINMENT | | 114,190 | 22,840 | 34,360 | 171,400 | | |
| 1226 Suspect Waste Oil Disposal | | 116,360 | 23,270 | 34,880 | 174,510 | | |
| JJ JA Jones Steam Plant Drain Pad | | | | | | | |
| JJ-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 5,260 | 1,050 | 1,540 | 7,860 | | |
| JA Jones Steam Plant Drain Pad | | 5,260 | 1,050 | 1,540 | 7,860 | | |
| HANFORD: REMEDIATION | | 889,110 | 177,820 | 237,230 | 1,304,160 | | |

Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** PROJECT OWNER SUMMARY - LEVEL 4 (Rounded to 10's) **

TIME 12:20:10
SUMMARY PAGE 4

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | 3,500 | 700 | 840 | 5,040 | | 1,3 |
| MOB OF EQUIPMENT & PERSONNEL | | 3,500 | 700 | 840 | 5,040 | | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | 100.00 HR | 3,780 | 760 | 1,140 | 5,680 | 56.77 | 2,3 |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | 3,030 | 610 | 910 | 4,540 | | |
| SETUP/CONSTRUCT TEMP FACILITIES | | 6,810 | 1,360 | 2,040 | 10,220 | | |
| MOBILIZATION AND PREPATORY WORK | | 10,310 | 2,060 | 2,880 | 15,260 | | |
| 0A-21 DEMOBILIZATION | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | 7,770 | 1,550 | 1,860 | 11,190 | | 1,2 |
| DEMOB OF EQUIPMENT & PERSONNEL | | 7,770 | 1,550 | 1,860 | 11,190 | | |
| DEMOBILIZATION | | 7,770 | 1,550 | 1,860 | 11,190 | | |
| MOBILIZATION/DEMOB & PREPWORK | | 18,080 | 3,620 | 4,750 | 26,450 | | |
| 0B COE QA/SAFETY MONITORING | | | | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | |
| 0B-91 01 QA/Safety Monitoring | | | | | | | |
| QA/Safety Monitoring | 6.00 WK | 25,500 | 5,100 | 6,120 | 36,720 | 6119.64 | |
| QA/Safety Monitoring | | 25,500 | 5,100 | 6,120 | 36,720 | | |
| COE QA/SAFETY MONITORING | | 25,500 | 5,100 | 6,120 | 36,720 | | 2 |
| 0C EM-03 Monitoring Wells | | | | | | | |
| 0C-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| 0C-02 04 MONITORING WELLS | | | | | | | |
| 0C-02 04 01 WELL DRILLING & CONSTRUCTION | 5.00 EA | 395,090 | 79,020 | 94,820 | 568,940 | 113787.02 | |
| MONITORING WELLS | | 395,090 | 79,020 | 94,820 | 568,940 | | |
| 0C-02 05 SAMPLING S.W./GROUND WATER/L.W. | | | | | | | |
| 0C-02 05 02 GROUND WATER Sampling | 20.00 EA | 39,310 | 7,860 | 9,430 | 56,610 | 2830.33 | 1,4 |
| SAMPLING S.W./GROUND WATER/L.W. | | 39,310 | 7,860 | 9,430 | 56,610 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 434,400 | 86,880 | 104,260 | 625,540 | | |
| EM-03 Monitoring Wells | | 434,400 | 86,880 | 104,260 | 625,540 | | 2 |
| AA 1240 Suspect Spill Area | | | | | | | |
| AA-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| AA-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| AA-02 06 01 SURFACE SOIL | | 2,330 | 470 | 560 | 3,360 | | |
| SAMPLING SOIL, SED & SOLID WASTE | | 2,330 | 470 | 560 | 3,360 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 2,330 | 470 | 560 | 3,360 | | |
| AA-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| AA-08 01 EXCAVATION | | | | | | | |
| AA-08 01 01 Excav/Load Contaminated Soils | 5.00 CY | 210 | 40 | 100 | 350 | 70.61 | 2,3 |
| AA-08 01 02 Transport Cont. Soils, Arlington | 5.00 CY | 2,260 | 450 | 680 | 3,380 | 676.55 | 3,4 |
| AA-08 01 03 PPEquip, Modified Class D | 0.50 DAY | 510 | 100 | 120 | 740 | 1471.88 | 1,2 |
| AA-08 01 04 Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| EXCAVATION | | 3,140 | 630 | 950 | 4,720 | | |
| SOLIDS COLLECTION & CONTAINMENT | | 3,140 | 630 | 950 | 4,720 | | |
| 1240 Suspect Spill Area | | 5,470 | 1,090 | 1,510 | 8,080 | | |
| BB 1240 French Drain | | | | | | | |
| BB-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| BB-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| BB-02 06 01 | SURFACE SOIL | | 710 | 140 | 170 | 1,030 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 710 | 140 | 170 | 1,030 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 710 | 140 | 170 | 1,030 | | |
| BB-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| BB-08 01 | EXCAVATION | | | | | | | |
| BB-08 01 01 | Excav/Load Contaminated Soils | 20.00 CY | 170 | 30 | 60 | 270 | 13.28 | 2,3 |
| BB-08 01 02 | Transport Cont. Soils, Arlington | 20.00 CY | 8,890 | 1,780 | 2,670 | 13,330 | 666.59 | 3,4 |
| BB-08 01 03 | PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1471.88 | 1,2 |
| BB-08 01 04 | Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| | EXCAVATION | | 10,240 | 2,050 | 3,020 | 15,310 | | |
| | SOLIDS COLLECTION & CONTAINMENT | | 10,240 | 2,050 | 3,020 | 15,310 | | |
| | 1240 French Drain | | 10,960 | 2,190 | 3,190 | 16,340 | | |
| CC | 1212/1227 Suspect Battery Acid | | | | | | | |
| CC-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| CC-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| CC-02 06 01 | SURFACE SOIL | | 2,830 | 570 | 680 | 4,080 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 2,830 | 570 | 680 | 4,080 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 2,830 | 570 | 680 | 4,080 | | |
| CC-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| CC-08 01 | EXCAVATION | | | | | | | |
| CC-08 01 01 | Excav/Load Contaminated Soils | 250.00 CY | 840 | 170 | 400 | 1,420 | 5.66 | 2,3 |
| CC-08 01 02 | Transport Cont. Soils, Arlington | 250.00 CY | 101,740 | 20,350 | 30,520 | 152,600 | 610.41 | 3,4 |
| CC-08 01 03 | PPEquip, Modified Class D | 0.50 DAY | 510 | 100 | 120 | 740 | 1471.88 | 1,2 |
| CC-08 01 04 | Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| | EXCAVATION | | 103,250 | 20,650 | 31,100 | 155,000 | | |

| | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|
| SOLIDS COLLECTION & CONTAINMENT | | 103,250 | 20,650 | 31,100 | 155,000 | | |
| 1212/1227 Suspect Battery Acid | | 106,080 | 21,220 | 31,780 | 159,070 | | |
| DD 1218 Service Station | | | | | | | |
| DD-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| DD-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| DD-02 06 01 SURFACE SOIL | | 1,570 | 310 | 380 | 2,260 | | |
| SAMPLING SOIL, SED & SOLID WASTE | | 1,570 | 310 | 380 | 2,260 | | |
| DD-02 11 GEOTECHNICAL TESTING | | | | | | | |
| DD-02 11 01 Geophysical Survey | 1.00 EA | 370 | 70 | 110 | 560 | 557.78 | 2,4 |
| GEOTECHNICAL TESTING | | 370 | 70 | 110 | 560 | | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,940 | 390 | 490 | 2,820 | | |
| DD-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| DD-10 02 TANK REMOVAL | | | | | | | |
| DD-10 02 01 UST Tank Excavation & Removal | 1.00 EA | 1,400 | 280 | 420 | 2,100 | 2099.36 | 2,3 |
| DD-10 02 02 Excav/Load Contaminated Soils | 20.00 CY | 170 | 30 | 60 | 270 | 13.28 | 2,3 |
| DD-10 02 03 Transport Cont. Soils, Arlington | 20.00 CY | 8,890 | 1,780 | 2,670 | 13,330 | 666.59 | 3,4 |
| DD-10 02 04 PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1471.88 | 1,2 |
| DD-10 02 05 Site Re-grading | 0.50 DAY | 330 | 70 | 100 | 490 | 980.37 | 2,3 |
| TANK REMOVAL | | 11,810 | 2,360 | 3,490 | 17,660 | | |
| TANKS/MISC DEMOLITION & REMOVAL | | 11,810 | 2,360 | 3,490 | 17,660 | | |
| 1218 Service Station | | 13,750 | 2,750 | 3,980 | 20,480 | | |
| EE 1208 Sandblast Area | | | | | | | |
| EE-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| EE-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| EE-02 06 01 SURFACE SOIL | | 2,420 | 480 | 580 | 3,490 | | |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| | SAMPLING SOIL, SED & SOLID WASTE | | 2,420 | 480 | 580 | 3,490 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 2,420 | 480 | 580 | 3,490 | | |
| EE-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| EE-08 01 | EXCAVATION | | | | | | | |
| EE-08 01 01 | Excav/Load Contaminated Soils | 210.00 CY | 1,790 | 360 | 640 | 2,790 | 13.28 | 2,3 |
| EE-08 01 02 | Transport Cont. Soils, Arlington | 210.00 CY | 85,820 | 17,160 | 25,750 | 128,730 | 612.99 | 3,4 |
| EE-08 01 03 | PPEquip, Modified Class D | 1.50 DAY | 1,530 | 310 | 370 | 2,210 | 1471.88 | 1,2 |
| EE-08 01 04 | Site Re-grading | | 650 | 130 | 200 | 980 | | 2,3 |
| | EXCAVATION | | 89,790 | 17,960 | 26,950 | 134,700 | | |
| | SOLIDS COLLECTION & CONTAINMENT | | 89,790 | 17,960 | 26,950 | 134,700 | | |
| | 1208 Sandblast Area | | 92,210 | 18,440 | 27,530 | 138,190 | | |
| FF | JA Jones Oil Storage Tanks (2) | | | | | | | |
| FF-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| FF-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| FF-02 06 01 | SURFACE SOIL | | 1,390 | 280 | 330 | 2,000 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 1,390 | 280 | 330 | 2,000 | | |
| FF-02 11 | GEOTECHNICAL TESTING | | | | | | | |
| FF-02 11 01 | Geophysical Survey | 2.00 EA | 740 | 150 | 220 | 1,120 | 557.78 | 2,4 |
| | GEOTECHNICAL TESTING | | 740 | 150 | 220 | 1,120 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 2,130 | 430 | 560 | 3,120 | | |
| FF-10 | TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| FF-10 02 | TANK REMOVAL | | | | | | | |
| FF-10 02 01 | UST Tank Excavation & Removal | 2.00 EA | 3,460 | 690 | 1,040 | 5,190 | 2597.38 | 2,3 |
| FF-10 02 02 | Excav/Load Contaminated Soils | 40.00 CY | 340 | 70 | 120 | 530 | 13.28 | 2,3 |
| FF-10 02 03 | Transport Cont. Soils, Arlington | 40.00 CY | 16,850 | 3,370 | 5,050 | 25,270 | 631.73 | 3,4 |
| FF-10 02 04 | PPEquip, Modified Class D | 2.00 DAY | 2,040 | 410 | 490 | 2,940 | 1471.88 | 1,2 |
| FF-10 02 05 | Site Re-grading | 1.00 DAY | 650 | 130 | 200 | 980 | 980.37 | 2,3 |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| | TANK REMOVAL | | 23,350 | 4,670 | 6,900 | 34,920 | | |
| | TANKS/MISC DEMOLITION & REMOVAL | | 23,350 | 4,670 | 6,900 | 34,920 | | |
| | JA Jones Oil Storage Tanks (2) | | 25,480 | 5,100 | 7,460 | 38,040 | | |
| GG 1262 Transformer Pad | | | | | | | | |
| GG-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | |
| GG-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | |
| GG-02 06 01 | SURFACE SOIL | | 780 | 160 | 190 | 1,130 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 780 | 160 | 190 | 1,130 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 780 | 160 | 190 | 1,130 | | |
| GG-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | |
| GG-08 01 EXCAVATION | | | | | | | | |
| GG-08 01 01 | Excav/Load Cont. Soil & Conc Pad | 10.00 CY | 90 | 20 | 30 | 140 | 14.48 | 2,3 |
| GG-08 01 02 | Transport Cont. Soils, Arlington | 10.00 CY | 4,980 | 1,000 | 1,490 | 7,470 | 747.11 | 3,4 |
| GG-08 01 03 | PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1471.88 | 1,2 |
| GG-08 01 04 | Site Re-grading | | 330 | 70 | 100 | 490 | | 2,3 |
| | EXCAVATION | | 6,420 | 1,280 | 1,870 | 9,580 | | |
| | SOLIDS COLLECTION & CONTAINMENT | | 6,420 | 1,280 | 1,870 | 9,580 | | |
| | 1262 Transformer Pad | | 7,210 | 1,440 | 2,060 | 10,710 | | |
| HH 1262 Solvents Tanks (4) | | | | | | | | |
| HH-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | |
| HH-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | |
| HH-02 06 01 | SURFACE SOIL | | 2,820 | 560 | 680 | 4,050 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 2,820 | 560 | 680 | 4,050 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 2,820 | 560 | 680 | 4,050 | | |
| HH-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| HH-10 02 | TANK REMOVAL | | | | | | | |
| HH-10 02 01 | UST Tank Excavation & Removal | 4.00 EA | 4,620 | 920 | 1,390 | 6,930 | 1731.59 | 2,3 |
| HH-10 02 02 | Excav/Load Contaminated Soils | 40.00 CY | 340 | 70 | 120 | 530 | 13.28 | 2,3 |
| HH-10 02 03 | Transport Cont. Soils, Arlington | 40.00 CY | 16,850 | 3,370 | 5,050 | 25,270 | 631.73 | 3,4 |
| HH-10 02 04 | PPEquip, Modified Class D | 3.00 DAY | 3,070 | 610 | 740 | 4,420 | 1471.88 | 1,2 |
| HH-10 02 05 | Site Re-grading | 1.00 DAY | 650 | 130 | 200 | 980 | 980.37 | 2,3 |
| | TANK REMOVAL | | 25,520 | 5,100 | 7,490 | 38,120 | | |
| | TANKS/MISC DEMOLITION & REMOVAL | | 25,520 | 5,100 | 7,490 | 38,120 | | |
| | 1262 Solvents Tanks (4) | | 28,340 | 5,670 | 8,170 | 42,180 | | |
| II | 1226 Suspect Waste Oil Disposal | | | | | | | |
| II-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| II-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| II-02 06 01 | SURFACE SOIL | | 2,160 | 430 | 520 | 3,120 | | |
| | SAMPLING SOIL, SED & SOLID WASTE | | 2,160 | 430 | 520 | 3,120 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 2,160 | 430 | 520 | 3,120 | | |
| II-08 | SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| II-08 01 | EXCAVATION | | | | | | | |
| II-08 01 01 | Excav/Load Contaminated Soils | 275.00 CY | 930 | 190 | 450 | 1,560 | 5.66 | 2,3 |
| II-08 01 02 | Transport Cont. Soils, Arlington | 275.00 CY | 112,080 | 22,420 | 33,620 | 168,120 | 611.35 | 3,4 |
| II-08 01 03 | PPEquip, Modified Class D | 1.00 DAY | 1,020 | 200 | 250 | 1,470 | 1471.88 | 1,2 |
| II-08 01 04 | Site Re-grading | | 160 | 30 | 50 | 250 | | 2,3 |
| | EXCAVATION | | 114,190 | 22,840 | 34,360 | 171,400 | | |
| | SOLIDS COLLECTION & CONTAINMENT | | 114,190 | 22,840 | 34,360 | 171,400 | | |
| | 1226 Suspect Waste Oil Disposal | | 116,360 | 23,270 | 34,880 | 174,510 | | |
| JJ | JA Jones Steam Plant Drain Pad | | | | | | | |
| JJ-02 | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| JJ-02 06 | SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| JJ-02 06 01 | SURFACE SOIL | | 610 | 120 | 150 | 880 | | |

| | | QUANTITY UOM | CONTRACT | S & A | CONTG | TOTAL COST | UNIT COST | NOTES |
|---|---|---|---|---|---|---|---|---|
| | SAMPLING SOIL, SED & SOLID WASTE | | 610 | 120 | 150 | 880 | | |
| JJ-02 11 | GEOTECHNICAL TESTING | | | | | | | |
| JJ-02 11 01 | Geophysical Survey | 1.00 EA | 4,650 | 930 | 1,390 | 6,970 | 6972.24 | 2,4 |
| | GEOTECHNICAL TESTING | | 4,650 | 930 | 1,390 | 6,970 | | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 5,260 | 1,050 | 1,540 | 7,860 | | |
| | JA Jones Steam Plant Drain Pad | | 5,260 | 1,050 | 1,540 | 7,860 | | |
| | HANFORD: REMEDIATION | | 889,110 | 177,820 | 237,230 | 1,304,160 | | |

Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** PROJECT INDIRECT SUMMARY - LEVEL 1 (Rounded to 10's) **



| | | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| OA | MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 150 | 180 | 18,080 | |
| OB | COE QA/SAFETY MONITORING | | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | |
| OC | EM-03 Monitoring Wells | | 327,100 | 49,070 | 18,810 | 31,600 | 3,530 | 4,300 | 434,400 | |
| AA | 1240 Suspect Spill Area | | 4,120 | 620 | 240 | 400 | 40 | 50 | 5,470 | |
| BB | 1240 French Drain | | 8,250 | 1,240 | 470 | 800 | 90 | 110 | 10,960 | |
| CC | 1212/1227 Suspect Battery Acid | | 79,880 | 11,980 | 4,590 | 7,720 | 860 | 1,050 | 106,080 | |
| DD | 1218 Service Station | | 10,350 | 1,550 | 600 | 1,000 | 110 | 140 | 13,750 | |
| EE | 1208 Sandblast Area | | 69,440 | 10,420 | 3,990 | 6,710 | 750 | 910 | 92,210 | |
| FF | JA Jones Oil Storage Tanks (2) | | 19,190 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,480 | |
| GG | 1262 Transformer Pad | | 5,430 | 810 | 310 | 520 | 60 | 70 | 7,210 | |
| HH | 1262 Solvents Tanks (4) | | 21,340 | 3,200 | 1,230 | 2,060 | 230 | 280 | 28,340 | |
| II | 1226 Suspect Waste Oil Disposal | | 87,620 | 13,140 | 5,040 | 8,460 | 950 | 1,150 | 116,360 | |
| JJ | JA Jones Steam Plant Drain Pad | | 3,960 | 590 | 230 | 380 | 40 | 50 | 5,260 | |
| | HANFORD: REMEDIATION | | 669,480 | 100,420 | 38,500 | 64,670 | 7,230 | 8,800 | 889,110 | |
| | S & A | | | | | | | | 177,820 | |
| | SUBTOTAL | | | | | | | | 1,066,930 | |
| | CONTINGENCY | | | | | | | | 237,230 | |
| | TOTAL INCL OWNER COSTS | | | | | | | | 1,304,160 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | 7,770 | 1,160 | 450 | 750 | 80 | 100 | 10,310 | |
| 0A-21 DEMOBILIZATION | | 5,850 | 880 | 340 | 570 | 60 | 80 | 7,770 | |
| MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 150 | 180 | 18,080 | |
| 0B COE QA/SAFETY MONITORING | | | | | | | | | |
| 0B-91 QA/Safety Monitoring | | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | |
| COE QA/SAFETY MONITORING | | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | |
| 0C EM-03 Monitoring Wells | | | | | | | | | |
| 0C-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 327,100 | 49,070 | 18,810 | 31,600 | 3,530 | 4,300 | 434,400 | |
| EM-03 Monitoring Wells | | 327,100 | 49,070 | 18,810 | 31,600 | 3,530 | 4,300 | 434,400 | |
| AA 1240 Suspect Spill Area | | | | | | | | | |
| AA-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,760 | 260 | 100 | 170 | 20 | 20 | 2,330 | |
| AA-08 SOLIDS COLLECTION & CONTAINMENT | | 2,360 | 350 | 140 | 230 | 30 | 30 | 3,140 | |
| 1240 Suspect Spill Area | | 4,120 | 620 | 240 | 400 | 40 | 50 | 5,470 | |
| BB 1240 French Drain | | | | | | | | | |
| BB-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 540 | 80 | 30 | 50 | 10 | 10 | 710 | |
| BB-08 SOLIDS COLLECTION & CONTAINMENT | | 7,710 | 1,160 | 440 | 750 | 80 | 100 | 10,240 | |
| 1240 French Drain | | 8,250 | 1,240 | 470 | 800 | 90 | 110 | 10,960 | |
| CC 1212/1227 Suspect Battery Acid | | | | | | | | | |
| CC-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,130 | 320 | 120 | 210 | 20 | 30 | 2,830 | |
| CC-08 SOLIDS COLLECTION & CONTAINMENT | | 77,750 | 11,660 | 4,470 | 7,510 | 840 | 1,020 | 103,250 | |
| 1212/1227 Suspect Battery Acid | | 79,880 | 11,980 | 4,590 | 7,720 | 860 | 1,050 | 106,080 | |
| DD 1218 Service Station | | | | | | | | | |
| DD-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,460 | 220 | 80 | 140 | 20 | 20 | 1,940 | |
| DD-10 TANKS/MISC DEMOLITION & REMOVAL | | 8,890 | 1,330 | 510 | 860 | 100 | 120 | 11,810 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| 1218 Service Station | | 10,350 | 1,550 | 600 | 1,000 | 110 | 140 | 13,750 | |
| EE 1208 Sandblast Area | | | | | | | | | |
| EE-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,820 | 270 | 100 | 180 | 20 | 20 | 2,420 | |
| EE-08 SOLIDS COLLECTION & CONTAINMENT | | 67,610 | 10,140 | 3,890 | 6,530 | 730 | 890 | 89,790 | |
| 1208 Sandblast Area | | 69,440 | 10,420 | 3,990 | 6,710 | 750 | 910 | 92,210 | |
| FF JA Jones Oil Storage Tanks (2) | | | | | | | | | |
| FF-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,610 | 240 | 90 | 160 | 20 | 20 | 2,130 | |
| FF-10 TANKS/MISC DEMOLITION & REMOVAL | | 17,580 | 2,640 | 1,010 | 1,700 | 190 | 230 | 23,350 | |
| JA Jones Oil Storage Tanks (2) | | 19,190 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,480 | |
| GG 1262 Transformer Pad | | | | | | | | | |
| GG-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 590 | 90 | 30 | 60 | 10 | 10 | 780 | |
| GG-08 SOLIDS COLLECTION & CONTAINMENT | | 4,840 | 730 | 280 | 470 | 50 | 60 | 6,420 | |
| 1262 Transformer Pad | | 5,430 | 810 | 310 | 520 | 60 | 70 | 7,210 | |
| HH 1262 Solvents Tanks (4) | | | | | | | | | |
| HH-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 2,120 | 320 | 120 | 200 | 20 | 30 | 2,820 | |
| HH-10 TANKS/MISC DEMOLITION & REMOVAL | | 19,220 | 2,880 | 1,110 | 1,860 | 210 | 250 | 25,520 | |
| 1262 Solvents Tanks (4) | | 21,340 | 3,200 | 1,230 | 2,060 | 230 | 280 | 28,340 | |
| II 1226 Suspect Waste Oil Disposal | | | | | | | | | |
| II-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 1,630 | 240 | 90 | 160 | 20 | 20 | 2,160 | |
| II-08 SOLIDS COLLECTION & CONTAINMENT | | 85,990 | 12,900 | 4,940 | 8,310 | 930 | 1,130 | 114,190 | |
| 1226 Suspect Waste Oil Disposal | | 87,620 | 13,140 | 5,040 | 8,460 | 950 | 1,150 | 116,360 | |
| JJ JA Jones Steam Plant Drain Pad | | | | | | | | | |
| JJ-02 MONITOR, SAMPLE, TEST, ANALYSIS | | 3,960 | 590 | 230 | 380 | 40 | 50 | 5,260 | |
| JA Jones Steam Plant Drain Pad | | 3,960 | 590 | 230 | 380 | 40 | 50 | 5,260 | |
| HANFORD: REMEDIATION | | 669,480 | 100,420 | 38,500 | 64,670 | 7,230 | 8,800 | 889,110 | |

| | QUANTITY | UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| S & A | | | | | | | | | 177,820 | |
| SUBTOTAL | | | | | | | | | 1,066,930 | |
| CONTINGENCY | | | | | | | | | 237,230 | |
| TOTAL INCL OWNER COSTS | | | | | | | | | 1,304,160 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | 2,640 | 400 | 150 | 250 | 30 | 30 | 3,500 | |
| MOB OF EQUIPMENT & PERSONNEL | | 2,640 | 400 | 150 | 250 | 30 | 30 | 3,500 | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | 100.00 HR | 2,850 | 430 | 160 | 280 | 30 | 40 | 3,780 | 37.85 |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | 2,280 | 340 | 130 | 220 | 20 | 30 | 3,030 | |
| SETUP/CONSTRUCT TEMP FACILITIES | | 5,130 | 770 | 290 | 500 | 60 | 70 | 6,810 | |
| MOBILIZATION AND PREPATORY WORK | | 7,770 | 1,160 | 450 | 750 | 80 | 100 | 10,310 | |
| 0A-21 DEMOBILIZATION | | | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | 5,850 | 880 | 340 | 570 | 60 | 80 | 7,770 | |
| DEMOB OF EQUIPMENT & PERSONNEL | | 5,850 | 880 | 340 | 570 | 60 | 80 | 7,770 | |
| DEMOBILIZATION | | 5,850 | 880 | 340 | 570 | 60 | 80 | 7,770 | |
| MOBILIZATION/DEMOB & PREPWORK | | 13,620 | 2,040 | 780 | 1,320 | 150 | 180 | 18,080 | |
| 0B COE QA/SAFETY MONITORING | | | | | | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | | | |
| 0B-91 01 QA/Safety Monitoring | | | | | | | | | |
| QA/Safety Monitoring | 6.00 WK | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | 4249.75 |
| QA/Safety Monitoring | | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | |
| COE QA/SAFETY MONITORING | | 19,200 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,500 | |
| 0C EM-03 Monitoring Wells | | | | | | | | | |
| 0C-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| OC-02 04 MONITORING WELLS | | | | | | | | | |
| OC-02 04 01 WELL DRILLING & CONSTRUCTION | 5.00 EA | 297,500 | 44,630 | 17,110 | 28,740 | 3,210 | 3,910 | 395,090 | 79018.77 |
| MONITORING WELLS | | 297,500 | 44,630 | 17,110 | 28,740 | 3,210 | 3,910 | 395,090 | |
| OC-02 05 SAMPLING S.W./GROUND WATER/L.W. | | | | | | | | | |
| OC-02 05 02 GROUND WATER Sampling | 20.00 EA | 29,600 | 4,440 | 1,700 | 2,860 | 320 | 390 | 39,310 | 1965.51 |
| SAMPLING S.W./GROUND WATER/L.W. | | 29,600 | 4,440 | 1,700 | 2,860 | 320 | 390 | 39,310 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 327,100 | 49,070 | 18,810 | 31,600 | 3,530 | 4,300 | 434,400 | |
| EM-03 Monitoring Wells | | 327,100 | 49,070 | 18,810 | 31,600 | 3,530 | 4,300 | 434,400 | |
| AA 1240 Suspect Spill Area | | | | | | | | | |
| AA-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| AA-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| AA-02 06 01 SURFACE SOIL | | 1,760 | 260 | 100 | 170 | 20 | 20 | 2,330 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 1,760 | 260 | 100 | 170 | 20 | 20 | 2,330 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,760 | 260 | 100 | 170 | 20 | 20 | 2,330 | |
| AA-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| AA-08 01 EXCAVATION | | | | | | | | | |
| AA-08 01 01 Excav/Load Contaminated Soils | 5.00 CY | 160 | 20 | 10 | 20 | 0 | 0 | 210 | 42.03 |
| AA-08 01 02 Transport Cont. Soils, Arlington | 5.00 CY | 1,700 | 250 | 100 | 160 | 20 | 20 | 2,260 | 451.03 |
| AA-08 01 03 PPEquip, Modified Class D | 0.50 DAY | 380 | 60 | 20 | 40 | 0 | 10 | 510 | 1022.14 |
| AA-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 2,360 | 350 | 140 | 230 | 30 | 30 | 3,140 | |
| SOLIDS COLLECTION & CONTAINMENT | | 2,360 | 350 | 140 | 230 | 30 | 30 | 3,140 | |
| 1240 Suspect Spill Area | | 4,120 | 620 | 240 | 400 | 40 | 50 | 5,470 | |
| BB 1240 French Drain | | | | | | | | | |
| BB-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| BB-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| BB-02 06 01 SURFACE SOIL | | 540 | 80 | 30 | 50 | 10 | 10 | 710 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 540 | 80 | 30 | 50 | 10 | 10 | 710 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 540 | 80 | 30 | 50 | 10 | 10 | 710 | |
| BB-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| BB-08 01 EXCAVATION | | | | | | | | | |
| BB-08 01 01 Excav/Load Contaminated Soils | 20.00 CY | 130 | 20 | 10 | 10 | 0 | 0 | 170 | 8.51 |
| BB-08 01 02 Transport Cont. Soils, Arlington | 20.00 CY | 6,690 | 1,000 | 380 | 650 | 70 | 90 | 8,890 | 444.39 |
| BB-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1022.14 |
| BB-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 7,710 | 1,160 | 440 | 750 | 80 | 100 | 10,240 | |
| SOLIDS COLLECTION & CONTAINMENT | | 7,710 | 1,160 | 440 | 750 | 80 | 100 | 10,240 | |
| 1240 French Drain | | 8,250 | 1,240 | 470 | 800 | 90 | 110 | 10,960 | |
| CC 1212/1227 Suspect Battery Acid | | | | | | | | | |
| CC-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| CC-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| CC-02 06 01 SURFACE SOIL | | 2,130 | 320 | 120 | 210 | 20 | 30 | 2,830 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 2,130 | 320 | 120 | 210 | 20 | 30 | 2,830 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 2,130 | 320 | 120 | 210 | 20 | 30 | 2,830 | |
| CC-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| CC-08 01 EXCAVATION | | | | | | | | | |
| CC-08 01 01 Excav/Load Contaminated Soils | 250.00 CY | 630 | 100 | 40 | 60 | 10 | 10 | 840 | 3.37 |
| CC-08 01 02 Transport Cont. Soils, Arlington | 250.00 CY | 76,610 | 11,490 | 4,400 | 7,400 | 830 | 1,010 | 101,740 | 406.94 |
| CC-08 01 03 PPEquip, Modified Class D | 0.50 DAY | 380 | 60 | 20 | 40 | 0 | 10 | 510 | 1022.14 |
| CC-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 77,750 | 11,660 | 4,470 | 7,510 | 840 | 1,020 | 103,250 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| SOLIDS COLLECTION & CONTAINMENT | | 77,750 | 11,660 | 4,470 | 7,510 | 840 | 1,020 | 103,250 | |
| 1212/1227 Suspect Battery Acid | | 79,880 | 11,980 | 4,590 | 7,720 | 860 | 1,050 | 106,080 | |
| DD 1218 Service Station | | | | | | | | | |
| DD-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| DD-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| DD-02 06 01 SURFACE SOIL | | 1,180 | 180 | 70 | 110 | 10 | 20 | 1,570 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 1,180 | 180 | 70 | 110 | 10 | 20 | 1,570 | |
| DD-02 11 GEOTECHNICAL TESTING | | | | | | | | | |
| DD-02 11 01 Geophysical Survey | 1.00 EA | 280 | 40 | 20 | 30 | 0 | 0 | 370 | 371.85 |
| GEOTECHNICAL TESTING | | 280 | 40 | 20 | 30 | 0 | 0 | 370 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,460 | 220 | 80 | 140 | 20 | 20 | 1,940 | |
| DD-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | |
| DD-10 02 TANK REMOVAL | | | | | | | | | |
| DD-10 02 01 UST Tank Excavation & Removal | 1.00 EA | 1,050 | 160 | 60 | 100 | 10 | 10 | 1,400 | 1399.58 |
| DD-10 02 02 Excav/Load Contaminated Soils | 20.00 CY | 130 | 20 | 10 | 10 | 0 | 0 | 170 | 8.51 |
| DD-10 02 03 Transport Cont. Soils, Arlington | 20.00 CY | 6,690 | 1,000 | 380 | 650 | 70 | 90 | 8,890 | 444.39 |
| DD-10 02 04 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1022.14 |
| DD-10 02 05 Site Re-grading | 0.50 DAY | 250 | 40 | 10 | 20 | 0 | 0 | 330 | 653.58 |
| TANK REMOVAL | | 8,890 | 1,330 | 510 | 860 | 100 | 120 | 11,810 | |
| TANKS/MISC DEMOLITION & REMOVAL | | 8,890 | 1,330 | 510 | 860 | 100 | 120 | 11,810 | |
| 1218 Service Station | | 10,350 | 1,550 | 600 | 1,000 | 110 | 140 | 13,750 | |
| EE 1208 Sandblast Area | | | | | | | | | |
| EE-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| EE-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| EE-02 06 01 SURFACE SOIL | | 1,820 | 270 | 100 | 180 | 20 | 20 | 2,420 | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLING SOIL, SED & SOLID WASTE | | 1,820 | 270 | 100 | 180 | 20 | 20 | 2,420 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,820 | 270 | 100 | 180 | 20 | 20 | 2,420 | |
| EE-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| EE-08 01 EXCAVATION | | | | | | | | | |
| EE-08 01 01 Excav/Load Contaminated Soils | 210.00 CY | 1,350 | 200 | 80 | 130 | 10 | 20 | 1,790 | 8.51 |
| EE-08 01 02 Transport Cont. Soils, Arlington | 210.00 CY | 64,620 | 9,690 | 3,720 | 6,240 | 700 | 850 | 85,820 | 408.66 |
| EE-08 01 03 PPEquip, Modified Class D | 1.50 DAY | 1,150 | 170 | 70 | 110 | 10 | 20 | 1,530 | 1022.14 |
| EE-08 01 04 Site Re-grading | | 490 | 70 | 30 | 50 | 10 | 10 | 650 | |
| EXCAVATION | | 67,610 | 10,140 | 3,890 | 6,530 | 730 | 890 | 89,790 | |
| SOLIDS COLLECTION & CONTAINMENT | | 67,610 | 10,140 | 3,890 | 6,530 | 730 | 890 | 89,790 | |
| 1208 Sandblast Area | | 69,440 | 10,420 | 3,990 | 6,710 | 750 | 910 | 92,210 | |
| FF JA Jones Oil Storage Tanks (2) | | | | | | | | | |
| FF-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| FF-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| FF-02 06 01 SURFACE SOIL | | 1,050 | 160 | 60 | 100 | 10 | 10 | 1,390 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 1,050 | 160 | 60 | 100 | 10 | 10 | 1,390 | |
| FF-02 11 GEOTECHNICAL TESTING | | | | | | | | | |
| FF-02 11 01 Geophysical Survey | 2.00 EA | 560 | 80 | 30 | 50 | 10 | 10 | 740 | 371.85 |
| GEOTECHNICAL TESTING | | 560 | 80 | 30 | 50 | 10 | 10 | 740 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,610 | 240 | 90 | 160 | 20 | 20 | 2,130 | |
| FF-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | |
| FF-10 02 TANK REMOVAL | | | | | | | | | |
| FF-10 02 01 UST Tank Excavation & Removal | 2.00 EA | 2,610 | 390 | 150 | 250 | 30 | 30 | 3,460 | 1731.59 |
| FF-10 02 02 Excav/Load Contaminated Soils | 40.00 CY | 260 | 40 | 10 | 20 | 0 | 0 | 340 | 8.51 |
| FF-10 02 03 Transport Cont. Soils, Arlington | 40.00 CY | 12,680 | 1,900 | 730 | 1,230 | 140 | 170 | 16,850 | 421.15 |
| FF-10 02 04 PPEquip, Modified Class D | 2.00 DAY | 1,540 | 230 | 90 | 150 | 20 | 20 | 2,040 | 1022.14 |
| FF-10 02 05 Site Re-grading | 1.00 DAY | 490 | 70 | 30 | 50 | 10 | 10 | 650 | 653.58 |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| TANK REMOVAL | | 17,580 | 2,640 | 1,010 | 1,700 | 190 | 230 | 23,350 | |
| TANKS/MISC DEMOLITION & REMOVAL | | 17,580 | 2,640 | 1,010 | 1,700 | 190 | 230 | 23,350 | |
| JA Jones Oil Storage Tanks (2) | | 19,190 | 2,880 | 1,100 | 1,850 | 210 | 250 | 25,480 | |
| GG 1262 Transformer Pad | | | | | | | | | |
| GG-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| GG-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| GG-02 06 01 SURFACE SOIL | | 590 | 90 | 30 | 60 | 10 | 10 | 780 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 590 | 90 | 30 | 60 | 10 | 10 | 780 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 590 | 90 | 30 | 60 | 10 | 10 | 780 | |
| GG-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| GG-08 01 EXCAVATION | | | | | | | | | |
| GG-08 01 01 Excav/Load Cont. Soil & Conc Pad | 10.00 CY | 70 | 10 | 0 | 10 | 0 | 0 | 90 | 9.28 |
| GG-08 01 02 Transport Cont. Soils, Arlington | 10.00 CY | 3,750 | 560 | 220 | 360 | 40 | 50 | 4,980 | 498.07 |
| GG-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1022.14 |
| GG-08 01 04 Site Re-grading | | 250 | 40 | 10 | 20 | 0 | 0 | 330 | |
| EXCAVATION | | 4,840 | 730 | 280 | 470 | 50 | 60 | 6,420 | |
| SOLIDS COLLECTION & CONTAINMENT | | 4,840 | 730 | 280 | 470 | 50 | 60 | 6,420 | |
| 1262 Transformer Pad | | 5,430 | 810 | 310 | 520 | 60 | 70 | 7,210 | |
| HH 1262 Solvents Tanks (4) | | | | | | | | | |
| HH-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| HH-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| HH-02 06 01 SURFACE SOIL | | 2,120 | 320 | 120 | 200 | 20 | 30 | 2,820 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 2,120 | 320 | 120 | 200 | 20 | 30 | 2,820 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 2,120 | 320 | 120 | 200 | 20 | 30 | 2,820 | |
| HH-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | |

| | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| HH-10 02 TANK REMOVAL | | | | | | | | | |
| HH-10 02 01 UST Tank Excavation & Removal | 4.00 EA | 3,480 | 520 | 200 | 340 | 40 | 50 | 4,620 | 1154.39 |
| HH-10 02 02 Excav/Load Contaminated Soils | 40.00 CY | 260 | 40 | 10 | 20 | 0 | 0 | 340 | 8.51 |
| HH-10 02 03 Transport Cont. Soils, Arlington | 40.00 CY | 12,680 | 1,900 | 730 | 1,230 | 140 | 170 | 16,850 | 421.15 |
| HH-10 02 04 PPEquip, Modified Class D | 3.00 DAY | 2,310 | 350 | 130 | 220 | 20 | 30 | 3,070 | 1022.14 |
| HH-10 02 05 Site Re-grading | 1.00 DAY | 490 | 70 | 30 | 50 | 10 | 10 | 650 | 653.58 |
| TANK REMOVAL | | 19,220 | 2,880 | 1,110 | 1,860 | 210 | 250 | 25,520 | |
| TANKS/MISC DEMOLITION & REMOVAL | | 19,220 | 2,880 | 1,110 | 1,860 | 210 | 250 | 25,520 | |
| 1262 Solvents Tanks (4) | | 21,340 | 3,200 | 1,230 | 2,060 | 230 | 280 | 28,340 | |
| II 1226 Suspect Waste Oil Disposal | | | | | | | | | |
| II-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| II-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| II-02 06 01 SURFACE SOIL | | 1,630 | 240 | 90 | 160 | 20 | 20 | 2,160 | |
| SAMPLING SOIL, SED & SOLID WASTE | | 1,630 | 240 | 90 | 160 | 20 | 20 | 2,160 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | 1,630 | 240 | 90 | 160 | 20 | 20 | 2,160 | |
| II-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| II-08 01 EXCAVATION | | | | | | | | | |
| II-08 01 01 Excav/Load Contaminated Soils | 275.00 CY | 700 | 100 | 40 | 70 | 10 | 10 | 930 | 3.37 |
| II-08 01 02 Transport Cont. Soils, Arlington | 275.00 CY | 84,400 | 12,660 | 4,850 | 8,150 | 910 | 1,110 | 112,080 | 407.57 |
| II-08 01 03 PPEquip, Modified Class D | 1.00 DAY | 770 | 120 | 40 | 70 | 10 | 10 | 1,020 | 1022.14 |
| II-08 01 04 Site Re-grading | | 120 | 20 | 10 | 10 | 0 | 0 | 160 | |
| EXCAVATION | | 85,990 | 12,900 | 4,940 | 8,310 | 930 | 1,130 | 114,190 | |
| SOLIDS COLLECTION & CONTAINMENT | | 85,990 | 12,900 | 4,940 | 8,310 | 930 | 1,130 | 114,190 | |
| 1226 Suspect Waste Oil Disposal | | 87,620 | 13,140 | 5,040 | 8,460 | 950 | 1,150 | 116,360 | |
| JJ JA Jones Steam Plant Drain Pad | | | | | | | | | |
| JJ-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| JJ-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | |
| JJ-02 06 01 SURFACE SOIL | | 460 | 70 | 30 | 40 | 0 | 10 | 610 | |

| | | QUANTITY UOM | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|
| | SAMPLING SOIL, SED & SOLID WASTE | | 460 | 70 | 30 | 40 | 0 | 10 | 610 | |
| JJ-02 11 | GEOTECHNICAL TESTING | | | | | | | | | |
| JJ-02 11 01 | Geophysical Survey | 1.00 EA | 3,500 | 530 | 200 | 340 | 40 | 50 | 4,650 | 4648.16 |
| | GEOTECHNICAL TESTING | | 3,500 | 530 | 200 | 340 | 40 | 50 | 4,650 | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | 3,960 | 590 | 230 | 380 | 40 | 50 | 5,260 | |
| | JA Jones Steam Plant Drain Pad | | 3,960 | 590 | 230 | 380 | 40 | 50 | 5,260 | |
| | HANFORD: REMEDIATION | | 669,480 | 100,420 | 38,500 | 64,670 | 7,230 | 8,800 | 889,110 | |
| | S & A | | | | | | | | 177,820 | |
| | SUBTOTAL | | | | | | | | 1,066,930 | |
| | CONTINGENCY | | | | | | | | 237,230 | |
| | TOTAL INCL OWNER COSTS | | | | | | | | 1,304,160 | |

Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** CONTRACTOR DIRECT SUMMARY (Rounded to 10's) **

TIME 12:20:10
SUMMARY PAGE 24

| | QUANTITY UOM | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST |
|---|---|---|---|---|---|---|---|
| AA REMEDIAL GENERAL CONTRACTOR | | 320 | 45,440 | 13,510 | 6,230 | 604,310 | 669,480 |

Wed 24 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** CONTRACTOR INDIRECT SUMMARY (Rounded to 10's) **



| | DIRECT | FOOH | HOOH | PROF | BOND | B&O TAX | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|
| AA REMEDIAL GENERAL CONTRACTOR | 669,480 | 100,420 | 38,500 | 64,670 | 7,230 | 8,800 | 889,110 | |

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9 3 1 2 9 3 4 1 4 7 4

| 0-AA. REMEDIAL GENERAL CONTRACTOR | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|

0-AA. REMEDIAL GENERAL CONTRACTOR

Overhead Percentage Explanation:

Field office Overhead (FOOH): Normal is 10%, using 15% to allow for extra safety and Hanford related items.

Home office Overhead (HOOH): 4-5% is normal for this size of job.

PROFIT: 7-8% is normal for this size of job. However, PROFIT may be calculated separately for each job using the Weighted-Guide Line Method.

BOND: Calculated per dollar amount of job using B Bond rates by GOLD.

B&O TAX: 1% covers the 0.5% WA State B&O tax, and the 0.5% TARO tax.

| 0-AA. REMEDIAL GENERAL CONTRACTOR | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0-AA AB. Geophysical Survey Subcontractor<br>Assume using Sub Quote, so no further markup needed. | | | | | | | | | | | |
| 0-AA AC. Soil Gas Sampling Subcontractor<br>Assume using Sub Quote, so no further markup needed. | | | | | | | | | | | |
| 0A. MOBILIZATION/DEMOB & PREPWORK<br>This item will cover all costs for Mob/Demob & Prepwork associated with the 1100-EM-2 Area waste sites, as it is assumed one Contractor will do all sites at one time. | | | | | | | | | | | |
| 0A-01. MOBILIZATION AND PREPATORY WORK | | | | | | | | | | | |
| 0A-01 01. MOB OF EQUIPMENT & PERSONNEL | | | | | | | | | | | |
| 0A-01 01 01. Mob of Equipment & Facilities<br>Mob of equipment, equipment list from Summary. A 100-mi Radius assumed. | | | | | | | | | | | |
| USR AA <01505 1101 > Mob, Field Office Trailer 100-mi Radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 250.00<br>250 | 0.00<br>0 | 0.00<br>0 | 250.00<br>250 | 250.00 |
| CIV AA <01505 2103 > Mob, Hyd Excav, 1.1-1.5 CY, Cwlr Mtd, 100-mi Rad | 1.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 525.00<br>525 | 0.00<br>0 | 0.00<br>0 | 525.00<br>525 | 525.00 |
| USR AA <01505 3235 > Mob, FEnd Ldr, wheel 1.5-3 CY Atriculated Fr, 100-mi Radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 750.00<br>750 | 0.00<br>0 | 0.00<br>0 | 750.00<br>750 | 750.00 |
| USR AA <01505 6115 > Mob, Dozer, Crawler, 50-100 hp w/blade, incl set up 100 mi radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 750.00<br>750 | 0.00<br>0 | 0.00<br>0 | 750.00<br>750 | 750.00 |
| USR AA <01505 7131 > Mob, Water Tank, 3,000 Gal, Mtd/FT800 Trk, 100-mi Radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 150.00<br>150 | 0.00<br>0 | 0.00<br>0 | 150.00<br>150 | 150.00 |
| USR AA <01505 8921 > Mob, Decontamination Trailer w/25,000 GVW Trk, 100-mi Radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 135.00<br>135 | 0.00<br>0 | 0.00<br>0 | 135.00<br>135 | 135.00 |
| USR AA <01505 8952 > Mob, Hot Water Blstr, 3,200 psi 100-mi Radius | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 75.00<br>75 | 0.00<br>0 | 0.00<br>0 | 75.00<br>75 | 75.00 |
| Mob of Equipment & Facilities | | | | | 0 | 0 | 2,635 | 0 | 0 | 2,635 | |
| MOB OF EQUIPMENT & PERSONNEL | | | | | 0 | 0 | 2,635 | 0 | 0 | 2,635 | |

| OA-01. MOBILIZATION AND PREPATORY WORK | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| OA-01 03. SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | | | |
| OA-01 03 01. TRAILERS AND BUILDINGS<br>Allow 100 mhrs for setup of Contractor's trailer, equipment, and site layout. An allowance for some equipment and materials has been added. | | | | | | | | | |
| TRAILERS AND BUILDINGS | 100.00 HR | | 0 | 2,500 | 250 | 100 | 0 | 2,850 | 28.50 |
| OA-01 03 02. DECONTAMINATION FACILITIES | | | | | | | | | |
| OA-01 03 02 01. Personnel Decon Facilities<br>Allow 80 mhrs for setup of the Personnel Decon trailer. Self contained unit includes changing rooms and showers. An allowance for some material and equipment has been included. | | | | | | | | | |
| Personnel Decon Facilities | 80.00 HR | | 0 | 2,000 | 200 | 80 | 0 | 2,280 | 28.50 |
| OA-01 03 02 02. Equip/Vehicle Decon Facilities<br>A equipment/vehicle washdown facility exists in the 1100-EM-2 area, so assume it will be used for all waste site equipment decontamination. Decon water will be transported by a WHC truck to an on-site (Hanford) disposal area. | | | | | | | | | |
| Equip/Vehicle Decon Facilities | | | 0 | 0 | 0 | 0 | 0 | 0 | |
| DECONTAMINATION FACILITIES | | | 0 | 2,000 | 200 | 80 | 0 | 2,280 | |
| SETUP/CONSTRUCT TEMP FACILITIES | | | 0 | 4,500 | 450 | 180 | 0 | 5,130 | |
| MOBILIZATION AND PREPATORY WORK | | | 0 | 4,500 | 3,085 | 180 | 0 | 7,765 | |

| 0A-21. DEMOBILIZATION | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0A-21. DEMOBILIZATION | | | | | | | | | | | |
| 0A-21 04. DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | | | | | |
| 0A-21 04 01. Demob Equipment/Facilities<br>Allow 75% of Mob & Setup for Demob.<br>Demob Equipment/Facilities | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| DEMOB OF EQUIPMENT & PERSONNEL | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| DEMOBILIZATION | | | | | 0 | 0 | 5,850 | 0 | 0 | 5,850 | |
| MOBILIZATION/DEMOB & PREPWORK | | | | | 0 | 4,500 | 8,935 | 180 | 0 | 13,615 | |

| OB-91. QA/Safety Monitoring | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|

OB. COE QA/SAFETY MONITORING
This item will cover all costs associated with COE QA/Safety Monitoring for the 1100-EM-3 Area waste sites.
OB-91. QA/Safety Monitoring

OB-91 01. QA/Safety Monitoring
Safety/QA Crew:

| | | | |
|---|---|---|---|
| WHC HPT: | $50/hr x 0 hrs = | $ 0 | (HPT not need for the |
| COE Safety: | $70/hr x 40 hrs = | $2,800 | 1100-EM area, non rad) |
| COE Special Assist. QA: | $50/hr x 8 hrs = | $ 400 | |
| Total cost/week | | $3,200 | |

The duration of remediation actions for the 1100-EM-3 area is estimated at 6 weeks.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/Safety Monitoring | 6.00 | WK | | | 0 | 19,200 | 0 | 0 | 0 | 19,200 | 3200.00 |
| QA/Safety Monitoring | | | | | 0 | 19,200 | 0 | 0 | 0 | 19,200 | |
| COE QA/SAFETY MONITORING | | | | | 0 | 19,200 | 0 | 0 | 0 | 19,200 | |

| OC-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| OC. EM-03 Monitoring Wells | | | | | | | | | |
| EM-03 Monitoring Wells | | | | | | | | | |
| Install five (5) monitoring wells to 70 Ft, and perform four (4) quarter monitoring events. | | | | | | | | | |
| OC-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | |
| OC-02 04. MONITORING WELLS | | | | | | | | | |
| OC-02 04 01. WELL DRILLING & CONSTRUCTION | | | | | | | | | |
| Install five (5), 4" D GW Monitoring Wells to 70 LF. | | | | | | | | | |
| OC-02 04 01 01. 4" Dia, Monitoring Well (70 LF) | | | | | | | | | |
| From a recent quote (WHC/Kaiser) to drill monitoring wells in the 1100 Area, use $850/VLF. This cost includes: drilling, installation and development. All SubContr overhead markups, and all safety items are also covered by the unit cost. | | | | | | | | | |
| 4" Dia, Monitoring Well (70 LF) | 350.00 LF | | 0 | 0 | 0 | 0 | 297,500 | 297,500 | 850.00 |
| WELL DRILLING & CONSTRUCTION | 5.00 EA | | 0 | 0 | 0 | 0 | 297,500 | 297,500 | 59500.00 |
| MONITORING WELLS | | | 0 | 0 | 0 | 0 | 297,500 | 297,500 | |
| OC-02 05. SAMPLING S.W./GROUND WATER/L.W. | | | | | | | | | |
| OC-02 05 02. GROUND WATER Sampling | | | | | | | | | |
| Given: 4 quarterly GW sampling & analysis events - $1,000 per event, per well, with 2 men @ 8 Hr each (use $30/Hr). | | | | | | | | | |
| GROUND WATER Sampling | 20.00 EA | | 0 | 9,600 | 0 | 0 | 20,000 | 29,600 | 1480.00 |
| SAMPLING S.W./GROUND WATER/L.W. | | | 0 | 9,600 | 0 | 0 | 20,000 | 29,600 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | 0 | 9,600 | 0 | 0 | 317,500 | 327,100 | |
| EM-03 Monitoring Wells | | | 0 | 9,600 | 0 | 0 | 317,500 | 327,100 | |

AA-02. MONITOR, SAMPLE, TEST, ANALYSIS

AA. 1240 Suspect Spill Area
Waste Site: 1240 Suspect Spill Area

Site Considerations:
Soil & Waste Sampling
10 x 10 x 1

Potential Remedial Activity:
Take soil samples, Remove waste (to TSDF, 5 CY given)
AA-02. MONITOR, SAMPLE, TEST, ANALYSIS

AA-02 06. SAMPLING SOIL, SED & SOLID WASTE

AA-02 06 01. SURFACE SOIL

AA-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. See detail for analysis cost.

| | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <01954 76 > pH | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 | 15.00 | |
| | 3.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 45 | 45 | 15.00 |
| USR AA <01954 76 > 3050, Metals analysis | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 27.00 | 27.00 | |
| | 6.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 162 | 162 | 27.00 |
| USR AA <01954 76 > 8270, BNA - Base neutral acid | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 357.00 | 357.00 | |
| | 3.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 1,071 | 1,071 | 357.00 |
| USR AA <01954 76 > ? | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| | 5.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 0 | 1,278 | 1,758 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 0 | 1,278 | 1,758 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 0 | 1,278 | 1,758 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 0 | 1,278 | 1,758 | |

| AA-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| AA-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| AA-08 01. EXCAVATION | | | | | | | | | |
| AA-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 5 CY of solid wastes given by Env Engr. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate/load solid waste | | | 0.57 | 14.41 | 11.97 | 0.00 | 0.00 | 26.37 | |
| Quantity of 5 CY given by Env Engr. Use 1.2 swell factor | 6.00 CY XXQMV | 3.50 | 3 | 86 | 72 | 0 | 0 | 158 | 26.37 |
| Excav/Load Contaminated Soils | 5.00 CY | | 3 | 86 | 72 | 0 | 0 | 158 | 31.65 |
| AA-08 01 02. Transport Cont. Soils, Arlington<br>Transport solid waste to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Assume this 5 CY will be combined with another truck load. | 1.00 TRK | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| USR AA <02220 0000 > Disposal of waste to landfill | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee. | 8.53 TON | 0.00 | 0 | 0 | 0 | 0 | 1,142 | 1,142 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax.<br>55 gal = 8.5 CF x 10 ea/27 CY/CF x 1.55 Ton/CY == 5 Ton. | 8.53 TON | 0.00 | 0 | 0 | 0 | 0 | 256 | 256 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 EA | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 5.00 CY | | 0 | 0 | 0 | 0 | 1,698 | 1,698 | 339.62 |
| AA-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 2.00 EA N/A | 0.00 | 0 | 0 | 23 | 0 | 0 | 23 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 2.00 EA N/A | 0.00 | 0 | 0 | 0 | 15 | 0 | 15 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 2.00 PR N/A | 0.00 | 0 | 0 | 5 | 0 | 0 | 5 | 2.30 |

| AA-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>40 | 0.00<br>0 | 19.94<br>40 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 0.50 | DAY | ULABA | 0.13 | 10.00<br>5 | 234.30<br>117 | 1.45<br>1 | 34.83<br>17 | 0.00<br>0 | 270.58<br>135 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 0.50 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>13 | 0.00<br>0 | 26.95<br>13 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>103 | 0.00<br>0 | 25.87<br>103 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 0.50 | DAY | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>50 | 100.00<br>50 | 100.00 |
| PPEquip, Modified Class D | 0.50 | DAY | | | 5 | 117 | 28 | 189 | 50 | 385 | 769.66 |
| AA-08 01 04. Site Re-grading<br>Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.25 | DAY | XXQNA | 0.13 | 14.00<br>4 | 365.22<br>91 | 126.91<br>32 | 0.00<br>0 | 0.00<br>0 | 492.13<br>123 | 492.13 |
| Site Re-grading | | | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | | | 12 | 295 | 132 | 189 | 1,748 | 2,364 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 12 | 295 | 132 | 189 | 1,748 | 2,364 | |
| 1240 Suspect Spill Area | | | | | 12 | 775 | 132 | 189 | 3,026 | 4,122 | |

BB. 1240 French Drain
Waste Site: 1240 French Drain

Site Considerations:
Soil Sampling

Potential Remedial Activity:
Take Soil Samples, Remove waste (to TSDF, 20 CY)
BB-02. MONITOR, SAMPLE, TEST, ANALYSIS

BB-02 06. SAMPLING SOIL, SED & SOLID WASTE

BB-02 06 01. SURFACE SOIL

BB-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. See detail for costs and tests.

| BB-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <01954 76 > PCB - In-field test | | | | | 0.00 | 0.00 | 0.00 | 183.26 | 0.00 | 183.26 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 183 | 0 | 183 | 183.26 |
| USR AA <01954 76 > 415.1, TOC - total organic C | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 37.00 | 37.00 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 37 | 37 | 37.00 |
| USR AA <01954 76 > 9020, TOX | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 77.00 | 77.00 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 77 | 77 | 77.00 |
| USR AA <01954 76 > Sample Labor - 1 man | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 8.00 | HR | N/A | 0.00 | 0 | 240 | 0 | 0 | 0 | 240 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 240 | 0 | 183 | 114 | 537 | |
| SURFACE SOIL | | | | | 0 | 240 | 0 | 183 | 114 | 537 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 240 | 0 | 183 | 114 | 537 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 240 | 0 | 183 | 114 | 537 | |

| BB-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BB-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | | | |
| BB-08 01. EXCAVATION | | | | | | | | | | | |
| BB-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 20 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil<br>Quantity of con. soil given by Env Engr. 1.1 swell factor. | 22.00 | LCY | XXQMV | 25.00 | 0.08<br>2 | 2.02<br>44 | 1.68<br>37 | 0.00<br>0 | 0.00<br>0 | 3.69<br>81 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil<br>Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 22.00 | CY | XXQMG | 40.00 | 0.03<br>1 | 0.68<br>15 | 1.46<br>32 | 0.00<br>0 | 0.00<br>0 | 2.13<br>47 | 2.13 |
| Excav/Load Contaminated Soils | 20.00 | CY | | | 2 | 59 | 69 | 0 | 0 | 128 | 6.41 |
| BB-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 2.00 | TRK | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>800 | 400.00<br>800 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 34.10 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>4,569 | 134.00<br>4,569 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax. | 34.10 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>1,023 | 30.00<br>1,023 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |
| Transport Cont. Soils, Arlington | 20.00 | CY | | | 0 | 0 | 0 | 0 | 6,692 | 6,692 | 334.62 |
| BB-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |

| BB-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 4.00 | PR | N/A | 0.00 | 0 | 0 | 9 | 0 | 0 | 9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 80 | 0 | 80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 1.00 | DAY | ULABA | 0.13 | 10 | 234 | 1 | 35 | 0 | 271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 27 | 0 | 27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 207 | 0 | 207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| BB-08 01 04. Site Re-grading Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 0.25 | DAY | XXQNA | 0.13 | 4 | 91 | 32 | 0 | 0 | 123 | 492.13 |
| Site Re-grading | | | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | | | 16 | 385 | 157 | 379 | 6,792 | 7,713 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 16 | 385 | 157 | 379 | 6,792 | 7,713 | |
| 1240 French Drain | | | | | 16 | 625 | 157 | 562 | 6,906 | 8,251 | |

CC. 1212/1227 Suspect Battery Acid
Waste Site: 1212/1227 Suspect Battery Acid Disposal Area

Site Considerations:
450 x 5 x 3

Potential Remedial Activity:
Take soil samples, Remove waste (250 CY to TSDF)

| CC-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CC-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| CC-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| CC-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| CC-02 06 01 02. Confirmatory Samples & Analyses | | | | | | | | | | | |
| Confirmatory sample & analyses. See detail for analysis cost. | | | | | | | | | | | |
| USR AA <01954 76 > pH | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 | 15.00 | |
| | 13.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 195 | 195 | 15.00 |
| USR AA <01954 76 > 1311, TCLP - toxic compound leaching procedure | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 112.00 | 112.00 | |
| | 13.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 1,456 | 1,456 | 112.00 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 0 | 1,651 | 2,131 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 0 | 1,651 | 2,131 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 0 | 1,651 | 2,131 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 0 | 1,651 | 2,131 | |

| CC-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| CC-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| CC-08 01. EXCAVATION | | | | | | | | | |
| CC-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 250 CY of solid wastes given by Env Engr. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate/load solid waste<br>Quantity of 250 CY given by Env Engr. Use 1.1 swell factor. | 275.00 CY XXQMV | 40.00 | 0.05<br>14 | 1.26<br>347 | 1.05<br>288 | 0.00<br>0 | 0.00<br>0 | 2.31<br>635 | 2.31 |
| Excav/Load Contaminated Soils | 250.00 CY | | 14 | 347 | 288 | 0 | 0 | 635 | 2.54 |
| CC-08 01 02. Transport Cont. Soils, Arlington<br>Transport solid waste to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>Assume this 5 CY will be combined with another truck load. | 16.00 TRK | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>6,400 | 400.00<br>6,400 | 400.00 |
| USR AA <02220 0000 > Disposal of waste to landfill<br>Disposal fee. | 426.25 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>57,118 | 134.00<br>57,118 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax.<br>55 gal = 8.5 CF x 10 ea/27 CY/CF x 1.55 Ton/CY == 5 Ton. | 426.25 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>12,788 | 30.00<br>12,788 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 EA | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |
| Transport Cont. Soils, Arlington | 250.00 CY | | 0 | 0 | 0 | 0 | 76,605 | 76,605 | 306.42 |
| CC-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 2.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>23 | 0.00<br>0 | 0.00<br>0 | 11.50<br>23 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 2.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>15 | 0.00<br>0 | 7.55<br>15 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 2.00 PR N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>5 | 0.00<br>0 | 0.00<br>0 | 2.30<br>5 | 2.30 |

| CC-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 2.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>40 | 0.00<br>0 | 19.94<br>40 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 0.50 DAY ULABA | 0.13 | 10.00<br>5 | 234.30<br>117 | 1.45<br>1 | 34.83<br>17 | 0.00<br>0 | 270.58<br>135 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 0.50 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>13 | 0.00<br>0 | 26.95<br>13 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>103 | 0.00<br>0 | 25.87<br>103 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 0.50 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>50 | 100.00<br>50 | 100.00 |
| PPEquip, Modified Class D | 0.50 DAY | | 5 | 117 | 28 | 189 | 50 | 385 | 769.66 |
| CC-08 01 04. Site Re-grading<br>Allow for site re-grading after site is certified clean. | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.25 DAY XXQNA | 0.13 | 14.00<br>4 | 365.22<br>91 | 126.91<br>32 | 0.00<br>0 | 0.00<br>0 | 492.13<br>123 | 492.13 |
| Site Re-grading | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | 22 | 555 | 348 | 189 | 76,655 | 77,748 | |
| SOLIDS COLLECTION & CONTAINMENT | | | 22 | 555 | 348 | 189 | 76,655 | 77,748 | |
| 1212/1227 Suspect Battery Acid | | | 22 | 1,035 | 348 | 189 | 78,306 | 79,879 | |

| DD-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DD. 1218 Service Station | | | | | | | | | | | |
| Waste Site: 1218 Service Station | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| Assume 2,000 Gal tank | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Remove UST, Ship soil to TSDF (20 CY given) | | | | | | | | | | | |
| DD-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| DD-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| DD-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| DD-02 06 01 01. Confirmatory Samples & Analyses | | | | | | | | | | | |
| Sample & analyze soil, Confirmatory Sampling. Analyses cost in detail. | | | | | | | | | | | |
| USR AA <01954 76 > TPH, In-field Test | | | | | 0.00 | 0.00 | 0.00 | 161.70 | 0.00 | 161.70 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 162 | 0 | 162 | 161.70 |
| USR AA <01954 76 > 8015, TRPH - total recoverable petroleum hydrocarbons - mod | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 135.00 | 135.00 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 540 | 540 | 135.00 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 162 | 540 | 1,182 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 162 | 540 | 1,182 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 162 | 540 | 1,182 | |
| DD-02 11. GEOTECHNICAL TESTING | | | | | | | | | | | |
| DD-02 11 01. Geophysical Survey | | | | | | | | | | | |
| Use Geophysical Survey (Ground penetrating radar) to define tank size and location, as well as in adjacent piping. Cost based on quote from GeoRecon, Seattle, for doing several tanks at once. | | | | | | | | | | | |
| Geophysical Survey | 1.00 | EA | | | 0 | 0 | 0 | 0 | 280 | 280 | 280.00 |
| GEOTECHNICAL TESTING | | | | | 0 | 0 | 0 | 0 | 280 | 280 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 162 | 820 | 1,462 | |

| DD-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DD-10. TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | | |
| DD-10 02. TANK REMOVAL | | | | | | | | | | | |
| DD-10 02 01. UST Tank Excavation & Removal<br>There is one storage tank of unknown volume. Assume the tank has 2,000 gal volume, made from steel. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate soil around UST<br>Assumes 8' D x 10' L tank, with tank taking up 25 CY. | 100.00 | CY | XXQMV | 25.00 | 0.08<br>8 | 2.02<br>202 | 1.68<br>168 | 0.00<br>0 | 0.00<br>0 | 3.69<br>369 | 3.69 |
| L USR AA <02220 0000 > Remove & Load UST to Flatbed Trk for disposal by Contractor. Allow 2 Hrs each tank. Allow $500 for tank disposal. | 2.00 | HR | XXQMV | 1.00 | 2.00<br>4 | 50.42<br>101 | 41.89<br>84 | 0.00<br>0 | 250.00<br>500 | 342.31<br>685 | 342.31 |
| UST Tank Excavation & Removal | 1.00 | EA | | | 12 | 303 | 251 | 0 | 500 | 1,054 | 1053.86 |
| DD-10 02 02. Excav/Load Contaminated Soils<br>Quantity of 20 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil<br>Quantity of con. soil given by Env Engr. Use 1.1 swell factor | 22.00 | CY | XXQMV | 25.00 | 0.08<br>2 | 2.02<br>44 | 1.68<br>37 | 0.00<br>0 | 0.00<br>0 | 3.69<br>81 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil<br>Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 22.00 | CY | XXQMG | 40.00 | 0.03<br>1 | 0.68<br>15 | 1.46<br>32 | 0.00<br>0 | 0.00<br>0 | 2.13<br>47 | 2.13 |
| Excav/Load Contaminated Soils | 20.00 | CY | | | 2 | 59 | 69 | 0 | 0 | 128 | 6.41 |
| DD-10 02 03. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 2.00 | TRK | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>800 | 400.00<br>800 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 34.10 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>4,569 | 134.00<br>4,569 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax. | 34.10 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>1,023 | 30.00<br>1,023 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |

| DD-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Transport Cont. Soils, Arlington | 20.00 | CY | | | 0 | 0 | 0 | 0 | 6,692 | 6,692 | 334.62 |

DD-10 02 04. PPEquip, Modified Class D
This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. Allow two (2) days for removal of both tanks.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 46 | 0 | 0 | 46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 30 | 0 | 30 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 4.00 | PR | N/A | 0.00 | 0 | 0 | 9 | 0 | 0 | 9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 80 | 0 | 80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 1.00 | DAY | ULABA | 0.13 | 10 | 234 | 1 | 35 | 0 | 271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 27 | 0 | 27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 207 | 0 | 207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |

DD-10 02 05. Site Re-grading
Allow for refill of tank hole and site re-grading after site is certified clean.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 0.50 | DAY | XXQNA | 0.13 | 7 | 183 | 63 | 0 | 0 | 246 | 492.13 |
| Site Re-grading | 0.50 | DAY | | | 7 | 183 | 63 | 0 | 0 | 246 | 492.13 |

| DD-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TANK REMOVAL | | | | | 31 | 779 | 440 | 379 | 7,292 | 8,890 | |
| TANKS/MISC DEMOLITION & REMOVAL | | | | | 31 | 779 | 440 | 379 | 7,292 | 8,890 | |
| 1218 Service Station | | | | | 31 | 1,259 | 440 | 540 | 8,112 | 10,352 | |

EE-02. MONITOR, SAMPLE, TEST, ANALYSIS

EE. 1208 Sandblast Area
Waste Site: 1208 Sandblast Area

Site Considerations:
Random Sampling Plan, Plume Analysis
75 x 75 x 1

Potential Remedial Activity:
Sample spent sand & soil beneath sand, remove waste.
EE-02. MONITOR, SAMPLE, TEST, ANALYSIS

EE-02 06. SAMPLING SOIL, SED & SOLID WASTE

EE-02 06 01. SURFACE SOIL

EE-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. Analyses cost given in detail.

| | | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <01954 76 | > 1311, TCLP - toxic compound leaching procedure | 12.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 112.00<br>1,344 | 112.00<br>1,344 | 112.00 |
| USR AA <01954 76 | > Sample Labor - 2 men | 16.00 | HR | N/A | 0.00 | 0.00<br>0 | 30.00<br>480 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>480 | 30.00 |
| | Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 0 | 1,344 | 1,824 | |
| | SURFACE SOIL | | | | | 0 | 480 | 0 | 0 | 1,344 | 1,824 | |
| | SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 0 | 1,344 | 1,824 | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 0 | 1,344 | 1,824 | |

| EE-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EE-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | | | |
| EE-08 01. EXCAVATION | | | | | | | | | | | |
| EE-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 210 CY Contaminated Soils given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil | | | | | 0.08 | 2.02 | 1.68 | 0.00 | 0.00 | 3.69 | |
| Quantity of con. soil given by Env Engr. Use 1.1 swell factor | 231.00 | CY | XXQMV | 25.00 | 18 | 466 | 387 | 0 | 0 | 853 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil | | | | | 0.03 | 0.68 | 1.46 | 0.00 | 0.00 | 2.13 | |
| Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 231.00 | CY | XXQMG | 40.00 | 6 | 156 | 336 | 0 | 0 | 493 | 2.13 |
| Excav/Load Contaminated Soils | 210.00 | CY | | | 24 | 622 | 723 | 0 | 0 | 1,346 | 6.41 |
| EE-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 400.00 | 400.00 | |
| 1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 14.00 | TRK | | 0.00 | 0 | 0 | 0 | 0 | 5,600 | 5,600 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 134.00 | 134.00 | |
| Disposal fee | 358.05 | TON | | 0.00 | 0 | 0 | 0 | 0 | 47,979 | 47,979 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 358.05 | TON | | 0.00 | 0 | 0 | 0 | 0 | 10,742 | 10,742 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 210.00 | CY | | | 0 | 0 | 0 | 0 | 64,620 | 64,620 | 307.72 |
| EE-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 6.00 | EA | N/A | 0.00 | 0 | 0 | 69 | 0 | 0 | 69 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 6.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 45 | 0 | 45 | 7.55 |

| EE-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 6.00 | PR | N/A | 0.00 | 0 | 0 | 14 | 0 | 0 | 14 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 6.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 120 | 0 | 120 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 1.50 | DAY | ULABA | 0.13 | 15 | 351 | 2 | 52 | 0 | 406 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 1.50 | DAY | N/A | 0.00 | 0 | 0 | 0 | 40 | 0 | 40 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 12.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 310 | 0 | 310 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 1.50 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 150 | 150 | 100.00 |
| PPEquip, Modified Class D | 1.50 | DAY | | | 15 | 351 | 85 | 568 | 150 | 1,154 | 769.66 |
| EE-08 01 04. Site Re-grading Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 1.00 | DAY | XXQNA | 0.13 | 14 | 365 | 127 | 0 | 0 | 492 | 492.13 |
| Site Re-grading | | | | | 14 | 365 | 127 | 0 | 0 | 492 | |
| EXCAVATION | | | | | 53 | 1,339 | 935 | 568 | 64,770 | 67,613 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 53 | 1,339 | 935 | 568 | 64,770 | 67,613 | |
| 1208 Sandblast Area | | | | | 53 | 1,819 | 935 | 568 | 66,114 | 69,437 | |

| FF-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FF. JA Jones Oil Storage Tanks (2) | | | | | | | | | | | |
| Waste Site: JA Jones Oil Storage Tanks (2), Unknown Volume | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| Soil sampling, Evaluate existing Groundwater Data. | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Remove UST, Ship soil to TSDF (40 CY given) | | | | | | | | | | | |
| FF-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| FF-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| FF-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| FF-02 06 01 01. Confirmatory Samples & Analyses | | | | | | | | | | | |
| Sample & analyze soil, Confirmatory Sampling. Analyses cost in detail. | | | | | | | | | | | |
| USR AA <01954 76 > TPH, In-field Test | | | | | 0.00 | 0.00 | 0.00 | 161.70 | 0.00 | 161.70 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 162 | 0 | 162 | 161.70 |
| USR AA <01954 76 > 8015, TRPH - total recoverable petroleum hydrocarbons - mod | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 135.00 | 135.00 | |
| | 3.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 405 | 405 | 135.00 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 162 | 405 | 1,047 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 162 | 405 | 1,047 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 162 | 405 | 1,047 | |
| FF-02 11. GEOTECHNICAL TESTING | | | | | | | | | | | |
| FF-02 11 01. Geophysical Survey | | | | | | | | | | | |
| Use Geophysical Survey (Ground penetrating radar) to define tank size and location, as well as in adjacent piping. Cost based on quote from GeoRecon, Seattle, for doing several tanks at once. | | | | | | | | | | | |
| Geophysical Survey | 2.00 | EA | | | 0 | 0 | 0 | 0 | 560 | 560 | 280.00 |
| GEOTECHNICAL TESTING | | | | | 0 | 0 | 0 | 0 | 560 | 560 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 162 | 965 | 1,607 | |

| FF-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FF-10. TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | | | |
| FF-10 02. TANK REMOVAL | | | | | | | | | | | |
| FF-10 02 01. UST Tank Excavation & Removal<br>There are two Oil storage tanks of unknown volume. Assume each tank of 4,000 gal volume, made from steel. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate soil around UST<br>Assumes 8' D x 10' L tank, with tank taking up 25 CY. | 200.00 | CY | XXQMV | 25.00 | 0.08<br>16 | 2.02<br>403 | 1.68<br>335 | 0.00<br>0 | 0.00<br>0 | 3.69<br>738 | 3.69 |
| L USR AA <02220 0000 > Remove & Load UST to Flatbed Trk for disposal by Contractor. Allow 2 Hrs each tank. Allow $500 for tank disposal. | 4.00 | HR | XXQMV | 1.00 | 2.00<br>8 | 50.42<br>202 | 41.89<br>168 | 0.00<br>0 | 250.00<br>1,000 | 342.31<br>1,369 | 342.31 |
| USR AA <02220 0000 > Remove/dispose of 1,000 gal oil<br>Allow $500 for disposal. | 1.00 | LS | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 500.00<br>500 | 500.00<br>500 | 500.00 |
| UST Tank Excavation & Removal | 2.00 | EA | | | 24 | 605 | 503 | 0 | 1,500 | 2,608 | 1303.86 |
| FF-10 02 02. Excav/Load Contaminated Soils<br>Quantity of 40 CY Contaminated Soils given by Env Engr. Assume quantity for both tanks. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil<br>Quantity of con. soil given by Env Engr. Use 1.1 swell factor | 44.00 | CY | XXQMV | 25.00 | 0.08<br>4 | 2.02<br>89 | 1.68<br>74 | 0.00<br>0 | 0.00<br>0 | 3.69<br>162 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil<br>Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 44.00 | CY | XXQMG | 40.00 | 0.03<br>1 | 0.68<br>30 | 1.46<br>64 | 0.00<br>0 | 0.00<br>0 | 2.13<br>94 | 2.13 |
| Excav/Load Contaminated Soils | 40.00 | CY | | | 5 | 119 | 138 | 0 | 0 | 256 | 6.41 |
| FF-10 02 03. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 3.00 | TRK | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>1,200 | 400.00<br>1,200 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 68.20 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>9,139 | 134.00<br>9,139 | 134.00 |

| FF-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <02220 0000 > Oregon state environmental tax | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 30.00 | 30.00 | |
| Estimated '93 tax. | 68.20 | TON | | 0.00 | 0 | 0 | 0 | 0 | 2,046 | 2,046 | 30.00 |
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 40.00 | CY | | | 0 | 0 | 0 | 0 | 12,685 | 12,685 | 317.12 |

FF-10 02 04. PPEquip, Modified Class D
This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. Allow two (2) days for removal of both tanks.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 92 | 0 | 0 | 92 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 60 | 0 | 60 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 8.00 | PR | N/A | 0.00 | 0 | 0 | 18 | 0 | 0 | 18 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| Respirators | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 160 | 0 | 160 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| 4.2 gpm, 11 HP (Daily cost) | 2.00 | DAY | ULABA | 0.13 | 20 | 469 | 3 | 70 | 0 | 541 | 270.58 |
| For equipment decon. | | | | | | | | | | | |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| Fans (Monthly Rental) | 2.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 54 | 0 | 54 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 16.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 414 | 0 | 414 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 2.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 200 | 200 | 100.00 |
| PPEquip, Modified Class D | 2.00 | DAY | | | 20 | 469 | 113 | 757 | 200 | 1,539 | 769.66 |

| FF-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| FF-10 02 05. Site Re-grading<br>Allow for refill of tank hole and site re-grading after site is certified clean. | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 1.00 DAY XXQNA | 0.13 | 14 | 365 | 127 | 0 | 0 | 492 | 492.13 |
| Site Re-grading | 1.00 DAY | | 14 | 365 | 127 | 0 | 0 | 492 | 492.13 |
| TANK REMOVAL | | | 63 | 1,557 | 881 | 757 | 14,385 | 17,580 | |
| TANKS/MISC DEMOLITION & REMOVAL | | | 63 | 1,557 | 881 | 757 | 14,385 | 17,580 | |
| JA Jones Oil Storage Tanks (2) | | | 63 | 2,037 | 881 | 919 | 15,350 | 19,187 | |

| GG-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|

GG. 1262 Transformer Pad
Waste Site: 1262 Transformer Pad

Site Considerations:
Soil Sampling

Potential Remedial Activity:
Sample Soil (PCB's), Remove Pad & Soil (6x6 conc pad & soil, 10 CY)
GG-02. MONITOR, SAMPLE, TEST, ANALYSIS

GG-02 06. SAMPLING SOIL, SED & SOLID WASTE

GG-02 06 01. SURFACE SOIL

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GG-02 06 01 | 01. PCB Soil Samples & Analyses<br>Sample & analyze soil for PCBs. Two in-field tests at $340. Allow 2 men for 1/2 day for sampling (8 Hrs @ $30/Hr). | | | | | | | | | | |
| | PCB Soil Samples & Analyses | | | | 0 | 240 | 10 | 340 | 0 | 590 | |
| | SURFACE SOIL | | | | 0 | 240 | 10 | 340 | 0 | 590 | |
| | SAMPLING SOIL, SED & SOLID WASTE | | | | 0 | 240 | 10 | 340 | 0 | 590 | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | | | 0 | 240 | 10 | 340 | 0 | 590 | |

| GG-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GG-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | | | |
| GG-08 01. EXCAVATION | | | | | | | | | | | |
| GG-08 01 01. Excav/Load Cont. Soil & Conc Pad<br>Quantity of 10 CY Contaminated Soil & concrete pad given by Env Engr. | | | | | | | | | | | |
| L USR AA <02220 0000 > Excavate con. soil & demo pad<br>Quantity of con. soil and conc pad given by Env Engr. Use a 1.2 swell factor. | 12.00 | CY | XXQMV | 25.00 | 0.08<br>1 | 2.02<br>24 | 1.68<br>20 | 0.00<br>0 | 0.00<br>0 | 3.69<br>44 | 3.69 |
| USR AA <02220 0000 > Load excavated soil & conc pad<br>Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 12.00 | CY | XXQMG | 40.00 | 0.03<br>0 | 0.68<br>8 | 1.46<br>17 | 0.00<br>0 | 0.00<br>0 | 2.13<br>26 | 2.13 |
| Excav/Load Cont. Soil & Conc Pad | 10.00 | CY | | | 1 | 32 | 38 | 0 | 0 | 70 | 6.99 |
| GG-08 01 02. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 1.00 | TRK | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>400 | 400.00<br>400 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 18.60 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>2,492 | 134.00<br>2,492 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax. | 18.60 | TON | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>558 | 30.00<br>558 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 | EA | | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |
| Transport Cont. Soils, Arlington | 10.00 | CY | | | 0 | 0 | 0 | 0 | 3,750 | 3,750 | 375.04 |
| GG-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |

| GG-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 4.00 | PR | N/A | 0.00 | 0 | 0 | 9 | 0 | 0 | 9 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 80 | 0 | 80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 1.00 | DAY | ULABA | 0.13 | 10 | 234 | 1 | 35 | 0 | 271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 27 | 0 | 27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 207 | 0 | 207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 1.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 100.00 |
| PPEquip, Modified Class D | 1.00 | DAY | | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| GG-08 01 04. Site Re-grading Allow for site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 0.50 | DAY | XXQNA | 0.13 | 7 | 183 | 63 | 0 | 0 | 246 | 492.13 |
| Site Re-grading | | | | | 7 | 183 | 63 | 0 | 0 | 246 | |
| EXCAVATION | | | | | 18 | 449 | 158 | 379 | 3,850 | 4,836 | |
| SOLIDS COLLECTION & CONTAINMENT | | | | | 18 | 449 | 158 | 379 | 3,850 | 4,836 | |
| 1262 Transformer Pad | | | | | 18 | 689 | 168 | 719 | 3,850 | 5,426 | |

| HH-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HH. 1262 Solvents Tanks (4) | | | | | | | | | | | |
| Waste Site: 1262 Solvent Tanks (4), Last contained Carbon Tetrachloride, | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| Soil Sampling, Evaluate Existing Groundwater Data. | | | | | | | | | | | |
| Tank D-25, 20 gal | | | | | | | | | | | |
| Tank D-26, 100 gal | | | | | | | | | | | |
| Tanks D-32, 2 @ 1,125 gal | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Remove USTs, Ship Soil to TSDF (40 CY given) | | | | | | | | | | | |
| HH-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| HH-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| HH-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| HH-02 06 01 02. Confirmatory Sampling & Analyses | | | | | | | | | | | |
| Confirmatory Sampling & Analyze soil. Analyses cost below. | | | | | | | | | | | |
| USR AA <01954 76 > 8240, VOA - volatile organics, S | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 205.00 | 205.00 | |
| | 8.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 1,640 | 1,640 | 205.00 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 16.00 | HR | N/A | 0.00 | 0 | 480 | 0 | 0 | 0 | 480 | 30.00 |
| Confirmatory Sampling & Analyses | | | | | 0 | 480 | 0 | 0 | 1,640 | 2,120 | |
| SURFACE SOIL | | | | | 0 | 480 | 0 | 0 | 1,640 | 2,120 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 0 | 1,640 | 2,120 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 0 | 1,640 | 2,120 | |

| HH-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| HH-10. TANKS/MISC DEMOLITION & REMOVAL | | | | | | | | | |
| HH-10 02. TANK REMOVAL | | | | | | | | | |
| HH-10 02 01. UST Tank Excavation & Removal<br>There are four (4) solvent tanks of various volume (20 gal - 1,125 gal).<br>Use a tank excavation volume of 1,500 gal, assume made from steel. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate soil around UST<br>Estimate average excavation of 50 CY, the tank taking up 10 CY | 200.00 CY XXQMV | 25.00 | 0.08<br>16 | 2.02<br>403 | 1.68<br>335 | 0.00<br>0 | 0.00<br>0 | 3.69<br>738 | 3.69 |
| L USR AA <02220 0000 > Remove & Load UST to Flatbed Trk for disposal by Contractor.<br>Allow 2 Hrs average each tank.<br>Allow $500/ea tank for disposal | 8.00 HR XXQMV | 1.00 | 2.00<br>16 | 50.42<br>403 | 41.89<br>335 | 0.00<br>0 | 250.00<br>2,000 | 342.31<br>2,738 | 342.31 |
| UST Tank Excavation & Removal | 4.00 EA | | 32 | 807 | 670 | 0 | 2,000 | 3,477 | 869.24 |
| HH-10 02 02. Excav/Load Contaminated Soils<br>Quantity of 40 CY Contaminated Soils given by Env Engr. Assume quantity for all four tanks. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate contaminated soil<br>Quantity of con. soil given by Env Engr. Use 1.1 swell factor. | 44.00 CY XXQMV | 25.00 | 0.08<br>4 | 2.02<br>89 | 1.68<br>74 | 0.00<br>0 | 0.00<br>0 | 3.69<br>162 | 3.69 |
| USR AA <02220 0000 > Load excavated/stockpiled soil<br>Load in 28-ton dump trucks - DOT approved hazardous waste hauler. Assume 3,100 lb/bcy. | 44.00 CY XXQMG | 40.00 | 0.03<br>1 | 0.68<br>30 | 1.46<br>64 | 0.00<br>0 | 0.00<br>0 | 2.13<br>94 | 2.13 |
| Excav/Load Contaminated Soils | 40.00 CY | | 5 | 119 | 138 | 0 | 0 | 256 | 6.41 |
| HH-10 02 03. Transport Cont. Soils, Arlington<br>Transport contaminated soils to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>1 cy x 3,100 lb/cy<br>28 tons/truck == 17.5 CY/Trk | 3.00 TRK | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>1,200 | 400.00<br>1,200 | 400.00 |
| USR AA <02220 0000 > Disposal of soil in landfill<br>Disposal fee | 68.20 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>9,139 | 134.00<br>9,139 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax. | 68.20 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>2,046 | 30.00<br>2,046 | 30.00 |

| HH-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <02220 0000 > Soil profile fee | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 300.00 | 300.00 | |
| Required by Arlington | 1.00 | EA | | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 300.00 |
| Transport Cont. Soils, Arlington | 40.00 | CY | | | 0 | 0 | 0 | 0 | 12,685 | 12,685 | 317.12 |
| HH-10 02 04. PPEquip, Modified Class D | | | | | | | | | | | |
| This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. Allow two (3) days for removal of four tanks. | | | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | | | | | 0.00 | 0.00 | 11.50 | 0.00 | 0.00 | 11.50 | |
| | 12.00 | EA | N/A | 0.00 | 0 | 0 | 138 | 0 | 0 | 138 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | | | | | 0.00 | 0.00 | 0.00 | 7.55 | 0.00 | 7.55 | |
| | 12.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 91 | 0 | 91 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | | | | | 0.00 | 0.00 | 2.30 | 0.00 | 0.00 | 2.30 | |
| | 12.00 | PR | N/A | 0.00 | 0 | 0 | 28 | 0 | 0 | 28 | 2.30 |
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | | | | | 0.00 | 0.00 | 0.00 | 19.94 | 0.00 | 19.94 | |
| | 12.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 239 | 0 | 239 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | | | | | 10.00 | 234.30 | 1.45 | 34.83 | 0.00 | 270.58 | |
| | 3.00 | DAY | ULABA | 0.13 | 30 | 703 | 4 | 104 | 0 | 812 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | | | | | 0.00 | 0.00 | 0.00 | 26.95 | 0.00 | 26.95 | |
| | 3.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 81 | 0 | 81 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | | | | | 0.00 | 0.00 | 0.00 | 25.87 | 0.00 | 25.87 | |
| | 24.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 621 | 0 | 621 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 100.00 | |
| | 3.00 | DAY | N/A | 0.00 | 0 | 0 | 0 | 0 | 300 | 300 | 100.00 |
| PPEquip, Modified Class D | 3.00 | DAY | | | 30 | 703 | 170 | 1,136 | 300 | 2,309 | 769.66 |
| HH-10 02 05. Site Re-grading | | | | | | | | | | | |
| Allow for refill of tank hole and site re-grading after site is certified clean. | | | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | | | | | 14.00 | 365.22 | 126.91 | 0.00 | 0.00 | 492.13 | |
| | 1.00 | DAY | XXQNA | 0.13 | 14 | 365 | 127 | 0 | 0 | 492 | 492.13 |

| HH-10. TANKS/MISC DEMOLITION & REMOVAL | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Re-grading | 1.00 | DAY | | | 14 | 365 | 127 | 0 | 0 | 492 | 492.13 |
| TANK REMOVAL | | | | | 81 | 1,993 | 1,105 | 1,136 | 14,985 | 19,219 | |
| TANKS/MISC DEMOLITION & REMOVAL | | | | | 81 | 1,993 | 1,105 | 1,136 | 14,985 | 19,219 | |
| 1262 Solvents Tanks (4) | | | | | 81 | 2,473 | 1,105 | 1,136 | 16,625 | 21,339 | |

II-02. MONITOR, SAMPLE, TEST, ANALYSIS

II. 1226 Suspect Waste Oil Disposal
Waste Site: 1226 Suspect Waste Oil Disposal Area

Site Considerations:
50 x 50 x 3

Potential Remedial Activity:
Take soil samples, Remove waste (275 CY to TSDF)
II-02. MONITOR, SAMPLE, TEST, ANALYSIS

II-02 06. SAMPLING SOIL, SED & SOLID WASTE

II-02 06 01. SURFACE SOIL

II-02 06 01 02. Confirmatory Samples & Analyses
Confirmatory sample & analyses. See detail for analysis cost.

| | | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USR AA <01954 76 | > TPH, In-field test | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 161.70<br>323 | 0.00<br>0 | 161.70<br>323 | 161.70 |
| USR AA <01954 76 | > PCB, In-field test | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 183.26<br>367 | 0.00<br>0 | 183.26<br>367 | 183.26 |
| USR AA <01954 76 | > 8080, PCB - soil | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 95.00<br>190 | 95.00<br>190 | 95.00 |
| USR AA <01954 76 | > 8015, TRPH - total recoverable petroleum hydrocarbons - mods | 2.00 | EA | N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 135.00<br>270 | 135.00<br>270 | 135.00 |
| USR AA <01954 76 | > Sample Labor - 2 men | 16.00 | HR | N/A | 0.00 | 0.00<br>0 | 30.00<br>480 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>480 | 30.00 |
| | Confirmatory Samples & Analyses | | | | | 0 | 480 | 0 | 690 | 460 | 1,630 | |
| | SURFACE SOIL | | | | | 0 | 480 | 0 | 690 | 460 | 1,630 | |
| | SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 480 | 0 | 690 | 460 | 1,630 | |
| | MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 480 | 0 | 690 | 460 | 1,630 | |

| II-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| II-08. SOLIDS COLLECTION & CONTAINMENT | | | | | | | | | |
| II-08 01. EXCAVATION | | | | | | | | | |
| II-08 01 01. Excav/Load Contaminated Soils<br>Quantity of 250 CY of solid wastes given by Env Engr. | | | | | | | | | |
| L USR AA <02220 0000 > Excavate/load solid waste<br>Quantity of 250 CY given by Env Engr. Use 1.1 swell factor. | 302.50 CY XXQMV | 40.00 | 0.05<br>15 | 1.26<br>381 | 1.05<br>317 | 0.00<br>0 | 0.00<br>0 | 2.31<br>698 | 2.31 |
| Excav/Load Contaminated Soils | 275.00 CY | | 15 | 381 | 317 | 0 | 0 | 698 | 2.54 |
| II-08 01 02. Transport Cont. Soils, Arlington<br>Transport solid waste to Arlington for disposal there. Unit cost for transport and disposal from Chem. Waste Management, Inc., Arlington. | | | | | | | | | |
| USR AA <02220 0000 > Transport soil to Arlington, OR<br>Assume this 5 CY will be combined with another truck load. | 18.00 TRK | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 400.00<br>7,200 | 400.00<br>7,200 | 400.00 |
| USR AA <02220 0000 > Disposal of waste to landfill<br>Disposal fee. | 468.88 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 134.00<br>62,829 | 134.00<br>62,829 | 134.00 |
| USR AA <02220 0000 > Oregon state environmental tax<br>Estimated '93 tax.<br>55 gal = 8.5 CF x 10 ea/27 CY/CF x 1.55 Ton/CY == 5 Ton. | 468.88 TON | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 30.00<br>14,066 | 30.00<br>14,066 | 30.00 |
| USR AA <02220 0000 > Soil profile fee<br>Required by Arlington | 1.00 EA | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 300.00<br>300 | 300.00<br>300 | 300.00 |
| Transport Cont. Soils, Arlington | 275.00 CY | | 0 | 0 | 0 | 0 | 84,396 | 84,396 | 306.89 |
| II-08 01 03. PPEquip, Modified Class D<br>This item covers cost for Personal Protection Equipment, which is assumed a Modified Class D. Also included is an allowance for daily operation of the Decon shower, equipment decon, and disposal. | | | | | | | | | |
| M HTW AA <01951 5202 > Boot Covers, Tyvek (Bag Of 10Pr) | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 0.00<br>0 | 0.00<br>0 | 11.50<br>46 | 11.50 |
| M HTW AA <01951 5204 > Coveralls, Tyvek | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 7.55<br>30 | 0.00<br>0 | 7.55<br>30 | 7.55 |
| M HTW AA <01951 5501 > Butyl, Medium Weight, Gloves | 4.00 PR N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 0.00<br>0 | 0.00<br>0 | 2.30<br>9 | 2.30 |

| II-08. SOLIDS COLLECTION & CONTAINMENT | QUANTY UOM CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|
| HTW AA <01951 5726 > Half-Mask Air Purifying Respirators | 4.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 19.94<br>80 | 0.00<br>0 | 19.94<br>80 | 19.94 |
| USR AA <01957 3105 > Cold Water, Gasoline, 3200 psi, 4.2 gpm, 11 HP (Daily cost) For equipment decon. | 1.00 DAY ULABA | 0.13 | 10.00<br>10 | 234.30<br>234 | 1.45<br>1 | 34.83<br>35 | 0.00<br>0 | 270.58<br>271 | 270.58 |
| M HTW AA <01957 4301 > 8 Ft x 36 Ft, 2 Showers, 2 Wall Fans (Monthly Rental) | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 26.95<br>27 | 0.00<br>0 | 26.95<br>27 | 26.95 |
| HTW AA <01951 5723 > Cartridges, Respirator | 8.00 EA N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 25.87<br>207 | 0.00<br>0 | 25.87<br>207 | 25.87 |
| USR AA <01951 5805 > Disposal Allowance. Allow $100/day for disposal of personnel protection items and equipment/vehicle decon water. | 1.00 DAY N/A | 0.00 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 0.00<br>0 | 100.00<br>100 | 100.00<br>100 | 100.00 |
| PPEquip, Modified Class D | 1.00 DAY | | 10 | 234 | 57 | 379 | 100 | 770 | 769.66 |
| II-08 01 04. Site Re-grading<br>Allow for site re-grading after site is certified clean. | | | | | | | | | |
| L USR AA <02220 0000 > Use D3 Dozer Excavation crew | 0.25 DAY XXQNA | 0.13 | 14.00<br>4 | 365.22<br>91 | 126.91<br>32 | 0.00<br>0 | 0.00<br>0 | 492.13<br>123 | 492.13 |
| Site Re-grading | | | 4 | 91 | 32 | 0 | 0 | 123 | |
| EXCAVATION | | | 29 | 707 | 405 | 379 | 84,496 | 85,986 | |
| SOLIDS COLLECTION & CONTAINMENT | | | 29 | 707 | 405 | 379 | 84,496 | 85,986 | |
| 1226 Suspect Waste Oil Disposal | | | 29 | 1,187 | 405 | 1,069 | 84,956 | 87,616 | |

| JJ-02. MONITOR, SAMPLE, TEST, ANALYSIS | QUANTY | UOM | CREW ID | OUTPUT | MHRS | LABR | EQUIP | MAT | OTHER | TOTAL COST | UNIT COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JJ. JA Jones Steam Plant Drain Pad | | | | | | | | | | | |
| Waste Site: JA Jones steam plant drain pad | | | | | | | | | | | |
| Site Considerations: | | | | | | | | | | | |
| 45 x 80 concrete pad | | | | | | | | | | | |
| Potential Remedial Activity: | | | | | | | | | | | |
| Take soil samples, Remove waste | | | | | | | | | | | |
| JJ-02. MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | | | | | |
| JJ-02 06. SAMPLING SOIL, SED & SOLID WASTE | | | | | | | | | | | |
| JJ-02 06 01. SURFACE SOIL | | | | | | | | | | | |
| JJ-02 06 01 02. Confirmatory Samples & Analyses | | | | | | | | | | | |
| Confirmatory sample & analyses. See detail for analysis cost. | | | | | | | | | | | |
| USR AA <01954 76 > pH | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 15.00 | 15.00 | |
| | 4.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 0 | 60 | 60 | 15.00 |
| USR AA <01954 76 > TPH, In-field test | | | | | 0.00 | 0.00 | 0.00 | 161.70 | 0.00 | 161.70 | |
| | 1.00 | EA | N/A | 0.00 | 0 | 0 | 0 | 162 | 0 | 162 | 161.70 |
| USR AA <01954 76 > Sample Labor - 2 men | | | | | 0.00 | 30.00 | 0.00 | 0.00 | 0.00 | 30.00 | |
| | 8.00 | HR | N/A | 0.00 | 0 | 240 | 0 | 0 | 0 | 240 | 30.00 |
| Confirmatory Samples & Analyses | | | | | 0 | 240 | 0 | 162 | 60 | 462 | |
| SURFACE SOIL | | | | | 0 | 240 | 0 | 162 | 60 | 462 | |
| SAMPLING SOIL, SED & SOLID WASTE | | | | | 0 | 240 | 0 | 162 | 60 | 462 | |
| JJ-02 11. GEOTECHNICAL TESTING | | | | | | | | | | | |
| JJ-02 11 01. Geophysical Survey | | | | | | | | | | | |
| Use Geophysical Survey (Ground penetrating radar) to try to determine what is under pad, as it has some questionable areas. Cost based on quote from Geo Recon, Seattle, for doing several sites at once. | | | | | | | | | | | |
| Geophysical Survey | 1.00 | EA | | | 0 | 0 | 0 | 0 | 3,500 | 3,500 | 3500.00 |
| GEOTECHNICAL TESTING | | | | | 0 | 0 | 0 | 0 | 3,500 | 3,500 | |
| MONITOR, SAMPLE, TEST, ANALYSIS | | | | | 0 | 240 | 0 | 162 | 3,560 | 3,962 | |
| JA Jones Steam Plant Drain Pad | | | | | 0 | 240 | 0 | 162 | 3,560 | 3,962 | |
| HANFORD: REMEDIATION | | | | | 325 | 45,439 | 13,506 | 6,233 | 604,306 | 669,485 | |

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9513154.1512

| SRC | ITEM ID | DESCRIPTION | NO. | UOM | RATE | **** LABOR **** HOURS | COST | **** EQUIP **** HOURS | COST | TOTAL COST |
|---|---|---|---|---|---|---|---|---|---|---|
| | ULABA | 1 B-laborer + Small Tools | | | PROD = 100% | | | | CREW HOURS = | 92 |
| MIL | B-LABORER F | Laborer (Semi-Skilled) | 0.25 | HR | 23.83 | 0.25 | 5.96 | | | 5.96 |
| MIL | B-LABORER L | Laborer (Semi-Skilled) | 1.00 | HR | 23.33 | 1.00 | 23.33 | | | 23.33 |
| MIL | XMIXX020 E | Small Tools | 0.13 | HR | 1.39 | | | 0.13 | 0.18 | 0.18 |
| | TOTAL | | | | | 1.25 | 29.29 | 0.13 | 0.18 | 29.47 |
| | XXQMG | 1 X-eqoprmed + 1 Front End Ldr, 5-1/4 Cy, Wheel | | | PROD = 100% | | | | CREW HOURS = | 9 |
| MIL | L40CA007 E | LDR,FE,WH, 5-1/4 CY ARTIC,980-C | 1.00 | HR | 58.23 | | | 1.00 | 58.23 | 58.23 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| | TOTAL | | | | | 1.00 | 27.09 | 1.00 | 58.23 | 85.32 |
| | XXQMV | 1 X-eqoprmed + 1 Hydr. Excavator, 1-1/2 Cy, Cwlr | | | PROD = 100% | | | | CREW HOURS = | 65 |
| MIL | H25JD009 E | HYD EXCAV,CRWLR,1.5 CY BKT | 1.00 | HR | 41.74 | | | 1.00 | 41.74 | 41.74 |
| MIL | XMIXX020 E | Small Tools | 0.11 | HR | 1.39 | | | 0.11 | 0.15 | 0.15 |
| MIL | X-LABORER L | Outside Laborer | 1.00 | HR | 23.33 | 1.00 | 23.33 | | | 23.33 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| | TOTAL | | | | | 2.00 | 50.42 | 1.11 | 41.89 | 92.31 |
| | XXQNA | 1 X-eqoprmed + 1 Dozer, Cat D-3C, 65 Hp | | | PROD = 100% | | | | CREW HOURS = | 40 |
| MIL | T10CA001 E | BLADE,POWER ANGLE TILT,FOR D3 | 1.00 | HR | 1.92 | | | 1.00 | 1.92 | 1.92 |
| MIL | T15CA003 E | DOZER,CWLR,D-3C,PS,(ADD BLADE) | 1.00 | HR | 13.94 | | | 1.00 | 13.94 | 13.94 |
| MIL | X-LABORER L | Outside Laborer | 0.50 | HR | 23.33 | 0.50 | 11.67 | | | 11.67 |
| MIL | X-EQOPRMEDL | Outside Equip. Op. Medium | 1.00 | HR | 27.09 | 1.00 | 27.09 | | | 27.09 |
| MIL | X-EQOPRMEDF | Outside Equip. Op. Medium | 0.25 | HR | 27.59 | 0.25 | 6.90 | | | 6.90 |
| | TOTAL | | | | | 1.75 | 45.65 | 2.00 | 15.86 | 61.52 |

Mon 15 Mar 1993

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** LABOR BACKUP **

TIME 12:15:13

BACKUP PAGE 2

| SRC LABOR ID | DESCRIPTION | BASE | OVERTM | TXS/INS | FRNG | TRVL | RATE | UOM | UPDATE | **** TOTAL **** DEFAULT | HOURS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MIL B-LABORER | Laborer/Helper | 23.33 | 0.0% | 0.0% | 0.00 | 0.00 | 23.33 | HR | 10/15/92 | 22.36 | 115 |
| MIL X-EQOPRMED | Outside Equipment Oper. Medium | 27.09 | 0.0% | 0.0% | 0.00 | 0.00 | 27.09 | HR | 10/15/92 | 25.84 | 125 |
| MIL X-LABORER | Outside Laborer | 23.33 | 0.0% | 0.0% | 0.00 | 0.00 | 23.33 | HR | 10/15/92 | 22.36 | 85 |

U.S. Army Corps of Engineers
PROJECT 11EM3R: HANFORD: REMEDIATION - 1.4.10.1.1.23.03.2.2
1100-EM-3, Waste Site Cost Estimates, REVISED
** EQUIPMENT BACKUP **



| SRC | EQUIP ID | DESCRIPTION | DEPR | CAPT | FUEL | FOG | EQ REP | TR WR | TR REP | TOTAL | UOM | ** TOTAL ** HOURS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIL | H25JD009 | HYD EXCAV,CRWLR,1.5 CY BKT | 14.34 | 5.11 | 4.87 | 1.8 | 15.56 | | | 41.74 | HR | 65 |
| MIL | L40CA007 | LDR,FE,WH, 5-1/4 CY ARTIC,980-C | 17.46 | 7.15 | 7.97 | 2.3 | 15.74 | 6.54 | 0.98 | 58.23 | HR | 9 |
| MIL | T10CA001 | BLADE,POWER ANGLE TILT,FOR D3 | 0.75 | 0.27 | | 0.0 | 0.82 | | | 1.92 | HR | 40 |
| MIL | T15CA003 | DOZER,CWLR,D-3C,PS,(ADD BLADE) | 3.51 | 1.39 | 2.14 | 0.7 | 6.14 | | | 13.94 | HR | 40 |
| MIL | XMIXX020 | Small Tools | 0.46 | 0.17 | 0.13 | 0.0 | 0.57 | | | 1.39 | HR | 19 |

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9 3 1 2 9 3 4 1 5 1 6

** PROJECT SETTINGS **

ESTIMATE TYPE : A-Crews with Auto Reprice

SALES TAX : 7.80%

DATE OF ESCALATION SCHEDULE : 10/01/93

PROJECT DIRECT COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | H | L | E | M | U |
| Rep Width | 8 | 10 | 10 | 12 | 10 |
| Title | MHRS | LABR | EQUIP | MAT | OTHER |

PROJECT INDIRECT COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | O | U | P | B | U |
| Rep Width | 9 | 9 | 9 | 9 | 9 |
| Title | FOOH | HOOH | PROF | BOND | B&O TAX |

PROJECT OWNER COST COLUMNS

| | | | | | |
|---|---|---|---|---|---|
| Col Type | U | U | X | X | X |
| Rep Width | 12 | 12 | 0 | 0 | 0 |
| Title | S & A | CONTG | (Unused) | (Unused) | (Unused) |

PROJECT BREAKDOWN

| PROJECT ID | Length | Trail Sep | Level Title | 2nd View Order |
|---|---|---|---|---|
| Level 1 ID : | 2 | - | WastSite | 0 |
| Level 2 ID : | 2 | | Feature | 0 |
| Level 3 ID : | 2 | | SubFeat | 0 |
| Level 4 ID : | 2 | | CostL1 | 0 |
| Level 5 ID : | 4 | | CostL2 | 0 |
| Level 6 ID : | 4 | | CostL3 | 0 |

Owner Cost Level : 1

** PROJECT SETTINGS **

2ND VIEW COLUMNS
Quantity Column Width : 10

| | | | | | |
|---|---|---|---|---|---|
| Col Type | X | X | X | X | X |
| Rep Width | 0 | 0 | 0 | 0 | 0 |
| Title | (Unused) | (Unused) | (Unused) | (Unused) | (Unused) |
| Shadow | X | X | X | X | X |

DETAIL REPORT FORMATTING

PAGE OPTIONS
Page Break Levels : 2
Table of Contents Levels : 3

| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| ROW OPTIONS | Print Titles at Levels : | | Y | Y | Y | Y | Y | Y | |
| | Print Totals at Levels : | | Y | Y | Y | Y | Y | N | |
| | Print Notes at Levels : | Y | Y | Y | Y | Y | Y | Y | Y |
| | Print Unit Cost Row : | Y | | | | | | | |
| | Print Page Footer : | N | | | | | | | |
| | Show Cost Codes : | Y | | | | | | | |
| COLUMNS OPTIONS | Print Crew Id : | Y | | | | | | | |
| | Crew Output : | Y | | | | | | | |
| | Unit Cost : | Y | | | | | | | |
| UPB TITLES | No. of Levels to Print : | 0 | | | | | | | |
| | Bracket Titles With : | - : | | | | | | | |
| | Include titles Notes : | Y | | | | | | | |

** PROJECT SETTINGS **

OTHER REPORT FORMATTING

COLUMN TITLES FOR SUMMARY REPORTS

| | |
|---|---|
| Column 1 FOOH | : JOB OFFICE OVERHEAD |
| Column 2 HOOH | : HOME OFFICE OVERHEAD |
| Column 3 PROF | : PROFIT |
| Column 4 BOND | : PERFORMANCE BOND |
| Column 5 B&O TAX | : B & O AND OTHER TAXES |

| | |
|---|---|
| Column 1 S & A | : S & A |
| Column 2 CONTG | : CONTINGENCY |
| Column 3 (Unused) | : |
| Column 4 (Unused) | : |
| Column 5 (Unused) | : |

STANDARD COLUMN WIDTHS

| | |
|---|---|
| Quantity Columns | : 10 |
| Total cost Columns | : 12 |
| Unit Cost Columns | : 12 |

SUMMARY FEATURES

| | |
|---|---|
| Round Totals Column | : T-Tens |
| Contingency Notes | : Yes |
| Show Project Totals | : Yes |

REPORT SELECTION

| | |
|---|---|
| Project Settings | : Y |
| Contractor Settings | : Y |
| Link Listing | : N |

Measurement Units : Original

| | REPORT FORMAT TYPE | | | FOR LEVEL (S) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Direct | Indirect | Owner | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Detail : | Y | | | | | | | | | |
| Project : | N | Y | Y | | Y | Y | N | Y | N | N |
| Contractor : | Y | Y | | Y | N | N | N | N | N | N |
| Division : | N | N | N | Y | N | N | N | N | N | N |
| System : | N | N | N | Y | N | N | N | N | N | N |
| 2nd View : | N | | | | | | | | | |
| Crew : | Y | | | Y | N | N | N | N | N | N |
| Labor : | Y | | | | | | | | | |
| Equipment : | Y | | | | | | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| Project Information Record | | | | | | | |
| 0A MOBILIZATION/DEMOB & PREPWORK | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| 0A-01 MOBILIZATION AND PREPATORY WORK | | | | | | | |
| 0A-01 01 MOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-01 01 01 Mob of Equipment & Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| 0A-01 03 SETUP/CONSTRUCT TEMP FACILITIES | | | | | | | |
| 0A-01 03 01 TRAILERS AND BUILDINGS | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A-01 03 02 DECONTAMINATION FACILITIES | | | | | | | |
| 0A-01 03 02 01 Personnel Decon Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A-01 03 02 02 Equip/Vehicle Decon Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| 0A-21 DEMOBILIZATION | | | | | | | |
| 0A-21 04 DEMOB OF EQUIPMENT & PERSONNEL | | | | | | | |
| 0A-21 04 01 Demob Equipment/Facilities | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| 0B COE QA/SAFETY MONITORING | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| 0B-91 QA/Safety Monitoring | | | | | | | |
| 0B-91 01 QA/Safety Monitoring | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | O | | | | | | |
| 0C EM-03 Monitoring Wells | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| 0C-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| 0C-02 04 MONITORING WELLS | | | | | | | |
| 0C-02 04 01 WELL DRILLING & CONSTRUCTION | | | | | | | |
| 0C-02 04 01 01 4" Dia, Monitoring Well (70 LF) | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| OC-02 05 SAMPLING S.W./GROUND WATER/L.W. | | | | | | | |
| OC-02 05 02 GROUND WATER Sampling | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| AA 1240 Suspect Spill Area | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| AA-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| AA-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| AA-02 06 01 SURFACE SOIL | | | | | | | |
| AA-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| AA-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| AA-08 01 EXCAVATION | | | | | | | |
| AA-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 40.00 | | | | |
| AA-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| AA-08 01 03 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| AA-08 01 04 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| BB 1240 French Drain | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| BB-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| BB-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| BB-02 06 01 SURFACE SOIL | | | | | | | |
| BB-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| BB-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| BB-08 01 EXCAVATION | | | | | | | |
| BB-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 30.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| BB-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| BB-08 01 03 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| BB-08 01 04 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| CC 1212/1227 Suspect Battery Acid | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| CC-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| CC-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| CC-02 06 01 SURFACE SOIL | | | | | | | |
| CC-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| CC-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| CC-08 01 EXCAVATION | | | | | | | |
| CC-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 40.00 | | | | |
| CC-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| CC-08 01 03 PPEquip, Modified Class D | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |
| CC-08 01 04 Site Re-grading | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 25.00 | | | | |
| DD 1218 Service Station | | | | | | | |
| S & A | P | | 20.00 | | | | |
| CONTINGENCY | P | | 0.00 | | | | |
| DD-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| DD-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| DD-02 06 01 SURFACE SOIL | | | | | | | |
| DD-02 06 01 01 Confirmatory Samples & Analyses | | | | | | | |
| S & A | O | | | | | | |
| CONTINGENCY | P | | 20.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| DD-02 11 GEOTECHNICAL TESTING | | | | | | | |
| DD-02 11 01 Geophysical Survey | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| DD-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| DD-10 02 TANK REMOVAL | | | | | | | |
| DD-10 02 01 UST Tank Excavation & Removal | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| DD-10 02 02 Excav/Load Contaminated Soils | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 30.00 | | | | |
| DD-10 02 03 Transport Cont. Soils, Arlington | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| DD-10 02 04 PPEquip, Modified Class D | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| DD-10 02 05 Site Re-grading | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| EE 1208 Sandblast Area | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |
| EE-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| EE-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| EE-02 06 01 SURFACE SOIL | | | | | | | |
| EE-02 06 01 02 Confirmatory Samples & Analyses | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| EE-08 SOLIDS COLLECTION & CONTAINMENT | | | | | | | |
| EE-08 01 EXCAVATION | | | | | | | |
| EE-08 01 01 Excav/Load Contaminated Soils | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 30.00 | | | | |
| EE-08 01 02 Transport Cont. Soils, Arlington | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| EE-08 01 03 PPEquip, Modified Class D | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |

** OWNER SETTINGS **

| | | AMOUNT | PERCENT | *ESCALATN DATE* BEGIN | END | *ESCALATN INDEX* BEGIN | END |
|---|---|---|---|---|---|---|---|
| EE-08 01 04 Site Re-grading | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| FF JA Jones Oil Storage Tanks (2) | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |
| FF-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| FF-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| FF-02 06 01 SURFACE SOIL | | | | | | | |
| FF-02 06 01 01 Confirmatory Samples & Analyses | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| FF-02 11 GEOTECHNICAL TESTING | | | | | | | |
| FF-02 11 01 Geophysical Survey | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| FF-10 TANKS/MISC DEMOLITION & REMOVAL | | | | | | | |
| FF-10 02 TANK REMOVAL | | | | | | | |
| FF-10 02 01 UST Tank Excavation & Removal | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| FF-10 02 02 Excav/Load Contaminated Soils | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 30.00 | | | | |
| FF-10 02 03 Transport Cont. Soils, Arlington | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| FF-10 02 04 PPEquip, Modified Class D | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 20.00 | | | | |
| FF-10 02 05 Site Re-grading | | | | | | | |
| | S & A | O | | | | | |
| | CONTINGENCY | P | 25.00 | | | | |
| GG 1262 Transformer Pad | | | | | | | |
| | S & A | P | 20.00 | | | | |
| | CONTINGENCY | P | 0.00 | | | | |
| GG-02 MONITOR, SAMPLE, TEST, ANALYSIS | | | | | | | |
| GG-02 06 SAMPLING SOIL, SED & SOLID WASTE | | | | | | | |
| GG-02 06 01 SURFACE SOIL | | | | | | | |

# ENDANGERED, THREATENED, AND CANDIDATE WILDLIFE AND PLANTS AT THE HANFORD SITE

9 3 1 2 9 3 4 1 3 6 5

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9 3 1 2 9 3 4 1 3 6 6