CONSTRUCTION DRAWING INDEX

PROJECT	DRAWING NO.	REV.	DRAWING TITLE	SHEET NO.
ALL	99X-5500-X-00641	C	DRAWING INDEX	X-1
ALL	99X-5500-X-00642	C	DRAWING INDEX	X-2
ALL	99X-5500-X-00639	H	LEGEND AND GENERAL NOTES	X-3
ALL	99X-5500-G-00640	F	MASTER PLAN	G-1
4B	99X-5500-G-00644	C	LAYOUT PLAN	G-2
4B	99X-5500-G-00645	C	TRAFFIC FLOW AND MATERIAL TRACKING PLAN	G-3
4B	99X-5500-G-00646	C	DEWATERING PLAN	G-4
4B	99X-5500-G-00674	B	UTILITY ISOLATION OVERVIEW PLAN	G-5
4B	99X-5500-G-00647	C	UTILITY ISOLATION PLAN (NW)	G-6
4B	99X-5500-G-00648	C	UTILITY ISOLATION PLAN (NE)	G-7
4B	99X-5500-G-00649	C	UTILITY ISOLATION PLAN (CE)	G-8
4B	99X-5500-G-00650	C	UTILITY ISOLATION PLAN (CW)	G-9
4B	99X-5500-G-00651	C	UTILITY ISOLATION PLAN (SW)	G-10
4B	99X-5500-G-00652	C	UTILITY ISOLATION PLAN (SE)	G-11
4B	99X-5500-G-00653	C	EXCAVATION/DRAINAGE OVERVIEW PLAN	G-12
4B	99X-5500-G-00654	C	EXCAVATION/DRAINAGE PLAN (NW)	G-13
4B	99X-5500-G-00655	C	EXCAVATION/DRAINAGE PLAN (NE)	G-14
4B	99X-5500-G-00656	C	EXCAVATION/DRAINAGE PLAN (CE)	G-15
4B	99X-5500-G-00657	C	EXCAVATION/DRAINAGE PLAN (CW)	G-16
4B	99X-5500-G-00658	C	EXCAVATION/DRAINAGE PLAN (SW)	G-17
4B	99X-5500-G-00659	C	EXCAVATION/DRAINAGE PLAN (SE)	G-18
4B	99X-5500-G-00660	B	CROSS SECTIONS SHEET 1	G-19
4B	99X-5500-G-00661	B	CROSS SECTIONS SHEET 2	G-20
4B	99X-5500-G-00662	B	CROSS SECTIONS SHEET 3	G-21
4B	99X-5500-G-00663	B	CROSS SECTIONS SHEET 4	G-22
4B	99X-5500-G-00664	B	CROSS SECTIONS SHEET 5	G-23
4B	99X-5500-G-00675	A	CROSS SECTIONS SHEET 6	G-24
4B	99X-5500-G-00676	B	CONTAMINATION GRADING OVERVIEW	G-25
4B	99X-5500-G-00665	B	CONTAMINATION GRADING (NW)	G-26
4B	99X-5500-G-00666	B	CONTAMINATION GRADING (NE)	G-27
4B	99X-5500-G-00667	B	CONTAMINATION GRADING (CE)	G-28
4B	99X-5500-G-00668	B	CONTAMINATION GRADING (CW)	G-29
4B	99X-5500-G-00669	B	CONTAMINATION GRADING (SW)	G-30
4B	99X-5500-G-00670	B	CONTAMINATION GRADING (SE)	G-31
4B	99X-5500-G-00671	B	FOUNDATION PLAN (NORTH)	G-32
4B	99X-5500-G-00672	B	FOUNDATION PLAN (CENTRAL)	G-33
4B	99X-5500-G-00673	B	FOUNDATION PLAN (SOUTH)	G-34
4B	99X-5500-G-00677	A	ABOVE-WAC EXCAVATION DETAILS AND LIMITS	G-35
4B	99X-5500-G-00678	A	HWMU EXCAVATION DETAILS AND LIMITS	G-36
4B	99X-5500-G-00681	C	BASIN 4B1 TRANSFER LINE PLAN AND PROFILE	G-37
4B	99X-5500-G-00682	C	BASIN 4B2 GMA/CLAY PLUG PLAN AND PROFILE	G-38
4B	99X-5500-G-00683	C	TRANSFER LINE DETAILS SHEET 1	G-39
4B	99X-5500-G-00684	C	TRANSFER LINE DETAILS SHEET 2	G-40
3B	99X-5500-G-00685	C	LAYOUT PLAN	G-41
3B	99X-5500-G-00686	C	TRAFFIC FLOW AND MATERIAL TRACKING PLAN	G-42
3B	99X-5500-G-00687	C	DEWATERING AND EXCAVATION PLAN	G-43
3B	99X-5500-G-00688	A	EXCAVATION/DRAINAGE OVERVIEW PLAN	G-44
3B	99X-5500-G-00689	C	EXCAVATION/DRAINAGE PLAN (NORTH)	G-45
3B	99X-5500-G-00690	C	EXCAVATION/DRAINAGE PLAN (CENTRAL)	G-46
3B	99X-5500-G-00691	C	EXCAVATION/DRAINAGE PLAN (SOUTH)	G-47
3B	99X-5500-G-00692	B	CROSS SECTIONS SHEET 1	G-48
3B	99X-5500-G-00693	B	CROSS SECTIONS SHEET 2	G-49
3B	99X-5500-G-00694	B	CROSS SECTIONS SHEET 3	G-50
3B	99X-5500-G-00699	A	CONTAMINATION GRADING (OVERVIEW)	G-51
3B	99X-5500-G-00695	B	CONTAMINATION GRADING (NORTH)	G-52
3B	99X-5500-G-00696	B	CONTAMINATION GRADING (CENTRAL)	G-53
3B	99X-5500-G-00697	B	CONTAMINATION GRADING (SOUTH)	G-54
3B	99X-5500-G-00698	B	FOUNDATION PLAN	G-55
3B	99X-5500-G-00700	A	ABOVE-WAC EXCAVATION DETAILS AND LIMITS	G-56
3B & MDC	99X-5500-G-00711	A	HWMU EXCAVATION DETAILS AND LIMITS	G-57
4B	99X-5500-G-00679	A	PRECERTIFICATION CONFIGURATION	G-58
3B	99X-5500-G-00701	A	PRECERTIFICATION CONFIGURATION	G-59
5	99X-5500-G-00702	C	LAYOUT PLAN	G-60
5	99X-5500-G-00703	C	TRAFFIC FLOW AND MATERIAL TRACKING PLAN	G-61
5	99X-5500-G-00704	C	DEWATERING PLAN	G-62
5	99X-5500-G-00706	C	EXCAVATION/DRAINAGE PLAN (WEST)	G-63
5	99X-5500-G-00707	C	EXCAVATION/DRAINAGE PLAN (EAST)	G-64
5	99X-5500-G-00708	C	EXCAVATION/DRAINAGE PLAN (MAIN PARKING LOTS)	G-65
5	99X-5500-G-00709	B	FOUNDATION PLAN (WEST)	G-66
5	99X-5500-G-00710	B	FOUNDATION PLAN (EAST)	G-67
5	99X-5500-G-00712	A	PRECERTIFICATION CONFIGURATION	G-68
MDC	99X-5500-G-00713	C	TRAFFIC FLOW AND MATERIAL TRACKING PLAN	G-69
MDC	99X-5500-G-00714	C	DEWATERING AND EXCAVATION PLAN	G-70
MDC	99X-5500-G-00715	C	EXCAVATION/DRAINAGE PLAN (NORTH)	G-71
MDC	99X-5500-G-00716	C	EXCAVATION/DRAINAGE PLAN (NORTH CENTRAL)	G-72
MDC	99X-5500-G-00717	C	EXCAVATION/DRAINAGE PLAN (SOUTH CENTRAL)	G-73
MDC	99X-5500-G-00718	C	EXCAVATION/DRAINAGE PLAN (SOUTH)	G-74
MDC	99X-5500-G-00719	C	EXCAVATION/DRAINAGE PLAN (EAST)	G-75
MDC	99X-5500-G-00720	B	CROSS SECTIONS SHEET 1	G-76
MDC	99X-5500-G-00721	B	CROSS SECTIONS SHEET 2	G-77
MDC	99X-5500-G-00722	B	CROSS SECTIONS SHEET 3	G-78
MDC	99X-5500-G-00723	B	CROSS SECTIONS SHEET 4	G-79
MDC	99X-5500-G-00724	B	CROSS SECTIONS SHEET 5	G-80
MDC	99X-5500-G-00705	A	FOUNDATION PLAN	G-81
4B	99X-5500-G-00745	A	REROUTED STORM SEWER LINE	G-82
ALL	99X-5500-G-00738	H	CIVIL DETAILS SHEET 1	D-1
ALL	99X-5500-G-00739	E	CIVIL DETAILS SHEET 2	D-2
ALL	99X-5500-G-00740	E	UTILITY REMOVAL DETAIL BELOW DESIGN GRADE	D-3
4B	99X-5500-G-00680	B	WASTEWATER COLLECTION AND TRANSFER LINE P & ID	N-1

CONSTRUCTION DRAWING INDEX

PROJECT	DRAWING NO.	REV.	DRAWING TITLE	SHEET NO.
4B	99X-5500-E-00758	A	ELECTRICAL SYMBOLS AND LEGEND	E0001
4B	99X-5500-E-00759	A	SINGLE LINE DIAGRAM / ELEVATIONS	E0002
4B	99X-5500-E-00760	A	SINGLE LINE EQUIPMENT DIAGRAMS	E0003
4B	99X-5500-E-00761	A	ELECTRICAL POWER POLE GUY WIRES ANCHORING & AERIAL DETAILS	E0004
4B	99X-5500-E-00762	A	ELECTRICAL POWER POLE GUY WIRES ANCHORING & AERIAL DETAILS	E0005
4B	99X-5500-E-00763	A	ELECTRICAL PANEL SCHEDULES	E0006
4B	99X-5500-E-00764	A	ELECTRICAL PP-45-2 LOCATION	E0007
4B	99X-5500-E-00765	A	ELECTRICAL POWER POLE SW128 LOCATION	E0008

UTILITY GRID REFERENCE DRAWING INDEX

PROJECT	DRAWING NO.	DRAWING TITLE
ALL	22X-5500-P-00659	MASTER GRID OF UNDERGROUND UTILITY PLANS
4B	22H-5500-P-00673	GRID 14 UNDERGROUND UTILITIES
4B	22D-5500-P-00678	GRID 19 UNDERGROUND UTILITIES
4B	22D-5500-P-00679	GRID 20 UNDERGROUND UTILITIES
4B	22G-5500-P-00680	GRID 21 UNDERGROUND UTILITIES
4B	22D-5500-P-00684	GRID 25 UNDERGROUND UTILITIES
4B	22G-5500-P-00685	GRID 26 UNDERGROUND UTILITIES
3B	22B-5500-P-00676	GRID 17 UNDERGROUND UTILITIES
3B	22B-5500-P-00677	GRID 18 UNDERGROUND UTILITIES
3B	22D-5500-P-00678	GRID 19 UNDERGROUND UTILITIES
3B	22B-5500-P-00681	GRID 22 UNDERGROUND UTILITIES
3B	22B-5500-P-00682	GRID 23 UNDERGROUND UTILITIES
3B	22B-5500-P-00683	GRID 24 UNDERGROUND UTILITIES
5	22A-5500-P-00664	GRID 5 UNDERGROUND UTILITIES
5	22H-5500-P-00666	GRID 7 UNDERGROUND UTILITIES
5	22H-5500-P-00667	GRID 8 UNDERGROUND UTILITIES
5	22H-5500-P-00673	GRID 14 UNDERGROUND UTILITIES
5	22H-5500-P-00674	GRID 15 UNDERGROUND UTILITIES
MDC	22F-5500-P-00663	GRID 4 UNDERGROUND UTILITIES
MDC	22F-5500-P-00665	GRID 6 UNDERGROUND UTILITIES
MDC	22H-5500-P-00666	GRID 7 UNDERGROUND UTILITIES
MDC	22C-5500-P-00668	GRID 9 UNDERGROUND UTILITIES
MDC	22C-5500-P-00669	GRID 10 UNDERGROUND UTILITIES
MDC	22C-5500-P-00670	GRID 11 UNDERGROUND UTILITIES
MDC	22E-5500-P-00671	GRID 12 UNDERGROUND UTILITIES
MDC	22E-5500-P-00672	GRID 13 UNDERGROUND UTILITIES
MDC	22H-5500-P-00673	GRID 14 UNDERGROUND UTILITIES
MDC	22H-5500-P-00674	GRID 15 UNDERGROUND UTILITIES
MDC	22B-5500-P-00675	GRID 16 UNDERGROUND UTILITIES
MDC	22B-5500-P-00676	GRID 17 UNDERGROUND UTILITIES
MDC	22B-5500-P-00677	GRID 18 UNDERGROUND UTILITIES
MDC	22D-5500-P-00678	GRID 19 UNDERGROUND UTILITIES
MDC	22D-5500-P-00679	GRID 20 UNDERGROUND UTILITIES
MDC	22G-5500-P-00680	GRID 21 UNDERGROUND UTILITIES

000001

GENERAL NOTES

1. DESIGN BASED ON CURRENT REVISION OF UTILITY GRID DRAWINGS AT CFC ISSUE DATE. REFER TO CURRENT UTILITY GRID DRAWINGS AT TIME OF EXCAVATION.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
DRAWING INDEX

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
ELR	22GRID	99X-5500-X-00641	X-1	C
RES PROJECT NO.	FILENAME 99X00641.DGN			

TECHNICAL REFERENCE DRAWING INDEX

PROJECT	DRAWING NO.	REV.	DRAWING TITLE	SHEET NO.
3B	01C-1900-S-01390	1	STRUCTURE SOUTH 2H, 2E AND 1C FOUNDATION AND SLAB PLAN	S-001
3B	01D-1900-S-01388	1	STRUCTURE 1B FOUNDATION AND SLAB PLAN	S-001
3B	01X-1900-S-01389	1	STRUCTURE NORTH 2H AND 1A FOUNDATION AND SLAB PLAN	S-001
3B	02X-1900-S-03448	0	STRUCTURE 2H AND PIT FOUNDATION AND SLAB PLAN	S-001
3B	02X-1900-S-03450	0	STRUCTURE 74B AND ELEVATOR PIT FOUNDATION AND SLAB PLAN	S-001
3B	02X-1900-S-03451	0	STRUCTURE 2A WEST AND 2D FOUNDATION PLAN	S-001
3B	02X-1900-S-03452	0	STRUCTURE 2A WEST AND 2D SLAB PLAN	S-002
3B	02X-1900-S-03453	0	STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN	S-001
3B	02X-1900-S-03454	0	STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS SLAB PLAN	S-002
3B	30X-5500-S-00091	0	BUILDING 30A FOUNDATION AND SLAB PLAN	
3B	56X-1900-S-00050	0	STRUCTURE 56A FOUNDATION AND SLAB PLAN	S-001
3B	66X-1900-S-00005	0	STRUCTURE 66 FOUNDATION AND SLAB PLAN	S-001
3B	67X-1900-S-00006	0	STRUCTURE 67 FOUNDATION AND SLAB PLAN	S-001
3B	71X-1900-S-00071	1	STRUCTURE 71 NORTH PORTION FOUNDATION AND SLAB PLAN	S-001
3B	71X-1900-S-00072	1	STRUCTURE 71 SOUTH PORTION FOUNDATION AND SLAB PLAN	S-001
3B	72X-1900-S-00018	0	STRUCTURE 72 FOUNDATION AND SLAB PLAN	S-001
3B	74B-1900-S-00077	0	STRUCTURE 74T FOUNDATION AND SLAB PLAN	S-001
4B	02E-1900-S-03457	0	STRUCTURE 3J FOUNDATION PLAN	S-001
4B	02E-1900-S-03458	0	STRUCTURE 3J SLAB PLAN	S-002
4B	02X-1900-S-03448	0	STRUCTURE 2H AND PIT FOUNDATION AND SLAB PLAN	S-001
4B	02X-1900-S-03450	0	STRUCTURE 74B AND ELEVATOR PIT FOUNDATION AND SLAB PLAN	S-001
4B	02X-1900-S-03451	0	STRUCTURE 2A WEST AND 2D FOUNDATION PLAN	S-001
4B	02X-1900-S-03452	0	STRUCTURE 2A WEST AND 2D SLAB PLAN	S-002
4B	02X-1900-S-03453	0	STRUCTURE 2A EAST,SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN	S-001
4B	02X-1900-S-03454	0	STRUCTURE 2A EAST,SOLVENT STORAGE AND TREATMENT AREAS SLAB PLAN	S-002
4B	02X-1900-S-03455	0	STRUCTURE 39B AND NITRIC ACID STORAGE AREA FOUNDATION PLAN	S-001
4B	02X-1900-S-03456	0	STRUCTURE 39B AND NITRIC ACID STORAGE AREA SLAB PLAN	S-002
4B	02X-1900-S-03459	0	STRUCTURE 3E FOUNDATION PLAN	S-001
4B	02X-1900-S-03460	0	STRUCTURE 3E SLAB PLAN	S-002
4B	03A-1900-S-01044	0	STRUCTURE 3G AND 3F FOUNDATION PLAN	S-001
4B	03A-1900-S-01045	0	STRUCTURE 3G AND 3F SLAB PLAN	S-002
4B	03B-1900-S-01050	0	STRUCTURE 3L FOUNDATION PLAN	S-001
4B	03B-1900-S-01051	0	STRUCTURE 3L SLAB PLAN	S-002
4B	03X-1900-S-01041	0	STRUCTURE 3C AND 3B FOUNDATION AND SLAB PLAN	S-001
4B	03X-1900-S-01042	0	STRUCTURE 3A AND 2C FOUNDATION PLAN	S-001
4B	03X-1900-S-01043	0	STRUCTURE 3A AND 2C SLAB PLAN	S-002
4B	03X-1900-S-01046	0	STRUCTURE 39C AND 3K FOUNDATION PLAN	S-001
4B	03X-1900-S-01047	0	STRUCTURE 39C AND 3K SLAB PLAN	S-002
4B	03X-1900-S-01048	0	STRUCTURE 3D FOUNDATION PLAN	S-001
4B	03X-1900-S-01049	0	STRUCTURE 3D SLAB PLAN	S-002
4B	18D-1900-S-01416	0	STRUCTURE 18D FOUNDATION PLAN	S-001
4B	18D-1900-S-01417	0	STRUCTURE 18D SLAB PLAN	S-002
4B	18X-1900-S-01408	0	OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10,11,AND 13 FOUNDATION PLAN	S-001
4B	18X-1900-S-01409	0	OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10,11,AND 13 SLAB PLAN	S-002
4B	18X-1900-S-01410	0	CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9 FOUNDATION PLAN	S-001
4B	18X-1900-S-01411	0	CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9 SLAB PLAN	S-002
4B	18X-1900-S-01412	0	STRUCTURE 3H AND 2B FOUNDATION PLAN	S-001
4B	18X-1900-S-01413	0	STRUCTURE 3H AND 2B SLAB PLAN	S-002
4B	18X-1900-S-01414	0	STRUCTURE 18B FOUNDATION PLAN	S-001
4B	18X-1900-S-01415	0	STRUCTURE 18B SLAB PLAN	S-002
4B	39X-1900-S-00073	0	STRUCTURE 39A FOUNDATION PLAN	S-001
4B	39X-1900-S-00074	0	STRUCTURE 39A SLAB PLAN	S-002
4B	34X-5900-S-00151	0	K-65 TRENCH FOUNDATION AND SLAB PLAN	S0001
4B	08X-5900-S-03729	0	BUILDING 8A FOUNDATION PLAN - WEST	S0001
4B	08X-5900-S-03730	0	BUILDING 8A FOUNDATION PLAN - EAST	S0002
4B	08X-5900-S-03743	0	BUILDING 8A FOOTING SCHEDULE	S0003
4B	08X-5900-S-03731	0	BUILDING 8A SLAB PLAN - WEST	S0004
4B	08X-5900-S-03732	0	BUILDING 8A SLAB PLAN - EAST	S0005
4B	08H-5900-S-03733	0	BUILDING 8B FOUNDATION PLAN	S0001
4B	08H-5900-S-03734	0	BUILDING 8B SLAB PLAN	S0002
4B	08H-5900-S-03735	0	BUILDING 8C FOUNDATION PLAN	S0001
4B	08H-5900-S-03736	0	BUILDING 8C SLAB PLAN	S0002
4B	24B-5900-S-00202	0	BUILDING 8D FOUNDATION AND SLAB PLAN	S0001
4B	08X-5900-S-03737	0	BUILDING 8G FOUNDATION PLAN - WEST	S0001
4B	08X-5900-S-03738	0	BUILDING 8G FOUNDATION PLAN - EAST	S0002
4B	08X-5900-S-03739	0	BUILDING 8G SLAB PLAN - WEST	S0003
4B	08X-5900-S-03740	0	BUILDING 8G SLAB PLAN - EAST	S0004
4B	08X-5900-S-03741	0	BUILDING 8H FOUNDATION PLAN	S0001
4B	08X-5900-S-03742	0	BUILDING 8H SLAB PLAN	S0002
4B	18D-5900-S-01418	0	BUILDING 18H FOUNDATION AND SLAB PLAN	S0001
4B	74D-5900-S-00079	0	BUILDING 74C FOUNDATION PLAN	S0001
4B	74D-5900-S-00080	0	BUILDING 74C SLAB PLAN	S0002
4B	74D-5900-S-00081	0	BUILDING 74Q FOUNDATION PLAN	S0001
4B	74D-5900-S-00082	0	BUILDING 74Q SLAB PLAN	S0002
4B	80X-5900-S-00049	0	BUILDING 80 FOUNDATION PLAN	S0001
4B	80X-5900-S-00050	0	BUILDING 80 SLAB PLAN	S0002
4B	15X-5900-S-02542	1	BUILDING 15A FOUNDATION PLAN - NORTH	S0001
4B	15X-5900-S-02543	1	BUILDING 15A FOUNDATION PLAN - SOUTH	S0002
4B	15X-5900-S-02544	0	BUILDING 15A SLAB PLAN - NORTH	S0003
4B	15X-5900-S-02545	0	BUILDING 15A SLAB PLAN - SOUTH	S0004
4B	15X-5900-S-02546	1	BUILDING 15B FOUNDATION PLAN	S0001
4B	15X-5900-S-02547	0	BUILDING 15B SLAB PLAN	S0002
4B	22D-5900-S-00979	0	SCALE 22D FOUNDATION AND SLAB PLAN	S0001
4B	26A-5900-S-00299	0	BUILDING 26A FOUNDATION PLAN	S0001
4B	26A-5900-S-00300	0	BUILDING 26A SLAB PLAN	S0002
4B	26B-5900-S-00301	1	ELEVATED WATER STORAGE TANK 26B FOUNDATION AND SLAB PLAN	S0001
4B	45X-5900-S-00265	1	BUILDING 45A FOUNDATION PLAN	S0001
4B	45X-5900-S-00266	0	BUILDING 45A SLAB PLAN	S0002
4B	34X-5900-S-00150	0	K65 TRENCH FOUNDATION AND SLAB PLAN	S0001
4B	54X-5900-S-00923	0	BUILDING 13A, 54A, & 74U FOUNDATION PLAN	S0001
4B	54X-5900-S-00924	0	BUILDING 13A, 54A, & 74U SLAB PLAN	S0002
4B	13X-5900-S-00781	0	BUILDING 13B FOUNDATION PLAN	S0001
4B	13X-5900-S-00782	0	BUILDING 13B SLAB PLAN	S0002
4B	13X-5900-S-00779	0	TANK AREA 13C & 13D FOUNDATION PLAN	S0001
4B	13X-5900-S-00780	0	TANK AREA 13C & 13D SLAB PLAN	S0002
4B	37X-5900-S-01303	0	BUILDING 37 FOUNDATION PLAN	S0001
4B	37X-5900-S-01304	0	BUILDING 37 SLAB PLAN	S0002
4B	54D-5900-S-00925	0	BUILDING 54B FOUNDATION AND SLAB PLAN	S0001
4B	54X-5900-S-00926	0	BUILDING 54C FOUNDATION AND SLAB PLAN	S0001
4B	68X-5900-S-00091	0	BUILDING 68 FOUNDATION AND SLAB PLAN	S0001
4B	19X-3900-S-00320	3	PLANT 19 AMMONIA STORAGE AREA FOUNDATION LOCATION AND FINISH GRADING PLAN	
4B	19X-3900-S-00321	1	PLANT 19 AMMONIA STORAGE AREA FOUNDATION LOCATION AND FINISH GRADING PLAN	
4B	19X-3900-S-00322	2	PLANT 19 AMMONIA STORAGE AREA FOUNDATION LOCATION AND FINISH GRADING PLAN, AND DETAILS	
4B	19X-3900-S-00323	1	PLANT 19 AMMONIA STORAGE AREA SUMP SECTIONS AND DETAILS	
4B	02B-3900-S-02884	1	PLANT 02 TBP AND KEROSENE STORAGE FOUNDATION LOCATION PLAN AND MISC SECTIONS AND DETAILS	

TECHNICAL REFERENCE DRAWING INDEX

PROJECT	DRAWING NO.	REV.	DRAWING TITLE	SHEET NO.
5	11X-5900-S-00770	0	BUILDING 11 FOUNDATION PLAN - EAST	S0001
5	11X-5900-S-00771	0	BUILDING 11 FOUNDATION PLAN - WEST	S0002
5	11X-5900-S-00772	0	BUILDING 11 SLAB PLAN - EAST	S0001
5	11X-5900-S-00773	0	BUILDING 11 SLAB PLAN - WEST	S0002
5	14X-5900-S-00531	0	BUILDING 14A & 14B FOUNDATION PLAN	S0001
5	14X-5900-S-00532	0	BUILDING 14A & 14B SLAB PLAN	S0002
5	16H-5900-S-00114	0	BUILDING 16 FOUNDATION PLAN	S0001
5	16H-5900-S-00115	0	BUILDING 16 SLAB PLAN	S0002
5	22G-5900-S-00980	0	BUILDING 22B FOUNDATION PLAN	S0001
5	22G-5900-S-00981	0	BUILDING 22B SLAB PLAN	S0002
5	25H-5900-S-00227	0	BUILDING 25C FOUNDATION PLAN	S0001
5	25H-5900-S-00228	0	BUILDING 25C SLAB PLAN	S0002
5	16X-5900-S-00117	0	BUILDING 26C FOUNDATION PLAN	S0001
5	16X-5900-S-00118	0	BUILDING 26C SLAB PLAN	S0002
5	22B-5900-S-00345	0	BUILDING 28A & B FOUNDATION PLAN	S0001
5	22B-5900-S-00346	0	BUILDING 28A & B SLAB PLAN	S0002
5	31X-5900-S-00059	0	BUILDING 31A & 31B FOUNDATION PLAN	S0001
5	31X-5900-S-00060	0	BUILDING 31A & 31B SLAB PLAN	S0002
5	46X-5900-S-00068	0	BUILDING 46A, 46B, & 46C FOUNDATION PLAN	S0001
5	46X-5900-S-00069	0	BUILDING 46A, 46B, & 46C SLAB PLAN	S0002
5	53B-5900-S-00431	0	BUILDING 53A FOUNDATION PLAN	S0001
5	53B-5900-S-00432	0	BUILDING 53A SLAB PLAN	S0002
5	53C-5900-S-00433	0	BUILDING 53B FOUNDATION PLAN	S0001
5	53C-5900-S-00434	0	BUILDING 53B SLAB PLAN	S0002
MDC	12X-5900-S-00477	0	BUILDING 12A - WEST FOUNDATION PLAN	S0001
MDC	12X-5900-S-00479	0	BUILDING 12A - WEST SLAB PLAN	S0002
MDC	19X-5900-S-00696	0	TANK FARM 19A FOUNDATION PLAN	S0001
MDC	19X-5900-S-00697	0	TANK FARM 19A SLAB PLAN	S0002
MDC	19X-5900-S-00699	0	TANK FARM 19D FOUNDATION AND SLAB PLAN	S0001
MDC	19X-5900-S-00698	0	BUILDING 19C AND TANK FARM 19E FOUNDATION AND SLAB PLAN	S0001
MDC	20B-5900-S-00456	0	BUILDING 20A FOUNDATION AND SLAB PLAN	S0001

000002

GENERAL NOTES

1. DESIGN BASED ON CURRENT TECHNICAL REFERENCE DRAWINGS AT CFC ISSUE DATE. REFER TO CURRENT TECHNICAL REFERENCE DRAWINGS AT TIME OF EXCAVATION.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
DRAWING INDEX

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	2080	99X-5500-X-00642	X-2	C
RES PROJECT NO.	FILENAME 99X00642.DGN			

SYMBOLS LEGEND

EXISTING		PROPOSED
●	MANHOLE	N/A
⊙	CATCH BASIN	○
— - — - —	ABOVE-GRADE WATERLINE	N/A
	ELECTRIC POLE	N/A
	LIGHT POLE	N/A
	ELECTRIC MANHOLE	N/A
	ELECTRIC MANHOLE WITH TELEPHONE MANHOLE	N/A
- - - - - -	GRAVEL ROADWAY	— — — —
═══	PAVED ROADWAY	N/A
	BUILDING SLAB/CONCRETE PAD/TRAILER	■
—•—•—	CHAIN LINK FENCE	—•—•—
	TRAFFIC GATE	
—o——o—	CONSTRUCTION SAFETY FENCE	—×—
—o— — —o—	ROPE CONSTRUCTION FENCE	—o— — —o—
N/A	SILT FENCE	
N/A	STRAW BALE	
N/A	LIMIT OF EXCAVATION OR WORK	— — — —
N/A	PROTECTED AREA	— - — -
OR	BENCHMARK	N/A
	LIMIT OF ABOVE-WAC MATERIAL	N/A
	LIMIT OF HWMU MATERIAL	N/A
	LIMIT OF ABOVE-WAC AND HWMU MATERIAL	N/A
	PIPE PLUG	
	AIR GAP FOR STORM SEWER	
- - - - - - - - - - - -	UNDERGROUND UTILITIES	———
N/A	HAUL ROAD	— — — —
N/A	WALKWAY	
— - -584— -	CONTOUR - MINOR	—584—
— - -585— -	CONTOUR - MAJOR	—585—
	CERTIFIED AREA BOUNDARY	— - - —
N/A	DEWATERING CHANNEL OR LINE	
	AREA ISOLATION TRENCH	SEE PLANS
× × × × ×	MODELED URANIUM CONTAMINATION EXTENDING OUTSIDE EXCAVATION AREAS	N/A

SYMBOLS LEGEND

EXISTING		PROPOSED
	POST INDICATOR VALVE	N/A
	OVERHEAD PIPE RACK PEDESTALS	N/A
	RAILROAD TIES	N/A
	RAILROAD	N/A
	HIGH LEACHABILITY AREA LIMIT	N/A
	MONITORING WELL	N/A
- - - - - - - - - - - -	HWMU BOUNDARY	N/A
(72)	SOIL BORING	N/A

ABBREVIATIONS

-- 4518

AIP - ABANDONED IN PLACE
BR - BRINE LINE
BSL - BIODENITRIFICATION SURGE LAGOON
CB - CATCH BASIN
CE - CONTAMINATED EFFLUENT LINES
CI - CAST IRON
CFM - CUBIC FEET PER MINUTE
CMP - CORRUGATED METAL PIPE
COC - CONSTITUENTS OF CONCERN
CN - STEAM & CONDENSATE LINES
DF - DEIONIZED FEEDLINES
D. I. - DUCTILE IRON
DW - DOMESTIC/POTABLE WATER LINES
EC - EDGE OF CONCRETE
EMH - ELECTRICAL MANHOLE
EP - EDGE OF PAVEMENT
EPLTS - ENHANCED PERMANENT LEACHATE TRANSMISSION SYSTEM
EL - ELECTRICAL LINES
ELEV - ELEVATION
FEMP - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FG - FUEL GAS LINES
FRL - FINAL REMEDIATION LEVEL
FT - FILTRATE OR EFFLUENT LINES
FTF - FIRE TRAINING FACILITY
FQI - HIGH PRESSURE FIRE PROTECTION LINES
GMA - UNSATURATED SANDS AND GRAVELS OF THE GREAT MIAMI AQUIFER
GW - GROUND WATER LINES
HDPE - HIGH DENSITY POLYETHYLENE
HWMU - HAZARDOUS WASTE MANAGEMENT UNIT
IE - INVERT ELEVATION
LF - LINEAR FEET
LSP - LIME SLUDGE POND
MDC - MAIN DRAINAGE CORRIDORS
MDPE - MEDIUM DENSITY POLYETHYLENE
MH - MANHOLE
NAR - NITRIC ACID RECOVERY
NI - PIPE CLASSIFICATION
NES - NORTHEAST SUMP
OC - ON CENTER
OD - OUTSIDE DIAMETER
OMTA - OSDF MATERIAL TRANSFER AREA
OSDF - ON-SITE DISPOSAL FACILITY
PA - PLANT AIR LINES
PCE - TETRACHLOROETHENE
PIV - POST INDICATOR VALVE
PVC - POLYVINYL CHLORIDE
RAD - RADIUS
RCP - REINFORCED CONCRETE PIPE
RCRA - RESOURCE CONSERVATION AND RECOVERY ACT
RW - RAW WATER LINES
SA - INSTRUMENT AIR SUPPLY LINES
SD - SUBSURFACE DRAINS
SL - SUMP LIQUOR LINES
SMH - SANITARY MANHOLE
SMTA - SPECIAL MATERIAL TRANSFER AREA
SN - SANITARY SEWER LINES
SP - STOCKPILE / SOIL PILE
ST - STORM SEWER
SWL - SOLID WASTE LANDFILL
SWRB - STORMWATER RETENTION BASIN
TC-99 - TECHNETIUM-99
TOP - TOP OF PIPE
TYP - TYPICAL
TW - TREATED WATER LINES
UST - UNDERGROUND STORAGE TANK
VCP - VITRIFIED CLAY PIPE
VOC - VOLATILE ORGANIC COMPOUND(S)
VT - PIPE CLASSIFICATION
WAC - WASTE ACCEPTANCE CRITERIA
WR - WATER RETURN-COOLING LINES
WS - WATER SUPPLY-COOLING LINES
WWF - WELDED WIRE FABRIC
Y - PIPE CLASSIFICATION

000003

GENERAL NOTES

1. EXISTING TOPOGRAPHY SHOWN ON DRAWINGS PROVIDED BY FLUOR FERNALD. THESE SOURCES INCLUDE EXISTING SITE DATA SOURCE (ON-PLANT FILES) FEMP CADD GRID/UTILITY DRAWINGS.
2. HORIZONTAL CONTROL SHOWN ON THE DRAWINGS IS BASED UPON NORTH AMERICAN DATUM 1983 (NAD 83).
3. VERTICAL CONTROL SHOWN ON THE DRAWINGS IS BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD 29).
4. SILT FENCES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO UPGRADIENT LAND DISTURBANCES IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
6. GEOLOGICAL AND CROSS SECTION INFORMATION TAKEN FROM (FEMP) OU-2 RI, 1995, OU-2 FS, 1995, GEOTECHNICAL REPORTS, AND FEMP 3D CADD MODEL. ACTUAL GEOLOGICAL CONDITIONS AND DEPTHS SHOWN ON CROSS SECTIONS MAY VARY AND SHALL BE DETERMINED IN THE FIELD DURING EXCAVATION.
7. LOCATION AND DEPTH OF EXISTING UTILITIES AND FOUNDATION STRUCTURES ARE APPROXIMATE. IF UNIDENTIFIED UTILITIES ARE DISCOVERED, PROCEED AS DIRECTED BY THE CONSTRUCTION MANAGER.
8. DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
9. FIGURED DIMENSIONS AND/OR ELEVATIONS MARKED THUS (+/-) SHALL BE VERIFIED IN THE FIELD BEFORE START OF REMEDIATION.
10. MAINTAIN AND PROTECT UTILITIES OUTSIDE THE LIMIT OF EXCAVATION AND/OR LIMIT OF WORK.
11. PROVIDE TEMPORARY SHORING, BRACING, OR OTHER METHODS AS NECESSARY TO SAFELY SUPPORT EXCAVATION. PROTECTION SHALL BE IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P-EXCAVATIONS, LATEST EDITION.
12. OUTSIDE THE BOUNDARIES OF A COMPLETED UTILITY ISOLATION TRENCHED AREA, A PENETRATION PERMIT MUST BE OBTAINED BY THE CONSTRUCTION MANAGER FOR EXCAVATION OR PENETRATION INTO THE SOIL DEEPER THAN 6 INCHES.
13. TECHNICAL SPECIFICATIONS GOVERNING THIS PROJECT ARE THE LATEST REVISIONS OF 3B/4B/5 TECHNICAL SPECIFICATIONS (DOCUMENT# NO. 20000-TS-0001 AND 20810-TS-0001) AND ON-SITE DISPOSAL FACILITY (OSDF) PHASE IV TECHNICAL SPECIFICATIONS (DOCUMENT NO. 20104-TS-0000).

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
H	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
G	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
F	ISSUED FOR AGENCY REVIEW (SWL & FTF)	8/27/02	KLR	
E	ISSUED FOR 30% DESIGN REVIEW (4B AND MDC)	8/7/02	DRF	
D	ISSUED FOR DOE REVIEW (SWL & FTF)	7/15/02	ATG	
C	ISSUED FOR A2PII (RDP AGENCY REVIEW	6/24/02	GDD	
B	ISSUED FOR 90% DESIGN REVIEW (SWL & FTF)	6/7/02	ATG	
A	ISSUED FOR 90% DESIGN REVIEW	6/3/02	GDD	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

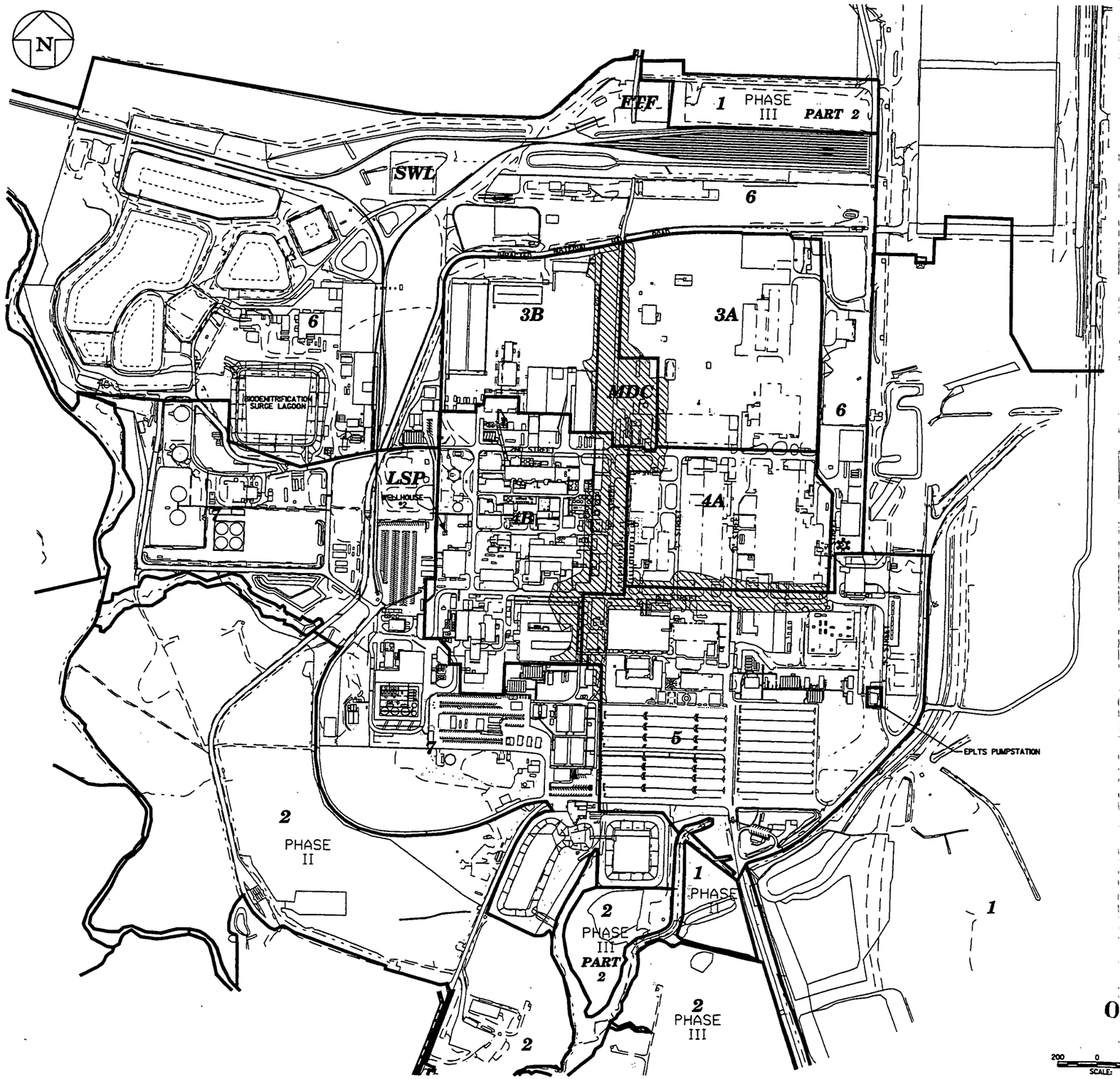
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
LEGEND AND GENERAL NOTES

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20810	99X-5500-X-00639	X-3	H
RES PROJECT NO.	FILENAME 99XX00639.DGN			



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GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. FEATURES SHOWN OUTSIDE THE PROJECT AREA ARE FOR REFERENCE AND ORIENTATION ONLY.
3. MAINTAIN NEW AND EXISTING SURVEY MONUMENTS OUTSIDE THE LIMITS OF EXCAVATION FOR THE DURATION OF THE PROJECT.
4. OBTAIN NON-POTABLE WATER FROM WELLHOUSE #2.
5. REFER TO MASTER FEMP BENCHMARK LOCATION PLAN, DRAWING 93X-5500-G-0846 FOR EXISTING BENCHMARK LOCATIONS.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
F	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
E	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
D	ISSUED FOR AGENCY REVIEW (SWL & FTF)	8/27/02	KLR	
C	ISSUED FOR 30% DESIGN REVIEW (4B AND MDC)	8/1/02	DRF	
B	ISSUED FOR DOE REVIEW (SWL & FTF)	7/15/02	ATG	
A	ISSUED FOR 90% DESIGN REVIEW	6/3/02	GDD	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

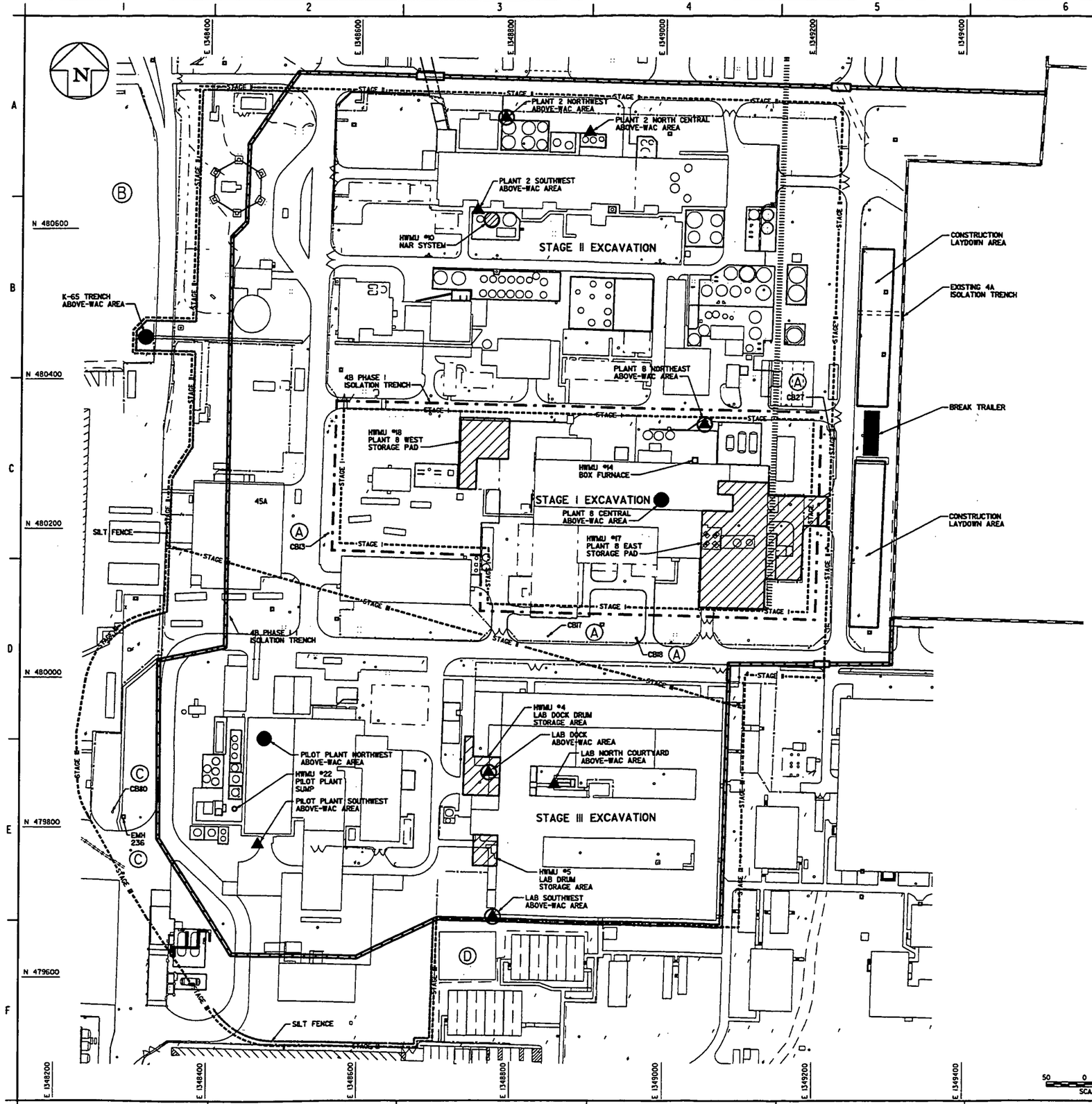
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MASTER PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00640	G-1	F
RES PROJECT NO.	FILENAME 99XG00640.DGN			



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000005

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. EXISTING FENCE WITHIN PROJECT AREA TO BE REMOVED AFTER PERIMETER FENCE IS INSTALLED. FENCE REMOVAL SEQUENCE SHALL BE DETERMINED IN THE FIELD.
3. FIELD LOCATE SUPPORT FACILITIES AS DIRECTED BY THE CM.
4. FIELD LOCATE THE SMTA IN ACCORDANCE WITH SPECIFICATION SECTION 02205 AND DRAWING 99X-5500-G-00738.
5. SEE DRAWING 99X-5500-G-00738 FOR SILT FENCE DETAIL.
6. SEE 3B/4B/5 EXCAVATION AND GRADING PLANS FOR LIMIT OF EXCAVATION SHOWN HERE FOR REFERENCE ONLY.
7. ABOVE-WAC AREAS ARE LABELED WITH THEIR PROJECT-SPECIFIC IDENTIFIERS. SEE DRAWING 99X-5500-G-00677 FOR AREA 4B ABOVE-WAC AREA COORDINATES AND EXCAVATION DETAILS.
8. HWMU'S ARE LABELED WITH THEIR APPROPRIATE SITE-RECOGNIZED TITLES AND NUMERIC IDENTIFIERS. SEE DRAWING 99X-5500-G-00678 FOR AREA 4B HWMU COORDINATES AND EXCAVATION DETAILS.

KEYED NOTES

(A) PRIOR TO STAGE I EXCAVATION, ESTABLISH STRAW BALES AROUND CATCH BASIN CB13, CB17, CB18, AND CB27 IN ACCORDANCE WITH DETAIL ON DRAWING 99X-5500-G-00738.

(B) PRIOR TO STAGE II EXCAVATION, INSTALL 4BI TRANSFER LINE FROM BSL TO 4BI TRANSFER LINE FLANGE TIE-IN (REFER TO DRAWING 99X-5500-G-00680).

(C) PRIOR TO STAGE III EXCAVATION, ESTABLISH STRAW BALES AROUND CATCH BASIN CB80 IN ACCORDANCE WITH DETAIL ON DRAWING 99X-5500-G-00738. PROTECT ELECTRICAL MANHOLE EMH236.

(D) T-568 OPTIONAL RADIOLOGICAL CONTROL POINT FACILITY (STAGE II AND III EXCAVATION ONLY).

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- Ⓐ URANIUM AREA & TC-99 ABOVE-WAC AREA
- STAGE I STAGE I LIMIT OF EXCAVATION
- STAGE II STAGE II LIMIT OF EXCAVATION
- STAGE III STAGE III LIMIT OF EXCAVATION

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
LAYOUT PLAN

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE.		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00644	G-2	C
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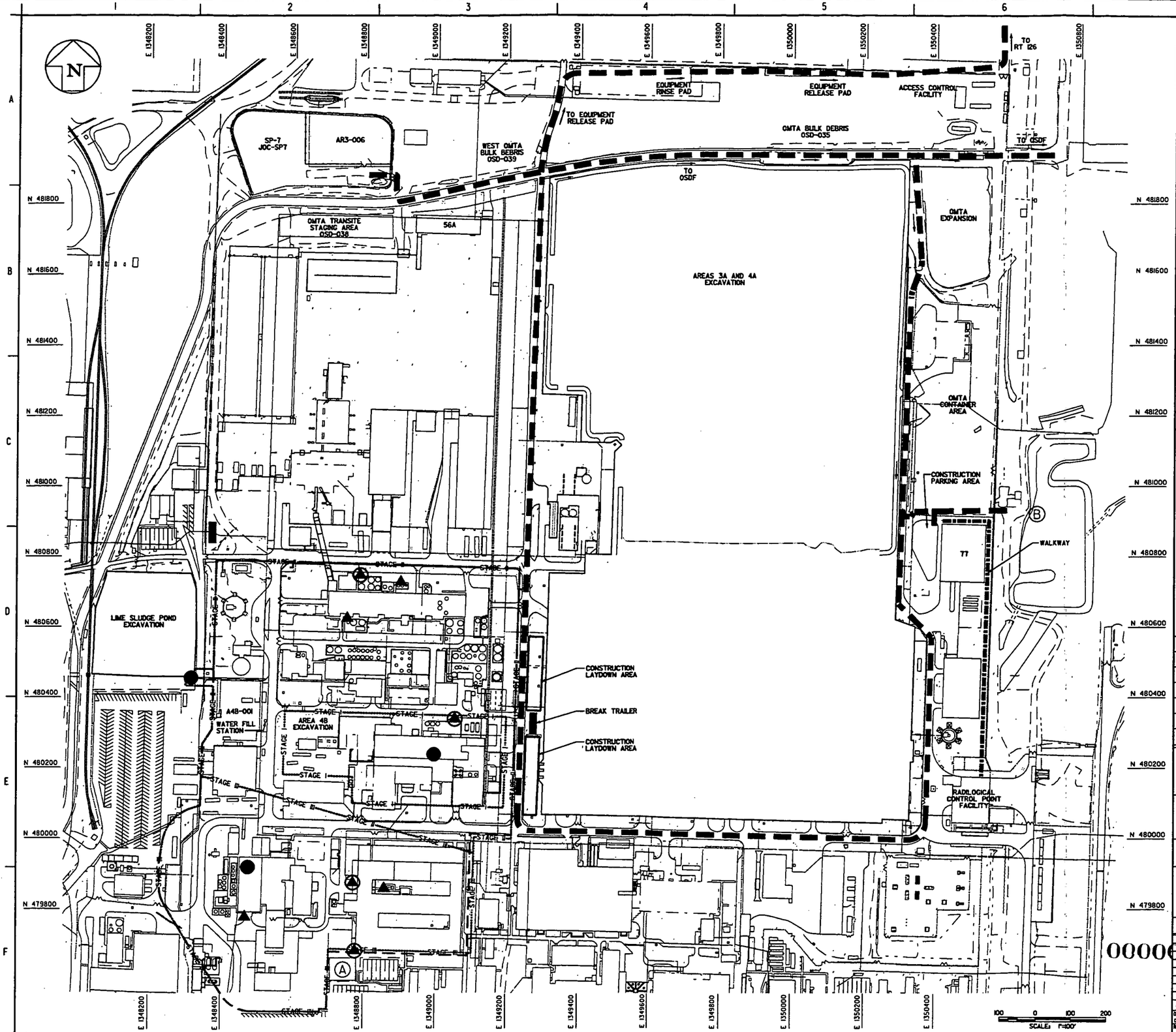

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SPECIFICATION 02150.
3. FIELD LOCATED SUPPORT FACILITIES AND SMTA AS DIRECTED BY THE CONSTRUCTION MANAGER.
4. DO NOT STAGE LOADED HAUL TRACKS WITHIN 15 FT. FROM THE TOP OF DEEP EXCAVATION SLOPES. DO NOT STAGE GENERAL CONSTRUCTION EQUIPMENT WITHIN 10 FT. FROM TOP OF DEEP EXCAVATION SLOPES.
5. THIS DRAWING PRESENTS THE SOURCE MATERIAL TRACKING LOCATIONS (MTL'S) OF THE MATERIALS EXCAVATED, STOCK-PILED, REUSED OR TRANSPORTED TO THE OSDF, SPT, AND SMTA. THE CONSTRUCTION MANAGER WILL TRACK THE QUANTITY, MATERIAL TYPE, SOURCE LOCATION (MTL), AND DESTINATION LOCATION (MTL) OF ALL MATERIALS MOVED BETWEEN MTL'S DAILY. NO TRACKING IS REQUIRED FOR MATERIALS MOVED WITHIN A MTL.

- 4518

KEYED NOTES

(A) T-568 OPTIONAL RADIOLOGICAL CONTROL POINT FACILITY (PHASE II AND III EXCAVATION ONLY).

(B) USE SOUTH ACCESS TO OSDF AFTER CONSTRUCTION OF CELL 4 CAP BEGINS. SOUTH ACCESS TO BE DESIGNED AND CONSTRUCTED BY OSDF PROJECT.

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- ② URANIUM AREA & TC-99 ABOVE-WAC AREA
- —STAGE I— STAGE I LIMIT OF EXCAVATION
- —STAGE II— STAGE II LIMIT OF EXCAVATION
- —STAGE III— STAGE III LIMIT OF EXCAVATION

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
TRAFFIC FLOW AND MATERIAL TRACKING PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00645	G-3	C
RES PROJECT NO.	FILENAME 99XG00645.DGN			

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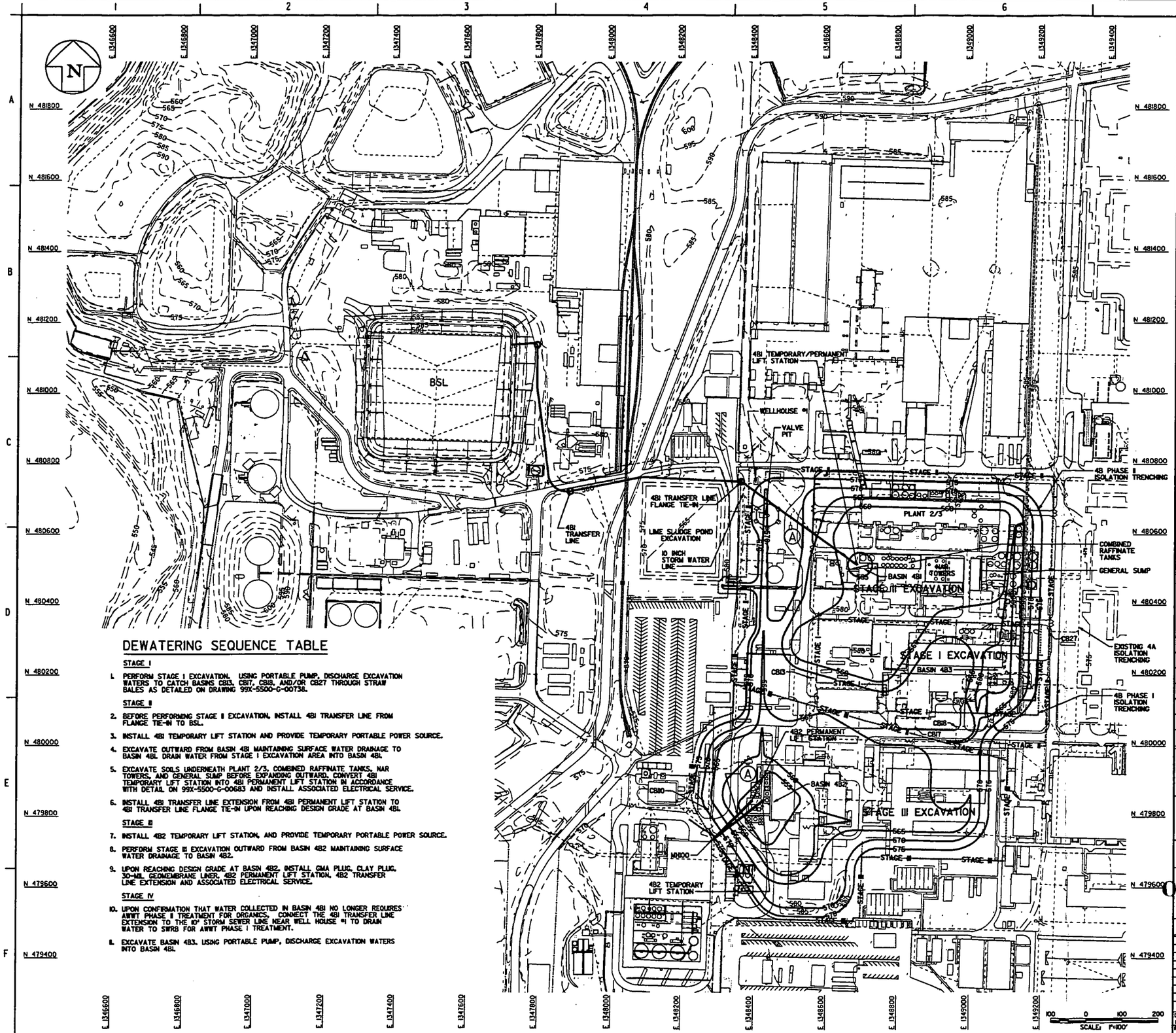


DEWATERING SEQUENCE TABLE

STAGE I

1. PERFORM STAGE I EXCAVATION. USING PORTABLE PUMP, DISCHARGE EXCAVATION WATERS TO CATCH BASINS CB13, CB17, CB18, AND/OR CB27 THROUGH STRAW BALES AS DETAILED ON DRAWING 99X-5500-G-00738.

STAGE II

2. BEFORE PERFORMING STAGE II EXCAVATION, INSTALL 4B1 TRANSFER LINE FROM FLANGE TIE-IN TO BSL.
3. INSTALL 4B1 TEMPORARY LIFT STATION AND PROVIDE TEMPORARY PORTABLE POWER SOURCE.
4. EXCAVATE OUTWARD FROM BASIN 4B1 MAINTAINING SURFACE WATER DRAINAGE TO BASIN 4B1. DRAIN WATER FROM STAGE I EXCAVATION AREA INTO BASIN 4B1.
5. EXCAVATE SOILS UNDERNEATH PLANT 2/3, COMBINED RAFFINATE TANKS, NAR TOWERS, AND GENERAL SUMP BEFORE EXPANDING OUTWARD. CONVERT 4B1 TEMPORARY LIFT STATION INTO 4B1 PERMANENT LIFT STATION IN ACCORDANCE WITH DETAIL ON 99X-5500-G-00683 AND INSTALL ASSOCIATED ELECTRICAL SERVICE.
6. INSTALL 4B1 TRANSFER LINE EXTENSION FROM 4B1 PERMANENT LIFT STATION TO 4B1 TRANSFER LINE FLANGE TIE-IN UPON REACHING DESIGN GRADE AT BASIN 4B1.

STAGE III

7. INSTALL 4B2 TEMPORARY LIFT STATION, AND PROVIDE TEMPORARY PORTABLE POWER SOURCE.
8. PERFORM STAGE III EXCAVATION OUTWARD FROM BASIN 4B2 MAINTAINING SURFACE WATER DRAINAGE TO BASIN 4B2.
9. UPON REACHING DESIGN GRADE AT BASIN 4B2, INSTALL GMA PLUG, CLAY PLUG, 30-MIL GEOMEMBRANE LINER, 4B2 PERMANENT LIFT STATION, 4B2 TRANSFER LINE EXTENSION AND ASSOCIATED ELECTRICAL SERVICE.

STAGE IV

10. UPON CONFIRMATION THAT WATER COLLECTED IN BASIN 4B1 NO LONGER REQUIRES AWWT PHASE II TREATMENT FOR ORGANICS, CONNECT THE 4B1 TRANSFER LINE EXTENSION TO THE 10" STORM SEWER LINE NEAR WELL HOUSE #1 TO DRAIN WATER TO SWRB FOR AWWT PHASE I TREATMENT.
11. EXCAVATE BASIN 4B3, USING PORTABLE PUMP, DISCHARGE EXCAVATION WATERS INTO BASIN 4B1.

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. INSTALL TRANSFER LINES AND LIFT STATIONS IN ACCORDANCE WITH SPECIFICATION SECTIONS 02668 AND 15060 AND THE DETAILS PRESENTED ON DRAWING 99X-5500-G-00683.
3. SEE DRAWINGS 99X-5500-G-00681 AND 00682 FOR BASIN 4B1 TRANSFER LINE PLAN AND PROFILE AND BASIN 4B2 GMA/CLAY PLUG PLAN AND PROFILE RESPECTIVELY.

-- 4518

KEYED NOTES

(A) FIELD ROUTE TRANSFER LINE EXTENSION FROM FLANGE TIE-IN TO LIFT STATION. MINIMUM COVER 2 FOOT-6 INCH. MAKE CONNECTION AT TRANSFER LINE TIE-IN AFTER LIFT STATION IS OPERATIONAL.

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

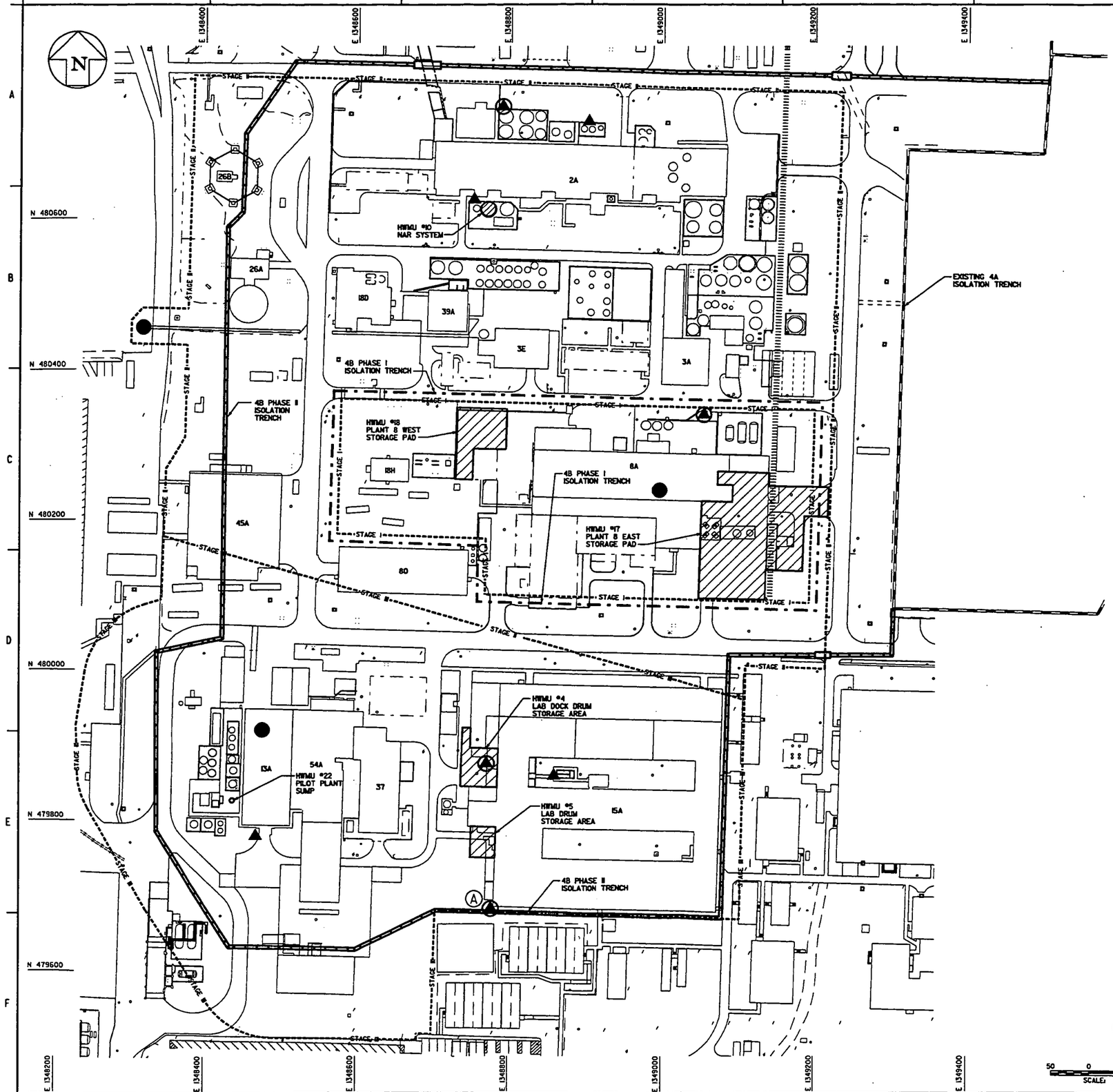
DRAWING TITLE
AREA 4B
DEWATERING PLAN

000007

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00646	G-4	C
RES PROJECT NO.	FILENAME 99XC00646.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. SEE DRAWING 99X-5500-G-00677 FOR COORDINATES OF ABOVE-WAC AREAS.
3. SEE 4B EXCAVATION/DRAINAGE PLANS FOR LIMIT OF EXCAVATION SHOWN HERE FOR REFERENCE ONLY.
4. VERIFY COMPLETION OF D & D ACTIVITIES AND ISOLATION OF UTILITIES ENTERING AN AREA TO BE TRENCHED PRIOR TO TRENCHING.
5. PERFORM ISOLATION TRENCHING IN SUPPORT OF EXCAVATION SEQUENCING SHOWN HERE AND DETAILED ON DRAWING 99X-5500-G-00635.
6. PERFORM ISOLATION TRENCHING IN ACCORDANCE WITH DRAWINGS 99X-5500-G-00647, 648, 649, 650, 651, AND 652 AND SPECIFICATION SECTION 02207.
7. SEE DRAWINGS 99X-5500-G-00647, 648, 649, 650, 651, AND 652 FOR UTILITY ISOLATION TRENCH CONTROL POINTS SHOWN HERE FOR REFERENCE ONLY.

-- 4518

KEYED NOTES

(A) EXCAVATE URANIUM AND TC-99 ABOVE-WAC AREA SOUTHWEST OF BUILDING 15A (LABORATORY) BEFORE PERFORMING PHASE II UTILITY ISOLATION TRENCHING.

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- URANIUM AREA & TC-99 ABOVE-WAC AREA
- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

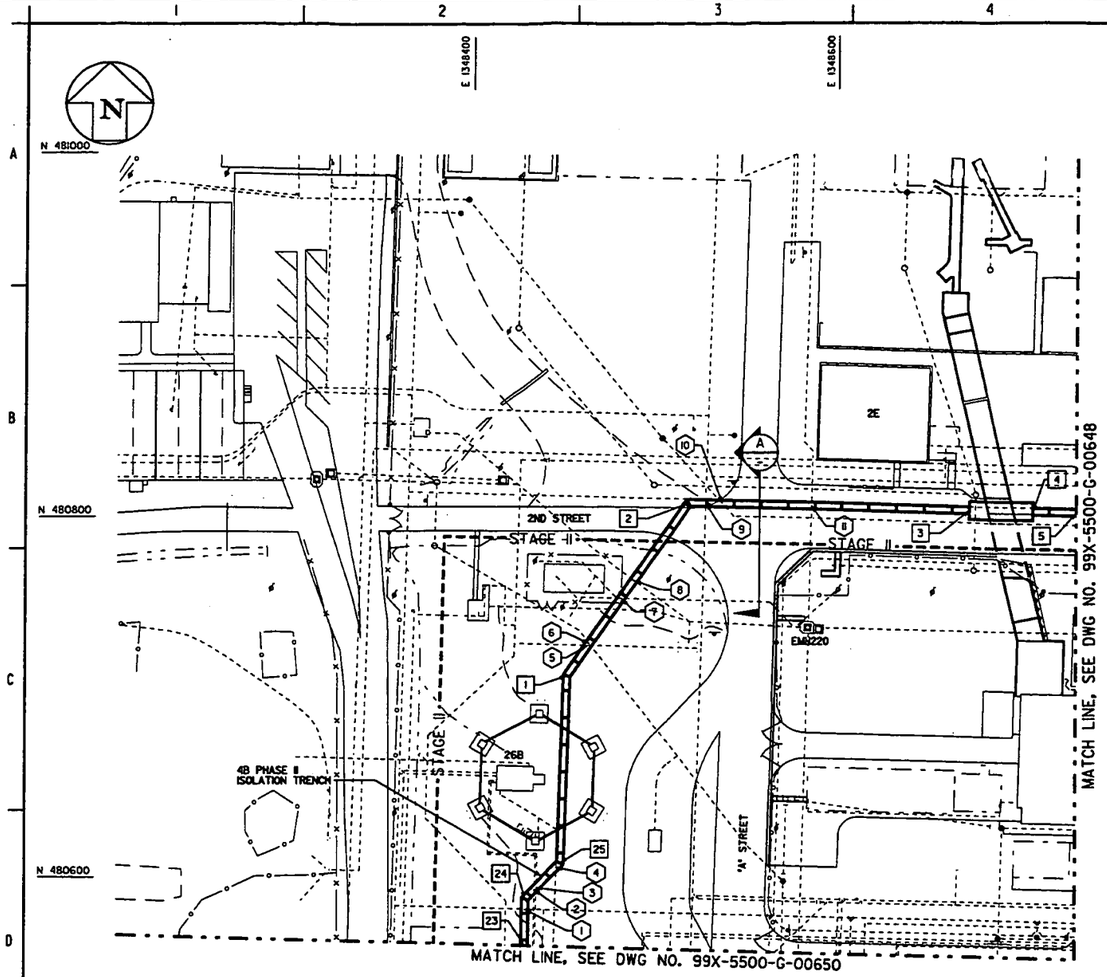
DRAWING TITLE
AREA 4B
UTILITY ISOLATION OVERVIEW PLAN

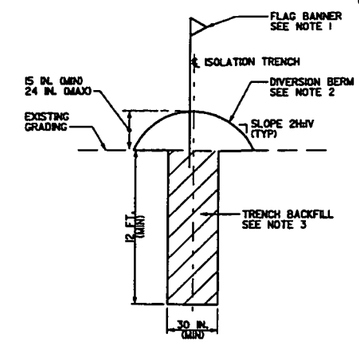
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20810	99X-5500-G-00674	G-5	B
RES PROJECT NO.	FILENAME 99XG00674.DGN			

000008





NOTES:

1. INSTALL FLAG BANNER APPROXIMATELY EVERY 100 L.F. AND AT CORNER OF TRENCH TO INDICATE UTILITY ISOLATION TRENCH BOUNDARY.
2. PLACE AND COMPACT DIVERSION BERM IN ACCORDANCE WITH SPECIFICATION SECTION 02207.
3. PLACE AND COMPACT TRENCH BACKFILL IN ACCORDANCE WITH SPECIFICATION SECTION 02207.

TYPICAL ISOLATION TRENCH/ DIVERSION BERM DETAIL

NTS

A 99X-5500-G-00647 648 649 650 651 652

PHASE II TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
1	480781.70	1348452.28
2	480807.29	1348517.83
3	480803.05	1348672.01
4	480802.09	1348706.99
5	480801.45	1348730.28
23	480562.09	1348429.21
24	480588.16	1348429.48
25	480607.94	1348449.03

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (NW)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	25	FO1-12"-LJ	LEAD JOINTS	480582.34	1348429.42
2	25	LS	ASBESTOS GASKETS	480593.29	1348434.55
3	25	CN	ASBESTOS GASKETS	480594.33	1348435.58
4	25	ELEC. DUCT	ASBESTOS INSULATION	480605.65	1348446.77
5	25	RW-8"	ASBESTOS GASKETS	480728.46	1348463.78
6	25	ST-12"-PVC	ASBESTOS	480729.45	1348464.45
7	25	ELEC. DUCT 1"X6"	ASBESTOS INSULATION	480754.50	1348481.63
8	25	ELEC. DUCT 1"X6"	ASBESTOS INSULATION	480764.36	1348488.39
9	24	DW-6-8"-LJ	ACM COATING/LEAD JOINTS	480807.04	1348526.93
10	24	SN-6"	NONE	480806.79	1348536.06
11	27	ST-10"-NI	ASBESTOS	480805.43	1348585.42

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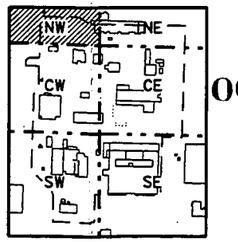
SCALE: 1"=30'



AREA 4B KEY PLAN
SCALE: NONE

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 22D-5500-P-00678 (GRID 19), 22B-5500-P-00683 (GRID 24), 22D-5500-P-00684 (GRID 25), AND 22B-5500-P-00686 (GRID 27). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
4. VERIFY LOCATIONS AND PROTECT EXISTING ENERGIZED UNDERGROUND UTILITIES.
5. UTILITY CUT TABLE SUMMARIZES UTILITY CUTS TO BE MADE DURING ISOLATION TRENCHING, MOVING CLOCKWISE AROUND THE TRENCH CENTERLINE.
6. GRID NUMBERS AND UTILITY DESIGNATORS ARE BASED ON FLUOR FERNALD UNDERGROUND UTILITY GRID DRAWINGS.
7. POTENTIAL HAZARDS ARE ASSESSED FOR MONITORING PURPOSES BASED ON INFORMATION GATHERED FROM CATALYTIC CONSTRUCTION DRAWINGS AND ORIGINAL FEMP CONSTRUCTION SPECIFICATIONS. LESSONS LEARNED FROM PREVIOUS EXCAVATIONS, AND DISCUSSIONS WITH ENVIRONMENTAL COMPLIANCE, MAINTENANCE, AND SAFETY REPRESENTATIVES.
8. COORDINATES FOR LOCATIONS WHERE ISOLATION TRENCHING INTERSECTS UTILITIES ARE BASED ON FEMP UNDERGROUND UTILITY GRID DRAWINGS.
9. EACH UTILITY CUT WILL BE LABELED IN THE FIELD AT THE CORRESPONDING COORDINATE LOCATION WITH TWO DESIGNATORS. THE FIRST IS THE UTILITY DESIGNATOR FROM THE TABLE PROVIDED (EX. ST-12"-PVC). THE SECOND IS THE CUT DESIGNATOR DEVELOPED FROM THIS DRAWING TO IDENTIFY THE CORRESPONDING AREA, QUADRANT, AND CUT IDENTIFICATION NUMBER (EX. 4B-NW-00).
10. UNLESS SPECIFIED BY COORDINATES, OR SHOWN IN A SPECIFIC MANHOLE OR CATCH BASIN, PROPOSED AIR GAP LOCATIONS ARE APPROXIMATE. AIR GAPS MAY BE INSTALLED AT THE INTERSECTION OF THE UTILITY AND THE ISOLATION TRENCH, OUTSIDE OF THE PROPOSED EXCAVATION AREA.
11. STORM SEWERS HAVE BEEN ASSIGNED A POTENTIAL ASBESTOS HAZARD FOR PURPOSES OF AGENCY NOTIFICATION OF POTENTIAL ACM DISTURBANCE BASED ON PROCESS KNOWLEDGE THAT LINES MAY CONTAIN TRANSITE-LIKE MATERIALS. THE ASBESTOS COMPETENT PERSON SHALL VERIFY PIPE MATERIALS ENCOUNTERED IN THE FIELD AND DIRECT THE MANAGEMENT OF THESE MATERIALS ACCORDINGLY.
12. EXISTING STORM SEWER SYSTEM MAY BE USED TO CONTROL RUNOFF DURING REMEDIATION. HOWEVER, STORM SEWER PIPES TO BE CUT DURING AREA ISOLATION SHALL BE PLUGGED AT THE EXCAVATION BOUNDARY IN ACCORDANCE WITH SECTION 02275.
13. UTILITY AIR GAPPING AND PLUGGING SHALL BE SEQUENCED WITH THE RELATED AREA ISOLATION TRENCH PHASE.
14. EXCAVATE ISOLATION TRENCH GAPS SHOWN TO DEPTH AND WIDTH REQUIREMENTS SPECIFIED IN SECTION 02207 USING EXCAVATION EQUIPMENT RATHER THAN THE TRENCHER, TO ISOLATE REMAINING UTILITIES AND TO PROTECT THE STORM SEWER. DO NOT EXCAVATE DIRECTLY BELOW THE PROTECTED STORM SEWER PIPE.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

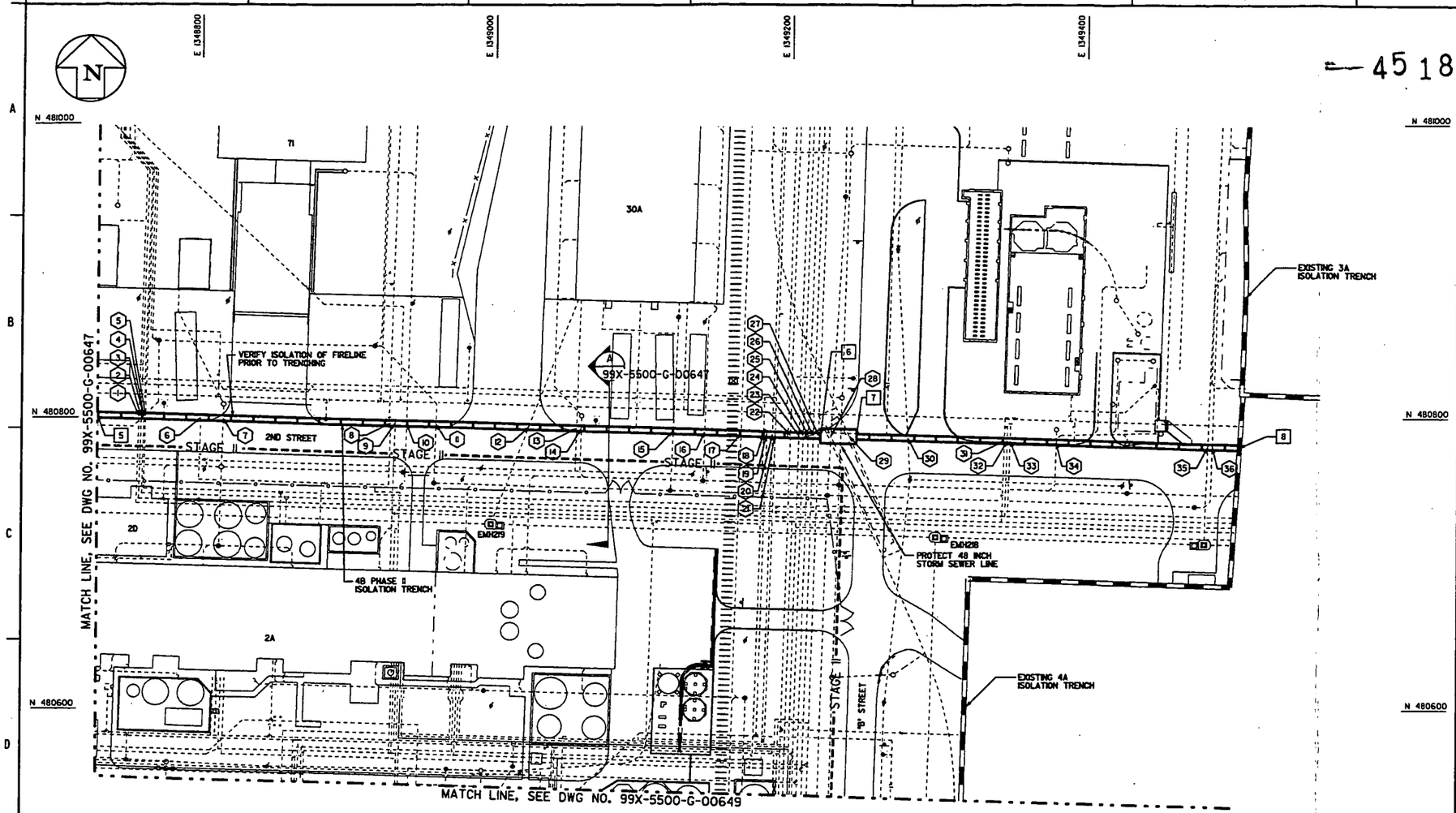
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
000009 UTILITY ISOLATION PLAN (NW)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00647	G-6	C
RES PROJECT NO.	FILENAME 99XG00647.DGN			



AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (NE)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	27	FG-12-3"-V	ASBESTOS GASKETS	480800.68	1348758.38
2	27	TW-12-3"-W	ASBESTOS GASKETS	480800.63	1348759.88
3	27	SN-3"-HDPE	NONE	480800.57	1348761.62
4	27	WS-8-4"-W	ASBESTOS GASKETS	480800.58	1348761.88
5	27	WR-8-4"-W	ASBESTOS GASKETS	480800.55	1348762.95
6	27	FQI-28-6"-LI	LEAD JOINTS	480799.52	1348800.33
7	27	ST-10"-NI	ASBESTOS	480799.11	1348815.32
8	27	FQI-28-6"-LI	LEAD GASKETS	480795.97	1348929.25
9	27	FQI-23-6"-LI	LEAD GASKETS	480795.89	1348932.28
10	27	ST-10-30"-NI	ASBESTOS	480795.67	1348940.28
11	27	SN-6"-MI	NONE	480795.12	1348960.27
12	18	ELEC. DUCT 14"X22"	ASBESTOS INSULATION	480793.39	1349023.22
13	18	ELEC. DUCT 16"X16"	ASBESTOS INSULATION	480792.51	1349055.24
14	18	ST-6"-NI	ASBESTOS	480792.42	1349058.53
15	18	SN-4A-6"-MI	NONE	480790.71	1349120.73
16	18	ST-6"-NI	ASBESTOS	480790.11	1349142.20
17	18	6" DRAIN TILE	NONE	480789.45	1349166.23

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (NE)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
18	18	FT-3-3"-W	ASBESTOS GASKETS	480789.04	1349181.18
19	18	FQI-12-12"-LI	LEAD JOINTS	480788.99	1349183.18
20	18	TW-17-10"-W	ASBESTOS GASKETS	480788.88	1349187.18
21	18	FT-3-3"-W	ASBESTOS GASKETS	480788.82	1349189.18
22	18	DW-5-8"-LI	ACM COATING/LEAD JOINTS	480788.53	1349199.68
23	18	DF-1-4"-W	ASBESTOS GASKETS	480788.37	1349205.68
24	18	TW-1-10"-W	ASBESTOS GASKETS	480788.29	1349208.67
25	18	FT-2-8"-W	ASBESTOS GASKETS	480788.18	1349212.35
26	18	WS-1-24"-W	ASBESTOS GASKETS	480788.09	1349215.67
27	18	WR-6-24"-W	ASBESTOS GASKETS	480788.00	1349219.17
28	18	SN-3-6"-MI	NONE	480787.76	1349227.66
29	18	6" DRAIN TILE	NONE	480787.43	1349239.92
30	18	ELEC. LIGHTING	ASBESTOS INSULATION	480786.34	1349279.33
31	11	TW-20-4"-W	ASBESTOS GASKETS	480784.54	1349344.76
32	11	WS-15-2"-W	ASBESTOS GASKETS	480784.49	1349346.76
33	11	WR-16-2"-W	ASBESTOS GASKETS	480784.43	1349348.76
34	11	ST-10"-NI	ASBESTOS	480783.57	1349380.11
35	11	ELEC. DUCT 3'2"X2'4"	ASBESTOS INSULATION	480780.76	1349482.26
36	11	SN-34-6"	NONE	480780.67	1349485.33

PHASE II TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
5	480781.70	1348452.28
6	480787.96	1349220.56
7	480787.29	1349244.92
8	480780.18	1349503.32

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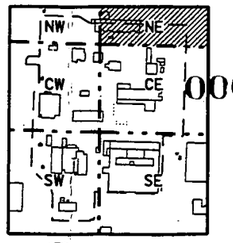
SCALE: 1"=30'



NORTH

AREA 4B KEY PLAN
SCALE: NONE

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 22D-5500-P-00678 (GRID 19), 22B-5500-P-00683 (GRID 24), 22D-5500-P-00684 (GRID 25), AND 22B-5500-P-00686 (GRID 27). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
4. VERIFY LOCATIONS AND PROTECT EXISTING ENERGIZED UNDERGROUND UTILITIES.
5. UTILITY CUT TABLE SUMMARIZES UTILITY CUTS TO BE MADE DURING ISOLATION TRENCHING, MOVING CLOCKWISE AROUND THE TRENCH CENTERLINE.
6. GRID NUMBERS AND UTILITY DESIGNATORS ARE BASED ON FLUOR FERNALD UNDERGROUND UTILITY GRID DRAWINGS.
7. POTENTIAL HAZARDS ARE ASSESSED FOR MONITORING PURPOSES BASED ON INFORMATION GATHERED FROM CATALYTIC CONSTRUCTION DRAWINGS AND ORIGINAL FEMP CONSTRUCTION SPECIFICATIONS, LESSONS LEARNED FROM PREVIOUS EXCAVATIONS, AND DISCUSSIONS WITH ENVIRONMENTAL COMPLIANCE, MAINTENANCE, AND SAFETY REPRESENTATIVES.
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LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

DETAILS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

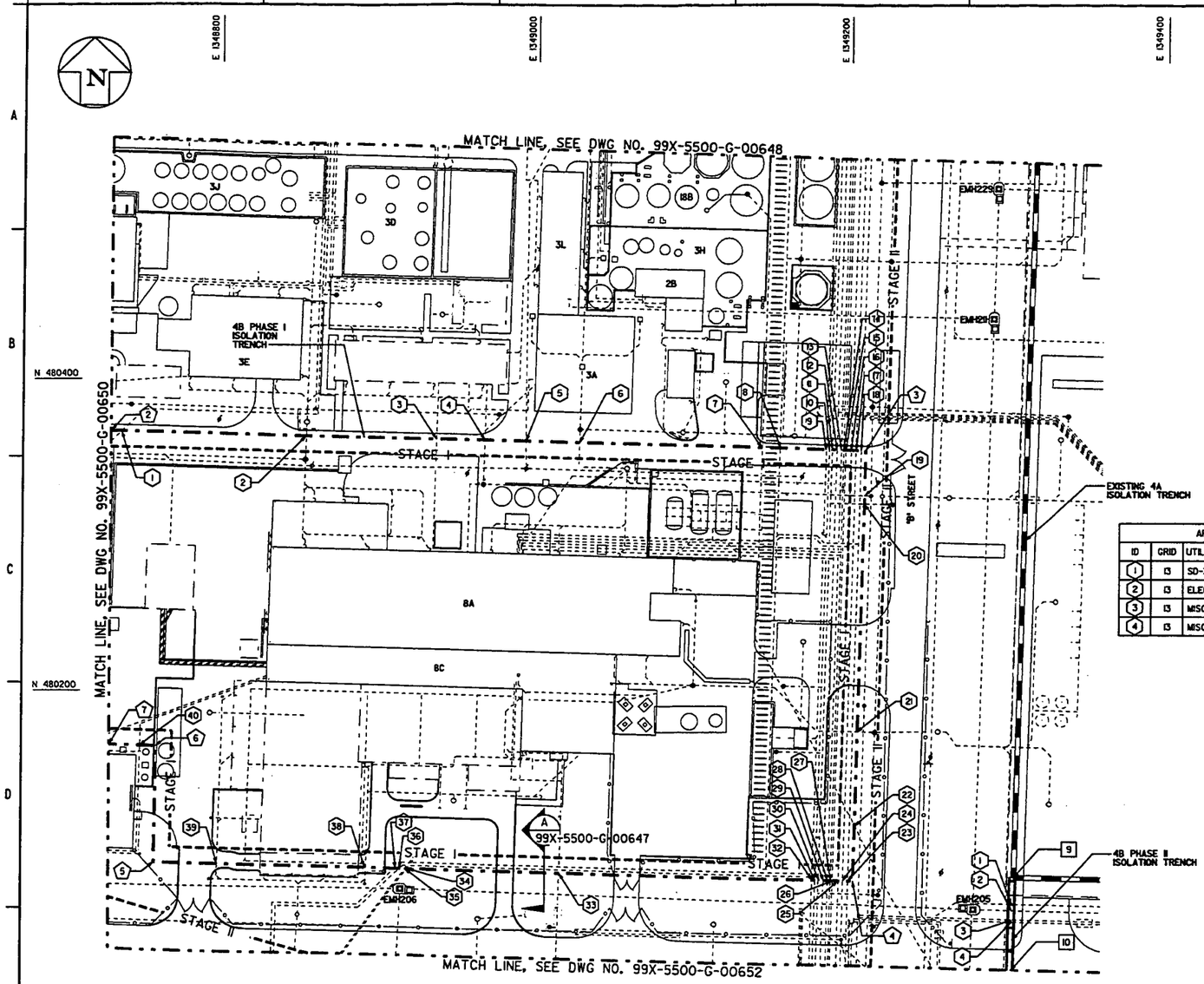
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
000010 UTILITY ISOLATION PLAN (NE)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00648	G-7	C
RES PROJECT NO.	FILENAME 99XG00648.DGN			



PHASE I TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
2	480366.68	1348730.32
3	480354.90	1349210.56
4	480077.78	1349202.98
5	480089.92	1348759.20
6	480164.36	1348760.20
7	480165.33	1348730.29

PHASE II TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
9	480080.50	1349305.32
10	480021.00	1349303.76

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (CE)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	13	SD-3-12"-N1	ASBESTOS	480063.22	1349304.24
2	13	ELEC. DUCT 38"X38"	ASBESTOS INSULATION	480059.22	1349304.12
3	13	MISC. LS	ASBESTOS	480053.22	1349303.95
4	13	MISC. CN	ASBESTOS	480051.72	1349303.91

AREA 4B PHASE I ISOLATION TRENCH UTILITY CUTS (CE)						AREA 4B PHASE I ISOLATION TRENCH UTILITY CUTS (CE)						AREA 4B PHASE I ISOLATION TRENCH UTILITY CUTS (CE)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING	ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING	ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	19	WS(22-16)-10"-W	ASBESTOS GASKETS	480366.52	1348737.14	15	19	TW-11-4"-W	ASBESTOS GASKETS	480355.24	1349196.83	29	20	FG-1-6"-V	ASBESTOS COATING	480078.31	1349183.57
2	19	ST-6'	ASBESTOS	480363.66	1348853.43	16	19	FT-2-8"-W	ASBESTOS GASKETS	480355.14	1349200.53	30	20	DW-5-8"-LI	ACM COATING/LEAD JOINTS	480078.38	1349180.85
3	19	ELEC. DUCT 30"X16"	ASBESTOS	480361.62	1348936.70	17	19	WS-6-6"-W	ASBESTOS GASKETS	480355.06	1349203.82	31	20	WR-12"	ASBESTOS COATING	480078.45	1349178.32
4	19	SN-6"	NONE	480360.87	1348967.39	18	19	WR-4-6"-W	ASBESTOS GASKETS	480354.98	1349207.32	32	20	WS-12"	ASBESTOS COATING	480078.50	1349176.58
5	19	ELEC. LIGHTING	ASBESTOS	480360.23	1348993.16	19	20	SN-38-6"-M1	NONE	480325.90	1349209.77	33	20	FQI-22-8"-LI	LEAD JOINTS	480082.90	1349015.81
6	19	ST-6'	ASBESTOS	480359.39	1349027.37	20	20	DW-6"	ACM COATING/LEAD JOINTS	480320.58	1349209.62	34	20	DW-2"	ACM COATING/LEAD JOINTS	480085.51	1348920.11
7	19	SD-4-12"-N1	NONE	480356.55	1349143.34	21	20	ST-10"-N1	ASBESTOS	480173.96	1349205.61	35	20	SN-4"	NONE	480085.57	1348918.19
8	19	6' DRAIN TILE	NONE	480356.26	1349155.08	22	20	SD-4-12"-N	ASBESTOS	480113.23	1349203.95	36	20	WS-12"	ASBESTOS GASKETS	480085.66	1348914.69
9	19	WS-3-12"-W	ASBESTOS GASKETS	480355.56	1349183.63	23	20	WR-4-6"-W	ASBESTOS GASKETS	480077.86	1349199.74	37	20	WR-12"	ASBESTOS GASKETS	480085.73	1348912.24
10	19	WR-3-12"-W	ASBESTOS GASKETS	480355.51	1349185.83	24	20	WS-6-6"-W	ASBESTOS GASKETS	480077.96	1349196.24	38	20	ST-6'	ASBESTOS	480086.27	1348892.49
11	19	DW-10"-LI	ACM COATING/LEAD JOINTS	480355.46	1349187.83	25	20	FT-1-12"-W	ASBESTOS GASKETS	480078.04	1349193.25	39	20	ST-6'	ASBESTOS	480088.82	1348799.46
12	19	FG-6-6"-V	ASBESTOS COATING	480355.38	1349190.83	26	20	TW-9-4"-W	ASBESTOS GASKETS	480078.15	1349189.25	40	20	ST-6'	ASBESTOS	480164.69	1348749.95
13	19	PW-1-1"	ASBESTOS GASKETS	480355.31	1349193.83	27	20	TW-E22-8"-W	ASBESTOS COATING	480078.17	1349188.43						
14	19	TW-2-8"-W	ASBESTOS GASKETS	480355.27	1349195.45	28	20	PW-1-1"-LI	ASBESTOS GASKETS	480078.23	1349186.25						

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 22D-5500-P-00678 (GRID 19), 22B-5500-1-00683 (GRID 24), 22D-5500-P-00684 (GRID 25), AND 22B-5500-P-00686 (GRID 27). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
4. VERIFY LOCATIONS AND PROTECT EXISTING ENERGIZED UNDERGROUND UTILITIES.
5. UTILITY CUT TABLE SUMMARIZES UTILITY CUTS TO BE MADE DURING ISOLATION TRENCHING, MOVING CLOCKWISE AROUND THE TRENCH CENTERLINE.
6. GRID NUMBERS AND UTILITY DESIGNATORS ARE BASED ON FLUOR FERNALD UNDERGROUND UTILITY GRID DRAWINGS.
7. POTENTIAL HAZARDS ARE ASSESSED FOR MONITORING PURPOSES BASED ON INFORMATION GATHERED FROM CATALYTIC CONSTRUCTION DRAWINGS AND ORIGINAL FEMP CONSTRUCTION SPECIFICATIONS, LESSONS LEARNED FROM PREVIOUS EXCAVATIONS, AND DISCUSSIONS WITH ENVIRONMENTAL COMPLIANCE, MAINTENANCE, AND SAFETY REPRESENTATIVES.
8. COORDINATES FOR LOCATIONS WHERE ISOLATION TRENCHING INTERSECTS UTILITIES ARE BASED ON FEMP UNDERGROUND UTILITY GRID DRAWINGS.
9. EACH UTILITY CUT WILL BE LABELED IN THE FIELD AT THE CORRESPONDING COORDINATE LOCATION WITH TWO DESIGNATORS. THE FIRST IS THE UTILITY DESIGNATOR FROM THE TABLE PROVIDED (EX. ST-12"PVC). THE SECOND IS THE CUT DESIGNATOR DEVELOPED FROM THIS DRAWING TO IDENTIFY THE CORRESPONDING AREA, QUADRANT, AND CUT IDENTIFICATION NUMBER (EX. 4B-NW-00).
10. UNLESS SPECIFIED BY COORDINATES, OR SHOWN IN A SPECIFIC MANHOLE OR CATCH BASIN, PROPOSED AIR GAP LOCATIONS ARE APPROXIMATE. AIR GAPS MAY BE INSTALLED AT THE INTERSECTION OF THE UTILITY AND THE ISOLATION TRENCH, OUTSIDE OF THE PROPOSED EXCAVATION AREA.
11. STORM SEWERS HAVE BEEN ASSIGNED A POTENTIAL ASBESTOS HAZARD FOR PURPOSES OF AGENCY NOTIFICATION OF POTENTIAL ACM DISTURBANCE BASED ON PROCESS KNOWLEDGE THAT LINES MAY CONTAIN TRANSITE-LIKE MATERIALS. THE ASBESTOS COMPETENT PERSON SHALL VERIFY PIPE MATERIALS ENCOUNTERED IN THE FIELD AND DIRECT THE MANAGEMENT OF THESE MATERIALS ACCORDINGLY.
12. EXISTING STORM SEWER SYSTEM MAY BE USED TO CONTROL RUNOFF DURING REMEDIATION. HOWEVER, STORM SEWER PIPES TO BE CUT DURING AREA ISOLATION SHALL BE PLUGGED AT THE EXCAVATION BOUNDARY IN ACCORDANCE WITH SECTION 02275.
13. UTILITY AIR GAPPING AND PLUGGING SHALL BE SEQUENCED WITH THE RELATED AREA ISOLATION TRENCH PHASE.
14. EXCAVATE ISOLATION TRENCH GAPS SHOWN TO DEPTH AND WIDTH REQUIREMENTS SPECIFIED IN SECTION 02207 USING EXCAVATION EQUIPMENT RATHER THAN THE TRENCHER, TO ISOLATE REMAINING UTILITIES AND TO PROTECT THE STORM SEWER. DO NOT EXCAVATE DIRECTLY BELOW THE PROTECTED STORM SEWER PIPE.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

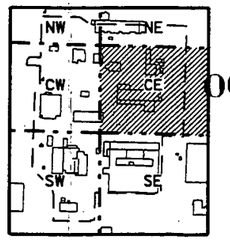
INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME: SOIL REMEDIATION

DRAWING TITLE: AREA 4B UTILITY ISOLATION PLAN (CE)



AREA 4B KEY PLAN
SCALE: NONE

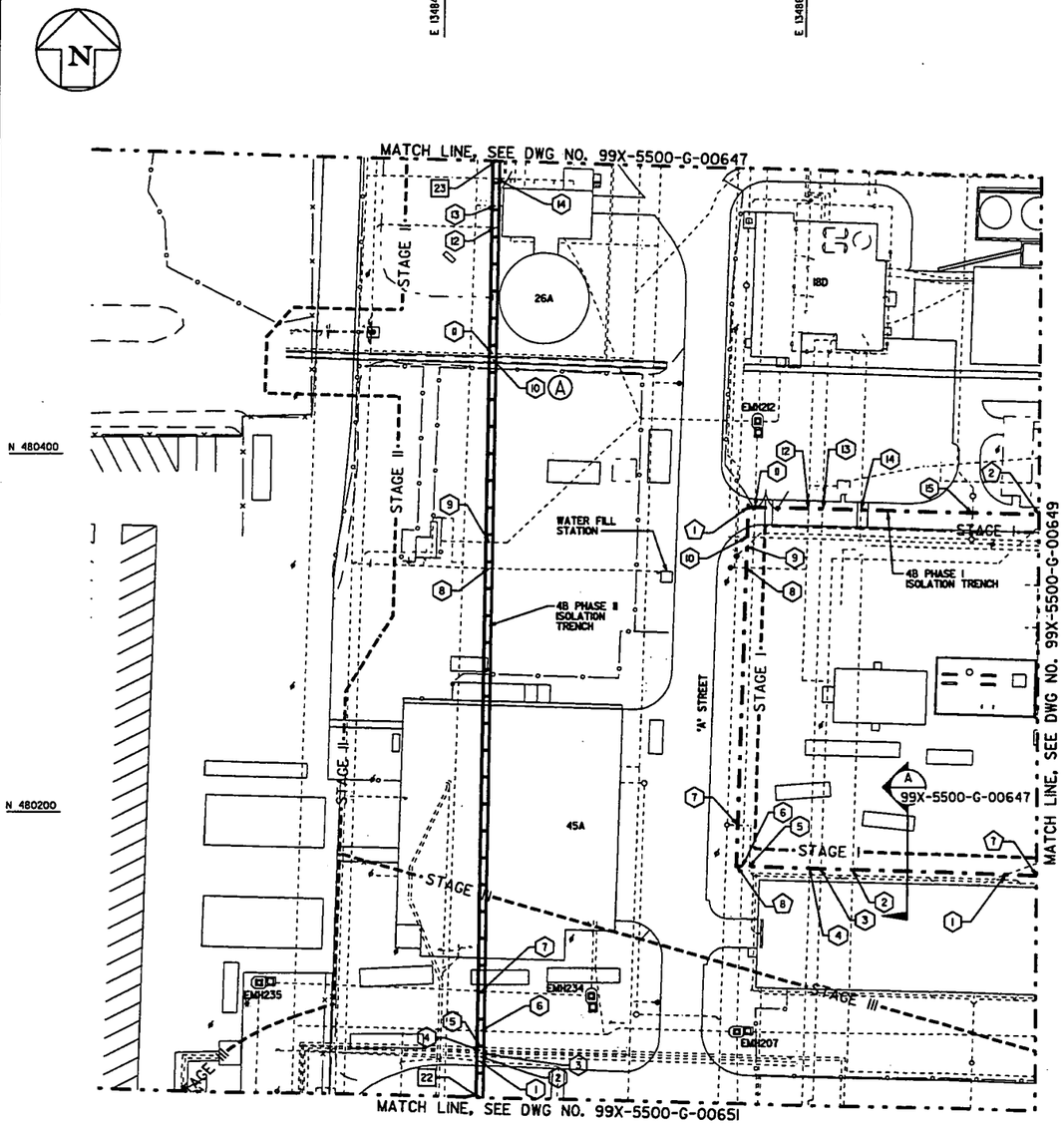
NORTH

SCALE: 1"=30'

APPROVALS			
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00649	G-8	C
RES PROJECT NO.	FILENAME 99X00649.DGN			

000011



45 18

PHASE I TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
1	480370.62	1348569.84
2	480366.68	1348730.32
7	480165.33	1348730.29
8	480170.69	1348564.78

PHASE II TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
22	480041.45	1348423.81
23	480562.09	1348429.21

AREA 4B PHASE I ISOLATION TRENCH UTILITY CUTS (CW)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	20	ELEC. DUCT 26"X08"	ASBESTOS	480065.86	1348713.77
2	20	FT-8"-M	ASBESTOS GASKETS	480168.62	1348628.50
3	20	WS-(22-16)-10"-W	ASBESTOS GASKETS	480169.17	1348611.62
4	20	WR-(05-210)-8"-W	ASBESTOS GASKETS	480169.37	1348605.52
5	20	ST-6"	ASBESTOS INSULATORS	480170.45	1348571.98
6	20	ELEC. DUCT 38"X36"	ASBESTOS INSULATION	480170.58	1348568.03
7	20	ST-6"	ASBESTOS INSULATION	480193.60	1348565.35
8	20	FQI-15-6"-LI	LEAD JOINTS	480336.88	1348568.99
9	20	ST-12"-N	ASBESTOS	480348.80	1348569.29
10	20	ELEC. LIGHTING	ASBESTOS	480353.92	1348569.42
11	19	ELEC. DUCT 3'2"X3'	ASBESTOS	480370.53	1348573.61
12	19	FQI-15-8"-LI	LEAD JOINTS	480369.80	1348603.50
13	19	WR(15-210)-8"L	ASBESTOS GASKETS	480369.60	1348611.42
14	19	FT-4"-M	ASBESTOS GASKETS	480369.11	1348631.49
15	19	ST-10-N	ASBESTOS	480367.59	1348693.48

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (CW)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	25	WR-138-6"	ASBESTOS GASKETS	480061.67	1348424.02
2	25	WS-138-6"	ASBESTOS GASKETS	480064.29	1348424.05
3	25	TW-105-4"	ASBESTOS GASKETS	480066.29	1348424.07
4	25	SN-101-4"	NONE	480067.79	1348424.08
5	25	DW-105-4"	ACM COATING/LEAD JOINTS	480069.29	1348424.10
6	25	ELEC. DUCT 1'6"X1'	ASBESTOS INSULATION	480078.54	1348424.19
7	25	ELEC. DUCT 2'4"X1'8"	ASBESTOS INSULATION	480100.63	1348424.42
8	25	RW-4"-PVC	ASBESTOS GASKETS	480336.37	1348426.87
9	25	ELEC. DUCT 1'6"X1'	ASBESTOS INSULATION	480350.92	1348427.02
10	25	K65 TRENCH	ASBESTOS	480452.37	1348428.07
11	25	TW-19-3"-LI	ASBESTOS GASKETS	480455.33	1348428.10
12	25	DW-1-6"-LI	ACM COATING/LEAD JOINTS	480525.33	1348428.83
13	25	RW1-1-6"-LI	LEAD JOINTS	480537.33	1348428.95
14	25	FQI-24-12"-LI	LEAD JOINTS	480552.34	1348429.11

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 220-5500-P-00678 (GRID 19), 228-5500-P-00683 (GRID 24), 220-5500-P-00684 (GRID 25), AND 228-5500-P-00686 (GRID 27). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
4. VERIFY LOCATIONS AND PROTECT EXISTING ENERGIZED UNDERGROUND UTILITIES.
5. UTILITY CUT TABLE SUMMARIZES UTILITY CUTS TO BE MADE DURING ISOLATION TRENCHING, MOVING CLOCKWISE AROUND THE TRENCH CENTERLINE.
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10. UNLESS SPECIFIED BY COORDINATES, OR SHOWN IN A SPECIFIC MANHOLE OR CATCH BASIN, PROPOSED AIR GAP LOCATIONS ARE APPROXIMATE. AIR GAPS MAY BE INSTALLED AT THE INTERSECTION OF THE UTILITY AND THE ISOLATION TRENCH, OUTSIDE OF THE PROPOSED EXCAVATION AREA.
11. STORM SEWERS HAVE BEEN ASSIGNED A POTENTIAL ASBESTOS HAZARD FOR PURPOSES OF AGENCY NOTIFICATION OF POTENTIAL ACM DISTURBANCE BASED ON PROCESS KNOWLEDGE THAT LINES MAY CONTAIN TRANSITE-LIKE MATERIALS. THE ASBESTOS COMPETENT PERSON SHALL VERIFY PIPE MATERIALS ENCOUNTERED IN THE FIELD AND DIRECT THE MANAGEMENT OF THESE MATERIALS ACCORDINGLY.
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13. UTILITY AIR GAPPING AND PLUGGING SHALL BE SEQUENCED WITH THE RELATED AREA ISOLATION TRENCH PHASE.
14. EXCAVATE ISOLATION TRENCH GAPS SHOWN TO DEPTH AND WIDTH REQUIREMENTS SPECIFIED IN SECTION 02207 USING EXCAVATION EQUIPMENT RATHER THAN THE TRENCHER, TO ISOLATE REMAINING UTILITIES AND TO PROTECT THE STORM SEWER. DO NOT EXCAVATE DIRECTLY BELOW THE PROTECTED STORM SEWER PIPE.

KEYED NOTES

(A) K65 TRENCH CONTAIN THE FOLLOWING UTILITIES:
(2) 2"C NON-METALLIC CONDUIT
CE-6"-M
SL-18"-1000-6"
FT5-18-1000-6"
PA-4"

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

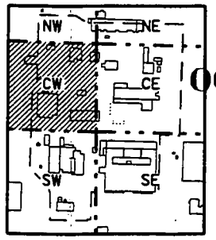
THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
UTILITY ISOLATION PLAN (CW)

000012

PRELIMINARY
NOT FOR CONSTRUCTION



AREA 4B KEY PLAN
SCALE: NONE

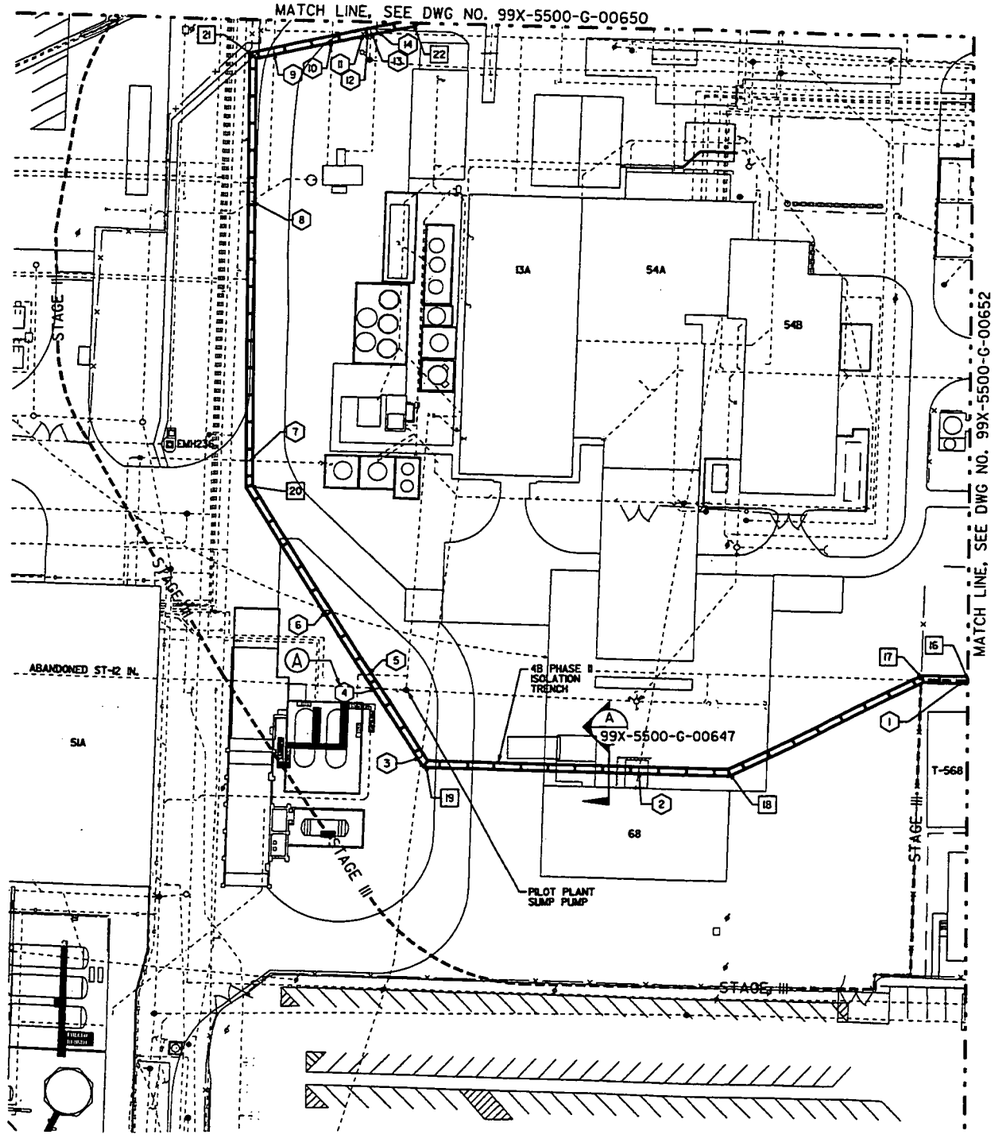
30 0 30 60
SCALE: 1"=30'

NORTH

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00650	G-9	C
RES PROJECT NO.	FILENAME 99X00006500.DGN			



PHASE II TRENCH CONTROL POINTS		
PT NO.	NORTHING	EASTING
16	479678.26	1348730.28
17	479679.14	1348705.64
18	479627.06	1348599.53
19	479631.65	1348433.73
20	479785.86	1348337.41
21	480022.86	1348338.33
22	480041.45	1348423.81

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (SW)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	26	DRAIN TILE	NONE	479678.32	1348728.32
2	26	ELEC. DUCT 16"X8"	ASBESTOS INSULATION	479628.40	1348550.80
3	26	DW-2"	ACM COATING/LEAD JOINTS	479635.39	1348431.39
4	26	ST-12"	ASBESTOS	479673.40	1348407.65
5	26	CE-3"	NONE	479680.98	1348402.92
6	26	ST-6"	ASBESTOS	479716.83	1348380.52
7	26	CE-138-2"	NONE	479799.71	1348337.41
8	26	ST-10"-N8	ASBESTOS	479943.37	1348337.41
9	26	ST-10"-N8	ASBESTOS	480026.00	1348349.01
10	26	ELEC. DUCT 12"X18"	ASBESTOS INSULATION	480032.54	1348380.64
11	26	FQI-9-12"-L1	LEAD JOINTS	480036.01	1348397.45
12	26	3/4" ELEC.	ASBESTOS INSULATION	480036.49	1348399.80
13	26	SN-4"-M1	NONE	480036.81	1348401.32
14	26	RW-3-8"-A	NONE	480037.43	1348404.34

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 220-5500-P-00678 (GRID 19), 228-5500-P-00683 (GRID 24), 220-5500-P-00684 (GRID 25), AND 226-5500-P-00685 (GRID 26). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
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KEYED NOTES

(A) RE-ESTABLISH ABANDONED ST-12 IN. LINE AT ID (4) AFTER TRENCHING OPERATIONS TO ALLOW CONTAMINATED LIQUID SEEPING INTO LINE TO DRAIN TO PILOT PLANT SUMP PUMP.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
UTILITY ISOLATION PLAN (SW)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00651	G-10	C
RES PROJECT NO.	FILENAME 99X0004SLDGN			

PRELIMINARY
NOT FOR CONSTRUCTION

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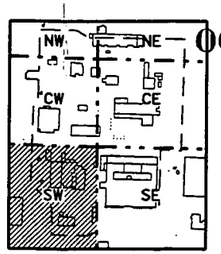
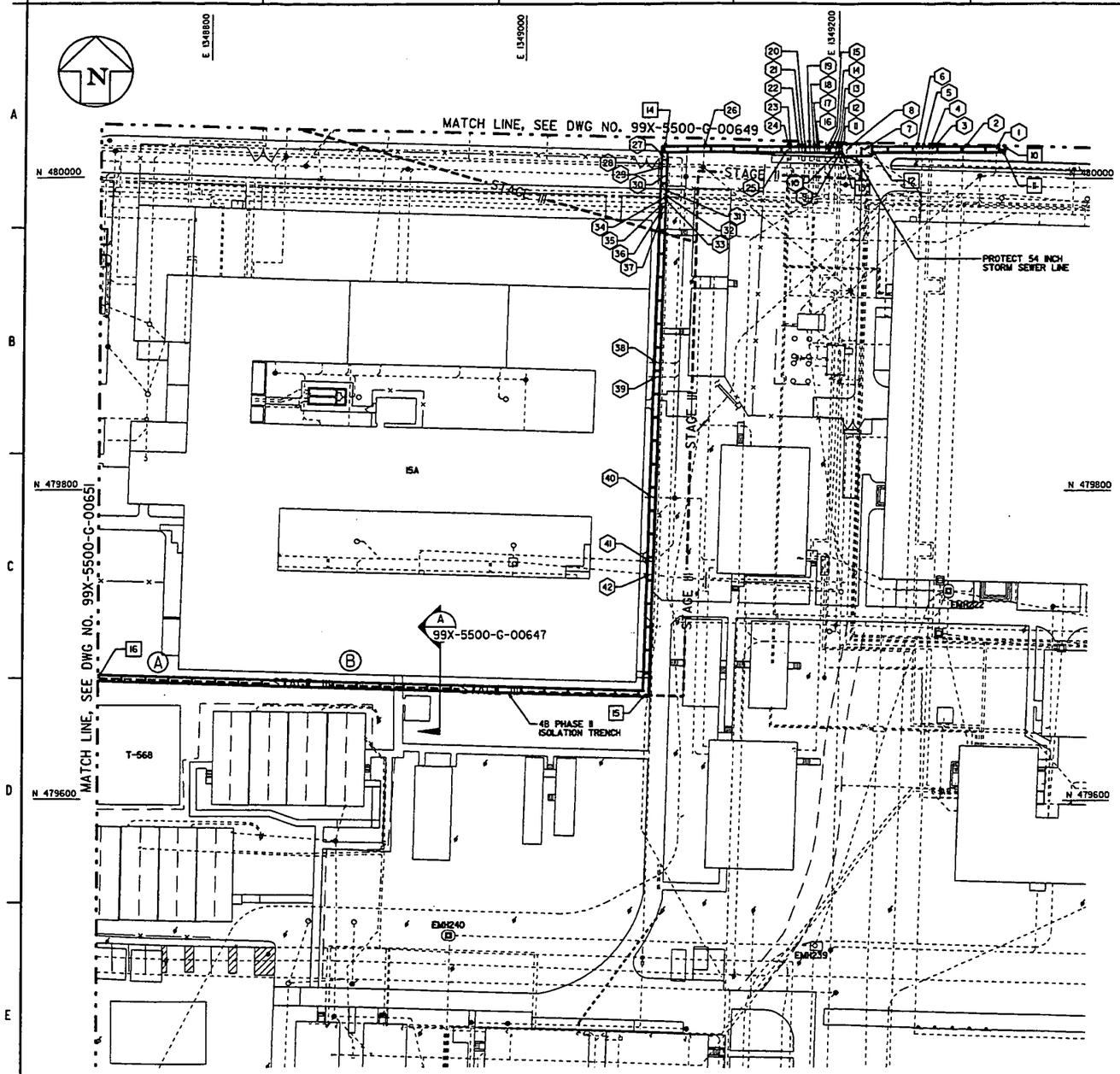


NORTH

AREA 4B KEY PLAN
SCALE: NONE

4518

000013



PHASE II TRENCH CONTROL POINTS		
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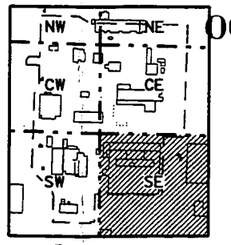
11	480018.72	1349302.98
12	480018.72	1349222.36
13	480018.72	1349202.36
14	480018.72	1349088.98
15	479668.79	1349079.40
16	479678.26	1348730.28

PRELIMINARY
NOT FOR CONSTRUCTION



NORTH

AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

45 18

AREA 4B PHASE II ISOLATION TRENCH UTILITY CUTS (SE)					
ID	GRID	UTILITY DESIGNATOR	POTENTIAL HAZARD	NORTHING	EASTING
1	14	ST-6"	ASBESTOS	480018.72	1349299.27
2	14	ELEC. DUCT 30"X38"	ASBESTOS INSULATION	480018.72	1349278.31
3	14	LS-23-2"-S	ASBESTOS GASKETS	480018.72	1349259.11
4	14	CN-5-2"-W	ASBESTOS GASKETS	480018.72	1349257.61
5	14	SD-2-15"-NI	ASBESTOS	480018.72	1349253.14
6	14	ELEC. LIGHTING	ASBESTOS INSULATION	480018.72	1349249.46
7	14	FG-2"	ASBESTOS GASKETS	480018.72	1349217.23
8	14	SN-8-10"-MI	NONE	480018.72	1349205.63
9	14	CN-5-2"-W	ASBESTOS GASKETS	480018.72	1349201.87
10	14	SA-E22-1-2"-W	ASBESTOS GASKETS	480018.72	1349200.87
11	14	LS-23-2"-S	ASBESTOS GASKETS	480018.72	1349200.37
12	14	FT-6"-M	LEAD JOINTS	480018.72	1349200.23
13	14	WR-4-6"-W	ASBESTOS GASKETS	480018.72	1349198.12
14	14	WS-6-6"-W	ASBESTOS GASKETS	480018.72	1349194.62
15	14	FT-1-12"-W	ASBESTOS GASKETS	480018.72	1349191.69
16	14	TW-4-4"-W	ASBESTOS GASKETS	480018.72	1349187.62
17	14	TW-22-8"-W	ASBESTOS GASKETS	480018.72	1349186.37
18	14	PW-1-1"-LI	ASBESTOS GASKETS	480018.72	1349184.62
19	14	FG-1-6"-W	ASBESTOS GASKETS	480018.72	1349181.62
20	14	DW-6-8"-LI	ACM COATING/LEAD JOINTS	480018.72	1349178.62
21	14	WR-E22-1-12"-W	ASBESTOS GASKETS	480018.72	1349176.62
22	14	WS-E22-1-12"-W	ASBESTOS GASKETS	480018.72	1349174.61
23	14	CN-2"	ASBESTOS GASKETS	480018.72	1349169.61
24	14	LS-2"	ASBESTOS GASKETS	480018.72	1349168.61
25	14	FG-2"	ASBESTOS GASKETS	480018.72	1349167.61
26	14	ST-10"-NI	ASBESTOS	480018.72	1349114.19
27	14	ELEC. LIGHTING	ASBESTOS INSULATION	480013.45	1349088.83
28	21	FOI-12"	ASBESTOS GASKETS	480009.09	1349088.71
29	21	ST-1-6"-MI	ASBESTOS	480007.59	1349088.67
30	21	SN-1-6"-MI	NONE	480001.40	1349088.50
31	21	DW-7-8"-LI	ACM COATING/LEAD JOINTS	479993.10	1349088.27
32	21	DW-1-1"-DI	ASBESTOS GASKETS	479990.10	1349088.19
33	21	TW-8"	ASBESTOS GASKETS	479988.10	1349088.14
34	21	TW-9-3"-W	ASBESTOS GASKETS	479987.10	1349088.11
35	21	WS-6-6"-W	ASBESTOS GASKETS	479984.10	1349088.03
36	21	WR-4-6"-W	ASBESTOS GASKETS	479981.10	1349087.95
37	21	FG-2-6"-V	ASBESTOS GASKETS	479978.11	1349087.86
38	21	SN-6"-MI	NONE	479881.93	1349085.23
39	21	SN-4"	NONE	479872.93	1349084.99
40	21	SN-6"	NONE	479795.37	1349082.86
41	21	SN-6"	NONE	479754.08	1349081.74
42	21	ST-12"	ASBESTOS	479745.69	1349081.51

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 22D-5500-P-00678 (GRID 19), 22B-5500-P-00683 (GRID 24), 22D-5500-P-00684 (GRID 25), AND 22B-5500-P-00686 (GRID 27). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. PERFORM AREA 4B PHASE II ISOLATION TRENCHING SHOWN IN ACCORDANCE WITH SECTION 02207 TO ISOLATE THE REMAINING AREA 4B BEYOND EXISTING AREA 4B PHASE I ISOLATION TRENCHING.
4. VERIFY LOCATIONS AND PROTECT EXISTING ENERGIZED UNDERGROUND UTILITIES.
5. UTILITY CUT TABLE SUMMARIZES UTILITY CUTS TO BE MADE DURING ISOLATION TRENCHING, MOVING CLOCKWISE AROUND THE TRENCH CENTERLINE.
6. GRID NUMBERS AND UTILITY DESIGNATORS ARE BASED ON FLUOR FERNALD UNDERGROUND UTILITY GRID DRAWINGS.
7. POTENTIAL HAZARDS ARE ASSESSED FOR MONITORING PURPOSES BASED ON INFORMATION GATHERED FROM CATALYTIC CONSTRUCTION DRAWINGS AND ORIGINAL FEMP CONSTRUCTION SPECIFICATIONS, LESSONS LEARNED FROM PREVIOUS EXCAVATIONS, AND DISCUSSIONS WITH ENVIRONMENTAL COMPLIANCE, MAINTENANCE, AND SAFETY REPRESENTATIVES.
8. COORDINATES FOR LOCATIONS WHERE ISOLATION TRENCHING INTERSECTS UTILITIES ARE BASED ON FEMP UNDERGROUND UTILITY GRID DRAWINGS.
9. EACH UTILITY CUT WILL BE LABELED IN THE FIELD AT THE CORRESPONDING COORDINATE LOCATION WITH TWO DESIGNATORS. THE FIRST IS THE UTILITY DESIGNATOR FROM THE TABLE PROVIDED (EX. ST-12"-PVC). THE SECOND IS THE CUT DESIGNATOR DEVELOPED FROM THIS DRAWING TO IDENTIFY THE CORRESPONDING AREA, QUADRANT, AND CUT IDENTIFICATION NUMBER (EX. 4B-NW-00).
10. UNLESS SPECIFIED BY COORDINATES, OR SHOWN IN A SPECIFIC MANHOLE OR CATCH BASIN, PROPOSED AIR GAP LOCATIONS ARE APPROXIMATE. AIR GAPS MAY BE INSTALLED AT THE INTERSECTION OF THE UTILITY AND THE ISOLATION TRENCH, OUTSIDE OF THE PROPOSED EXCAVATION AREA.
11. STORM SEWERS HAVE BEEN ASSIGNED A POTENTIAL ASBESTOS HAZARD FOR PURPOSES OF AGENCY NOTIFICATION OF POTENTIAL ACM DISTURBANCE BASED ON PROCESS KNOWLEDGE THAT LINES MAY CONTAIN TRANSITE-LIKE MATERIALS. THE ASBESTOS COMPETENT PERSON SHALL VERIFY PIPE MATERIALS ENCOUNTERED IN THE FIELD AND DIRECT THE MANAGEMENT OF THESE MATERIALS ACCORDINGLY.
12. EXISTING STORM SEWER SYSTEM MAY BE USED TO CONTROL RUNOFF DURING REMEDIATION. HOWEVER, STORM SEWER PIPES TO BE CUT DURING AREA ISOLATION SHALL BE PLUGGED AT THE EXCAVATION BOUNDARY IN ACCORDANCE WITH SECTION 02275.
13. UTILITY AIR GAPPING AND PLUGGING SHALL BE SEQUENCED WITH THE RELATED AREA ISOLATION TRENCH PHASE.
14. EXCAVATE ISOLATION TRENCH GAPS SHOWN TO DEPTH AND WIDTH REQUIREMENTS SPECIFIED IN SECTION 02207 USING EXCAVATION EQUIPMENT RATHER THAN THE TRENCHER, TO ISOLATE REMAINING UTILITIES AND TO PROTECT THE STORM SEWER. DO NOT EXCAVATE DIRECTLY BELOW THE PROTECTED STORM SEWER PIPE.

KEYED NOTES

(A) EXCAVATE URANIUM AND TC-99 ABOVE-WAC AREA SOUTHWEST OF BUILDING ISA (LABORATORY) BEFORE PERFORMING PHASE II UTILITY ISOLATION TRENCHING.

(B) REMOVE SATELITE DISH POST BEFORE PERFORMING PHASE II UTILITY ISOLATION TRENCHING.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000014

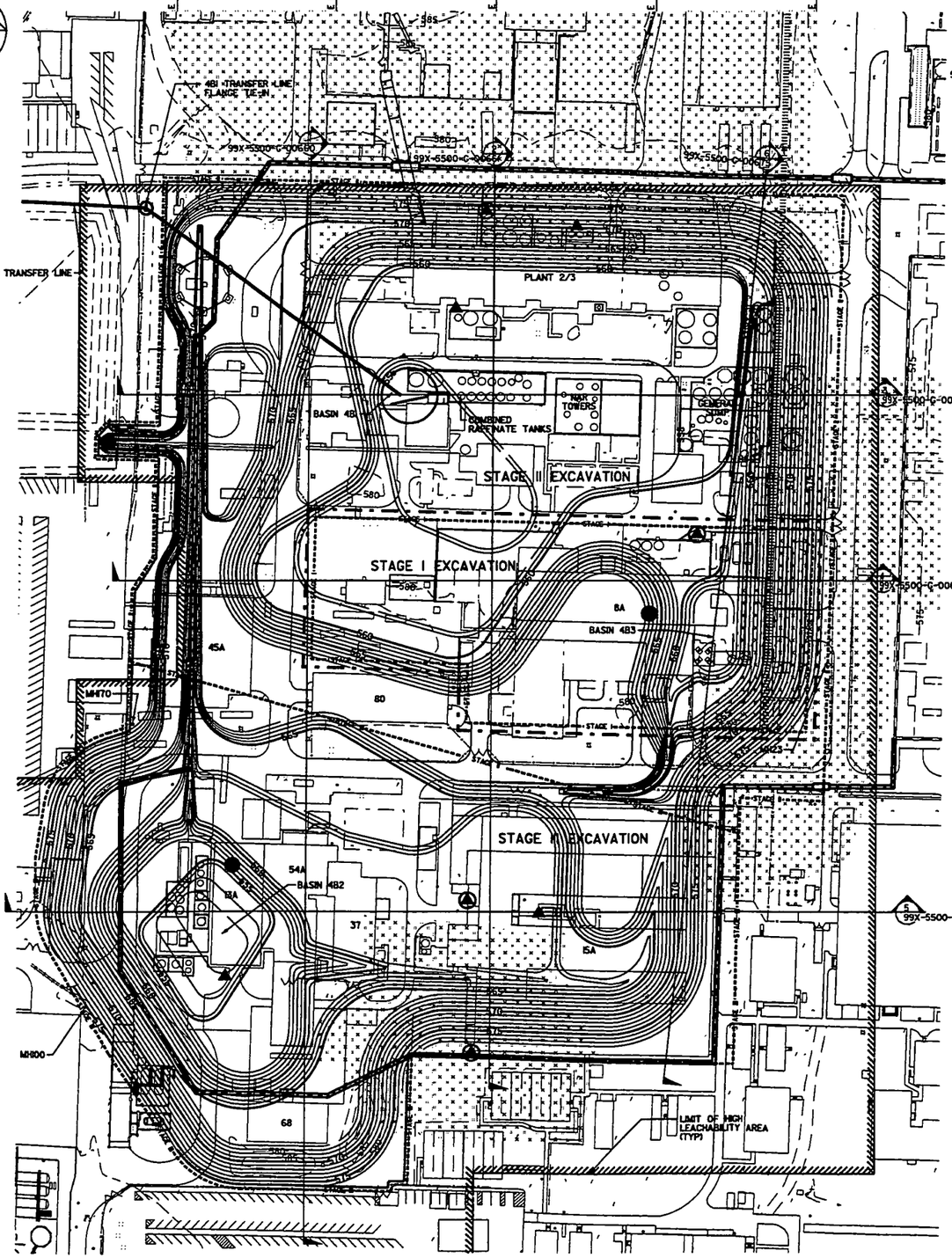
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
UTILITY ISOLATION PLAN (SE)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20890	99X-5500-G-00652	G-II	C
RCS PROJECT NO.	FILENAME 99XG00652.DGN			



EXCAVATION SEQUENCING TABLE -- 4518

STAGE I

1. PERFORM PHASE I UTILITY ISOLATION TRENCHING AND ENSURE UTILITY ISOLATIONS HAVE BEEN COMPLETED FOR STAGE I EXCAVATION AREA.
2. BREAK SURFACE CONCRETE WITHIN STAGE I EXCAVATION AREA.
3. RELOCATE BROKEN SURFACE CONCRETE TO AN AREA WHERE SURFACE REAL-TIME SCANNING HAS BEEN COMPLETED. CONCRETE IN KNOWN ABOVE-WAC AREAS SHALL REMAIN IN PLACE UNTIL EXCAVATION OF THE ABOVE-WAC AREA.
4. COORDINATE WITH REAL-TIME TO SCAN SURFACE FOLLOWING REMOVAL OF CONCRETE.
5. EXCAVATE ABOVE-WAC AREAS WITHIN STAGE I EXCAVATION AREA.
6. PRIOR TO FOUNDATION REMOVAL, EXCAVATE UNDERGROUND PROCESS, SANITARY, AND STORM SEWER LINES, SUMPS, AND TRENCHES WITHIN BUILDING FOOTPRINTS TO ENSURE REMOVAL OF POTENTIAL UNKNOWN AWAC MATERIAL. N 480800
7. EXCAVATE REMAINING IMPACTED MATERIAL WITHIN STAGE I EXCAVATION LIMITS IN ACCORDANCE WITH SPECIFICATION SECTION 02205 USING A SLOPE NO STEEPER THAN 4H:1V.

STAGE II

8. INSTALL 4BI TRANSFER LINE FROM BSL TO 4BI TRANSFER LINE FLANGE TIE-IN IN ACCORDANCE WITH DRAWING 99X-5500-G-00653.
9. BEFORE PERFORMING PHASE II UTILITY ISOLATION TRENCHING, EXCAVATE URANIUM & TC-99 ABOVE-WAC AREA SOUTHWEST OF BUILDING 15A (LABORATORY).
10. PERFORM PHASE II UTILITY ISOLATION TRENCHING AND ENSURE UTILITY ISOLATIONS HAVE BEEN COMPLETED FOR STAGE II EXCAVATION AREA.
11. BREAK SURFACE CONCRETE WITHIN STAGE II EXCAVATION AREA BEGINNING IN AREA OF PROPOSED BASIN 4B1 LOCATION. N 480600
12. RELOCATE BROKEN SURFACE CONCRETE TO AN AREA WHERE SURFACE REAL-TIME SCANNING HAS BEEN COMPLETED. CONCRETE IN KNOWN ABOVE-WAC AREAS SHALL REMAIN IN PLACE UNTIL EXCAVATION OF THE ABOVE-WAC AREA.
13. COORDINATE WITH REAL-TIME TO SCAN SURFACE FOLLOWING REMOVAL OF CONCRETE.
14. EXCAVATE ABOVE-WAC AREAS WITHIN STAGE II EXCAVATION AREA AND K-65 TRENCH.
15. PRIOR TO FOUNDATION REMOVAL, EXCAVATE UNDERGROUND PROCESS, SANITARY, AND STORM SEWER LINES, SUMPS, AND TRENCHES WITHIN BUILDING FOOTPRINTS TO ENSURE REMOVAL OF POTENTIAL UNKNOWN AWAC MATERIAL.
16. INSTALL 4BI TEMPORARY LIFT STATION AND EXCAVATE BASIN 4BI IN ACCORDANCE WITH SPECIFICATION SECTION 02205 USING A SLOPE NO STEEPER THAN 4H:1V.
17. PERFORM STAGE II EXCAVATION OUTWARD FROM BASIN 4BI IN ACCORDANCE WITH SPECIFICATION SECTION 02205. MAINTAIN SURFACE WATER DRAINAGE TO BASIN 4BI. EXCAVATE SOILS UNDERNEATH PLANT 2/3, COMBINED RAFFINATE TANKS, NAR TOWERS, AND GENERAL SUMP AFTER COMPLETING BASIN 4BI TO REMOVE POTENTIAL ORGANICALLY CONTAMINATED PERCHED GROUNDWATER SOURCE MATERIAL. N 480400
18. CONVERT TEMPORARY LIFT STATION INTO 4BI PERMANENT LIFT STATION AND INSTALL ASSOCIATED ELECTRICAL SERVICE. INSTALL 4BI TRANSFER LINE EXTENSION FROM 4BI LIFT STATION TO 4BI TRANSFER LINE FLANGE TIE-IN.

STAGE III

19. ENSURE UTILITY ISOLATIONS HAVE BEEN COMPLETED FOR STAGE III EXCAVATION AREA.
20. INSTALL MH170 AND REROUTE STORM SEWER BETWEEN MH170 AND MH800 AROUND PERIMETER OF EXCAVATION AREA.
21. BREAK SURFACE CONCRETE WITHIN STAGE III EXCAVATION AREA BEGINNING IN AREA OF PROPOSED BASIN 482 LOCATION. N 480200
22. RELOCATE BROKEN SURFACE CONCRETE TO AN AREA WHERE SURFACE REAL-TIME SCANNING HAS BEEN COMPLETED. CONCRETE IN KNOWN ABOVE-WAC AREAS SHALL REMAIN IN PLACE UNTIL EXCAVATION OF THE ABOVE-WAC AREA.
23. COORDINATE WITH REAL-TIME TO SCAN SURFACE FOLLOWING REMOVAL OF CONCRETE.
24. EXCAVATE ABOVE-WAC AREAS WITHIN STAGE III EXCAVATION AREA.
25. PRIOR TO FOUNDATION REMOVAL, EXCAVATE UNDERGROUND PROCESS, SANITARY, STORM SEWER LINES, SUMPS, AND TRENCHES WITHIN BUILDING FOOTPRINTS TO ENSURE REMOVAL OF POTENTIAL AWAC MATERIAL.
26. INSTALL 482 TEMPORARY LIFT STATION AND EXCAVATE BASIN 482 IN ACCORDANCE WITH SPECIFICATION SECTION 02205 USING A SLOPE NO STEEPER THAN 4H:1V.
27. UPON REACHING DESIGN GRADE, INSTALL GMA PLUG, CLAY PLUG, 30 MIL GEOMEMBRANE LINER, 482 PERMANENT LIFT STATION, AND 482 TRANSFER LINE EXTENSION. N 480000
28. PERFORM STAGE III EXCAVATION OUTWARD FROM BASIN 482 IN ACCORDANCE WITH SPECIFICATION SECTION 02205. MAINTAIN SURFACE WATER DRAINAGE TO BASIN 482.
29. EXCAVATE REMAINING IMPACTED MATERIAL TO DESIGN GRADE WITHIN STAGE I, II, AND III EXCAVATION LIMITS IN ACCORDANCE WITH SPECIFICATION SECTION 02205. N 479800

STAGE IV

30. EXCAVATE BASIN 483 IN ACCORDANCE WITH SPECIFICATION SECTION 02205. N 479600

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING REPRESENTS A GENERAL OVERVIEW OF AREA 4B EXCAVATION AND DRAINAGE. SEE EXCAVATION/DRAINAGE PLAN DRAWINGS 99X-5500-G-00654 THROUGH 00659 FOR EXCAVATION COORDINATES AND DETAILS.
3. REFER TO DEWATERING PLAN 99X-5500-G-00646 FOR DEWATERING OF EXCAVATION.
4. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
5. SEE DRAWING 99X-5500-G-00677 FOR COORDINATES AND EXCAVATION DETAILS FOR ABOVE-WAC AREAS SHOWN HERE FOR REFERENCE ONLY.
6. SEE DRAWING 99X-5500-G-00678 FOR COORDINATES AND EXCAVATION DETAILS FOR HWNU'S SHOWN HERE FOR REFERENCE ONLY.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE AREA ISOLATION TRENCH CORRESPONDING TO THE EXCAVATION STAGE.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.
9. RESEARCH IS ONGOING INTO UNDERGROUND PIPING IN BUILDING FOOTPRINTS NOT SHOWN ON UNDERGROUND UTILITY GRID DRAWINGS. THIS INFORMATION WILL BE MADE AVAILABLE TO THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION WITHIN A BUILDING FOOTPRINT.

LEGEND

- URANIUM ABOVE-WAC AREA
- TC-99 ABOVE-WAC AREA
- URANIUM AREA & TC-99 ABOVE-WAC AREA
- POTENTIAL BARIUM RCRA AREA
- STAGE I LIMIT OF EXCAVATION
- STAGE II LIMIT OF EXCAVATION
- STAGE III LIMIT OF EXCAVATION
- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE OVERVIEW PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00653	G-12	C
RES PROJECT NO.	FILENAME 99X00653.DGN			

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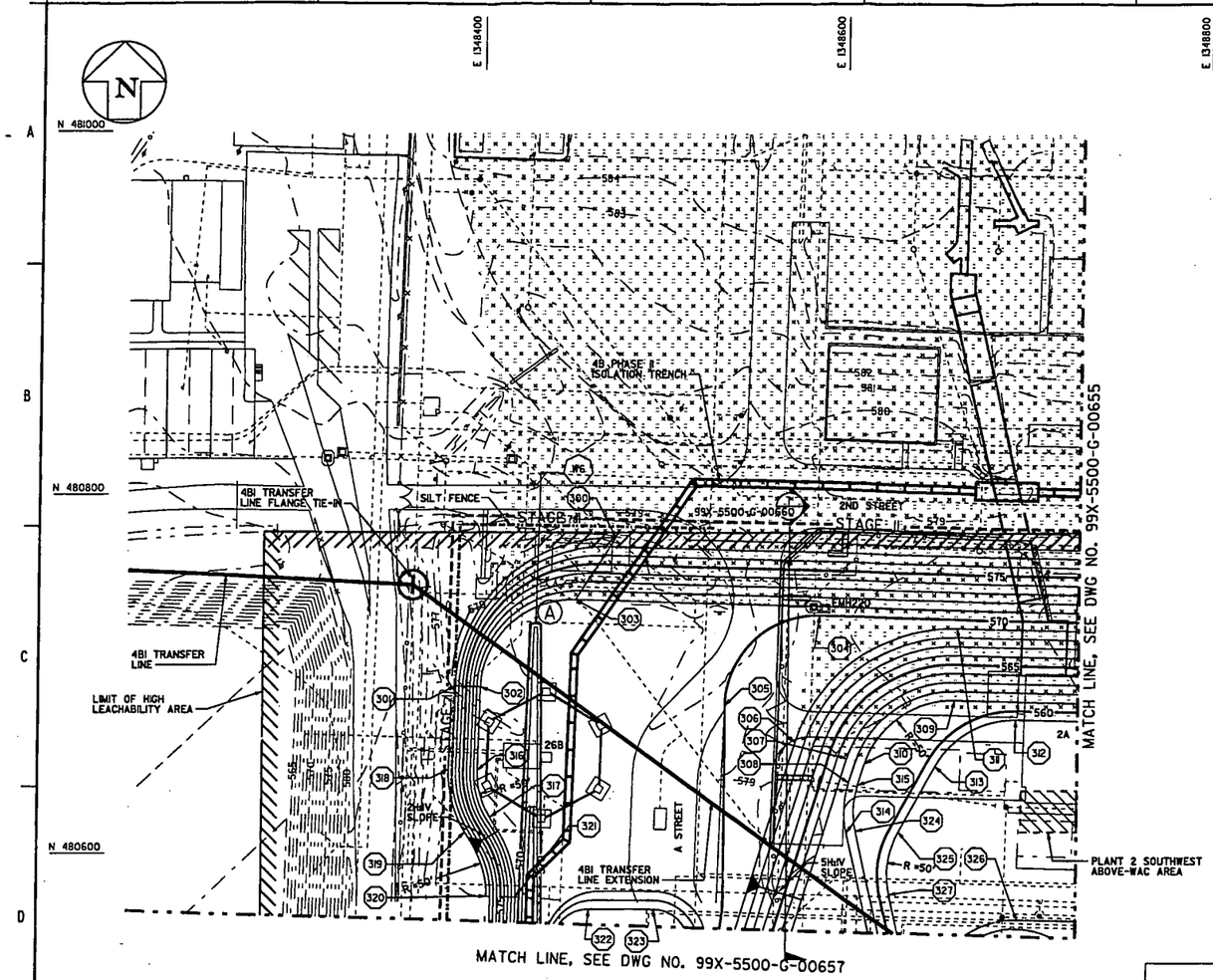
000015



DESIGN GRADE CONTROL POINTS			
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302	480693.41	1348401.25	571.00
303	480742.02	1348452.57	571.00
304	480733.42	1348586.84	570.00
305	480683.44	1348535.50	570.00
306	480662.81	1348573.99	569.00
307	480654.01	1348602.67	563.00
308	480640.59	1348603.79	562.00
309	480686.40	1348661.38	561.00
310	480651.08	1348612.23	561.00
311	480726.39	1348662.45	569.00
312	480675.47	1348695.93	559.00
313	480649.60	1348650.78	559.00
314	480612.45	1348602.69	562.00
315	480639.12	1348608.57	561.00
316	480646.88	1348399.98	571.00
317	480620.75	1348406.87	571.00
318	480647.32	1348383.98	579.00
319	480612.47	1348393.18	579.00
320	480576.83	1348405.36	579.00
321	480576.35	1348421.35	571.00
322	480569.83	1348461.62	573.00
323	480569.83	1348497.05	573.00
324	480613.54	1348607.57	561.00
325	480613.17	1348630.73	559.00
326	480563.90	1348697.36	558.00
327	480578.14	1348625.74	559.00

DITCH CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
W6	480728.59	1348430.94	570.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

KEYED NOTES

(A) TRANSITION FROM 2H:1V SLOPE TO 5H:1V SLOPE.

-- 4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

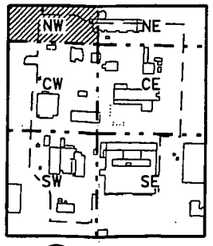
000016 PROJECT NAME SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (NW)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

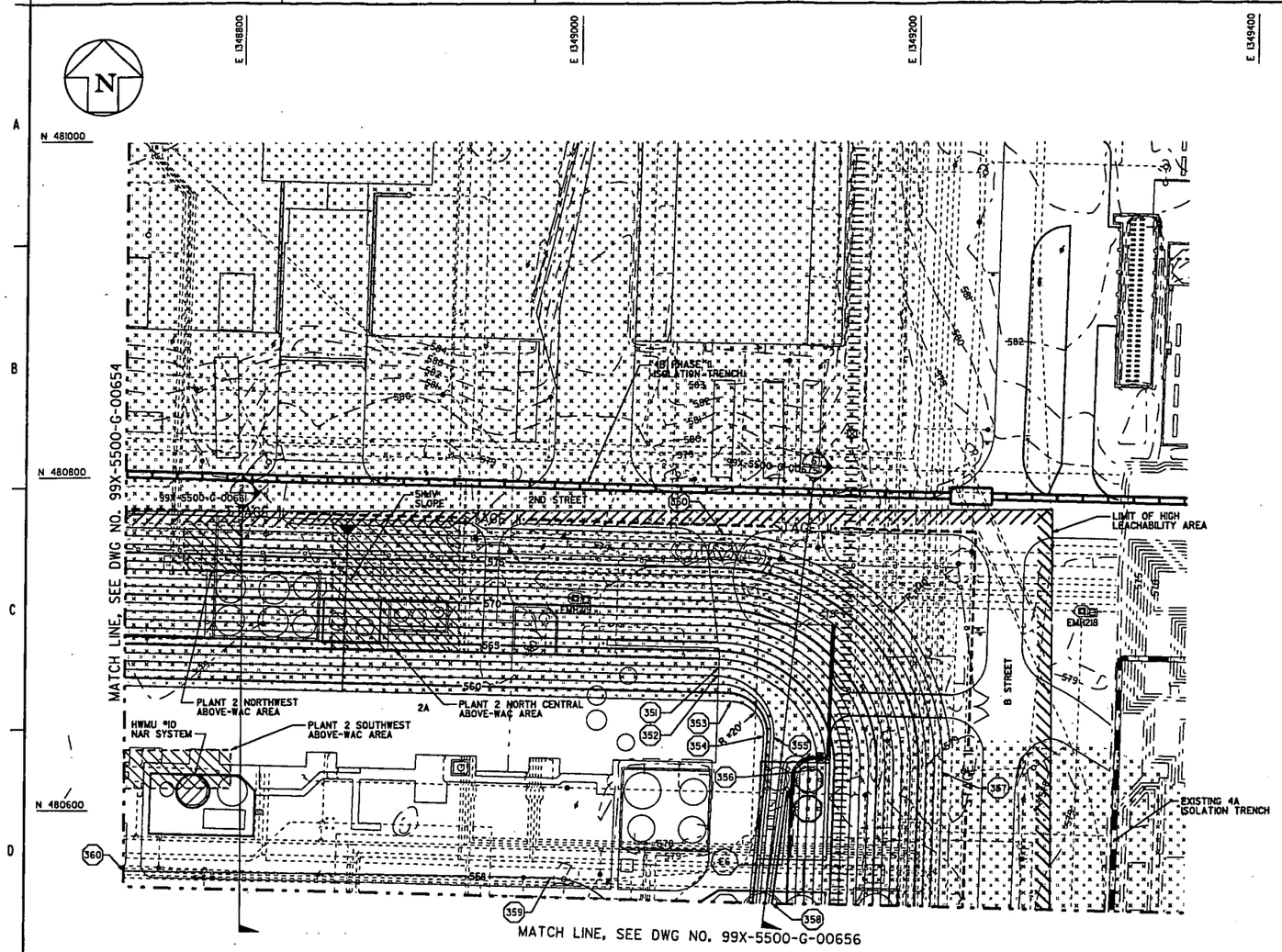
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00654	G-13	C
RES PROJECT NO.	FILENAME 99XG00654.DGN			



AREA 4B KEY PLAN
SCALE: NONE

NORTH

30 0 30 60
SCALE: 1"=30'



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
350	480765.05	1349085.66	579.00
351	480685.08	1349083.51	563.00
352	480680.11	1349082.37	562.00
353	480664.87	1349090.97	559.00
354	480643.73	1349110.40	559.00
355	480643.11	1349116.38	562.00
356	480623.46	1349141.88	563.00
357	480621.41	1349216.85	578.00
358	480543.32	1349115.89	560.00
359	480558.79	1348984.73	558.00
360	480563.32	1348730.28	558.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

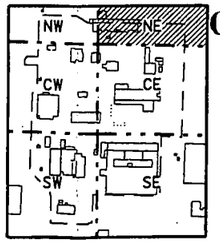
UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000017

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (NE)



AREA 4B KEY PLAN
SCALE: NONE

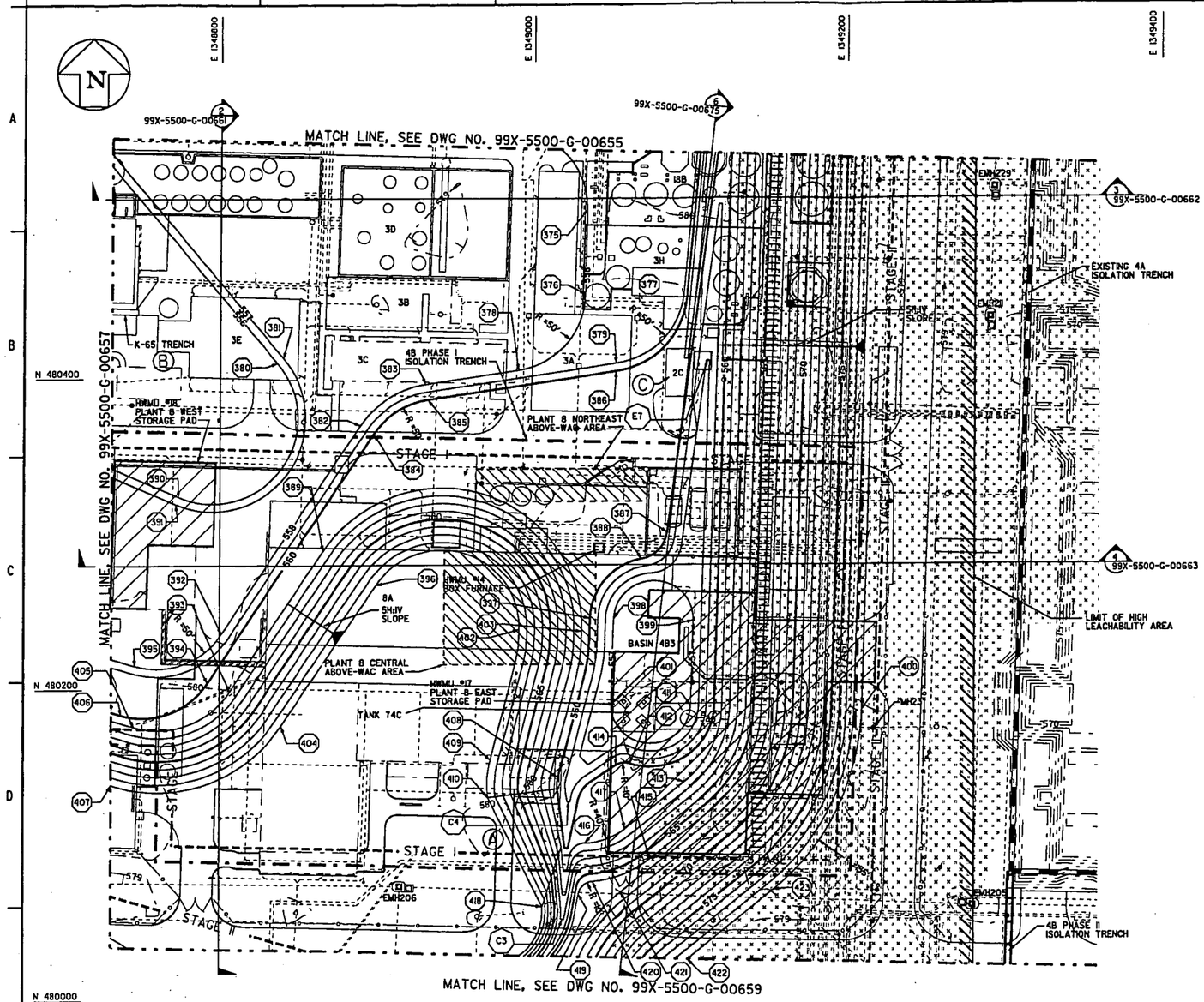
30 0 30 60
SCALE: 1"=30'

NORTH

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00655	G-14	C
RES PROJECT NO.	FILENAME 99X00655.DGN			



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
375	480507.91	1349033.84	558.00
376	480453.84	1349032.88	558.00
377	480454.65	1349094.77	559.00
378	480405.29	1348990.33	558.00
379	480409.58	1349052.41	559.00
380	480410.31	1348836.79	556.00
381	480413.55	1348840.60	557.00
382	480369.99	1348889.45	558.00
383	480396.29	1348930.60	558.00
384	480364.48	1348897.80	560.00
385	480386.40	1348932.09	560.00
386	480404.53	1349052.44	560.00
387	480300.92	1349084.72	560.00
388	480283.85	1349068.76	560.00
389	480289.25	1348866.17	561.00
390	480324.25	1348773.03	556.00
391	480319.66	1348771.05	557.00
392	480236.05	1348801.15	558.00
393	480198.62	1348806.42	561.00
394	480204.29	1348792.19	560.00
395	480215.56	1348745.45	558.00
396	480267.24	1348899.56	569.00
397	480245.70	1349036.51	560.00
398	480245.29	1349051.50	557.00
399	480243.92	1349101.48	557.00
400	480185.93	1349209.94	579.00
401	480190.31	1349050.00	557.00
402	480238.35	1348991.29	569.00
403	480237.26	1349031.28	561.00
404	480176.60	1348839.81	569.00
405	480176.07	1348745.15	561.00
406	480183.80	1348736.49	560.00
407	480138.78	1348730.16	569.00
408	480142.98	1349016.57	560.00
409	480154.02	1348972.95	569.00
410	480130.06	1348971.46	569.00
411	480188.94	1349099.98	557.00
412	480151.83	1349061.89	560.00
413	480139.69	1349095.95	561.00
414	480150.67	1349053.02	560.00
415	480090.14	1349074.55	566.00
416	480100.62	1349033.81	561.00
417	480109.56	1349058.80	561.00
418	480059.09	1349006.67	569.00
419	480067.69	1349029.60	566.00
420	480075.82	1349038.65	566.00
421	480068.80	1349056.18	567.00
422	480025.78	1349098.38	579.00
423	480069.80	1349152.65	579.00

DITCH CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
E7	480411.30	1349110.07	558.00
C3	480051.54	1349019.37	563.00
C4	480127.29	1349023.11	559.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

- 4518

KEYED NOTES

(A) TRANSITION FROM 2H:1V SLOPE TO 5H:1V SLOPE.

(B) SEE DRAWING 99X-5500-G-00657 FOR K-65 TRENCH EXCAVATION METHOD.

(C) UPON REACHING DESIGN GRADE, CUT/SHEAR BUILDING 2C PIERS AT LEAST 3 FEET ABOVE GRADE AND PULL. GROUT SUBSEQUENT HOLES AFTER EACH PULL IN ACCORDANCE WITH SPECIFICATION SECTION 02206.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

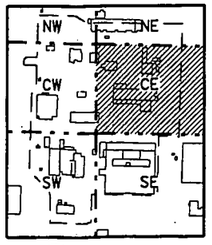
000018

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (CE)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

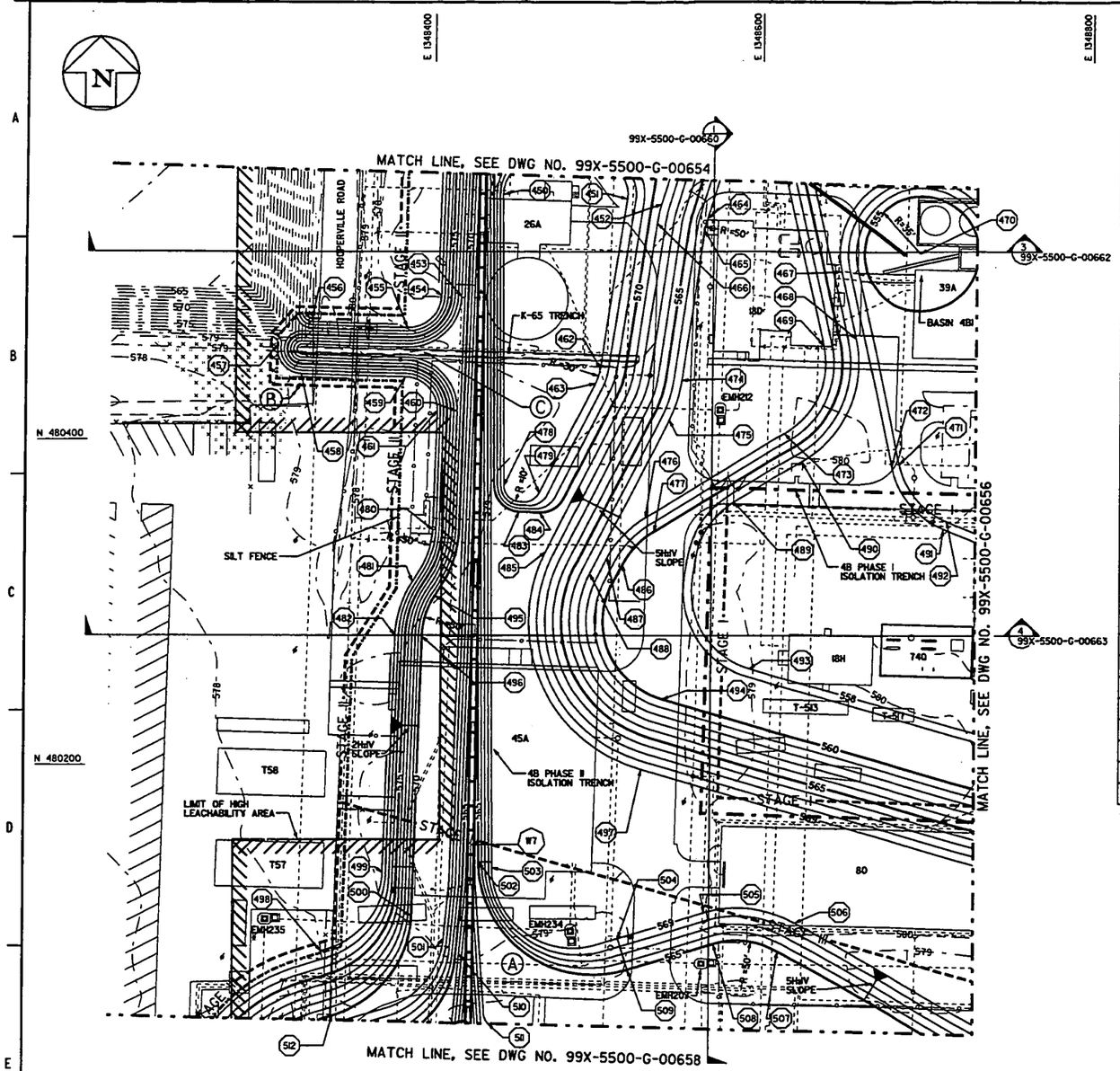


AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

NORTH

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
GAF	2080	99X-5500-G-00656	G-15	C
RES PROJECT NO.	FILENAME 99XD00656.DGN			



DESIGN GRADE CONTROL POINTS							
PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
450	480549.64	1348441.62	573.00	481	480312.82	1348388.33	578.00
451	480546.91	1348516.83	573.00	482	480279.84	1348378.32	578.00
452	480543.92	1348537.53	569.00	483	480355.94	1348452.74	570.00
453	480487.44	1348416.65	572.00	484	480355.48	1348465.28	570.00
454	480487.81	1348404.65	578.00	485	480331.50	1348469.29	569.00
455	480468.42	1348384.05	578.00	486	480323.43	1348515.60	560.00
456	480474.15	1348327.23	580.00	487	480327.92	1348506.66	562.00
457	480458.01	1348306.49	578.00	488	480318.03	1348496.10	563.00
458	480440.33	1348320.79	578.00	489	480361.91	1348583.64	558.00
459	480438.44	1348383.14	578.00	490	480386.86	1348624.81	558.00
460	480417.48	1348414.52	572.00	491	480345.47	1348711.30	557.00
461	480417.84	1348402.53	578.00	492	480350.06	1348713.29	556.00
462	480443.69	1348501.59	573.00	493	480259.60	1348593.90	558.00
463	480434.60	1348498.72	573.00	494	480240.83	1348540.22	560.00
464	480535.13	1348566.21	563.00	495	480304.34	1348401.90	570.00
465	480527.77	1348564.55	563.00	496	480279.36	1348394.32	570.00
466	480532.16	1348534.87	569.00	497	480197.62	1348527.67	569.00
467	480502.99	1348647.68	558.00	498	480085.73	1348335.40	578.00
468	480462.01	1348656.85	558.00	499	480034.06	1348371.90	579.00
469	480457.64	1348637.33	562.00	500	480107.15	1348389.09	570.00
470	480513.91	1348696.47	555.00	501	480093.64	1348408.66	569.00
471	480385.04	1348684.32	556.00	502	480040.58	1348429.56	565.00
472	480383.95	1348679.44	557.00	503	480037.10	1348437.59	569.00
473	480403.96	1348614.45	562.00	504	480093.45	1348514.20	569.00
474	480436.38	1348551.05	563.00	505	480109.59	1348566.89	569.00
475	480412.15	1348543.39	563.00	506	480103.21	1348622.52	569.00
476	480352.30	1348529.18	562.00	507	480085.91	1348612.48	565.00
477	480343.75	1348534.37	560.00	508	480090.47	1348572.75	565.00
478	480371.83	1348443.33	573.00	509	480074.32	1348520.06	565.00
479	480367.34	1348464.92	573.00	510	480084.13	1348417.84	564.00
480	480344.85	1348400.31	578.00	511	480041.06	1348436.15	564.00
				512	480046.05	1348342.45	570.00

DITCH CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
W7	480126.59	1348424.69	563.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE MWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS. WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.
9. EXCAVATION OF K-65 TRENCH REPRESENTS AN ABOVE-WAC EXCAVATION ASSOCIATED WITH A LANDMARK RATHER THAN AN AREA OF SOIL. SPECIFIC EXCAVATION REQUIREMENTS AND DETAILS ARE PRESENTED ON THE DRAWING.

KEYED NOTES

(A) TRANSITION FROM 2H:1V SLOPE TO 5H:1V SLOPE.

(B) RELOCATE UTILITY POLE PRIOR TO EXCAVATION OF K-65 TRENCH.

(C) 1. PRIOR TO EXCAVATION OF K-65 TRENCH, REMOVE SEDIMENT FROM THE BOTTOM OF THE TRENCH AS TC-99 ABOVE-WAC MATERIAL.

2. EXCAVATE CONCRETE K-65 TRENCH AND 2 FT. OF SURROUNDING SOIL BELOW AND ADJACENT TO THE TRENCH AS TC-99 ABOVE-WAC MATERIAL.

3. ARRANGE FOR PHYSICAL SAMPLING OF THE EXCAVATION SURFACE FOLLOWING EXCAVATION OF THE K-65 TRENCH TO CONFIRM REMOVAL OF ABOVE-WAC MATERIAL.

4. RE-ESTABLISH HOOPERVILLE ROAD BY PLACING COMPACTED FILL IN ACCORDANCE WITH SPECIFICATION SECTION 02200. SEE TYPICAL HAUL ROAD/MAINTENANCE ROAD/SMTA DETAIL ON DRAWING 99X-5500-G-00738.

- 4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000019

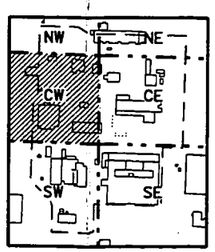
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (CW)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

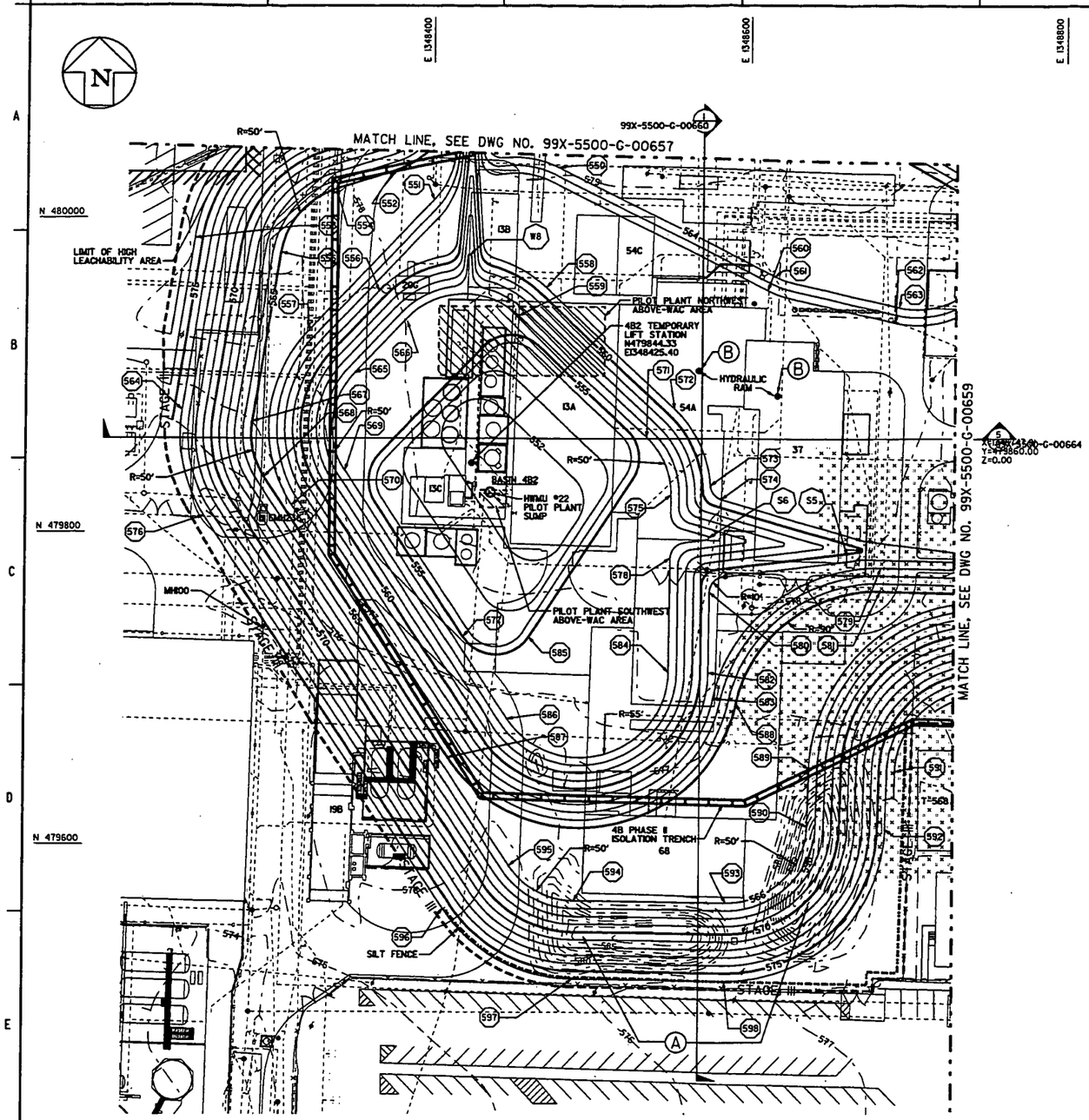
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00657	G-16	C
RES PROJECT NO.	FILENAME 99XG00657.DGN			



AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

NORTH



DITCH CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
WB	479976.60	1348423.14	557.00
S5	479788.98	1348671.80	560.00
S6	479796.59	1348574.75	556.00

DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
550	480032.29	1348479.08	564.00
551	480011.50	1348400.35	564.00
552	480029.78	1348374.69	565.00
553	479987.28	1348249.08	576.00
554	480018.58	1348338.13	565.00
555	479978.64	1348303.40	565.00
556	479953.72	1348365.90	561.00
557	479929.16	1348321.71	564.00
558	479956.15	1348471.94	561.00
559	479938.08	1348454.68	556.00
560	479963.42	1348615.44	564.00
561	479963.42	1348615.44	564.00
562	479933.77	1348692.67	562.00
563	479943.51	1348694.93	564.00
564	479877.88	1348241.79	574.00
565	479901.53	1348350.63	556.00
566	479936.45	1348383.98	556.00
567	479870.81	1348286.23	565.00
568	479835.49	1348293.82	565.00
569	479839.54	1348345.00	556.00
570	479887.58	1348311.57	564.00
571	479860.83	1348535.55	556.00
572	479878.91	1348552.82	561.00
573	479829.98	1348575.83	561.00
574	479821.09	1348583.01	561.00
575	479824.30	1348551.02	556.00
576	479810.79	1348256.21	574.00
577	479733.18	1348420.86	555.00
578	479783.80	1348550.71	556.00
579	479777.58	1348684.13	562.00
580	479761.92	1348575.55	561.00
581	479762.58	1348683.71	565.00
582	479710.54	1348575.16	561.00
583	479693.91	1348578.40	562.00
584	479710.73	1348550.16	556.00
585	479733.43	1348462.81	555.00
586	479680.94	1348449.20	556.00
587	479656.23	1348411.59	565.00
588	479690.87	1348593.09	565.00
589	479648.86	1348638.98	566.00
590	479681.81	1348637.93	566.00
591	479647.30	1348693.96	577.00
592	479610.39	1348687.91	576.00
593	479563.24	1348587.28	566.00
594	479564.50	1348492.19	566.00
595	479587.04	1348451.07	566.00
596	479559.59	1348409.28	576.00
597	479514.51	1348491.52	576.00
598	479513.24	1348586.61	576.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
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8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

KEYED NOTES

(A) EXCAVATE BUILDING 68 SHIELD PILE TO APPROXIMATELY GENERAL GRADE BEFORE PERFORMING DEEP EXCAVATION IN THE BUILDING 68 AREA.

(B) PRIOR TO EXCAVATION, PULL 1 FOOT DIA. HYDRAULIC RAM. CUT/SHEAR CASING AS REQUIRED DURING EXCAVATION. UPON REACHING FINAL DESIGN GRADE, CUT/SHEAR THE CASING AT LEAST 3 FEET ABOVE GRADE AND PULL. GROUT THE SUBSEQUENT HOLE IN ACCORDANCE WITH SPECIFICATION SECTION 02206.

4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

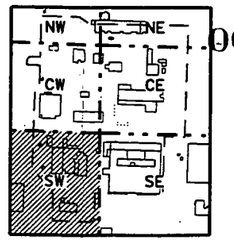
UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

.000020

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (SW)



NORTH

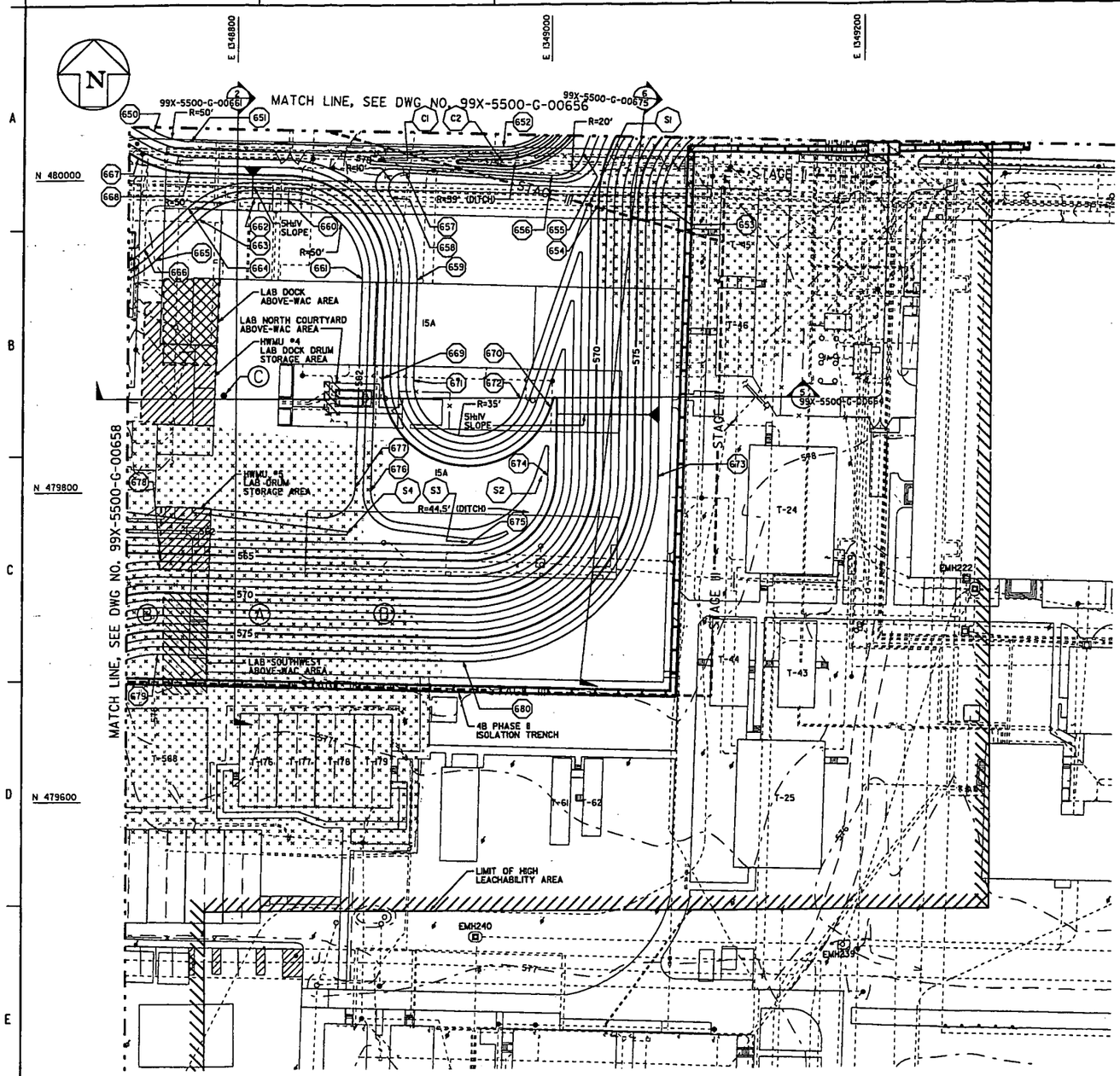
AREA 4B
KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

APPROVALS

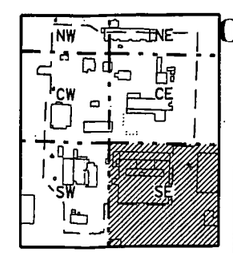
COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00658	G-17	C
RES PROJECT NO.	FILENAME 99X00065A.DGN			



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
650	480031.48	1348746.17	569.00
651	480024.75	1348769.89	569.00
652	480020.79	1348969.29	569.00
653	479983.86	1349070.48	578.00
654	479984.21	1349030.49	570.00
655	480016.36	1349020.54	567.00
656	480002.40	1349000.16	567.00
657	480004.48	1348907.03	569.00
658	479988.56	1348898.33	569.00
659	479935.75	1348914.91	569.00
660	479988.06	1348831.31	562.00
661	479936.71	1348879.92	562.00
662	479988.62	1348810.99	562.00
663	479974.94	1348775.25	562.00
664	479982.21	1348768.38	564.00
665	479948.65	1348747.48	562.00
666	479955.91	1348740.60	564.00
667	480014.18	1348736.13	565.00
668	480004.76	1348769.34	565.00
669	479872.95	1348893.19	565.00
670	479853.88	1349000.28	565.00
671	479871.44	1348913.15	569.00
672	479859.31	1348981.31	569.00
673	479809.21	1349068.96	578.00
674	479809.82	1348998.96	564.00
675	479765.28	1348947.72	563.00
676	479800.60	1348886.20	564.00
677	479803.00	1348876.27	562.00
678	479755.69	1348751.98	566.00
679	479695.71	1348750.32	578.00
680	479690.31	1348945.64	578.00

DITCH CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
C1	480012.62	1348889.73	566.00
C2	480010.62	1348969.03	565.00
S1	479984.42	1349024.51	569.00
S2	479809.86	1348994.89	564.00
S3	479767.36	1348947.78	563.00
S4	479773.36	1348871.19	562.00



AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

NORTH

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

KEYED NOTES

(A) STABILIZE THE WALLS IN THE SOUTH END OF THE LABORATORY BASEMENT, IN ACCORDANCE WITH THE FOLLOWING STEPS:
1. REMOVE BASEMENT CEILING.
2. REMOVE A PORTION OF THE BASEMENT WALL LOCATED ALONG COLUMN LINE 12 BETWEEN COLUMN LINES T AND P FOR HEAVY EQUIPMENT ACCESS.
3. REMOVE FREE-STANDING COLUMNS WITHIN THE BASEMENT AREA.
4. FILL THE SOUTH END OF THE BASEMENT WITH BELOW OSDF WAC SOIL APPROXIMATELY TO DESIGN GRADE, IN ACCORDANCE WITH THE PLACEMENT REQUIREMENTS FOR COMPACTED FILL IN SPECIFICATION SECTION 02206.
5. DO NOT DAMAGE FOUNDATION WALLS NEAR THE SOUTH END OF THE LABORATORY BASEMENT UNTIL STEPS 1 THROUGH 4 HAVE BEEN COMPLETED.
6. REMOVE LABORATORY FOUNDATIONS ABOVE DESIGN GRADE AS REQUIRED.
7. SEE REFERENCE DRAWING 15X-5900-S-002543 FOR COLUMN LINE LOCATIONS.

(B) DO NOT PERFORM SOIL EXCAVATION OR CONCRETE BREAKING OF AT-GRADE SLABS NEAR THE SOUTHERN END OF THE LABORATORY BASEMENT UNTIL FOUNDATION WALLS HAVE BEEN STABILIZED.

(C) PRIOR TO EXCAVATION, PULL 1 FOOT DIA. HYDRAULIC RAM. UPON REACHING FINAL DESIGN GRADE, PULL THE 3 FOOT DIA. STEEL CASING. GROUT THE SUBSEQUENT HOLE IN ACCORDANCE WITH SPECIFICATION SECTION 02206.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

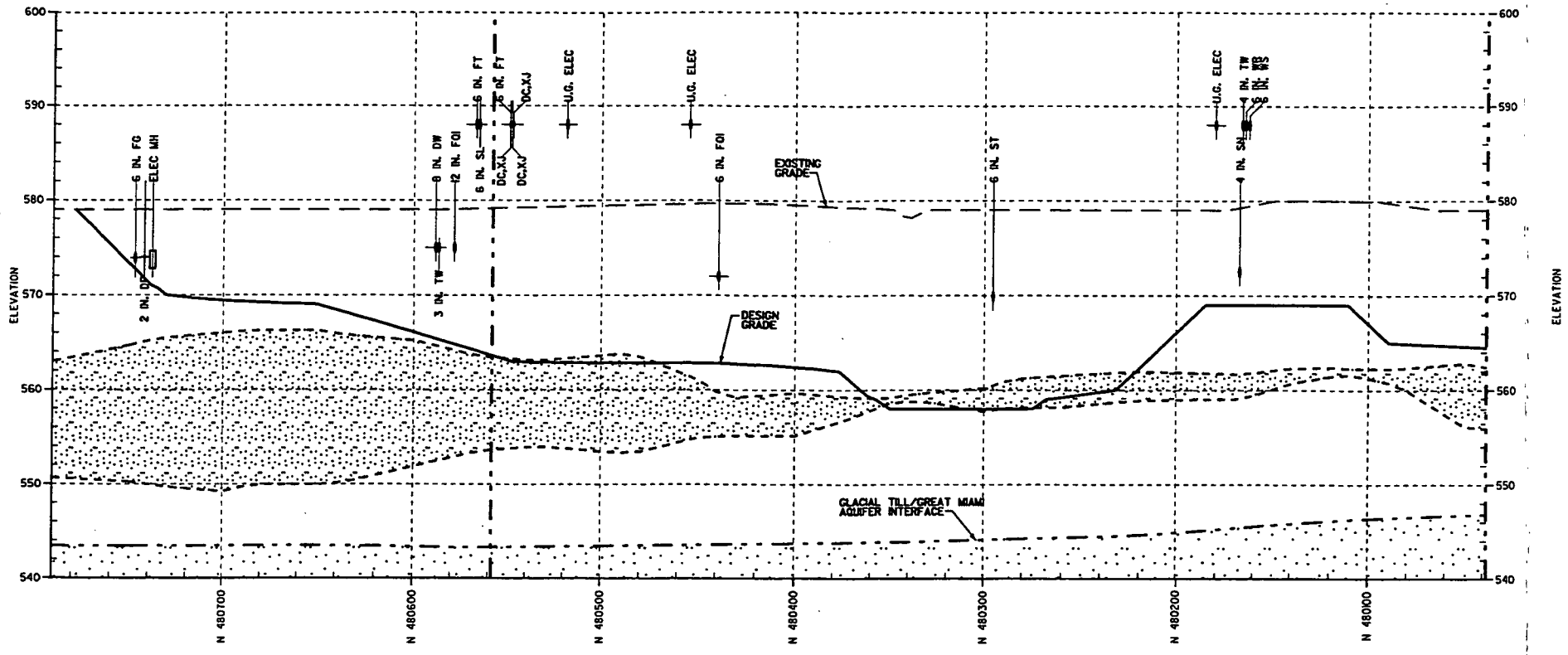
PROJECT NAME
000021 SOIL REMEDIATION

DRAWING TITLE
AREA 4B
EXCAVATION/DRAINAGE PLAN (SE)

APPROVALS

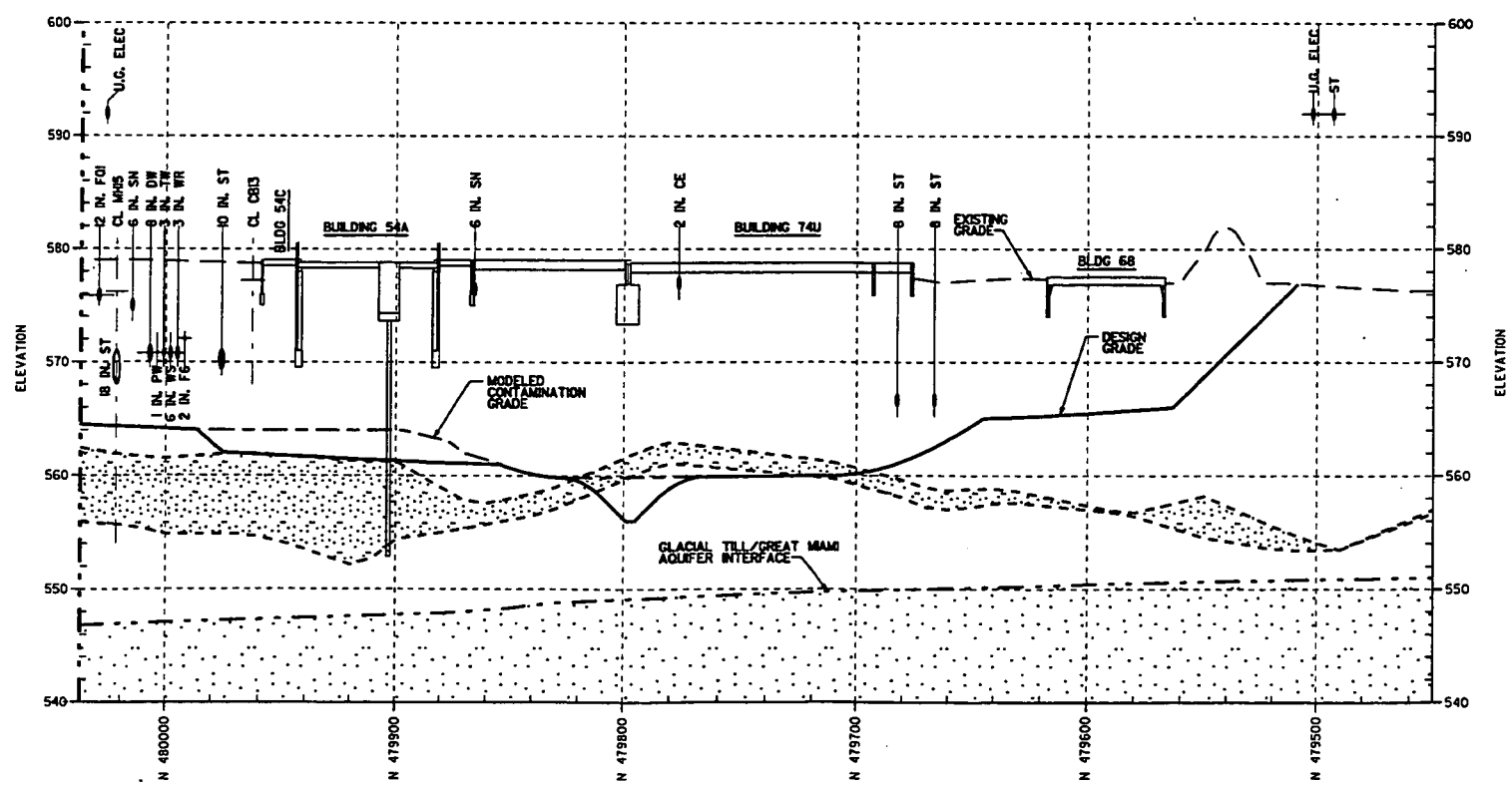
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20200	99X-5500-G-00659	G-18	C
RES PROJECT NO.	FILENAME 99XD00659.DGN			



4B EXCAVATION (1) 99X-5500-G-00654 00657

SCALE: 1"=30' HORIZ
1"=6' VERT



4B EXCAVATION (1) 99X-5500-G-00658

SCALE: 1"=30' HORIZ
1"=6' VERT

000022

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

-- 45 18

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

DETAILS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

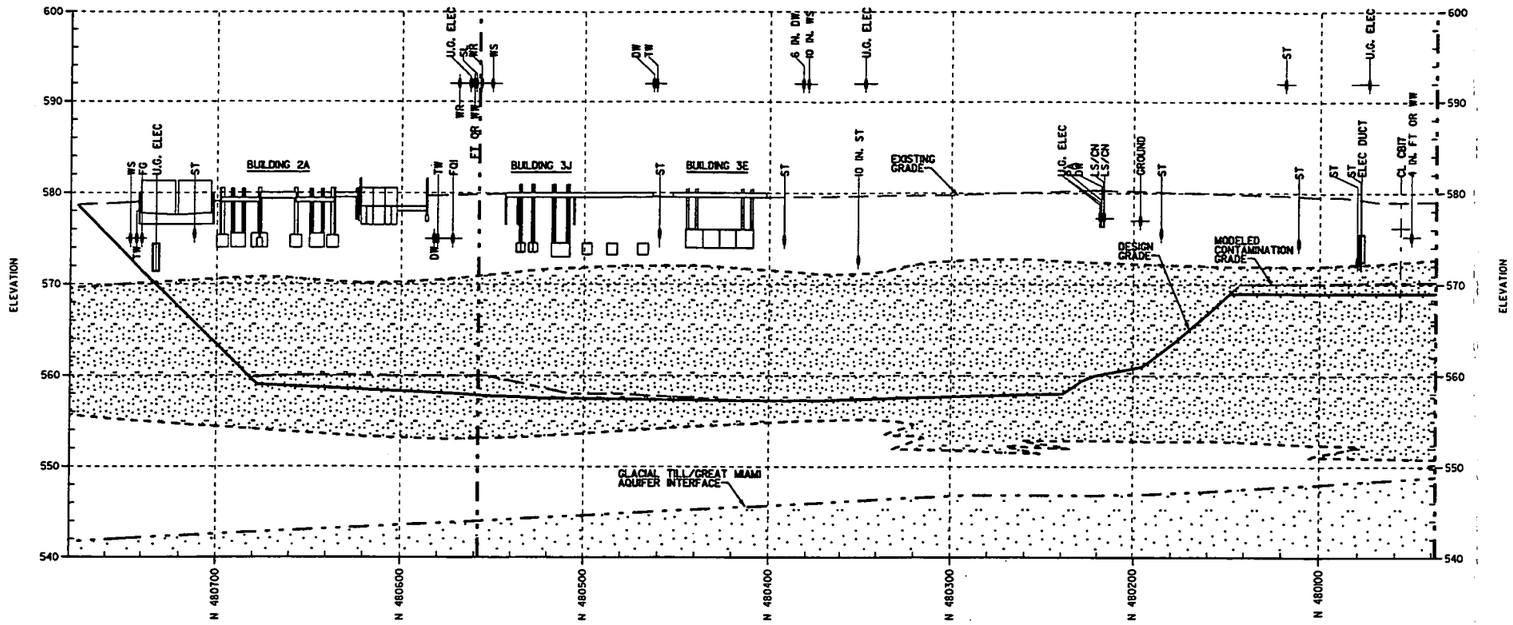
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 1

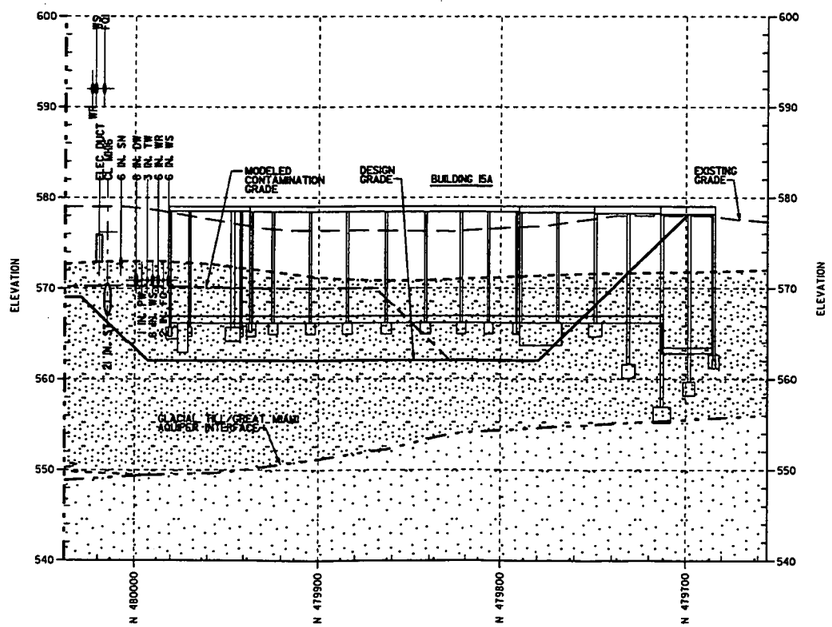
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20880	99X-5500-G-00660	G-19	B
RES PROJECT NO.	FILENAME 99X0006460.DGN			



4B EXCAVATION (2) 99X-5500-G-00655 00656
SCALE: 1"=30' HORIZ 1"=6' VERT



4B EXCAVATION (2) 99X-5500-G-00659
SCALE: 1"=30' HORIZ 1"=6' VERT

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02220S. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02220S.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 2

APPROVALS

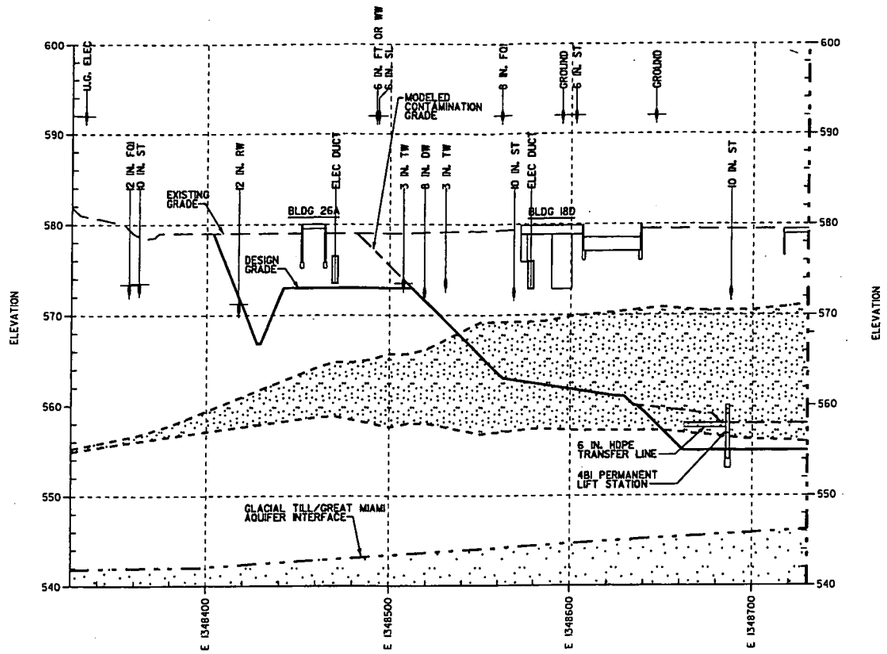
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

000023

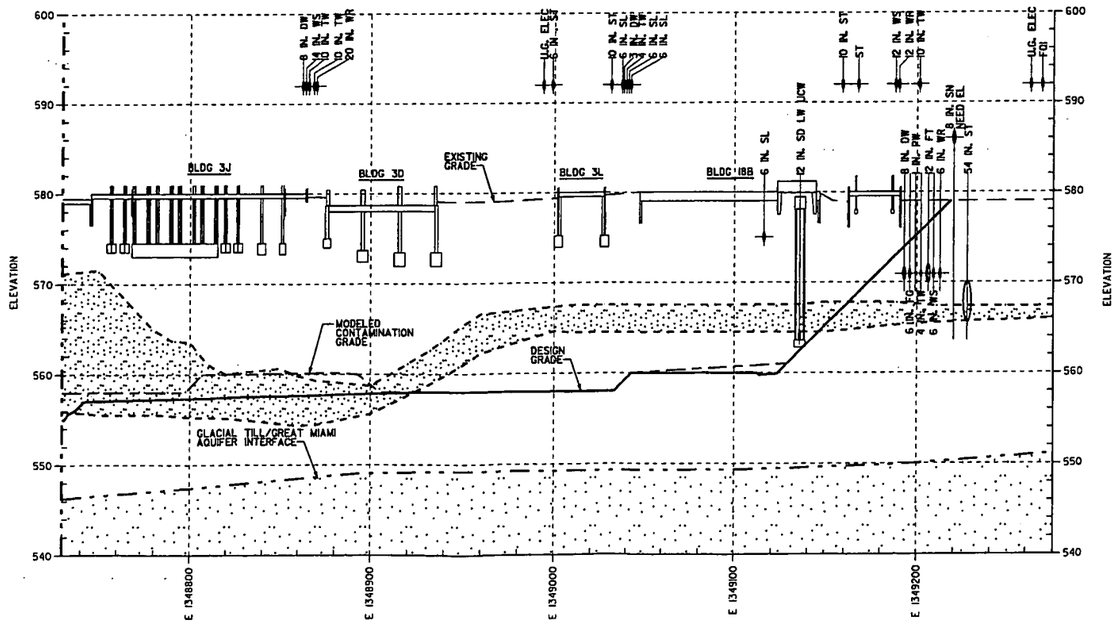
HORIZ. SCALE: 1"=30'

VERT. SCALE: 1"=6'

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00661	G-20	B
REV. PROJECT NO.	FILENAME 99X00066LDGN			



4B EXCAVATION (3) 99X-5500-G-00657
SCALE: 1"=30' HORIZ
1"=6' VERT



4B EXCAVATION (3) 99X-5500-G-00656
SCALE: 1"=30' HORIZ
1"=6' VERT

000024

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

- 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

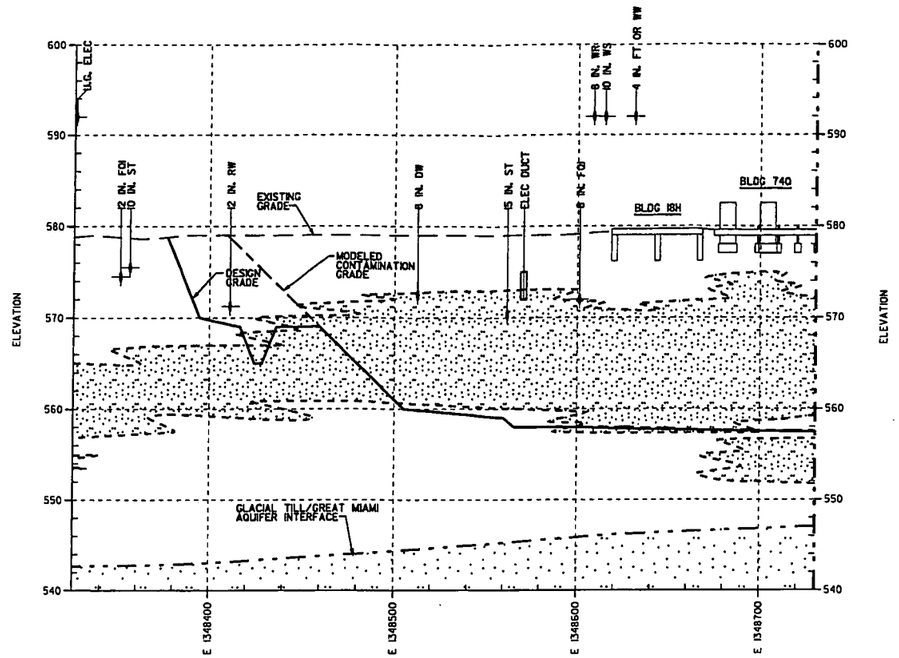
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 3

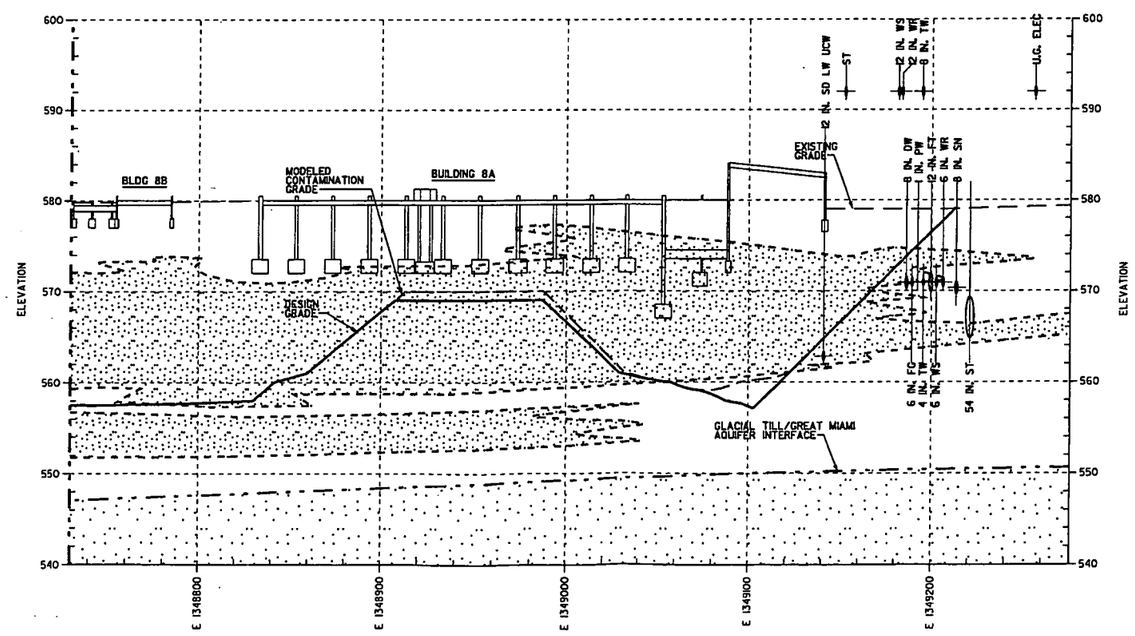
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20240	99X-5500-G-00662	G-21	B
RES PROJECT NO.	FILENAME 99XG00662.DGN			



4B EXCAVATION (4) 99X-5500-G-00657
SCALE: 1"=30' HORIZ 1"=6' VERT



4B EXCAVATION (4) 99X-5500-G-00656
SCALE: 1"=30' HORIZ 1"=6' VERT

000025

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

-- 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

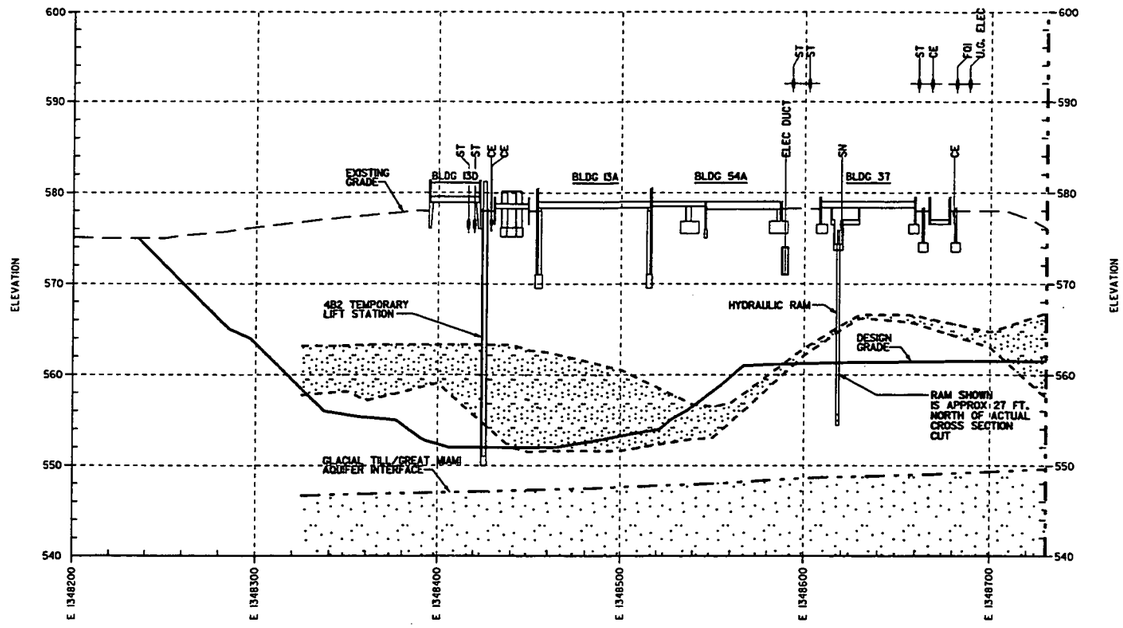
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 4

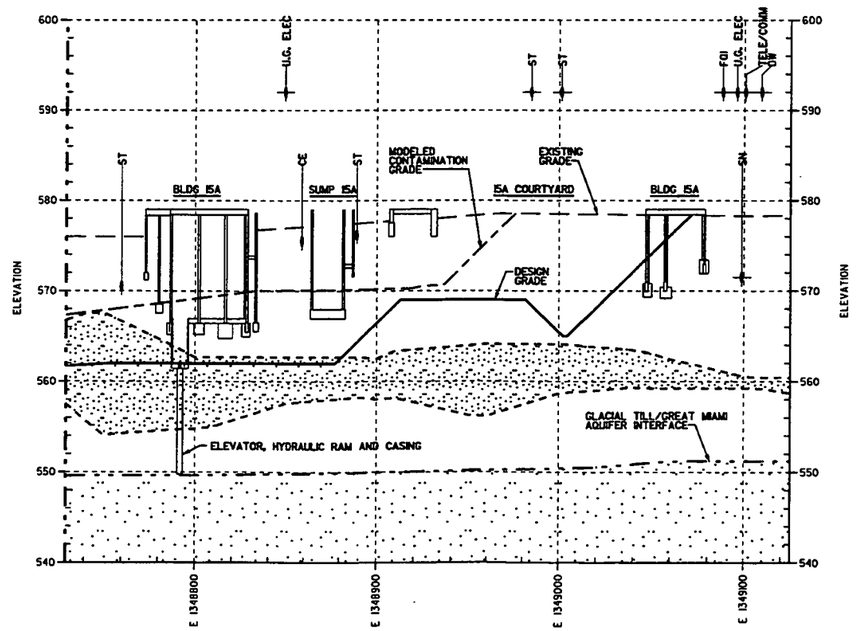
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		DA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20310	99X-5500-G-00663	G-22	B
RES PROJECT NO.	FILENAME 99X000663.DGN			



4B EXCAVATION (5) 99X-5500-G-00658
SCALE: 1"=30' HORIZ 1"=6' VERT



4B EXCAVATION (5) 99X-5500-G-00659
SCALE: 1"=30' HORIZ 1"=6' VERT

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

-- 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 5

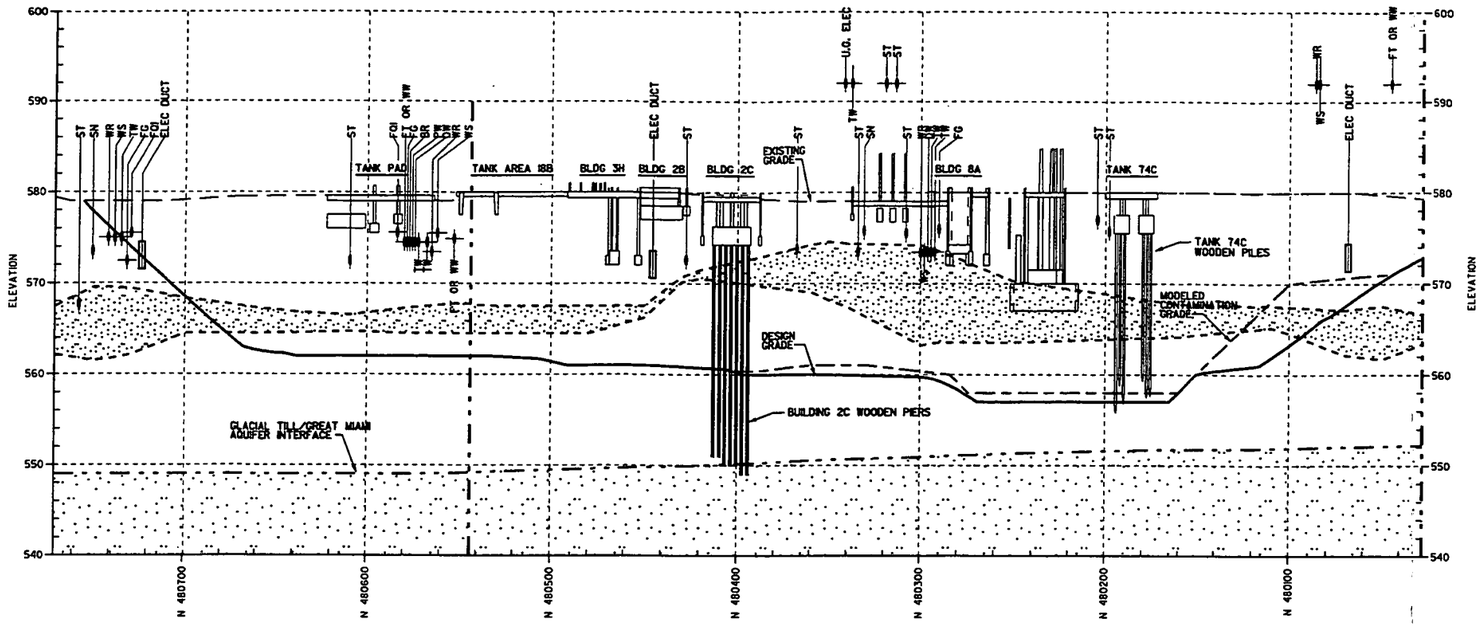
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

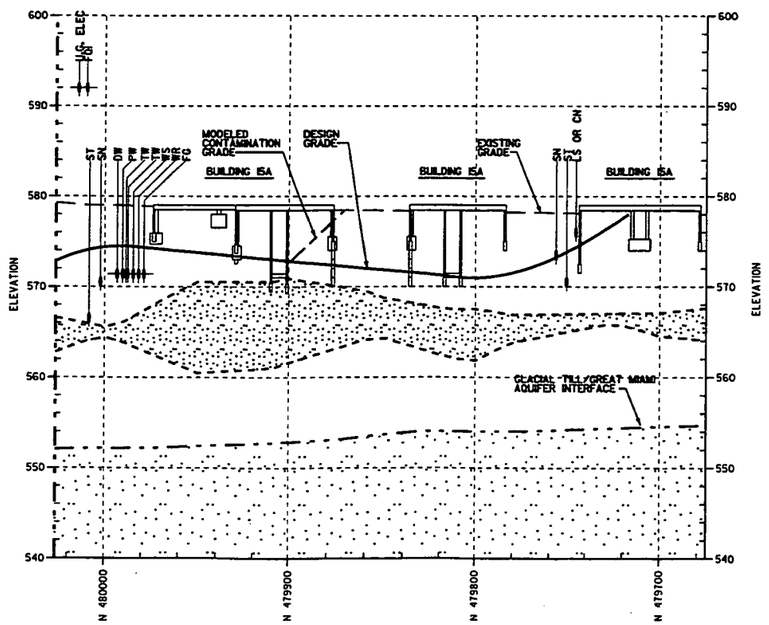
DRAWN BY DRF | PROJECT NO. 20180 | DRAWING INDEX CODE NO. 99X-5500-G-00664 | SHEET NO. G-23 | REV. NO. B
REF PROJECT NO. | FILENAME 99X00064.DGN

000026

30 0 30 60
HORIZ. SCALE: 1"=30'
6 0 6 12
VERT. SCALE: 1"=6'



4B EXCAVATION (6)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00655
00656



4B EXCAVATION (6)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00659

000027

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
4. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.

-- 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

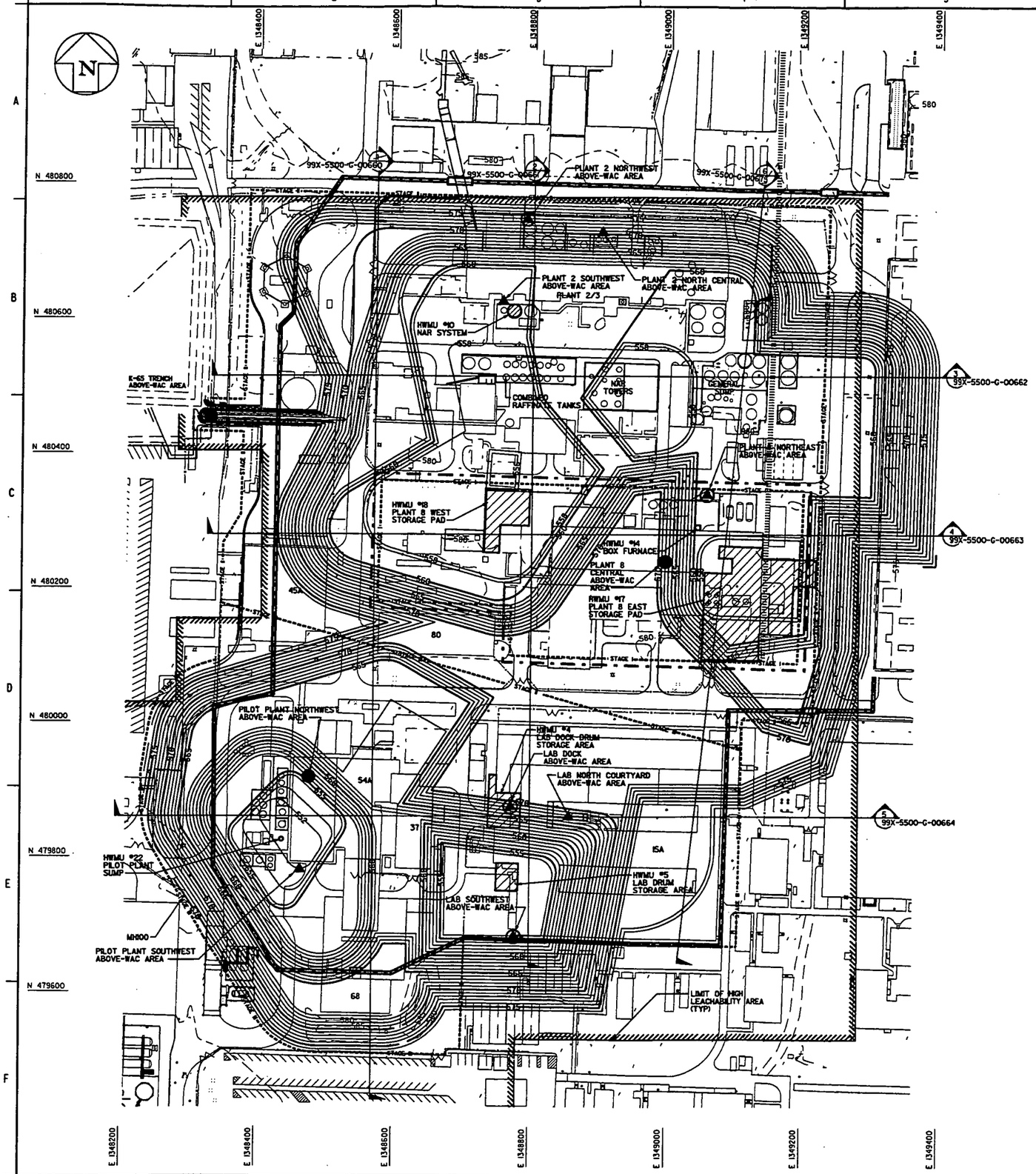
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CROSS SECTIONS SHEET 6

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00675	G-24	A
RES PROJECT NO.	FILENAME 99X00675.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM ABOVE FRLS, BASED ON 3-DIMENSIONAL CONTAMINATION MODELING.
3. FOR CONTAMINATION PROFILE CONTROL POINTS SEE DRAWINGS 99X-5500-G-00665, 00666, 00667, 00668, 00669 AND 00670.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWINGS 99X-5500-G-00653, 00654, 00655, 00656, 00657, 00658 AND 00659.
5. SEE DRAWING 99X-5500-G-00677 FOR COORDINATES AND EXCAVATION DETAILS FOR ABOVE-WAC AREAS SHOWN HERE FOR REFERENCE ONLY.
6. SEE DRAWING 99X-5500-G-00678 FOR COORDINATES AND EXCAVATION DETAILS FOR HWMU'S SHOWN HERE FOR REFERENCE ONLY.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE AREA ISOLATION TRENCH CORRESPONDING TO THE EXCAVATION STAGE.

--4518

LEGEND

- URANIUM ABOVE-WAC AREA
- TC-99 ABOVE-WAC AREA
- URANIUM AREA & TC-99 ABOVE-WAC AREA
- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

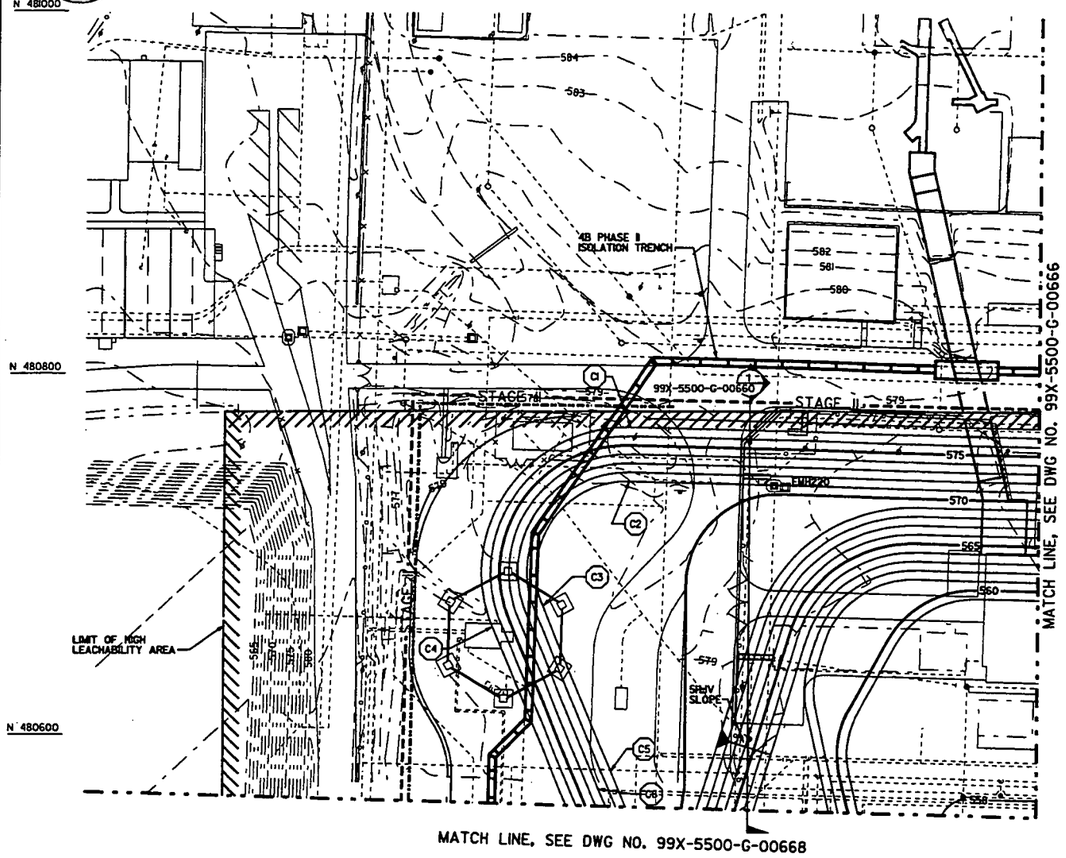
DRAWING TITLE
AREA 4B
CONTAMINATION GRADING OVERVIEW

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00676	G-25	B
RES PROJECT NO.	FILENAME 99XC00676.DGN			

000028



MODELED CONTAMINATION CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
C1	480770.63	1348504.91	577.0
C2	480740.64	1348504.11	571.0
C3	480671.43	1348456.61	571.0
C4	480659.89	1348428.92	577.0
C5	480579.83	1348494.77	571.0
C6	480569.83	1348488.10	573.0

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00654 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. MODELED CONTAMINATION CONTROL POINTS ARE ONLY GIVEN IN AREAS WHERE THE DESIGN GRADE IS SIGNIFICANTLY DEEPER THAN THE MODELED CONTAMINATION GRADE.

4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

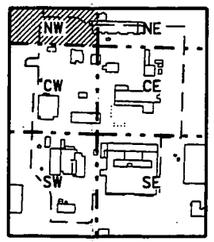
UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (NW)

000029



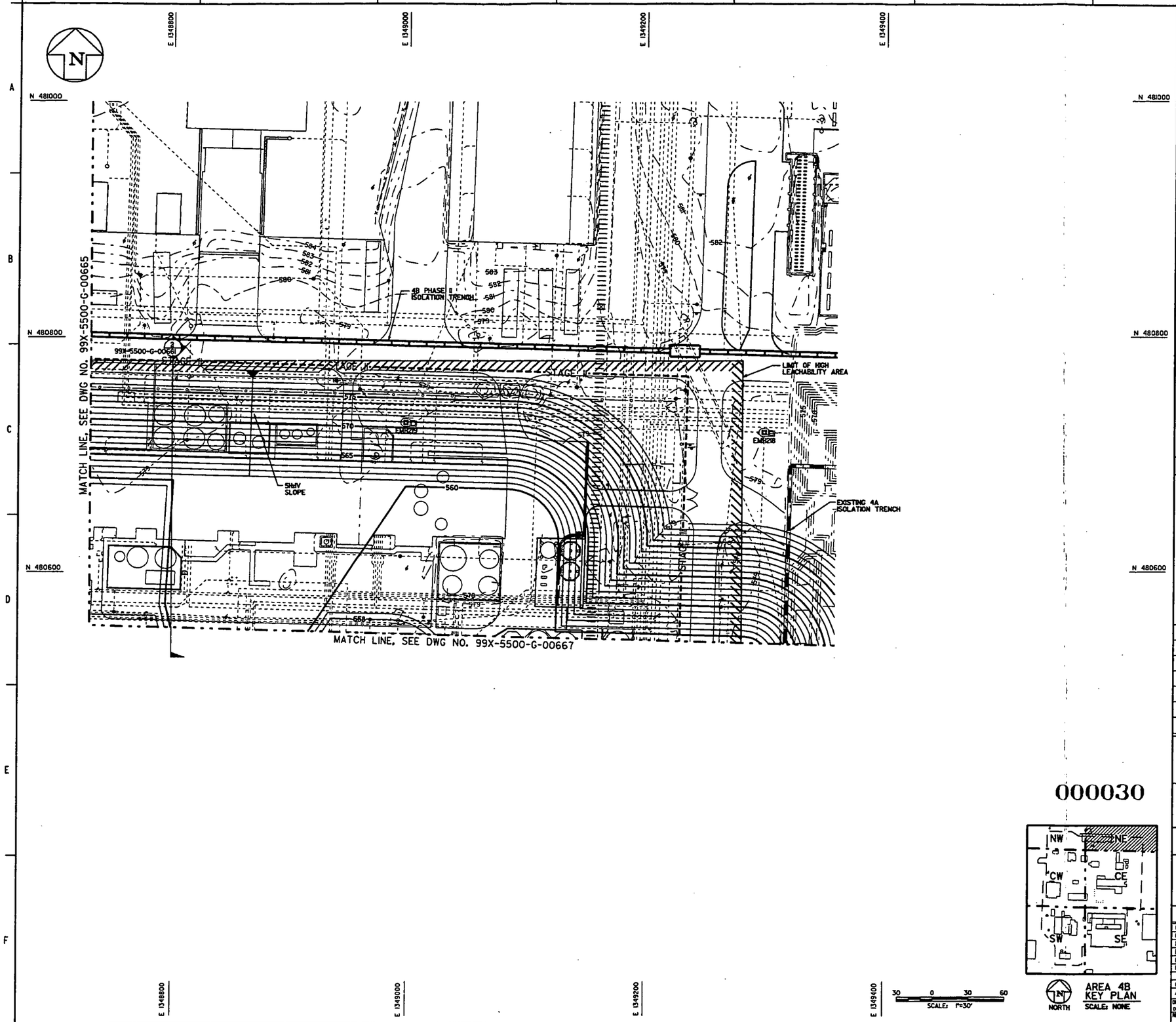
NORTH
AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00665	G-26	B
RES PROJECT NO.	FILENAME 99XC00665.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00655 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.

—4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (NE)

000030

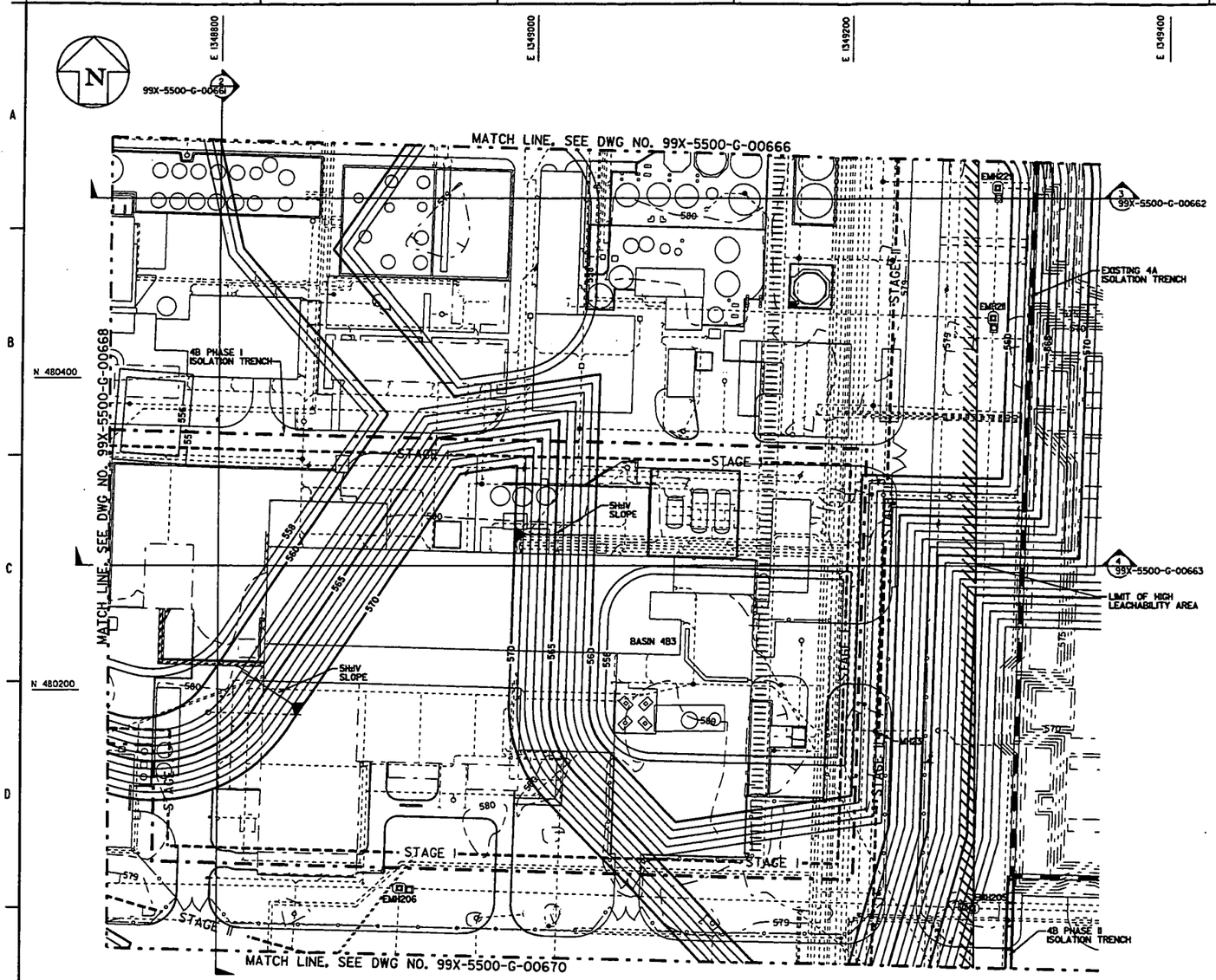
NORTH
AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00666	G-27	B
RES PROJECT NO.	FILENAME PRX000666.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00656 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.

4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

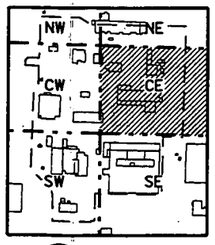
UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (CE)

000031



AREA 4B KEY PLAN
SCALE: NONE

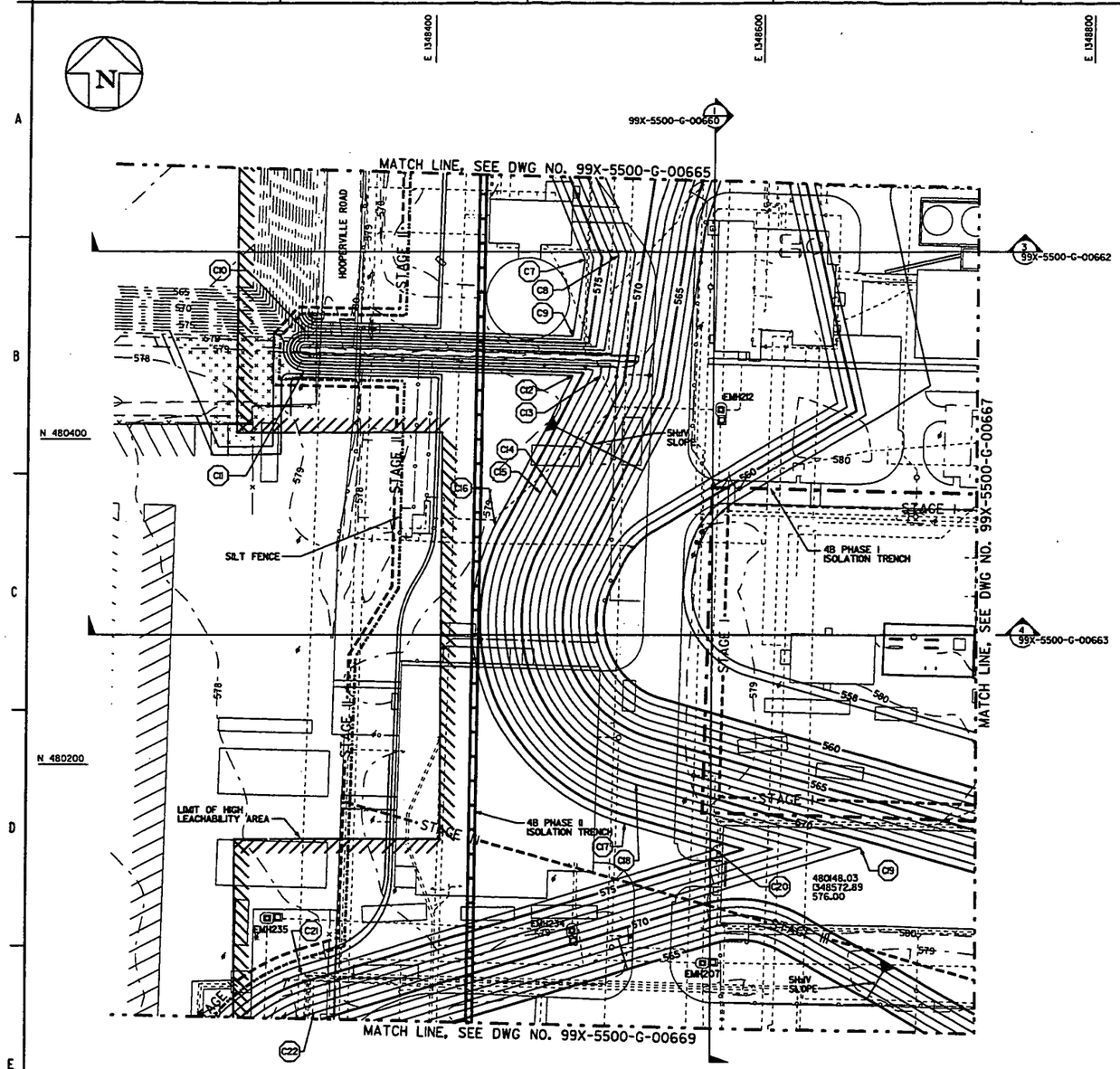
NORTH

30 0 30 60
SCALE: 1"=30'

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00667	G-28	B
REF PROJECT NO.	FILENAME 99X00667.DGN			



MODELED CONTAMINATION CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
C7	480510.35	1348491.22	577.0
C8	480512.92	1348518.81	573.0
C9	480463.38	1348484.28	577.0
C10	480466.32	1348321.58	576.0
C11	480442.33	1348320.85	577.0
C12	480439.37	1348484.32	576.0
C13	480438.91	1348500.88	573.0
C14	480365.30	1348475.08	571.0
C15	480367.34	1348464.92	573.0
C16	480347.22	1348438.02	576.0
C17	480164.01	1348517.90	576.0
C18	480188.02	1348524.88	571.0
C19	480148.66	1348660.30	571.0
C20	480148.03	1348572.89	571.0
C21	480071.17	1348322.02	576.0
C22	480047.27	1348329.34	571.0

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00657 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. MODELED CONTAMINATION CONTROL POINTS ARE ONLY GIVEN IN AREAS WHERE THE DESIGN GRADE IS SIGNIFICANTLY DEEPER THAN THE MODELED CONTAMINATION GRADE.

—4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

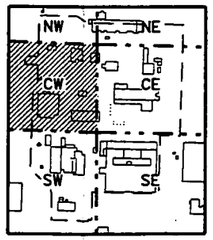
UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (CW)

000032



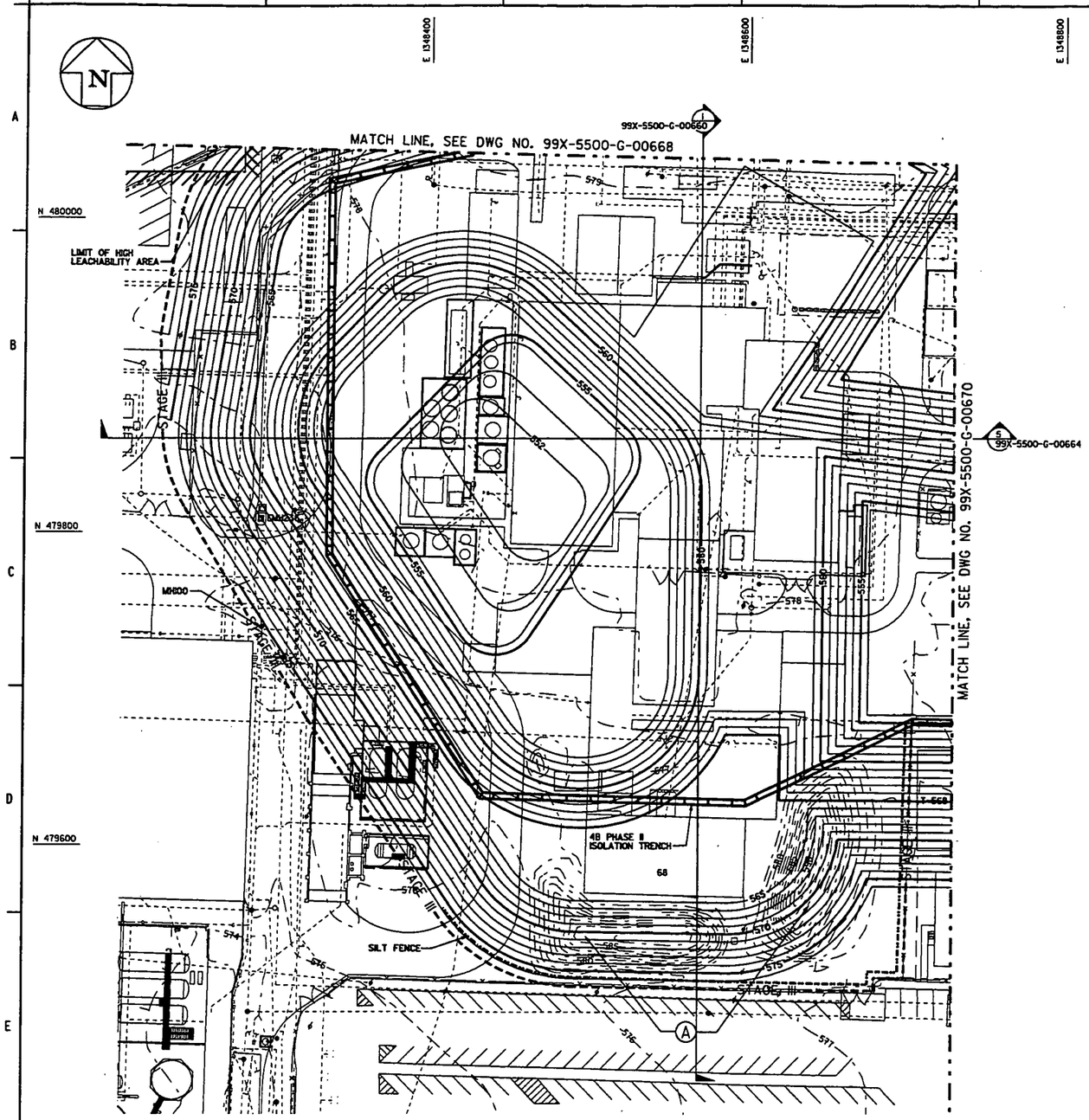
NORTH
AREA 4B
KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

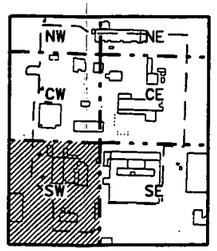
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00668	G-29	B
NES PROJECT NO.	FILENAME 99XC00668.DGN			



30 0 30 60
SCALE: 1"=30'



NORTH

AREA 4B KEY PLAN
SCALE: NONE

000033

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00658 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.

4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

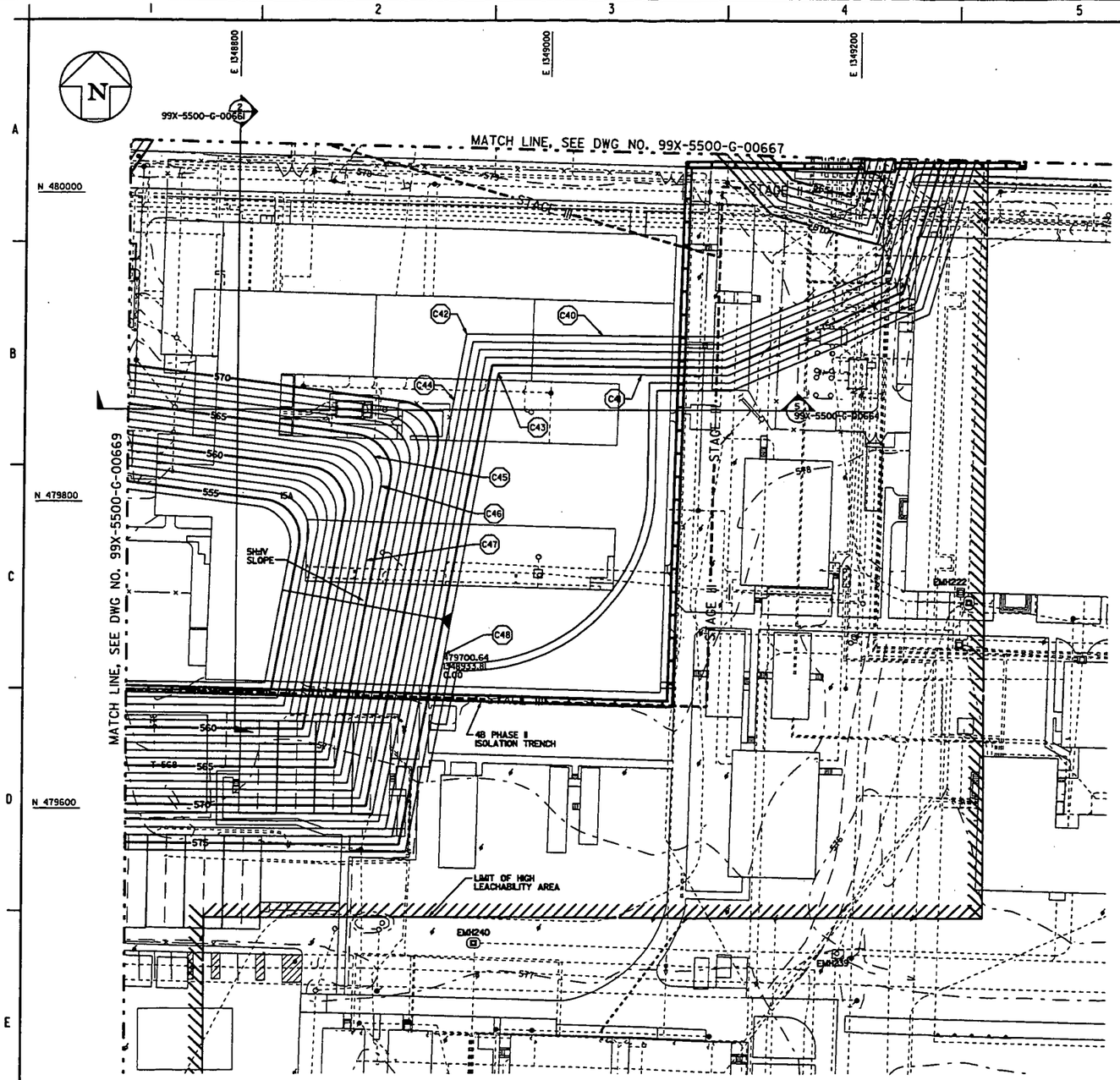
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (SW)

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE.		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00669	G-30	B
REV PROJECT NO.	FILENAME 99XC00669.DGN			



MODELED CONTAMINATION CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
C40	479908.16	1349034.82	571.0
C41	479882.95	1349059.60	576.0
C42	479908.93	1348946.63	571.0
C43	479883.75	1348967.43	576.0
C44	479866.36	1348938.82	571.0
C45	479829.80	1348888.61	564.0
C46	479810.57	1348892.99	564.0
C47	479762.04	1348884.08	564.0
C48	479700.64	1348933.81	576.0

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
3. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
4. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00659 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. MODELED CONTAMINATION CONTROL POINTS ARE ONLY GIVEN IN AREAS WHERE THE DESIGN GRADE IS SIGNIFICANTLY DEEPER THAN THE MODELED CONTAMINATION GRADE.

-- 4518

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

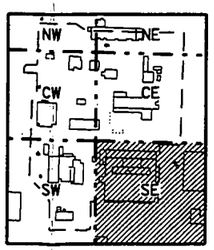
UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
CONTAMINATION GRADING PLAN (SE)

000034



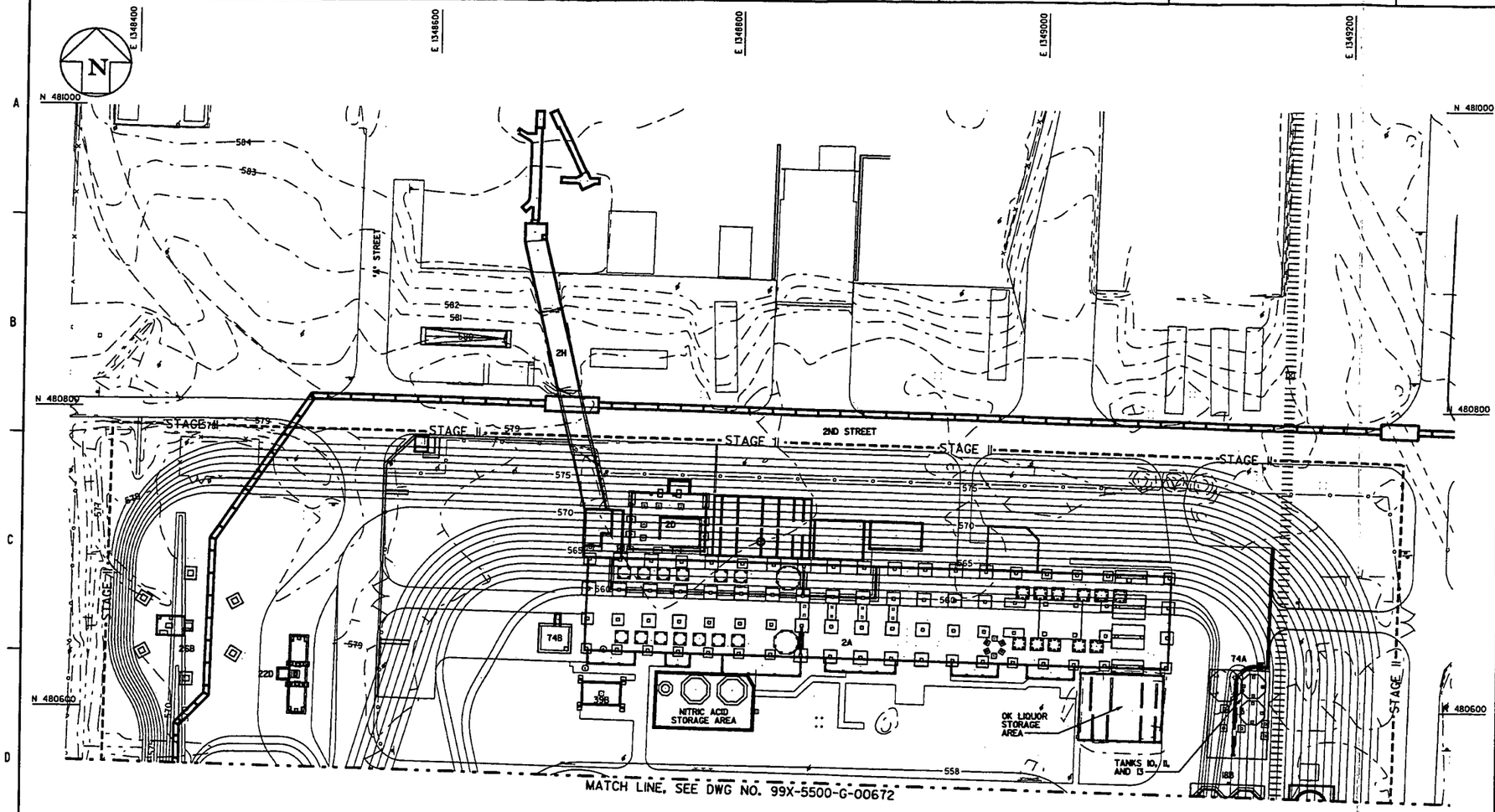
NORTH

AREA 4B KEY PLAN
SCALE: NONE

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE.		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

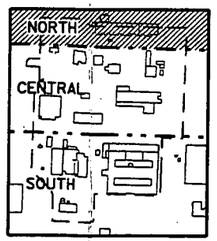
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00670	G-31	B
RES PROJECT NO.	FILENAME 99X00670.DGN			



TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
02X-1900-S-03451	STRUCTURE 2A WEST AND 2D FOUNDATION PLAN	S-001
02X-1900-S-03452	STRUCTURE 2A WEST AND 2D SLAB PLAN	S-002
02X-1900-S-03453	STRUCTURE 2A EAST,SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN	S-001
02X-1900-S-03454	STRUCTURE 2A EAST,SOLVENT STORAGE AND TREATMENT AREAS SLAB PLAN	S-002
02X-1900-S-03455	STRUCTURE 39B AND NITRIC ACID STORAGE AREA FOUNDATION PLAN	S-001
02X-1900-S-03456	STRUCTURE 39B AND NITRIC ACID STORAGE AREA SLAB PLAN	S-002
18X-1900-S-01408	OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10,11,AND 13 FOUNDATION PLAN	S-001
18X-1900-S-01409	OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10,11,AND 13 SLAB PLAN	S-002
18X-1900-S-01414	STRUCTURE 18B FOUNDATION PLAN	S-001
18X-1900-S-01415	STRUCTURE 18B SLAB PLAN	S-002
22D-5900-S-00979	SCALE 22D FOUNDATION AND SLAB PLAN	S0001
26B-5900-S-00301	ELEVATED WATER STORAGE TANK 26B FOUNDATION AND SLAB PLAN	S0001
02X-1900-S-03448	STRUCTURE 2H AND PIT FOUNDATION AND SLAB PLAN	S-001
02X-1900-S-03450	STRUCTURE 74B AND ELEVATOR PIT FOUNDATION AND SLAB PLAN	S-001

000035



NORTH

AREA 4B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

4518

KEYED NOTES

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

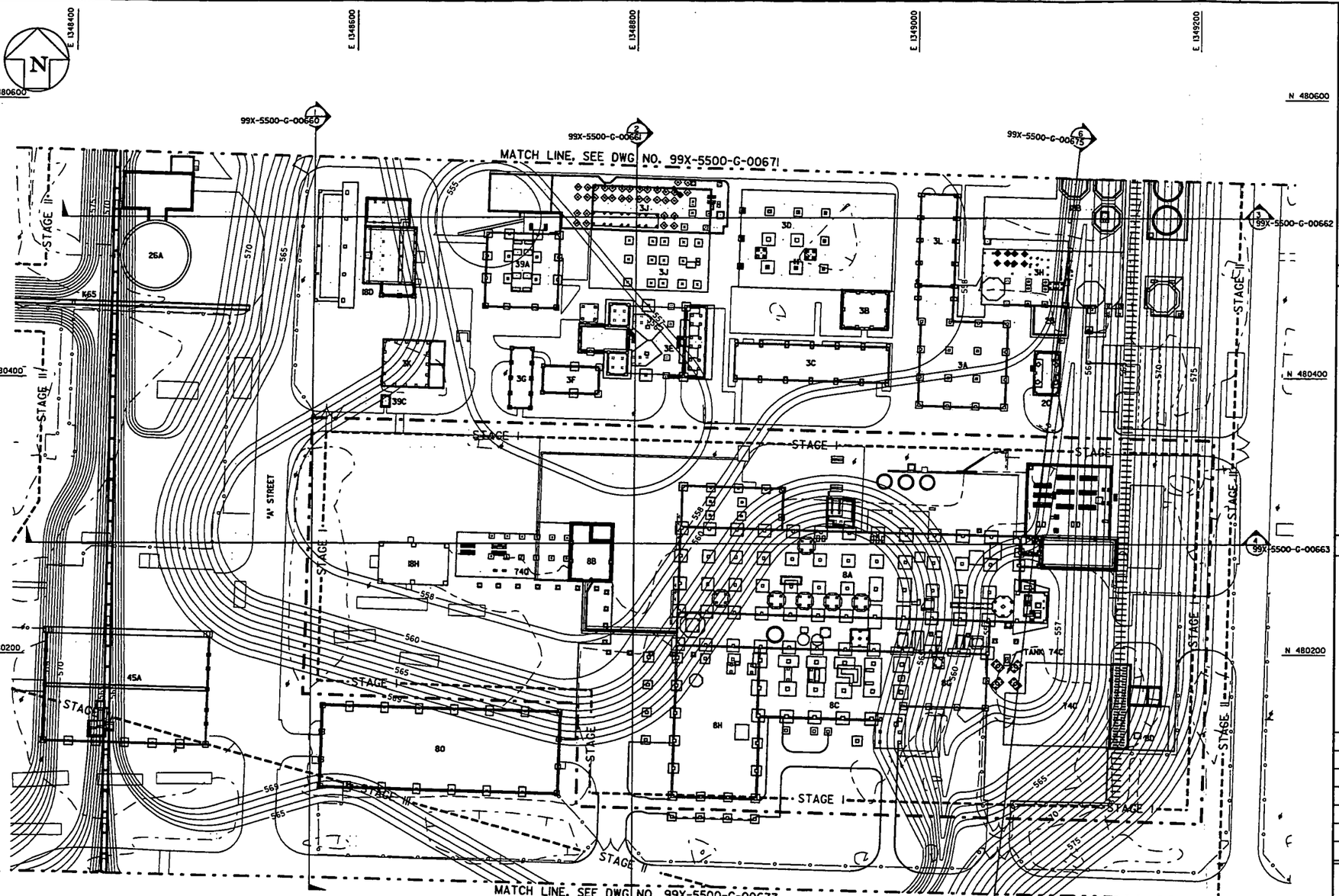
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
FOUNDATION PLAN (NORTH)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	2080	99X-5500-G-00671	G-32	B
RES PROJECT NO.	FILENAME 99XC0067LOGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

-- 4518

KEYED NOTES

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

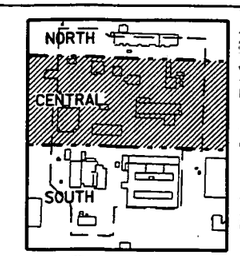
PRELIMINARY
NOT FOR CONSTRUCTION

TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
02E-1900-S-03457	STRUCTURE 3J FOUNDATION PLAN	S-001
02E-1900-S-03458	STRUCTURE 3J SLAB PLAN	S-002
02X-1900-S-03459	STRUCTURE 3E FOUNDATION PLAN	S-001
02X-1900-S-03460	STRUCTURE 3E SLAB PLAN	S-002
03A-1900-S-01044	STRUCTURE 3G AND 3F FOUNDATION PLAN	S-001
03A-1900-S-01045	STRUCTURE 3G AND 3F SLAB PLAN	S-002
03B-1900-S-01050	STRUCTURE 3L FOUNDATION PLAN	S-001
03B-1900-S-01051	STRUCTURE 3L SLAB PLAN	S-002
03X-1900-S-01041	STRUCTURE 3C AND 3B FOUNDATION AND SLAB PLAN	S-001
03X-1900-S-01042	STRUCTURE 3A AND 2C FOUNDATION PLAN	S-001
03X-1900-S-01043	STRUCTURE 3A AND 2C SLAB PLAN	S-002
03X-1900-S-01046	STRUCTURE 39C AND 3K FOUNDATION PLAN	S-001
03X-1900-S-01047	STRUCTURE 39C AND 3K SLAB PLAN	S-002
03X-1900-S-01048	STRUCTURE 3D FOUNDATION PLAN	S-001
03X-1900-S-01049	STRUCTURE 3D SLAB PLAN	S-002
18D-1900-S-01416	STRUCTURE 18D FOUNDATION PLAN	S-001
18D-1900-S-01417	STRUCTURE 18D SLAB PLAN	S-002
18X-1900-S-01410	CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9 FOUNDATION PLAN	S-001
18X-1900-S-01411	CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9 SLAB PLAN	S-002
18X-1900-S-01412	STRUCTURE 3H AND 2B FOUNDATION PLAN	S-001
18X-1900-S-01413	STRUCTURE 3H AND 2B SLAB PLAN	S-002
18X-1900-S-01414	STRUCTURE 18B FOUNDATION PLAN	S-001
18X-1900-S-01415	STRUCTURE 18B SLAB PLAN	S-002
39X-1900-S-00073	STRUCTURE 39A FOUNDATION PLAN	S-001
39X-1900-S-00074	STRUCTURE 39A SLAB PLAN	S-002

TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
34X-5900-S-00151	K-65 TRENCH FOUNDATION AND SLAB PLAN	S0001
08X-5900-S-03729	BUILDING 8A FOUNDATION PLAN - WEST	S0001
08X-5900-S-03730	BUILDING 8A FOUNDATION PLAN - EAST	S0002
08X-5900-S-03743	BUILDING 8A FOOTING SCHEDULE	S0003
08X-5900-S-03731	BUILDING 8A SLAB PLAN - WEST	S0004
08X-5900-S-03732	BUILDING 8A SLAB PLAN - EAST	S0005
08H-5900-S-03733	BUILDING 8B FOUNDATION PLAN	S0001
08H-5900-S-03734	BUILDING 8B SLAB PLAN	S0002
08H-5900-S-03735	BUILDING 8C FOUNDATION PLAN	S0001
08H-5900-S-03736	BUILDING 8C SLAB PLAN	S0002
24B-5900-S-00202	BUILDING 8D FOUNDATION AND SLAB PLAN	S0001
08X-5900-S-03737	BUILDING 8G FOUNDATION PLAN - WEST	S0001
08X-5900-S-03738	BUILDING 8G FOUNDATION PLAN - EAST	S0002
08X-5900-S-03739	BUILDING 8G SLAB PLAN - WEST	S0003
08X-5900-S-03740	BUILDING 8G SLAB PLAN - EAST	S0004
08X-5900-S-03741	BUILDING 8H FOUNDATION PLAN	S0001
08X-5900-S-03742	BUILDING 8H SLAB PLAN	S0002
18D-5900-S-01418	BUILDING 18H FOUNDATION AND SLAB PLAN	S0001
74D-5900-S-00079	BUILDING 74C FOUNDATION PLAN	S0001
74D-5900-S-00080	BUILDING 74C SLAB PLAN	S0002
74D-5900-S-00081	BUILDING 74O FOUNDATION PLAN	S0001
74D-5900-S-00082	BUILDING 74O SLAB PLAN	S0002
80X-5900-S-00049	BUILDING 8O FOUNDATION PLAN	S0001
80X-5900-S-00050	BUILDING 8O SLAB PLAN	S0002



AREA 4B KEY PLAN
NORTH
SCALE: NONE
30 0 30 60
SCALE: 1"=30'

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000036

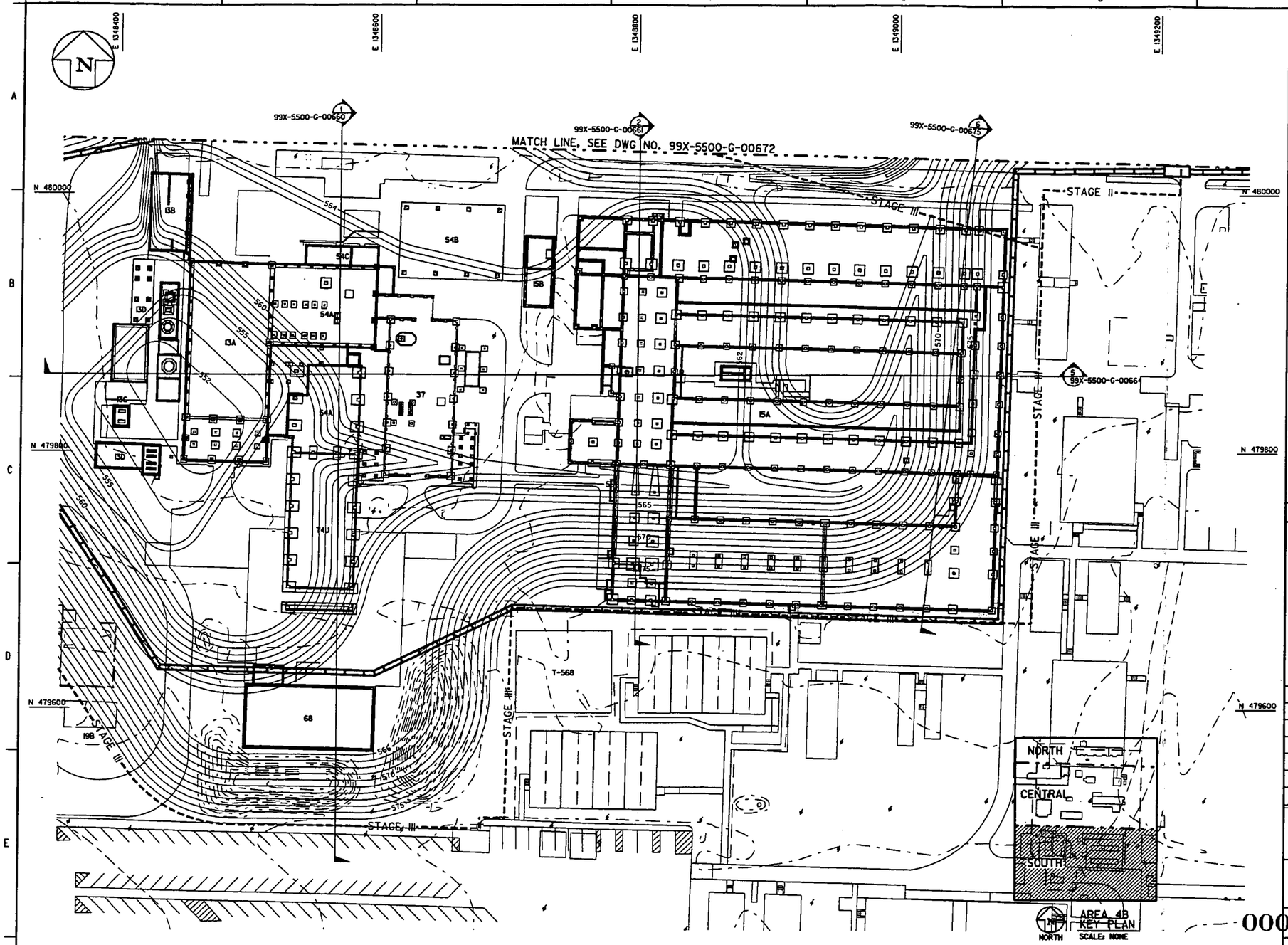
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
FOUNDATION PLAN (CENTRAL)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20810	99X-5500-G-00672	G-33	B
RES PROJECT NO.	FILENAME 99X000672.DGN			



TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
15X-5900-S-02542	BUILDING 15A FOUNDATION PLAN - NORTH	S0001
15X-5900-S-02543	BUILDING 15A FOUNDATION PLAN - SOUTH	S0002
15X-5900-S-02544	BUILDING 15A SLAB PLAN - NORTH	S0003
15X-5900-S-02545	BUILDING 15A SLAB PLAN - SOUTH	S0004
15X-5900-S-02546	BUILDING 15B FOUNDATION PLAN	S0001
15X-5900-S-02547	BUILDING 15B SLAB PLAN	S0002
54X-5900-S-00923	BUILDING 13A, 54A, & 74U FOUNDATION PLAN	S0001
54X-5900-S-00924	BUILDING 13A, 54A, & 74U SLAB PLAN	S0002

TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
13X-5900-S-00781	BUILDING 13B FOUNDATION PLAN	S0001
13X-5900-S-00782	BUILDING 13B SLAB PLAN	S0002
13X-5900-S-00779	TANK AREA 13C & 13D FOUNDATION PLAN	S0001
13X-5900-S-00780	TANK AREA 13C & 13D SLAB PLAN	S0002
37X-5900-S-01303	BUILDING 37 FOUNDATION PLAN	S0001
37X-5900-S-01304	BUILDING 37 SLAB PLAN	S0002
54D-5900-S-00925	BUILDING 54B FOUNDATION AND SLAB PLAN	S0001
54X-5900-S-00926	BUILDING 54C FOUNDATION AND SLAB PLAN	S0001
68X-5900-S-00091	BUILDING 68 FOUNDATION AND SLAB PLAN	S0001

30 0 30 60
SCALE: 1"=30'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

4518

KEYED NOTES

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000037

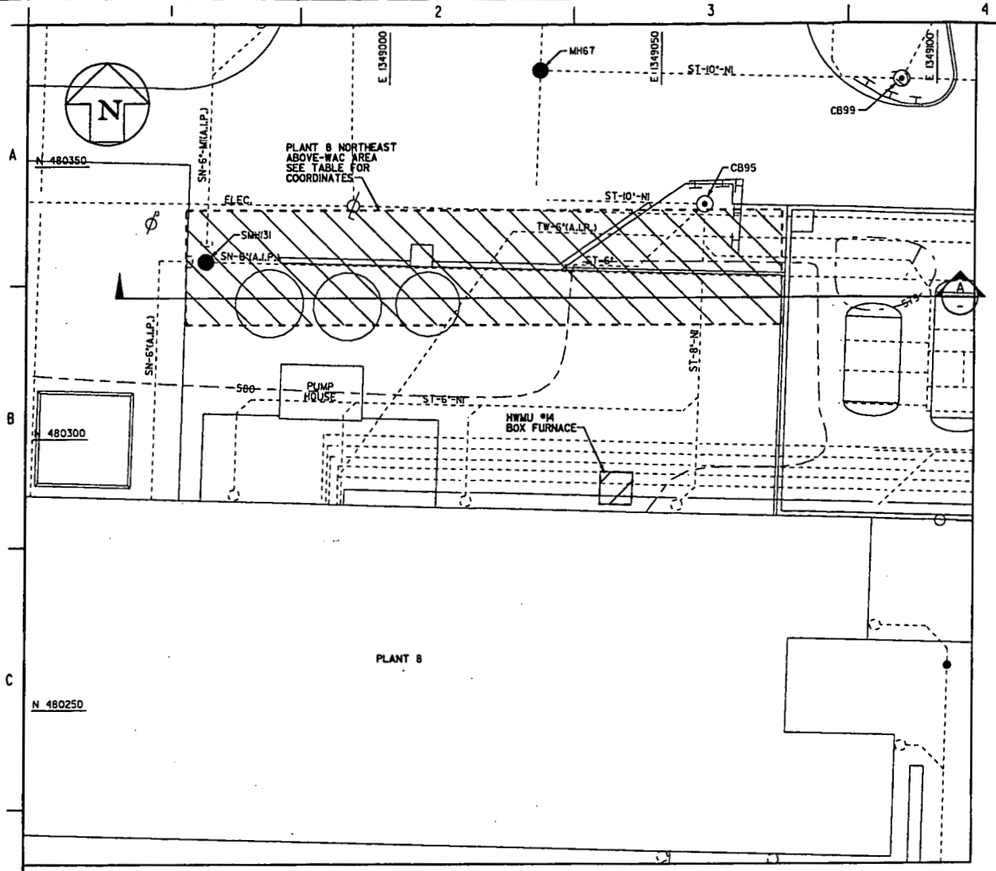
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
FOUNDATION PLAN (SOUTH)

APPROVALS

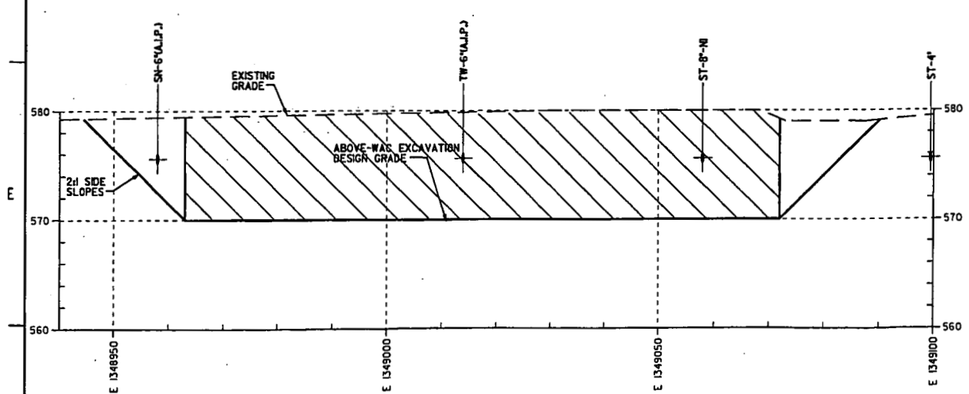
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20890	99X-5500-G-00673	G-34	B
RES PROJECT NO.	FILENAME 99X000673.DGN			



SAMPLE ABOVE-WAC EXCAVATION PLAN
ABOVE-WAC AREA 1: PLANT 8 NORTHEAST

10 0 10 20
SCALE: 1"=10'



SECTION A
SCALE: 1"=10' HORZ
1"=5' VERT

AREA 4B ABOVE-WAC EXCAVATION BOUNDARIES					
ID	IDENTIFIER	COC(S)	NORTHING	EASTING	ELEVATION (MSL)
1	PLANT 8 NORTHEAST ABOVE-WAC AREA	U & TC-99	480342	1348964	570
			480342	1349073	570
			480321	1349073	570
			480321	1348964	570
2	PLANT 8 CENTRAL ABOVE-WAC AREA	TC-99	480289	1348943	576
			480287	1349040	576
			480216	1349040	576
			480216	1348943	576
3	PLANT 2 NORTHWEST ABOVE-WAC AREA	U & TC-99	480777	1348765	577
			480776	1348799	577
			480744	1348799	577
			480744	1348765	577
4	PLANT 2 NORTH CENTRAL ABOVE-WAC AREA	U	480775	1348854	578
			480773	1348929	578
			480695	1348929	578
			480697	1348854	578
5	PLANT 2 SOUTHWEST ABOVE-WAC AREA	U	480638	1348699	577
			480636	1348794	577
			480613	1348794	577
			480613	1348699	577
6	PILOT PLANT NORTHWEST ABOVE-WAC AREA	TC-99	479944	1348404	573
			479944	1348509	573
			479900	1348509	573
			479900	1348404	573
7	PILOT PLANT SOUTHWEST ABOVE-WAC AREA	U	479827	1348431	572
			479827	1348448	572
			479816	1348448	572
			479816	1348431	572
8	LAB DOCK ABOVE-WAC AREA	U & TC-99	479937	1348753	576
			479937	1348789	576
			479882	1348787	576
			479882	1348753	576
9	LAB NORTH COURTYARD ABOVE-WAC AREA	U	479871	1348856	577
			479871	1348866	577
			479850	1348866	577
			479850	1348856	577
10	LAB SOUTHWEST ABOVE-WAC AREA	U & TC-99	479735	1348754	575
			479735	1348782	575
			479670	1348782	575
			479670	1348754	575
11	K-65 ABOVE-WAC AREA (A)	TC-99	N/A	N/A	N/A

AREA 4B ABOVE-WAC EXCAVATIONS

1. ESTABLISH EXCAVATION BOUNDARY AND BUFFER AREA CONTROLS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
2. REMOVE AT-GRADE DEBRIS FROM ABOVE-WAC AREAS AND CLEAN OF VISIBLE SOIL/GRAVEL WITHIN THE EXCAVATION AREAS.
3. HAUL CLEAN DEBRIS TO THE OSDF. DISPOSE OF DEBRIS THAT IS NOT CLEANED WITH UNDERLYING SOIL.
4. EXCAVATE ABOVE-WAC AREAS IN 3-FT +/- 1-FOOT LIFTS TO THE COORDINATES AND ELEVATIONS SHOWN, LEAVING VERTICAL SIDEWALLS.
5. HAUL EXCAVATED ABOVE-WAC MATERIAL TO SP-7. DO NOT TRACK EQUIPMENT THROUGH ADJACENT ABOVE-WAC AREAS.
6. UPON COMPLETION OF EACH ABOVE-WAC EXCAVATION LIFT:
   A. DECONTAMINATE THE EXCAVATOR BUCKET WITHIN THE EXCAVATION AREA AS DIRECTED BY THE CONSTRUCTION MANAGER.
   B. EXCAVATE ABOVE-WAC AREA SIDE SLOPES TO 2H:1V AND TEMPORARILY STOCKPILE MATERIAL ADJACENT TO THE EXCAVATION.
   C. THE CONSTRUCTION MANAGER ARRANGES FOR REAL-TIME MONITORING AND/OR PHYSICAL SAMPLING OF ABOVE-WAC AREA SIDE SLOPES AND FOOTPRINT.
   D. THE CONSTRUCTION MANAGER DIRECTS DISPOSAL OF STOCKPILED SIDE SLOPE MATERIAL, AS WELL AS, FURTHER ABOVE-WAC EXCAVATION AS NECESSARY.
7. UPON REACHING THE DESIGN GRADE OF THE ABOVE-WAC EXCAVATION:
   A. DECONTAMINATE THE EXCAVATOR BUCKET WITHIN THE HAUL TRUCK BED AS DIRECTED BY THE CONSTRUCTION MANAGER.
   B. DECONTAMINATE THE HAUL TRUCK BED IN SP-7.
   C. EXCAVATE ABOVE-WAC AREA SIDE SLOPES TO 2H:1V AND TEMPORARILY STOCKPILE MATERIAL ADJACENT TO THE EXCAVATION.
   D. THE CONSTRUCTION MANAGER ARRANGES FOR REAL-TIME MONITORING AND/OR PHYSICAL SAMPLING OF ABOVE-WAC AREA SIDE SLOPES AND FOOTPRINT.
   E. THE CONSTRUCTION MANAGER DIRECTS DISPOSAL OF STOCKPILED SIDE SLOPE MATERIAL, AS WELL AS, FURTHER ABOVE-WAC EXCAVATION AS NECESSARY.

ABOVE-WAC AREA EXCAVATION
SEQUENCE AND REQUIREMENTS

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING PROVIDES EXCAVATION DETAIL AND LIMITS FOR KNOWN ABOVE-WAC AREAS IN AREA 3B. ABOVE-WAC AREAS ARE BOUNDED AS STRAIGHT WALL EXCAVATIONS USING COORDINATES AND BOTTOM ELEVATIONS PROVIDED.
3. SEE AREA 4B LAYOUT PLAN DRAWING 99X-5500-G-00644 FOR GENERAL LOCATIONS OF ABOVE-WAC AREAS.
4. EXCAVATE ABOVE-WAC AREAS AS SHOWN ON THIS DRAWING AND IN ACCORDANCE WITH SPECIFICATION SECTION 02205. CONSTRUCTION MANAGER WILL VERIFY THE LIMITS OF ABOVE-WAC MATERIAL IN THE FIELD. ADDITIONAL EXCAVATION MAY BE REQUIRED.
5. LOAD TRUCKS IN BUFFER ZONE OUTSIDE OF ABOVE-WAC AREA IN ACCORDANCE WITH TECHNICAL SPECIFICATION SECTION 02205..
6. SURVEY LIMITS AND ELEVATION OF EACH EXCAVATED LIFT IN ABOVE-WAC EXCAVATIONS.
7. MAINTAIN POSITIVE DRAINAGE WITHIN THE ABOVE-WAC EXCAVATIONS TO COLLECT WATER. IF VOCS ARE PRESENT WATER WILL BE SAMPLED AND ANALYZE TO DETERMINE DISPOSITION.
8. SURVEY FINAL EXCAVATION LIMITS. ARRANGE FOR SAMPLING AND/OR REAL-TIME MONITORING AT BOTTOM OF ABOVE-WAC EXCAVATIONS.

4518

KEYED NOTES

(A) EXCAVATION OF K65 TRENCH REPRESENTS AN ABOVE-WAC EXCAVATION ASSOCIATED WITH A LANDMARK RATHER THAN AN AREA OF SOIL. SPECIFIC EXCAVATION REQUIREMENTS AND DETAILS ARE PRESENTED ON DRAWING 99X-5500-G-00657.

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000038

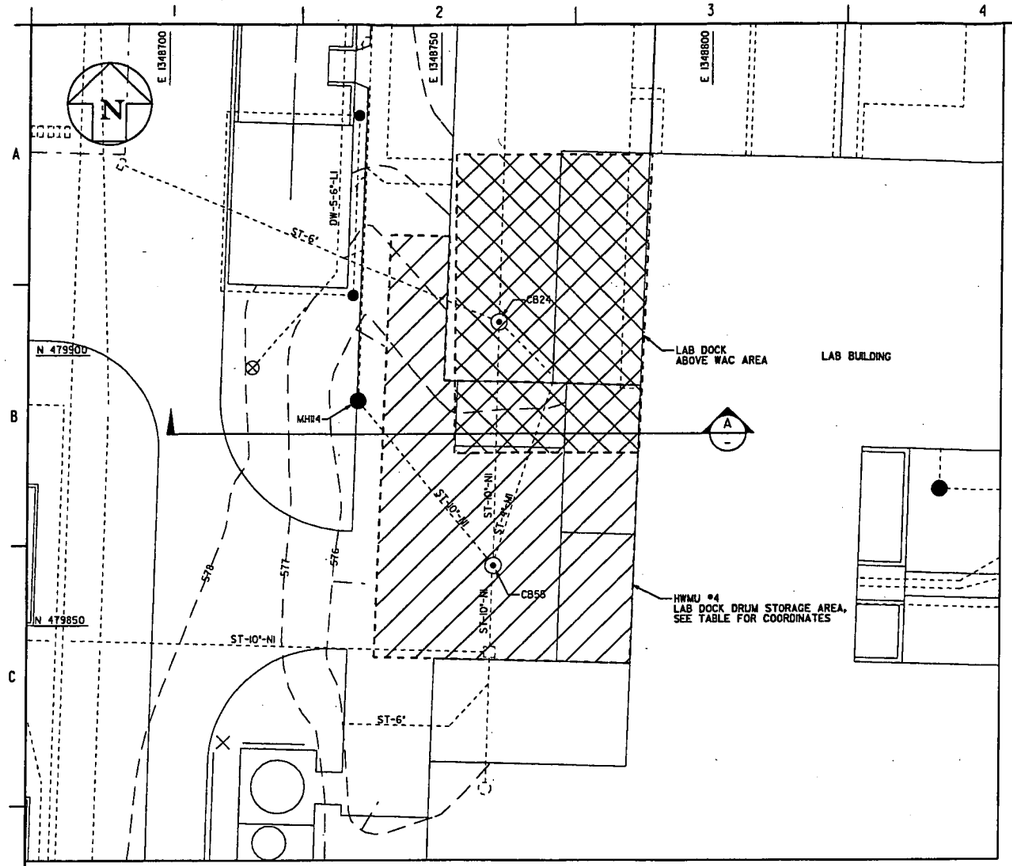
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
ABOVE-WAC EXCAVATION DETAILS AND LIMITS

APPROVALS

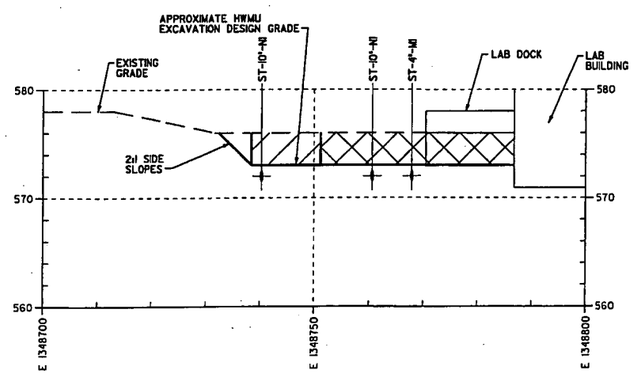
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00677	G-35	A
RES PROJECT NO.	FILENAME 99XG00677.DGN			



SAMPLE HWMU EXCAVATION PLAN
HWMU #4 LAB DOCK DRUM STORAGE AREA

10 0 10 20
SCALE: 1"=10'



SECTION A
SCALE: 1"=10' HORZ
1"=5' VERT

AREA 4B HAZARDOUS WASTE MANAGEMENT UNITS					
HWMU	IDENTIFIER	COC(S)	NORTHING	EASTING	ELEVATION
4	LAB LOADING DOCK STORAGE AREA	SEE NOTE 3	479843	1348786	SEE NOTE 3
			479844	1348738	
			479922	1348741	
			479922	1348752	
			479895	1348751	
			479894	1348787	
5	LAB DRUM STORAGE AREA		479749	1348783	
			479750	1348751	
			479791	1348752	
			479790	1348784	
10	NITRIC ACID RECOVERY SYSTEM COMPONENTS		480612	1348771	
			CENTER OF APPROX. 9 FT RADIUS		
14	BOX FURNACE		480288	1349045	
			480288	1349039	
			480294	1349039	
			480294	1349045	
17	PLANT 8 EAST PAD		480092	1349135	
			480094	1349049	
			480224	1349052	
			480223	1349093	
			480245	1349093	
			480246	1349073	
			480264	1349074	
			480261	1349141	
			480244	1349141	
			480242	1349219	
			480203	1349218	
			480204	1349187	
			480131	1349184	
			480132	1349136	
18	PLANT 8 WEST PAD		480253	1348753	
			480253	1348729	
			480348	1348732	
			480346	1348797	
			480293	1348796	
			480294	1348754	
22	PILOT PLANT SUMP		479826	1348438	
			CENTER OF APPROX. 2 FT RADIUS		

SUMMARY OF AREA 4B HAZARDOUS WASTE MANAGEMENT UNITS

A. ESTABLISH HWMU BOUNDARY AND BUFFER AREA CONTROLS IN ACCORDANCE WITH THIS DRAWING AND SPECIFICATION SECTION 02205.

B. REMOVE DEBRIS (CONCRETE, ASPHALT AND MISCELLANEOUS STRUCTURES) AND HAUL TO THE OSDF AS A DISCRETE WASTE STREAM. IF THE HWMU IS CONSIDERED AN ABOVE-WAC AREA, LOAD AND HAUL THE DEBRIS TO SP-7, OR CONTAINERIZE IT AS DIRECTED BY THE CONSTRUCTION MANAGER.

C. EXCAVATE HWMU SOIL/GRAVEL IN 3-FT +/- 1-FOOT LIFTS TO THE HWMU DESIGN GRADE WHILE MAINTAINING SAFE SLOPES IN ACCORDANCE WITH SPECIFICATION SECTION 02205. LOAD AND HAUL HWMU SOIL/GRAVEL TO THE OSDF AS A DISCRETE WASTE STREAM. IF THE HWMU IS CONSIDERED AN ABOVE-WAC AREA, LOAD AND HAUL THE SOIL/GRAVEL TO SP-7, OR CONTAINERIZE IT AS DIRECTED BY THE CONSTRUCTION MANAGER.

D. ARRANGE FOR PHYSICAL SAMPLING ON EXCAVATED SIDE SLOPES AFTER EACH LIFT IS REMOVED AND ON THE EXCAVATION FLOOR UPON ACHIEVING THE HWMU DESIGN GRADE. ALLOW 10 WORKING DAYS FOR SAMPLING AND ANALYSIS REQUIRED FOR CLOSURE OF THE HWMU. DO NOT PROCEED WITH FURTHER EXCAVATION IN THE AREA UNTIL DIRECTED BY THE CONSTRUCTION MANAGER.

E. PENDING ANALYSIS OF SAMPLING RESULTS, PERFORM SUPPLEMENTAL HWMU EXCAVATION BEYOND THE HWMU DESIGN GRADE AS DIRECTED BY THE CONSTRUCTION MANAGER.

F. UPON CONFIRMATION FROM THE CONSTRUCTION MANAGER THAT THE HWMU EXCAVATION IS COMPLETE, REMOVE HWMU BOUNDARY FENCE, LOAD AND HAUL BUFFER AREA HERCULITE AS HWMU DEBRIS.

HWMU EXCAVATION SEQUENCE AND REQUIREMENTS

000039

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING PROVIDES EXCAVATION DETAIL AND LIMITS FOR EXCAVATION OF AREA 4B HWMU'S. HWMU BOUNDING COORDINATES ARE PROVIDED TO ASSIST FIELD-LOCATION AND DEMARCATION OF HWMU BOUNDARIES LARGELY DEFINED BY LANDMARKS.
3. SEE AREA 4B LAYOUT PLAN DRAWING 99X-5500-G-00644 FOR GENERAL LOCATIONS OF HWMU'S.
4. HWMU EXCAVATION DEPTHS WILL BE DETERMINED IN THE FIELD BASED ON SAMPLE RESULTS OF COC'S.
5. EXCAVATE HWMU AREAS AS SHOWN ON THIS DRAWING AND IN ACCORDANCE WITH SPECIFICATION SECTION 02205. CONSTRUCTION MANAGER WILL VERIFY THE LIMITS OF THE HWMU IN THE FIELD. ADDITIONAL EXCAVATION MAY BE REQUIRED.
6. LOAD TRUCKS IN THE BUFFER ZONE OUTSIDE OF THE HWMU IN ACCORDANCE WITH TECHNICAL SPECIFICATION SECTION 02205.
7. SURVEY LIMITS AND ELEVATION OF EACH EXCAVATED LIFT IN HWMU AREAS.
8. MAINTAIN POSITIVE DRAINAGE WITHIN HWMU EXCAVATIONS TO COLLECT WATER. IF VOCS ARE PRESENT WATER WILL BE SAMPLED AND ANALYZE TO DETERMINE DISPOSITION.
9. SURVEY FINAL EXCAVATION LIMITS. ARRANGE FOR CONFIRMATORY SAMPLING OR MONITORING AT BOTTOM OF HWMU EXCAVATION.
10. HWMU #4 OVERLAPS THE LAB DOCK ABOVE-WAC AREA, AS SHOWN IN THE SAMPLE HWMU EXCAVATION PLAN.

-- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

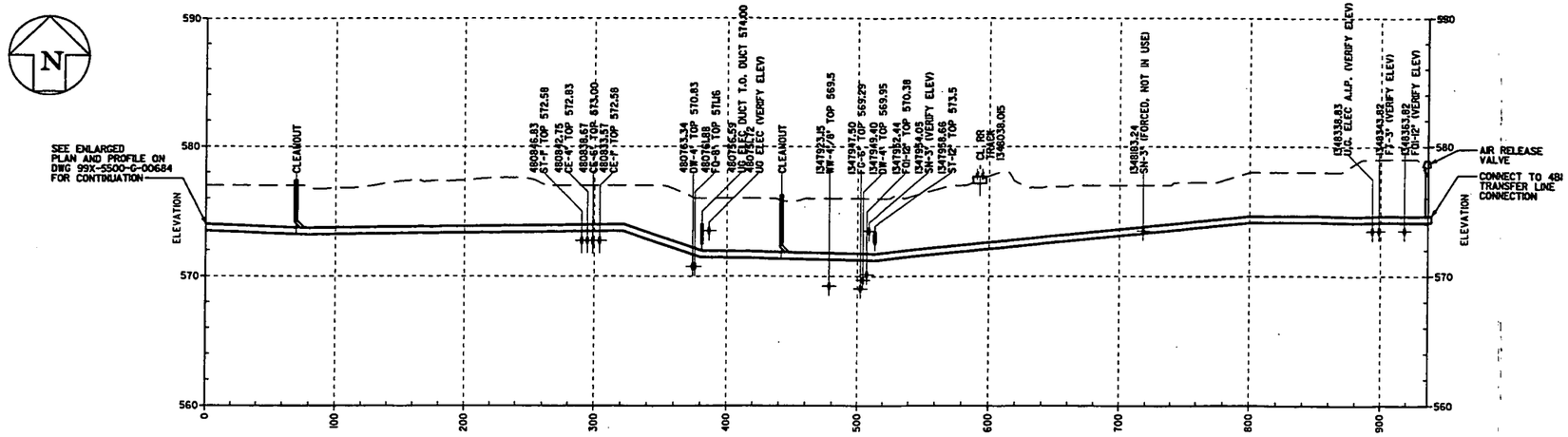
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
HWMU EXCAVATION DETAILS AND LIMITS

APPROVALS

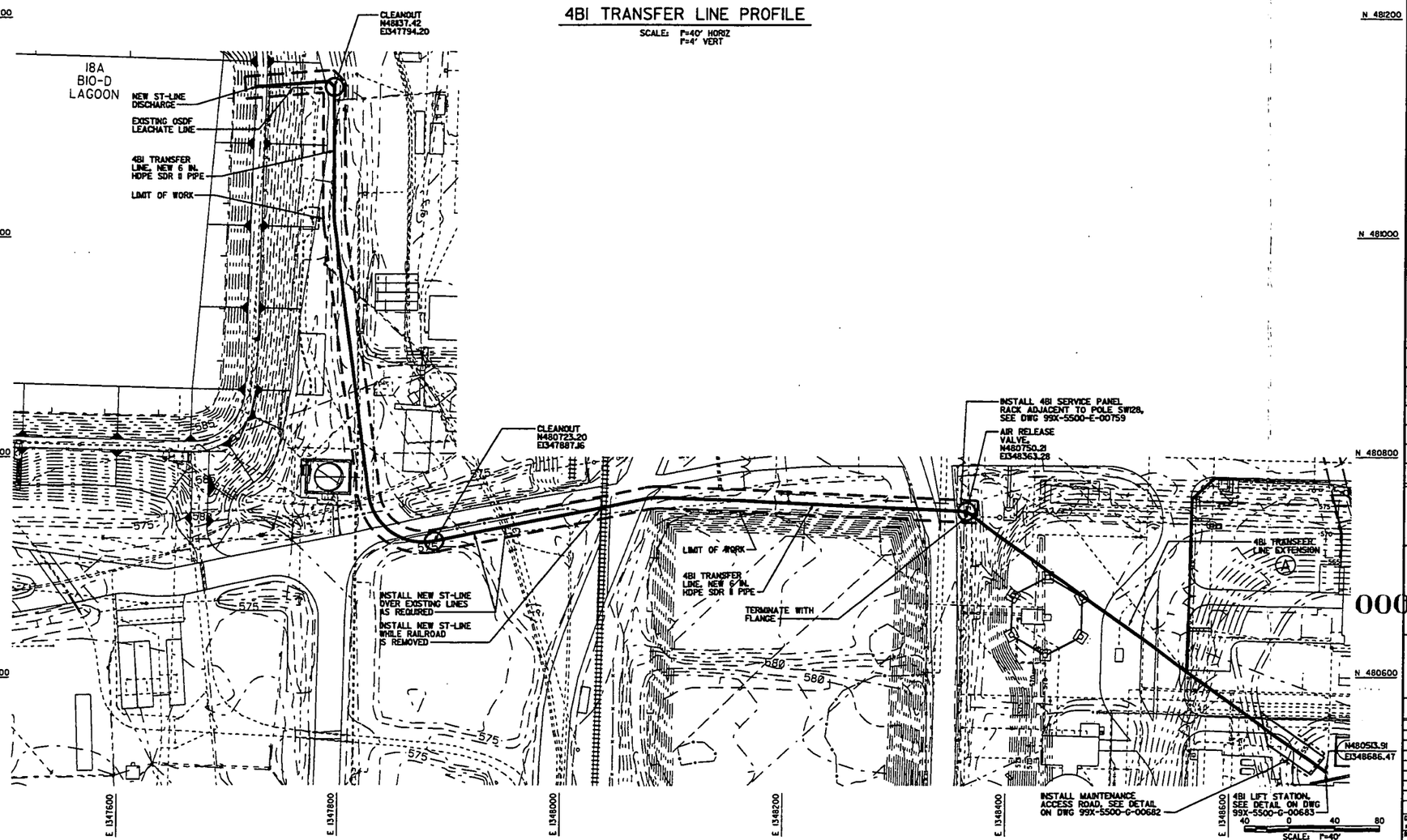
COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00678	G-36	A
RES PROJECT NO.	FILENAME 99XC00678.DGN			



4BI TRANSFER LINE PROFILE

SCALE: 1"=40' HORIZ
1"=4' VERT



GENERAL NOTES

45 18

KEYED NOTES

(A) FIELD ROUTE 4BI TRANSFER LINE EXTENSION FROM FLANGE TIE-IN TO 4BI LIFT STATION, MINIMUM COVER 2 FOOT-6 INCH. MAKE CONNECTION AT 4BI TRANSFER LINE TIE-IN AFTER 4BI LIFT STATION IS OPERATIONAL.

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000040

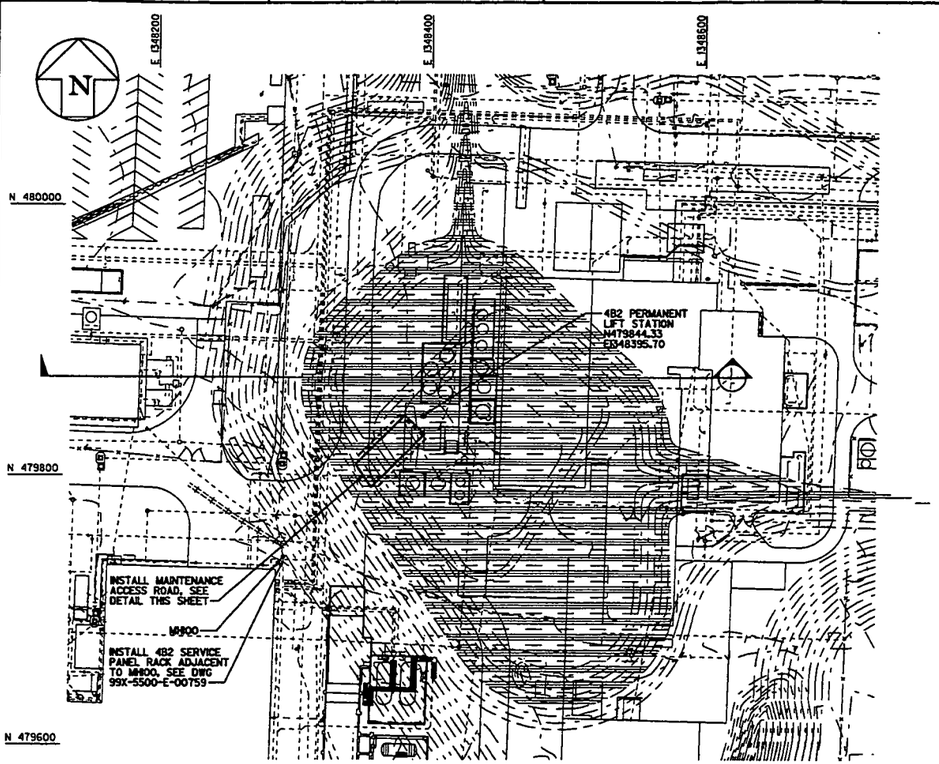
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
BASIN 4BI TRANSFER LINE PLAN AND PROFILE

APPROVALS

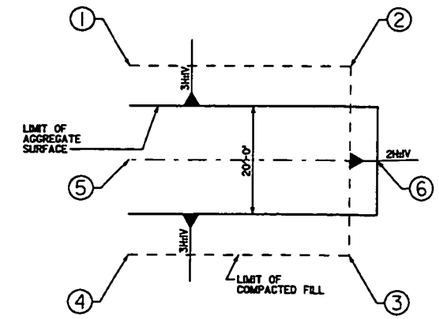
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	2080	99X-5500-G-00681	G-37	C
RES PROJECT NO.	FILENAME 99X0004BLDGH			



4B2 TRANSFER LINE PLAN

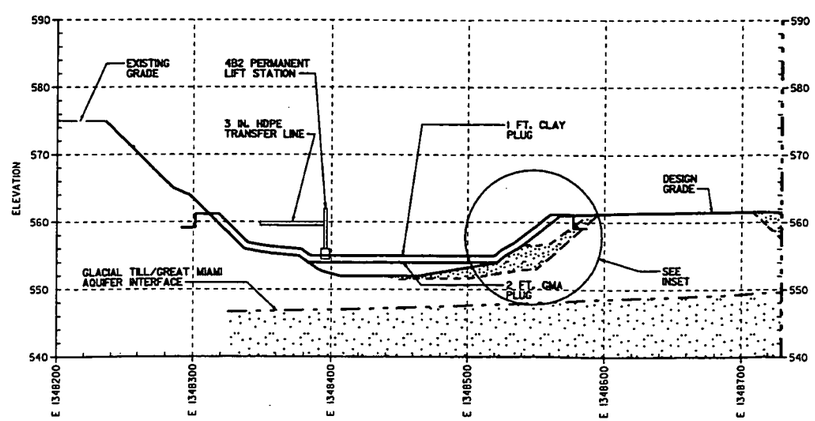
SCALE: 1"=40'



TYPICAL MAINTENANCE ACCESS ROAD DETAIL

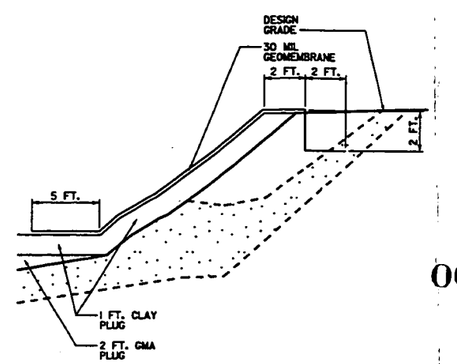
NTS

	4B1			4B2			
PT NO.	NORTHING	EASTING	ELEV	NORTHING	EASTING	ELEV	DESCRIPTION
1	480548.85	1348660.71	558.0	479815.00	1348349.16	558.0	LIMIT OF COMPACTED FILL
2	480530.90	1348685.27	558.0	479845.48	1348378.71	558.0	LIMIT OF COMPACTED FILL
3	480509.91	1348669.92	558.0	479827.38	1348397.38	558.0	LIMIT OF COMPACTED FILL
4	480525.97	1348647.95	558.0	479792.73	1348363.79	558.0	LIMIT OF COMPACTED FILL
5	480554.44	1348631.05	559.0	479800.18	1348352.91	559.0	℄ AGGREGATE SURFACE
6	480519.23	1348679.21	559.0	479837.87	1348389.44	559.0	℄ AGGREGATE SURFACE



4B2 TRANSFER LINE PROFILE

SCALE: 1"=40' HORIZ
1"=8' VERT



INSET

40 0 40 80
SCALE: 1"=40'

8 0 8 16
SCALE: 1"=8'

000041

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

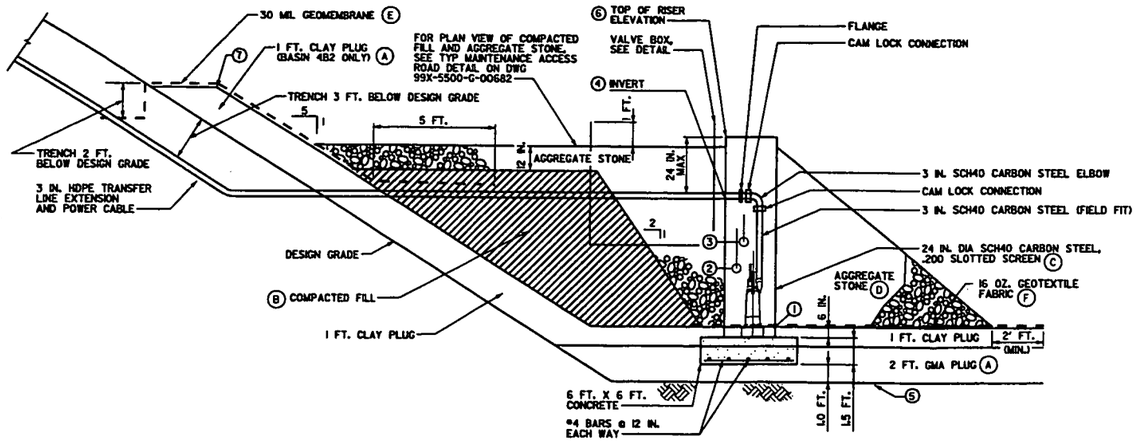
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
BASIN 4B2 GMA/CLAY PLUG PLAN AND PROFILE

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

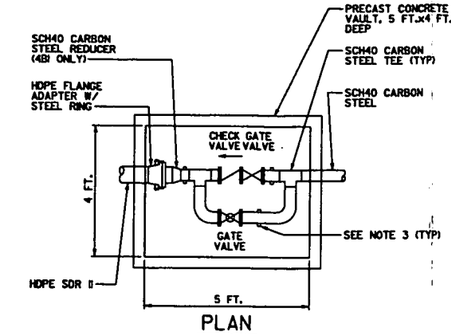
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
CLR	20060	99X-5500-G-00682	G-38	C
RES PROJECT NO.	FILENAME 99XG00682.DGN			



BASIN 4B2 PERMANENT PUMP/LIFT STATION DETAIL

NTS

99X-5500-G-00681
682
646

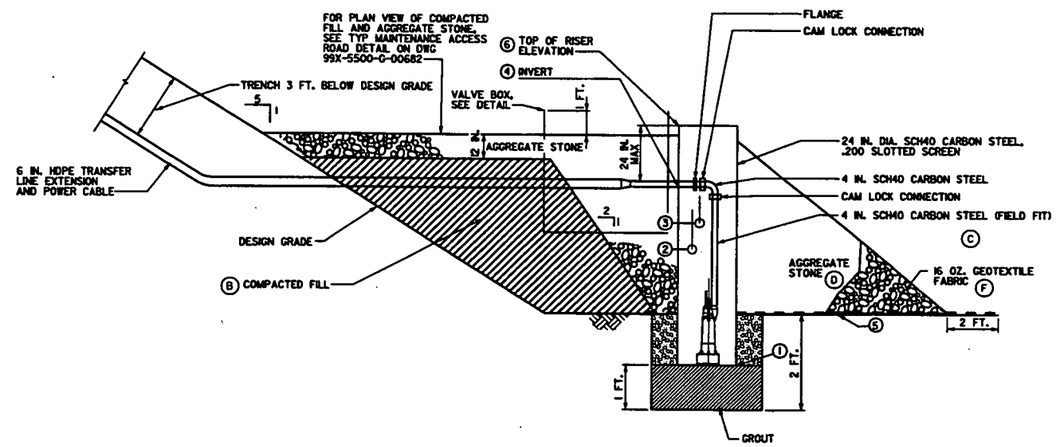


PLAN

1. 4B1 SCH40 CARBON STEEL IS 4 IN. DIA.
   4B2 SCH40 CARBON STEEL IS 3 IN. DIA.
2. 4B1 HDPE IS 6 IN. DIA.
   4B2 HDPE IS 3 IN. DIA.
3. PROVIDE ADJUSTABLE PIPE SUPPORT SADDLE, EQUAL TO OR SIMILAR TO PIPING TECHNOLOGY AND PRODUCTS, FIG. 46, BOLTED TO FLOOR OF VAULT

VALVE BOX DETAIL

NTS

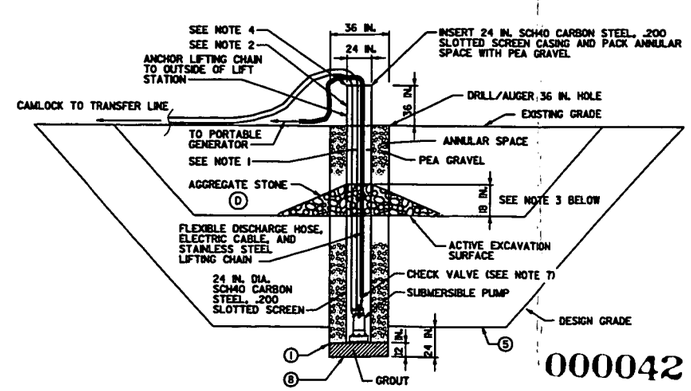


BASIN 4B1 PERMANENT PUMP/LIFT STATION DETAIL

NTS

99X-5500-G-00681
682
646

TABLE NO. 1				
	BASIN/LIFT STA 4B1 TEMPORARY/PERMANENT	BASIN/LIFT STA 4B2 PERMANENT	BASIN/LIFT STA 4B2 TEMPORARY	DESCRIPTION
ELEV (1)	554.0	554.5	55L0	BOTTOM ELEVATION
ELEV (2)	557.0	557.0	N/A	HIGH LEVEL PROBE - START PUMP ELEVATION
ELEV (3)	554.5	555.0	N/A	LOW LEVEL PROBE - STOP PUMP ELEVATION
ELEV (4)	557.5	557.5	N/A	TRANSFER LINE EXTENSION INVERT
ELEV (5)	555.0	552.0	552.0	DESIGN GRADE - BOTTOM OF BASIN ELEVATION
ELEV (6)	559.5	559.5	N/A	TOP OF RISER ELEVATION
ELEV (7)	N/A	560.0	N/A	LIMIT OF 1 FT. CLAY PLUG
ELEV (8)	553.0	N/A	552.0	BOTTOM OF TEMPORARY LIFT STATION
FORCE MAIN PIPE	6 IN. TRANSFER LINE	3 IN. TRANSFER LINE	3 IN. TRANSFER LINE	



000042

1. CUT OFF PVC RISER AS EXCAVATION PROGRESSES AS REQUIRED.
2. MAINTAIN 3 FOOT MINIMUM OF RISER ABOVE ACTIVE EXCAVATION SURFACE.
3. MAINTAIN 18 INCH MINIMUM OF AGGREGATE STONE AROUND RISER FOLLOWING CUT OFF.
4. PROTECT FLEXIBLE DISCHARGE.
5. MODIFY TEMPORARY 4B1 LIFT STATION TO PERMANENT LIFT STATION. SEE DETAIL THIS SHEET.
6. UPON REACHING DESIGN GRADE IN BASIN 4B2, REMOVE TEMPORARY LIFT STATION AND INSTALL PERMANENT LIFT STATION.
7. CHECK VALVE TO BE RELOCATED FOR PERMANENT CONFIGURATION.

BASIN 4B1 & 4B2 TEMPORARY LIFT STATION DETAIL

NTS

99X-5500-G-00646

KEYED NOTES

(A) GMA PLUG AND CLAY PLUG SHALL BE CONSTRUCTED OF GMA PLUG MATERIAL IN ACCORDANCE WITH SPECIFICATION SECTION 02206.

(B) COMPACTED FILL SHALL BE PLACED IN ACCORDANCE WITH SPECIFICATION SECTION 02200.

(C) RISER PIPE SHALL BE SCH40 CARBON STEEL, .200 SLOTTED SCREEN

(D) PLACE AGGREGATE STONE TO ELEVATION SHOWN. STONE SHALL BE NO. 2 WITH ANY FRACTION SMALLER THAN 1/2 IN. REMOVED IN ACCORDANCE WITH ODOT ITEM 703.01.

(E) INSTALL 30 MIL GEOMEMBRANE LINER IN ACCORDANCE WITH OSDF SPECIFICATION SECTION 02770.

(F) INSTALL GEOTEXTILE FABRIC IN ACCORDANCE WITH OSDF SPECIFICATION SECTION 02714.

4518

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	KLR	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

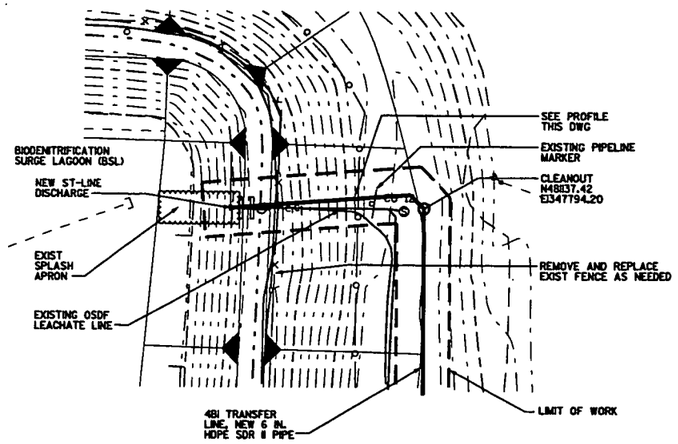
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
TRANSFER LINE DETAILS SHEET 1

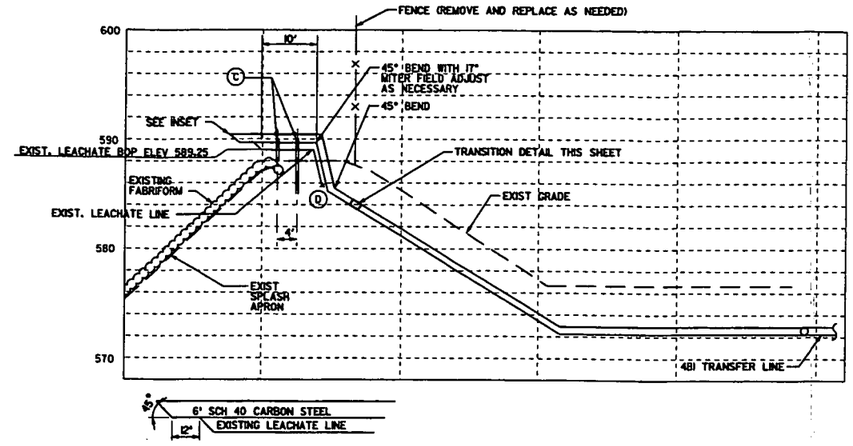
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20190	99X-5500-G-00683	G-39	C
RES PROJECT NO.	FILENAME 99XG00683.DGN			

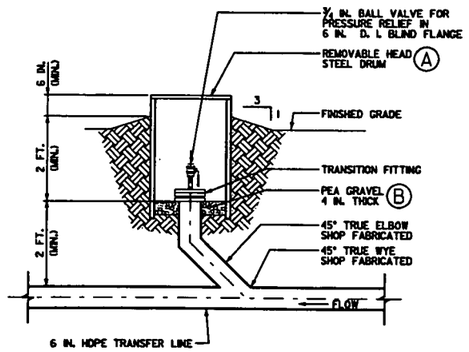


ENLARGED PLAN (99X-5500-G-00681)
SCALE: 1" = 20'
GRAPHIC SCALE: 1"=20'

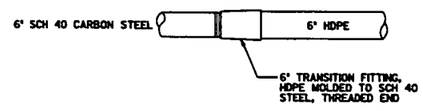


INSET
NTS

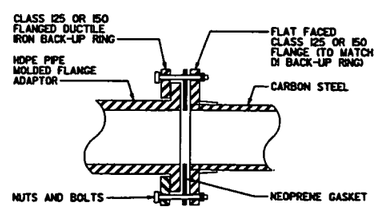
PROFILE
SCALE: HOR 1" = 10'
VERT 1" = 5'



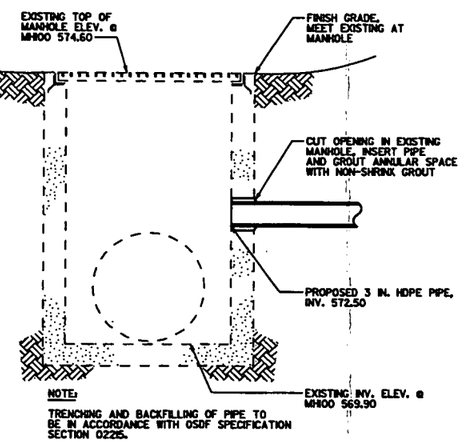
TRANSFER LINE CLEANOUT DETAIL (99X-5500-G-00681)
NTS



TRANSITION DETAIL (99X-5500-G-00683)
FROM HDPE TO CARBON STEEL
NTS

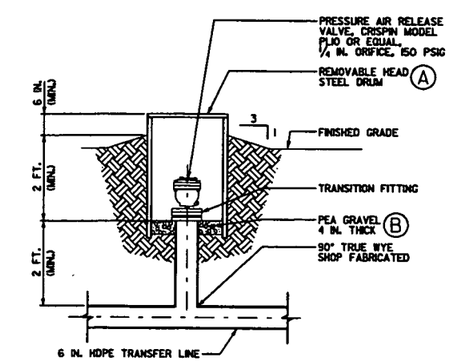


TYPICAL TRANSITION PIPE FITTING DETAIL
NTS

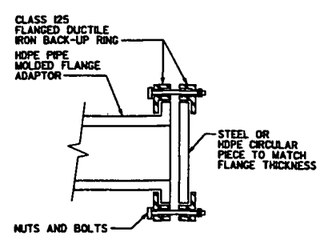


NOTE:
TRENCHING AND BACKFILLING OF PIPE TO BE IN ACCORDANCE WITH OSDF SPECIFICATION SECTION 02225.

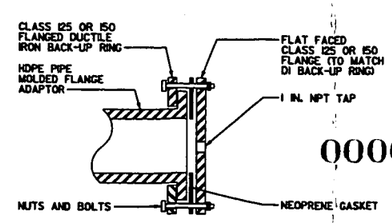
TRANSFER LINE CONNECTION DETAIL (99X-5500-G-00682)
NTS



TRANSFER LINE AIR RELEASE VALVE DETAIL (99X-5500-G-00681)
NTS



TYPICAL BLIND FLANGE DETAIL (99X-5500-G-00681)
END PIPE
NTS



TYPICAL TRANSITION FITTING DETAIL
NTS

000043

GENERAL NOTES

45 18

KEYED NOTES

(A) USE 55 OR 85 GALLON REMOVABLE HEAD STEEL DRUM. CUT HOLE IN BOTTOM OF DRUM TO SLIDE OVER ASSEMBLED PRESSURE RELIEF OR AIR RELEASE VALVE. DRILL 3-1 IN. HOLES NEAR THE TOP OF THE SIDES OF THE DRUM FOR AIR AND PRESSURE RELEASE. HOLES MUST BE INSTALLED ABOVE FINISH GRADE. BACKFILL AROUND DRUM WITH LID LOCKED IN POSITION TO PREVENT DRUM DEFORMATION.

(B) PLACE PEA GRAVEL AFTER INSTALLATION OF STEEL DRUM.

(C) EXTEND EXISTING PIPE SUPPORTS AS NECESSARY AND MOUNT 4BI TRANSFER LINE ON TOP OF THE EXISTING LEACHATE LINE.

(D) INSTALL 4BI TRANSFER LINE ADJACENT TO THE EXISTING LEACHATE LINE. BEGIN OVERLAP OF PIPING AT 45 DEG. BEND IN TRANSFER LINE.

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

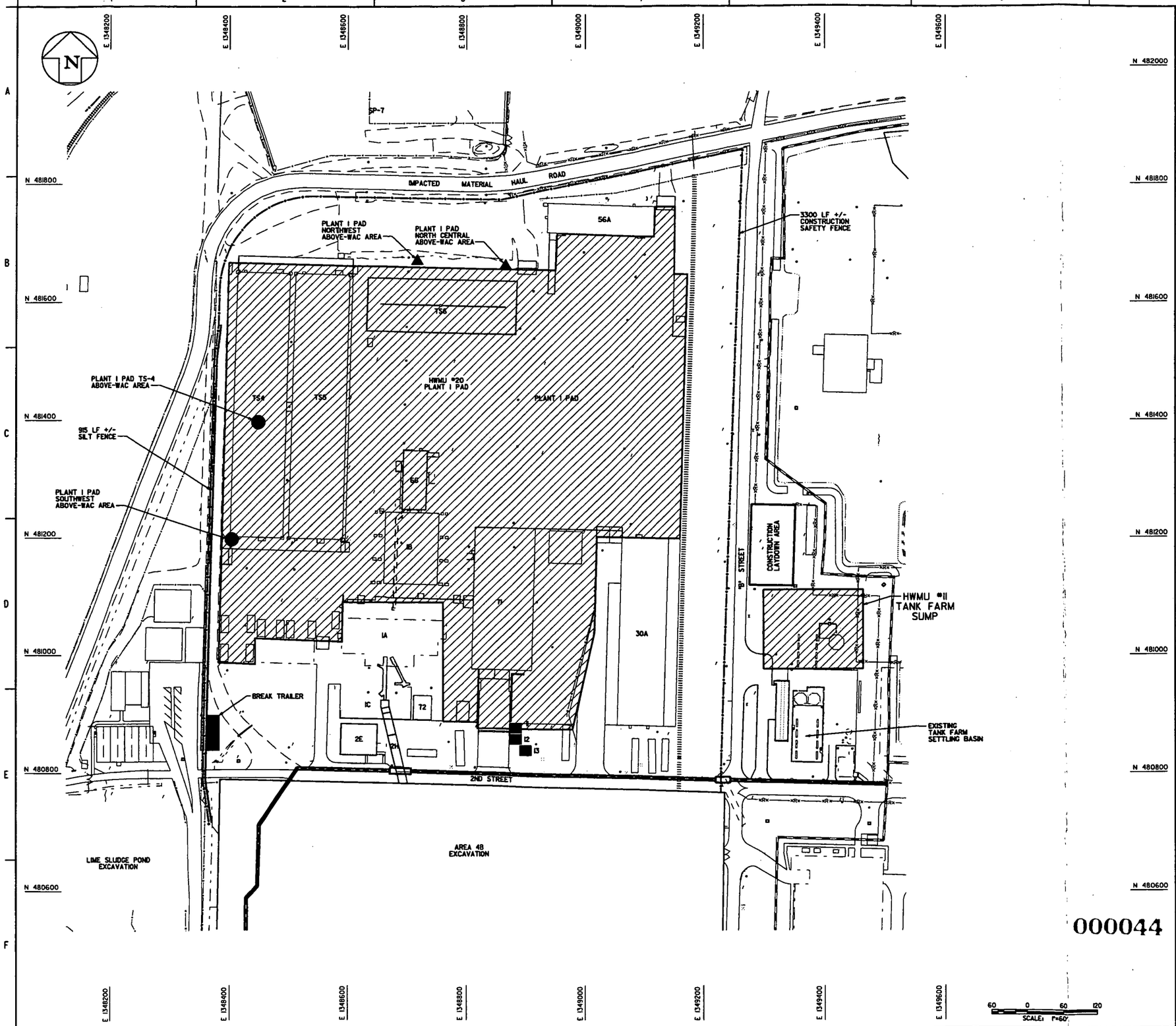
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
TRANSFER LINE DETAILS SHEET 2

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY KLR | PROJECT NO. 20180 | DRAWING INDEX CODE NO. 99X-5500-G-00684 | SHEET NO. G-40 | REV. NO. C
RES PROJECT NO. | FILENAME 99X0200684.DGN



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. EXISTING FENCE WITHIN PROJECT AREA TO BE REMOVED AFTER PERIMETER FENCE IS INSTALLED. FENCE REMOVAL SEQUENCE SHALL BE DETERMINED IN THE FIELD.
3. FIELD LOCATE SUPPORT FACILITIES AS DIRECTED BY THE CONSTRUCTION MANAGER.
4. FIELD LOCATE THE SMTA IN ACCORDANCE WITH SPECIFICATION SECTION 02205 AND DRAWING 99X-5500-G-00738.
5. SEE DRAWING 99X-5500-G-00738 FOR SILT FENCE DETAIL.
6. SEE 3B EXCAVATION AND GRADING PLANS FOR LIMIT OF EXCAVATION SHOWN HERE FOR REFERENCE ONLY.
7. ABOVE-WAC AREAS ARE LABELED WITH THEIR PROJECT-SPECIFIC IDENTIFIERS. SEE DRAWING 99X-5500-G-00700 FOR AREA 3B ABOVE-WAC AREA COORDINATES AND EXCAVATION DETAILS.
8. HWMU'S ARE LABELED WITH THEIR APPROPRIATE SITE-RECOGNIZED TITLES AND NUMERIC IDENTIFIERS. SEE DRAWING 99X-5500-G-00701 FOR AREA 3B HWMU COORDINATES AND EXCAVATION DETAILS.

4518

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- ■ 13 FORMER UST FOOTPRINT WITH CORRESPONDING UST NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

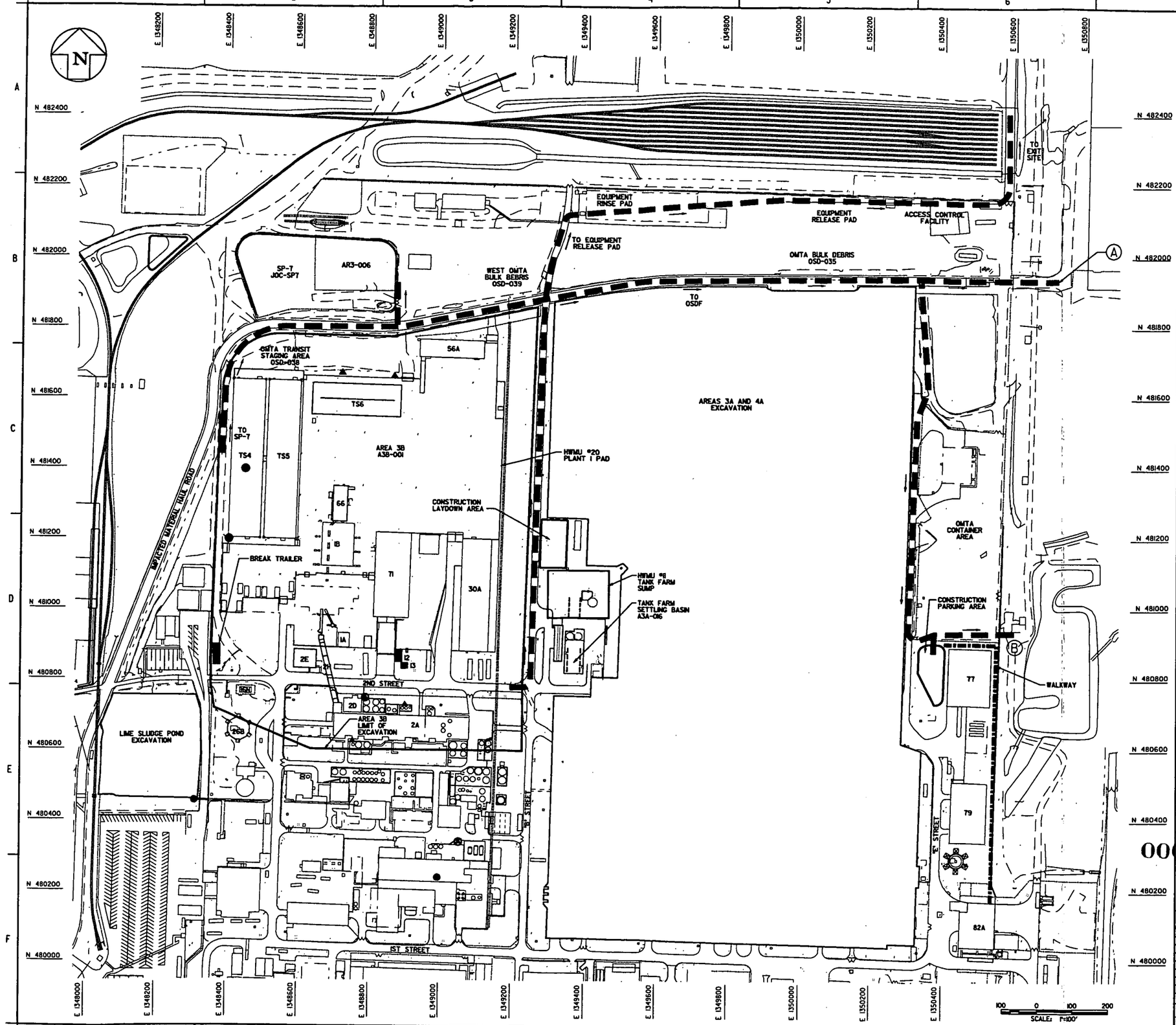
DRAWING TITLE
AREA 3B
LAYOUT PLAN

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	70810	99X-5500-G-00685	G-41	C
REV. PROJECT NO.	FILENAME 99XG00685.DGN			

000044



GENERAL NOTES

1. FOR LEGEND AND GENERAL NOTES, SEE DRAWING 99X-5500-X-00639.
2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SPECIFICATION 02150.
3. FIELD LOCATE SUPPORT FACILITIES AND SMTA AS DIRECTED BY THE CONSTRUCTION MANAGER.
4. DO NOT STAGE LOADED HAUL TRUCKS WITHIN 15 FT. FROM THE TOP OF DEEP EXCAVATION SLOPES. DO NOT STAGE GENERAL CONSTRUCTION EQUIPMENT WITHIN 10 FT. FROM TOP OF DEEP EXCAVATION SLOPES.
5. THIS DRAWING PRESENTS THE SOURCE MATERIAL TRACKING LOCATIONS (MTL'S) OF THE MATERIALS EXCAVATED, STOCK-PILED, REUSED OR TRANSPORTED TO THE OSDF, SPT, AND SMTA. THE CONSTRUCTION MANAGER WILL TRACK THE QUANTITY, MATERIAL TYPE, SOURCE LOCATION (MTL), AND DESTINATION LOCATION (MTL) OF ALL MATERIALS MOVED BETWEEN MTL'S DAILY. NO TRACKING IS REQUIRED FOR MATERIALS MOVED WITHIN A MTL.
6. PORTIONS OF THE IMPACTED MATERIAL HAUL ROAD AND "B" AND 1ST STREETS ARE PROPOSED HAUL ROUTES AS SHOWN. CHANGES IN TRAFFIC ROUTING SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER AS FIELD ACTIVITIES PROGRESS.
7. FOR PURPOSES OF READABILITY, PLANT 1 PAD HWMU #20 IS NOT PATTERNED PER THE LEGEND. SEE DRAWING 99X-5500-G-00711 FOR HWMU BOUNDING.

- 4518

KEYED NOTES

(A) USE NORTH ACCESS TO OSDF UNTIL CONSTRUCTION OF CELL CAP 4 BEGINS.

(B) USE SOUTH ACCESS TO OSDF AFTER CONSTRUCTION OF CELL CAP 4 BEGINS. (SOUTH ACCESS TO BE DESIGNED AND CONSTRUCTED BY OSDF PROJECT.)

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- Ⓐ URANIUM AREA & TC-99 ABOVE-WAC AREA
- ■ 13 FORMER UST FOOTPRINT WITH CORRESPONDING UST NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000045

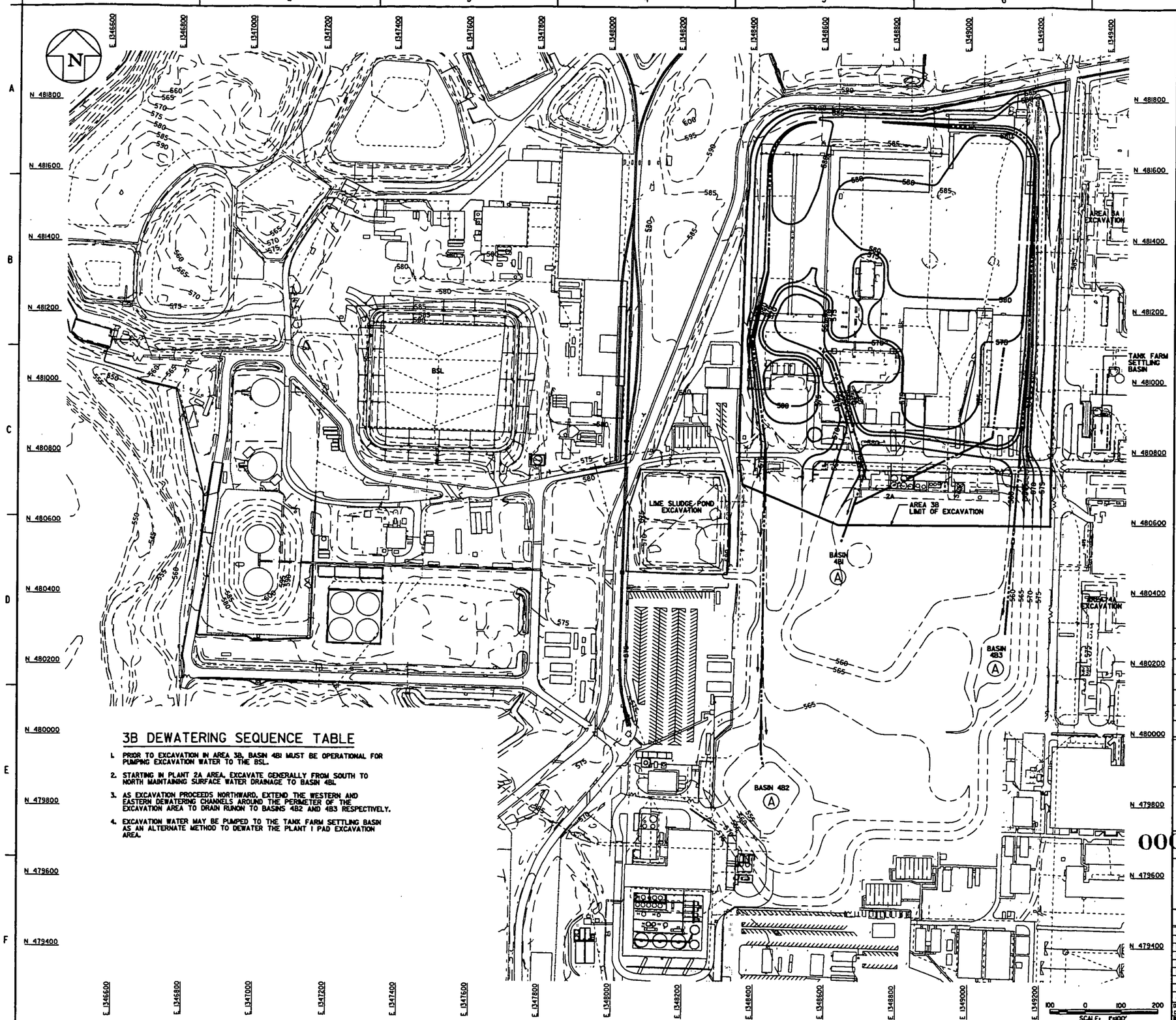
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
TRAFFIC FLOW AND MATERIAL TRACKING PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00686	G-42	C
RES PROJECT NO.	FILENAME 99XX00686.DGN			



3B DEWATERING SEQUENCE TABLE

1. PRIOR TO EXCAVATION IN AREA 3B, BASIN 4B1 MUST BE OPERATIONAL FOR PUMPING EXCAVATION WATER TO THE BSL.
2. STARTING IN PLANT 2A AREA, EXCAVATE GENERALLY FROM SOUTH TO NORTH MAINTAINING SURFACE WATER DRAINAGE TO BASIN 4B1.
3. AS EXCAVATION PROCEEDS NORTHWARD, EXTEND THE WESTERN AND EASTERN DEWATERING CHANNELS AROUND THE PERIMETER OF THE EXCAVATION AREA TO DRAIN RUNON TO BASINS 4B2 AND 4B3 RESPECTIVELY.
4. EXCAVATION WATER MAY BE PUMPED TO THE TANK FARM SETTLING BASIN AS AN ALTERNATE METHOD TO DEWATER THE PLANT 1 PAD EXCAVATION AREA.

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GENERALLY EXCAVATE FROM SOUTH TO NORTH MAINTAINING DRAIN SOUTHWARD TOWARDS BASIN 4B1.
3. INSTALL TRANSFER LINES AND LIFT STATIONS IN ACCORDANCE WITH SPECIFICATION SECTION 02668 AND THE DETAIL PRESENTED ON DRAWING 99X-5500-G-00683.

4518

KEYED NOTES

(A) INSTALLATION OF BASINS 4B1, 4B2, AND 4B3 TO BE PERFORMED UNDER AREA 4B EXCAVATION PROJECT.

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000046

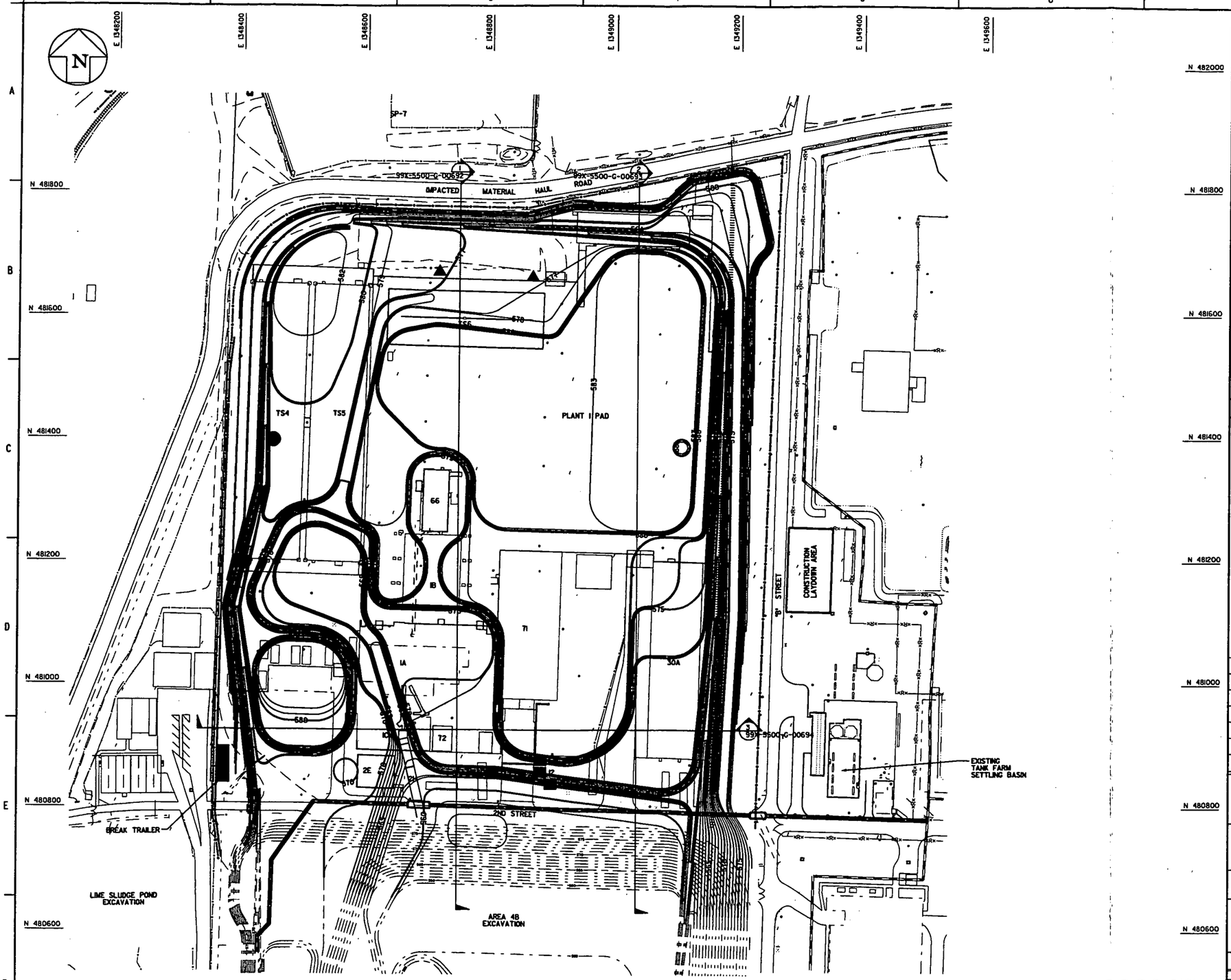
PROJECT NAME: SOIL REMEDIATION

DRAWING TITLE: AREA 3B DEWATERING PLAN AND EXCAVATION PLAN

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20640	99X-5500-G-00687	G-43	C
REV. PROJECT NO.	FILENAME 99X00687.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND BY ENGINEER.
3. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.

4518

LEGEND

- URANIUM ABOVE-WAC AREA
- TC-99 ABOVE-WAC AREA
- 13 FORMER UST FOOTPRINT WITH CORRESPONDING UST NUMBER
- 4B PHASE II ISOLATION TRENCH
- EXISTING 3A & 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

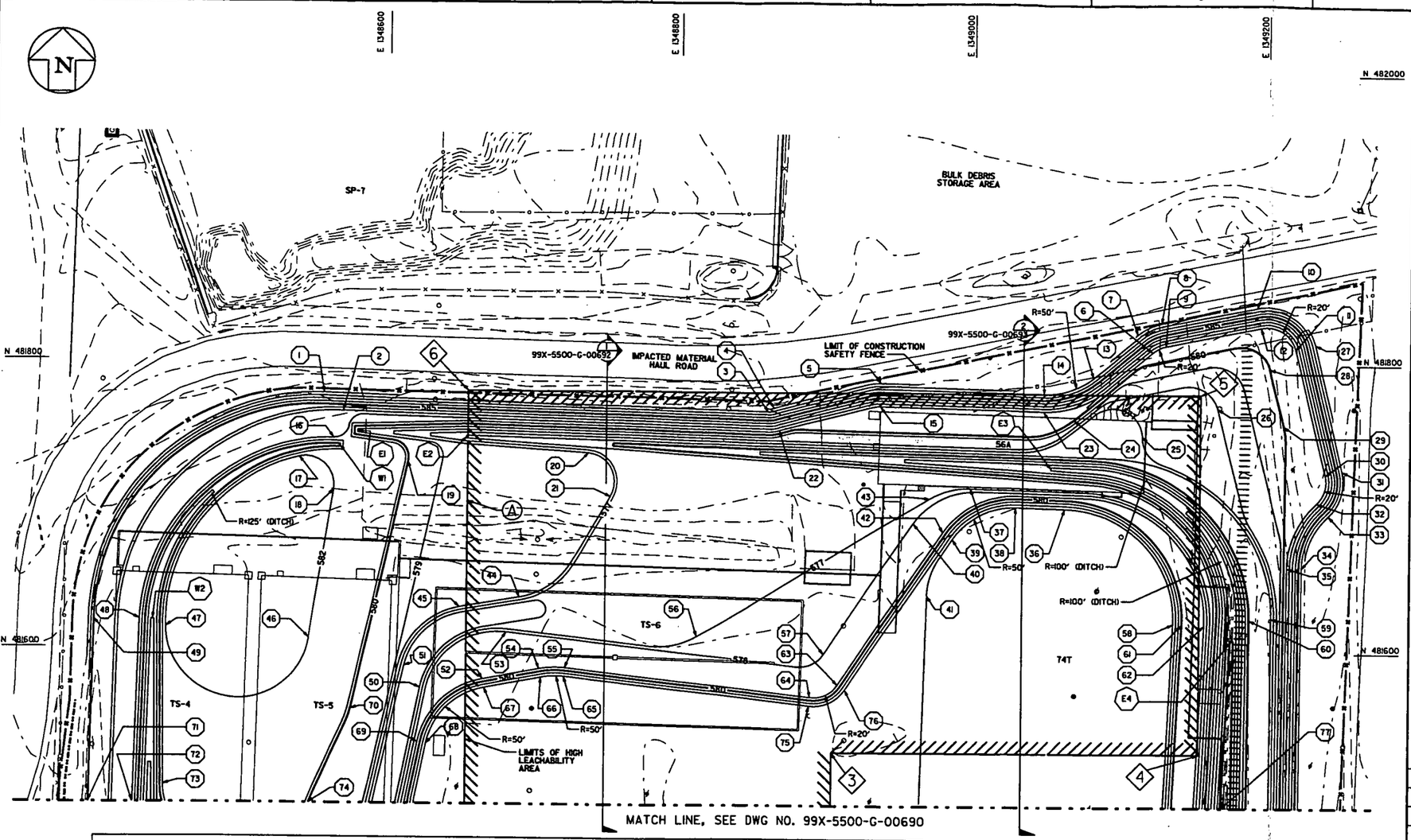
DRAWING TITLE
AREA 3B
EXCAVATION/DRAINAGE OVERVIEW PLAN

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00688	G-44	A
RES PROJECT NO.	FILENAME 99X00688.DGN			

000047



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPRJ-5.

- 4518

CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
1	481777.23	1348557.63	589.00	21	481706.48	1348753.19	578.00	41	481639.16	1348970.14	583.00	61	481620.03	1349144.30	580.00
2	481764.85	1348570.47	583.00	22	481753.23	1348868.25	581.00	42	481682.89	1348980.44	579.00	62	481619.58	1349159.30	579.00
3	481766.30	1348860.36	588.00	23	481767.25	1349049.06	581.00	43	481706.39	1348971.72	577.00	63	481576.54	1348909.92	579.00
4	481768.73	1348864.29	589.00	24	481764.71	1349069.92	580.00	44	481636.24	1348691.16	578.00	64	481567.72	1348890.95	579.00
5	481786.28	1348938.61	589.00	25	481750.86	1349116.46	577.00	45	481629.19	1348651.21	578.00	65	481581.30	1348721.43	582.00
6	481809.08	1349123.11	581.00	26	481770.28	1349167.31	578.00	46	481606.97	1348548.35	582.00	66	481580.69	1348706.02	582.00
7	481821.32	1349112.81	589.00	27	481814.57	1349232.70	588.00	47	481614.32	1348448.97	582.00	67	481573.21	1348668.07	582.00
8	481829.07	1349128.91	589.00	28	481797.60	1349201.83	580.00	48	481619.58	1348430.93	582.00	68	481533.98	1348628.71	582.00
9	481813.39	1349132.06	581.00	29	481758.15	1349211.42	580.00	49	481619.51	1348398.91	585.00	69	481535.16	1348622.83	579.00
10	481839.88	1349192.98	588.00	30	481724.34	1349240.22	581.00	50	481572.95	1348624.28	576.00	70	481558.03	1348576.90	580.00
11	481811.26	1349219.10	581.00	31	481727.17	1349251.88	587.00	51	481588.35	1348613.37	576.00	71	481492.37	1348395.44	585.00
12	481826.15	1349195.73	581.00	32	481704.87	1349234.30	581.00	52	481579.10	1348666.91	579.00	72	481492.37	1348427.06	582.00
13	481790.97	1349082.94	587.00	33	481696.03	1349242.41	587.00	53	481611.93	1348682.96	578.00	73	481504.59	1348448.03	581.00
14	481779.24	1349049.39	587.00	34	481659.56	1349224.20	586.00	54	481586.58	1348704.86	579.00	74	481492.37	1348549.23	580.00
15	481770.28	1348938.17	581.00	35	481659.63	1349214.20	581.00	55	481587.26	1348722.12	579.00	75	481561.76	1348890.26	582.00
16	481745.98	1348564.32	582.00	36	481699.88	1349064.47	583.00	56	481609.56	1348812.87	577.00	76	481573.22	1348914.92	582.00
17	481732.77	1348540.45	582.00	37	481713.68	1348999.01	577.00	57	481597.82	1348900.03	578.00	77	481492.37	1349171.29	570.00
18	481710.16	1348564.72	582.00	38	481700.82	1349030.14	583.00	58	481620.32	1349138.31	583.00				
19	481730.28	1348615.00	580.00	39	481678.47	1348987.10	583.00	59	481624.55	1349203.94	576.00				
20	481736.67	1348737.38	578.00	40	481689.20	1348960.62	578.00	60	481623.58	1349188.93	575.00				

DITCH CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.
W1	481740.84	1348568.56	580.00
W2	481619.32	1348439.92	578.00
E1	481751.00	1348580.07	579.00
E2	481747.35	1348654.98	576.00
E3	481727.89	1349054.51	572.00
E4	481609.03	1349177.82	570.00

HIGH LEACHABILITY AREA COORDINATE POINTS

PT NO.	NORTHING	EASTING
3	481529.40	1348905.98
4	481529.40	1349155.97
5	481779.40	1349155.97
6	481779.40	1348655.97

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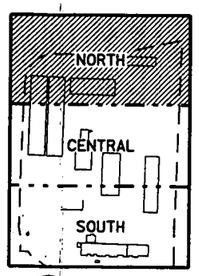


NORTH

AREA 3B KEY PLAN
SCALE: NONE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000048

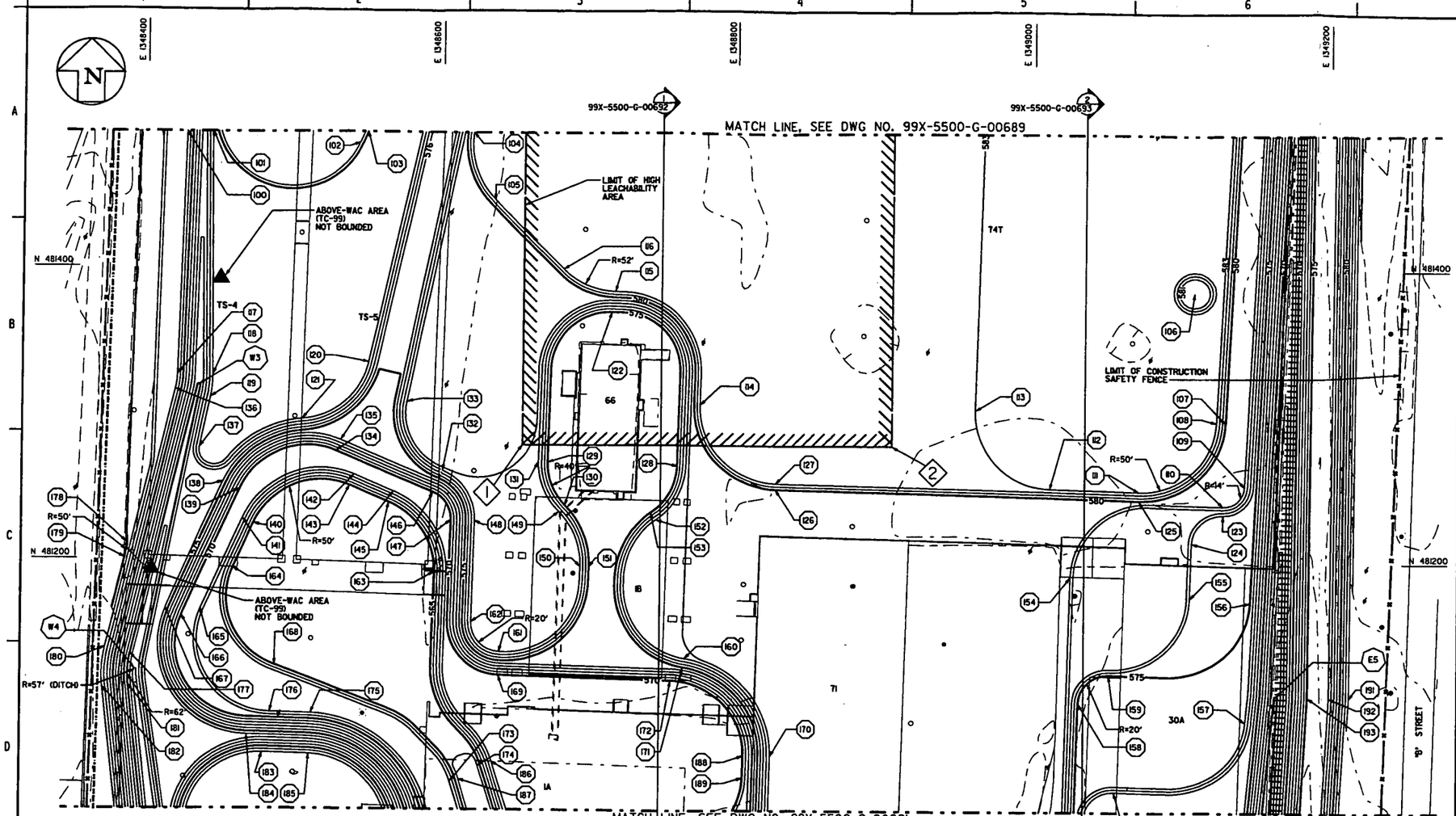
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
EXCAVATION/DRAINAGE PLAN (NORTH)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DATE	FORD	99X-5500-G-00689	G-45	C
REF. PROJECT NO.	FILENAME 99X000689.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

- 4518

CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
100	481492.37	1348427.06	582.00	121	481296.16	1348505.65	579.00	142	481258.30	1348541.90	569.00	163	481892.12	1348596.39	565.00	184	481079.39	1348470.29	576.00
101	481492.37	1348444.15	579.00	122	481370.51	1348715.75	575.00	143	481250.92	1348538.80	565.00	164	481894.17	1348460.17	565.00	185	481066.24	1348512.05	582.00
102	481485.02	1348543.83	581.00	123	481233.46	1349127.56	576.00	144	481246.95	1348568.88	569.00	165	481865.82	1348439.03	569.00	186	481061.90	1348636.24	569.00
103	481492.37	1348549.23	580.00	124	481214.01	1349107.20	576.00	145	481239.58	1348565.78	565.00	166	481861.42	1348426.18	570.00	187	481049.59	1348613.61	564.00
104	481492.37	1348620.46	582.00	125	481242.99	1349071.50	580.00	146	481246.77	1348595.12	570.00	167	481866.23	1348415.19	576.00	188	481066.70	1348806.17	570.00
105	481446.57	1348635.73	582.00	126	481249.69	1348826.73	580.00	147	481227.78	1348607.37	570.00	168	481827.37	1348488.25	565.00	189	481051.49	1348805.75	570.00
106	481385.57	1349108.24	581.00	127	481253.69	1348826.84	582.00	148	481227.34	1348623.36	578.00	169	481821.25	1348640.46	570.00	190	481042.77	1349055.74	572.00
107	481296.32	1349128.97	580.00	128	481265.23	1348761.13	575.00	149	481233.69	1348680.71	578.00	170	481066.21	1348824.16	579.00	191	481007.83	1349214.14	583.00
108	481296.61	1349122.97	583.00	129	481267.65	1348672.92	575.00	150	481196.20	1348695.69	578.00	171	481127.26	1348765.97	575.00	192	481108.28	1349200.14	576.00
109	481252.79	1349141.92	579.00	130	481237.98	1348684.91	575.00	151	481195.98	1348701.69	575.00	172	481118.05	1348757.56	570.00	193	481108.76	1349185.14	575.00
110	481239.46	1349127.55	579.00	131	481267.81	1348666.92	578.00	152	481228.30	1348747.03	578.00	173	481047.87	1348607.86	567.00				
111	481248.99	1349071.66	583.00	132	481261.51	1348601.33	578.00	153	481233.26	1348743.66	575.00	174	481058.85	1348626.71	564.00				
112	481250.64	1349011.54	583.00	133	481308.49	1348577.42	579.00	154	481190.23	1349025.76	579.00	175	481094.22	1348513.19	568.00				
113	481304.04	1348960.98	583.00	134	481274.39	1348529.42	570.00	155	481175.75	1349106.15	576.00	176	481094.99	1348485.30	568.00				
114	481307.09	1348776.29	582.00	135	481281.76	1348532.52	574.00	156	481173.51	1349146.17	575.00	177	481134.96	1348390.99	575.00				
115	481384.46	1348717.95	582.00	136	481316.28	1348420.64	582.00	157	481090.90	1349143.26	574.00	178	481210.99	1348387.74	585.00				
116	481399.68	1348682.60	582.00	137	481276.44	1348437.37	579.00	158	481103.71	1349031.40	575.00	179	481200.55	1348386.34	585.00				
117	481326.57	1348422.03	582.00	138	481253.16	1348453.25	576.00	159	481123.15	1349051.94	575.00	180	481139.21	1348373.50	584.00				
118	481326.20	1348445.75	579.00	139	481248.35	1348464.24	570.00	160	481133.18	1348766.95	578.00	181	481113.61	1348389.60	575.00				
119	481310.91	1348444.30	579.00	140	481224.88	1348473.62	565.00	161	481137.24	1348640.90	578.00	182	481111.66	1348371.71	584.00				
120	481335.25	1348551.24	579.00	141	481228.09	1348466.29	569.00	162	481157.78	1348621.46	578.00	183	481067.10	1348480.63	582.00				

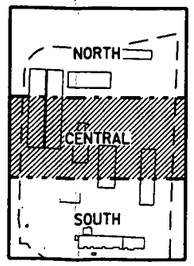
HIGH LEACHABILITY AREA COORDINATE POINTS

PT NO.	NORTHING	EASTING
1	481279.39	1348655.98
2	481279.39	1348905.98

DITCH CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.
W3	481319.33	1348436.81	575.00
W4	481214.11	1348394.36	573.00
E5	481109.22	1349164.14	565.00

30 0 30 60
SCALE: 1"=30'



NORTH

AREA 3B KEY PLAN
SCALE: NONE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

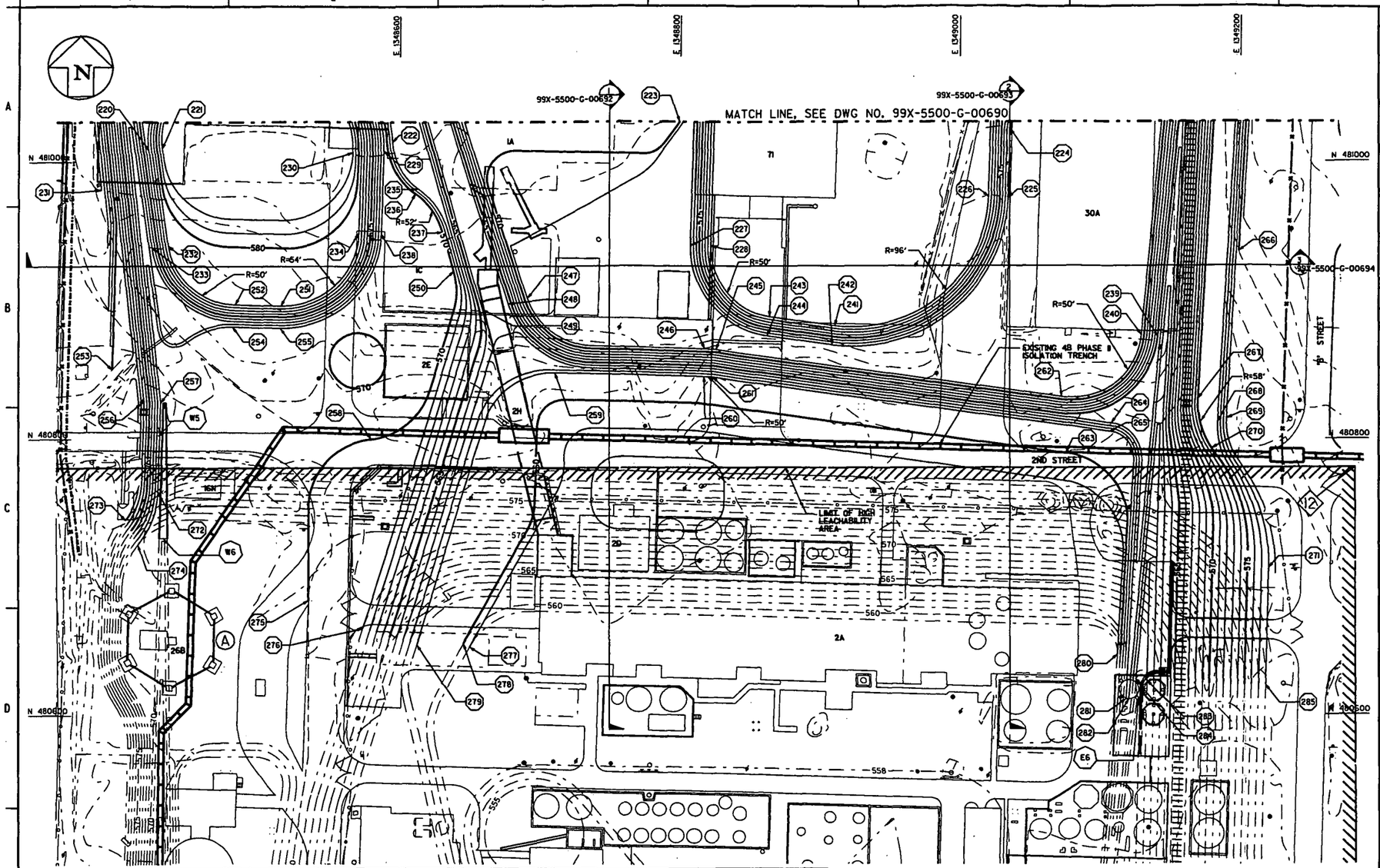
000049 PROJECT NAME SOIL REMEDIATION

DRAWING TITLE
AREA 3B
EXCAVATION/DRAINAGE PLAN (CENTRAL)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00690	G-46	C
RES PROJECT NO.	FILENAME 99XX00690.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
4. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
7. OBTAIN APPROVAL OF THE CONSTRUCTION MANAGER PRIOR TO EXCAVATION OUTSIDE THE LIMITS OF THE TRENCHED EXCAVATION AREA.
8. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

KEYED NOTES

(A) PLACE 2 FOOT CLAY PLUG OVER EXPOSED CONCRETE PILES IN 26B FOUNDATION IN ACCORDANCE WITH SPECIFICATION SECTION 02206. MAINTAIN POSITIVE DRAINAGE IN DITCH.

-- 4518

CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
220	481008.24	1348419.93	577.00	231	480949.70	1348630.89	570.00	254	480881.42	1348480.49	571.00	271	480706.23	1349219.17	578.00
221	481009.72	1348429.82	582.00	238	480948.54	1348586.86	571.00	255	480880.48	1348514.97	571.00	272	480762.32	1348427.00	571.00
222	481014.37	1348594.79	568.00	239	480873.94	1349140.17	565.00	256	480825.90	1348414.92	578.00	273	480741.64	1348403.60	578.00
223	481028.63	1348799.51	570.00	240	480875.10	1349128.23	571.00	257	480826.45	1348428.95	571.00	274	480723.72	1348412.54	571.00
224	481023.32	1349035.20	572.00	241	480881.91	1348910.77	579.00	258	480800.17	1348579.66	570.00	275	480683.44	1348535.50	570.00
225	480974.00	1349033.86	572.00	242	480868.05	1348908.85	572.00	259	480848.09	1348710.99	561.00	276	480662.81	1348573.99	569.00
226	480974.39	1349019.86	579.00	243	480888.39	1348863.83	579.00	260	480845.21	1348816.12	561.00	277	480649.60	1348650.78	559.00
227	480939.67	1348806.70	572.00	244	480874.53	1348861.92	572.00	261	480844.76	1348821.59	561.00	278	480652.01	1348646.40	560.00
228	480939.29	1348820.69	579.00	245	480864.57	1348824.33	571.00	262	480830.43	1349071.63	571.00	279	480651.08	1348612.23	561.00
229	481008.13	1348588.49	571.00	246	480865.21	1348816.67	571.00	263	480789.82	1349074.72	560.00	280	480643.73	1349180.40	559.00
230	481006.73	1348566.44	582.00	247	480902.09	1348691.61	571.00	264	480811.53	1349106.14	564.00	281	480681.16	1349186.55	563.00
231	480979.72	1348386.09	584.00	248	480897.83	1348678.28	564.00	265	480805.59	1349105.32	561.00	282	480681.00	1349188.54	563.00
232	480939.96	1348434.19	579.00	249	480893.76	1348660.10	564.00	266	480935.23	1349198.24	580.00	283	480624.51	1349131.90	561.00
233	480938.18	1348422.32	573.00	250	480921.45	1348639.32	570.00	267	480828.89	1349169.10	575.00	284	480625.01	1349123.92	561.00
234	480948.97	1348570.86	579.00	251	480896.47	1348515.41	579.00	268	480812.11	1349183.17	576.00	285	480621.41	1349216.85	578.00
235	480980.58	1348613.36	568.00	252	480897.38	1348482.27	579.00	269	480814.82	1349189.33	579.00				
236	480977.31	1348681.05	570.00	253	480850.48	1348394.00	580.00	270	480793.07	1349178.97	575.00				

DITCH CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.
W5	480826.56	1348431.95	570.00
E6	481124.11	1348394.36	573.00
E6	480728.59	1348430.94	570.00

HIGH LEACHABILITY AREA COORDINATE POINTS

PT NO.	NORTHING	EASTING
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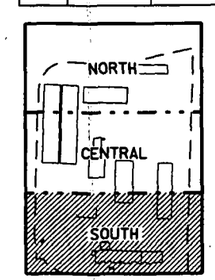


AREA 3B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000050

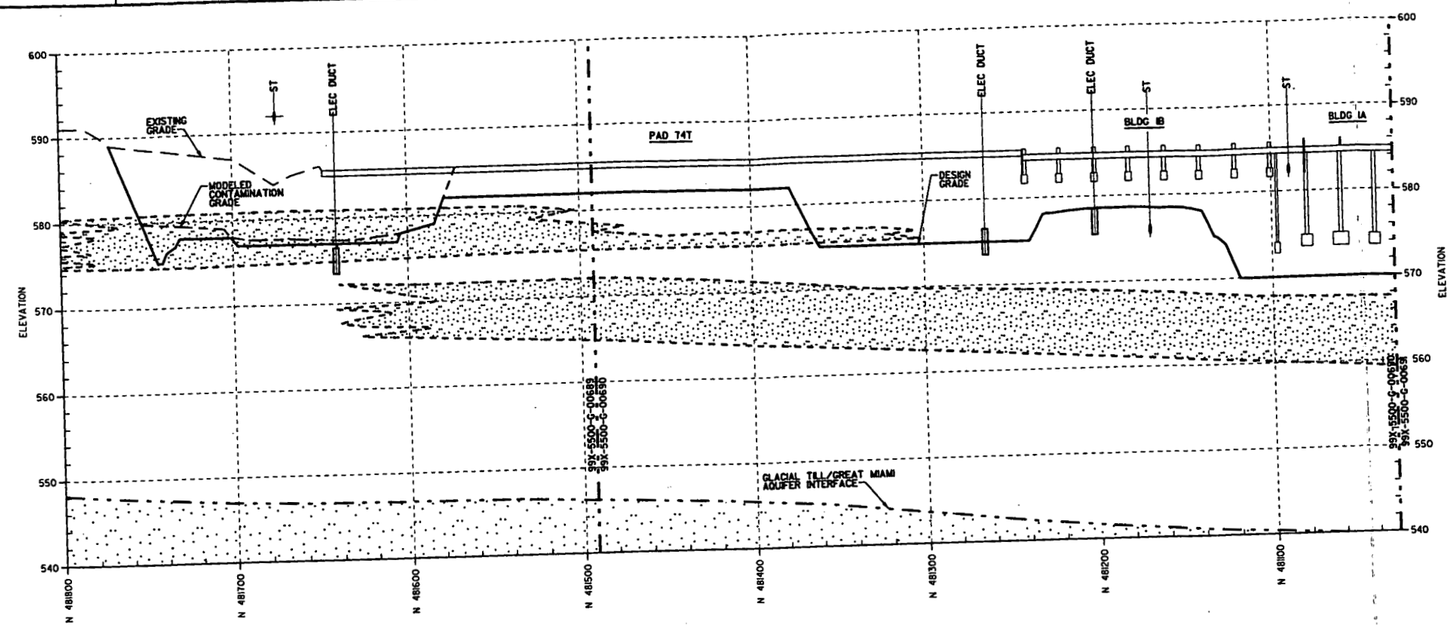
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
EXCAVATION/DRAINAGE PLAN (SOUTH)

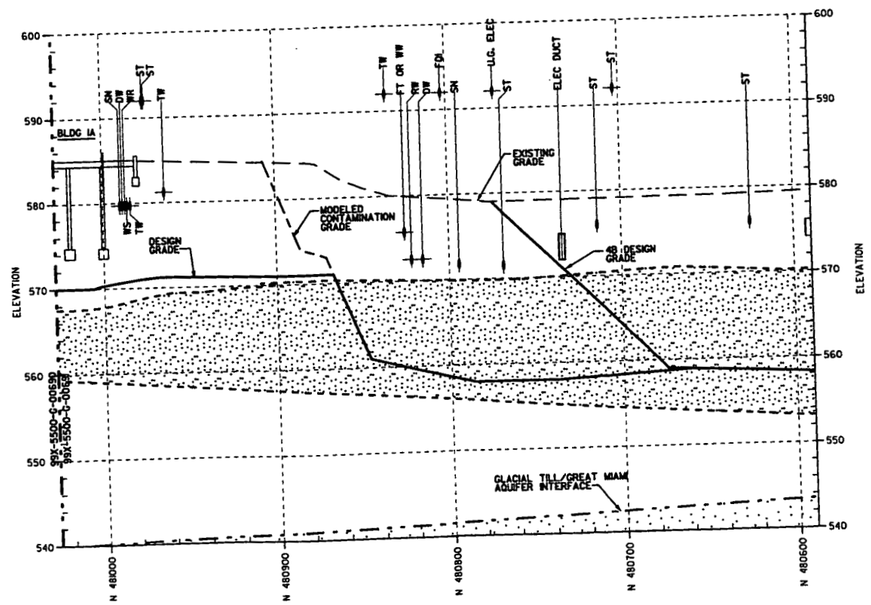
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00691	G-47	C
RES PROJECT NO.	FILENAME 99X20065.DGN			



3B EXCAVATION (1 / 99X-5500-G-00689 00690)
SCALE: 1"=30' HORIZ 1"=6' VERT



3B EXCAVATION (1 / 99X-5500-G-00691)
SCALE: 1"=30' HORIZ 1"=6' VERT

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
6. MODELED CONTAMINATION GRADE MARKS EXTENT OF EXCAVATION REQUIRED TO MEET FINAL REMEDIATION LEVEL (FRLS) FOR URANIUM AS SHOWN ON CONTAMINATION GRADING PLAN DRAWINGS 99X-5500-G-00665 THROUGH 670.

4518

LEGEND

- UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER
- SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
CROSS SECTIONS SHEET 1

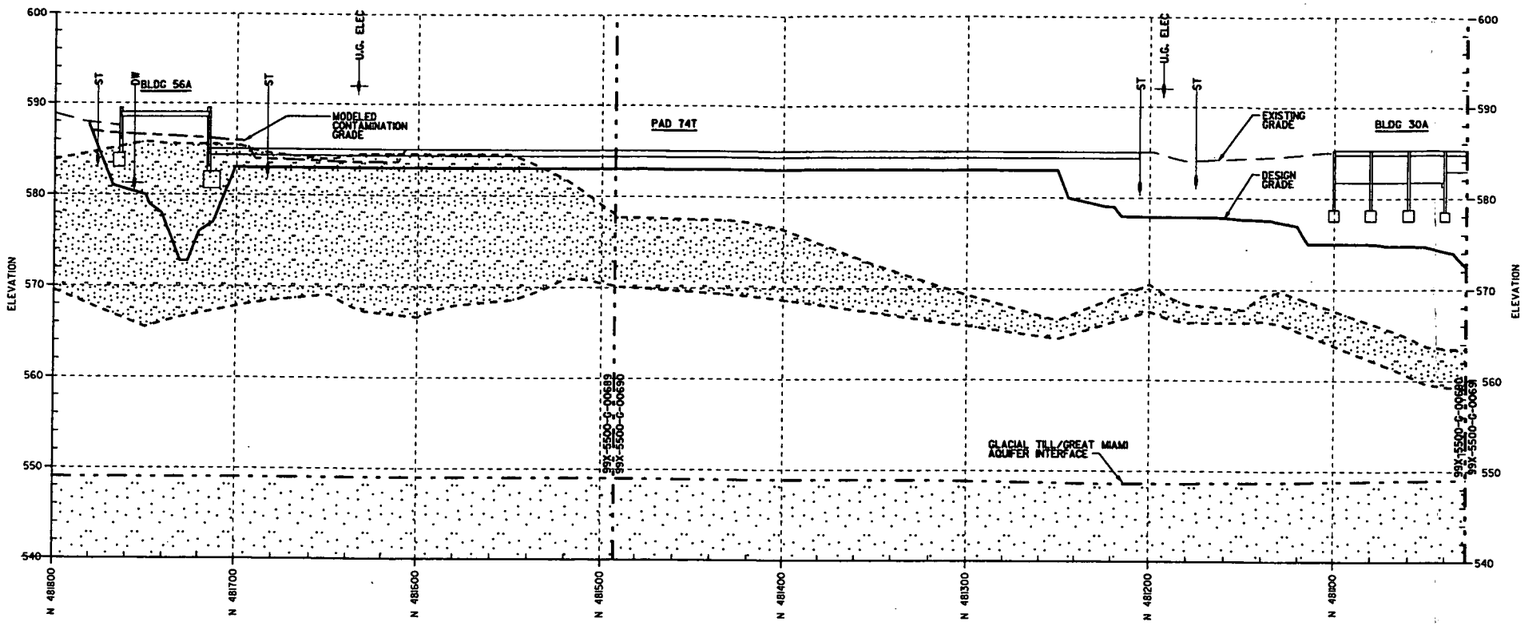
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY KLR | PROJECT NO. 20080 | DRAWING INDEX CODE NO. 99X-5500-G-00692 | SHEET NO. G-48 | REV. NO. B
RES PROJECT NO. | FILENAME 99XC00692.DGN

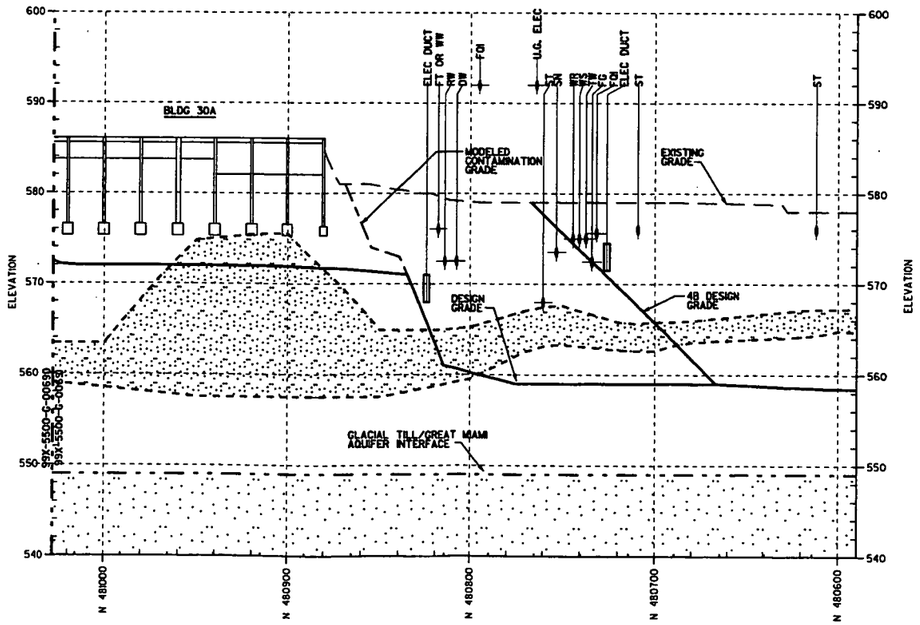
000051

HORIZ. SCALE: 1"=30'
VERT. SCALE: 1"=6'



3B EXCAVATION (2) 99X-5500-G-00689 00690

SCALE: 1"=30' HORIZ
1"=6' VERT



3B EXCAVATION (2) 99X-5500-G-00691

SCALE: 1"=30' HORIZ
1"=6' VERT

000052

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
6. MODELED CONTAMINATION GRADE MARKS EXTENT OF EXCAVATION REQUIRED TO MEET FINAL REMEDIATION LEVEL (FRLS) FOR URANIUM AS SHOWN ON CONTAMINATION GRADING PLAN DRAWINGS 99X-5500-G-00665 THROUGH 670.

4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

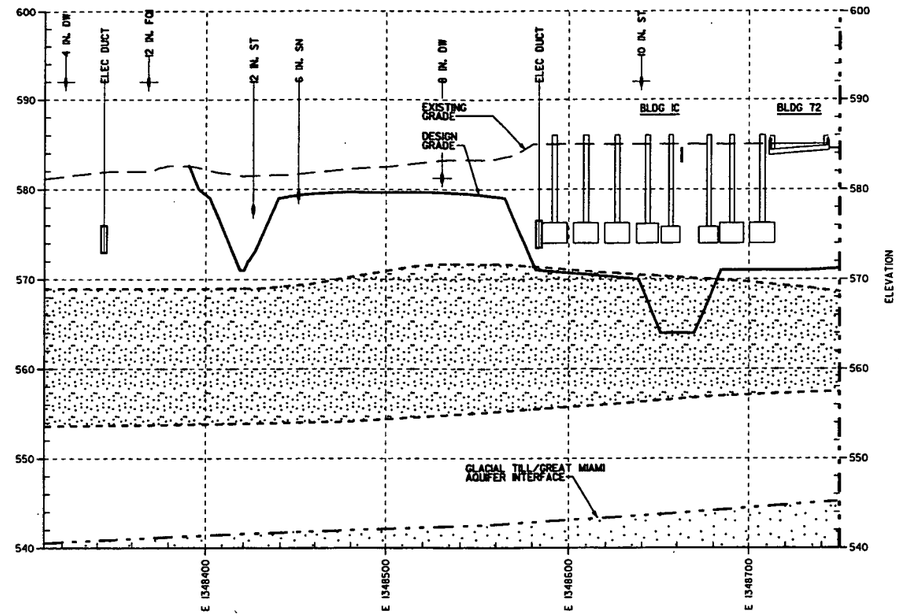
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
CROSS SECTIONS SHEET 2

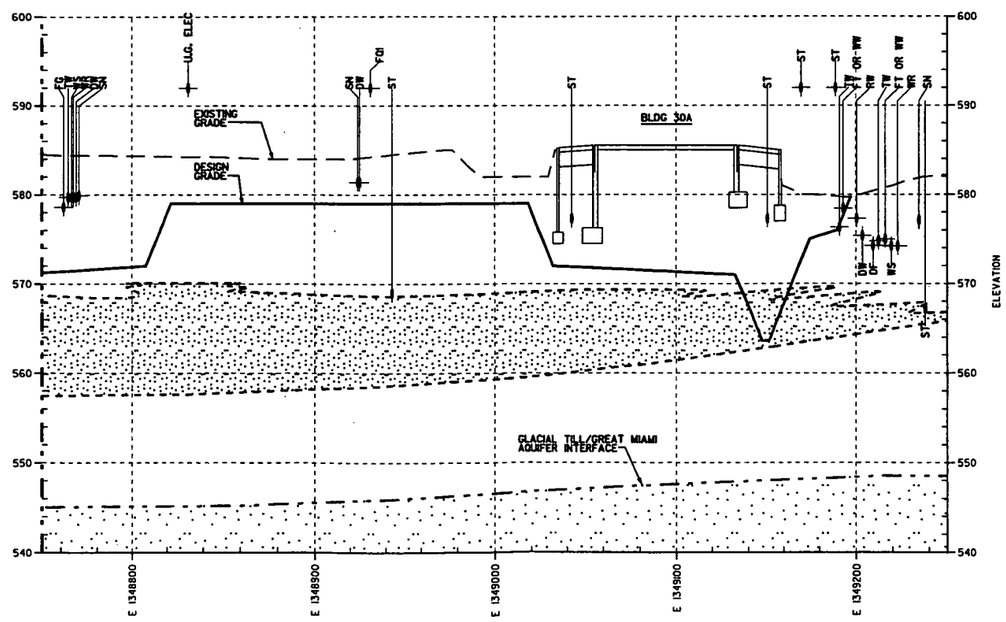
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00693	G-49	B
RES PROJECT NO.	FILENAME 99X00693.DGN			



3B EXCAVATION (3 / 99X-5500-G-00691)
SCALE: 1"=30' HORIZ 1"=6' VERT



3B EXCAVATION (3 / 99X-5500-G-00691)
SCALE: 1"=30' HORIZ 1"=6' VERT

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.
6. MODELED CONTAMINATION GRADE MARKS EXTENT OF EXCAVATION REQUIRED TO MEET FINAL REMEDIATION LEVEL (FRLS) FOR URANIUM AS SHOWN ON CONTAMINATION GRADING PLAN DRAWINGS 99X-5500-G-00665 THROUGH 670.

4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

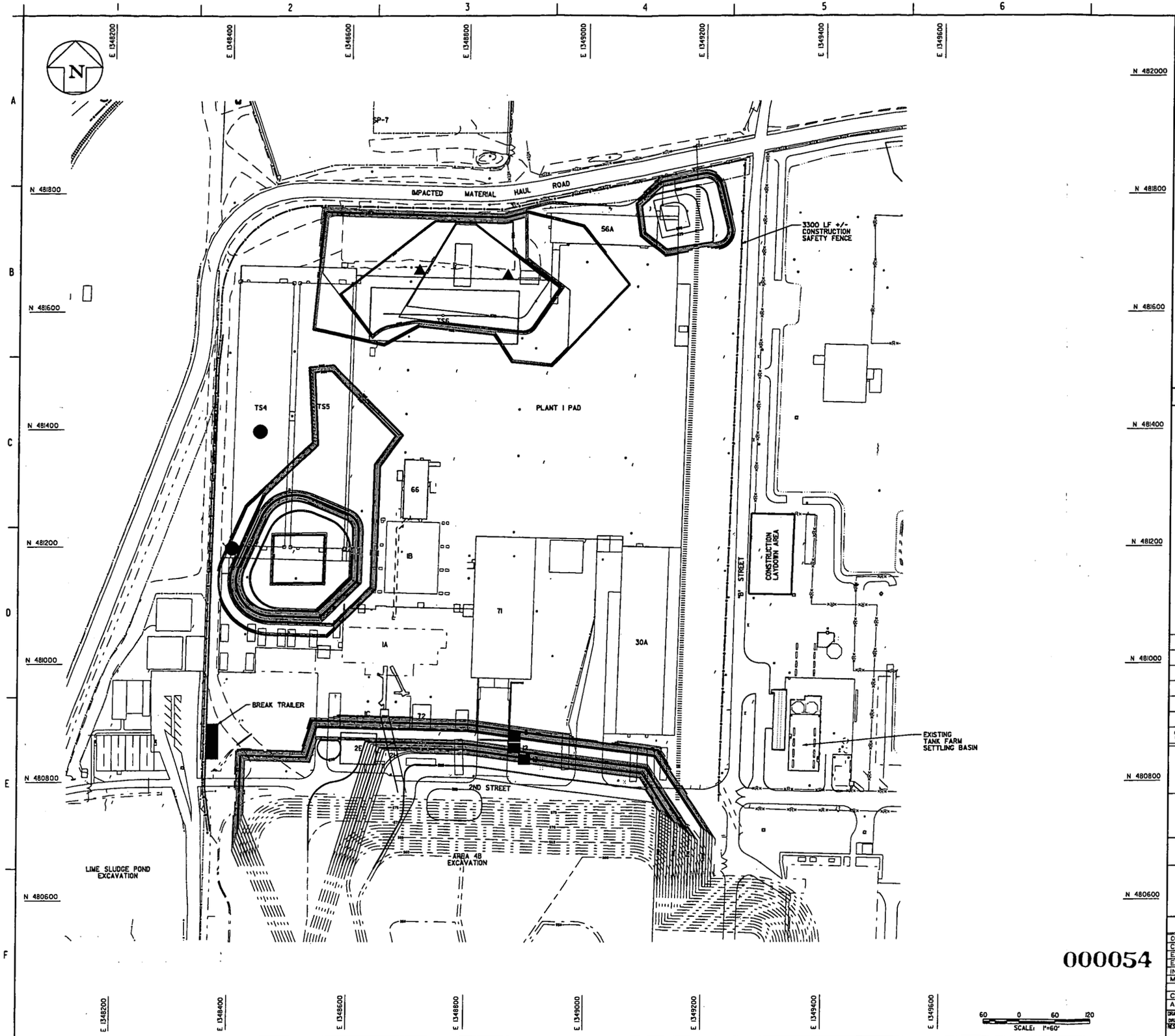
DRAWING TITLE
AREA 3B
CROSS SECTIONS SHEET 3

000053

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00694	G-50	B
RES PROJECT NO.	FILENAME 99XD00694.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM ABOVE FRLS, BASED ON 3-DIMENSIONAL CONTAMINATION MODELING.
3. PERFORM EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWINGS 99X-5500-G-00689, 00690 AND 00691.

--4518

LEGEND

- ▲ URANIUM ABOVE-WAC AREA
- ● TC-99 ABOVE-WAC AREA
- ■ 13 FORMER UST FOOTPRINT WITH CORRESPONDING UST NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

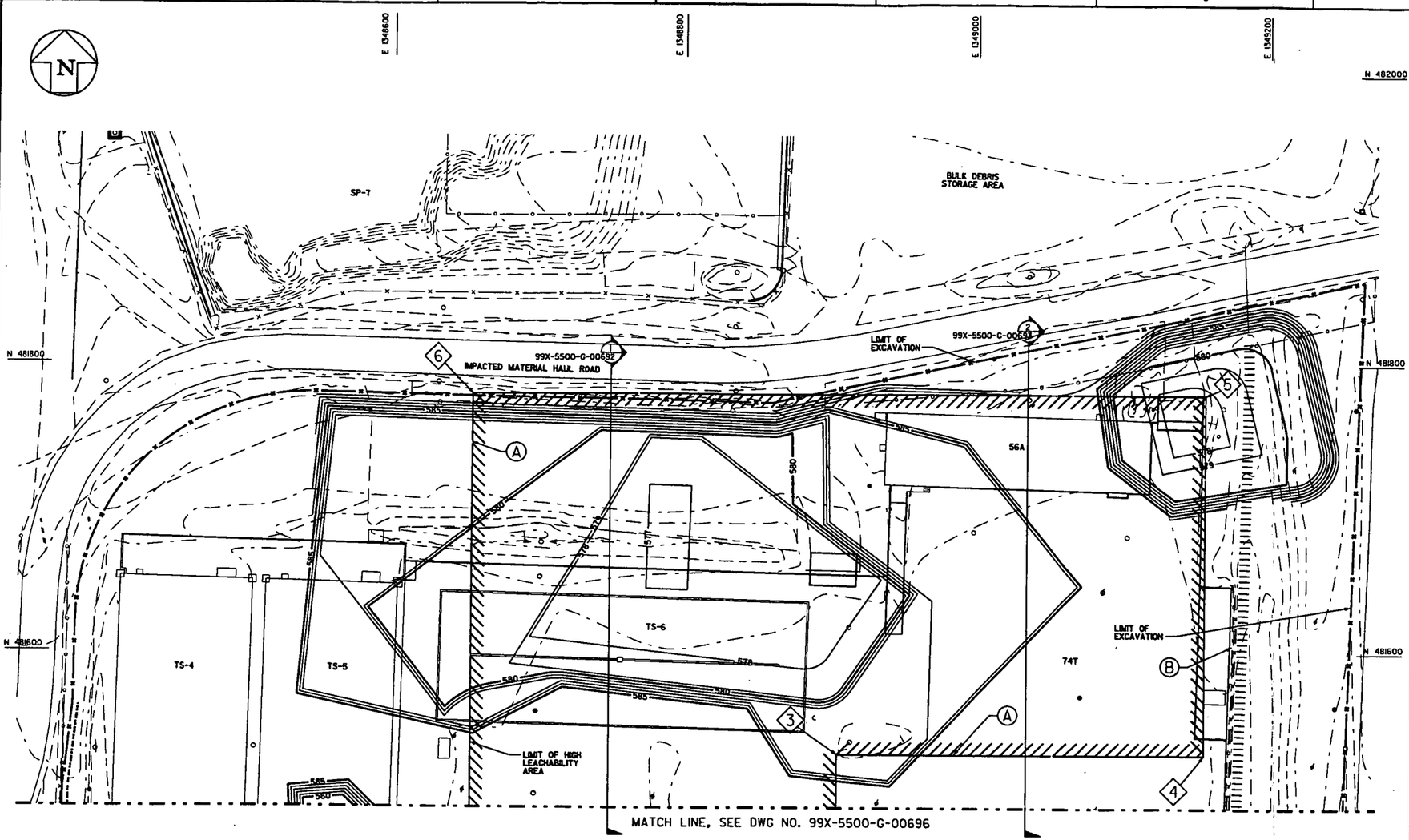
DRAWING TITLE
AREA 3B
CONTAMINATION GRADING (OVERVIEW)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2050	99X-5500-G-00699	G-51	A
RES PROJECT NO.	FILENAME 99XC00699.DGN			

000054



HIGH LEACHABILITY AREA COORDINATE POINTS		
PT NO.	NORTHING	EASTING
3	481529.40	1348905.98
4	481529.40	1349155.97
5	481779.40	1349155.97
6	481779.40	1348655.97

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
4. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS
7. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
8. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00689 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
9. FOR PURPOSES OF READABILITY, PLANT 1 PAD HWMU #20 IS NOT PATTERNED PER THE LEGEND. SEE DRAWING 99X-5500-G-0070 FOR HWMU BOUNDING.

--4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

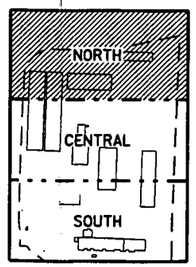
UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
CONTAMINATION GRADING PLAN (NORTH)

000055



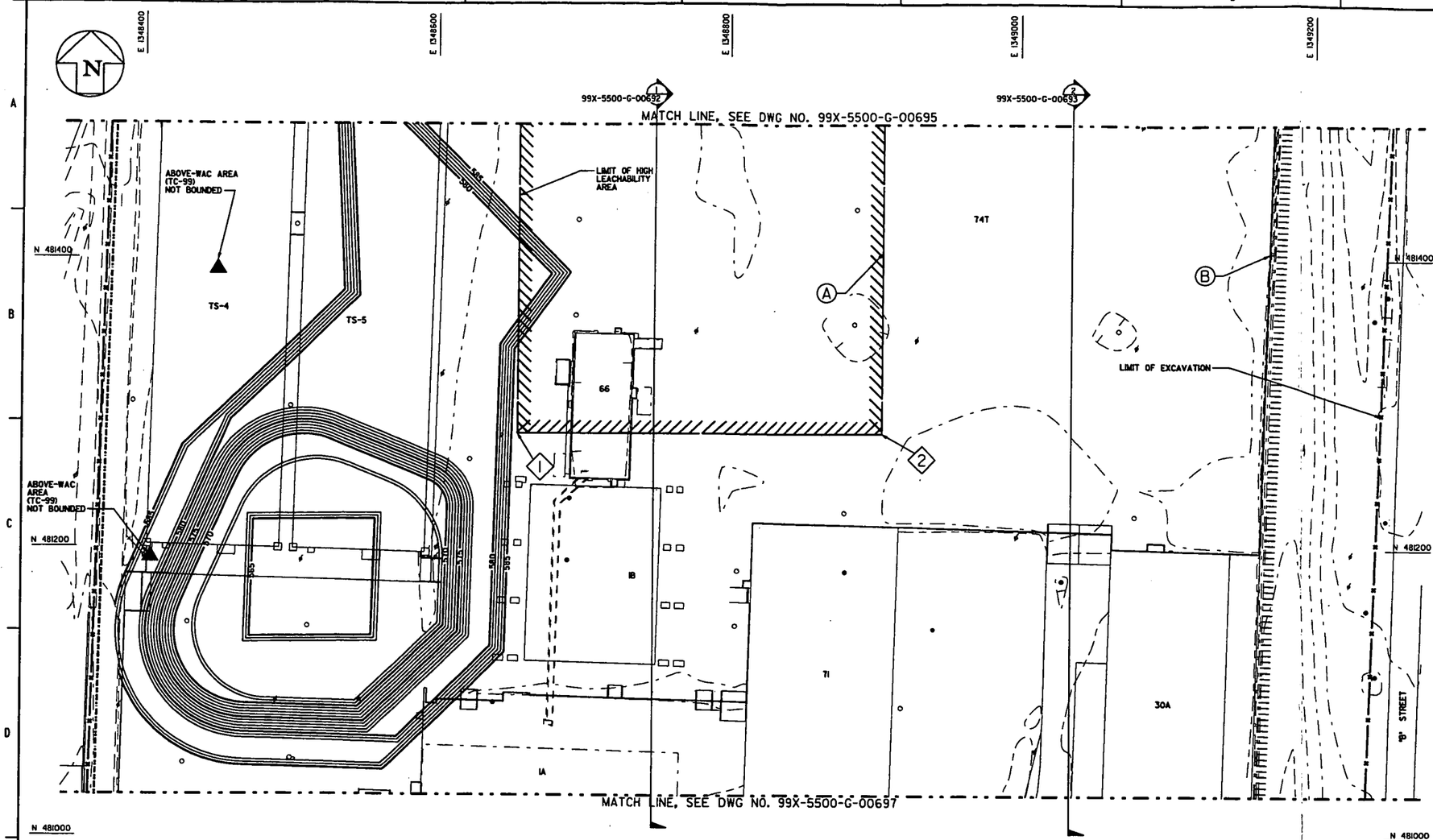
NORTH
AREA 3B KEY PLAN
SCALE: NONE

SCALE: 1"=30'

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00695	G-52	B
RES PROJECT NO.	FILENAME 99XG00695.DGN			



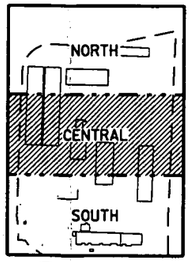
HIGH LEACHABILITY AREA COORDINATE POINTS		
PT NO.	NORTHING	EASTING
1	48279.39	1348655.98
2	48279.39	1348905.98

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
4. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS
7. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
8. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00689 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
9. FOR PURPOSES OF READABILITY, PLANT 1 PAD HWMU #20 IS NOT PATTERNED PER THE LEGEND. SEE DRAWING 99X-5500-G-00711 FOR HWMU BOUNDING.

4518

000056



AREA 3B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

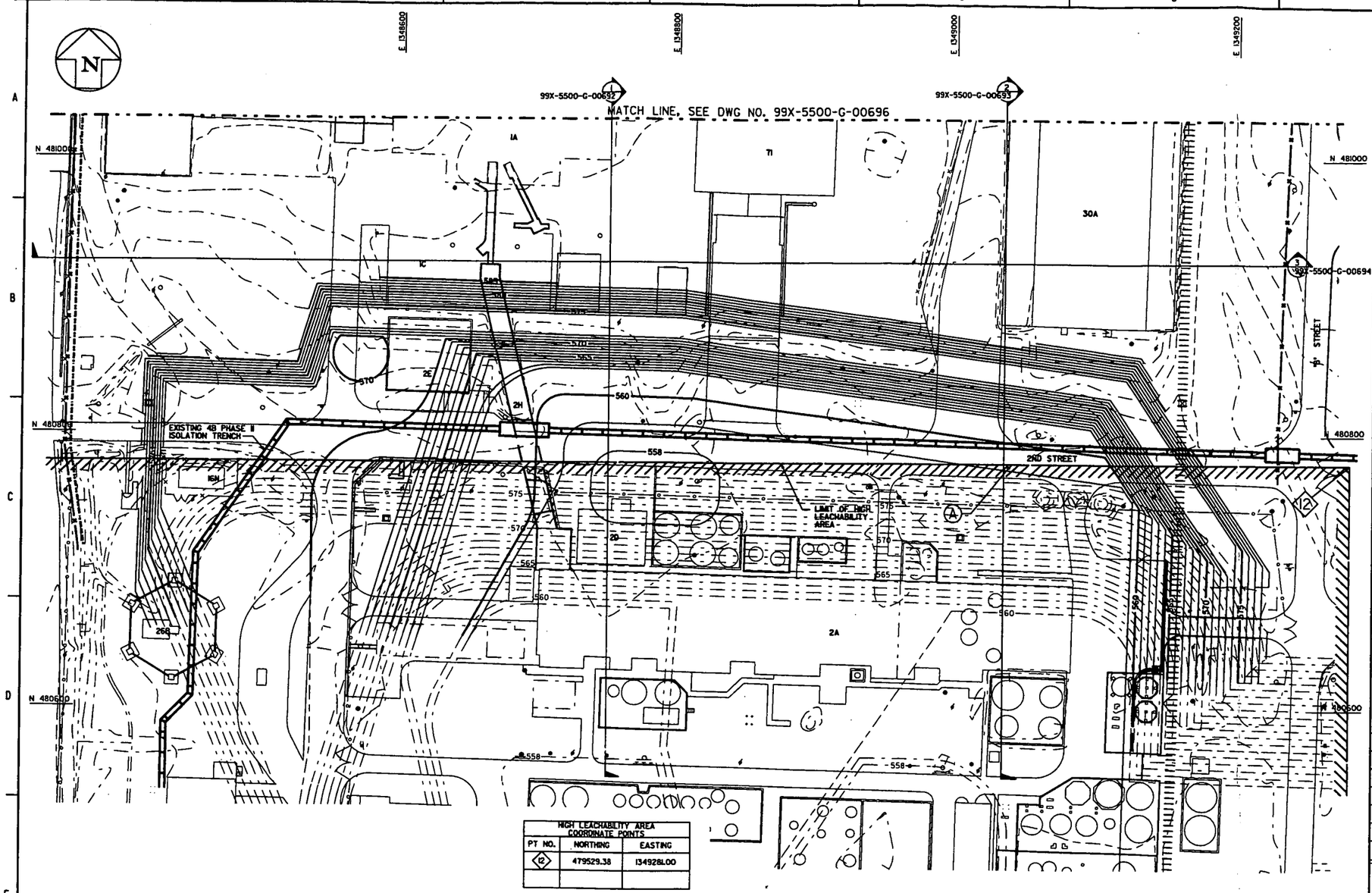
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
CONTAMINATION GRADING PLAN (CENTRAL)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00696	G-53	B
RES PROJECT NO.	FILENAME 99X000696.DGN			



HIGH LEACHABILITY AREA COORDINATE POINTS		
PT NO.	NORTHING	EASTING
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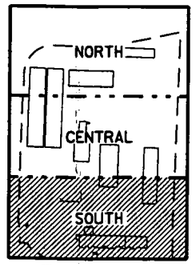
000057



NORTH

AREA 3B KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00642.
3. THIS DRAWING SHOWS THE APPROXIMATE DEPTH OF EXCAVATION TO REMOVE URANIUM CONTAMINATION ABOVE FRLS.
4. COMPLETE ABOVE-WAC AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00677 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
5. COMPLETE HWMU AREA EXCAVATION IN ACCORDANCE WITH DRAWING 99X-5500-G-00678 AND SPECIFICATION SECTION 02205 PRIOR TO PERFORMING ADJACENT GENERAL AREA EXCAVATION.
6. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS
7. PERFORM EXCAVATION FOR CONTAMINATION TO THE GRADES SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
8. PERFORM ADDITIONAL EXCAVATION TO THE DESIGN GRADES SHOWN ON DRAWING 99X-5500-G-00689 IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
9. FOR PURPOSES OF READABILITY, PLANT 1 PAD HWMU #20 IS NOT PATTERNED PER THE LEGEND. SEE DRAWING 99X-5500-G-00711 FOR HWMU BOUNDING.

- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

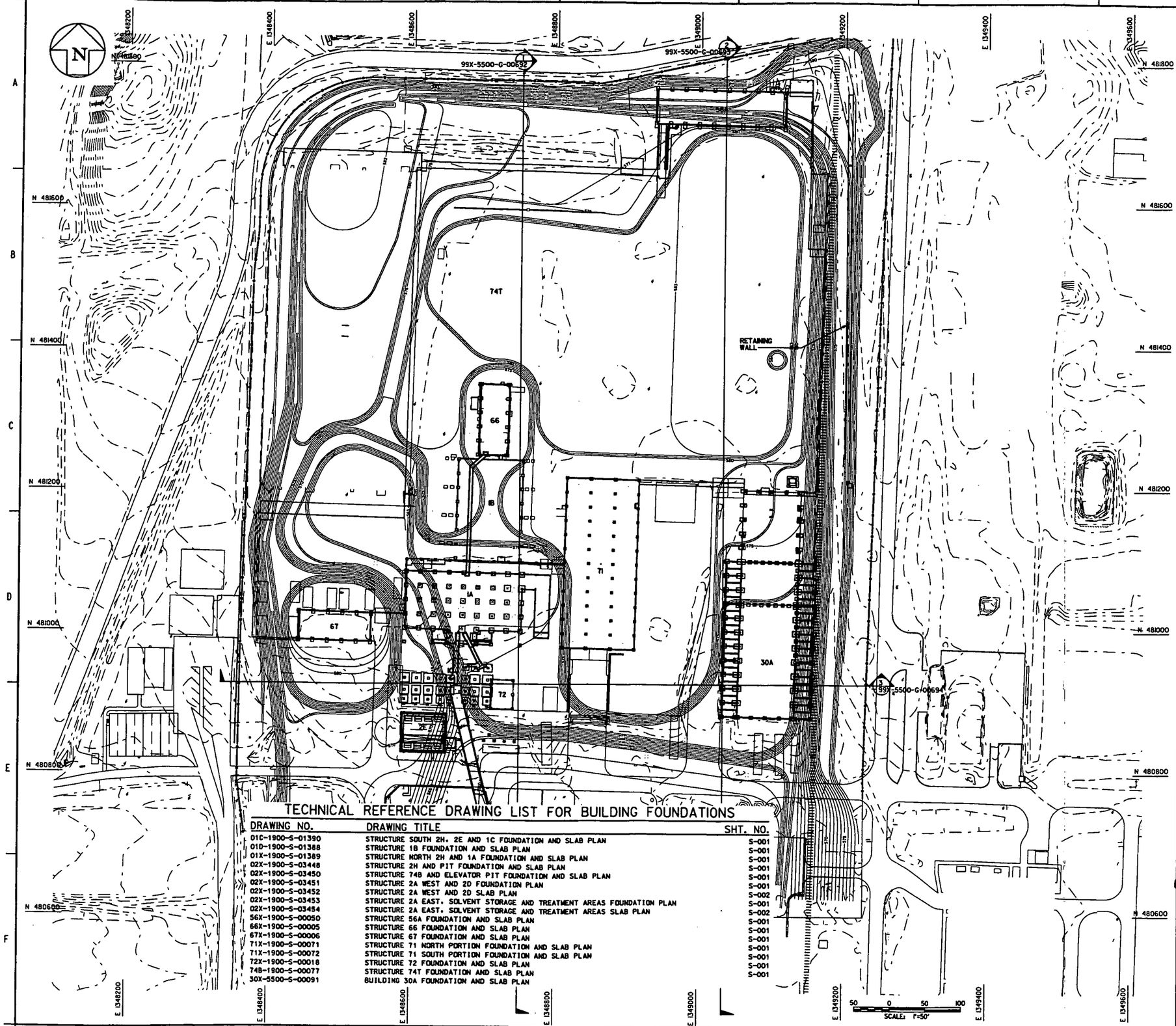
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
CONTAMINATION GRADING PLAN (SOUTH)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00697	G-54	B
RES PROJECT NO.	FILENAME 99X5500G697.DGN			



TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
01C-1900-S-01390	STRUCTURE SOUTH 2H, 2E AND 1C FOUNDATION AND SLAB PLAN	S-001
01D-1900-S-01388	STRUCTURE 1B FOUNDATION AND SLAB PLAN	S-001
01X-1900-S-01389	STRUCTURE NORTH 2H AND 1A FOUNDATION AND SLAB PLAN	S-001
02X-1900-S-03448	STRUCTURE 2H AND PIT FOUNDATION AND SLAB PLAN	S-001
02X-1900-S-03450	STRUCTURE 74B AND ELEVATOR PIT FOUNDATION AND SLAB PLAN	S-001
02X-1900-S-03451	STRUCTURE 2A WEST AND 2D FOUNDATION PLAN	S-001
02X-1900-S-03452	STRUCTURE 2A WEST AND 2D SLAB PLAN	S-002
02X-1900-S-03453	STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN	S-001
02X-1900-S-03454	STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS SLAB PLAN	S-002
56X-1900-S-00050	STRUCTURE 56A FOUNDATION AND SLAB PLAN	S-001
66X-1900-S-00005	STRUCTURE 66 FOUNDATION AND SLAB PLAN	S-001
67X-1900-S-00006	STRUCTURE 67 FOUNDATION AND SLAB PLAN	S-001
71X-1900-S-00071	STRUCTURE 71 NORTH PORTION FOUNDATION AND SLAB PLAN	S-001
71X-1900-S-00072	STRUCTURE 71 SOUTH PORTION FOUNDATION AND SLAB PLAN	S-001
72X-1900-S-00018	STRUCTURE 72 FOUNDATION AND SLAB PLAN	S-001
74B-1900-S-00077	STRUCTURE 74T FOUNDATION AND SLAB PLAN	S-001
30X-5500-S-00091	BUILDING 30A FOUNDATION AND SLAB PLAN	

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

4518

KEYED NOTES

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

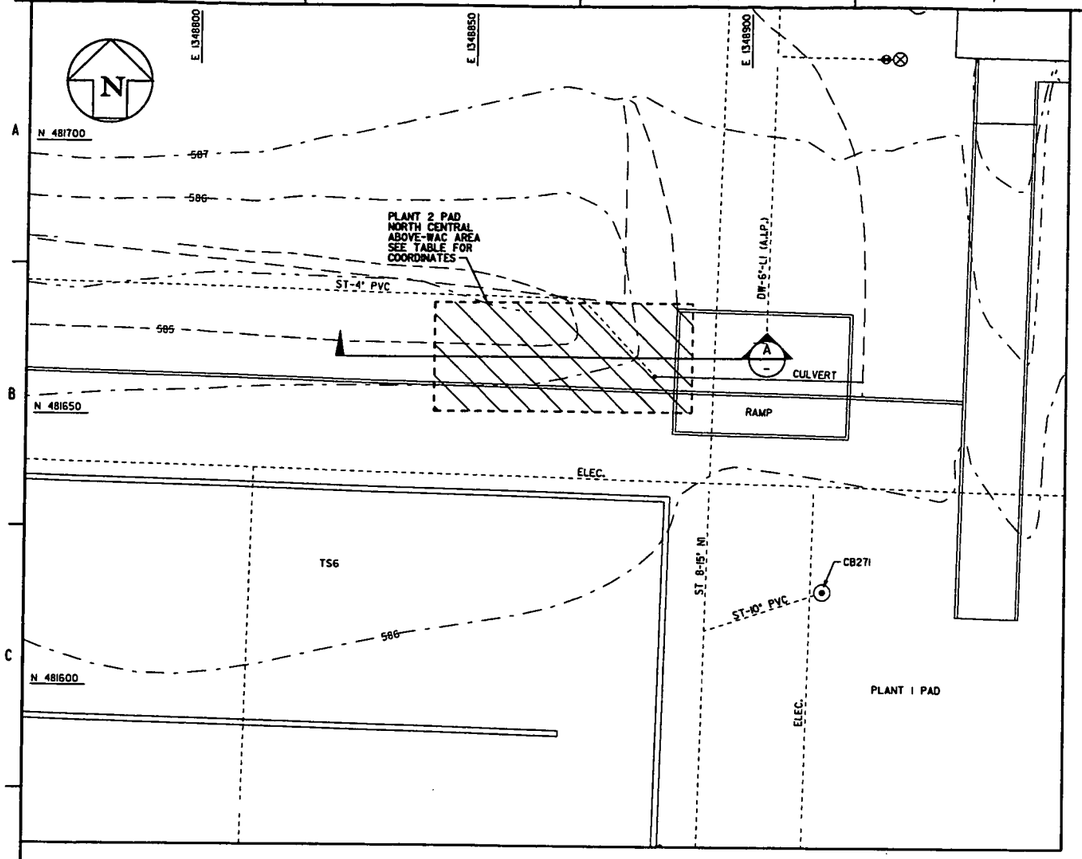
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
000058 FOUNDATION PLAN

APPROVALS

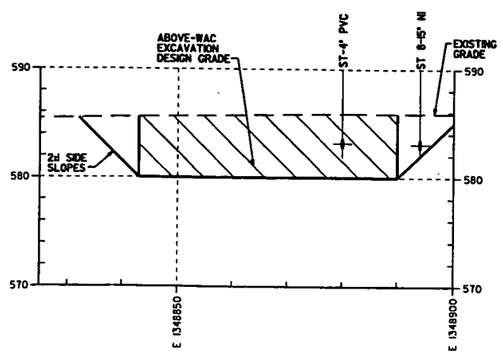
COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20180	99X-5500-G-00698	G-55	B
REF PROJECT NO.	FILENAME 99XG00698.DGN			



SAMPLE ABOVE-WAC AREA EXCAVATION PLAN
PLANT 1 PAD NORTH CENTRAL

SCALE: 1"=10'



SECTION A

SCALE: 1"=10' HORZ
1"=5' VERT

AREA 3B ABOVE-WAC AREAS					
ID	IDENTIFIER	COC(S)	NORTHING	EASTING	ELEVATION (MSL)
1	PLANT 1 PAD NORTHWEST ABOVE-WAC AREA	U	481674	1348714	585
			481674	1348722	585
			481666	1348722	585
			481666	1348714	585
2	PLANT 1 PAD NORTH CENTRAL ABOVE-WAC AREA	U	481671	1348890	580
			481671	1348843	580
			481651	1348843	580
			481651	1348890	580
3	PLANT 1 PAD TS-4 ABOVE-WAC AREA	TC-99	481383	1348440	581
			481383	1348470	581
			481353	1348470	581
			481353	1348440	581
4	PLANT 1 PAD SOUTHWEST ABOVE-WAC AREA	TC-99	481212	1348404	581
			481212	1348414	581
			481197	1348414	581
			481197	1348404	581

AREA 3B ABOVE-WAC EXCAVATIONS

1. ESTABLISH EXCAVATION BOUNDARY AND BUFFER AREA CONTROLS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
2. REMOVE AT-GRADE DEBRIS FROM ABOVE-WAC AREAS AND CLEAN OF VISIBLE SOIL/GRAVEL WITHIN THE EXCAVATION AREAS.
3. HAUL CLEAN DEBRIS TO THE OSDF. DISPOSE OF DEBRIS THAT IS NOT CLEANED WITH UNDERLYING SOIL.
4. EXCAVATE ABOVE-WAC AREAS IN 3-FT +/- 1-FOOT LIFTS TO THE COORDINATES AND ELEVATIONS SHOWN, LEAVING VERTICAL SIDEWALLS.
5. HAUL EXCAVATED ABOVE-WAC MATERIAL TO SP-7. DO NOT TRACK EQUIPMENT THROUGH ADJACENT ABOVE-WAC AREAS.
6. UPON COMPLETION OF EACH ABOVE-WAC EXCAVATION LIFT:
   A. DECONTAMINATE THE EXCAVATOR BUCKET WITHIN THE EXCAVATION AREA AS DIRECTED BY THE CONSTRUCTION MANAGER.
   B. EXCAVATE ABOVE-WAC AREA SIDE SLOPES TO 2H:1V AND TEMPORARILY STOCKPILE MATERIAL ADJACENT TO THE EXCAVATION.
   C. THE CONSTRUCTION MANAGER ARRANGES FOR REAL-TIME MONITORING AND/OR PHYSICAL SAMPLING OF ABOVE-WAC AREA SIDE SLOPES AND FOOTPRINT.
   D. THE CONSTRUCTION MANAGER DIRECTS DISPOSAL OF STOCKPILED SIDE SLOPE MATERIAL, AS WELL AS, FURTHER ABOVE-WAC EXCAVATION AS NECESSARY.
7. UPON REACHING THE DESIGN GRADE OF THE ABOVE-WAC EXCAVATION:
   A. DECONTAMINATE THE EXCAVATOR BUCKET WITHIN THE HAUL TRUCK BED AS DIRECTED BY THE CONSTRUCTION MANAGER.
   B. DECONTAMINATE THE HAUL TRUCK BED IN SP-7.
   C. EXCAVATE ABOVE-WAC AREA SIDE SLOPES TO 2H:1V AND TEMPORARILY STOCKPILE MATERIAL ADJACENT TO THE EXCAVATION.
   D. THE CONSTRUCTION MANAGER ARRANGES FOR REAL-TIME MONITORING AND/OR PHYSICAL SAMPLING OF ABOVE-WAC AREA SIDE SLOPES AND FOOTPRINT.
   E. THE CONSTRUCTION MANAGER DIRECTS DISPOSAL OF STOCKPILED SIDE SLOPE MATERIAL, AS WELL AS, FURTHER ABOVE-WAC EXCAVATION AS NECESSARY.

ABOVE-WAC AREA EXCAVATION
SEQUENCE AND REQUIREMENTS

000059

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING PROVIDES EXCAVATION DETAIL AND LIMITS FOR KNOWN ABOVE-WAC AREAS IN AREA 3B. ABOVE-WAC AREAS ARE BOUNDED AS STRAIGHT WALL EXCAVATIONS USING COORDINATES AND BOTTOM ELEVATIONS PROVIDED.
3. SEE AREA 3B LAYOUT PLAN DRAWING 99X-5500-G-00685 FOR GENERAL LOCATIONS OF ABOVE-WAC AREAS.
4. EXCAVATE ABOVE-WAC AREAS AS SHOWN ON THIS DRAWING AND IN ACCORDANCE WITH SPECIFICATION SECTION 02205. CONSTRUCTION MANAGER WILL VERIFY THE LIMITS OF ABOVE-WAC MATERIAL IN THE FIELD. ADDITIONAL EXCAVATION MAY BE REQUIRED.
5. LOAD TRUCKS IN BUFFER ZONE OUTSIDE OF ABOVE-WAC AREA IN ACCORDANCE WITH TECHNICAL SPECIFICATION SECTION 02205.
6. SURVEY LIMITS AND ELEVATION OF EACH EXCAVATED LIFT IN ABOVE-WAC EXCAVATIONS.
7. MAINTAIN POSITIVE DRAINAGE WITHIN THE ABOVE-WAC EXCAVATIONS TO COLLECT WATER. IF VOCS ARE PRESENT WATER WILL BE SAMPLED AND ANALYZE TO DETERMINE DISPOSITION.
8. SURVEY FINAL EXCAVATION LIMITS. ARRANGE FOR SAMPLING AND/OR REAL-TIME MONITORING AT BOTTOM OF ABOVE-WAC EXCAVATIONS.

-- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

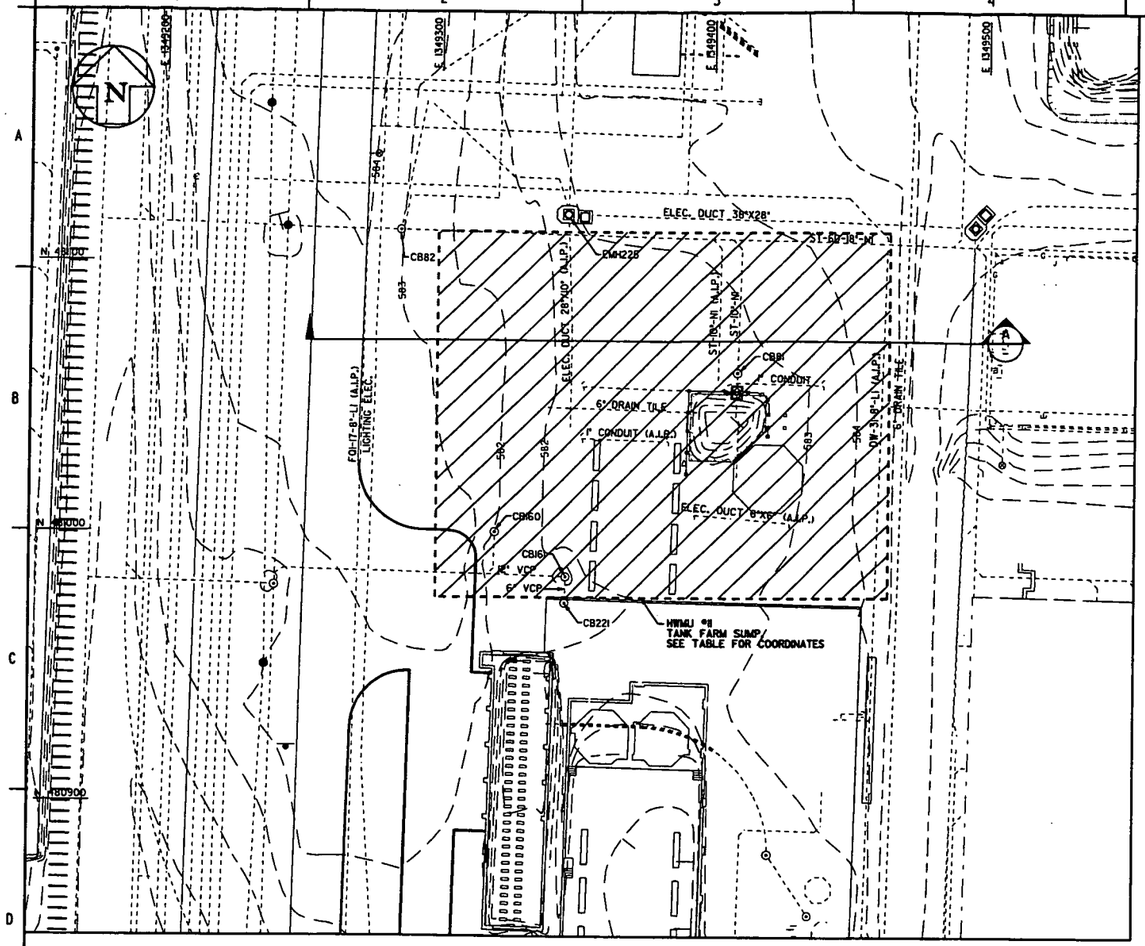
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B
ABOVE-WAC EXCAVATION DETAILS AND LIMITS

APPROVALS

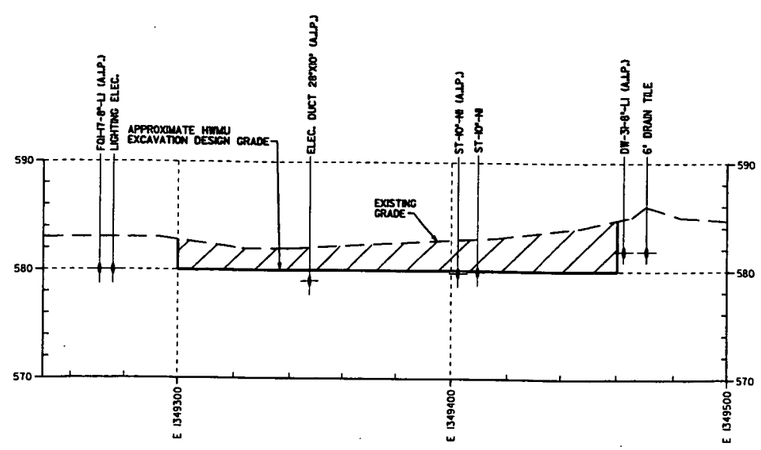
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00700	G-56	A
RES PROJECT NO.	FILENAME 99X00G700.DGN			



SAMPLE HWMU EXCAVATION PLAN
HWMU #11 TANK FARM SUMP

20 0 20 40
SCALE: 1"=20'



SECTION A
SCALE: 1"=20' HORZ
1"=5' VERT

AREA 3B HAZARDOUS WASTE MANAGEMENT UNITS					
HWMU	IDENTIFIER	COC(S)	NORTHING	EASTING	ELEVATION
20	PLANT 1 STORAGE AREA	SEE NOTE 3	480873	1348980	SEE NOTE 3
			480876	1348820	
			480886	1348820	
			480887	1348762	
			481089	1348762	
			481090	1348593	
			481023	1348592	
			481028	1348446	
			480984	1348446	
			480987	1348382	
			481668	1348400	
			481653	1348951	
			481716	1348954	
			481711	1349168	
			481762	1349120	
			481762	1349154	
			481647	1349152	
			481998	1349162	
			481201	1349020	
			481037	1349016	

MAIN DRAINAGE CORRIDOR HAZARDOUS WASTE MANAGEMENT UNITS					
HWMU	IDENTIFIER	COC(S)	NORTHING	EASTING	ELEVATION
11	TANK FARM SUMP	SEE NOTE 3	480976	1349464	SEE NOTE 3
			480976	1349299	
			481111	1349299	
			481111	1349464	

AREA 3B AND MDC
HAZARDOUS WASTE MANAGEMENT UNITS

A. ESTABLISH HWMU BOUNDARY AND BUFFER AREA CONTROLS IN ACCORDANCE WITH THIS DRAWING AND SPECIFICATION SECTION 02205.

B. REMOVE DEBRIS (CONCRETE, ASPHALT AND MISCELLANEOUS STRUCTURES) AND HAUL TO THE OSDF AS A DISCRETE WASTE STREAM. IF THE HWMU IS CONSIDERED AN ABOVE-WAC AREA, LOAD AND HAUL THE DEBRIS TO SP-7, OR CONTAINERIZE IT AS DIRECTED BY THE CONSTRUCTION MANAGER.

C. EXCAVATE HWMU SOIL/GRAVEL IN 3-FT +/- 1-FOOT LIFTS TO THE HWMU DESIGN GRADE WHILE MAINTAINING SAFE SLOPES IN ACCORDANCE WITH SPECIFICATION SECTION 02205. LOAD AND HAUL HWMU SOIL/GRAVEL TO THE OSDF AS A DISCRETE WASTE STREAM. IF THE HWMU IS CONSIDERED AN ABOVE-WAC AREA, LOAD AND HAUL THE SOIL/GRAVEL TO SP-7, OR CONTAINERIZE IT AS DIRECTED BY THE CONSTRUCTION MANAGER.

D. ARRANGE FOR PHYSICAL SAMPLING ON EXCAVATED SIDE SLOPES AFTER EACH LIFT IS REMOVED AND ON THE EXCAVATION FLOOR UPON ACHIEVING THE HWMU DESIGN GRADE. ALLOW 10 WORKING DAYS FOR SAMPLING AND ANALYSIS REQUIRED FOR CLOSURE OF THE HWMU. DO NOT PROCEED WITH FURTHER EXCAVATION IN THE AREA UNTIL DIRECTED BY THE CONSTRUCTION MANAGER.

E. PENDING ANALYSIS OF SAMPLING RESULTS, PERFORM SUPPLEMENTAL HWMU EXCAVATION BEYOND THE HWMU DESIGN GRADE AS DIRECTED BY THE CONSTRUCTION MANAGER.

F. UPON CONFIRMATION FROM THE CONSTRUCTION MANAGER THAT THE HWMU EXCAVATION IS COMPLETE, REMOVE HWMU BOUNDARY FENCE, LOAD AND HAUL BUFFER AREA HERCULITE AS HWMU DEBRIS.

HWMU EXCAVATION
SEQUENCE AND REQUIREMENTS

000060

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. THIS DRAWING PROVIDES EXCAVATION DETAIL AND LIMITS FOR EXCAVATION OF AREA 4B HWMU'S. HWMU BOUNDING COORDINATES ARE PROVIDED TO ASSIST FIELD-LOCATION AND DEMARCATION OF HWMU BOUNDARIES LARGELY DEFINED BY LANDMARKS.
3. SEE AREA 3B LAYOUT PLAN DRAWING 99X-5500-G-00685 FOR GENERAL LOCATIONS OF HWMU'S.
4. HWMU EXCAVATION DEPTHS WILL BE DETERMINED IN THE FIELD BASED ON SAMPLE RESULTS OF COC'S.
5. EXCAVATE HWMU AREAS AS SHOWN ON THIS DRAWING AND IN ACCORDANCE WITH SPECIFICATION SECTION 02205. CONSTRUCTION MANAGER WILL VERIFY THE LIMITS OF THE HWMU IN THE FIELD. ADDITIONAL EXCAVATION MAY BE REQUIRED.
6. LOAD TRUCKS IN THE BUFFER ZONE OUTSIDE OF THE HWMU IN ACCORDANCE WITH TECHNICAL SPECIFICATION SECTION 02205.
7. SURVEY LIMITS AND ELEVATION OF EACH EXCAVATED LIFT IN HWMU AREAS.
8. MAINTAIN POSITIVE DRAINAGE WITHIN HWMU EXCAVATIONS TO COLLECT WATER. IF VOCS ARE PRESENT WATER WILL BE SAMPLED AND ANALYZE TO DETERMINE DISPOSITION.
9. SURVEY FINAL EXCAVATION LIMITS. ARRANGE FOR CONFIRMATORY SAMPLING OR MONITORING AT BOTTOM OF HWMU EXCAVATION.

--4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

DETAILS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

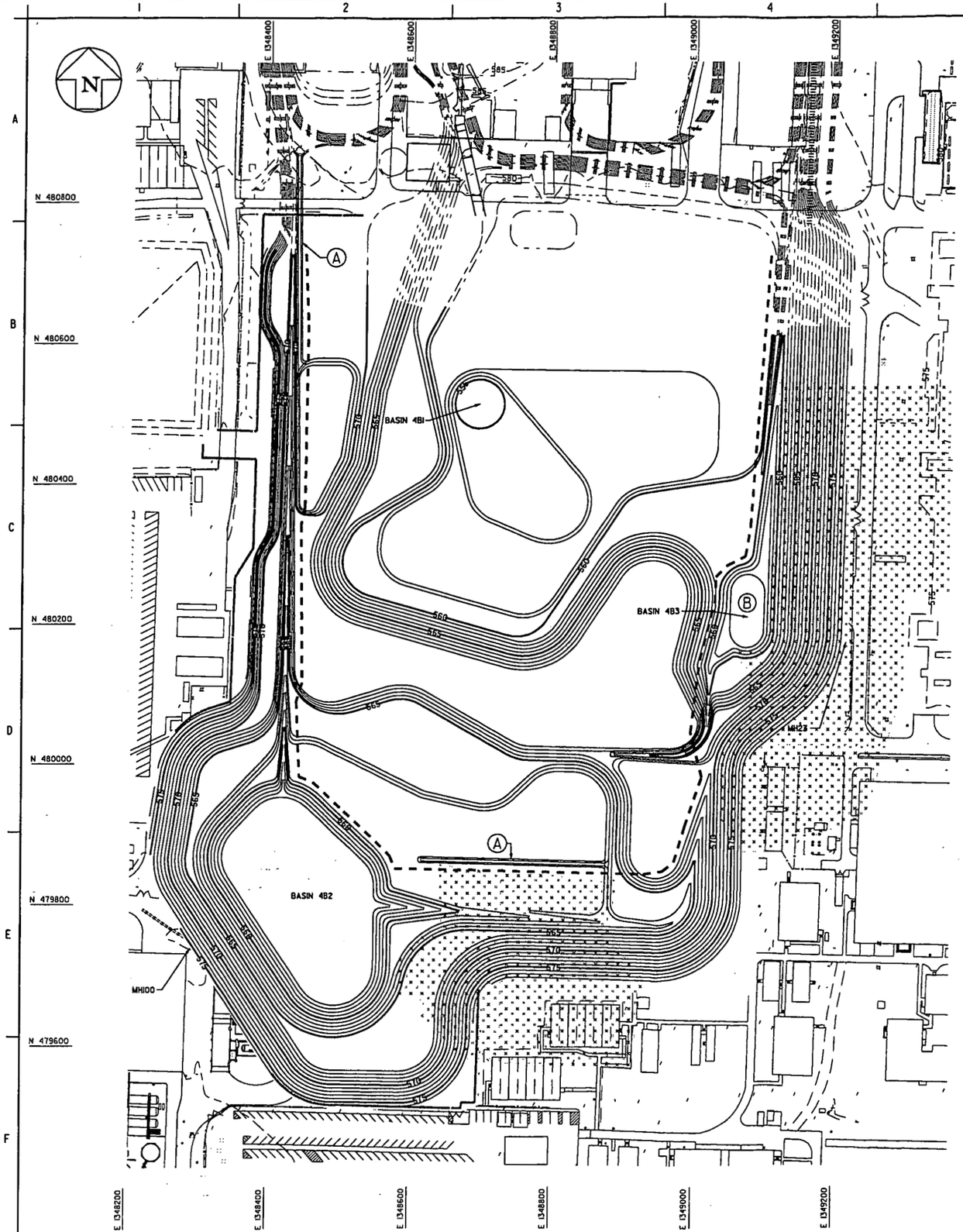
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 3B & MDC
HWMU EXCAVATION DETAILS AND LIMITS

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00711	G-57	A
RES PROJECT NO.	FILENAME 99X5500T1.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. RUN ON FROM OUTSIDE PRECERTIFICATION AREA COLLECTED IN PERIMETER DITCHES AND DRAINED TO BASINS 4B2 AND 4B3 TO BE SENT TO THE SWRB FOR AWWT PHASE I TREATMENT.
3. SURFACE WATER COLLECTED WITHIN PRECERTIFIED AREA DRAINS TO BASIN 4B1.
4. SEE DRAWING 99X-5500-G-00701 FOR AREA 3B PRECERTIFICATION CONFIGURATION.
5. AREA 3B PRECERTIFICATION MUST OCCUR BEFORE OR AT THE SAME TIME AS AREA 4B PRECERTIFICATION, DUE TO RUNON COLLECTED IN BASIN 4B1.

KEYED NOTES

(A) CONSTRUCT BERM TO PREVENT RUN ON INTO CERTIFIED AREA.

(B) PROVIDE TEMPORARY PUMP TO LIFT WATER COLLECTED IN BASIN 4B3 TO MH23 UNTIL THE MDC 1ST STREET CORRIDOR IS EXCAVATED.

—4518

LEGEND

— — — PROPOSED PRECERTIFICATION AREA

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
PRECERTIFICATION CONFIGURATION

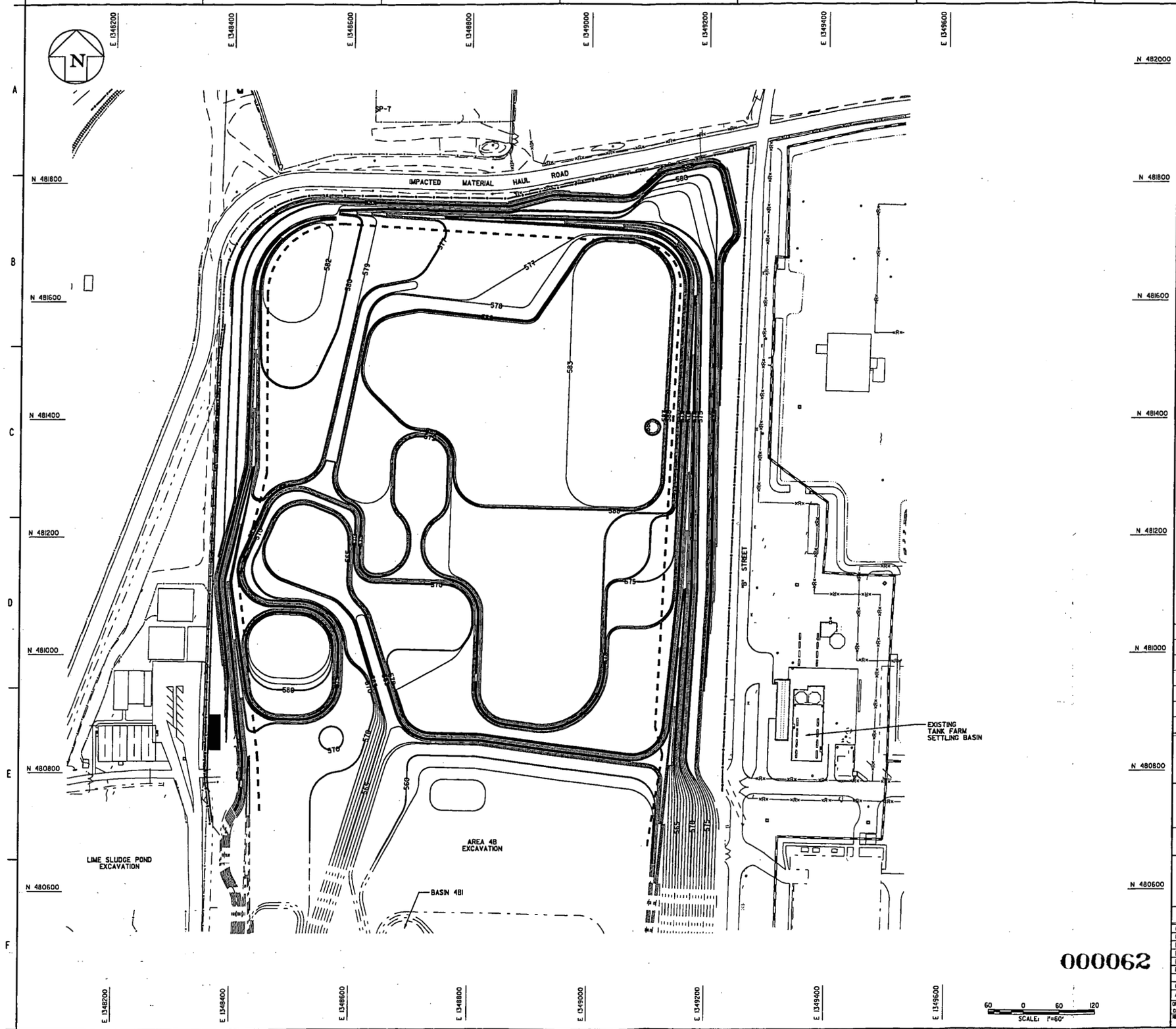
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20810	99X-5500-G-00679	G-58	A
RES PROJECT NO.	FILENAME 99X000679.DGN			

SCALE: 1"=60'

000061



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. RUN ON FROM OUTSIDE PRECERTIFICATION AREA COLLECTED IN PERIMETER DITCHES AND DRAINED TO BASINS 4B2 AND 4B3 (NOT SHOWN) TO BE SENT TO THE SWRB FOR AWWT PHASE I TREATMENT.
3. SURFACE WATER COLLECTED WITHIN PRECERTIFIED AREA DRAINS TO BASIN 4B1.
4. SEE DRAWING 99X-5500-G-00679 FOR AREA 4B PRECERTIFICATION CONFIGURATION.

4518

LEGEND

- - - PROPOSED PRECERTIFICATION AREA

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

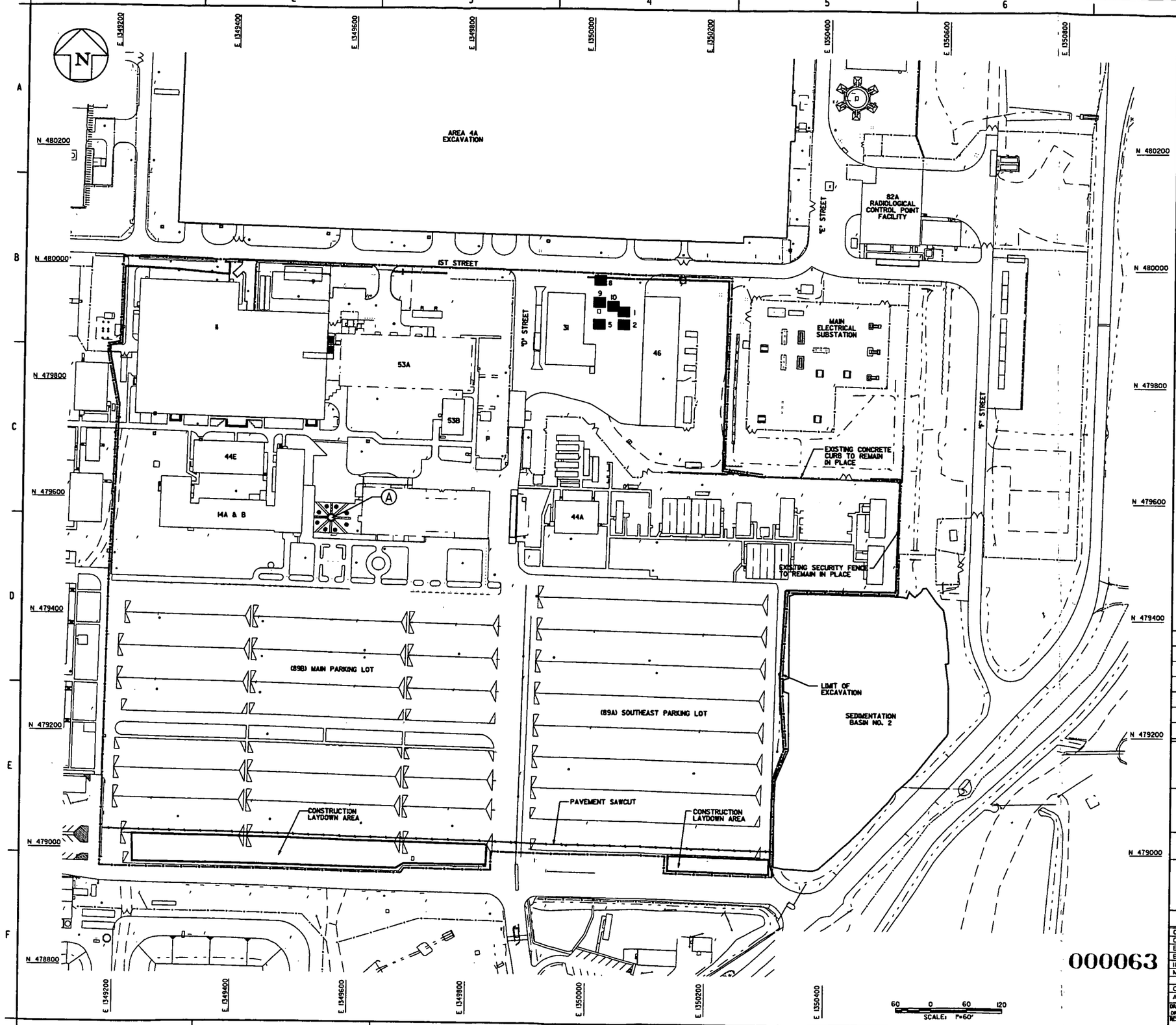
DRAWING TITLE
AREA 3B
PRECERTIFICATION CONFIGURATION

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20380	99X-5500-G-00701	G-59	A
HES PROJECT NO.	FILENAME 99XG00701.DGN			

000062



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. EXISTING FENCE WITHIN PROJECT AREA TO BE REMOVED AFTER PERIMETER FENCE IS INSTALLED. FENCE REMOVAL SEQUENCE SHALL BE DETERMINED IN THE FIELD.
3. SUPPORT FACILITIES SHALL BE FIELD LOCATED.
4. THE SMTA SHALL BE FIELD LOCATED IN ACCORDANCE WITH SPECIFICATION SECTION 02205 AND DRAWING 99X-5500-G-00738.
5. SEE 38/48/5 GRADING/DRAINAGE PLANS FOR LIMIT OF EXCAVATION, SHOWN HERE FOR REFERENCE ONLY.

-- 4518

KEYED NOTES

(A) RELOCATE GRANITE MONUMENT AND COMMEMORATIVE BRICKS PER DOE DIRECTIVE.

LEGEND

SILT FENCE

CONSTRUCTION FENCE

10 FORMER UST FOOTPRINT WITH CORRESPONDING UST NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

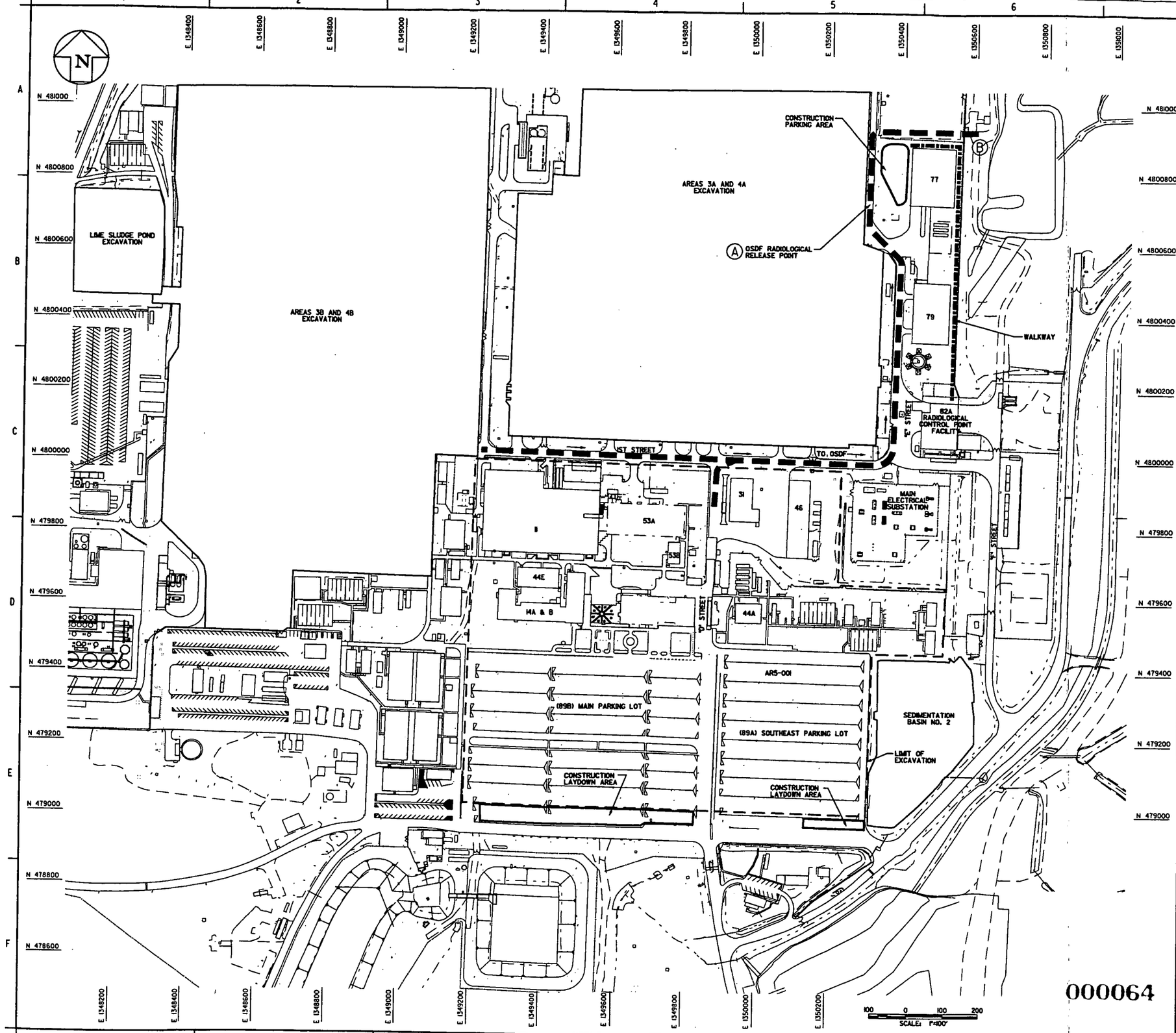
DRAWING TITLE
AREA 5
LAYOUT PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00702	G-60	C
RES PROJECT NO.	FILENAME 99XG00702.DGN			

000063



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SPECIFICATION 02150.
3. SUPPORT FACILITIES AND SMTA SHALL BE FIELD LOCATED.
4. PORTIONS OF 1ST, "D" AND "E" STREETS ARE PROPOSED HAUL ROUTES AS SHOWN. CHANGES IN TRAFFIC ROUTING SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER AS FIELD ACTIVITIES PROGRESS.

—4518

KEYED NOTES

(A) TO BE USED ONLY WHEN EXCAVATING AREA 5 AS A RADIOLOGICALLY UNCONTROLLED AREA.

(B) USE SOUTH ACCESS TO OSDF AFTER CONSTRUCTION OF CELL CAP 4 BEGINS. (SOUTH ACCESS TO BE DESIGNED AND CONSTRUCTED BY OSDF PROJECT.)

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

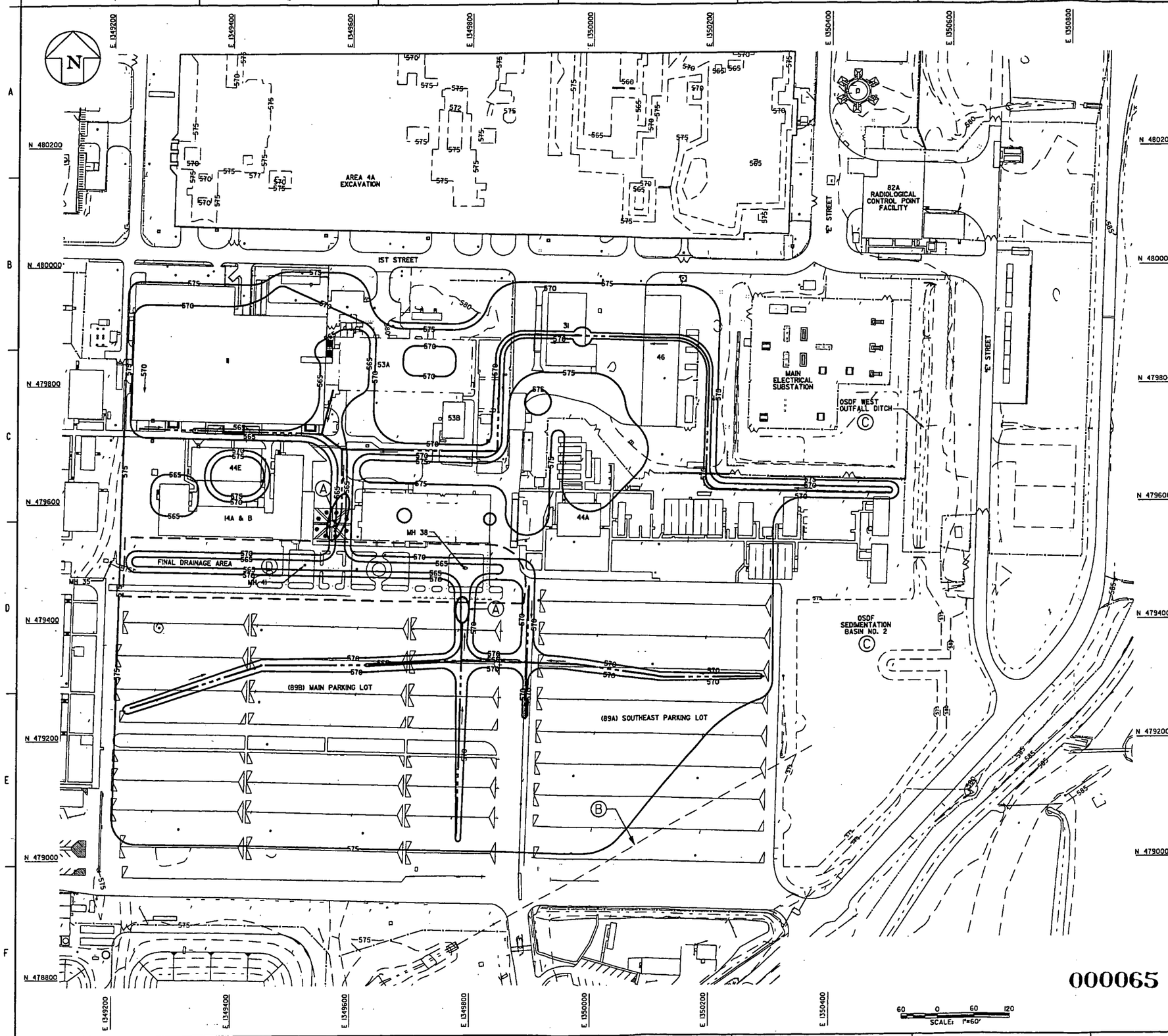
DRAWING TITLE
AREA 5
TRAFFIC FLOW AND MATERIAL TRACKING PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00703	G-61	C
RES PROJECT NO.	FILENAME 99X2000703.DGN			

000064



000065

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. DEWATER EXCAVATIONS BY PUMPING FROM REMOTE AREAS TO DRAINAGE TRENCHES SHOWN. GRADE DRAINAGE TRENCHES TO EXCAVATION SUMPS AS SHOWN.

4518

KEYED NOTES

(A) EXCAVATION SUMPS ARE TO BE LOCATED AS SHOWN FOR DISCHARGE TO EXISTING STORM SEWER SYSTEM VIA MANHOLES MH 41 AND MH 38 (21 IN. STORM SEWER LINE).

(B) EXISTING 44 IN. STORM SEWER TO REMAIN IN PLACE.

(C) OSDF SEDIMENTATION BASIN AND OSDF WEST OUTFALL DITCH TO REMAIN IN PLACE.

(D) DO NOT EXCAVATE IN FINAL DRAINAGE AREA UNTIL EXCAVATION IN THE GENERAL AREA 5 EXCAVATION IS AT DESIGN GRADE. THEN COMPLETE THE EXCAVATION AND DRAIN WATER INTO EXPOSED 30-INCH STORM SEWER AT EDGE OF THE EXCAVATION AREA, NEAR MH35.

LEGEND

- EXCAVATION SUMP
- DRAINAGE TRENCH
- FINAL DRAINAGE AREA BOUNDARY

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
DEWATERING PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20590	99X-5500-G-00704	G-62	C
RES PROJECT NO.	FILENAME 99XG00704.DGN			

CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
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2	479954.91	1349226.53	574.00	20	479903.94	1349772.11	580.00	38	479854.30	1349745.28	569.00	56	479868.37	1349525.94	569.00	74	479771.36	1350057.91	574.00	92	479781.30	1349545.94	565.00
3	479974.35	1349247.14	574.00	21	479936.14	1349819.34	579.00	39	479855.61	1349717.30	569.00	57	479834.11	1349534.33	569.00	75	479770.51	1350051.97	577.00	93	479732.88	1349486.59	569.00
4	479982.33	1349247.14	578.00	22	479932.13	1349832.76	572.00	40	479875.41	1349686.66	571.00	58	479842.31	1349560.60	563.00	76	479773.90	1349961.08	577.00	94	479724.91	1349486.37	565.00
5	479978.75	1349426.71	579.00	23	479967.76	1349881.86	572.00	41	479855.90	1349666.12	571.00	59	479822.38	1349539.01	569.00	77	479766.88	1349865.46	576.00	95	479728.98	1349337.65	565.00
6	479968.76	1349426.39	574.00	24	479979.74	1349882.14	578.00	42	479874.60	1349642.43	571.00	60	479825.72	1349580.15	561.00	78	479767.15	1349855.44	571.00				
7	479977.38	1349458.67	574.00	25	479956.77	1349990.02	571.00	43	479891.46	1349606.69	563.00	61	479831.72	1349580.39	564.00	79	479799.40	1349773.28	571.00				
8	479985.89	1349453.42	579.00	26	479941.27	1350002.73	571.00	44	479891.75	1349590.28	563.00	62	479849.13	1349609.05	563.00	80	479801.79	1349684.75	571.00				
9	479992.18	1349463.60	579.00	27	479888.87	1350019.77	571.00	45	479889.08	1349579.92	563.00	63	479831.22	1349598.79	564.00	81	479756.09	1349639.25	571.00				
10	479983.67	1349468.86	574.00	28	479874.87	1350022.22	571.00	46	479972.64	1349492.21	573.00	64	479825.22	1349598.70	561.00	82	479803.44	1349628.18	565.00				
11	479991.11	1349496.66	574.00	29	479870.88	1350022.56	573.00	47	479967.20	1349489.68	570.00	65	479822.27	1349665.30	571.00	83	479785.59	1349616.06	565.00				
12	480001.10	1349496.97	579.00	30	479879.46	1349996.94	569.00	48	479952.68	1349482.95	567.00	66	479835.66	1349716.36	569.00	84	479780.55	1349618.72	568.00				
13	479998.56	1349580.10	579.00	31	479880.81	1349983.00	568.00	49	479968.56	1349467.72	573.00	67	479834.35	1349744.35	569.00	85	479762.88	1349597.11	568.00				
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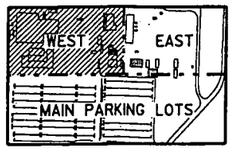
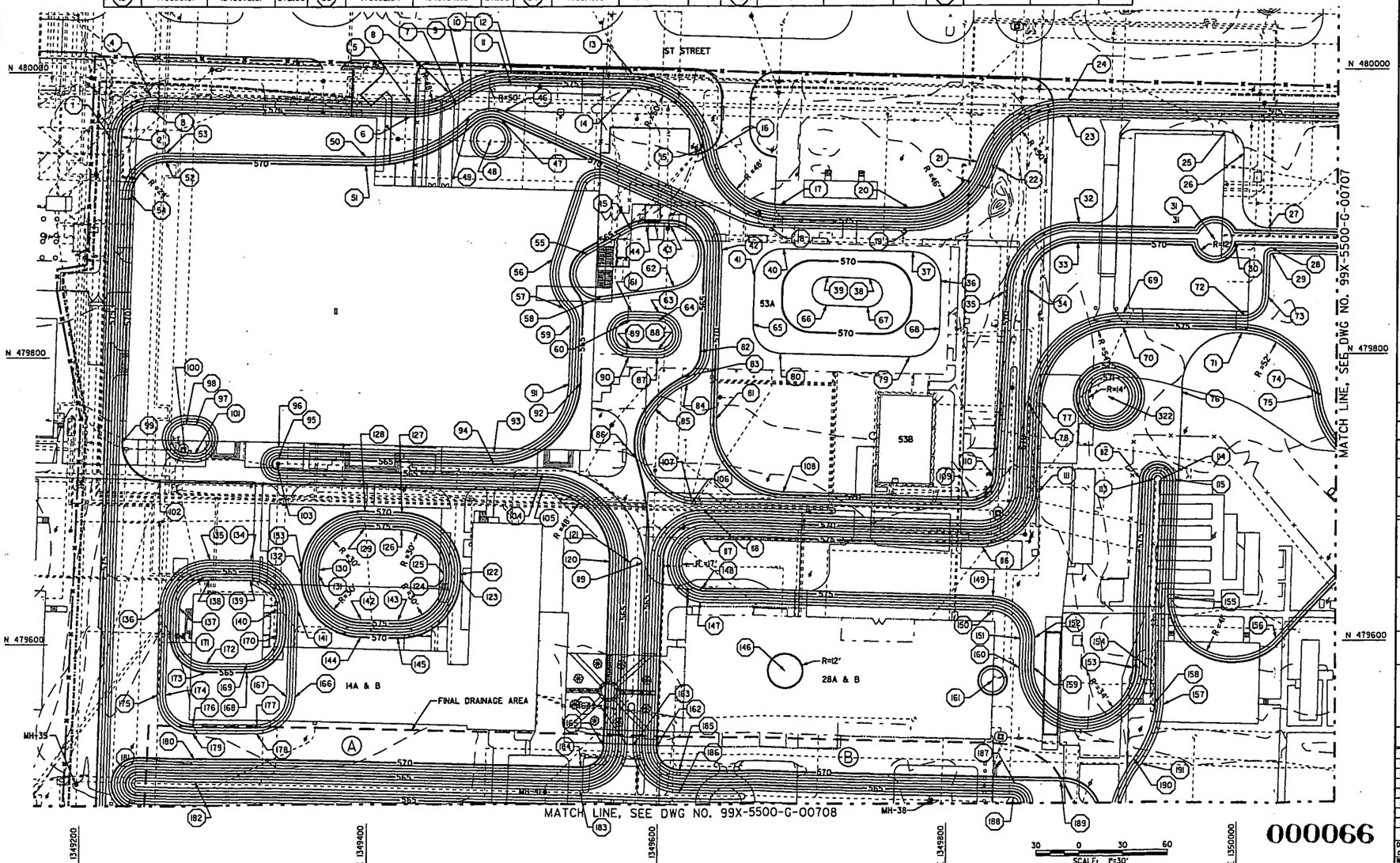
FOR TABLE OF CONTROL POINT NUMBERS 96-191, SEE DWG NO. 99X-5500-G-00707.



NORTH

AREA 5 KEY PLAN
SCALE: NONE



000066

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWINGS LISTED ON DRAWING 99X-5500-X-00641.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY THE ENGINEER.
4. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
5. CONSTRUCTION FENCE MARKS THE LIMIT OF EXCAVATION WITH EXCEPTIONS NOTED.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

KEYED NOTES

(A) TREES SOUTH OF BLDG 14A & B TO BE PROTECTED.

(B) DO NOT EXCAVATE IN FINAL DRAINAGE AREA UNTIL EXCAVATION IN THE GENERAL AREA 5 EXCAVATION IS AT DESIGN GRADE, THEN COMPLETE THE EXCAVATION AND DRAIN WATER INTO EXPOSED 30-INCH STORM SEWER AT EDGE OF THE EXCAVATION AREA, NEAR MH35.

-- 4518

LEGEND

- - - - - - SILT FENCE
—— × —— CONSTRUCTION FENCE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
EXCAVATION/DRAINAGE PLAN (WEST)

APPROVALS

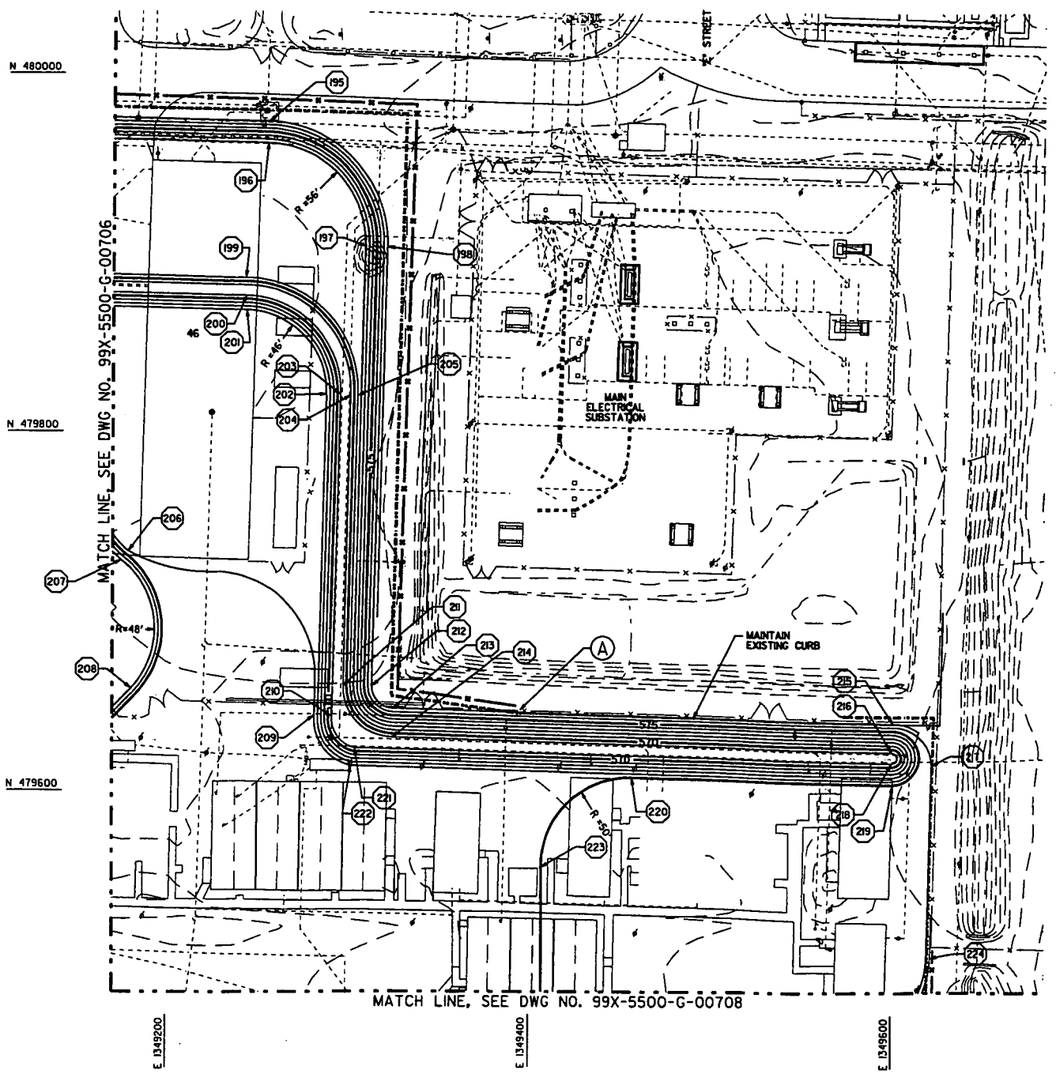
COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	2080	99X-5500-G-00706	G-63	C
RES PROJECT NO.	FILENAME 99XC00706.DGN			

CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
96	479736.94	1349337.87	569.00	114	479712.69	1349946.91	571.00	132	479647.88	1349354.42	570.00	150	479621.90	1349831.74	571.00	168	479580.11	1349316.75	565.00	186	479496.20	1349614.65	562.00
97	479752.95	1349279.86	566.00	115	479712.42	1349956.90	576.00	133	479651.43	1349354.55	570.00	151	479602.28	1349851.03	571.00	169	479586.11	1349316.91	562.00	187	479502.19	1349847.84	568.00
98	479753.49	1349273.16	566.00	116	479666.16	1349824.76	576.00	134	479657.80	1349318.87	569.00	152	479602.69	1349860.96	576.00	170	479605.55	1349337.45	562.00	188	479492.23	1349846.93	563.00
99	479740.96	1349228.64	570.00	117	479672.36	1349631.57	576.00	135	479658.58	1349290.34	569.00	153	479581.49	1349928.98	576.00	171	479607.43	1349268.93	562.00	189	479503.36	1349879.79	569.00
100	479733.50	1349272.61	566.00	118	479692.58	1349630.77	566.00	136	479625.52	1349255.43	569.00	154	479581.53	1349938.98	571.00	172	479586.89	1349288.38	562.00	190	479518.41	1349929.89	571.00
101	479732.96	1349279.31	566.00	119	479655.90	1349588.71	563.00	137	479625.40	1349269.43	562.00	155	479630.47	1349955.88	577.00	173	479580.89	1349288.22	565.00	191	479514.68	1349934.61	574.00
102	479713.24	1349254.89	570.00	120	479656.68	1349566.86	570.00	138	479644.85	1349289.97	562.00	156	479602.51	1350026.74	577.00	174	479565.29	1349259.93	566.00				
103	479720.98	1349337.43	565.00	121	479656.36	1349578.86	564.00	139	479644.07	1349318.50	562.00	157	479555.90	1349949.33	574.00	175	479565.19	1349253.92	569.00				
104	479717.97	1349520.52	564.00	122	479647.91	1349463.95	570.00	140	479623.53	1349337.94	562.00	158	479556.67	1349943.56	571.00	176	479544.75	1349279.37	566.00				
105	479705.98	1349520.19	570.00	123	479644.49	1349463.85	570.00	141	479622.88	1349351.93	569.00	159	479581.97	1349860.46	576.00	177	479543.53	1349323.90	566.00				
106	479696.85	1349622.10	566.00	124	479644.81	1349451.86	570.00	142	479616.34	1349395.57	576.00	160	479582.15	1349850.46	571.00	178	479537.53	1349323.73	569.00				
107	479700.85	1349622.23	568.00	125	479648.24	1349451.95	576.00	143	479615.65	1349421.05	576.00	161	479573.43	1349832.16	569.00	179	479538.49	1349279.20	569.00				
108	479704.77	1349687.62	571.00	126	479679.04	1349422.93	576.00	144	479604.35	1349395.24	570.00	162	479528.66	1349599.27	570.00	180	479520.75	1349280.22	570.00				
109	479700.70	1349814.80	571.00	127	479691.04	1349423.31	570.00	145	479603.65	1349420.72	570.00	163	479529.00	1349583.49	562.00	181	479516.76	1349281.12	568.00				
110	479715.75	1349831.59	571.00	128	479691.85	1349397.87	570.00	146	479580.25	1349689.38	570.00	164	479529.10	1349579.49	562.00	182	479504.82	1349280.80	562.00				
111	479704.46	1349863.43	576.00	129	479679.86	1349397.49	576.00	147	479628.35	1349628.97	571.00	165	479528.87	1349563.49	570.00	183	479497.72	1349547.53	562.00				
112	479713.31	1349932.42	576.00	130	479650.98	1349366.54	576.00	148	479638.24	1349630.47	576.00	166	479562.81	1349350.43	569.00	184	479513.80	1349548.15	570.00				
113	479712.86	1349942.41	571.00	131	479647.44	1349366.41	576.00	149	479631.87	1349832.06	576.00	167	479562.97	1349344.44	566.00	185	479512.18	1349614.86	570.00				

FOR LOCATION OF CONTROL POINT NUMBERS 1-95, SEE DWG NO. 99X-5500-G-00706.



CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
195	479973.17	1350154.76	578.00	211	479658.22	1350197.39	569.00
196	479961.14	1350154.48	572.00	212	479657.85	1350213.39	577.00
197	479903.86	1350209.11	572.00	213	479645.57	1350225.07	577.00
198	479903.60	1350221.10	578.00	214	479629.58	1350224.64	569.00
199	479885.86	1350142.11	571.00	215	479637.80	1350499.87	577.00
200	479875.92	1350142.60	569.00	216	479621.82	1350499.13	569.00
201	479867.92	1350142.63	573.00	217	479613.73	1350520.74	576.00
202	479820.86	1350187.50	573.00	218	479615.81	1350498.97	569.00
203	479820.68	1350195.28	569.00	219	479603.83	1350499.60	575.00
204	479820.16	1350201.11	569.00	220	479607.58	1350356.93	575.00
205	479819.98	1350205.11	571.00	221	479623.65	1350204.07	569.00
206	479733.19	1350077.16	574.00	222	479613.85	1350202.07	574.00
207	479728.27	1350073.27	577.00	223	479557.52	1350305.60	575.00
208	479656.86	1350078.85	577.00	224	479507.33	1350519.91	577.00
209	479641.95	1350181.03	574.00				
210	479641.11	1350191.00	569.00				

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING LISTED ON DRAWING 99X-5500-X-00641.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
4. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
5. CONSTRUCTION FENCE MARKS THE LIMIT OF EXCAVATION WITH EXCEPTIONS NOTED.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518

KEYED NOTES

(A) IN THIS LOCATION TIE CONSTRUCTION FENCE INTO EXISTING CHAIN LINK FENCE AND TIE SILT FENCE INTO EXISTING CURB.

LEGEND

SILT FENCE

CONSTRUCTION FENCE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

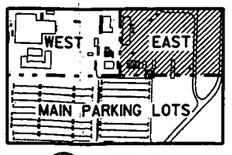
DRAWING TITLE
AREA 5
EXCAVATION/DRAINAGE PLAN (EAST)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20010	99X-5500-G-00707	G-64	C
BES PROJECT NO.	FILENAME 99XC00707.DGN			

000067

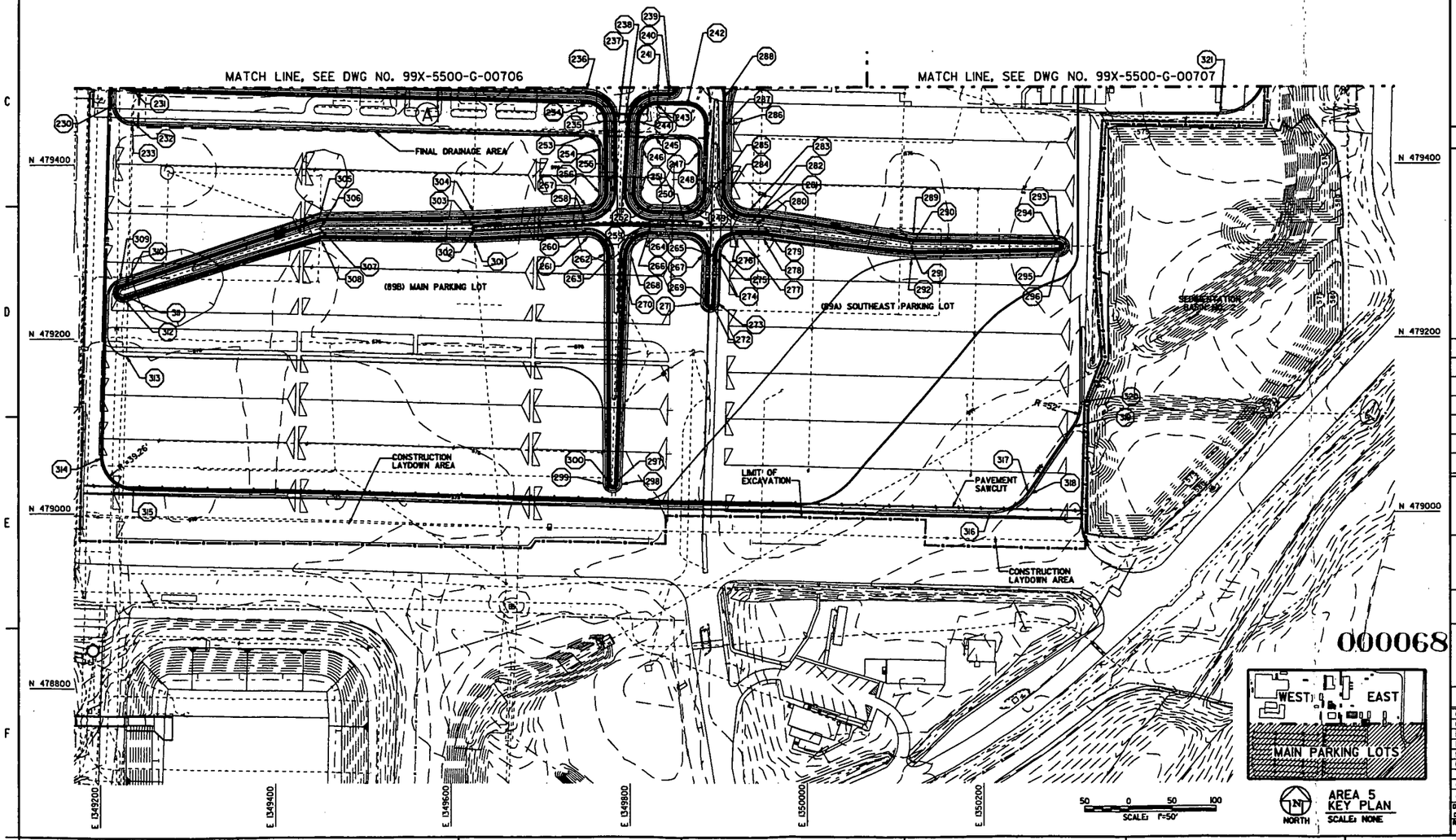


NORTH

AREA 5
KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

CONTROL POINTS																							
PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
230	479470.18	1349217.59	572.00	246	479417.1	1349815.26	574.00	262	479297.44	1349772.54	572.00	278	479313.98	1349951.08	573.00	294	479306.98	1350284.25	569.00	310	479256.60	1349224.96	568.00
231	479483.59	1349239.97	571.00	247	479414.18	1349878.55	574.00	263	479297.42	1349782.66	567.00	279	479327.89	1349952.27	566.00	295	479302.98	1350284.26	569.00	311	479250.87	1349226.81	568.00
232	479449.66	1349237.07	572.00	248	479366.17	1349893.34	566.00	264	479315.75	1349823.49	573.00	280	479332.90	1349945.80	566.00	296	479292.98	1350284.27	574.00	312	479243.27	1349229.29	572.00
233	479445.68	1349236.96	574.00	249	479352.68	1349863.02	574.00	265	479295.76	1349891.03	569.00	281	479348.23	1349950.91	574.00	297	479032.81	1349791.10	573.00	313	479180.35	1349230.33	573.00
234	479470.29	1349752.29	571.00	250	479336.68	1349862.52	566.00	266	479327.74	1349823.63	567.00	282	479333.13	1349937.44	566.00	298	479033.14	1349783.11	569.00	314	479063.75	1349200.87	575.00
235	479449.93	1349771.77	571.00	251	479367.95	1349812.48	574.00	267	479296.02	1349883.07	573.00	283	479349.09	1349936.42	574.00	299	479033.44	1349771.11	573.00	315	479027.50	1349238.06	575.00
236	479486.67	1349752.74	563.00	252	479353.70	1349826.09	574.00	268	479295.70	1349801.33	573.00	284	479371.48	1349913.98	574.00	300	479033.26	1349779.11	569.00	316	478998.60	1350207.27	577.00
237	479450.97	1349787.81	563.00	253	479432.30	1349751.45	574.00	269	479240.25	1349889.24	569.00	285	479372.45	1349898.01	566.00	301	479310.89	1349627.45	572.00	317	479023.23	1350250.46	576.00
238	479450.97	1349795.19	563.00	254	479417.29	1349766.09	574.00	270	479296.75	1349789.37	567.00	286	479445.82	1349914.92	574.00	302	479324.89	1349627.11	565.00	318	479021.05	1350253.81	578.00
239	479484.48	1349846.30	563.00	255	479366.55	1349784.55	565.00	271	479240.36	1349881.27	573.00	287	479445.93	1349909.17	571.00	303	479328.88	1349626.91	565.00	319	479097.76	1350301.56	577.00
240	479474.50	1349845.60	568.00	256	479367.48	1349766.57	574.00	272	479240.12	1349893.24	569.00	288	479477.44	1349907.77	570.00	304	479346.86	1349626.01	574.00	320	479126.29	1350310.03	577.00
241	479484.84	1349832.05	563.00	257	479353.15	1349751.55	574.00	273	479239.72	1349901.26	573.00	289	479320.22	1350120.01	574.00	305	479344.79	1349451.19	574.00	321	479458.71	1350467.93	576.00
242	479467.98	1349865.88	571.00	258	479335.15	1349751.64	565.00	274	479297.73	1349895.13	569.00	290	479308.22	1350088.65	568.00	306	479328.81	1349451.99	566.00	322	479770.74	1349911.20	571.00
243	479468.85	1349831.64	571.00	259	479335.70	1349825.60	565.00	275	479297.47	1349903.12	573.00	291	479302.72	1350088.39	568.00	307	479324.81	1349451.99	566.00				
244	479449.17	1349811.07	571.00	260	479327.18	1349753.68	567.00	276	479314.88	1349921.61	573.00	292	479290.72	1350117.84	574.00	308	479312.81	1349451.99	572.00				
245	479430.28	1349830.47	574.00	261	479317.19	1349754.18	572.00	277	479322.88	1349921.83	569.00	293	479316.98	1350284.23	574.00	309	479268.89	1349222.79	574.00				



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWINGS LISTED ON DRAWING 99X-5500-X-00641.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER
4. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
5. CONSTRUCTION FENCE MARKS THE LIMIT OF EXCAVATION WITH EXCEPTIONS NOTED.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

— 4518

KEYED NOTES

(A) DO NOT EXCAVATE IN FINAL DRAINAGE AREA UNTIL EXCAVATION IN THE GENERAL AREA 5 EXCAVATION IS AT DESIGN GRADE, THEN COMPLETE THE EXCAVATION AND DRAIN WATER INTO EXPOSED 30-INCH STORM SEWER AT EDGE OF THE EXCAVATION AREA, NEAR MH35.

LEGEND

- SILT FENCE
- CONSTRUCTION FENCE
- PAVEMENT SAWCUT

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	5/22/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
EXCAVATION/DRAINAGE PLAN (MAIN PARKING LOTS)

000068

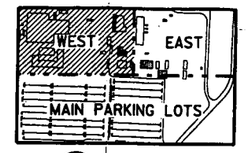
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20080	99X-5500-G-00708	G-65	C
RES PROJECT NO.	FILENAME 99X00708.DGN			

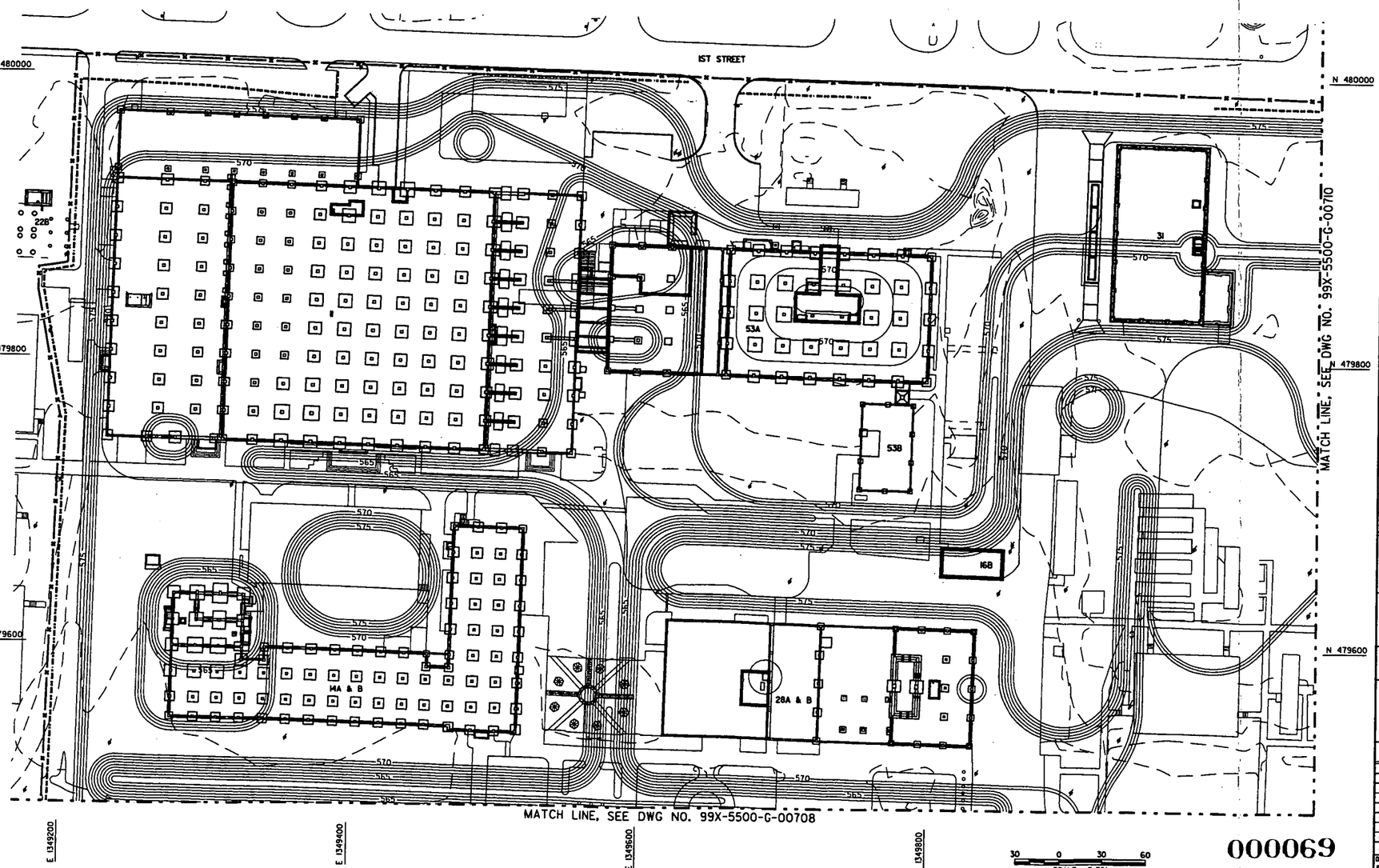
TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
11X-5900-S-00770	BUILDING 11 FOUNDATION PLAN - EAST	S0001
11X-5900-S-00771	BUILDING 11 FOUNDATION PLAN - WEST	S0002
11X-5900-S-00772	BUILDING 11 SLAB PLAN - EAST	S0001
11X-5900-S-00773	BUILDING 11 SLAB PLAN - WEST	S0002
14X-5900-S-00531	BUILDING 14A & 14B FOUNDATION PLAN	S0001
14X-5900-S-00532	BUILDING 14A & 14B SLAB PLAN	S0002
16H-5900-S-00114	BUILDING 16 FOUNDATION PLAN	S0001
16H-5900-S-00115	BUILDING 16 SLAB PLAN	S0002
22G-5900-S-00980	BUILDING 22B FOUNDATION PLAN	S0001
22G-5900-S-00981	BUILDING 22B SLAB PLAN	S0002
22B-5900-S-00345	BUILDING 28A & B FOUNDATION PLAN	S0001
22B-5900-S-00346	BUILDING 28A & B SLAB PLAN	S0002
31X-5900-S-00059	BUILDING 31A & 31B FOUNDATION PLAN	S0001
31X-5900-S-00060	BUILDING 31A & 31B SLAB PLAN	S0002
53B-5900-S-00431	BUILDING 53A FOUNDATION PLAN	S0001
53B-5900-S-00432	BUILDING 53A SLAB PLAN	S0002
53C-5900-S-00433	BUILDING 53B FOUNDATION PLAN	S0001
53C-5900-S-00434	BUILDING 53B SLAB PLAN	S0002



NORTH

AREA 5
KEY PLAN
SCALE: NONE



000069

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

4518

KEYED NOTES

LEGEND

SILT FENCE

CONSTRUCTION FENCE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
FOUNDATION PLAN (WEST)

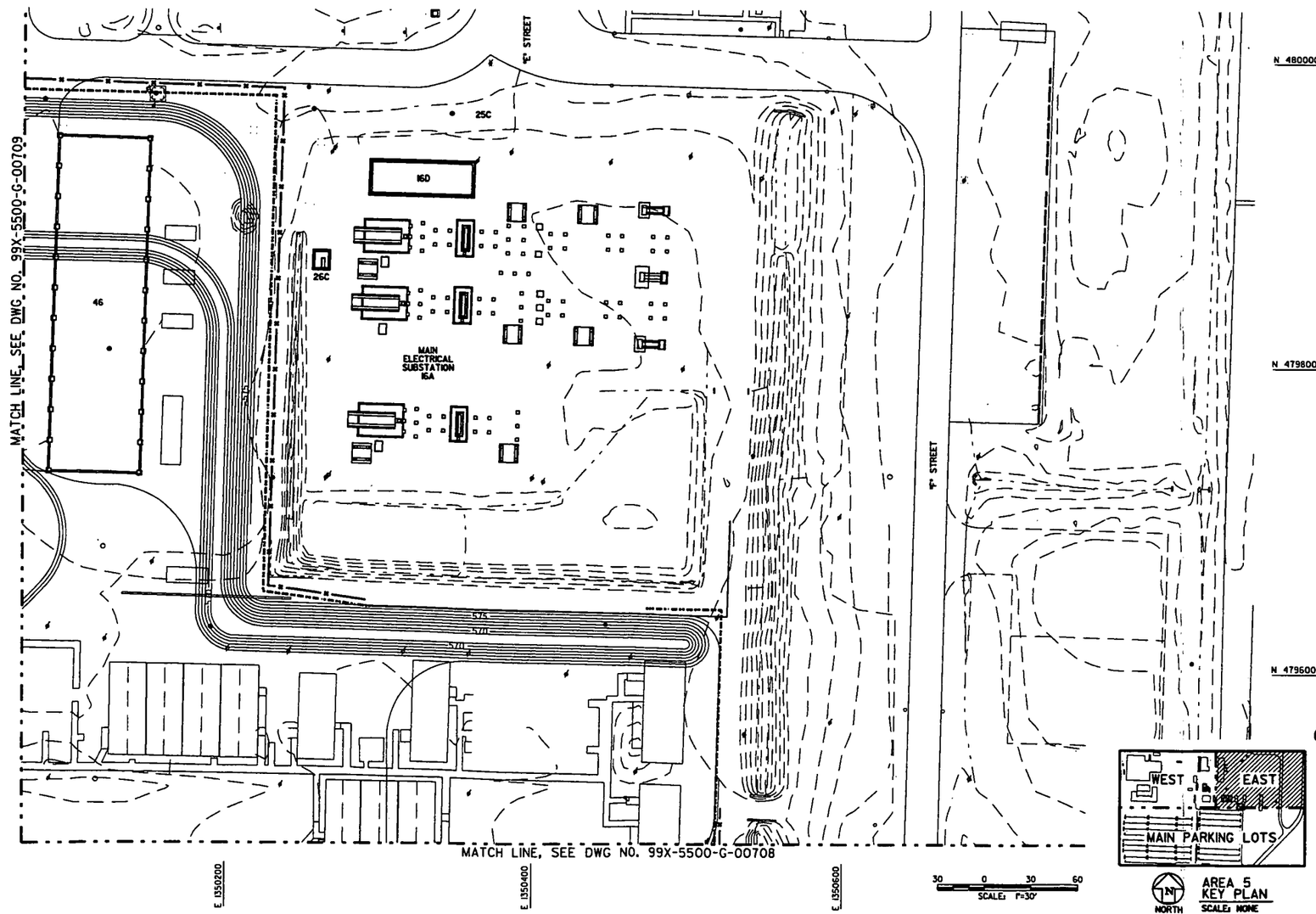
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	2080	99X-5500-G-00709	G-66	B
RES PROJECT NO.	FILENAME 99X0G00709.DGN			

TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
25H-5900-S-00227	BUILDING 25C FOUNDATION PLAN	S0001
25H-5900-S-00228	BUILDING 25C SLAB PLAN	S0002
16X-5900-S-00117	BUILDING 26C FOUNDATION PLAN	S0001
16X-5900-S-00118	BUILDING 26C SLAB PLAN	S0002
46X-5900-S-00068	BUILDING 46A, 46B, & 46C FOUNDATION PLAN	S0001
46X-5900-S-00069	BUILDING 46A, 46B, & 46C SLAB PLAN	S0002



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

--4518

KEYED NOTES

LEGEND

SILT FENCE

CONSTRUCTION FENCE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

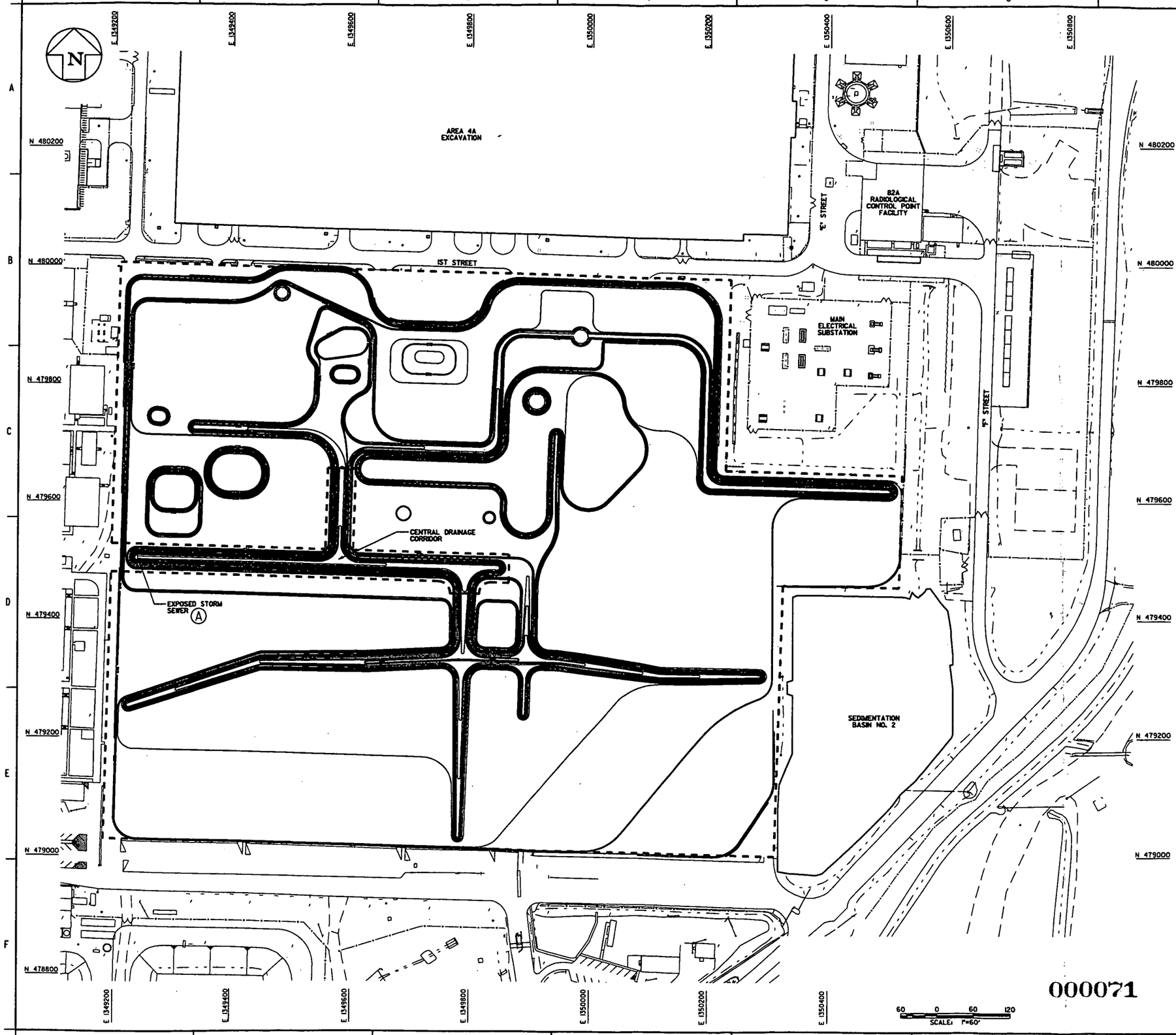
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
000070 FOUNDATION PLAN (EAST)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	2080	99X-5500-G-00710	G-67	B
RES PROJECT NO.	FILENAME 99X5000710.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. EXISTING CONSTRUCTION SAFETY FENCE AND SILT FENCES AT LIMIT OF EXCAVATION TO REMAIN IN PLACE. MAINTAIN AS NECESSARY.
3. PRECERTIFIED AREA TO DRAIN TO CENTRAL DRAINAGE CORRIDOR, AND DISCHARGE THROUGH THE EXPOSED STORM SEWER TO THE SWRB FOR AWWT PHASE I TREATMENT.
4. CENTRAL DRAINAGE CORRIDOR TO BE INCLUDED WITH MDC PRE-CERTIFICATION EFFORT, BECAUSE OF POTENTIAL BACK FLOW OUT OF EXPOSED STORM SEWER.
5. SUSPENDED SOLIDS IN RUNOFF ARE TO BE REMOVED IN SWRB.

4518

KEYED NOTES

(A) AT BEGINNING OF MDC PRECERTIFICATION EFFORT, PLUG EXPOSED STORM SEWER TO PREVENT BACKFLOW.

LEGEND

- - - PROPOSED PRECERTIFICATION AREA

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

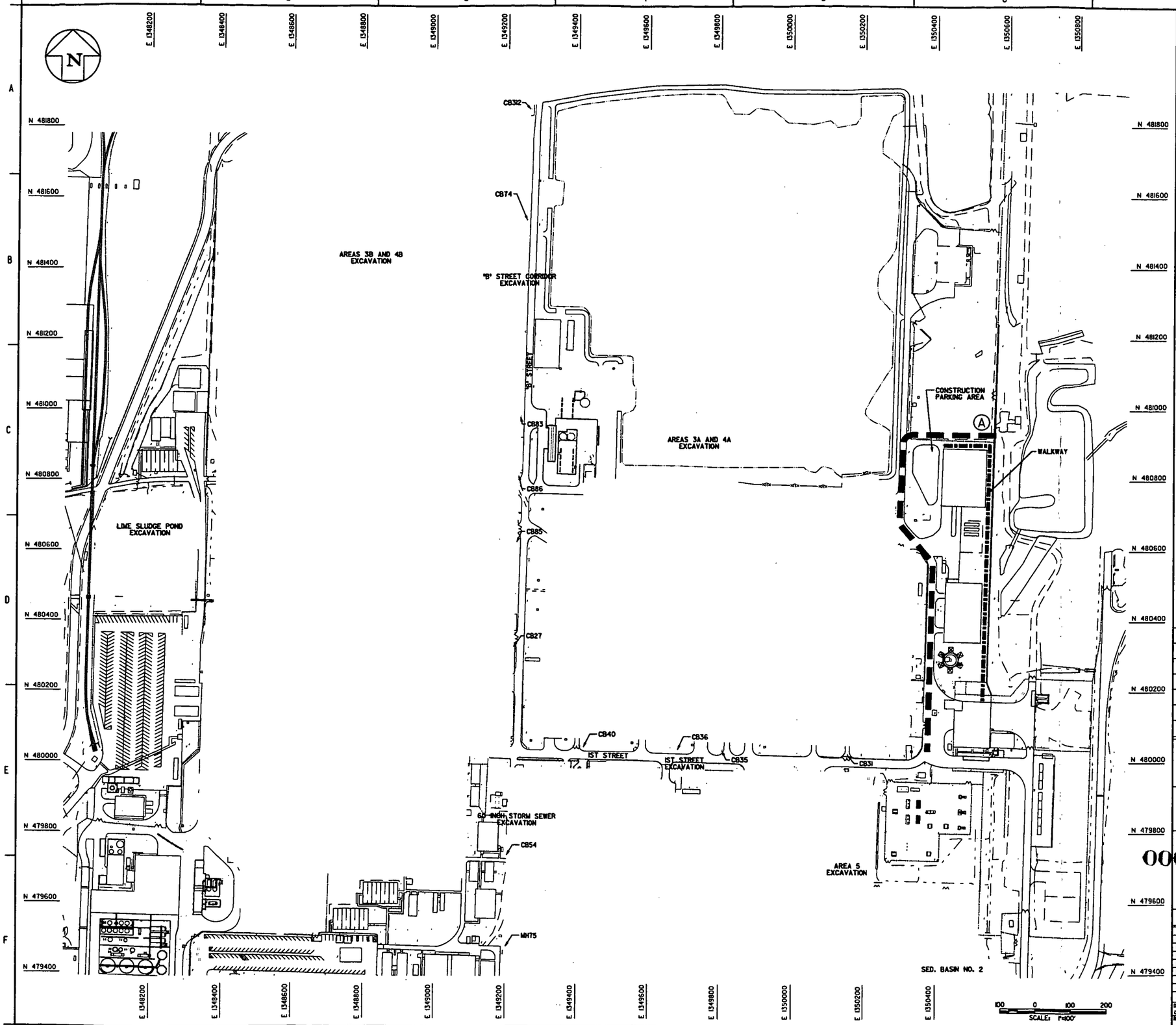
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 5
PRECERTIFICATION CONFIGURATION

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00712	G-68	A
REF PROJECT NO.	FILENAME 99X00072.DGN			



GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SPECIFICATION 02150.
3. SUPPORT FACILITIES AND SMTA SHALL BE FIELD LOCATED.
4. PORTIONS OF "B", "E", AND 1ST STREETS ARE PROPOSED HAUL ROUTES AS SHOWN. CHANGES IN TRAFFIC ROUTING SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER AS FIELD ACTIVITIES PROGRESS.
5. THIS DRAWING PRESENTS THE SOURCE MATERIAL TRACKING LOCATIONS (MTL'S) OF THE MATERIALS EXCAVATED, STOCK-PILED, REUSED OR TRANSPORTED TO THE OSDF, AND SMTA. PROVIDE THE CONSTRUCTION MANAGER WITH THE QUANTITY, MATERIAL TYPE, SOURCE LOCATION (MTL), AND DESTINATION LOCATION (MTL) OF ALL MATERIALS MOVED BETWEEN MTL'S DAILY. NO TRACKING IS REQUIRED FOR MATERIALS MOVED WITHIN A MTL.
6. MATERIALS TRANSPORTED TO THE OSDF AND SMTA WILL BE TRACKED BY THE CONSTRUCTION MANAGER.

KEYED NOTES

(A) OSDF ACCESS TO BE INSTALLED BY OTHERS

-- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

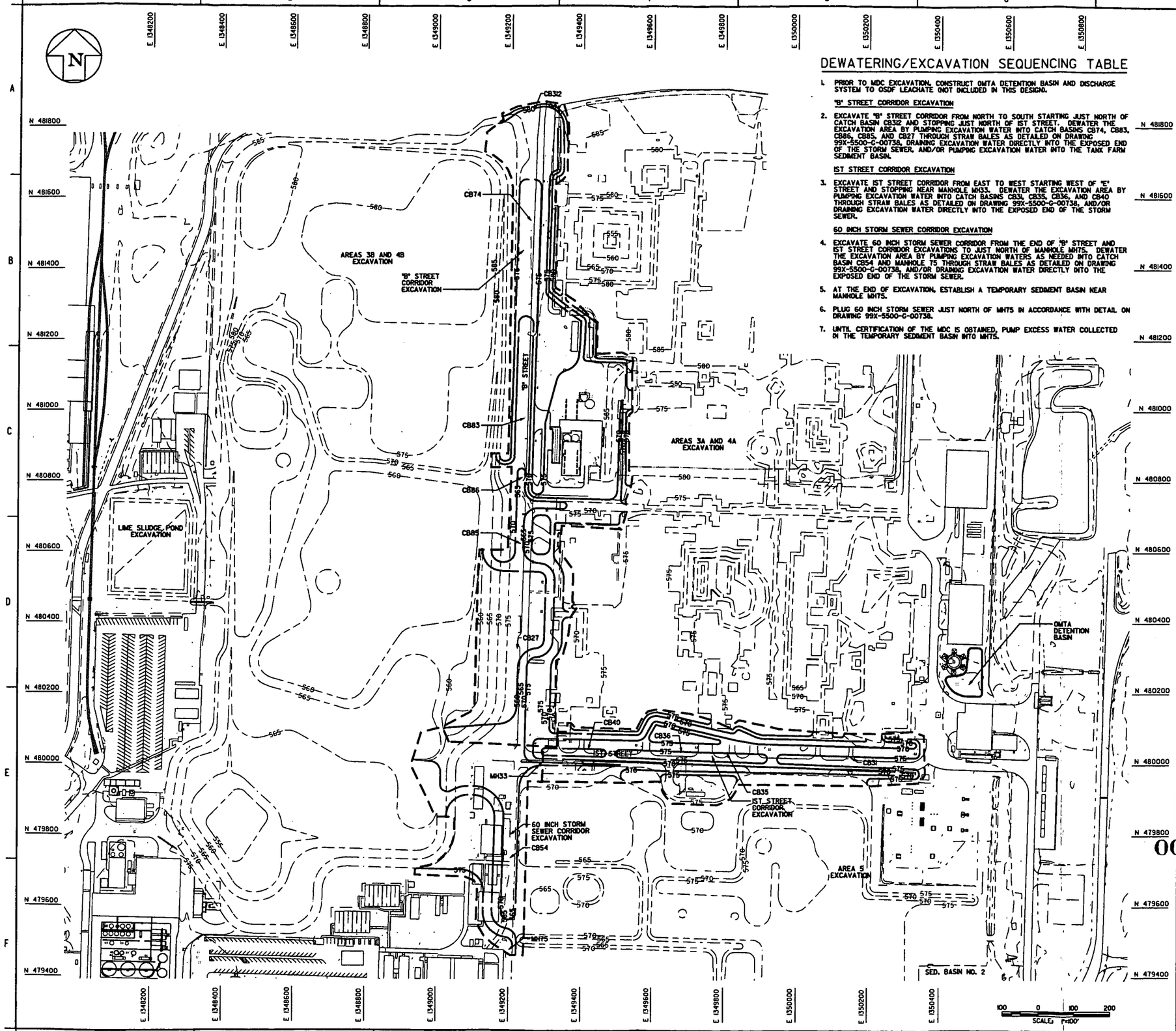
000072

DRAWING TITLE
MDC
TRAFFIC FLOW AND MATERIAL TRACKING PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
D. FOX	2080	99X-5500-G-00713	G-69	C
RES PROJECT NO.	FILENAME 99XG00713.DGN			



DEWATERING/EXCAVATION SEQUENCING TABLE

1. PRIOR TO MDC EXCAVATION, CONSTRUCT OMTA DETENTION BASIN AND DISCHARGE SYSTEM TO OSDF LEACHATE (NOT INCLUDED IN THIS DESIGN).

"B" STREET CORRIDOR EXCAVATION

2. EXCAVATE "B" STREET CORRIDOR FROM NORTH TO SOUTH STARTING JUST NORTH OF CATCH BASIN CB312 AND STOPPING JUST NORTH OF IST STREET. DEWATER THE EXCAVATION AREA BY PUMPING EXCAVATION WATER INTO CATCH BASINS CB74, CB83, CB86, CB85, AND CB27 THROUGH STRAW BALES AS DETAILED ON DRAWING 99X-5500-G-00738, DRAINING EXCAVATION WATER DIRECTLY INTO THE EXPOSED END OF THE STORM SEWER, AND/OR PUMPING EXCAVATION WATER INTO THE TANK FARM SEDIMENT BASIN.

IST STREET CORRIDOR EXCAVATION

3. EXCAVATE IST STREET CORRIDOR FROM EAST TO WEST STARTING WEST OF "E" STREET AND STOPPING NEAR MANHOLE MH33. DEWATER THE EXCAVATION AREA BY PUMPING EXCAVATION WATER INTO CATCH BASINS CB31, CB35, CB36, AND CB40 THROUGH STRAW BALES AS DETAILED ON DRAWING 99X-5500-G-00738, AND/OR DRAINING EXCAVATION WATER DIRECTLY INTO THE EXPOSED END OF THE STORM SEWER.

60 INCH STORM SEWER CORRIDOR EXCAVATION

4. EXCAVATE 60 INCH STORM SEWER CORRIDOR FROM THE END OF "B" STREET AND IST STREET CORRIDOR EXCAVATIONS TO JUST NORTH OF MANHOLE MH75. DEWATER THE EXCAVATION AREA BY PUMPING EXCAVATION WATERS AS NEEDED INTO CATCH BASIN CB54 AND MANHOLE 75 THROUGH STRAW BALES AS DETAILED ON DRAWING 99X-5500-G-00738, AND/OR DRAINING EXCAVATION WATER DIRECTLY INTO THE EXPOSED END OF THE STORM SEWER.
5. AT THE END OF EXCAVATION, ESTABLISH A TEMPORARY SEDIMENT BASIN NEAR MANHOLE MH75.
6. PLUG 60 INCH STORM SEWER JUST NORTH OF MH75 IN ACCORDANCE WITH DETAIL ON DRAWING 99X-5500-G-00738.
7. UNTIL CERTIFICATION OF THE MDC IS OBTAINED, PUMP EXCESS WATER COLLECTED IN THE TEMPORARY SEDIMENT BASIN INTO MH75.

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/1/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

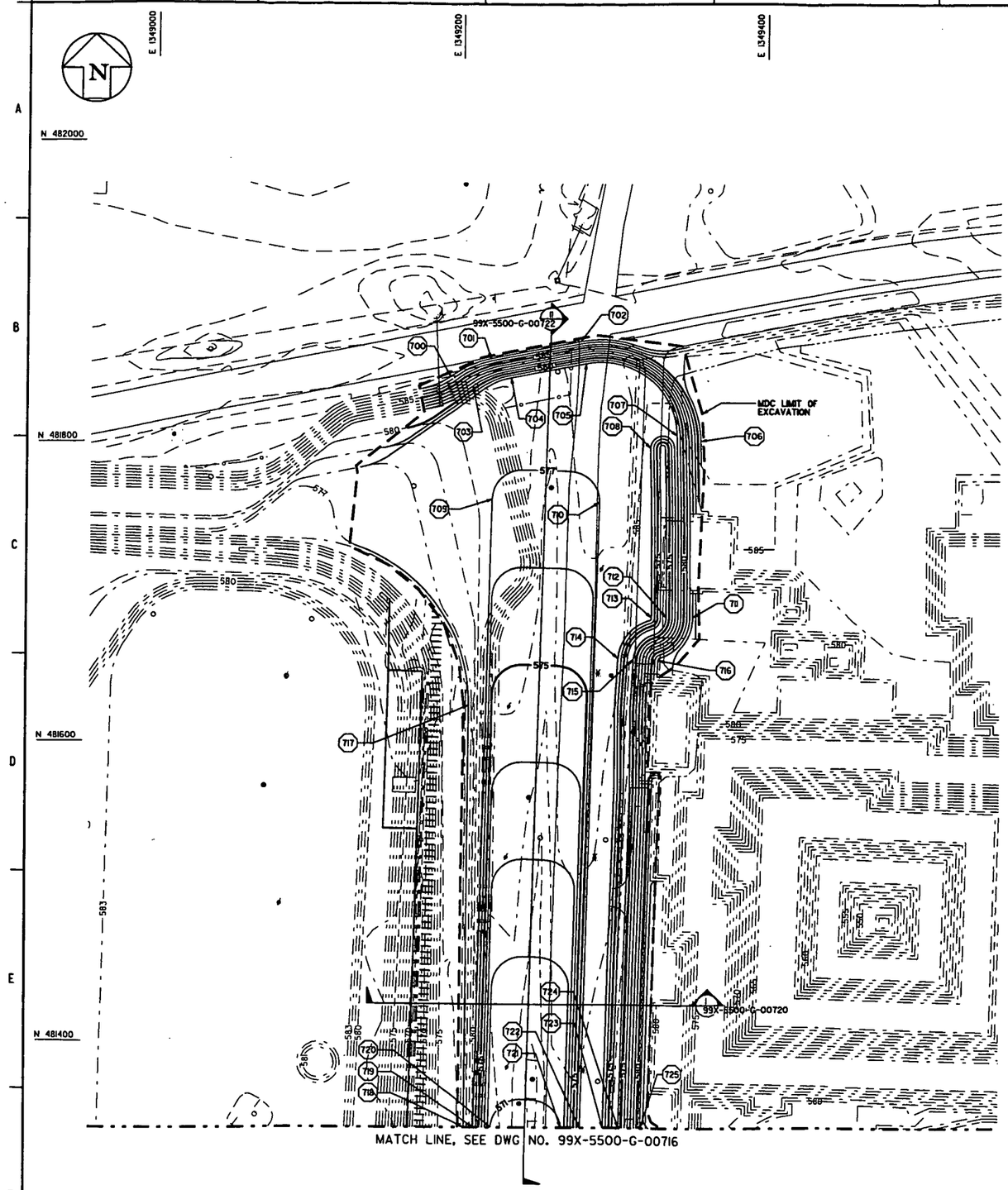
PROJECT NAME
000073 SOIL REMEDIATION

DRAWING TITLE
MDC
DEWATERING AND EXCAVATION PLAN

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
D. FOX	20890	99X-5500-G-00714	G-70	C
REF. PROJECT NO.	FILENAME 99XG00714.DGN			



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
700	481844.23	1349192.57	588.00
701	481855.85	1349219.59	588.00
702	481867.40	1349278.34	588.00
703	481837.75	1349207.62	581.00
704	481843.27	1349233.37	578.00
705	481852.85	1349282.08	578.00
706	481801.27	1349357.81	586.00
707	481804.96	1349341.72	578.00
708	481796.54	1349323.96	577.00
709	481762.36	1349221.15	577.00
710	481760.56	1349291.13	577.00
711	481683.58	1349353.17	583.00
712	481683.51	1349335.17	574.00
713	481683.47	1349325.23	577.00
714	481656.34	1349303.75	577.00
715	481655.77	1349313.73	574.00
716	481654.82	1349329.70	582.00
717	481624.54	1349205.94	577.00
718	481343.05	1349203.87	577.00
719	481343.05	1349210.37	577.00
720	481343.05	1349222.39	571.00
721	481343.05	1349268.28	571.00
722	481343.05	1349280.39	577.00
723	481343.05	1349295.23	577.00
724	481344.32	1349305.27	574.00
725	481343.05	1349319.28	581.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00641.
3. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
4. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
5. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
000074 SOIL REMEDIATION

DRAWING TITLE
MDC
EXCAVATION/DRAINAGE PLAN (NORTH)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY DRF
RES. PROJECT NO.
PROJECT NO. 2080
FILENAME 99XG00715.DGN
DRAWING INDEX CODE NO. 99X-5500-G-00715
SHEET NO. G-71
REV. NO. C

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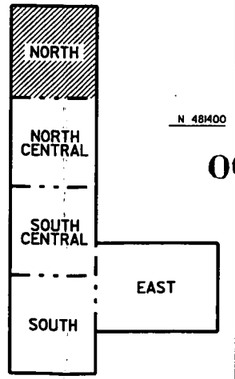
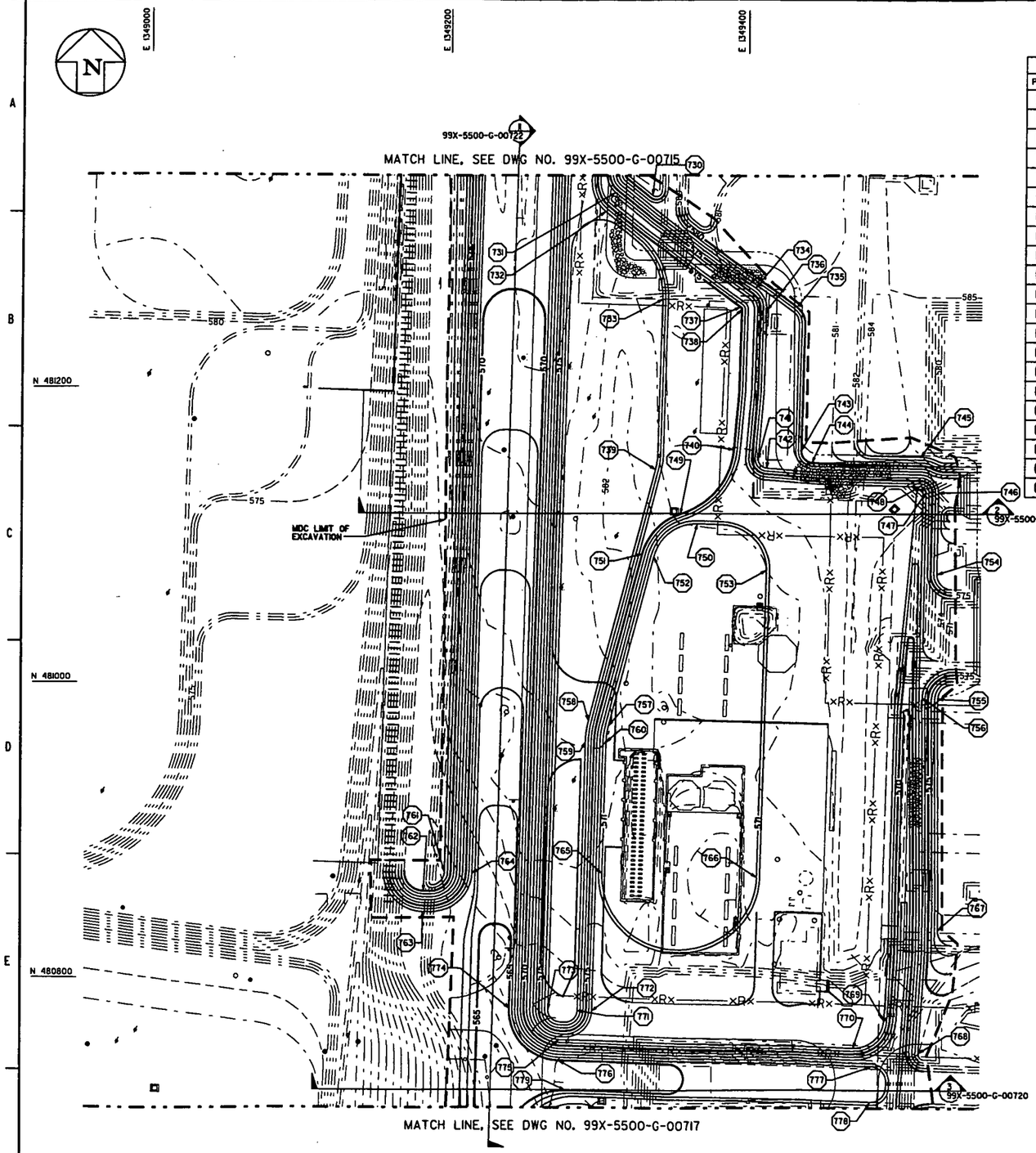
SCALE: 1"=30'



NORTH

MDC KEY PLAN
SCALE: NONE

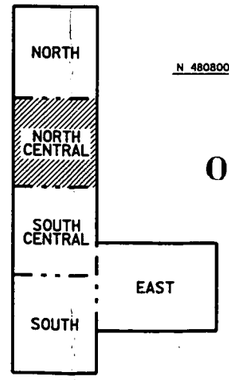


DESIGN GRADE CONTROL POINTS							
PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
730	481329.57	1349335.66	581.00	751	481087.68	1349330.18	575.00
731	481331.50	1349311.15	574.00	752	481085.68	1349337.93	571.00
732	481318.70	1349304.70	577.00	753	481076.93	1349412.85	571.00
733	481259.65	1349343.12	578.00	754	481074.11	1349526.72	577.00
734	481267.71	1349404.94	577.00	755	480989.65	1349527.49	578.00
735	481254.93	1349432.32	580.00	756	480990.41	1349517.50	573.00
736	481252.76	1349412.23	577.00	757	480971.12	1349308.36	571.00
737	481254.85	1349395.43	575.00	758	480974.62	1349294.80	578.00
738	481253.19	1349396.24	575.00	759	480960.37	1349292.79	578.00
739	481144.72	1349338.71	578.00	760	480959.99	1349306.79	571.00
740	481158.46	1349391.59	575.00	761	480871.44	1349198.24	577.00
741	481152.55	1349407.16	577.00	762	480858.82	1349184.19	575.00
742	481146.08	1349412.68	577.00	763	480844.83	1349183.76	568.00
743	481157.96	1349435.73	580.00	764	480870.98	1349216.22	568.00
744	481149.77	1349443.12	580.00	765	480871.10	1349304.36	571.00
745	481153.61	1349516.08	583.00	766	480868.36	1349407.14	571.00
746	481129.44	1349527.52	577.00	767	480832.93	1349527.81	578.00
747	481129.56	1349519.52	573.00	768	480749.98	1349515.51	574.00
748	481133.62	1349515.61	573.00	769	480772.12	1349492.86	572.00
749	481114.59	1349356.08	575.00	770	480753.38	1349472.35	572.00
750	481108.17	1349367.80	571.00	771	480778.44	1349287.82	578.00
				772	480778.16	1349297.81	573.00
				773	480778.97	1349267.87	578.00
				774	480779.64	1349241.88	565.00
				775	480758.77	1349275.32	572.00
				776	480744.78	1349274.94	565.00
				777	480741.04	1349484.54	566.00
				778	480717.05	1349483.74	566.00
				779	480724.64	1349279.54	565.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00641.
3. FOR ADDITIONAL SECTION LOCATIONS SEE FOUNDATION DRAWINGS.
4. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
5. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518



MDC KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000075

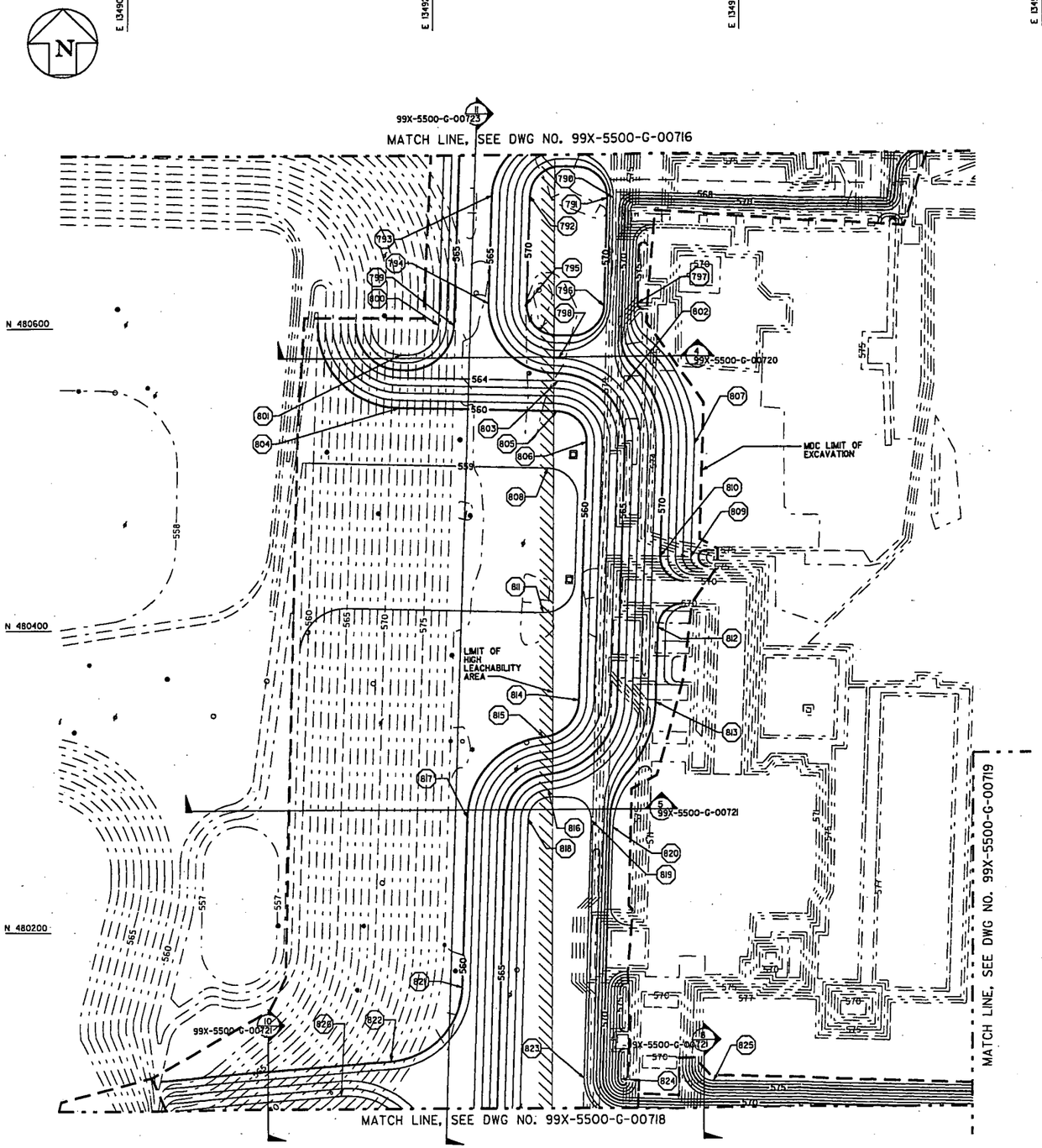
PROJECT NAME: SOIL REMEDIATION

DRAWING TITLE:
MDC
EXCAVATION/DRAINAGE PLAN (NORTH CENTRAL)

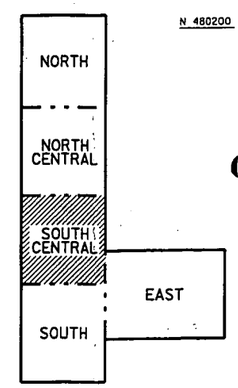
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			OA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20680	99X-5500-G-00716	G-72	C
RES PROJECT NO.	FILENAME 99XG00716.DGN			



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
790	480684.63	1349319.09	568.00
791	480684.71	1349315.09	570.00
792	480686.01	1349264.48	570.00
793	480686.66	1349239.49	565.00
794	480615.45	1349237.66	565.00
795	480614.81	1349262.65	570.00
796	480613.51	1349313.34	570.00
797	480614.99	1349335.39	575.00
798	480579.24	1349284.13	567.00
799	480601.18	1349215.28	565.00
800	480601.44	1349205.29	567.00
801	480582.07	1349180.76	567.00
802	480563.19	1349328.28	568.00
803	480564.25	1349283.71	564.00
804	480547.08	1349179.80	560.00
805	480544.25	1349283.17	560.00
806	480523.72	1349302.61	560.00
807	480521.80	1349372.59	574.00
808	480506.59	1349277.14	559.00
809	480446.88	1349370.54	574.00
810	480447.43	1349350.54	570.00
811	480410.71	1349274.51	559.00
812	480400.44	1349349.26	570.00
813	480350.98	1349347.91	570.00
814	480352.34	1349297.92	560.00
815	480328.12	1349275.09	560.00
816	480293.25	1349278.11	567.00
817	480273.83	1349224.85	560.00
818	480273.74	1349264.84	568.00
819	480272.49	1349306.42	568.00
820	480267.97	1349320.13	571.00
821	480162.66	1349221.78	560.00
822	480114.19	1349175.71	560.00
823	480102.58	1349301.89	568.00
824	480101.97	1349325.88	576.00
825	480100.39	1349385.95	577.00
826	480091.55	1349142.96	564.00



NORTH

MDC KEY PLAN
SCALE: NONE

30 0 30 60
SCALE: 1"=30'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00641.
3. FOR ADDITIONAL SECTION LOCATIONS SEE FOUNDATION DRAWINGS.
4. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
5. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

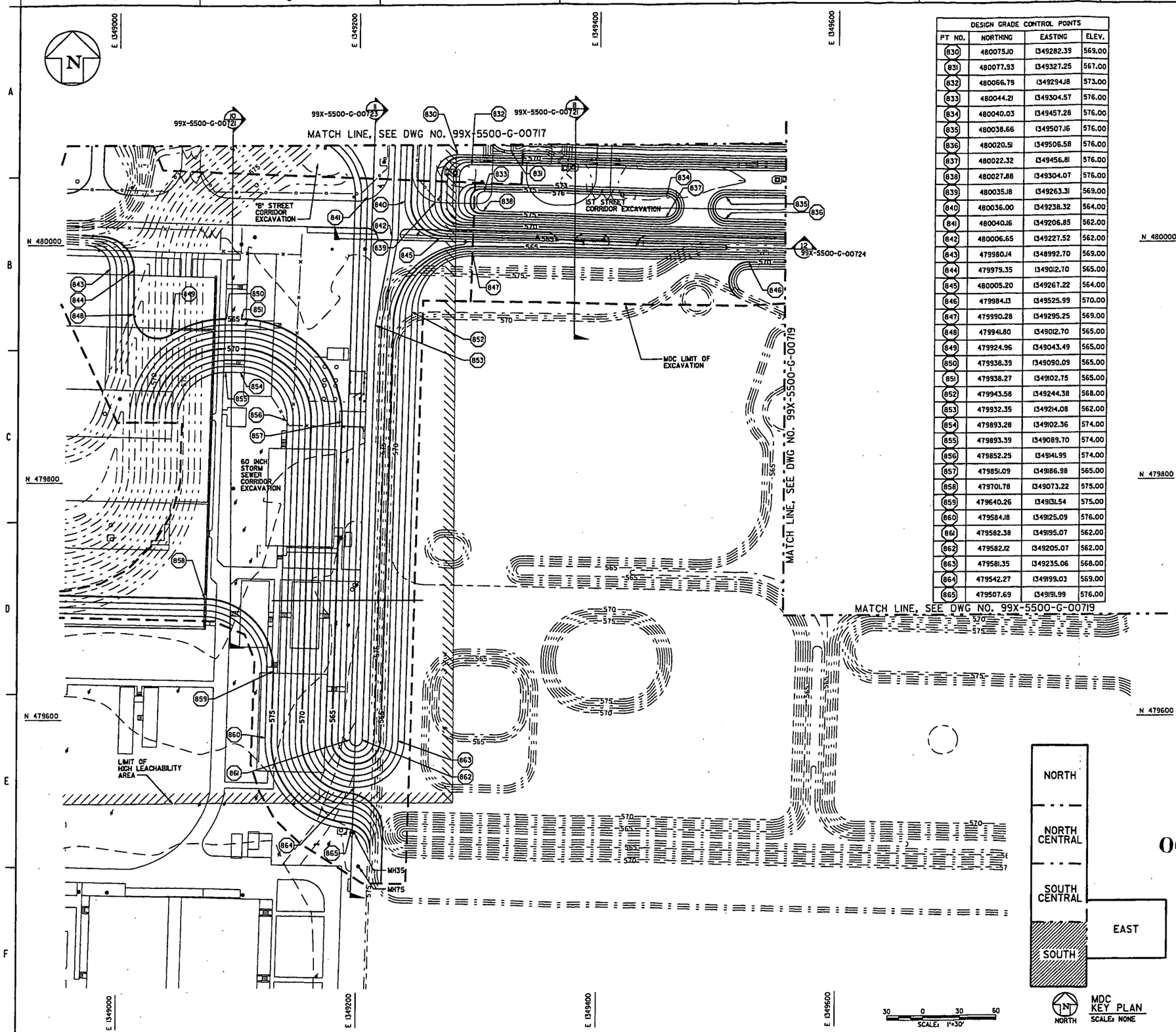
000076 PROJECT NAME SOIL REMEDIATION

DRAWING TITLE
MDC
EXCAVATION/DRAINAGE PLAN (SOUTH CENTRAL)

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20180	99X-5500-G-00717	G-73	C
RES PROJECT NO.	FILENAME 99XG00717.DGN			



DESIGN GRADE CONTROL POINTS			
PT NO.	NORTHING	EASTING	ELEV.
830	480075.10	1349282.39	569.00
831	480077.93	1349327.25	567.00
832	480066.79	1349294.18	573.00
833	480044.21	1349304.57	576.00
834	480040.03	1349457.28	576.00
835	480038.66	1349507.16	576.00
836	480020.51	1349506.58	576.00
837	480022.32	1349456.81	576.00
838	480027.88	1349304.07	576.00
839	480035.18	1349263.31	569.00
840	480036.00	1349238.32	564.00
841	480040.16	1349206.85	562.00
842	480006.65	1349227.52	562.00
843	479980.14	1348992.70	569.00
844	479979.35	1349012.70	565.00
845	480005.20	1349267.22	564.00
846	479984.13	1349525.99	570.00
847	479990.28	1349295.25	569.00
848	479941.80	1349012.70	565.00
849	479924.96	1349043.49	565.00
850	479938.39	1349090.09	565.00
851	479938.27	1349102.75	565.00
852	479943.58	1349244.38	568.00
853	479932.35	1349214.08	562.00
854	479893.28	1349102.36	574.00
855	479893.39	1349089.70	574.00
856	479852.25	1349141.99	574.00
857	479851.09	1349186.98	565.00
858	479701.78	1349073.22	575.00
859	479640.26	1349131.54	575.00
860	479584.18	1349125.09	576.00
861	479582.38	1349195.07	562.00
862	479582.12	1349205.07	562.00
863	479581.35	1349235.06	568.00
864	479542.27	1349199.03	569.00
865	479507.69	1349191.99	576.00

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00641.
3. FOR ADDITIONAL SECTION LOCATIONS SEE FOUNDATION DRAWINGS.
4. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS, WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
5. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

000077

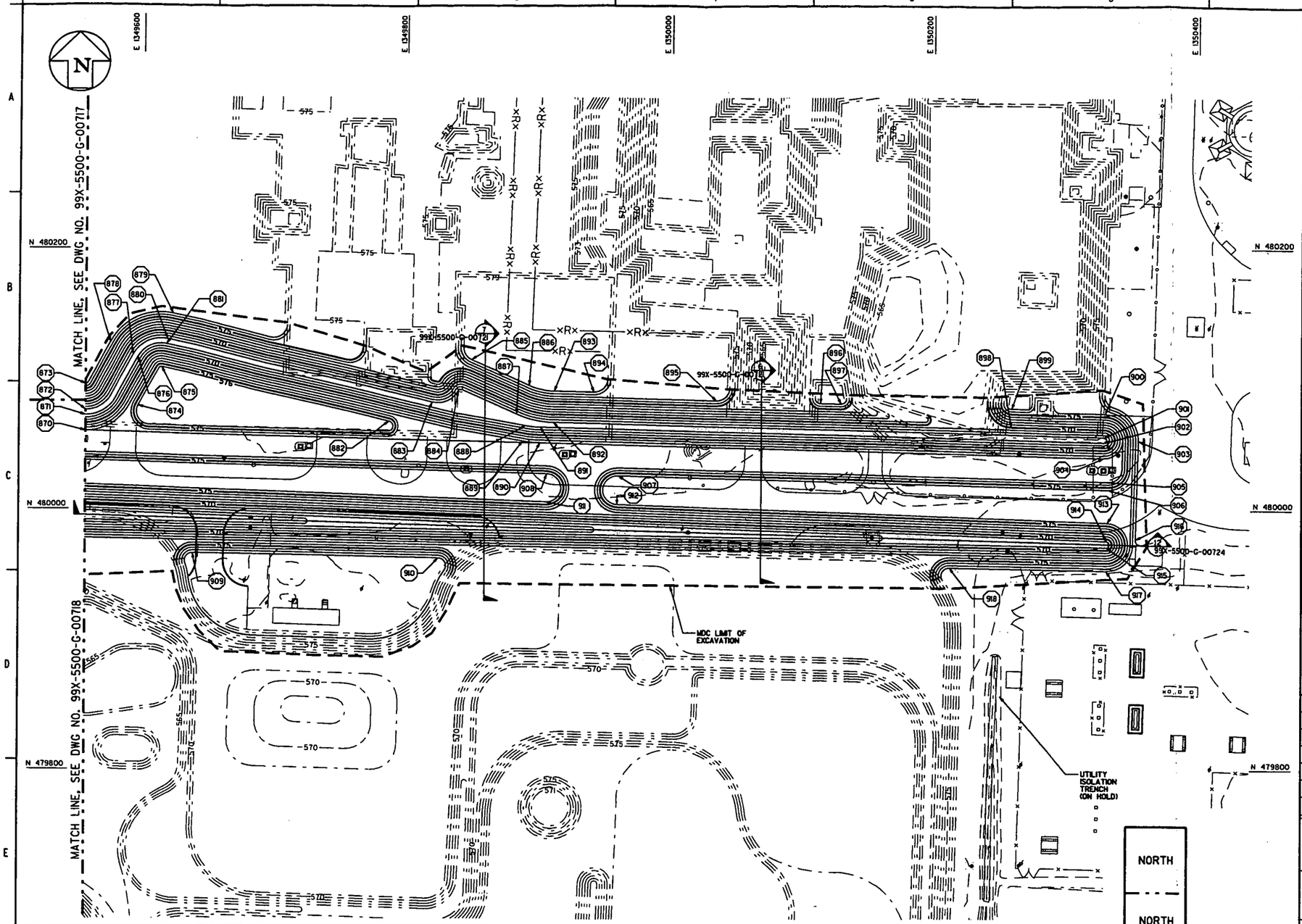
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
EXCAVATION/DRAINAGE PLAN (SOUTH)

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DAF	2080	99X-5500-G-00718	G-74	C
NES PROJECT NO.	FILENAME 99XG00718.DGN			



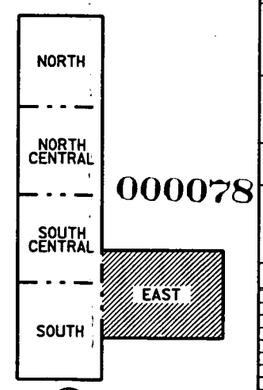
GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. GRID NUMBERS REFER TO THE UNDERGROUND UTILITIES GRID DRAWINGS AS SHOWN IN UTILITY GRID REFERENCE DRAWING INDEX ON DRAWING 99X-5500-X-00641.
3. FOR ADDITIONAL SECTION LOCATIONS SEE FOUNDATION DRAWINGS.
4. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMITS OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND FOUNDATIONS. WHILE MAINTAINING SAFE SLOPE REQUIREMENTS. FIELD CHANGES SHALL BE REPORTED TO CONSTRUCTION MANAGER AND APPROVED BY ENGINEER.
5. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
6. MANHOLE AND CATCHBASIN OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SPR3-5.

4518

DESIGN GRADE CONTROL POINTS

PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.	PT NO.	NORTHING	EASTING	ELEV.
870	480059.92	1349555.51	573.00	880	480130.68	1349618.75	567.00	890	480051.45	1349902.12	573.00	900	480074.42	1350329.41	576.00	910	479962.74	1349825.04	578.00
871	480071.91	1349556.58	567.00	881	480126.77	1349617.95	567.00	891	480063.44	1349902.43	567.00	901	480056.43	1350328.94	567.00	911	480005.96	1349906.77	576.00
872	480075.92	1349555.93	567.00	882	480067.75	1349787.00	576.00	892	480067.19	1349912.31	567.00	902	480052.43	1350328.84	567.00	912	480004.00	1349960.67	576.00
873	480095.92	1349556.29	577.00	883	480082.47	1349819.96	567.00	893	480091.18	1349912.93	579.00	903	480053.76	1350354.88	579.00	913	479990.52	1350331.41	576.00
874	480079.40	1349596.53	576.00	884	480091.20	1349839.88	567.00	894	480090.40	1349943.18	579.00	904	480040.43	1350328.53	573.00	914	479976.53	1350330.90	569.00
875	480109.13	1349614.33	576.00	885	480115.13	1349849.62	579.00	895	480084.01	1350035.66	577.00	905	480022.10	1350332.04	573.00	915	479971.64	1350330.77	569.00
876	480106.74	1349596.36	567.00	886	480095.46	1349893.95	579.00	896	480081.99	1350014.05	577.00	906	480016.10	1350331.88	576.00	916	479977.66	1350352.92	579.00
877	480188.65	1349592.85	567.00	887	480073.52	1349884.22	567.00	897	480081.59	1350129.57	577.00	907	480026.24	1349961.37	576.00	917	479953.65	1350330.45	578.00
878	480128.21	1349575.28	577.00	888	480064.58	1349891.14	567.00	898	480064.26	1350258.07	570.00	908	480027.71	1349907.47	576.00	918	479955.77	1350212.29	578.00
879	480150.28	1349622.78	577.00	889	480052.77	1349889.05	573.00	899	480078.26	1350258.43	577.00	909	479966.10	1349638.64	578.00				



000078

30 0 30 60
SCALE: 1"=30'

NORTH

MDC KEY PLAN
SCALE: NONE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
C	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
A	ISSUED FOR 30% DESIGN REVIEW	8/7/02	DRF	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

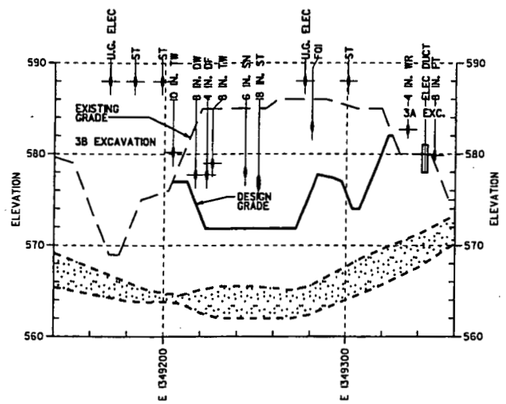
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
EXCAVATION/DRAINAGE PLAN (EAST)

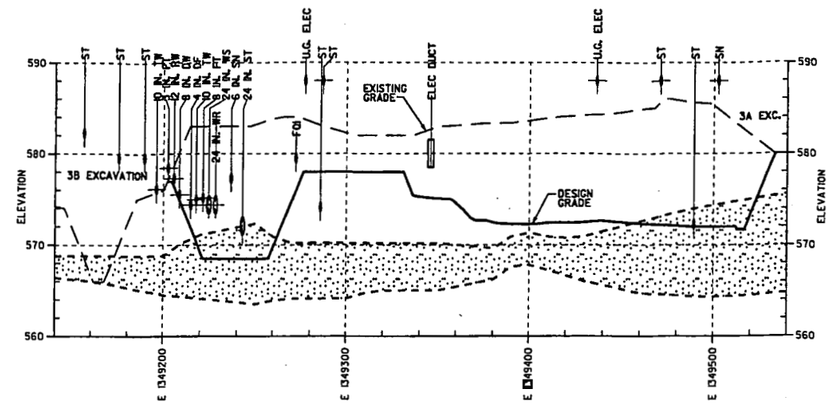
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

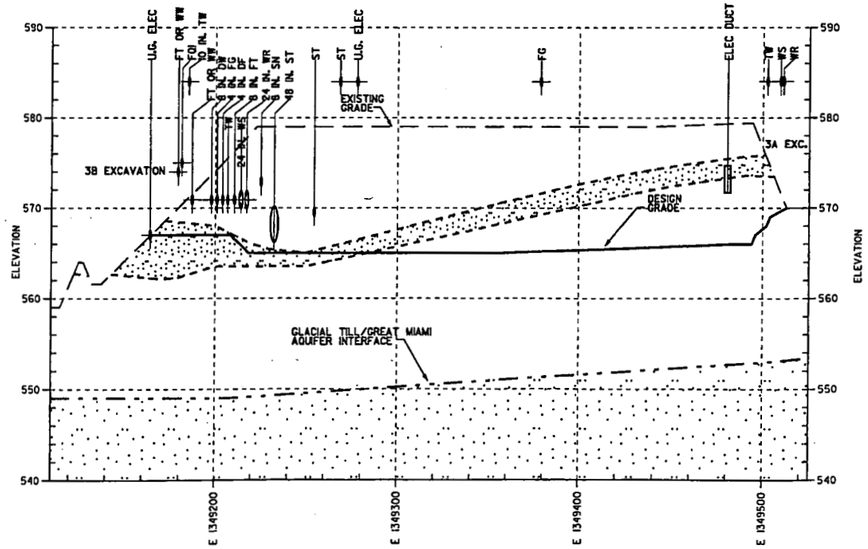
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20010	99X-5500-G-00719	G-75	C
RES PROJECT NO.	FILENAME 99X00075.DGN			



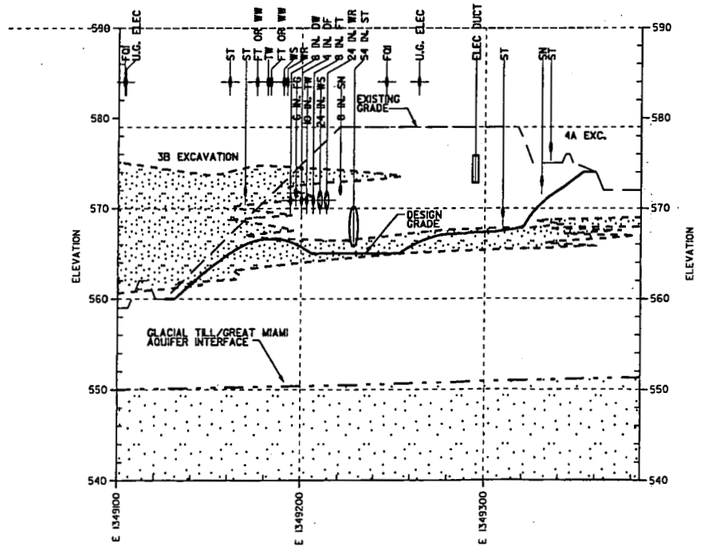
MDC EXCAVATION (1)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00715



MDC EXCAVATION (2)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00716



MDC EXCAVATION (3)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00716



MDC EXCAVATION (4)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00717

000079

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.

— 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

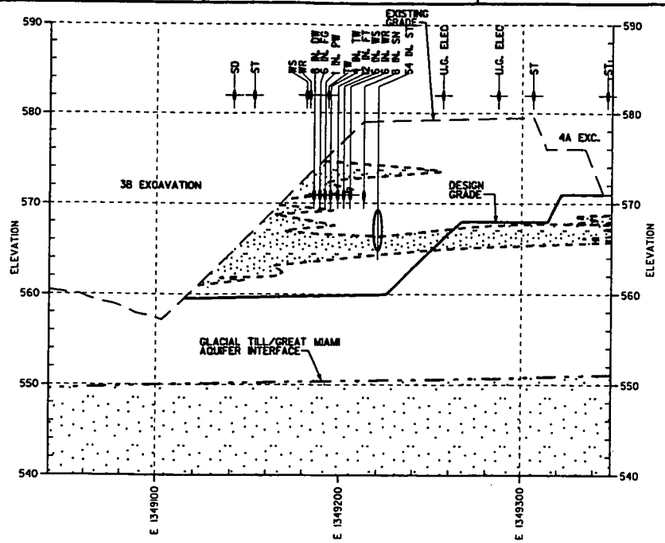
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
CROSS SECTIONS SHEET 1

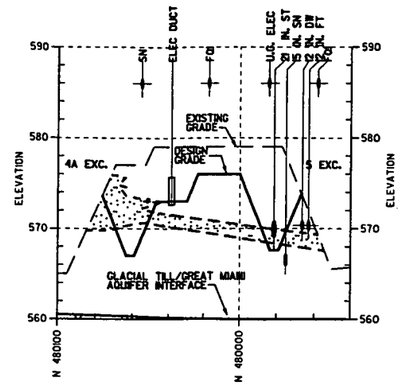
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE.		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

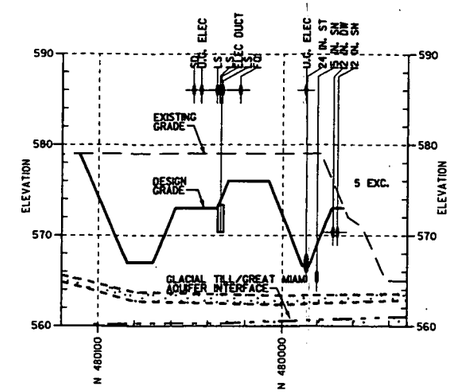
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20340	99X-5500-G-00720	G-76	B
NCS PROJECT NO.	FILENAME 99XG00720.DGN			



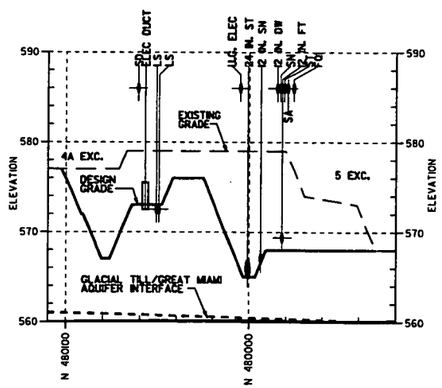
MDC EXCAVATION (5)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00717



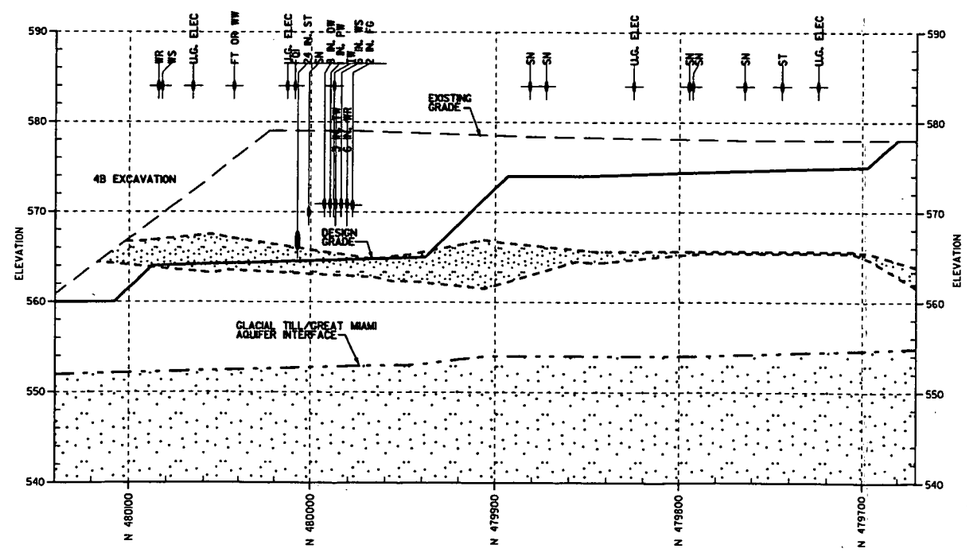
MDC EXCAVATION (6)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00719



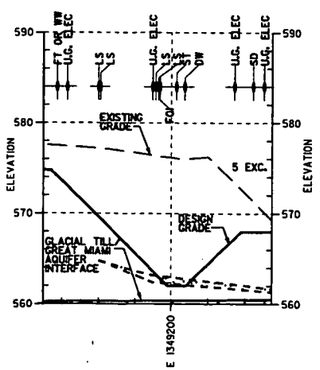
MDC EXCAVATION (7)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00719



MDC EXCAVATION (8)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00718



MDC EXCAVATION (10)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00718



MDC EXCAVATION (9)
SCALE: 1"=30' HORIZ 1"=6' VERT
99X-5500-G-00718

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.

-- 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

000080

HORIZ. SCALE: 1"=30'

VERT. SCALE: 1"=6'

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

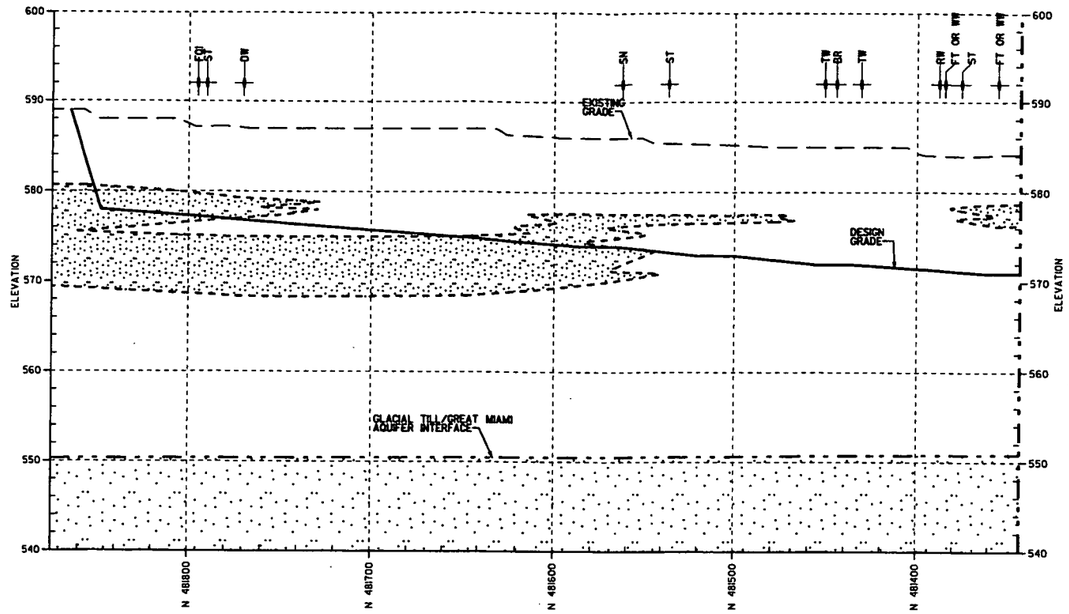
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
CROSS SECTIONS SHEET 2

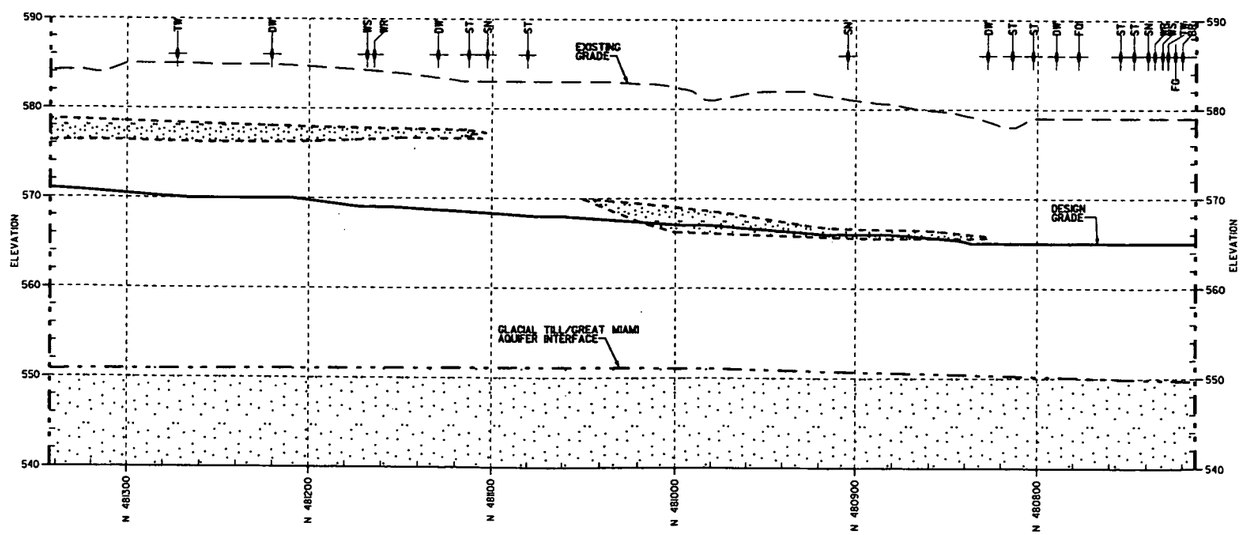
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20010	99X-5500-G-00721	G-77	B
RES PROJECT NO.	FILENAME 99XG007ZL.DGN			



MDC EXCAVATION (8)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00715



MDC EXCAVATION (8)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00716

000081

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.

4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

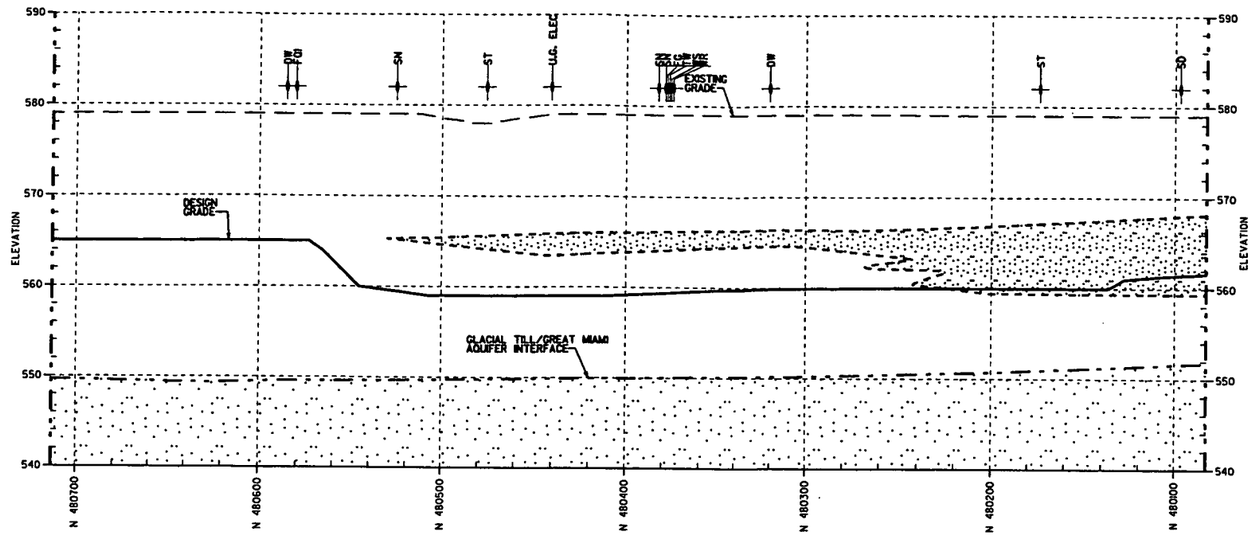
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
CROSS SECTIONS SHEET 3

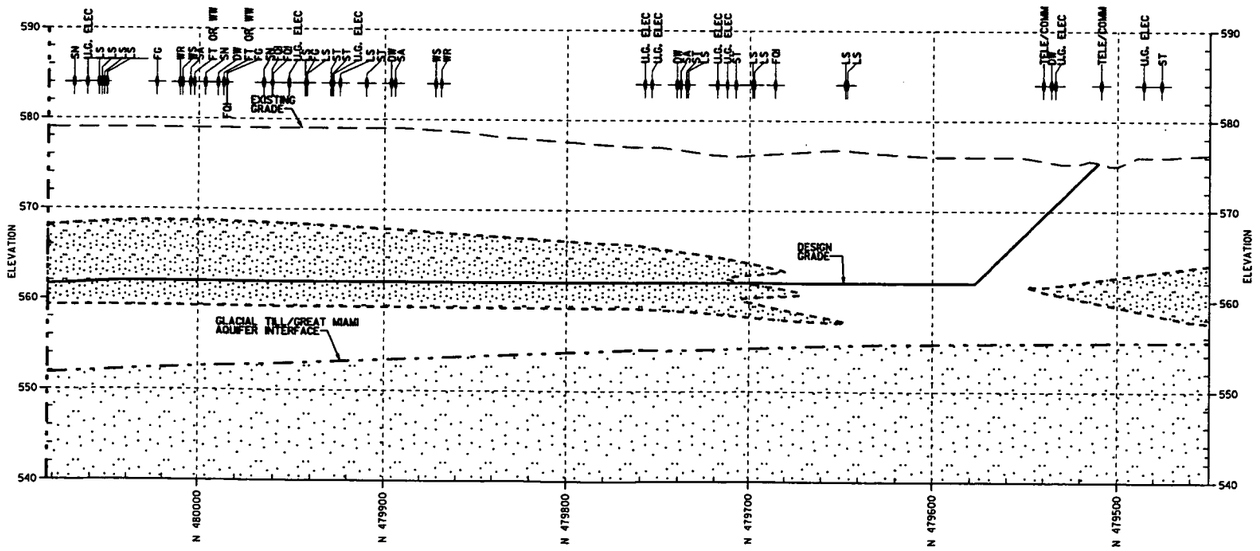
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
CLR	20080	99X-5500-G-00722	G-78	B
RES PROJECT NO.	FILENAME 99X00072 2.DGN			



MDC EXCAVATION (II)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00717



MDC EXCAVATION (II)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00718

000082

30 0 30 60
HORIZ. SCALE: 1"=30'

6 0 6 12
VERT. SCALE: 1"=6'

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.

4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

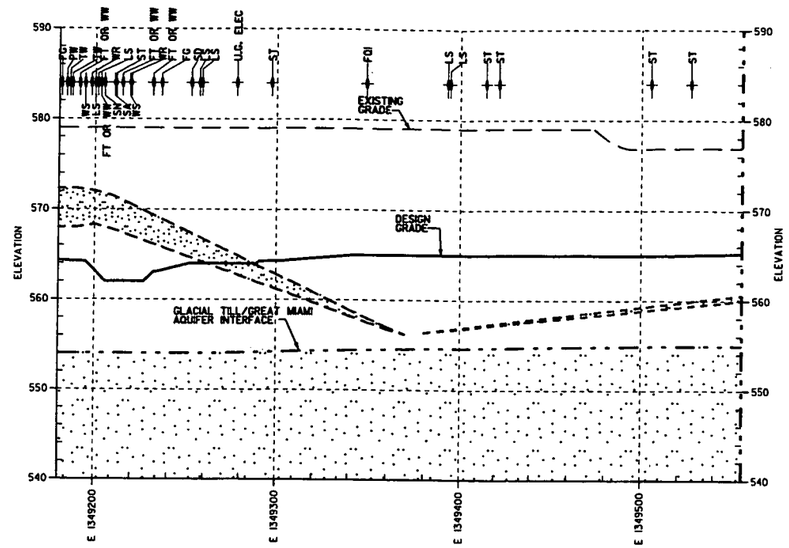
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
CROSS SECTIONS SHEET 4

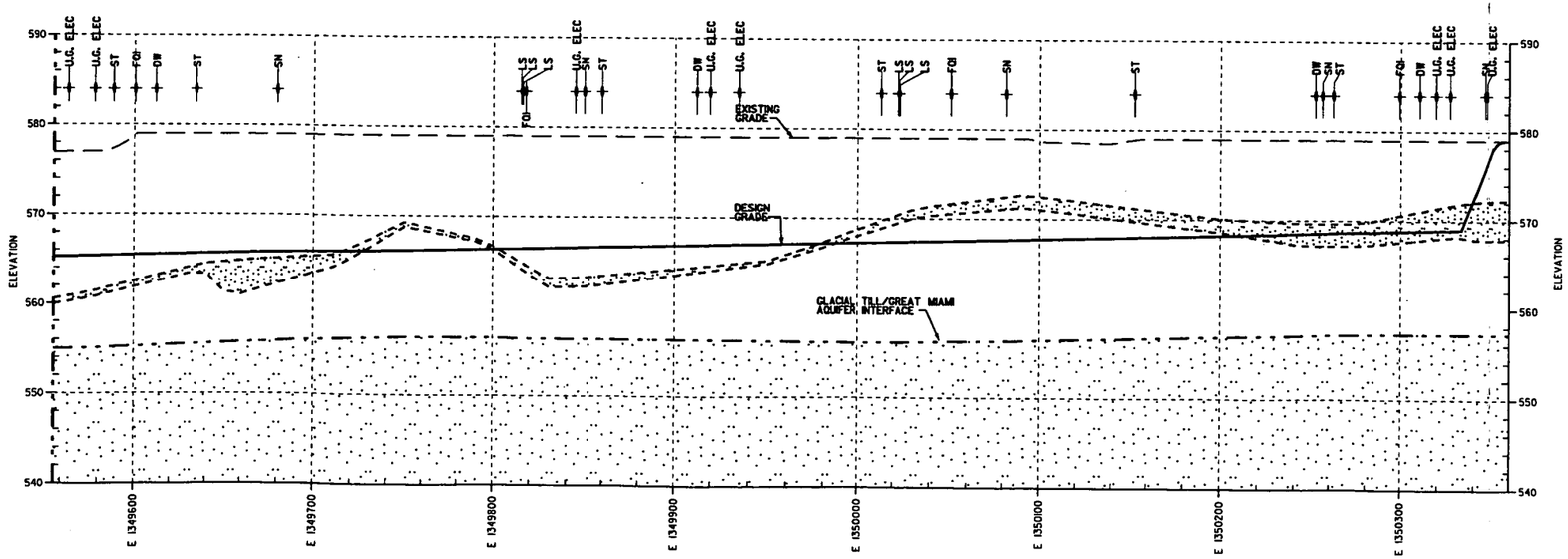
APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20910	99X-5500-G-00723	G-79	B
RES PROJECT NO.	FILENAME 99X00723.DGN			



MDC EXCAVATION (12)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00718



MDC EXCAVATION (12)
SCALE: 1"=30' HORIZ
1"=6' VERT
99X-5500-G-00719

000083

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES ARE SHOWN AT THEIR APPROXIMATE LOCATIONS AND INVERT ELEVATIONS. FOR UTILITY LINE DESCRIPTION, SEE UNDERGROUND UTILITY GRID DRAWINGS.
3. ELEVATIONS HAVE NOT BEEN DETERMINED FOR UTILITIES SHOWN ABOVE EXISTING GRADE.
4. UNDERGROUND UTILITIES ENCOUNTERED DURING EXCAVATION TO THE DESIGN GRADE SHALL BE REMOVED IN ACCORDANCE WITH SPECIFICATION SECTION 02205. REMAINING UTILITIES BELOW THE DESIGN GRADE SHALL BE REMOVED USING TRENCHING METHODS IN ACCORDANCE WITH SPECIFICATION SECTION 02205.
5. DESIGN CONTOURS AND GRADES SHOWN REPRESENT THE MINIMUM LIMIT OF EXCAVATION REQUIRED TO CAPTURE CONTAMINATION AND STRUCTURES, WHILE MAINTAINING SAFE SLOPES.

— 4518

LEGEND

UNSATURATED SAND AND GRAVEL OF THE GREAT MIAMI AQUIFER

SAND/GRAVEL

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

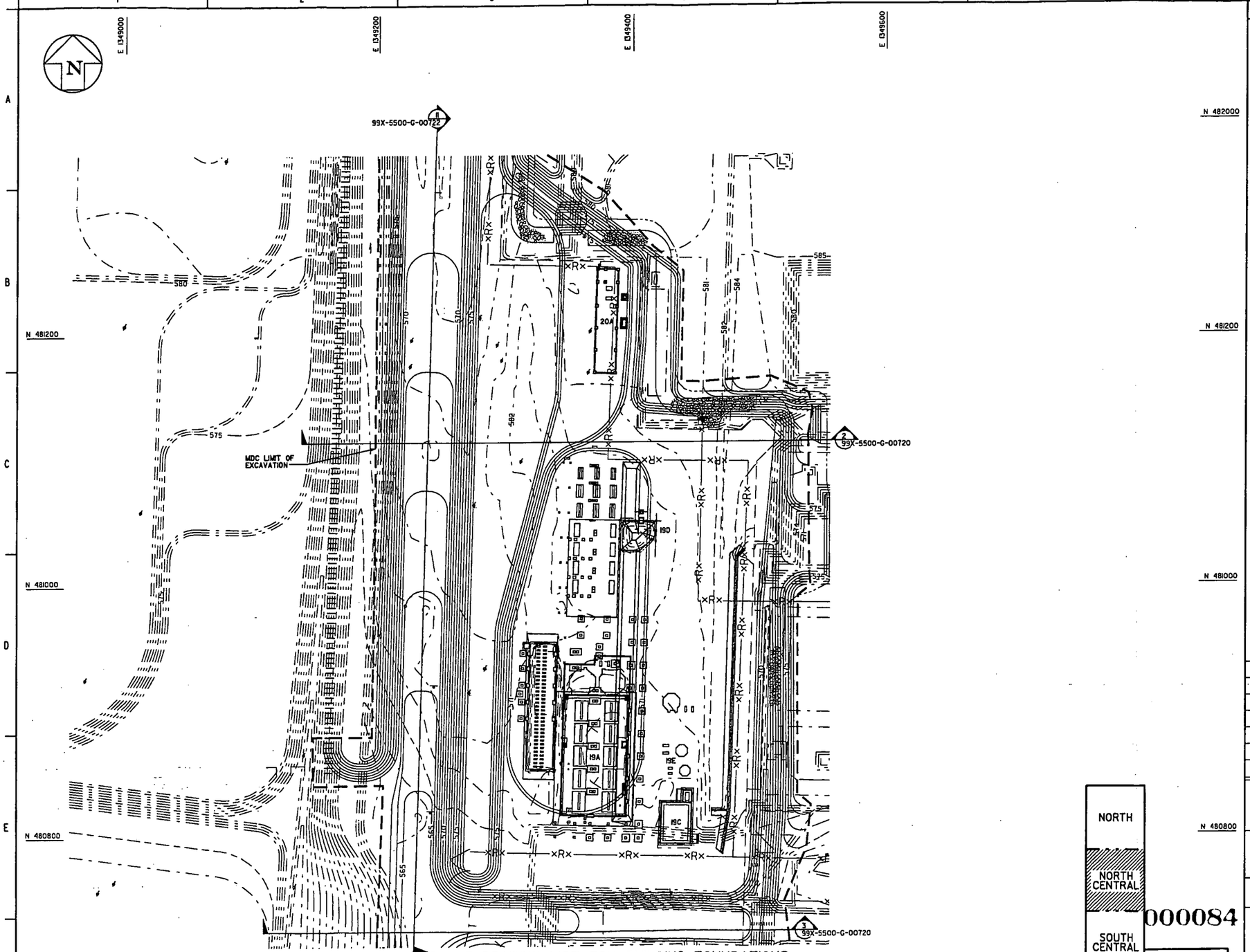
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
MDC
CROSS SECTIONS SHEET 5

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

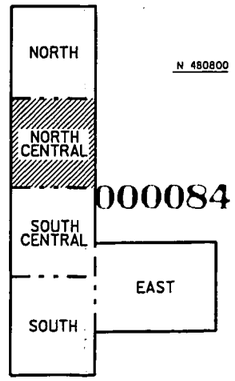
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20480	99X-5500-G-00724	G-80	B
REF PROJECT NO.	FILENAME 99XG00724.DGN			



TECHNICAL REFERENCE DRAWING LIST FOR BUILDING FOUNDATIONS

DRAWING NO.	DRAWING TITLE	SHT. NO.
12X-5900-S-00477	BUILDING 12A - WEST FOUNDATION PLAN	S0001
12X-5900-S-00479	BUILDING 12A - WEST SLAB PLAN	S0002
19X-5900-S-00696	TANK FARM 19A FOUNDATION PLAN	S0001
19X-5900-S-00697	TANK FARM 19A SLAB PLAN	S0002
19X-5900-S-00699	TANK FARM 19D FOUNDATION AND SLAB PLAN	S0001
19X-5900-S-00698	BUILDING 19C AND TANK FARM 19E FOUNDATION AND SLAB PLAN	S0001
20B-5900-S-00456	BUILDING 20A FOUNDATION AND SLAB PLAN	S0001

30 0 30 60
SCALE: 1"=30'



MDC KEY PLAN
SCALE: NONE

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. BUILDING NUMBERS REFER TO FORMER LOCATIONS OF BUILDINGS OR PADS.
3. FOR FOUNDATION/SLAB DETAILS, SEE TECHNICAL REFERENCE DRAWINGS LISTED.

-- 4518

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

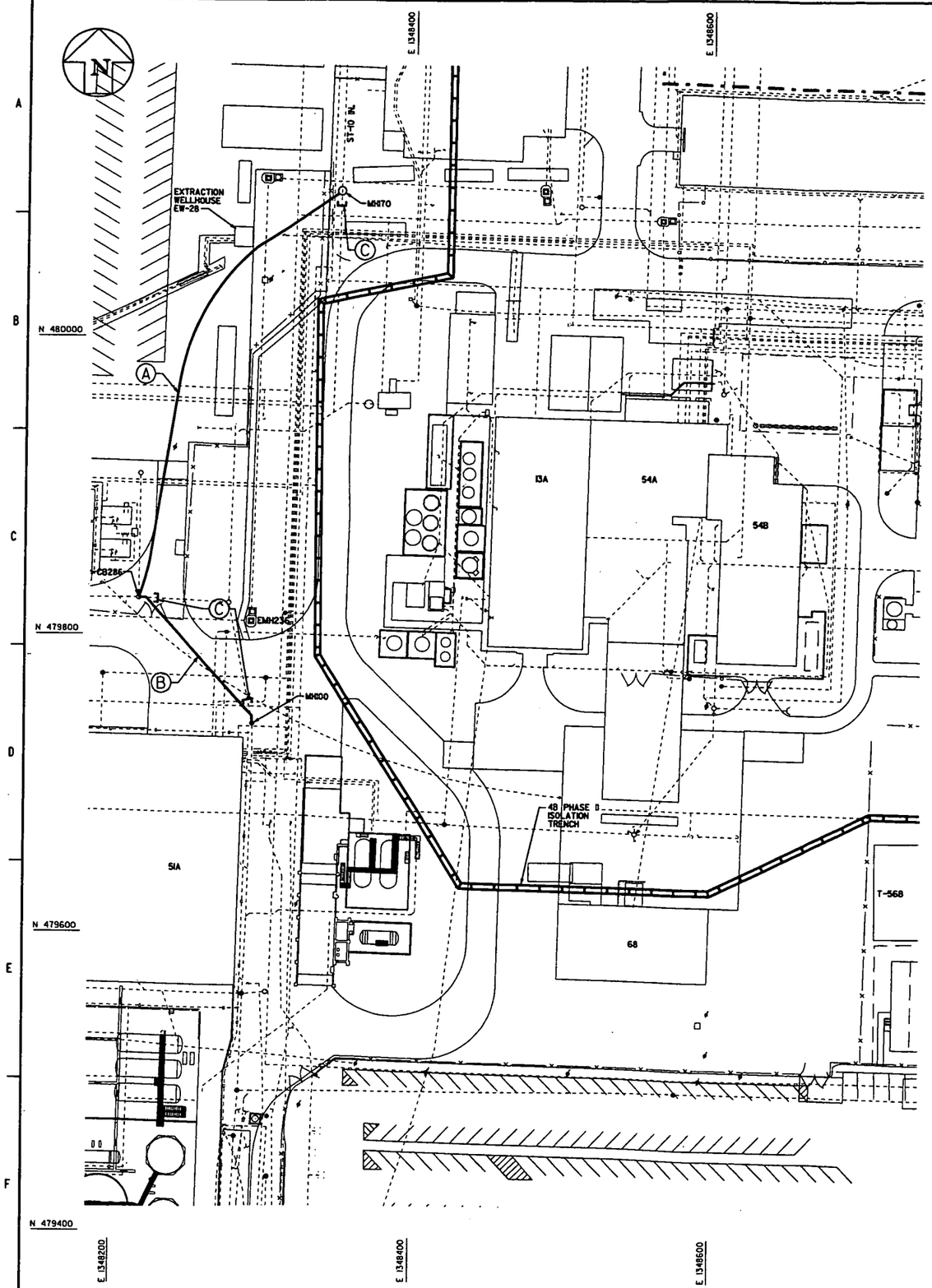
DRAWING TITLE
MDC
FOUNDATION PLAN

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE.	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20610	99X-5500-G-00705	G-81	A
RES PROJECT NO.	FILENAME 99XG00705.DGN			

000084



REROUTED STORM SEWER LINE				
ID	INLET INVERT ELEVATION	OUTLET INVERT ELEVATION	NORTHING	EASTING
MH170	573.1	573.05	480097.48	1348350.96
CB286	571.9	571.3	EXISTING	EXISTING
MH100	569.9	EXISTING	EXISTING	EXISTING

GENERAL NOTES

1. SEE DRAWING 99X-5500-X-00639 FOR LEGEND AND GENERAL NOTES.
2. UNDERGROUND UTILITIES SHOWN REPRESENT FLUOR FERNALD MASTER REFERENCE FILES FOR UNDERGROUND UTILITY DRAWINGS 22D-5500-P-00684 (GRID 25), 22G-5500-P-00685 (GRID 26). THIS DRAWING DOES NOT ATTEMPT TO SHOW UNDERGROUND UTILITIES WITHIN BUILDING FOOTPRINTS.
3. INSTALL NEW 12 IN. AND 24 IN. STORMSEWER LINE BEFOR PERFORMING STAGE III EXCAVATION.

-- 4518

KEYED NOTES

(A) INSTALL NEW 12 IN. HDPE STORM SEWER LINE IN ACCORDANCE WITH SPECIFICATION SECTION 02668.

(B) INSTALL NEW 24 IN. HDPE STORM SEWER LINE IN ACCORDANCE WITH SPECIFICATION SECTION 02668.

(C) INSTALL PIPE PLUGS IN ACCORDANCE WITH TYPICAL PIPE PLUG DETAIL ON DRAWING 99X-5500-G-00739.

LEGEND

- 4B PHASE I ISOLATION TRENCH
- 4B PHASE II ISOLATION TRENCH
- EXISTING 4A ISOLATION TRENCH
- ISOLATION TRENCH GAP

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
A	ISSUED FOR AGENCY REVIEW	9/30/02	DRF	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

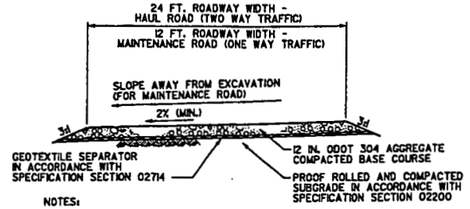
DRAWING TITLE
AREA 4B
REROUTED STORM SEWER LINE

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
DRF	20810	99X-5500-G-00745	G-82	A
RES PROJECT NO.	FILENAME 99XX00745.DGN			

000085

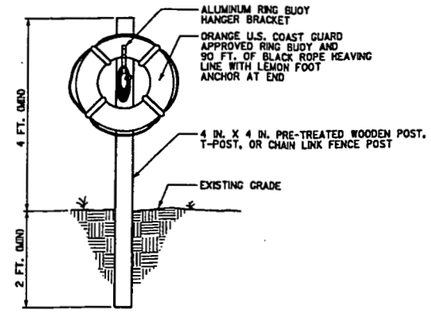


NOTES:

1. SEE SPECIFICATION SECTION 02230 FOR ROAD CONSTRUCTION.
2. SMTA DIMENSIONS AS DIRECTED BY THE CONSTRUCTION MANAGER.

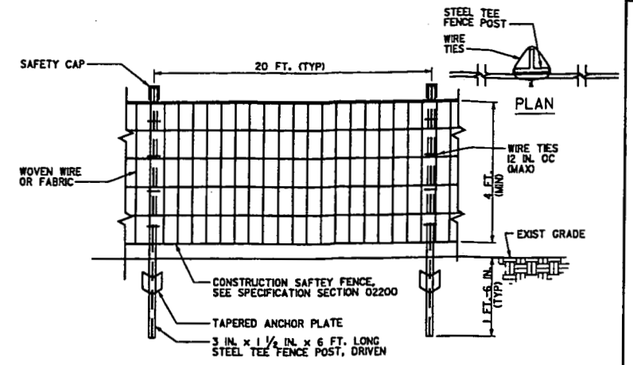
TYPICAL HAUL ROAD/ MAINTENANCE ROAD/SMTA DETAIL

NTS — 99X-5500-G-00657



RING BUOY STATION DETAIL

NTS — 99X-5500-G-00679 701 712

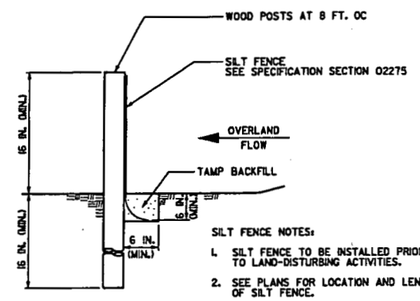


NOTE:

INSTALL SAFETY CAPS ON T-POSTS THAT ARE LESS THAN 4 FEET IN HEIGHT ABOVE-GRADE.

CONSTRUCTION SAFETY FENCE DETAIL

NTS — 99X-5500-G-00653 654 655 656 657 658 659 660 715 716 717 718 719



SILT FENCE NOTES:

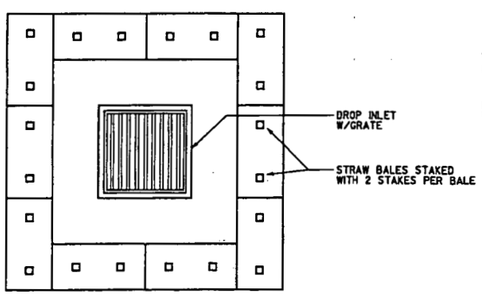
1. SILT FENCE TO BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES.
2. SEE PLANS FOR LOCATION AND LENGTH OF SILT FENCE.
3. WOOD POSTS SHALL BE 2 IN. X 2 IN. (MIN.) OF OAK OR SIMILAR HARDWOOD.
4. BACKFILL MATERIAL IN ACCORDANCE WITH SPECIFICATION SECTION 02200.

SILT FENCE DETAIL

NTS — 99X-5500-G-00653 654 655 656 657 658 659 715 716 717 718 719

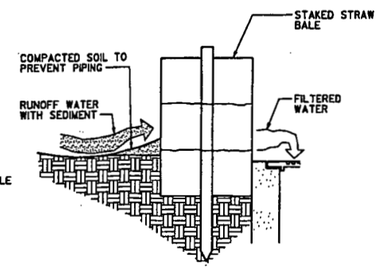
NOTES:

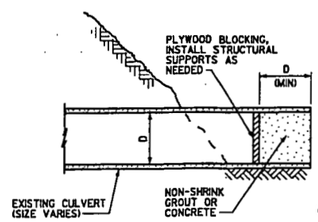
1. BALES SHALL BE WIRE-BOUND OR STRING-TIED.
2. PLACE BALES IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, TIGHTLY ABUTTED TO ONE ANOTHER. FILL GAPS BETWEEN BALES WITH STRAW.
3. ENTRENCH AND BACKFILL THE BALE BARRIER. EXCAVATE THE TRENCH TO A MINIMUM DEPTH OF 4 INCHES, TO THE BALE WIDTH AND THE LENGTH OF THE PROPOSED BARRIER. BACKFILL SOIL EXCAVATED FROM THE TRENCH AGAINST THE BARRIER TO CONFORM TO GROUND LEVEL ON THE DOWNHILL SIDE AND BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
4. SECURELY ANCHOR EACH BALE USING AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. DRIVE THE FIRST STAKE IN EACH BALE TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER. DRIVE STAKES OR REBARS DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES.
5. INSPECT BALES WEEKLY AND REPAIR/REPLACE AS NEEDED.



STRAW BALE STAKING DETAIL

NTS — 99X-5500-G-00644 646





PLUG NOTES:

1. CLEAN CULVERT/STORM SEWER OF LOOSE MATERIAL PRIOR TO INSTALLING PLUG.
2. INSPECT STORM SEWER TO ENSURE STRUCTURAL SOUNDNESS PRIOR TO INSTALLING PLUG.

TYPICAL CULVERT/ EXPOSED STORM SEWER PLUG DETAIL

NTS

000086

GENERAL NOTES

-- 4518

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
H	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
G	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
F	ISSUED FOR AGENCY REVIEW (SWL & FTF)	8/27/02	KLR	
E	ISSUED FOR 30% DESIGN REVIEW (4B AND MDC)	8/7/02	KLR	
D	ISSUED FOR DOE REVIEW (SWL & FTF)	7/15/02	DRF	
C	ISSUED FOR A2PII IRDP AGENCY REVIEW	6/24/02	GDD	
B	ISSUED FOR 90% DESIGN REVIEW (SWL & FTF)	6/7/02	ATG	
A	ISSSUED FOR 90% DESIGN REVIEW	6/3/02	GDD	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

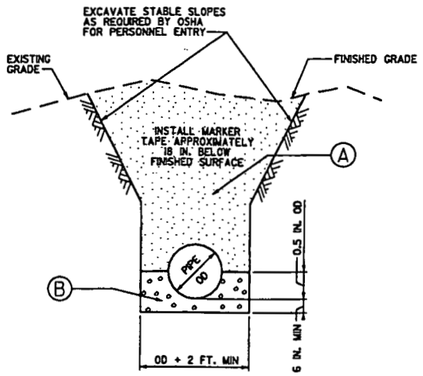
PROJECT NAME: SOIL REMEDIATION

DRAWING TITLE: CIVIL DETAILS SHEET I

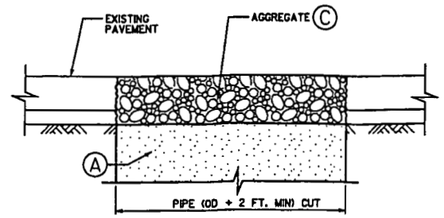
APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

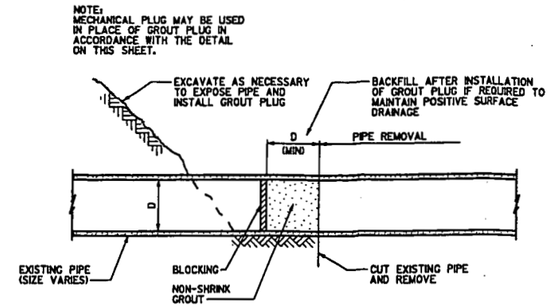
DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20510	99X-5500-G-00738	D-I	H
REF PROJECT NO.	FILENAME 99X00073B.DGN			



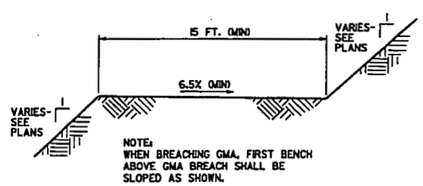
PIPE BEDDING DETAIL
NTS
C



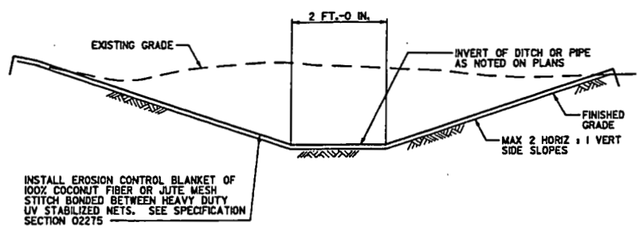
PAVEMENT PATCH DETAIL
NTS
99X-5500-G-00681
682



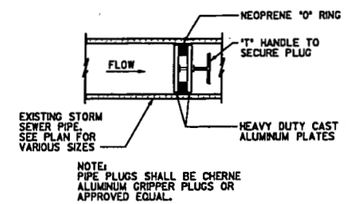
TYPICAL AIR GAP DETAIL
NTS
99X-5500-G-00647
648
649
650
651
652



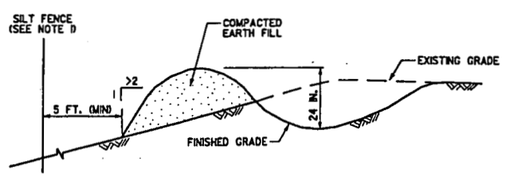
GMA PROTECTION BENCH DETAIL
NTS
99X-5500-G-00654
655
656
657
658
659



EROSION BLANKET
LINED DITCH DETAIL
NTS



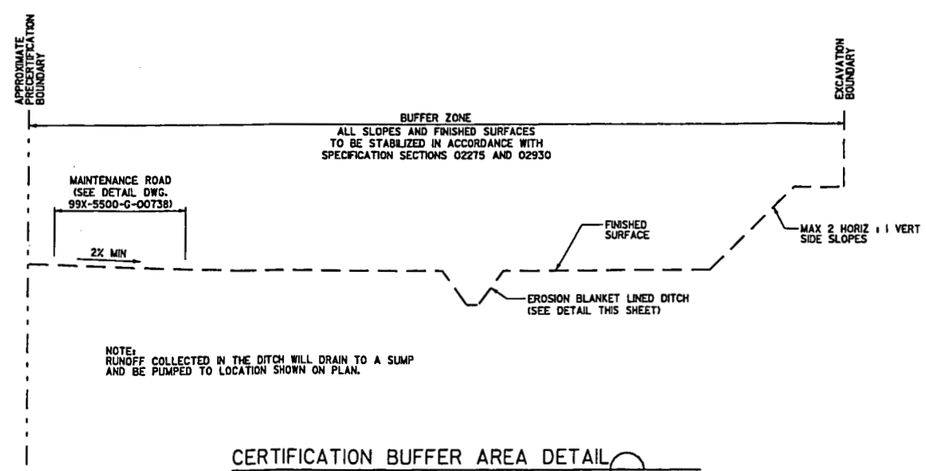
TYPICAL PIPE PLUG DETAIL
NTS
99X-5500-G-00647
648
649
650
651
652



GENERAL NOTES:

1. INSTALL SILT FENCE (SEE DETAIL ON DRAWING 99X-5500-G-00738) ON DOWNGRADIENT SIDE OF DIVERSION PRIOR TO LAND-DISTURBING ACTIVITIES. MAINTAIN SILT FENCE IN ACCORDANCE WITH SPECIFICATION SECTION 02275 UNTIL GRASS HAS BEEN ESTABLISHED ON ENTIRE DIVERSION.
2. SEED AND MULCH ENTIRE DIVERSION SEE OSOF SPECIFICATION SECTION 02930.
3. DIVERSION SLOPES SHALL NOT BE STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.
4. COMPACTED EARTH FILL SHALL CONSIST OF SOILS EXCAVATED ON SITE AND PLACED AS NECESSARY TO PROVIDE MINIMUM 24 INCH DITCH DEPTH. EARTH FILL SHALL BE COMPACTED BY 4 PASSES OF COMPACTION EQUIPMENT IN 12 INCH LOOSE LIFTS AS APPROVED BY THE CONSTRUCTION MANAGER.

TEMPORARY DIVERSION DETAIL
NTS



CERTIFICATION BUFFER AREA DETAIL
NTS

000087

GENERAL NOTES

1. TRENCHING AND BACKFILLING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02215.

4518

KEYED NOTES

(A) BACKFILL TRENCH WITH TRENCHING SPOILS. REMOVE CONCRETE/ASPHALT PIECES GREATER THAN 4 INCHES IN ANY DIMENSION PRIOR TO BACKFILLING. PLACE BACKFILL IN MAXIMUM 8 INCH LOOSE LIFTS AND COMPACT WITH MINIMUM OF 4 PASSES WITH VIBRATORY COMPACTOR.

(B) FURNISH NATURAL SAND PIPE EMBEDMENT FILL MATERIAL MEETING GRADATION REQUIREMENTS OF ODOT 703.06.

(C) FURNISH ODOT ITEM 304 AGGREGATE PLACED IN 4 INCH LOOSE LIFTS AND COMPACT WITH A MINIMUM OF 4 PASSES WITH VIBRATORY COMPACTOR TO MATCH THICKNESS OF EXISTING PAVEMENT.

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
E	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
D	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
C	ISSUED FOR 30% DESIGN REVIEW (4B AND MDC)	8/1/02	KLR	
B	ISSUED FOR 90% DESIGN REVIEW (SWL & FTF)	6/7/02	ATC	
A	ISSUED FOR 90% DESIGN REVIEW	6/3/02	GOD	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

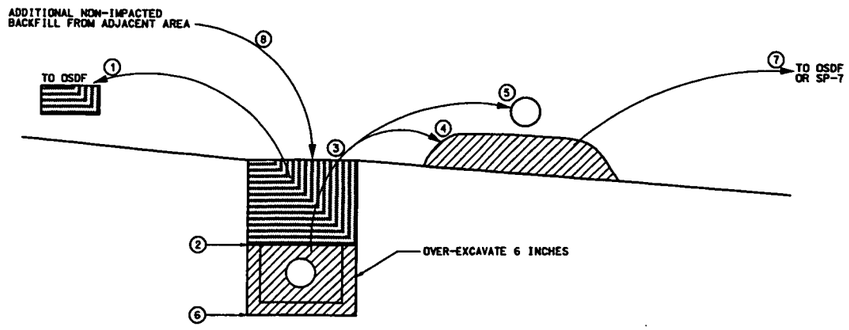
PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
CIVIL DETAILS SHEET 2

APPROVALS

COGNIZANT ENG.			SAFETY ENG.		
CIVIL & STR.			MAINTENANCE		
ELECTRICAL			FIRE PROTECT.		
ENGINEER			WASTE MANAGE		
INSTRUMENT			SECURITY		
MECHANICAL			QA		
			CONSTRUCTION		
CHECKED					
APPROVED					

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20280	99X-5500-G-00739	D-2	E
RES PROJECT NO.	FILENAME 99XG00739.DGN			



1. EXCAVATE PRECERTIFIED OVERBURDEN SOIL FROM ABOVE THE PIPE• BEDDING AND DISPOSITION IN THE OSDF.
2. PERFORM REAL-TIME MONITORING, AND/OR AT 50 FEET INTERVALS, PERFORM PHYSICAL SAMPLING OF THE PIPE BEDDING MATERIAL IN THE TRENCH.
3. EXCAVATE PIPE AND PIPE BEDDING, PLUS OVER-EXCAVATE 6 INCHES ADJACENT TO AND BELOW THE PIPE BEDDING TO ENSURE REMOVAL OF IMPACTED MATERIAL.
4. TEMPORARILY STOCKPILE PIPE BEDDING ADJACENT TO AND DOWN-GRADIENT OF THE UTILITY TRENCH.
5. THE CONSTRUCTION MANAGER VISUALLY INSPECTS PIPE DURING EXCAVATION. PIPE FREE OF VISIBLE PROCESS RESIDUE SHALL BE DISPOSITIONED IN THE OSDF IN ACCORDANCE WITH SECTION 02205. PIPING THAT IS DEFORMED, CLOSED OR OTHERWISE HINDERS VISUAL INSPECTION, OR CANNOT BE CLEANED OF VISIBLE PROCESS RESIDUE SHALL BE DISPOSITIONED IN SP-7 IN ACCORDANCE WITH SECTION 02205.
6. AS IN STEP 2, PERFORM REAL-TIME MONITORING, AND/OR AT 50 FEET INTERVALS, PERFORM PHYSICAL SAMPLING BELOW THE PIPE BEDDING WITHIN THE TRENCH.
7. AS DIRECTED BY THE CONSTRUCTION MANAGER, DISPOSITION PIPE BEDDING IN EITHER THE OSDF AS IMPACTED MATERIAL OR SP-7 AS ABOVE-WAC MATERIAL. OVER-EXCAVATE STOCKPILE FOOTPRINTS 6 INCHES TO ENSURE REMOVAL OF IMPACTED MATERIAL.
8. BACKFILL ADDITIONAL NON-IMPACTED SOIL FROM THE IMMEDIATE PRE-CERTIFIED AREA AND COMPACT IN ACCORDANCE WITH SECTION 02206 AS NEEDED TO MEET SURROUNDING GRADE.

NOTE:

1. AS DIRECTED BY THE CONSTRUCTION MANAGER, PENDING MONITORING OF TRENCH BOTTOM, RE-EXCAVATE AT TRENCH LOCATIONS DESIGNATED BY THE CONSTRUCTION MANAGER TO REMOVE ADDITIONAL IMPACTED MATERIAL. THE CONSTRUCTION MANAGER CERTIFIES THE BACKFILLED TRENCH AND SURROUNDING AREA.

• THE TERM "PIPE" IS USED AS A GENERIC REFERENCE TO UNDERGROUND UTILITIES.

EXCAVATION OF UTILITIES BELOW THE DESIGN SURFACE

NTS

000088

GENERAL NOTES

4518

PRELIMINARY

NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
E	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
D	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	
C	ISSUED FOR AGENCY REVIEW (SWL & FTF)	8/27/02	KLR	
B	ISSUED FOR 30% DESIGN REVIEW (4B AND MDC)	8/7/02	KLR	
A	ISSUED FOR DOE REVIEW (SWL & FTF)	7/15/02	KLR	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

PROJECT NAME

SOIL REMEDIATION

DRAWING TITLE

UTILITY REMOVAL DETAIL BELOW DESIGN GRADE

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20810	99X-5500-G-00740	D-3	E
RES PROJECT NO.	FILENAME 99X5000740.DGN			

PIPING VALVES

CONFIGURATIONS FOR VALVE TYPE

ANGLE | STRAIGHT | 3-WAY | 4-WAY

VALVE TYPES (STRAIGHT CONFIG.)

- AIR RELEASE VALVE
- BALL
- CHECK, SWING TYPE
- GATE

PIPING SEGMENT BREAKS

- CONSTRUCTION REQUIREMENTS
- UNDERGROUND ROUTING (SHADED AREA INDICATES DIRECTION OF UNDERGROUND)

PIPING FITTINGS

- CAP
- CONCENTRIC REDUCER

PIPING SYMBOLOGY

- PRIMARY PIPING
- EXISTING PIPING
- FUTURE PIPING
- TIE-IN POINT

EQUIPMENT SYMBOLS

- SUMP PUMP WITH MOTOR

PIPING LINE NUMBER FORMAT

MEDIUM CODE
NOMINAL PIPE SIZE
NOMINAL CONTAINMENT PIPE SIZE (WHERE SHOWN)
MATERIAL CODE
LINE NUMBER
INSULATION CODE

GW-6 001 INL-84-2930-ET

MEDIUM FLOW DIRECTION

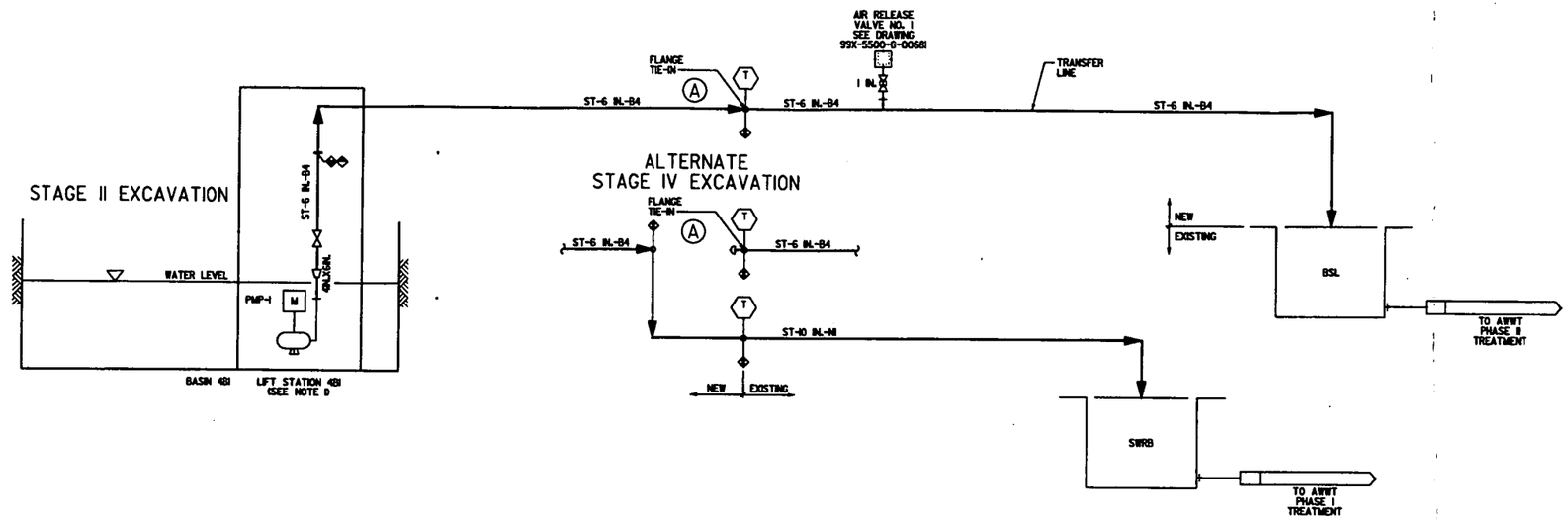
PIPING SPECIFICATIONS

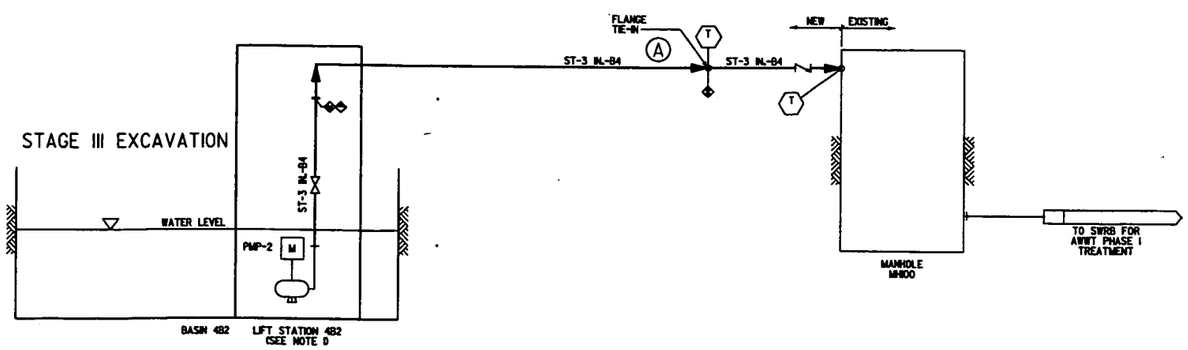
MATL. CODE	DESCRIPTION
A	A53 SEAMLESS CARBON STEEL
A7	CORRUGATED METAL PIPE
B	PVC
B1	PVDF
B2	PVDF, 100PSI
B3	CPVC
B4	HDPE
B5	CORRUGATED HDPE
C1	CLASS 150, COPPER TUBING
L	FIBERGLASS REINFORCED PLASTIC
M	DUCTILE IRON
T	304L, STAINLESS STEEL
T1	316L, STAINLESS STEEL
W	A53, GR. A, GALVANIZED STEEL

GENERAL NOTES

1. REFER TO DWG NO. ???-????-E-????? FOR LIFT STATION AUTOMATIC LEVEL CONTROLS.
2. GATE AND CHECK VALVES IN THE LIFT STATIONS CONFORM TO MATERIAL CODE 'A'.

— 4518





KEYED NOTES

(A) FIELD ROUTE

PRELIMINARY
NOT FOR CONSTRUCTION

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.
B	ISSUED FOR AGENCY REVIEW	9/30/02	KLR	
A	ISSUED FOR 90% DESIGN REVIEW	8/30/02	KLR	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY

FLUOR FERNALD, INC.

PROJECT NAME
SOIL REMEDIATION

DRAWING TITLE
AREA 4B
WASTEWATER COLLECTION AND TRANSFER LINE
PIPING AND INSTRUMENTATION DIAGRAM

APPROVALS

COGNIZANT ENG.		SAFETY ENG.	
CIVIL & STR.		MAINTENANCE	
ELECTRICAL		FIRE PROTECT.	
ENGINEER		WASTE MANAGE	
INSTRUMENT		SECURITY	
MECHANICAL		QA	
		CONSTRUCTION	
CHECKED			
APPROVED			

DRAWN BY	PROJECT NO.	DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
KLR	20190	99X-5500-N-00680	N-1	B
RES PROJECT NO.	FILENAME 99XN00680.DGN			

000089

4518

SINGLE LINE DIAGRAM SYMBOLS

ARRESTER	YY-XXXX	"YY" INDICATES SPECIAL IDENTIFIER "XXXX" INDICATES ID NO.
CIRCUIT BREAKER, LOW VOLTAGE	FFFF TTTT	"FFFF" INDICATES FRAME RATING AMPS (SHOWN ON SWITCHGEAR ONLY) "TTTT" INDICATES TRIP RATING AMPS
FUSED SWITCH	FFFF	"FFFF" INDICATES FUSE SIZE
CURRENT TRANSFORMER	YY ZZZZ	"YY" INDICATES NO. OF CT(S) "ZZZZ" INDICATES CT RATIO(S)
DISCONNECT SWITCH	FFFF	"FFFF" INDICATES FRAME RATING AMPS
FUSED DISCONNECT SWITCH	FFFF TTTT	"FFFF" INDICATES FRAME RATING AMPS "TTTT" INDICATES TRIP RATING AMPS
FUSE	XXXX YY TTTT	"XXXX" INDICATES ID NO. "YY" INDICATES SPECIAL IDENTIFIER "TTTT" INDICATES TRIP RATING AMPS
LOAD, NON-MOTOR	ZZZ ZZZ	"ZZZ" INDICATES EQUIPMENT SIZE IN KVA OR KW
MOTOR	ZZZ HP	"ZZZ" INDICATES HORSEPOWER SIZE
MOTOR OVERLOAD RELAY		
MOTOR STARTER CONTACT	ZZ	"ZZ" INDICATES NEMA SIZE
SYMBOL 3 PHASE DELTA	Δ	
SYMBOL, 3 PHASE WYE GROUNDED	Y	
WELDING/POWER RECEPTACLE		
TRANSFORMER	XXXX ZZZZ	"XXXX" INDICATES ID NO. "ZZZZ" INDICATES TRANSFORMER RATINGS - KVA, 1 OR 3 PHASE, VOLTAGE RATIO, IMPEDANCE
LIGHT		DESCRIPTION INDICATES WATTS AND VOLTAGE

PLOT PLAN SYMBOLS

480V POWER LINE (EXISTING)	
480V POWER LINE (NEW)	
13.2 kV POWER LINE	
EXISTING POWER POLE	
NEW POWER POLE	
GUY WIRE	
DUCT BANK	

ELEMENTARY DIAGRAM SYMBOLS

CIRCUIT BREAKER	TTTT	"TTTT" INDICATES TRIP RATING AMPS
CONTACT	YY-XXXX	NORMALLY OPEN, CLOSES WHEN COIL IS ENERGIZED, "XXXX" INDICATES ID NO., "YY" INDICATES SPECIAL IDENTIFIER
CONTACT	YY-XXXX	NORMALLY CLOSED, OPENS WHEN COIL IS ENERGIZED, "XXXX" INDICATES ID NO., "YY" INDICATES SPECIAL IDENTIFIER
CONTROL POWER XFMR	H1 480V H2 CPT X1 120V X2	
DISCONNECT SWITCH	FFFF	"FFFF" INDICATES FRAME RATING AMPS
FUSE	XXXX TTTT Y	"XXXX" INDICATES ID NO., "TTTT" INDICATES TRIP RATING AMPS "Y" INDICATES SPECIAL IDENTIFIER
GROUND		
MOTOR, 3 PHASE	T1 T2 T3 ZZZ HP	"ZZZ" INDICATES HP SIZE
OVERLOAD ELEMENT	OL	
PILOT LIGHT	XXXX YY	"XXXX" INDICATES ID NO., "YY" INDICATES SPECIAL IDENTIFIER
RELAY	XXXX YY	"XXXX" INDICATES ID NO., "YY" INDICATES SPECIAL IDENTIFIER
OVERLOAD CONTACT	OL	NORMALLY CLOSED, OPENS WHEN OVERLOAD RELAY(S) TRIP

WIRING BY SUBCONTRACTOR

WIRING BY CONSTRUCTION

SWITCHES

SELECTOR SWITCH (GENERAL)	XXXX YY ZZ (X0) (0X)	"XXXX" INDICATES ID NO. "YY" INDICATES NAME OF CURRENT SWITCH POSITION, "ZZ" INDICATES NAME OF OTHER SWITCH POSITION(S) "X" INDICATES CLOSED CIRCUIT POSITION "0" INDICATES OPEN CIRCUIT POSITION (CONTACTS DIAGRAMMATICALLY SHOWN CLOSED)
TEMPERATURE SWITCH		NORMALLY CLOSED, OPENS ABOVE SET TEMPERATURE

SPECIAL IDENTIFIERS

FC	FUSED CUTOUT
LB	LOAD BREAK
M	MOTOR RELAY
R	RED LIGHT

ABBREVIATIONS

ACSR	ALUMINUM CONDUCTOR STEEL REINFORCED
MESS.	MESSENGER

000090

PRELIMINARY

SHEET NO. E0001

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENCY REVIEW	1/21/02	GES		

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING

COGNIZANT ENGINEER DATE

APPROVALS: CIVIL & STR. / ELECTRICAL / ENGINEER / INSTRUMENT / MECHANICAL / CHECKED / APPROVED / SAFETY ENG. / MAINTENANCE / FIRE PROTECT. / WASTE MANAGE. / SECURITY / PROJECTS

Fernald Environmental Management Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

AREA 4B LIFT STATIONS
ELECTRICAL SYMBOLS AND LEGEND

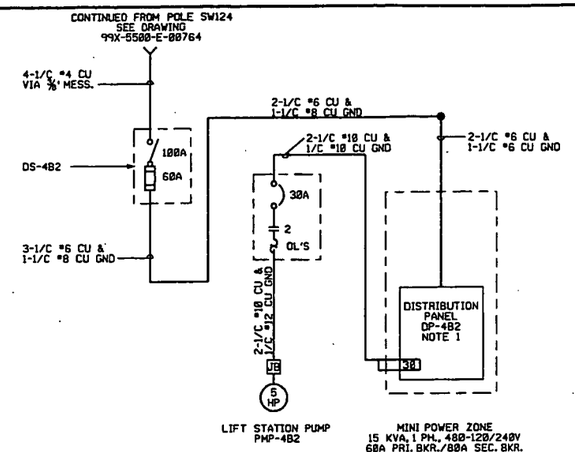
RES. 440
DATE 2-6-02
DRAWN C. SCHWARZMAN

99X-5500-E-00758 A

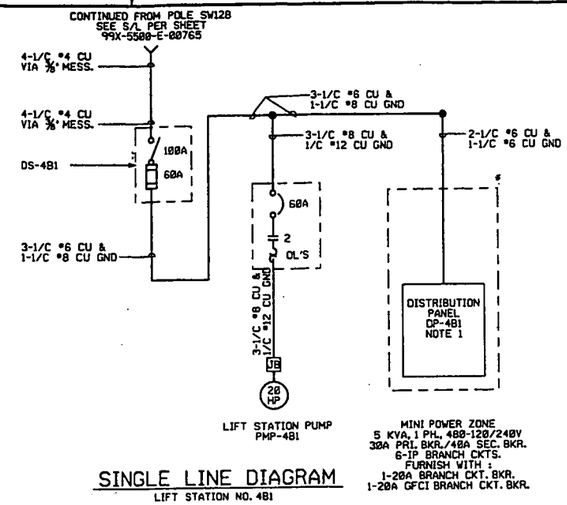
FILE NAME: /res4410/99xe0758.dgn

1. SEE SHEET 99X-5500-E-00763 FOR PANEL SCHEDULES.
2. SEE SHEET 99X-5500-E-00760 FOR ELEMENTARY DIAGRAMS.

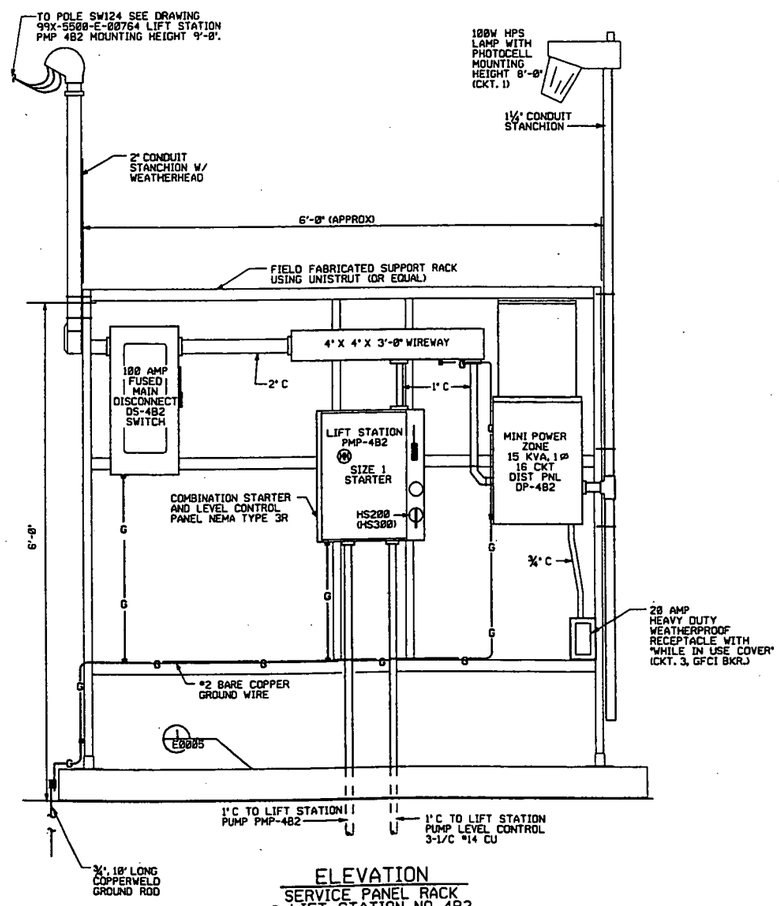
4518



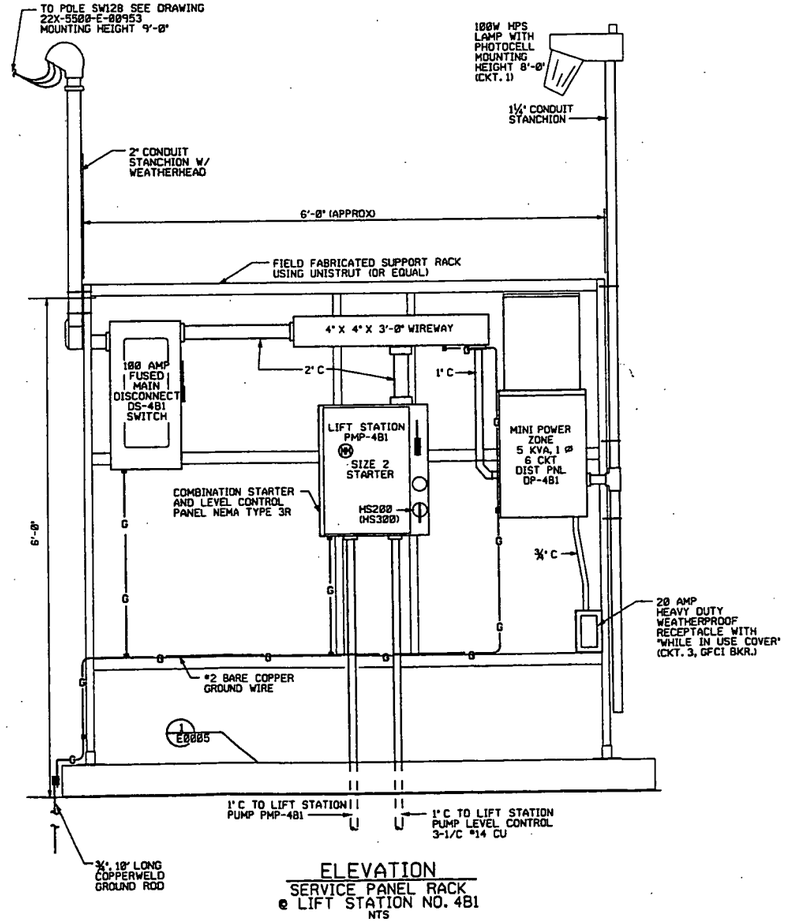
SINGLE LINE DIAGRAM
LIFT STATION NO. 4B2



SINGLE LINE DIAGRAM
LIFT STATION NO. 4B1



ELEVATION
SERVICE PANEL RACK
@ LIFT STATION NO. 4B2
NTS



ELEVATION
SERVICE PANEL RACK
@ LIFT STATION NO. 4B1
NTS

LEGEND:

(HM) RUN-TIME METER (MINUTES)

000091

PRELIMINARY

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENY REVIEW	1/11/02	GES		

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING

COGNIZANT ENGINEER DATE

APPROVALS: CIVIL & STR., ELECTRICAL, ENGINEER, INSTRUMENT, MECHANICAL, CHECKED, APPROVED; SAFETY ENG., MAINTENANCE, FIRE PROTECT., WASTE MANAGE., SECURITY, PROJECTS

Fernald Environmental Management Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

AREA 4B LIFT STATIONS
SINGLE LINE DIAGRAM / ELEVATIONS

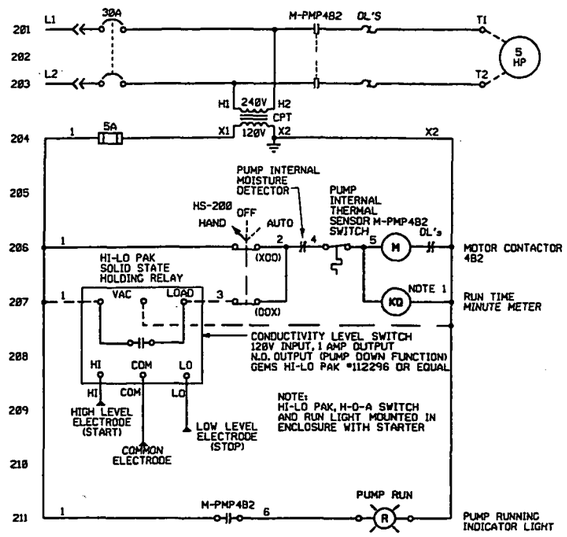
RES. ENG. DATE 9-6-02 DRAWN C. SCHWARZMAN

99X-5500-E-00759 A

SHEET NO. E0002

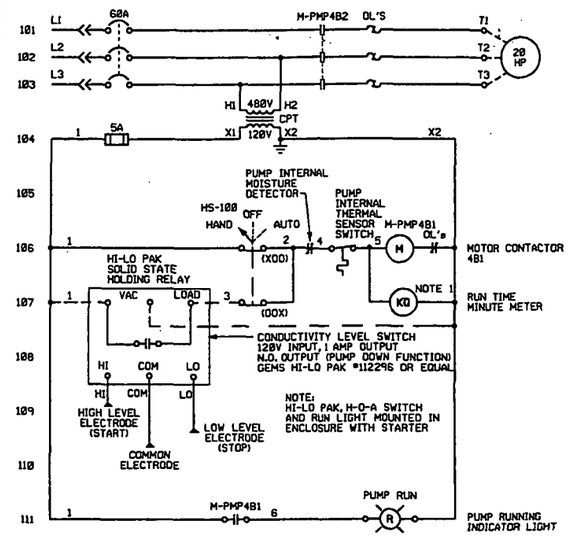
EQUIPMENT NAME : LIFT STATION NO. 4B2 PUMP PMP-4B2

EQUIPMENT NO. : PMP-4B2
S/L SHT. NO. : E0003, E0012
PLAN SHT. NO. : E0005
PREFIX WIRE NUMBERS WITH PMP4B2



EQUIPMENT NAME : LIFT STATION NO. 4B1 PUMP PMP-4B1

EQUIPMENT NO. : PMP-4B1
S/L SHT. NO. : E0003, E0012
PLAN SHT. NO. : E0005
PREFIX WIRE NUMBERS WITH PMP4B1



1. 6 DIGIT, NON RESETTABLE MINUTE METER WITH TENTHS OF A MINUTE, ON EXISTING MOTOR STARTER. INSTALLATION SHALL BE SUITABLE FOR OUTDOOR SERVICE AND MAINTAIN A NEMA 3R RATING OF THE CABINET.

-- 4518

PRELIMINARY

000092

SHEET NO. E0003

NO.	REVISIONS	DATE	DWN. BY	APPD.
A	ISSUED FOR AGENCY REVIEW	9/23/02	GES	

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING

COGNIZANT ENGINEER DATE

APPROVALS: CIVIL & STR., ELECTRICAL, ENGINEER, INSTRUMENT, MECHANICAL, SAFETY ENG., MAINTENANCE, FIRE PROTECT., WASTE MANAGE., SECURITY, PROJECTS, CHECKED, APPROVED

Fernald Environmental Management Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

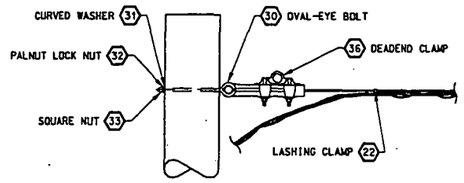
AREA 4B LIFT STATIONS
SINGLE LINE EQUIPMENT DIAGRAMS

RES 440 DATE 9-5-02 DRAWN G. SCHWARZMAN

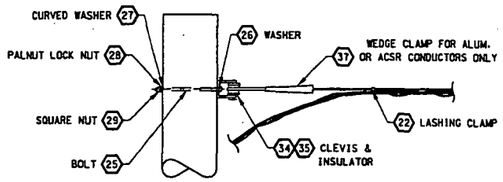
99X-5500-E-00760 A

FILE NAME: /res4410/99xe0760.dgn

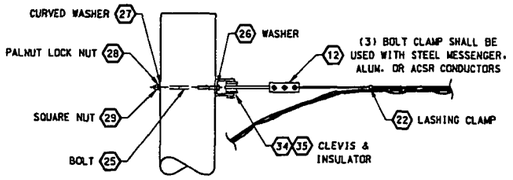
4518



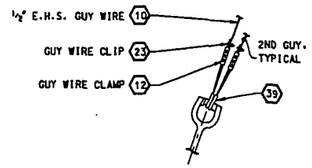
DEAD END CONNECTION DETAIL
50 - 150 FT. SPAN



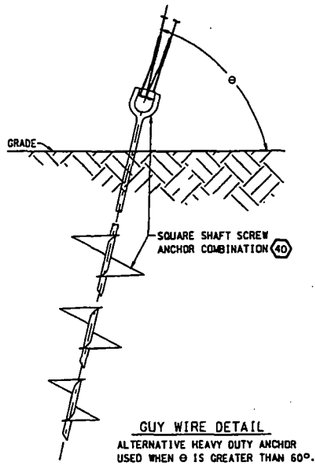
DEAD END CONNECTION DETAIL
0 - 50 FT. SPAN



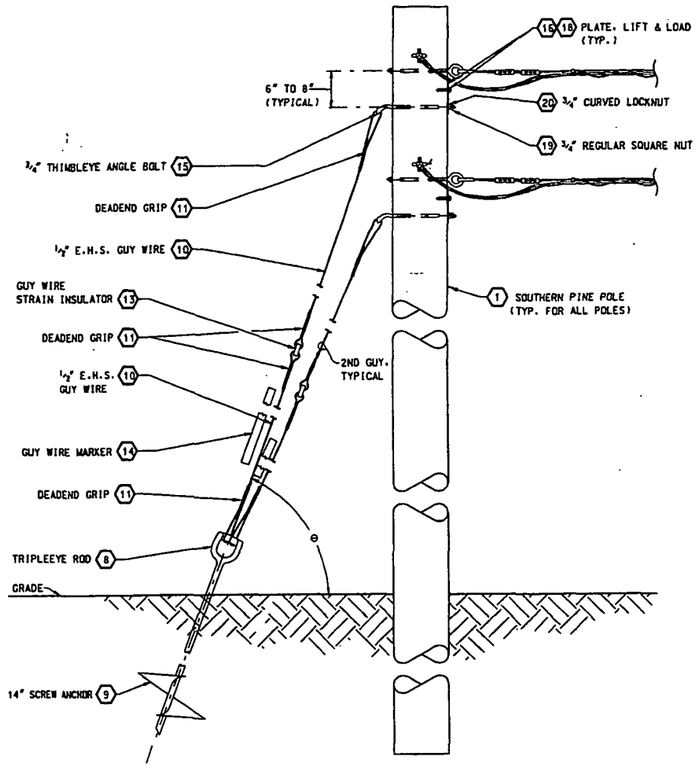
DEAD END CONNECTION DETAIL
0 - 50 FT. SPAN
(ALTERNATIVE)



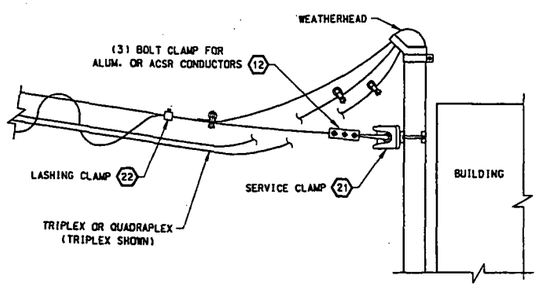
GUY WIRE DETAIL
ALTERNATIVE TO WIRING PREFORMS 11 FOR GUY WIRES LESS THAN OR EQUAL TO 1/2".



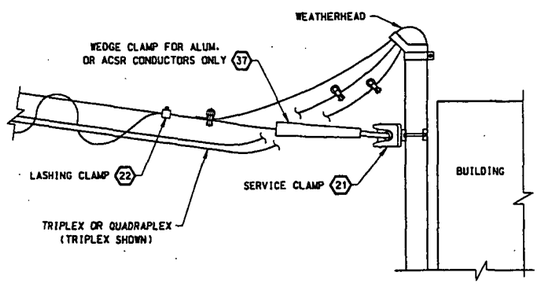
GUY WIRE DETAIL
ALTERNATIVE HEAVY DUTY ANCHOR USED WHEN θ IS GREATER THAN 60°.



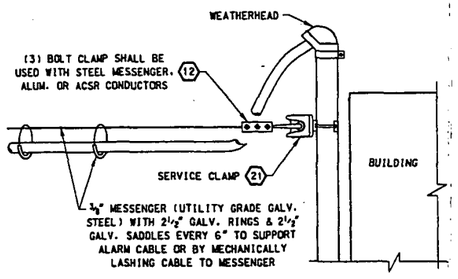
GUY WIRE DETAIL



SERVICE ENTRANCE DETAIL
0 - 50 FT. SPAN
TO POLE OR OTHER STRUCTURE



SERVICE ENTRANCE DETAIL
0 - 50 FT. SPAN
TO POLE OR OTHER STRUCTURE



SERVICE ENTRANCE DETAIL
0 - 50 FT. SPAN
TO POLE OR OTHER STRUCTURE

LEGEND:

θ - GUY WIRE ANGLE TO BE DEFINED ON PROJECT DRAWING.

NOTES:

1. CLASS II, 100% TREATED SOUTHERN PINE POLE.
2. 12 FEET OF #4 COPPER (CU) WIRE COILED AND STAPLED (COPPER CLAD, 1-1/2" LONG).
3. BUTT PLATE: POLE BOTTOM GROUND PLATE - COPPER, "BLAKBURN" #GP114.
4. #4 COPPER WIRE STAPLED (COPPERCLAD, 1-1/2" LONG) EVERY 2'-0" AND EXTENDED 8" ABOVE POLE.
5. GROUND CLAMP (FOR GROUND WIRE CONNECTION) - 3/4" DIAMETER, BRONZE OR BRASS, "BURNDY" #GR034.
6. GROUND ROD, 3/4" DIAMETER x 10'-0" LONG COPPER WELD, "BLACKBURN" #CC7510.
7. GROUNDING CLAMP - WIRE TO WIRE, "BURNDY" #GX264C.
8. TRIPLEYE ROD, 7 FEET MINIMUM SHAFT LENGTH, "A.B.CHANCE" #E102-0053.
9. 14 IN-SCREW ANCHOR, "CHANCE" #C102-5203.
10. 1/2" E.H.S. GUY WIRE.
11. DEADEND GRIP - PREFORMED TWISTED LOOP, CLASS A OR B, GALVINIZED, SIZED FOR GUY WIRE.
12. GUY CLAMP, 3 BOLT, "CHANCE" #6461.
13. GUY STRAIN INSULATOR, SIZED FOR GUY WIRE (EX: 5/8" WIRE MAX, "CHANCE" #708).
14. GUY WIRE MARKER - HALF ROUND UV RESISTANT, YELLOW PLASTIC, 2" WIDE x 96" LONG WITH MOUNTING HARDWARE, "CHANCE" #96-PBG-2Y.
15. 3/4" THIMBLEYE ANGLE BOLT, 3" LONGER THAN POLE DIAMETER, "CHANCE" #5114T (14" LONG).
16. PLATE, LIFT AND LOAD - 3 HOLE, "CHANCE" #7897.
17. 1/2" DIA. x 4" LONG LAG SCREWS, "CHANCE" #508754.
18. 1/2" DIA. x 5" LONG LAG SCREWS, "CHANCE" #508755.
19. REGULAR SQUARE NUT, 3/4", "CHANCE" #55085P.
20. CURVED LOCK NUT, 3/4", "CHANCE" #3513.
21. SERVICE CLAMP, 1-1/4" TO 2-1/2" CONDUIT, "CHANCE" #C207-0075, 3" TO 4" CONDUIT, "CHANCE" #C207-0076.
22. LASHING CLAMP, "CHANCE" #9000.
23. GUY WIRE CLIP, "CHANCE" #6484.
24. 5/8" BOLT, 12" LONG, "CHANCE" #8812.
25. 5/8" BOLT, 14" LONG, "CHANCE" #8814.
26. ROUND WASHER, "CHANCE" #6805.
27. CURVED WASHER, "CHANCE" #6823-1/2.
28. PALNUT LOCK NUTS, "CHANCE" #3532.
29. SQUARE NUT, "CHANCE" #55084P.
30. 3/4" OVAL-EYE BOLT, 14" LONG, "CHANCE" #29984.
31. CURVED WASHER, 3/4" BOLT HOLE, "CHANCE" #6825.
32. PALNUT LOCK NUT, 3/4", "CHANCE" #3533.
33. SQUARE NUT, 3/4", "CHANCE" #55085P.
34. CLEVIS, "CHANCE" #0337.
35. INSULATOR, "CHANCE" #0909-1032.
36. STRAIGHT-LINE DEADEND CLAMP, "CHANCE" #CSDF20.
37. WEDGE CLAMPS.

	ASR	AL	AAAC
"BLACKBURN" ##62-1	2-6	1 STR-6 SAL	2-6
"BLACKBURN" ##20-1	1/0-4	2/0 STR-2 SAL	1/0-4
"BLACKBURN" ##4/0-1	4/0-2/0	4/0 STR-2/0 SAL	4/0-2/0

38. BONDING CLAMP, "CHANCE" #CB1.
39. THIMBLES, GUY WIRE 1/2", "CHANCE" #6594.
40. SQUARE SHAFT 'SS' SCREW ANCHOR COMBINATION: 10"-12"-14" HELICES, "CHANCE" #12654-3EJN, 7 FOOT EXTENSION, "CHANCE" #12657, TRIPLEYE, "CHANCE" #C102-0025.
41. POLE PLATE, "CHANCE" #0501
42. END FITTING w/ CLAMP, "CHANCE" #0512
43. 5/8" BOLT, 24" LONG, "CHANCE" #8874
44. MESSENGER HANGER, UNIVERSAL TYPE, 1/2" x 2" x 4-1/2", "CHANCE" #7911

PRELIMINARY

000093

SHEET NO. E0004

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENCY REVIEW	1/30/02	CES		99X-5500-E-00762

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING DRAWING OR CONFIGURATION MANAGEMENT DRAWING. ALL CHANGES MUST BE MADE UNDER CONFIGURATION MANAGEMENT CONTROL.
COGNIZANT ENGINEER — DATE

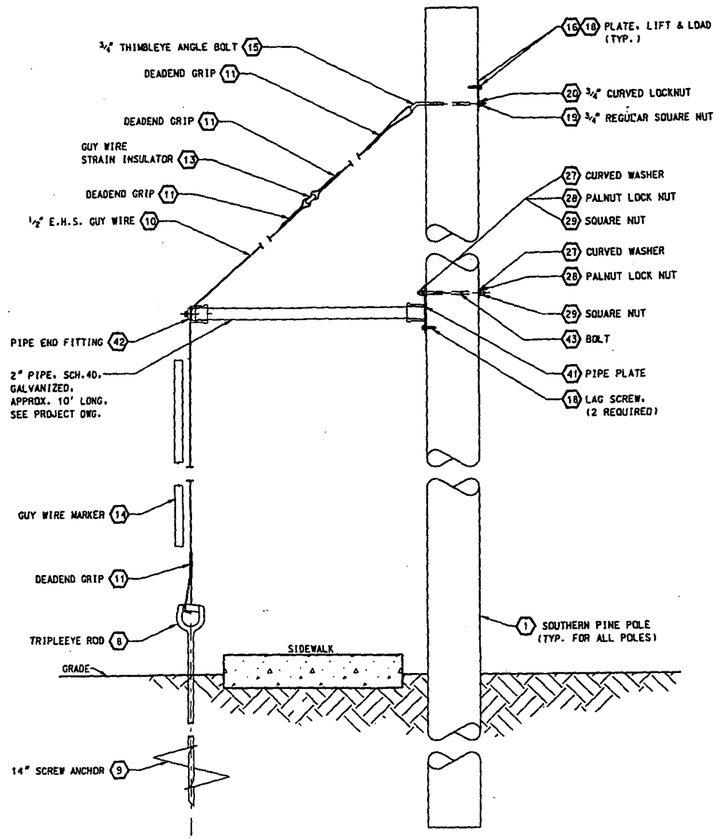
APPROVALS: CIVIL & STR., ELECTRICAL, ENGINEER, INSTRUMENT, MECHANICAL, CHECKED, APPROVED; SAFETY ENG., MAINTENANCE, FIRE PROTECT., WASTE MANAGE., SECURITY, PROJECTS

Fernald Environmental Management Project
FLUOR FERNALD, INC.
U.S. DEPARTMENT OF ENERGY

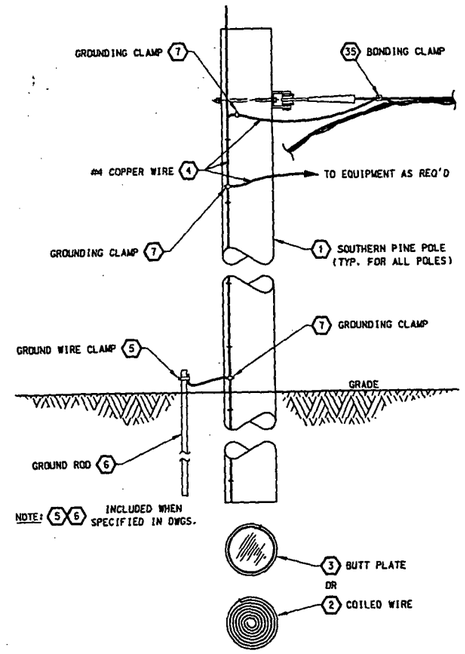
AREA 4B LIFT STATIONS
ELECTRICAL POWER POLE GUY WIRES.
ANCHORING & AERIAL DETAILS

RES 440 | DATE 9-5-02 | DRAWN G. SCHWARTZMAN | 99X-5500-E-00761 | A

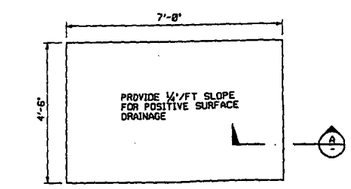
FILE NAME: /res4410/99xe0761.dgn



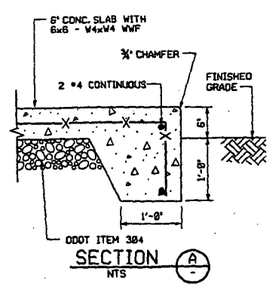
GUY WIRE DETAIL
SIDEWALK ANCHOR



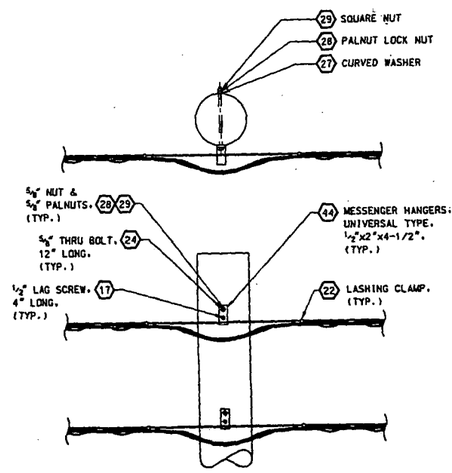
POLE GROUNDING
TYP. FOR ALL POLES



ELECTRICAL SERVICE PANEL RACK PAD DETAIL
NTS
1 E0005



SECTION
NTS



MID-SPAN DETAIL

NOTES:

1. CLASS II, 100% TREATED SOUTHERN PINE POLE.
2. 12 FEET OF #4 COPPER (CU) WIRE COILED AND STAPLED (COPPER CLAD, 1-1/2" LONG).
3. BUTT PLATE: POLE BOTTOM GROUND PLATE - COPPER, "BLAKBURN" #GP114.
4. #4 COPPER WIRE STAPLED (COPPERCLAD, 1-1/2" LONG) EVERY 2'-0" AND EXTENDED 8" ABOVE POLE.
5. GROUND CLAMP (FOR GROUND WIRE CONNECTION) - 3/4" DIAMETER, BRONZE OR BRASS, "BURNDY" #GRD34.
6. GROUND ROD, 3/4" DIAMETER x 10'-0" LONG COPPER WELD, "BLACKBURN" #CC7510.
7. GROUNDING CLAMP - WIRE TO WIRE, "BURNDY" #GX264C.
8. TRIPLEYE ROD, 7 FEET MINIMUM SHAFT LENGTH, "A.B.CHANCE" #E102-0053.
9. 14 IN-SCREW ANCHOR, "CHANCE" #C102-5203.
10. 1/2" E.H.S. GUY WIRE.
11. DEADEND GRIP - PREFORMED TWISTED LOOP, CLASS A OR B, GALVINIZED, SIZED FOR GUY WIRE.
12. GUY CLAMP, 3 BOLT, "CHANCE" #6461.
13. GUY STRAIN INSULATOR, SIZED FOR GUY WIRE (EX: 5/8" WIRE MAX, "CHANCE" #708).
14. GUY WIRE MARKER - HALF ROUND UV RESISTANT, YELLOW PLASTIC, 2" WIDE x 96" LONG WITH MOUNTING HARDWARE, "CHANCE" #96-PBG-2Y.
15. 3/4" THIMBLEYE ANGLE BOLT, 3" LONGER THAN POLE DIAMETER, "CHANCE" #5114T (14" LONG).
16. PLATE, LIFT AND LOAD - 3 HOLE, "CHANCE" #7897.
17. 1/2" DIA. x 4" LONG LAG SCREWS, "CHANCE" #508754.
18. 1/2" DIA. x 5" LONG LAG SCREWS, "CHANCE" #508755.
19. REGULAR SQUARE NUT, 3/4", "CHANCE" #55085P.
20. CURVED LOCK NUT, 3/4", "CHANCE" #3513.
21. SERVICE CLAMP, 1-1/4" TO 2-1/2" CONDUIT, "CHANCE" #C207-0075, 3" TO 4" CONDUIT, "CHANCE" #C207-0076.
22. LASHING CLAMP, "CHANCE" #9000.
23. GUY WIRE CLIP, "CHANCE" #6484.
24. 5/8" BOLT, 12" LONG, "CHANCE" #8812.
25. 5/8" BOLT, 14" LONG, "CHANCE" #8814.
26. ROUND WASHER, "CHANCE" #6805.
27. CURVED WASHER, "CHANCE" #6823-1/2.
28. PALNUT LOCK NUTS, "CHANCE" #3532.
29. SQUARE NUT, "CHANCE" #55084P.
30. 3/4" OVAL-EYE BOLT, 14" LONG, "CHANCE" #29984.
31. CURVED WASHER, 3/4" BOLT HOLE, "CHANCE" #6825.
32. PALNUT LOCK NUT, 3/4", "CHANCE" #3533.
33. SQUARE NUT, 3/4", "CHANCE" #55085P.
34. CLEVIS, "CHANCE" #0337.
35. INSULATOR, "CHANCE" #0909-1032.
36. STRAIGHT-LINE DEADEND CLAMP, "CHANCE" #CSDF20.
37. WEDGE CLAMPS.

	ASR	AL	AAAC
"BLACKBURN" #W62-1	2-6	1 STR-6 SAL	2-6
"BLACKBURN" #W20-1	1/0-4	2/0 STR-2 SAL	1/0-4
"BLACKBURN" #W4/0-1	4/0-2/0	4/0 STR-2/0 SAL	4/0-2/0

38. BONDING CLAMP, "CHANCE" #CB1.
39. THIMBLES, GUY WIRE 1/2", "CHANCE" #6594.
40. SQUARE SHAFT 'SS' SCREW ANCHOR COMBINATION: 10"-12"-14" HELICES, "CHANCE" #12654-3EJN, 7 FOOT EXTENSION, "CHANCE" #12657, TRIPLEYE, "CHANCE" #C102-0025.
41. POLE PLATE, "CHANCE" #0501
42. END FITTING w/ CLAMP, "CHANCE" #0512
43. 5/8" BOLT, 24" LONG, "CHANCE" #8874
44. MESSENGER HANGER, UNIVERSAL TYPE, 1/2" x 2" x 4-1/2", "CHANCE" #7911

PRELIMINARY

000094

SHEET NO. E0005

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENCY REVIEW	1/08/02	GES		99X-5500-E-00761

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING — USER / DATE
EXISTING DRAWINGS OR DOCUMENTS MARKED WITH THIS LEGEND ARE UNDER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.
COGNIZANT ENGINEER — DATE

APPROVALS: CIVIL & STR. / ELECTRICAL / ENGINEER / INSTRUMENT / MECHANICAL / CHECKED / APPROVED / SAFETY ENG. / MAINTENANCE / ENV. PROTECT. / WASTE MANAGE / SECURITY / PROJECTS

Fernald Environmental Management Project
FLUOR FERNALD, INC.
U.S. DEPARTMENT OF ENERGY

AREA 4B LIFT STATIONS
ELECTRICAL POWER POLE GUY WIRES.
ANCHORING & AERIAL DETAILS

RES 440 / DATE 3-5-02 / DRAWN G. SCHWARZMAN / 99X-5500-E-00762 / A

FILE NAME: /res440/99xe0762.dgn

PANEL DP-4B1

VOLTAGE : 120/240V
MAIN BKR : 40A
MOUNTING : RACK MOUNTED MINI POWER ZONE

REMARKS : 1. * INDICATES 6MA GFCI CLASS A, ** INDICATES 30MA GFCI CLASS B
LOCATION : LIFT STATION NO. 1, SEE SHEET NO. E000- AND E000- ??

DIRECTORY	WATTS LOAD L1	WATTS LOAD L2	CKT NO	WIRE SIZE	BKR AMPS	40 A MAIN	BKR AMPS	WIRE SIZE	CKT NO	WATTS LOAD L1	WATTS LOAD L2	DIRECTORY
100 WATT HPS FLOODLIGHT	100		1	12	20		--	N/A	2	---		SPACE
RECEPTACLE		180	3	12	20		--	N/A	4		---	SPACE
SPACE	---		5	N/A	--		--	N/A	6	---		SPACE
SUB-TOTALS	100	180	NEUTRAL BUS							0	0	SUB-TOTALS
	L1	L2								L1	L2	

TOTAL WATTS L1 : 100 TOTAL WATTS L2 : 180 TOTAL WATTS : 280

PANEL DP-4B2

VOLTAGE : 120/240V
MAIN BKR : 80A
MOUNTING : RACK MOUNTED MINI POWER ZONE

REMARKS : 1. * INDICATES 6MA GFCI CLASS A, ** INDICATES 30MA GFCI CLASS B
LOCATION : LIFT STATION NO. 2, SEE SHEET NO. E0006

DIRECTORY	WATTS LOAD L1	WATTS LOAD L2	CKT NO	WIRE SIZE	BKR AMPS	80 A MAIN	BKR AMPS	WIRE SIZE	CKT NO	WATTS LOAD L1	WATTS LOAD L2	DIRECTORY
100 WATT HPS FLOODLIGHT	100		1	12	20		30	N/A	2	2700		LIFT STATION
RECEPTACLE		180	3	12	20		30	N/A	4		---	482
SPACE	---		5	N/A	--		--	N/A	6	---		SPACE
SPACE	---		7	N/A	--		--	N/A	8	---		SPACE
SPACE	---		9	N/A	--		--	N/A	10	---		SPACE
SPACE	---		11	N/A	--		--	N/A	12	---		SPACE
SPACE	---		13	N/A	--		--	N/A	14	---		SPACE
SPACE	---		15	N/A	--		--	N/A	16	---		SPACE
SUB-TOTALS	100	180	NEUTRAL BUS							0	0	SUB-TOTALS
	L1	L2								L1	L2	

TOTAL WATTS L1 : 2800 TOTAL WATTS L2 : 2880 TOTAL WATTS : 5680

-- 4518

PRELIMINARY
000095

SHEET NO. E0006

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENCY REVIEW	9/21/02	GES		

NOTE:
FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING
YES / NO
SYSTEMS, STRUCTURES, OR COMPONENTS DESIGNATED AS CONFIGURATION MANAGEMENT DRAWING BY NOTE.
COGNIZANT ENGINEER DATE

APPROVALS

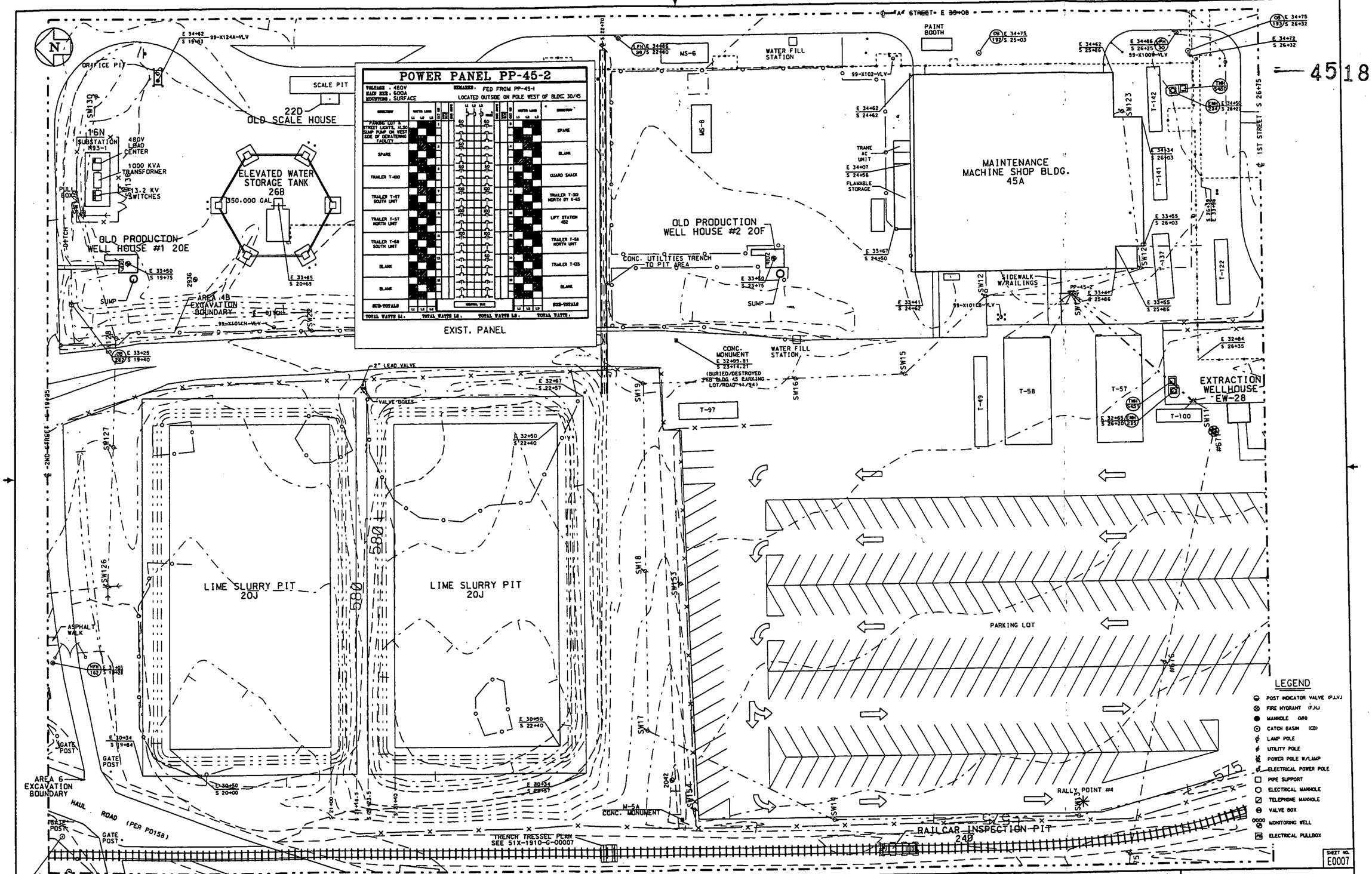
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		FIRE PROTECT.	
INSTRUMENT		WASTE MANAGE.	
MECHANICAL		SECURITY	
CHECKED		PROJECTS	
APPROVED			

Fernald Environmental Management Project
FLUOR FERNALD, INC.
U.S. DEPARTMENT OF ENERGY

AREA 4B LIFT STATIONS
ELECTRICAL PANEL SCHEDULES

RES 440
DATE 9-6-02
DRAWN C. SCHWARTZMAN
99X-5500-E-00763 A

FILE NAME: /res4410/99xe0763.dgn



4518

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					A	ISSUED FOR AGENCY REVIEW	1/21/02	GES		750-5500-G00072

NOTE: FLUOR FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING

COGNIZANT ENGINEER DATE

APPROVALS: CIVIL & STR. / ELECTRICAL / ENGINEER / INSTRUMENT / MECHANICAL / CHECKED / APPROVED / SAFETY ENG. / MAINTENANCE / FIRE PROTECT. / WASTE MANAGE / SECURITY / PROJECTS

Fernald Environmental Management Project

FLUOR FERNALD, INC.

U.S. DEPARTMENT OF ENERGY

ELECTRICAL PP-45-2 LOCATION
SCALE: 1"=20'

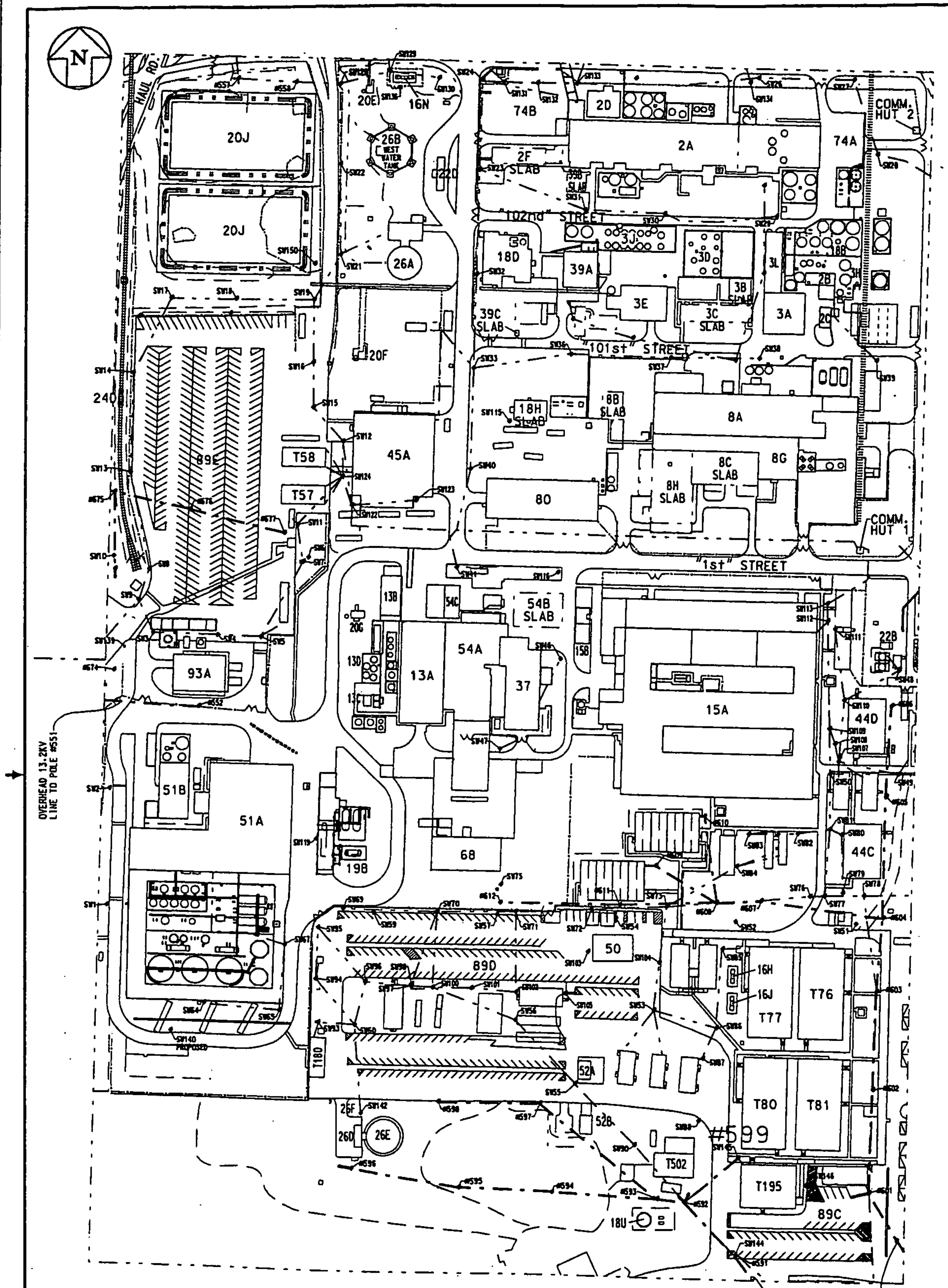
RES. 4410 DATE 9-6-02 DRAWN G. SCHWARTZMAN

99X-5500-E-00764 A

SHEET NO. E0007

000096

FILE NAME: /res4410/99xe0764.dgn



SOUTHWEST QUADRANT
UTILITY POLE
NUMBER DESIGNATION SITE PLAN
SCALE : 1" = 80'-0"

80 60 40 20 0 20 40 60 80 100 200 300
BAR SCALE IN FEET

—4518

POLE SCHEDULE (SOUTHWEST)

FORMER DESIGNATION(S)	NEW DESIGNATION	AREA LIGHT	DOCUMENTED DRAWINGS (POLE INSTALLATION &/OR MODIFICATIONS)	EASTING	NORTHING	ELEV.
—	SW1	YES	NA	1348004	479517	0.00
—	SW2	YES	NA	1348008	479685	0.00
—	SW3	YES	NA	1348078	479832	0.00
—	SW4	YES	NA	1348175	479826	0.00
—	SW5	YES	NA	1348241	479825	0.00
—	SW6	YES	NA	1348311	480045	0.00
—	SW7	YES	NA	1348303	480036	0.00
—	SW8	YES	NA	1348019.21	480028.78	574.63
—	SW9	YES	NA	1348083	479862	0.00
—	SW10	YES	NA	1348013	480049	0.00
—	SW11	YES	NA	1348294	480084	0.00
—	SW12	YES	NA	1348364	480318	0.00
RALLY PT.4	SW13	YES	NA	1348041.30	480176.62	575.43
—	SW14	YES	NA	1348045.13	480325.03	575.44
—	SW15	YES	NA	1348316	480270	0.00
—	SW16	YES	NA	1348318	480338	0.00
—	SW17	YES	NA	1348104	480437	0.00
—	SW18	YES	NA	1348208	480434	0.00
—	SW19	YES	NA	1348318	480431	0.00
—	SW20	YES	NA, REMOVED PRIOR 4/01			
—	SW21	YES	NA	1348339	480499	0.00
—	SW22	YES	NA	1348350	480635	0.00
—	SW23	YES	NA	1348566	480627	0.00
—	SW24	YES	NA	1348578	480762	0.00
—	SW25	—	NA, REMOVED			
—	SW26	YES	NA	1348981	480763	0.00
—	SW27	YES	NA	1349134	480761	0.00
—	SW28	YES	NA	1349178	480647	0.00
—	SW29	YES	NA	1349019	480656	0.00
—	SW30	YES	NA	1349046	480660	0.00
—	SW31	YES	NA	1348726	480668	0.00
—	SW32	YES	NA	1348342	480463	0.00
—	SW33	YES	NA	1348534	480379	0.00
—	SW34	YES	NA, REMOVED PRIOR 1/00			
—	SW35	YES	NA, REMOVED PRIOR 1/00			
—	SW36	YES	NA	1348708	480330	0.00
—	SW37	YES	NA	1348854	480344	0.00
—	SW38	YES	NA	1348953	480342	0.00
—	SW39	YES	NA	1349168	480337	0.00
—	SW40	YES	NA	1348554	480177	0.00
—	SW41	YES	NA	1348534	480028	0.00
—	SW42	—	NA, REMOVED			
—	SW43	—	NA, REMOVED			
—	SW44	—	NA, REMOVED			
—	SW45	—	NA, REMOVED			
—	SW46	YES	NA	1348689	479890	0.00
—	SW47	YES	NA	1348597	479733	0.00
—	SW48	YES	NA	1349202	479670	0.00
—	SW49	YES	NA	1349200	479713	0.00
—	SW50	YES	NA	1349099	479714	0.00
—	SW51	YES	NA	1349137	479487	0.00
—	SW52	YES	NA	1348966	479491	0.00
—	SW53	YES	NA	1348831	479355	0.00
—	SW54	YES	NA	1348774	479436	0.00
—	SW55	YES	NA	1348711	479244	0.00
—	SW56	YES	NA	1348628.70	479341.15	576.06
—	SW57	YES	NA	1348593.63	479501.46	576.84
—	SW58	YES	NA, REMOVED PRIOR 10/00			
—	SW59	YES	NA	1348411.65	479506.34	575.25
—	SW60	YES	NA	1348342.04	479336.54	573.91
CT3 SW61	#603	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349166.19	479343.87	576.85
CT2 SW62	#602	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349161.62	479235.46	576.90
CT1 SW63	#601	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349155.08	479079.34	576.83
—	SW64	YES	NA	1348154.85	479368.81	573.48
—	SW65	YES	NA	1348257	479354	0.00
—	SW66	—	NA, REMOVED			
—	SW67	NA	NA	1348276	479487	0.00
—	SW68	NA	NA, REMOVED PRIOR 1/00			
—	SW69	NA	NA	1348365.42	479511.58	575.11
—	SW70	NA	NA	1348306.04	479506.08	576.06
—	SW71	NA	NA	1348421.38	479506.14	576.84
—	SW72	NA	NA	1348737	479508	0.00
—	SW73	NA	NA	1348850	479613	0.00
—	—	—				
—	SW75	NA	96X-6900-E-00341	1348599.20	479544.81	576.48
—	SW76	NA	NA	1349068	479520	0.00
—	SW77	NA	NA	1349090	479528	0.00
—	SW78	NA	NA	1349148	479529	0.00
—	SW79	NA	NA	1349117	479533	0.00
—	SW80	NA	NA	1349116	479422	0.00
—	SW81	NA	NA	1349086	479430	0.00
—	SW82	NA	NA	1349056	479424	0.00
—	SW83	NA	NA	1348977	479423	0.00
—	SW84	NA	NA	1348956	479874	0.00
—	SW85	NA	NA	1348936	479449	0.00
—	SW86	NA	NA	1348927	479321	0.00
—	SW87	NA	NA	1348905	479283	0.00
—	SW88	NA	NA	1348896	479189	0.00
—	SW89	NA	NA, REMOVED PRIOR 1/00			
—	SW90	NA	NA	1348891	479152	0.00
SW91	#597	NA	NA	1348657.81	479215.18	576.75
SW92	#598	NA	NA	1348507.09	479219.03	573.19
—	SW93	NA	NA, 96X-6900-E-00312	1348327.63	479340.39	573.86
—	SW94	NA	NA	1348325.30	479406.12	573.97
—	SW95	NA	NA	1348325.99	479443.04	574.52
—	SW96	NA	NA	1348398.71	479400.62	574.48
—	SW97	NA	NA	1348444.46	479394.02	575.06
—	SW98	NA	NA	1348464.47	479396.87	574.99
—	SW99	NA	NA, REMOVED PRIOR 10/00			
—	SW100	NA	NA	1348498.88	479391.67	573.29

POLE SCHEDULE (SOUTHWEST) CONT.

FORMER DESIGNATION(S)	NEW DESIGNATION	AREA LIGHT	DOCUMENTED DRAWINGS (POLE INSTALLATION &/OR MODIFICATIONS)	EASTING	NORTHING	ELEV.
—	SW101	NA	NA	1348355.60	479390.07	575.89
—	SW102	NA	NA	1348621	479383	0.00
—	SW103	NA	NA	1348732	479444	0.00
—	SW104	NA	NA	1348839	479428	0.00
—	SW105	NA	NA	1348887.15	479361.50	576.70
—	—	—				
—	SW107	NA	NA	1349111	479733	0.00
—	SW108	NA	NA	1349106	479759	0.00
—	SW109	NA	NA	1349098	479783	0.00
—	SW110	NA	NA	1349130	479826	0.00
—	SW111	NA	NA	1349106	479833	0.00
—	SW112	NA	NA	1349086	479846	0.00
—	SW113	NA	NA	1349035	479872	0.00
—	—	—				
—	SW115	NA	NA	1348611	480249	0.00
—	SW116	NA	NA	1348685	480020	0.00
—	SW117	NA	REMOVED PRIOR 1/00			
—	SW118	NA	REMOVED PRIOR 1/00			
—	SW119	NA	NA	1348324	479616	0.00
—	SW120	NA	REMOVED PRIOR 1/00			
—	SW121	NA	REMOVED PRIOR 1/00			
—	SW122	NA	NA	1348377	480122	0.00
—	SW123	NA	NA	1348474	480129	0.00
—	SW124	NA	NA	1348363	480165	0.00
—	SW125	NA	REMOVED PRIOR 1/00			
SW126	#657	NA	NA, RE-NUMBERED PER RES #4381	1348204	480756	0.00
SW127	#658	NA	NA, RE-NUMBERED PER RES #4381	1348290	480760	0.00
—	SW128	NA	NA	1348387	480756	0.00
—	SW129	NA	NA	1348434	480775	0.00
—	SW130	NA	NA	1348507	480768	0.00
—	SW131	NA	NA	1348660	480755	0.00
—	SW132	NA	NA	1348665	480757	0.00
—	SW133	NA	NA	1348712	480756	0.00
—	SW134	NA	NA	1348978	480757	0.00
—	SW135	NA	REMOVED PRIOR 1/00			
—	SW136	NA	NA	1348449	480749	0.00
—	—	—				
—	SW139	NA	NA, CUT OFF AT GRADE	1348032	479810	0.00
—	SW140	YES	18D-1900-E-02534 (PROPOSED)	1348104	479327	0.00
—	—	—				
—	SW142	NA	26A-5500-B-00232	1348392.22	479202.36	574.14
—	—	—				
RALLY PT.2	SW144	NA	NA, #599 POLE	1348357	478991	0.00
—	SW145	NA	NA	1348858	479133	0.00
—	SW146	NA	NA	1349061	479001	0.00
—	—	—				
—	—	—				
—	SW150	NA	NA	1348320	480446	0.00
—	—	—				
ST4	#632	YES	96X-6900-E-00307, 96X-6900-E-00352	1348147	479820	0.00
—	—	—				
24B	#691	NA	96X-6900-E-00362, 96X-6900-E-00356, 92X-6900-E-00379	1348957	478967	0.00
24C	#692	NA	96X-6900-E-00346, 96X-6900-E-00362	1348876.95	479066.46	577.88
24D	#693	NA	96X-6900-E-00346, 96X-6900-E-00362	1348836	479078	0.00
—	#694	NA	96X-6900-E-00346, 96X-6900-E-00352	1348676	479081	0.00
—	#695	NA	96X-6900-E-00346, 96X-6900-E-00352	1348837	479089	0.00
—	#696	NA	96X-6900-E-00346, 96X-6900-E-00352	1348377.42	479119.31	577.50
SW91	#597	NA	NA, ADDED 13.2 KV	1348657.81	479215.18	576.75
SW92	#598	NA	NA, ADDED 13.2 KV	1348507.09	479219.03	573.19
—	—	—				
CT1 SW63	#601	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349155.08	479079.34	576.83
CT2 SW62	#602	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349161.62	479235.46	576.90
CT3 SW61	#603	NA	96X-6900-E-00352, 96X-6900-E-00356, 96X-6900-E-00304	1349164.19	479343.87	576.85
CT4	#604	NA	96X-6900-E-00362, 96X-6900-E-00304	1349170	479498	0.00
CT5	#605	NA	96X-6900-E-00362, 96X-6900-E-00304	1349182	479660	0.00
CT6	#606	NA	96X-6900-E-00362, 96X-6900-E-00304	1349191	479617	0.00
LT1	#607	NA	96X-6900-E-00362	1348996	479822	0.00
LT2	#608	NA	96X-6900-E-00352	1348927	479819	0.00
LT3	#609	NA	96X-6900-E-00362, 96X-6900-E-00326, 96X-6900-E-00341	1348836	479876	0.00
LT4	#610	NA	96X-6900-E-00362, 96X-6900-E-00326, 96X-6900-E-00341	1348909	479851	0.00
—	#611	NA	96X-6900-E-00362, 96X-6900-E-00341	1348775.89	479619.90	577.46
—	#612	NA	96X-6900-E-00362, 96X-6900-E-00341	1348590.43	479519.16	575.94
—	—	—				
—	#674	NA	96X-6500-E-02021	1348015	479875	0.00
—	#675	NA	96X-6500-E-02021	1348016	480145	0.00
—	#676	NA	96X-6500-E-02021	1348133	480116	0.00
—	#677	NA	96X-6500-E-02021	1348275	480082	0.00

PRELIMINARY

LEGEND / GENERAL NOTES:

1. POLE NUMBERS 001 THRU 499 : 480 VOLT AND LOWER (INCLUDING LIGHT POLES).
2. POLE NUMBERS 500 THRU 799 : 13.2 KV LINES (INCLUDING LIGHT POLES).
3. POLE NUMBERS 800 THRU 999 : 34.5 KV LINES (INCLUDING LIGHT POLES).
4. POLE NUMBERS 1000 AND HIGHER : 132.0 KV LINES.

NO.	REVISIONS	DATE	DWN. BY	APPD.
A	ISSUED FOR AGENCY REVIEW	1/23/02	GES	

REF. DWG. NO.

NOTE: FLUOR FERNALD CADD DRAWING, DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING — SYSTEMS, STRUCTURES OR COMPONENTS DEPICTED ON THIS DRAWING ARE UNDER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

APPROVALS: CIVIL & STR. / ELECTRICAL / ENGINEER / INSTRUMENT / MECHANICAL / CHECKED / APPROVED / SAFETY ENG. / MAINTENANCE / FIRE PROTECT. / WASTE MANAGE / SECURITY / PROJECTS

Fernald Environmental Management Project
FLUOR FERNALD, INC.
U.S. DEPARTMENT OF ENERGY

SITE MAP
ELECTRICAL POWER POLE SW128 LOCATION
SCALE: 1"=80'

RES 4410
DATE 9-24-02
DRAWN C. SCHWARZMAN

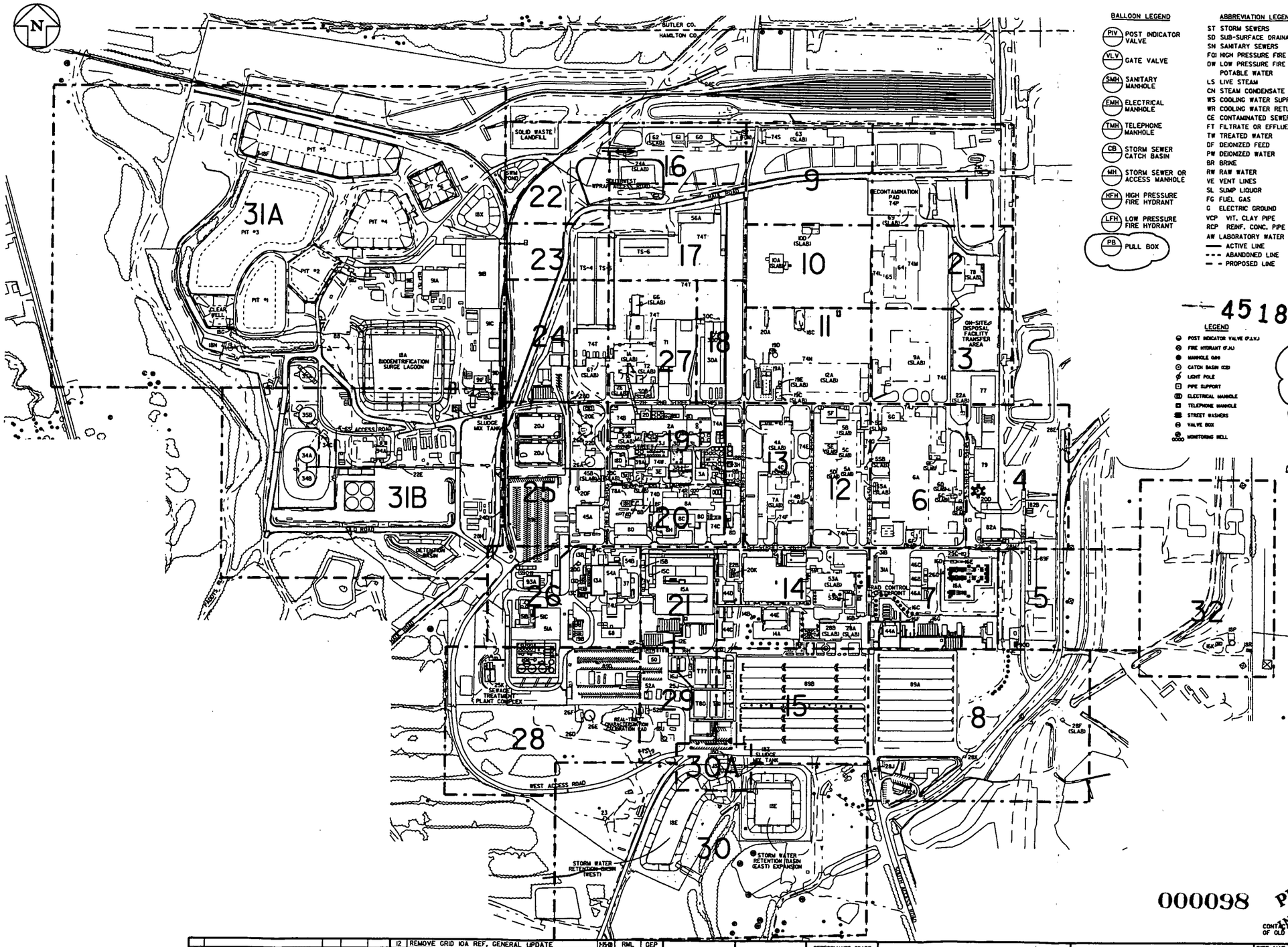
99X-5500-E-00765 A

SHEET NO. E0008

000097

FILE NAME: /res4410/99xe0765.dgn

FFE.DGN 3/22/00



BALLOON LEGEND

- PIV — POST INDICATOR VALVE
- VLV — GATE VALVE
- SMH — SANITARY MANHOLE
- EMH — ELECTRICAL MANHOLE
- TMH — TELEPHONE MANHOLE
- CB — STORM SEWER CATCH BASIN
- MH — STORM SEWER OR ACCESS MANHOLE
- HFH — HIGH PRESSURE FIRE HYDRANT
- LFH — LOW PRESSURE FIRE HYDRANT
- PB — PULL BOX

ABBREVIATION LEGEND

ST	STORM SEWERS
SD	SUB-SURFACE DRAINAGE
SN	SANITARY SEWERS
FCI	HIGH PRESSURE FIRE LINES
DW	LOW PRESSURE FIRE LINE/ POTABLE WATER
LS	LIVE STEAM
CN	STEAM CONDENSATE
WS	COOLING WATER SUPPLY
WR	COOLING WATER RETURN
CE	CONTAMINATED SEWER
FT	FILTRATE OR EFFLUENT
TW	TREATED WATER
DF	DEIONIZED FEED
PW	DEIONIZED WATER
BR	BRINE
RW	RAW WATER
VE	VENT LINES
SL	SUMP LIQUOR
FG	FUEL GAS
C	ELECTRIC GROUND
VCP	VIT. CLAY PIPE
RCP	REINF. CONC. PIPE
AW	LABORATORY WATER
——	ACTIVE LINE
- - -	ABANDONED LINE
— —	PROPOSED LINE

GRID / DRAWING NUMBER

GRID	DRAWING NUMBER
1	22C-5500-P-00660
2	22C-5500-P-00661
3	22C-5500-P-00662
4	22F-5500-P-00663
5	22A-5500-P-00664
6	22F-5500-P-00665
7	22H-5500-P-00666
8	22H-5500-P-00667
9	22C-5500-P-00668
10	22C-5500-P-00669
11	22C-5500-P-00670
12	22E-5500-P-00671
13	22E-5500-P-00672
14	22H-5500-P-00673
15	22H-5500-P-00674
16	22B-5500-P-00675
17	22B-5500-P-00676
18	22B-5500-P-00677
19	22D-5500-P-00678
20	22D-5500-P-00679
21	22G-5500-P-00680
22	22B-5500-P-00681
23	22B-5500-P-00682
24	22B-5500-P-00683
25	22D-5500-P-00684
26	22G-5500-P-00685
27	22B-5500-P-00686
28	22A-5500-P-00687
28	22A-5500-P-00744
29	22A-5500-P-00688
30	22A-5500-P-00689
30A	22A-5500-P-00785
31A	22A-5500-P-00804
31B	22A-5500-P-00805
32	22A-5500-P-00707

4518

LEGEND

- POST INDICATOR VALVE (P.I.V.)
- FIRE HYDRANT (F.H.)
- MANHOLE (SM)
- CATCH BASIN (CB)
- LIGHT POLE
- PIPE SUPPORT
- ELECTRICAL MANHOLE
- TELEPHONE MANHOLE
- STREET WASHERS
- VALVE BOX
- MONITORING WELL

GRID DETAIL DRAWINGS

GRID NO.	DETAIL DWG NO.
10	22C-5500-P-00706
3,14,20,21	22H-5500-P-00963
28	22A-5500-P-00744
31A	22A-5500-P-00961
31B	22A-5500-P-00930
31B	22A-5500-P-00961

FUEL GAS (FG) NOTE:
THE ONLY ACTIVE FUEL GAS LINES ARE FROM NEW GAS METER AT WILLEY ROAD TO HIGHLINE (EAST OF BLDG. 51A), THEN TO NEW BOILER HOUSE (BLDG. 93A) AND TO WRAP AREA.

FERNALD UNDERGROUND UTILITES
THIS COMPOSITE DRAWING CONTAINS INFORMATION TAKEN FROM ENGINEERING DRAWINGS FROM 1951 TO THE PRESENT WHICH ARE PRESENTLY ON FILE IN THE FERNALD SITE ENGINEERING DEPARTMENT. NOTE: UNDERGROUND UTILITES WHICH ARE NOT OF RECORD IN THE FERNALD SITE ENGINEERING DEPARTMENT ARE NOT DISPLAYED IN THESE COMPOSITE DRAWINGS.

POST INDICATOR COLORS AT THE F.E.M.P.
(PER FRED BRAUN, UTILITY ENG. 5/18/95)

COLOR	SERVICE
WHITE	(DW) POTABLE WATER LOW PRESSURE FIRE HYDRANT
ORANGE/GREEN	HIGH PRESSURE FIRE HYDRANT
YELLOW	(TW) TREATED WATER PROCESS WATER
BLACK	(FT) EFFLUENT
GREEN	(WS) COOLING WATER SUPPLY
BLUE	(WR) COOLING WATER RETURN
PINK	(RW) RAW WATER
PINK/WHITE	UN-USED (RW) & (DW) CROSS CONNECTION
RED	PROPANE AREA SUMP PIT
PINK/GREEN	(RW) & FIRE PUMP HOUSE (26A)
GRAY	(FT) LIME SLURRY POND LINE
YELLOW/GREEN	(TW) TREATED WATER
WHITE/GREEN	(DW) FEED TO GROUNDWATER STORAGE TANK

FIRE HYDRANT COLORS AT THE F.E.M.P.

ORANGE	LOW PRESSURE HYDRANTS
ORANGE/GREEN	HIGH PRESSURE HYDRANTS

INTERIOR PIPING COLORS (PRELIMINARY)

BLUE	AIR
GREEN	WATER
RED	FIRE PROTECTION

000098

PRELIMINARY
INFORMATION ONLY
CADD SERVICES

CONTACT CADD SERVICES FOR PIPE SPECIFICATIONS OF OLD AND MOST OF THE NEW PIPING INSTALLATIONS.

NOTE:
1. THIS DRAWING ISSUED PERIODICALLY, FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.

FORMAT REVISED 8/17/98

NO.	REVISIONS	DATE	DWN. BY	APPD.
15	GENERAL UPDATE			
14	ADDED GRID DETAIL DRAWING INDEX	6/2/00	RML	GEP
13	REVISED PER MARK-UP	3/4/00	SJS	GEP

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
12	REMOVE GRID 10A REF, GENERAL UPDATE	11-5-98	RML	GEP	
11	MODIFIED GRID 26 & GRID 31B OUTLINES, ADD GRID 10A	10-9-98	RML	GEP	
10	MODIFIED GRID 28 OUTLINE, ADDED DWG NO., DELETED GRID 33	7-2-98	RML	GEP	
9	UPDATED	1-14-97	GEP	GEP	
8	UPDATED	1-13-95	JSW	GEP	93X-5900-G-00273
7	UPDATED	2-1-95	GES	GEP	93X-5900-G-00272

NOTE:
FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

PERFORMANCE GRADE
1 2 3 4 5
BY: DATE:

APPROVALS

CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT		FIRE PROTECT.	
MECHANICAL		WASTE MANAGE.	
		SECURITY	
		CRU	
CHECKED	RF		
APPROVED	G.E. PAUL		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald
Environmental Management Project
U.S. DEPARTMENT OF ENERGY

SITE MAP

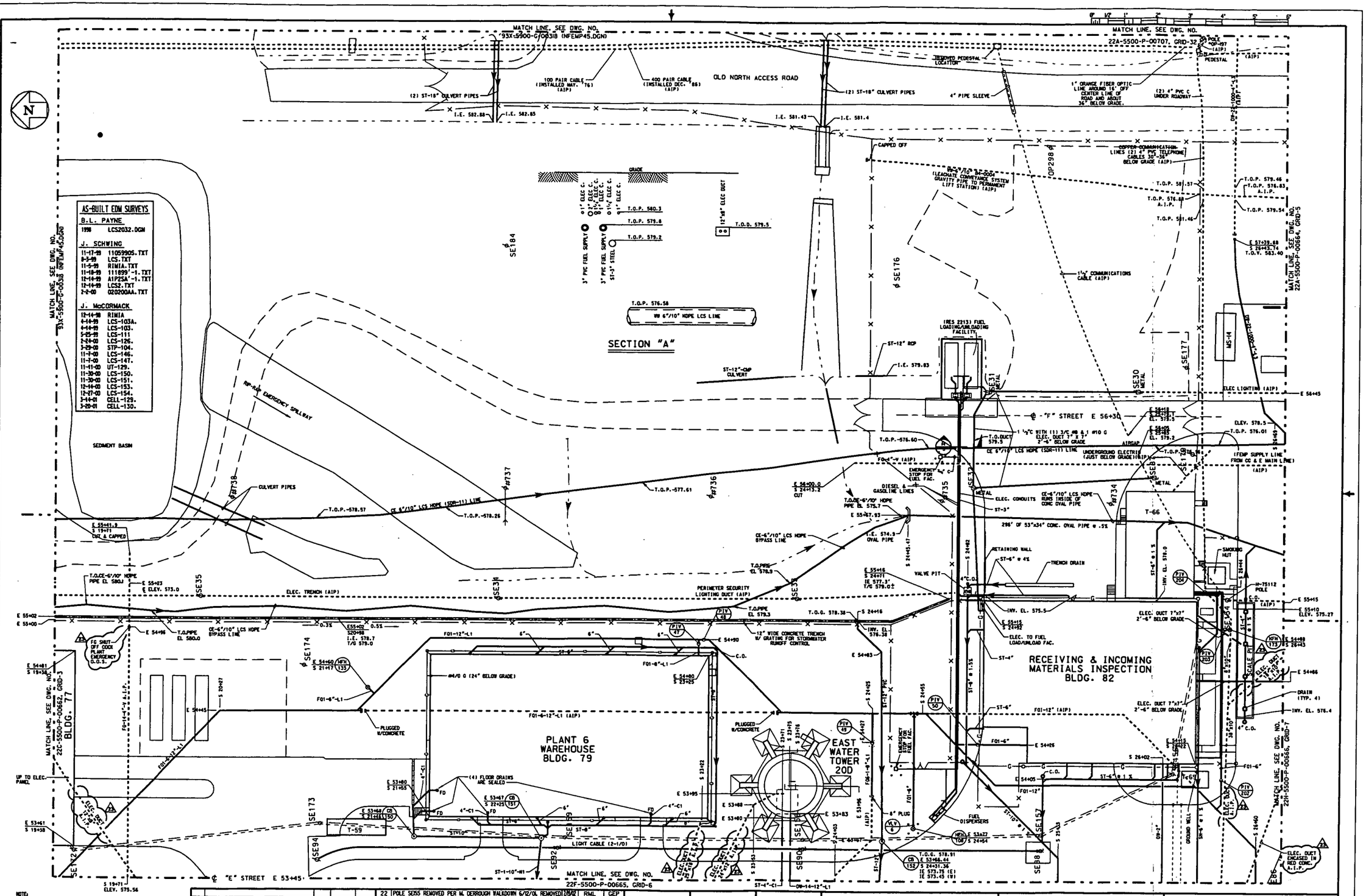
MASTER GRID OF UNDERGROUND UTILITY PLANS

DATE 5/4/98
DRAWN G.E.S.

22X-5500-P-00659 | 15

FILE NAME: /UNDER/22XP0659.DGN

4518



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3. LEACHATE CONVEYANCE SYSTEM (PO 840 BLO) LINE IS FROM B.L. PAYNE AS-BUILT SURVEY, SEE /PAYNE/LCS/LESSLOGL

NO.	REVISIONS	DATE	DWN. BY	APPD.
23	ELECTRIC DUCTS A.I.P. PER COMPLETED WORK ORDER AL05633	1/8/02	GES	GEP

NO.	REVISIONS	DATE	DWN. BY	APPD.
22	POLE SE55 REMOVED PER M. DERROUGH WALKDOWN 6/12/01, REMOVED PORTION OF ORIGINAL WW-6"/10" LEACHATE LINE, REMOVED POLES SE185 & SE186 PER WISE TASK ORDER 051, MOVE 28M TO NFEMP 45, MOVE 29E SOUTH, COMM EAST OF FENCE A.I.P., GENERAL UPDATE	7/5/01	RML	GEP
21	ADD ELEC & LCS LINE TO SECTION "A", AS-BUILT LCS LINE & POLE "734 TO "738 PER J. McCORMACK SURVEYS, EXCAVATION BOUNDARIES	5/3/01	RML	GEP

REF. DWG. NO.: 22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS					
CIVIL & STRL				SAFETY ENG.	
ELECTRICAL				MAINTENANCE	
ENGINEER				O.A.	
INSTRUMENT					
MECHANICAL				FIRE PROTECT. WASTE MANAGE.	
CHECKED	GEP			O.D.E.	
APPROVED	G.E.PAUL		2-20-90	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

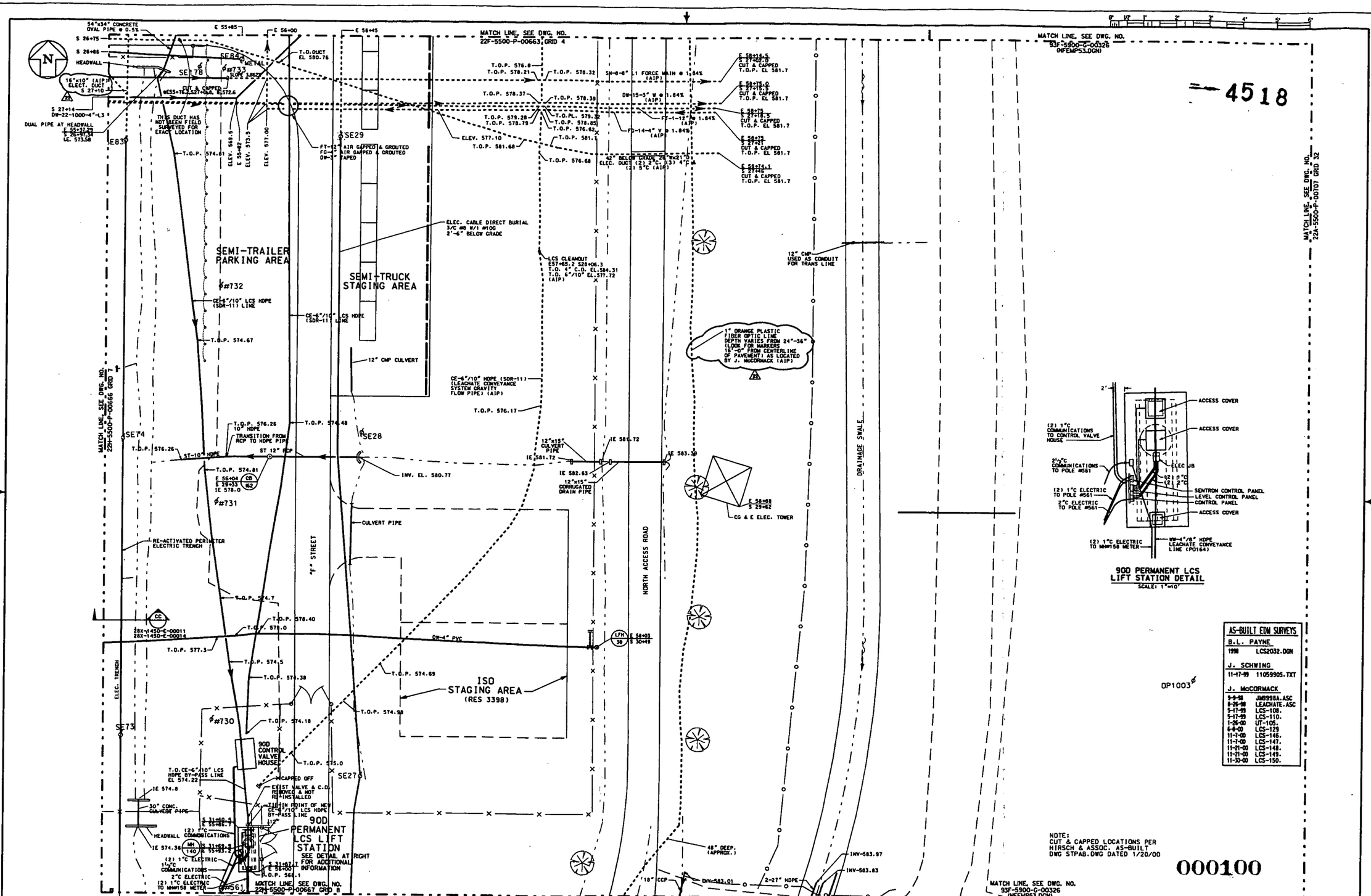
BLDG. 79,82 & E. WATER TOWER YARD AREA
GRID 4
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 2-20-90
DRAWN A. EING

22F-5500-P-00663 | 23

FILE NAME: /UNDER/22FP0663.DGN

000099



NOTES:
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3. THE WEST UTILITIES CORRIDOR TRENCH IS THE RESULT OF AN AS-BUILT SURVEY BY B.L. PAYNE & ASSOC. THIS INCLUDES THE LCS LINE (PO164). FOR B.L. PAYNE SURVEY SEE FILE/PAYNE/LCS2032.DGN.

NO.	REVISIONS	DATE	DWN. BY	APPD.
23	A.I.P. UND'GD. FIBER OPTIC LINE, GENERAL UPDATE	1/8/02	RML	GEP
22	RE-ACTIVATED PERIMETER ELECTRIC IN TRENCH PER R. DUCKWORTH 3/18/01 MEMO, ADDED LIFT STATION DETAIL, INCORP. REDLINE AS-BUILT FROM J. McCORMACK 5/01/01, GENERAL UPDATE	5/3/01	RML	GEP

REF. DWG. NO. 22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± 1/16, ANGLES ± 0° 30', DECIMALS .X ± 0.1, .XX ± 0.030, .XXX ± 0.010, .XXXX ± 0.0050, GEN. RELEASE RULE

APPROVALS			
CIVIL & STR.		SAFETY ENG. MAINTENANCE	
ELECTRICAL			
ENGINEER		O.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT. WASTE MANAGE	
CHECKED	GEP	O.E.	
APPROVED	G.E. PAUL 1-29-01	SECURITY	

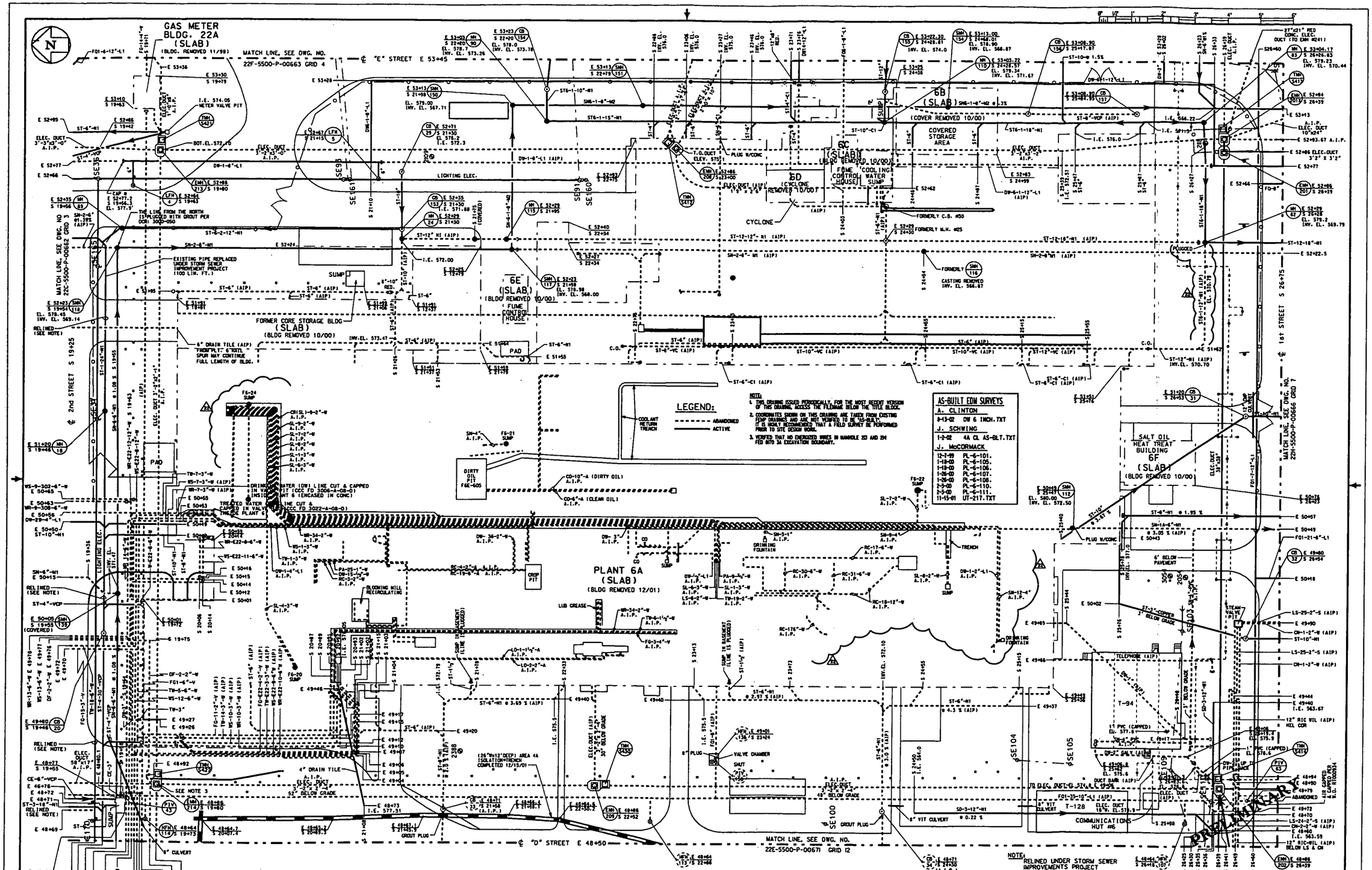
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

EAST OF MAIN SUB-STATION — YARD AREA
GRID 5
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 2-20-90
DRAWN DEL TURPIN

22A-5500-P-00664 | 23

FILE NAME: /UNDER/22AP0664.DGN



NO.	REVISIONS	DATE	DWN.	BY	APPD.	NO.	REVISIONS	DATE	DWN.	BY	APPD.	REF. DWG. NO.
22	INCORPORATED UNDERGROUND UTILITIES UNDER FORMER PLANT 6 BUILDING					21	SH-4" PVC A.I.P. PER COMPLETED WORK ORDER RT002406. DW-4-8"LI CAPPED OFF NORTH OF LFH-4 PER COMPLETED WORK ORDER RT002396. ELECTRIC DUCTS A.I.P. PER COMPLETED WORK ORDER AL056313. DW-2 GALV A.I.P. PER COMPLETED WORK ORDER RT002232	MAR2	GES	GEP	99X-5500-G-00631 22X-5500-P-00659
	MH-82 PLUGGED ON WEST WALL PER COMP. WORK ORDER 2080I TRAVELER NO.104.											

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			O.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE	
CHECKED	GEP	2-20-90	D.O.E.	
APPROVED	G.E. PAUL	2-20-90	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

PLANT 6 — YARD AREA

GRID 6
UNDERGROUND UTILITIES
SCALE 1"=20'

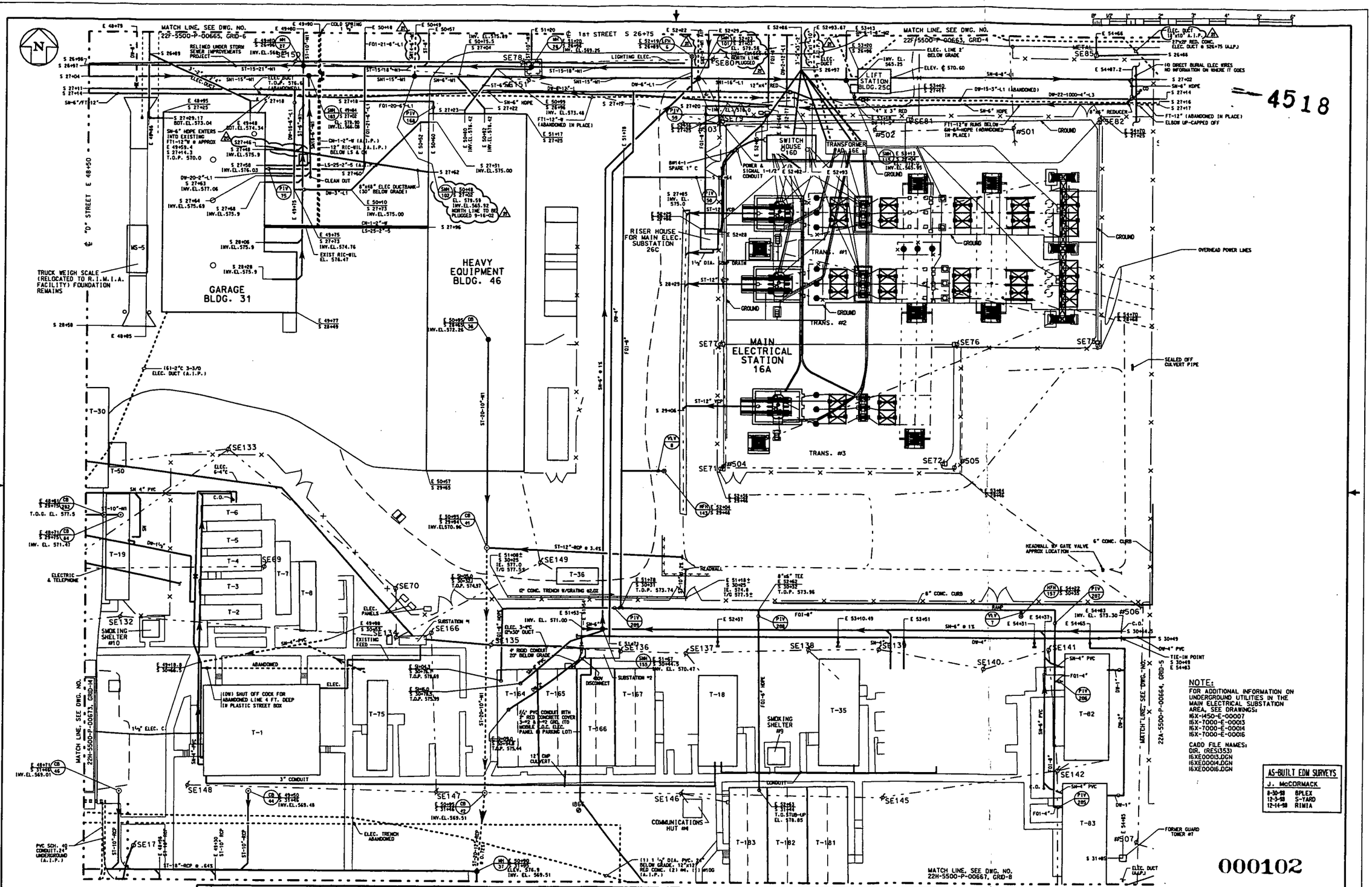
DATE 2-20-90
DRAWN J. KING

22F-5500-P-00665 | 22

FILE NAME: /UNDER/22FP0665.DGN

4518

000101



NOTE:
FOR ADDITIONAL INFORMATION ON UNDERGROUND UTILITIES IN THE MAIN ELECTRICAL SUBSTATION AREA, SEE DRAWINGS:
16X-1450-E-00007
16X-7000-E-00013
16X-7000-E-00014
16X-7000-E-00016

CADD FILE NAMES:
DIR. (RESI353)
16XE00013.DGN
16XE00014.DGN
16XE00016.DGN

AS-BUILT EDM SURVEYS
J. McCORMACK
8-30-93 BPLEX
12-3-93 S-YARD
12-14-93 RIMIA

000102

NOTE:
1. THIS DRAWING ISSUED PERIODICALLY, FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FSAP DRAWINGS AND ARE NOT VERIFIED TO BE AS-BUILT. IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.
					21	NORTH LINE (SN14-6"-MD) FROM SMH-102 PLUGGED PER COMPLETED WORK ORDER RT002406. NORTH LINE (SN-2-8"-MD FROM SMH-101 PLUGGED PER COMPLETED WORK ORDER RT002405. ELECTRIC DUCTS A.I.P. PER COMPLETED WORK ORDER AL056313	9-9-93	GES	GEP

REF. DWG. NO. 22X-5500-P-00659

NOTE:
WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0°-30'
DECIMALS
.X ± 0.1
.XX ± 0.05
.XXX ± 0.005
FINAL RELEASE DATE

APPROVALS				
			SAFETY ENG.	
CIVIL & STR.			MAINTENANCE	
ELECTRICAL				
ENGINEER			Q.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE	
CHECKED	GEP		D.O.E.	
APPROVED	G.E. PAUL	12-9-93	SECURITY	

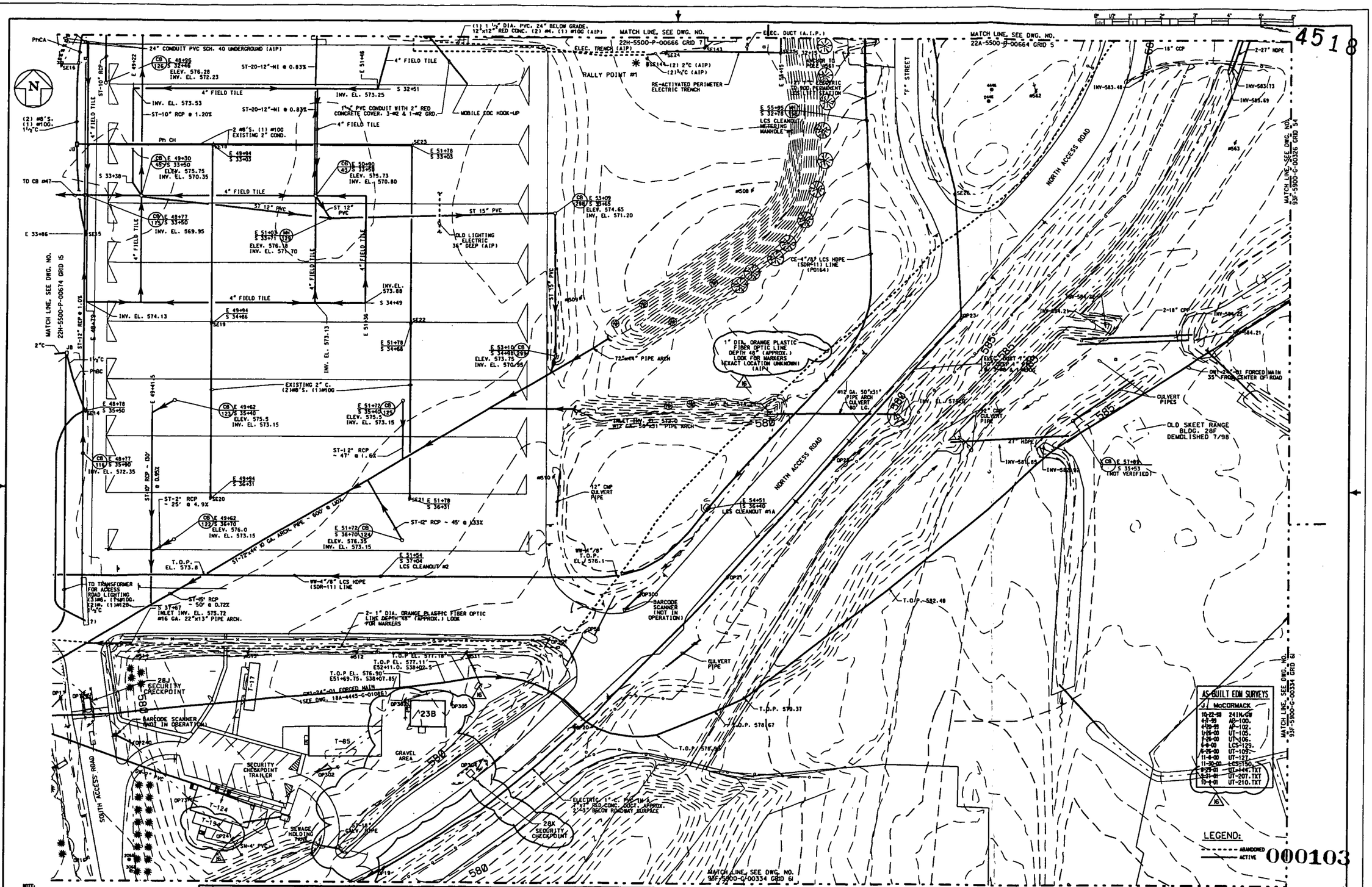
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 31 & 46, AREA 16 YARD AREA
GRID 7
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 8-20-90
DRAWN J. KING

22H-5500-P-00666 | 21

FILE NAME: /UNDER/22HP0666.DGN



NOTE:
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2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FSWP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. FOR ADDITIONAL INFO. ON STORM SEWER LINES AND CATCH BASINS SEE REF #2895. FOR AS-BUILT FIELD SURVEY OF THE 4"/8" LCS LINE, SEE B.L. PAYNE SURVEY REF. DRAWING - LCS2092.DGN

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					16	ADD TELE. BLDG 23B, ADD 28K SECURITY CHECKPOINT,	1/25/02	RML	GEP	
						ADD T-194, UNDERGROUND FIBER OPTIC LINE (A.I.P.),				
						GENERAL UPDATE				
					15	RE-ACTIVATED PERIMETER ELECTRIC IN TRENCH PER R.	5/2/01	RML	GEP	
						DUCKWORTH MEMO 3/18/01, ADDED ELECTRIC TO MH#158				
						FROM 90D, GENERAL UPDATE				92X-5900-E-00323
					14	ELECT. TRENCH A.I.P.	1/8/98	RML	GEP	22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/8
DECIMALS .X ± .1
.XX ± .03
.XXX ± .010
ANGLES ± 1°
DEBURR SHARP EDGES

APPROVALS			
CIVIL & STR.			SAFETY ENG. MAINTENANCE
ELECTRICAL			
ENGINEER			Q.A.
INSTRUMENT			
MECHANICAL			FIRE PROTECT. WASTE MANAGE.
CHECKED	BP	2-20-98	R.O.K.
APPROVED	GL PAL	2-20-98	SECURITY

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

EAST PARKING LOT — YARD AREA

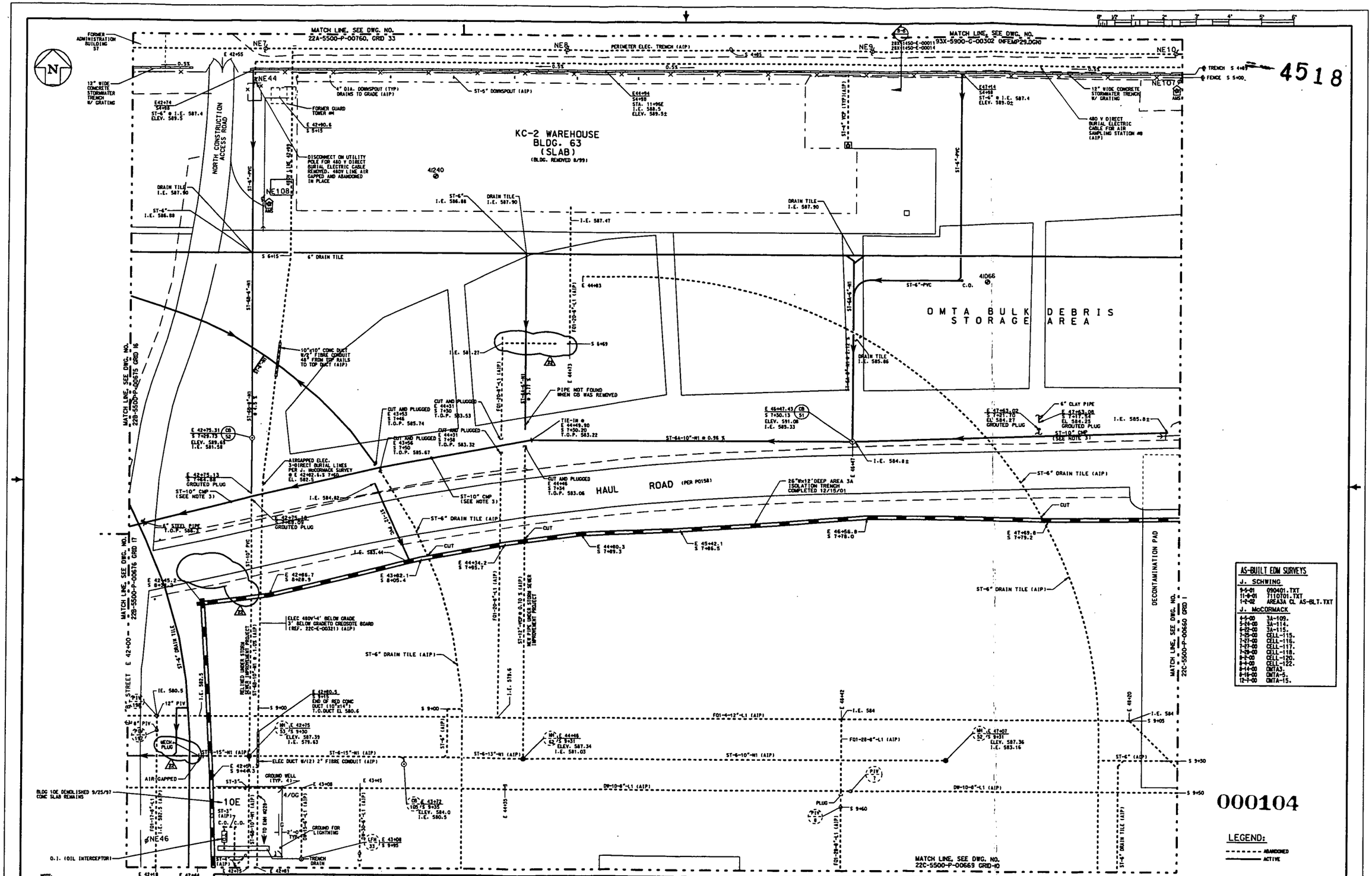
GRID 8
UNDERGROUND UTILITIES
SCALE 1"=30'

DATE 2-20-98
DRAWN DEL TURPIN

22H-5500-P-00667 | 16

FILE NAME: /UNDER/22HP0667.DGN

4518



AS-BUILT EDM SURVEYS

J. SCHWING	
9-5-01	090401.TXT
11-8-01	7110701.TXT
1-2-02	AREA3A CL AS-BLT.TXT
J. McCORMACK	
4-5-00	3A-109.
5-14-00	3A-114.
6-22-00	3A-115.
7-25-00	CELL-115.
7-27-00	CELL-116.
7-27-00	CELL-117.
7-29-00	CELL-118.
8-7-00	CELL-120.
8-9-00	CELL-122.
8-14-00	OMTA3.
8-16-00	OMTA-5.
12-7-00	OMTA-15.

000104

LEGEND:
- ABANDONED
- ACTIVE

NOTE:
1. THIS DRAWING ISSUED PERIODICALLY. FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. STORM SEWERS PER PROJECT 20012, SEE DRAWING /NES44/SEC8X02-005.DGN

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
22	GENERAL UPDATE, HFH-130 & PIV-1	1/31/02	GES/RML	GEP	21	AREA 3A TRENCHING COMPLETED BY WISE TASK ORDER 051	1/6/02	RML	GEP	
	REMOVED PER COMPLETED WORK					12/15/01, GENERAL UPDATE				
	ORDER RT00934, REMOVED CB 34,				20	ADD PROP AREA 3A ISOLATION TRENCH AND BUFFER PER RES 427L	1/21/01	RML	GEP	
	ADDED GROUT AND MECH. PLUG					GENERAL UPDATE				
	LOCATIONS PER COMPLETED AREA				19	480V LINE ABANDONED IN PLACE, DISCONNECT FOR	1/7/01	RML	GEP	
	3A TRENCHING ACTIVITIES.					480V REMOVED FROM POLE NE44 AND 480V SERVICE				99X-5500-G-00627
						AIR GAPPED PER R. DUCKWORTH REQUEST 7-27-01				22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT. WASTE MANAGE	
CHECKED	GEP	D.O.E.	
APPROVED	G.E. PAUL	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

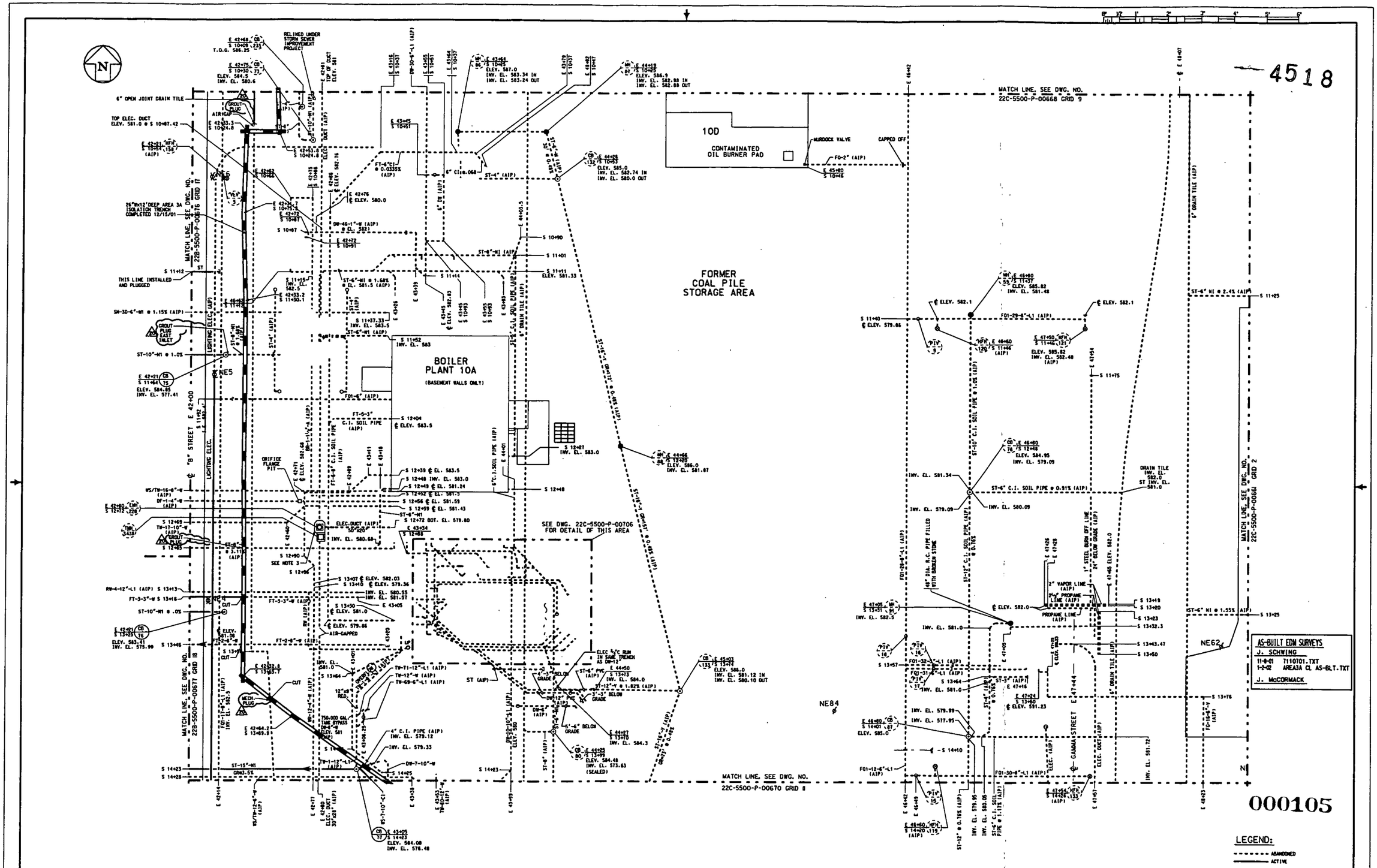
BUILDING 63 — YARD AREA

GRID 9
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 7-10-99
DRAWN J. KING

22C-5500-P-00668 | 22

FILE NAME: /UNDER/22CP0668.DGN



NOTES:
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2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING TEMP DRAWINGS AND ARE NOT VERIFIED TO BE 1:1 SCALE. IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. VERIFIED THAT NO ENERGIZED LINES IN ELECTRIC MANHOLE #228 FED INTO OR THROUGH THE 3A EXCAVATION ZONE PER W.O. #AL054806.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					20	GENERAL UPDATE ADDED GROUT & MECH. PLUGS	VM/RF	GES	GEP	
						TO STORM SEWER LINES PER COMPLETED AREA				99X-5500-C-00629
						3A TRENCHING ACTIVITIES				99X-5500-C-00627
					19	AREA 3A TRENCHING COMPLETED BY WISE TASK ORDER 051	VM/RF	RML	GEP	22C-5500-P-00706
						12/5/01 GENERAL UPDATE				22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			O.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE.	
CHECKED	GEP	5-9-01	S.O.X.	
APPROVED	G.E. PAUL	5-9-01	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

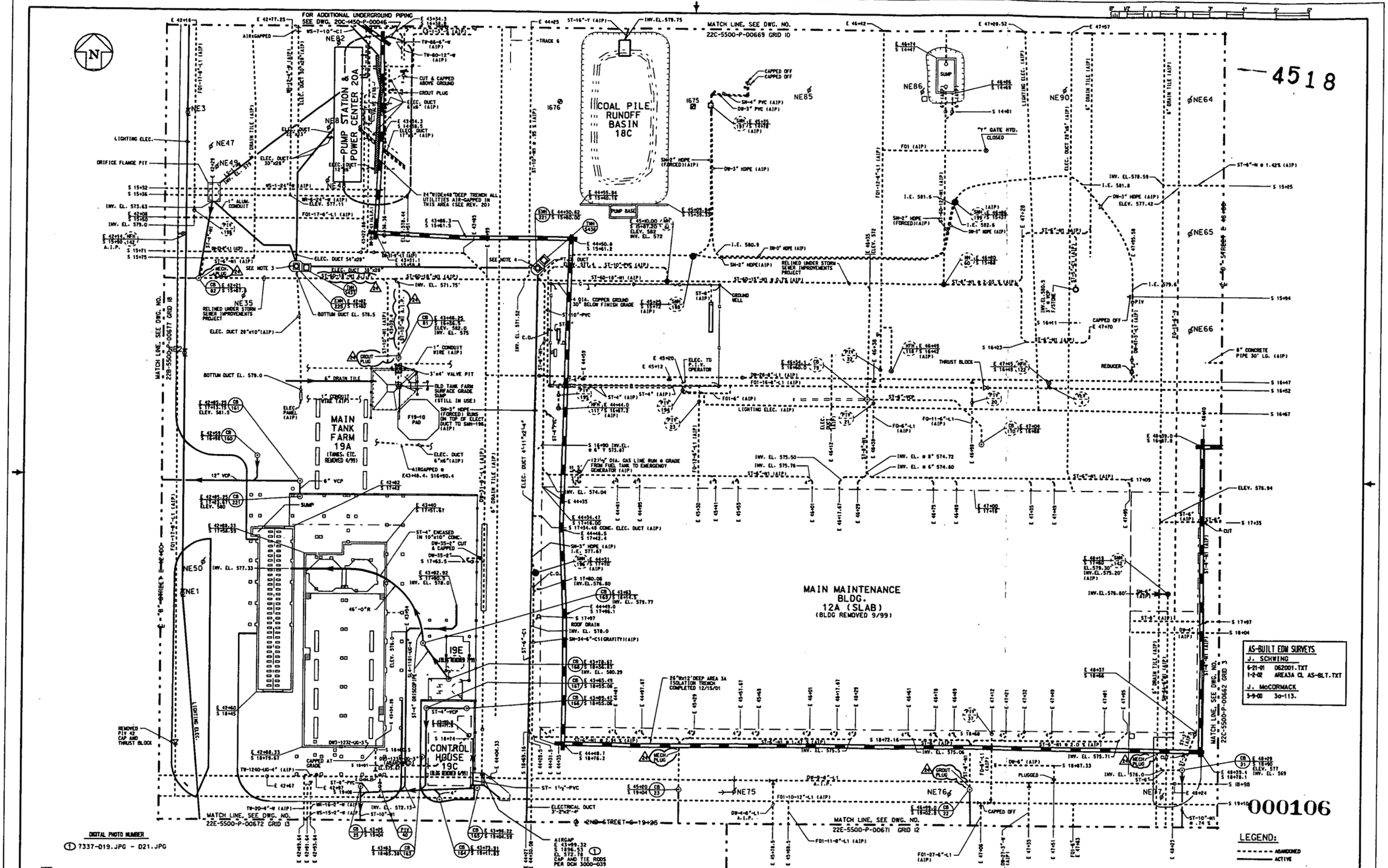
BLDG. 10,20 & 38 YARD AREA
GRID 10
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 6-15-90
DRAWN DEL TURPIN

22C-5500-P-00669 | 20

FILE NAME: /UNDER/22CP00669.DGN

4518



DIGITAL PHOTO NUMBER
① 7337-019.JPG - 021.JPG

NOTE:
1. THIS DRAWING ISSUED PERIODICALLY. FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE AS-BUILT. IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. TERMINATED FIBERS ⊗ THAT FORMERLY FED OLD BOILER PLANT PER B.O.A. *ALDAMICK.
4. VERIFIED THAT NO EMBEDDED AREA LOCATED INSIDE OR CROSSING THE BOUNDARY AREA OF THE 3A EXCAVATION GRID PER B.O.A. *ALDAMICK.

NO.	REVISIONS	DATE	DWN. BY	APPD.
24	ADDED GROUT & MECH. PLUGS PER COMPLETED AREA 3A TRENCHING ACTIVITIES	1/5/02	GES	GEP
23	DW-9-8"LI A.I.P. PER COMPLETED WORK ORDER RT002403	1/1/02	GES	GEP

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					99X-5500-G-00629
					19X-1450-E-00008
					22C-1450-E-00339
					20B-1450-E-00023
					22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/8
DECIMALS .X ± .1
.XX ± .03
.XXX ± .010
ANGLES ± 1° 30'
DETAILS
.X ± .1
.XX ± .03
.XXX ± .010
FINAL MACHINE SIZE

APPROVALS

CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		O.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT. WASTE MANAGE.	
CHECKED	GEP	1-9-02	D.O.E.
APPROVED	G.E. PAUL	1-9-02	SECURITY

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 12, 24 & TANK FARM — YARD AREA

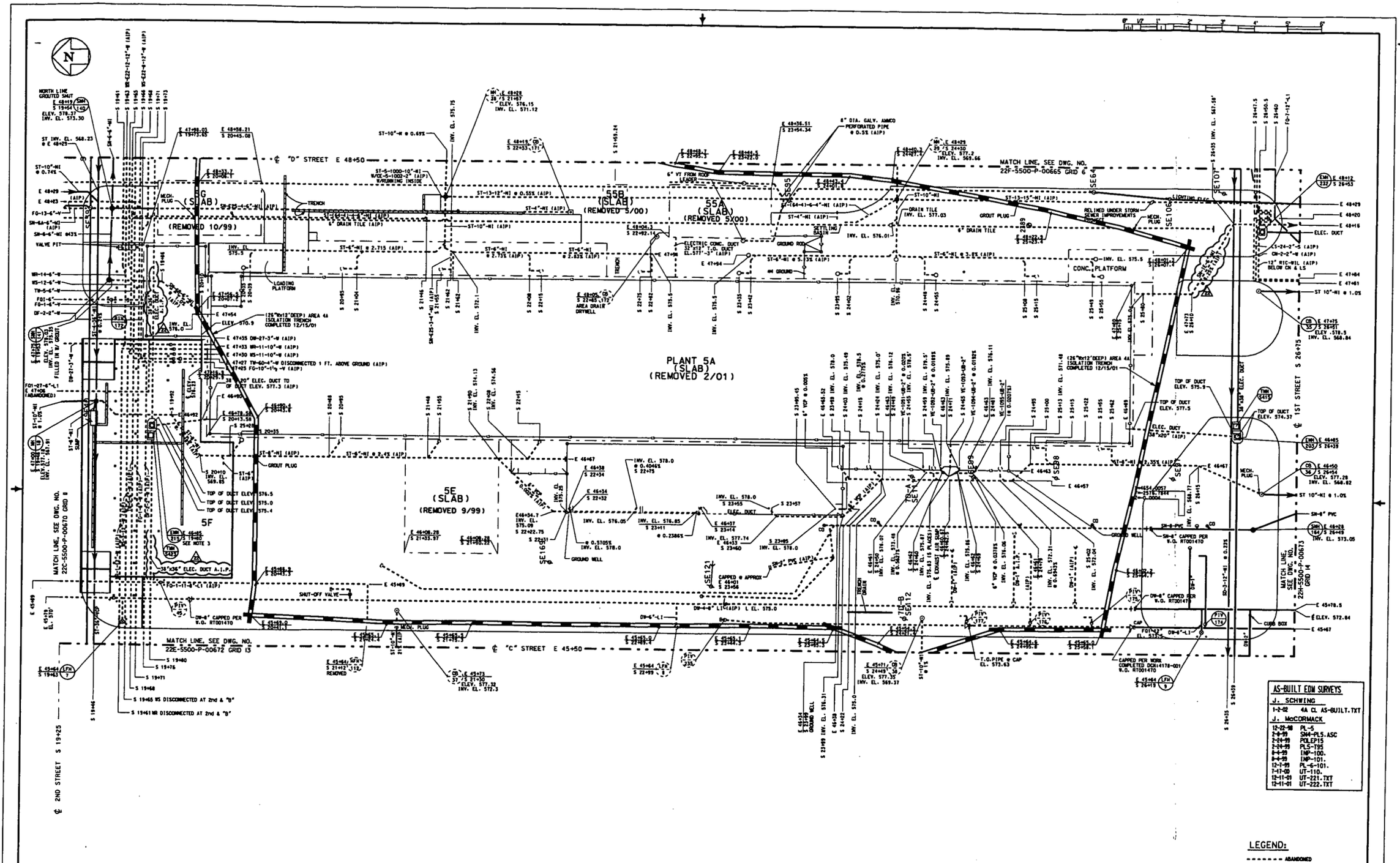
GRID II
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 5-22-90
DRAWN J. KING

22C-5500-P-00670 | 24

FILE NAME: /UNDER/22CP0670.DGN

4518



NOTE:
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2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FSWP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. VERIFIED THAT NO ENERGIZED LINES IN THE MANHOLE FED INTO OR THROUGH THE 3A EXCAVATION ZONE BOUNDARY PER W.O. #AL054806.

NO.	REVISIONS	DATE	DWN. BY	APPD.

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
22	SN-HE-6"WI A.I.P. PER COMPLETED WORK ORDER RT002404	11/02	GES	GEP	
	ELECTRIC DUCTS A.I.P. PER COMPLETED WORK ORDER AL056383.				
21	MECHL & GROUT PLUGS PER AS-BUILT DWG. 99X-5500-G-00631	1/30/02	RML	GEP	
20	DW-8" CAPPED AT EACH END AND SN-8" CAPPED AT T-84 PER	11/02	RML	GEP	
	J. McCORMACK SURVEYS, (26"Wx12"DEEP) AREA 4A TRENCHING				99X-5500-G-00631
	COMPLETE PER WSE TASK ORDER 051 (2/15/01, GENERAL UPDATE				22X-5500-P-00659

NOTE:
WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER				
INSTRUMENT			Q.A.	
MECHANICAL				
			FIRE PROTECT. / WASTE MANAGE.	
CHECKED	G.E. PAUL	6-24-99	SAFETY	
APPROVED	G.E. PAUL	6-24-99	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 5 YARD AREA

GRID 12
UNDERGROUND UTILITIES
SCALE 1"=20'

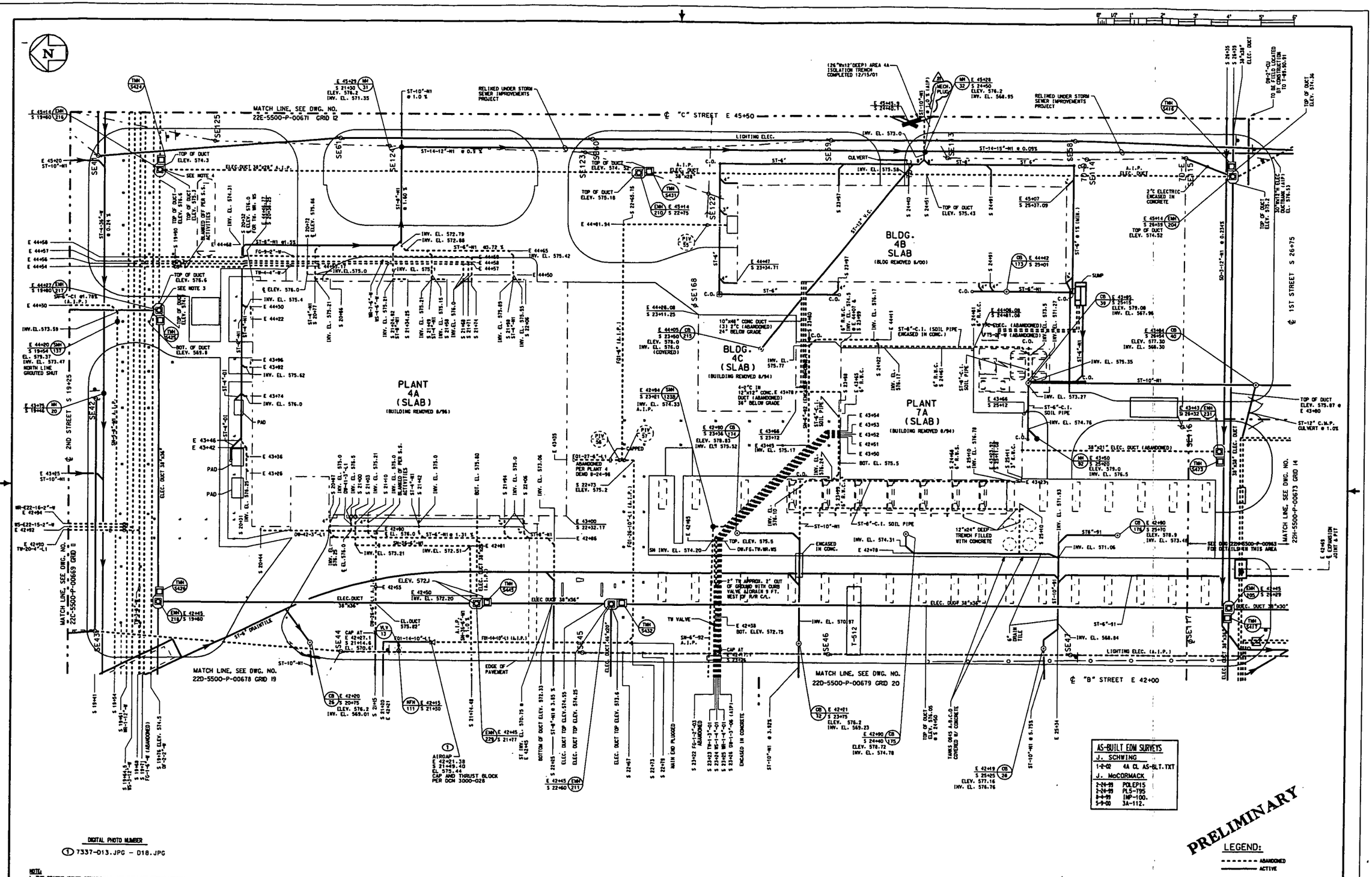
DATE 12-14-99
DRAWN DG. TURPIN

22E-5500-P-00671 | 22

FILE NAME: /UNDER/22EP067LDGN

000107

4518



DIGITAL PHOTO NUMBER

① 7337-013.JPG - 018.JPG

NOTE:
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3. VERIFIED THAT FEEDER #4 GOING NORTH TO FORMER LOCATIONS OF THE WATER PLANT AND OLD BOILER PLANT HAS BEEN TERMINATED PER R.O. #ALDS4804.
4. TERMINATED FEEDER #1 SHOW USED TO FEED OLD BOILER PLANT PER R.O. #ALDS4806.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					20	SH-5-89M A.I.P. PER COMPLETED WORK ORDER RT002408	5/1/02	GES	GEP	
						SH-36-69M A.I.P. PER COMPLETED WORK ORDER RT002402				
						SH-6'-92 A.I.P. PER COMPLETED WORK ORDER RT002407				
						DW-26-61J A.I.P. PER COMPLETED WORK ORDER RT002368				
						DW-4-7'-06 A.I.P. PER COMPLETED WORK ORDER RT002293				
						ELECT. DUCTS A.I.P. PER COMPLETED WORK ORDER AL056331				22K-5500-P-00659
21	ADDED MECH. PLUG ON EAST INLET OF MH-32 PER AREA 3A/4A TRENCHING ACTIVITIES									

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE	
CHECKED	GEP		O.O.E.	
APPROVED	G.E. PAUL	6-25-02	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

PLANT 4 & 7 — YARD AREA

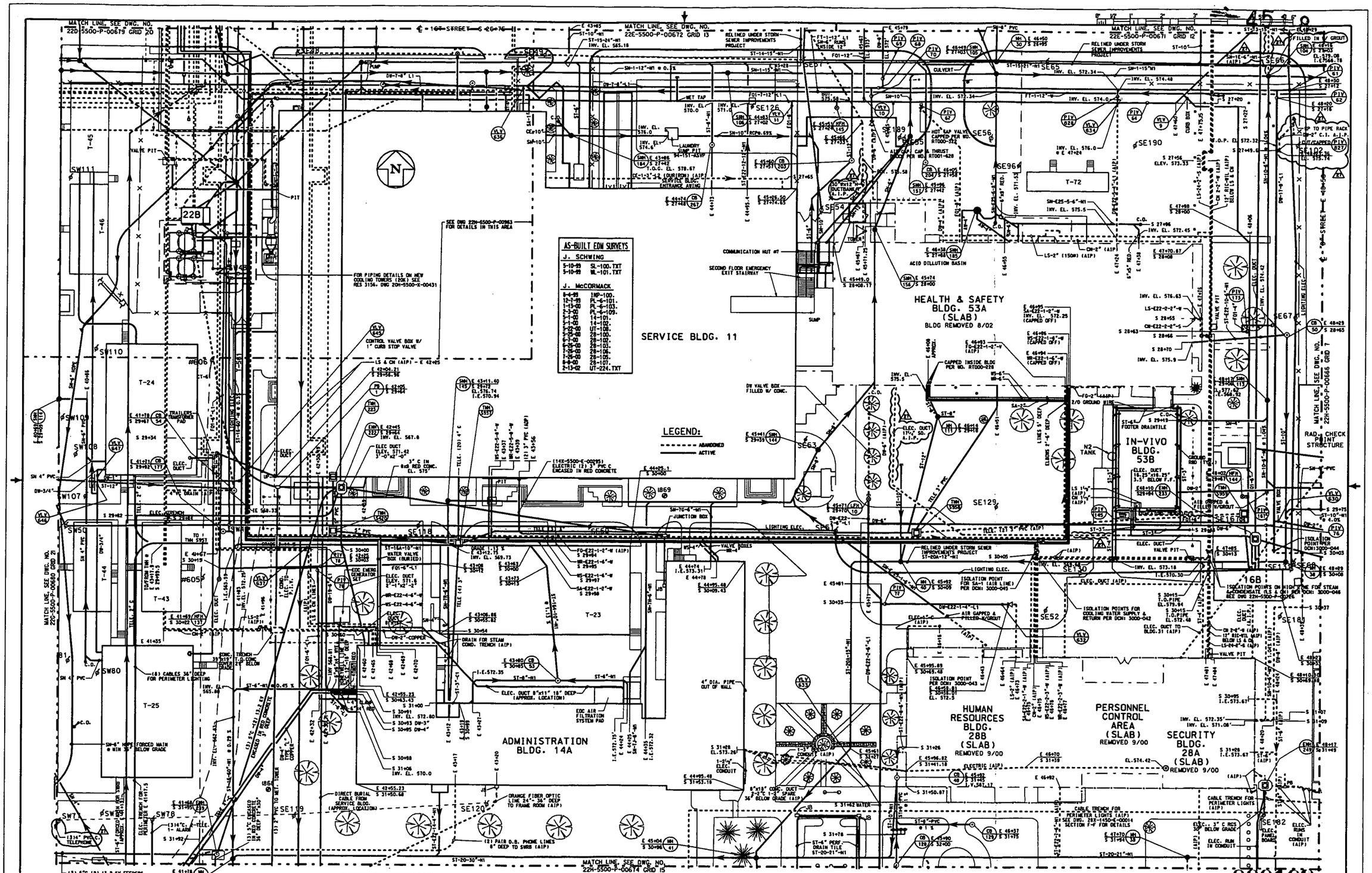
GRID 13
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 2-29-80
DRAWN DEL TURPIN

22E-5500-P-00672 | 21

FILE NAME: /UNDER/22EP0672.DGN

000108


MATCH LINE, SEE DWG. NO. 22D-5500-P-00679 GRID 20
MATCH LINE, SEE DWG. NO. 22E-5500-P-00672 GRID 13
MATCH LINE, SEE DWG. NO. 22E-5500-P-00671 GRID 12
MATCH LINE, SEE DWG. NO. 22C-5500-P-00680 GRID 21
MATCH LINE, SEE DWG. NO. 22H-5500-P-00674 GRID 15
MATCH LINE, SEE DWG. NO. 22H-5500-P-00666 GRID 7
AS-BUILT EDM SURVEYS
J. SCHWING
5-10-99 SL-100.TXT
5-10-99 WL-101.TXT
J. McCORMACK
8-4-99 INP-100.
12-7-99 PL-6-101.
1-15-00 PL-6-103.
2-3-00 PL-6-109.
2-11-00 14-101.
5-1-00 14-102.
5-22-00 UT-108.
5-25-00 26-100.
6-7-00 26-102.
6-26-00 26-103.
7-26-00 26-106.
7-26-00 26-109.
8-8-00 26-107.
2-13-02 UT-224.TXT
SERVICE BLDG. 11
HEALTH & SAFETY BLDG. 53A (SLAB)
BLDG REMOVED 8/02
IN-VIVO BLDG. 53B
ADMINISTRATION BLDG. 14A
HUMAN RESOURCES BLDG. 28B (SLAB)
REMOVED 9/00
PERSONNEL CONTROL AREA (SLAB)
REMOVED 9/00
SECURITY BLDG. 28A (SLAB)
REMOVED 9/00
LEGEND:
ABANDONED
ACTIVE
RAD. CHECK POINT STRUCTURE
ACID DILLUTION BASIN
COMMUNICATION HUT #7
SECOND FLOOR EMERGENCY EXIT STAIRWAY
SEE DWG 22H-5500-P-00963 FOR DETAILS IN THIS AREA
FOR PIPING DETAILS ON NEW COOLING TOWERS (20K) SEE RES 3156, DWG 20H-5500-X-00431
NOTE:
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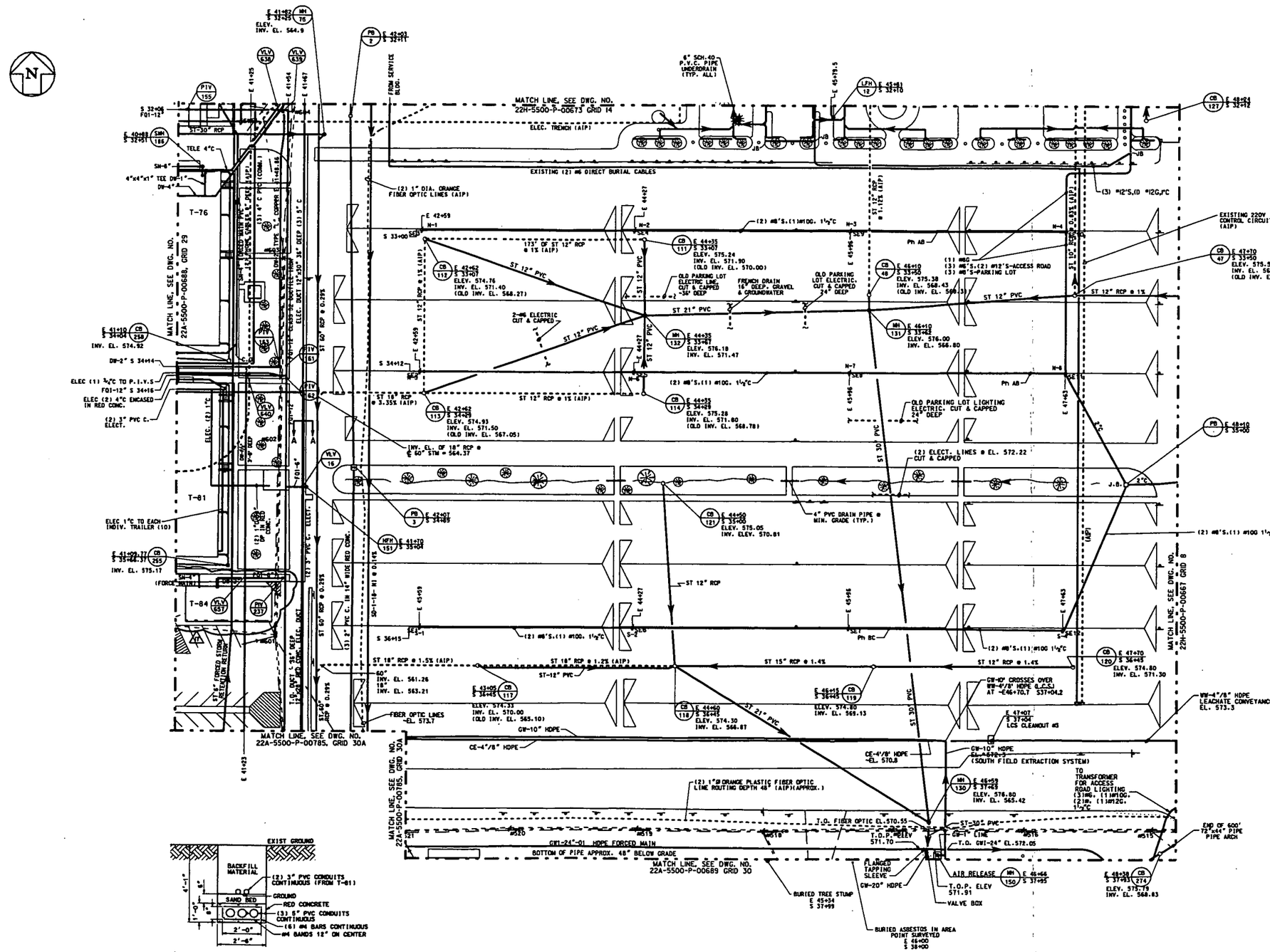
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
27 NORTH LINE (SH-HE-5'W0 FROM SWH-104 PLUGGED PER COMPLETED WORK ORDER RT002404. ADDED (3) 4" PVC C. TELEPHONE PER D. DICKMAN REDLINE. NUMBERED DW PW'S & VLV'S NOT PREVIOUSLY NUMBERED. PW'S 64, 62, 68, 69, 70, 76, 827 & 828. VLV'S 630, 632, 633, 634, 636, 637, 645, 646 & 647. DW-2'C1 AIP PER COMPLETED WORK ORDER RT002392, DUCT BANKS AIP PER D. HUEBENER — 22H-5500-P-00673, 22C-5500-P-00659
NO. REVISIONS DATE DWN. BY APPD.
REF. DWG. NO.
NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY
APPROVALS
CIVIL & STR.
ELECTRICAL
ENGINEER
INSTRUMENT
MECHANICAL
CHECKED GEP
APPROVED G.E. PAUL
SAFETY ENG.
MAINTENANCE
Q.A.
FIRE PROTECT.
WASTE MANAGE
O.A.E.
SECURITY
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY
BLDG. 8,14,28 & 53 YARD AREA
GRID 14
UNDERGROUND UTILITIES
SCALE 1"=20'
DATE 05-30-99
DRAWN J. KING
22H-5500-P-00673 27
FILE NAME: /UNDER/22HP0673.DGN
000109

4518



000110

PRELIMINARY INFORMATION ONLY CADD SERVICES

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3. FOR ADDITIONAL INFO. ON STORM SEWER LINES AND CATCH BASINS SEE WES #02899. FOR AS-BUILT FIELD SURVEY OF THE 4"/8" LCS LINE, SEE D.L. PAYNE SURVEY (REF. DRAWING - LCS2032.DGN)

NO.	REVISIONS	DATE	DWN.	BY	APPD.

NO.	REVISIONS	DATE	DWN.	BY	APPD.
17	ADDED T-84. NUMBERED DW. FOR PIV'S & VLV'S NOT PREVIOUSLY NUMBERED. DW VLV'S 638, 639, 640, 657. FOR PIV 237	1/21/92	SJS/RM		

REF. DWG. NO. 22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± ___
ANGLES ± ___ ± ___ ___
DECIMALS
.X ± 0.25
.XX ± 0.125
.XXX ± 0.060
.XXXX ± 0.0625
FINAL DRAWING SCALE

APPROVALS

CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE.	
CHECKED	GF	4/29/91	D.O.E.	
APPROVED	GL, MEL	4/29/91	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

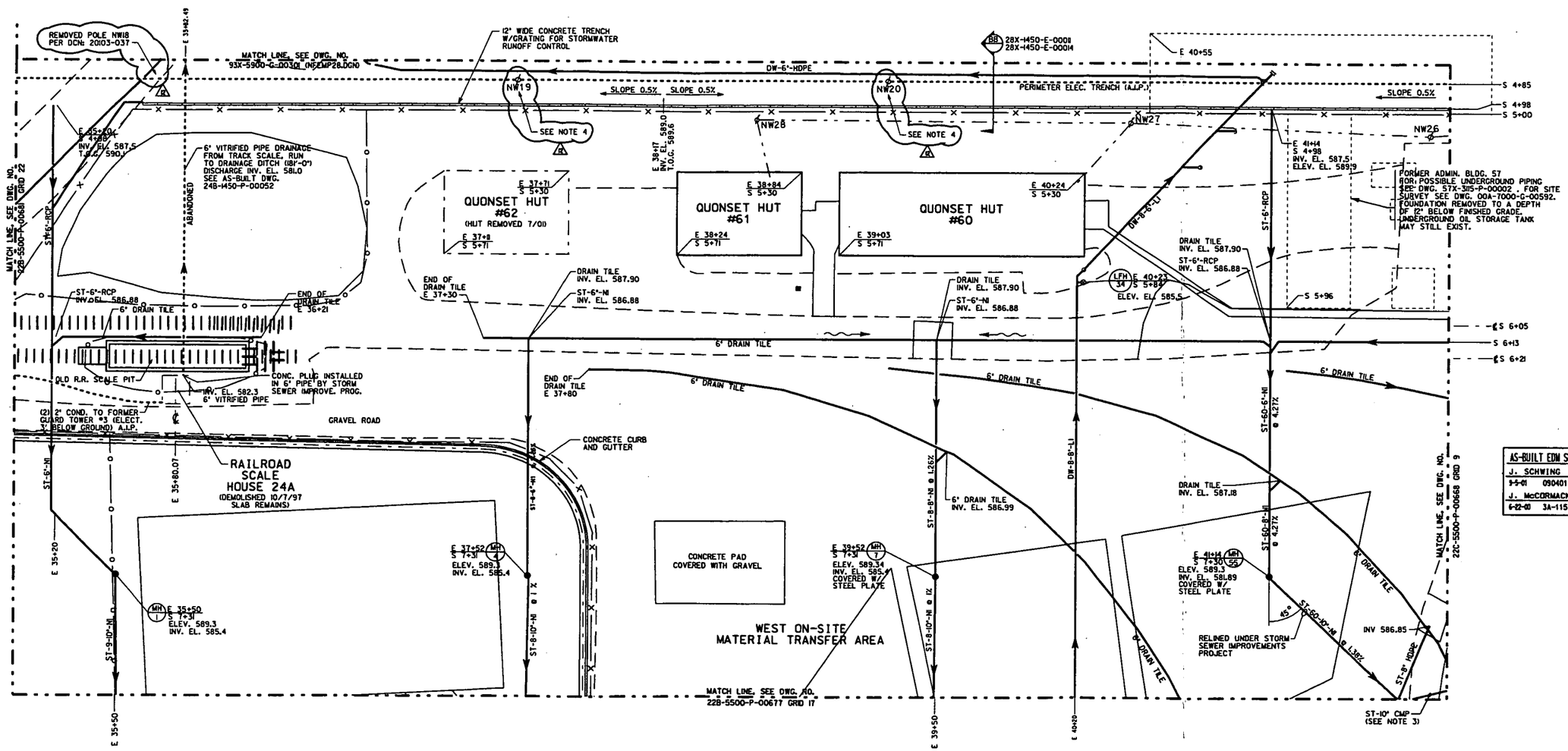
WEST PARKING LOT — YARD AREA
GRID 15
UNDERGROUND UTILITIES
SCALE 1"=30'

DATE 5-22-90
DRAWN DEL TURPIN

22H-5500-P-00674 | 17

FILE NAME: /UNDER/22HP0674.DGN

4518



000111

NOTE:
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3. STORM SEWERS PER PROJECT 20002. SEE DRAWING /RES4044/ SK20002-005.DGN
4. POLES NW29 AND NW30 REMOVED AND REPLACED WITH 35' CLASS 8 SOUTHERN PINE (CCA TREATED PER DCN: 20103-037.

NO.	REVISIONS	DATE	DWN. BY	APPD.
12	INCORP WORK COMLETED DCN: 20103-037, ADDED NOTE 4.	5/31/02	RML	GEP
11	AS-BUILT ST-10" CMP PER J. McCORMACK SURVEY 3A-115, AS-BUILT ST-8" HDPE PER J. SCHWING SURVEY 090401.TXT, REMOVE POLES NW29 & NW30, COVERED WH 7 & WH 55 PER RES 4267, GENERAL UPDATE	0/00/01	RML	GEP

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
11					90X-5500-G-00576
11					22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± 1/8
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.005
.XXXX ± 0.0005
MIN. BREAKAWAY EDGE

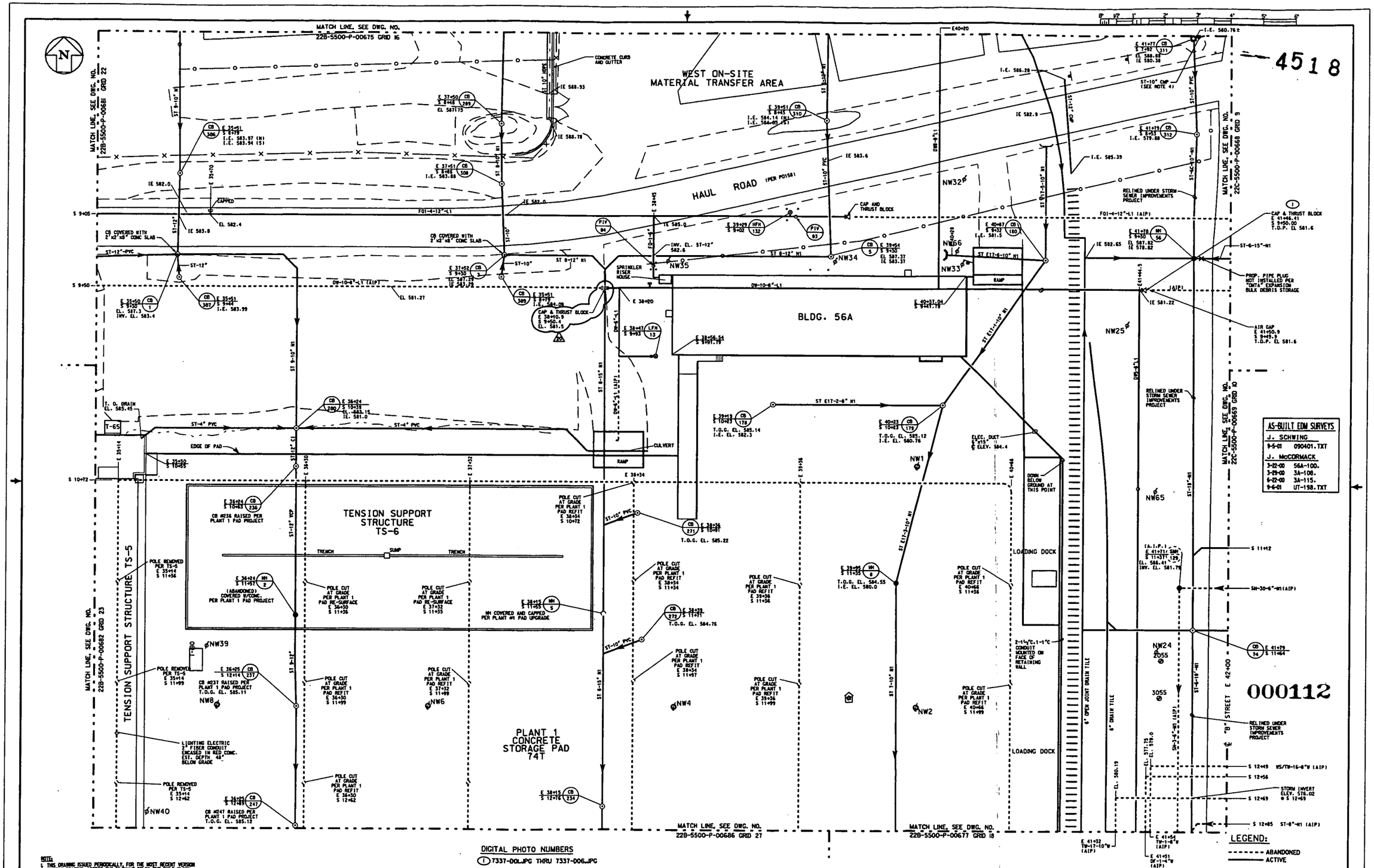
APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		O.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT.	
		WASTE MANAGE.	
CHECKED	GEP	D.O.E.	
APPROVED	R.E. MOL	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 60,61 & 62 YARD AREA
GRID 16
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 4-29-90
DRAWN DEL. TURPIN
22B-5500-P-00675 | 12

FILE NAME: /UNDER/22BP0675.DGN



DIGITAL PHOTO NUMBERS

(1) 7337-00L.JPG THRU 7337-006.JPG

NOTES:

1. THIS DRAWING ISSUED PERIODICALLY, FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
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3. HAUL ROAD & NEW 8 RELOCATED AND NEW CATCH BASINS AND FIRE HYDRANTS PER B.L. PAYNE AS-BUILT SURVEY IPO 6510 SEE /PAYNE/HAUL/HAULROAD.DGN.
4. STORM SEWERS PER PROJECT 21X02. SEE DRAWING /RES444/SK21X02-005.DGN

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					17	WORK COMPLETED TO A.I.P. SMH-29 AND SM-3-6"W PER DCN: 3000-050	9/15/01	RML	GEP	
					16	WORK COMPLETED TO ISOLATE DW-10-8"U EAST OF 56A PER J.	1/8/01	RML	GEP	
20	ADD CAP & THRUST BLOCK ON DW-10-8"U PER	5/1/02	RML	GEP		McCORMACK SURVEY & DCN: 3000-039, ADD EDM SURVEY TABLE				
	SURVEY UT-158 & WORK ORDER AL055487.				15	WORK COMPLETED DCN 3000-035, ADDED PROPOSED	1/4/00	SJS	GEP	
	GENERAL UPDATE					ISOLATION POINT PER DCN 3000-039				
19	GENERAL UPDATE	8/8/00	RML	GEP	14	ADD PIV NUMBERS TO FOI LINES, ISOLATED FOI-4-12"	2-7-00	RML/GES	GEP	17X-7000-S-00008
18	GENERAL UPDATE	2/27/00	RML	GEP		APPROX. 30' EAST OF PIV83 PER DCN 3000-035				22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.03
.XXX ± 0.010
.XXXX ± 0.0100
FINAL RELEASE DATE

APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT.	
		WASTE MANAGE.	
CHECKED	GEP	D.O.E.	
APPROVED	D.E. PAUL	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

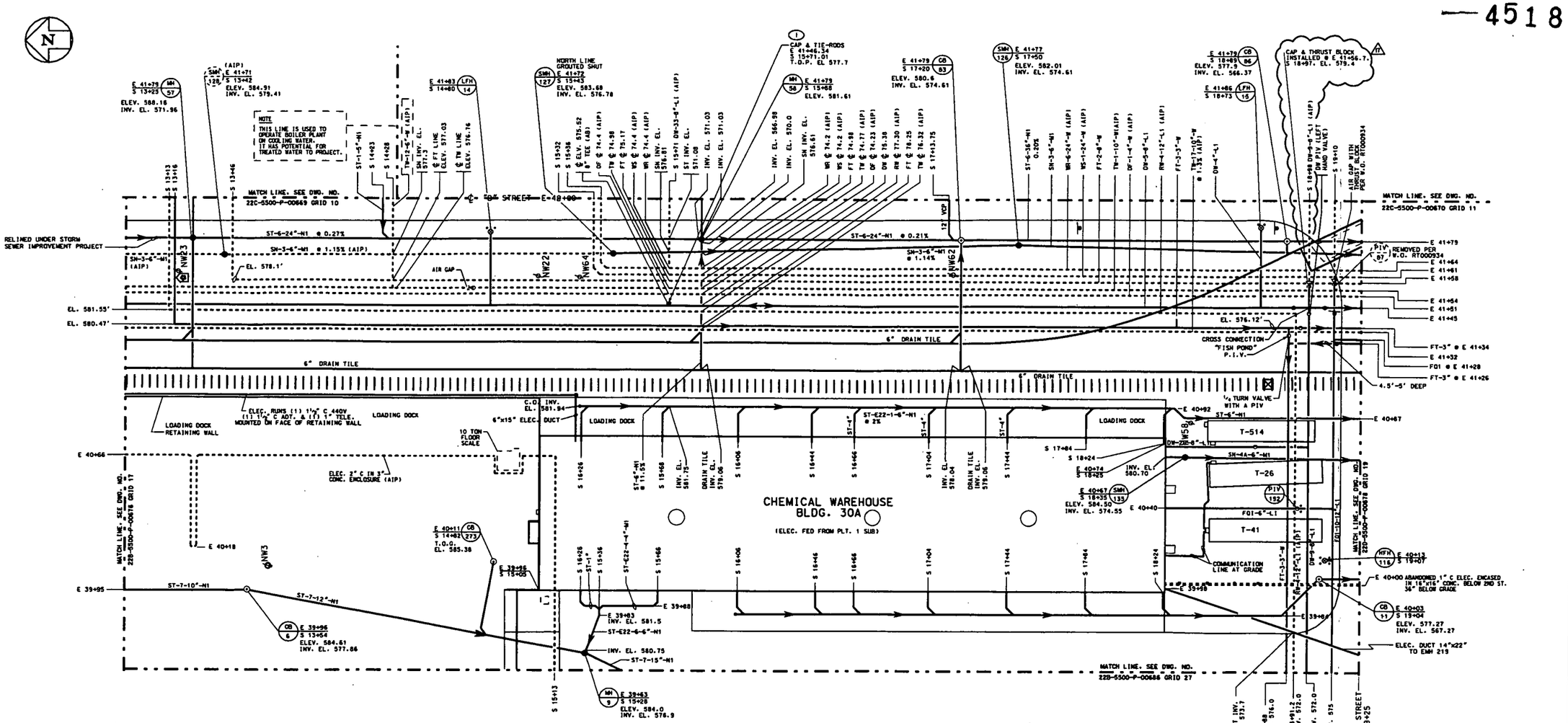
BLDG. 56 & PLANT #1 PAD — YARD AREA
GRID 17
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 4-25-90
DRAWN DEL. TURPIN

22B-5500-P-00676 | 20

FILE NAME: /UNDER/22BP0676.DGN

4518



NOTE:
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2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FDMP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". COORDINATES SHOWN IN SLANTED FONTS WILL BE CONSIDERED AS-BUILT PER FIELD SURVEYS. IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
17	ADDED A. CLINTON SURVEY TABLE, WORK	9/2/02	GES	GEP	15	WORK COMPLETE TO GROUT SHUT NORTH LINE OF SMH-127, A.I.P.	1/16/02	RML	GEP	
	COMPLETED ON WORK ORDER RT002336 TO					SMH-128 AND SH-3-6"M PER DCN: 3000-050				
	INSTALL CAP & THRUSTBLOCK ON DW-9-8"LI				14	WORK COMPLETED TO ISOLATE DW-33-8LI PER J. McCORMACK	4/8/00	RML	GEP	
16	AIR-GAPPED FO-10-12" PER J. McCORMACK	3/8/02	RML	GEP		SURVEY AND DCN: 3000-033, ADD EDM SURVEY TABLE				
	SURVEY, PIV 87 REMOVED PER GARY EVANS,				13	REVISED PER U/E MARK-UP 2/28/00, AIR GAP & A.I.P. TW-1-10"-W,	3/4/00	SJS	GEP	
	GENERAL UPDATE					A.I.P. TW-12-6"-W, ADDED PROPOSED ISOLATION POINT PER DCN 3000-039				22X-5500-P-00659

NOTE:
WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± ¼
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.05
.XXX ± 0.025
.XXXX ± 0.0005
FINAL CHANGE NOTE

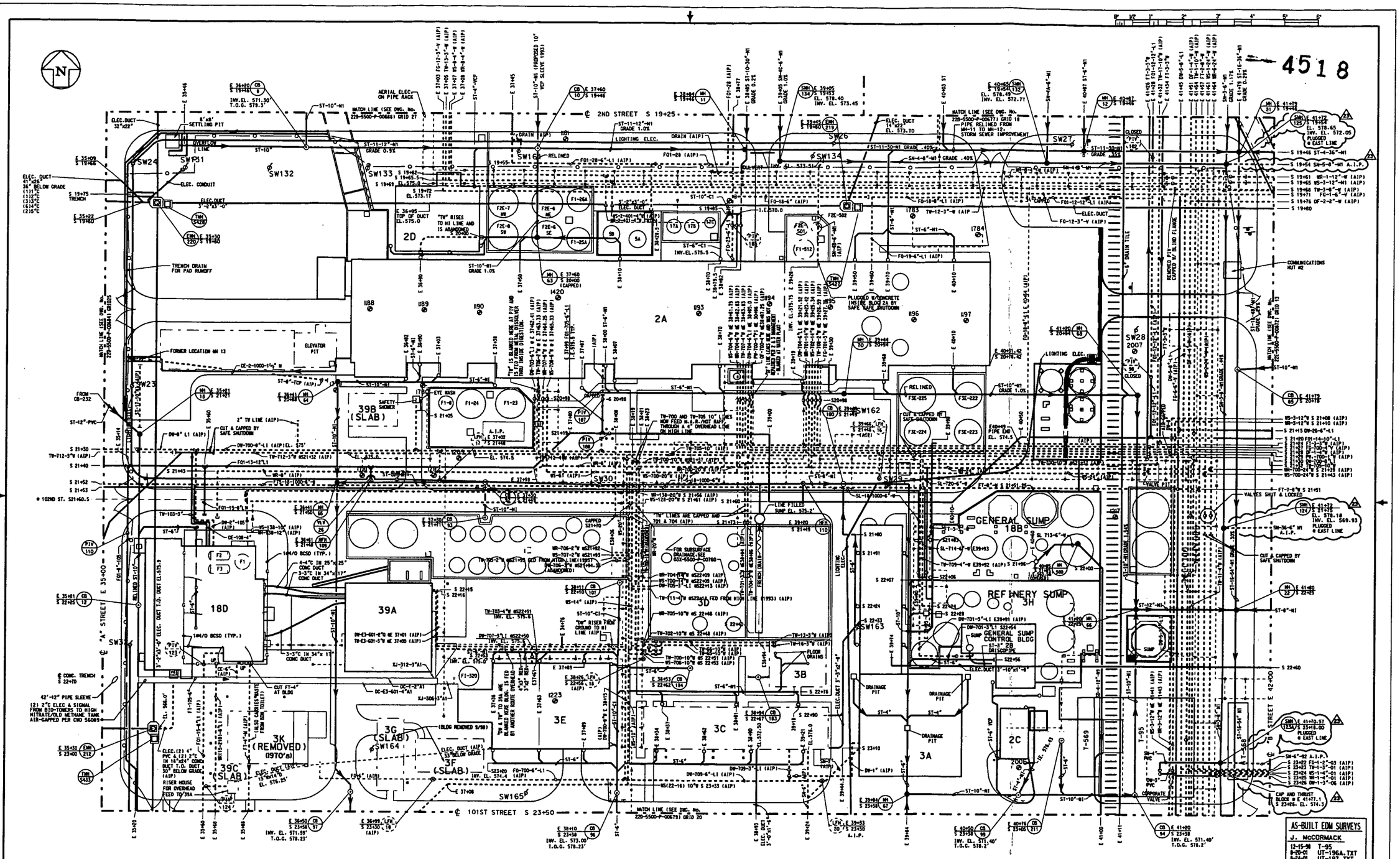
APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			Q.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE	
CHECKED	GEP		O.O.E.	
APPROVED	G.E. PAUL	1/5/00	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

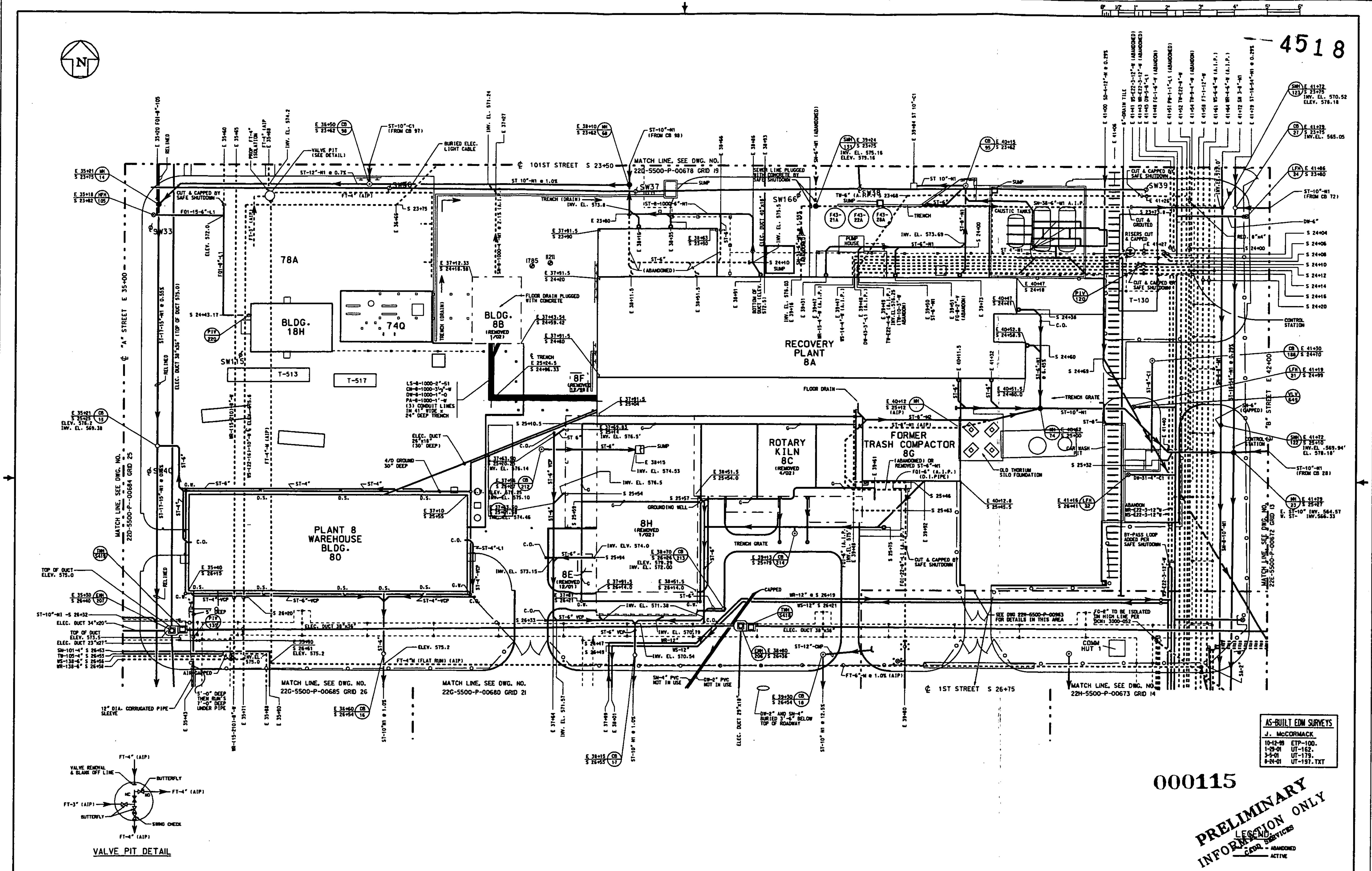
BLDG. 30 YARD AREA
GRID 18
UNDERGROUND UTILITIES
SCALE 1"=20'
DATE 4-23-99
DRAWN DGL TURPIN
22B-5500-P-00677 17

FILE NAME: /UNDER/22BP0677.DGN

000113


4518
2ND STREET S 19+25
"A" STREET E 35+00
101ST STREET S 23+50
"B" STREET E 42+00
GENERAL SUMP
18B
REFINERY SUMP
3H
GENERAL SUMP CONTROL BLDG
18D
39A
39B (SLAB)
2A
2D
3A
3B
3C
3E
3F (SLAB)
3G (SLAB)
3K (REMOVED) (1970's)
39C (SLAB)
2C
2006
T-569
T-95
COMMUNICATIONS HUT #2
ELEVATOR PIT
FORMER LOCATION MH 13
TRENCH DRAIN FOR PAD RUNOFF
MATCH LINE (SEE DWG. No. 22B-5500-P-006681 GRID 27
MATCH LINE (SEE DWG. No. 22B-5500-P-006671 GRID 18
MATCH LINE (SEE DWG. No. 22B-5500-P-006797 GRID 20
AS-BUILT EDM SURVEYS
J. McCORMACK
12-15-98 T-95
8-20-01 UT-196A.TXT
8-24-01 UT-197.TXT
LEGEND:
ABANDONED
ACTIVE
000114
NOTE:
1. THIS DRAWING ISSUED PERIODICALLY, FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE 'AS-BUILT'. IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
NO. REVISIONS DATE DWN. BY APPD.
23 SMH-I24 EAST PIPE (SN36-6"Ø) PLUGGED PER COMPLETED WORK ORDER RT002402. SMH-I23A EAST PIPE (SN-6"-92) PLUGGED PER COMPLETED WORK ORDER RT002407. SMH-I25 EAST PIPE (SN-5-8"Ø) PLUGGED PER COMPLETED WORK ORDER RT002408. DW-I-3"-06 A.I.P. PER COMPLETED WORK ORDER RT002293. 9/2/02 GES GEP
22X-5500-P-00659
REF. DWG. NO.
NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY
APPROVALS
CIVIL & STR.
ELECTRICAL
ENGINEER
INSTRUMENT
MECHANICAL
CHECKED
APPROVED
SAFETY ENG.
MAINTENANCE
O.A.
FIRE PROTECT.
WASTE MANAGE.
O.D.E.
SECURITY
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY
PLANTS 2 & 3
YARD AREA
GRID 19
UNDERGROUND UTILITIES
SCALE 1"=20'
DATE 10-10-90
DRAWN J. KING
22D-5500-P-00678 23
FILE NAME: /UNDER/22DP0678.DGN

4518



000115

PRELIMINARY INFORMATION ONLY

CADD SERVICES

NOTE:
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NO.	REVISIONS	DATE	DWN. BY	APPD.
24	NUMBERED DW PIV'S & VLV'S NOT PREVIOUSLY NUMBERED. PIV 120, VLV 649, GENERAL UPDATE	1/24/02	SJS	
23	WORK COMPLETED TO A.I.P. FT LINES PER DCN: 3000-053, GENERAL UPDATE	2/8/02	RML	GEP
22	AS-BUILT SURVEY (UT-162) TO AIR GAP TW-105-4" BY J. McCORMACK, MODIFIED DW-2" & SN-4" PER DRAWING 22D-5500-P-00793 AND R. DUCKWORTH REDLINE.	7-8-01	RML/GES	GEP

REF. DWG. NO.: 22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS			
CIVIL & STR.		SAFETY ENG.	
ELECTRICAL		MAINTENANCE	
ENGINEER		Q.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT.	
		WASTE MANAGE	
CHECKED	GEP	D.O.E.	
APPROVED	G.E. PAUL	4/29/?	SECURITY

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

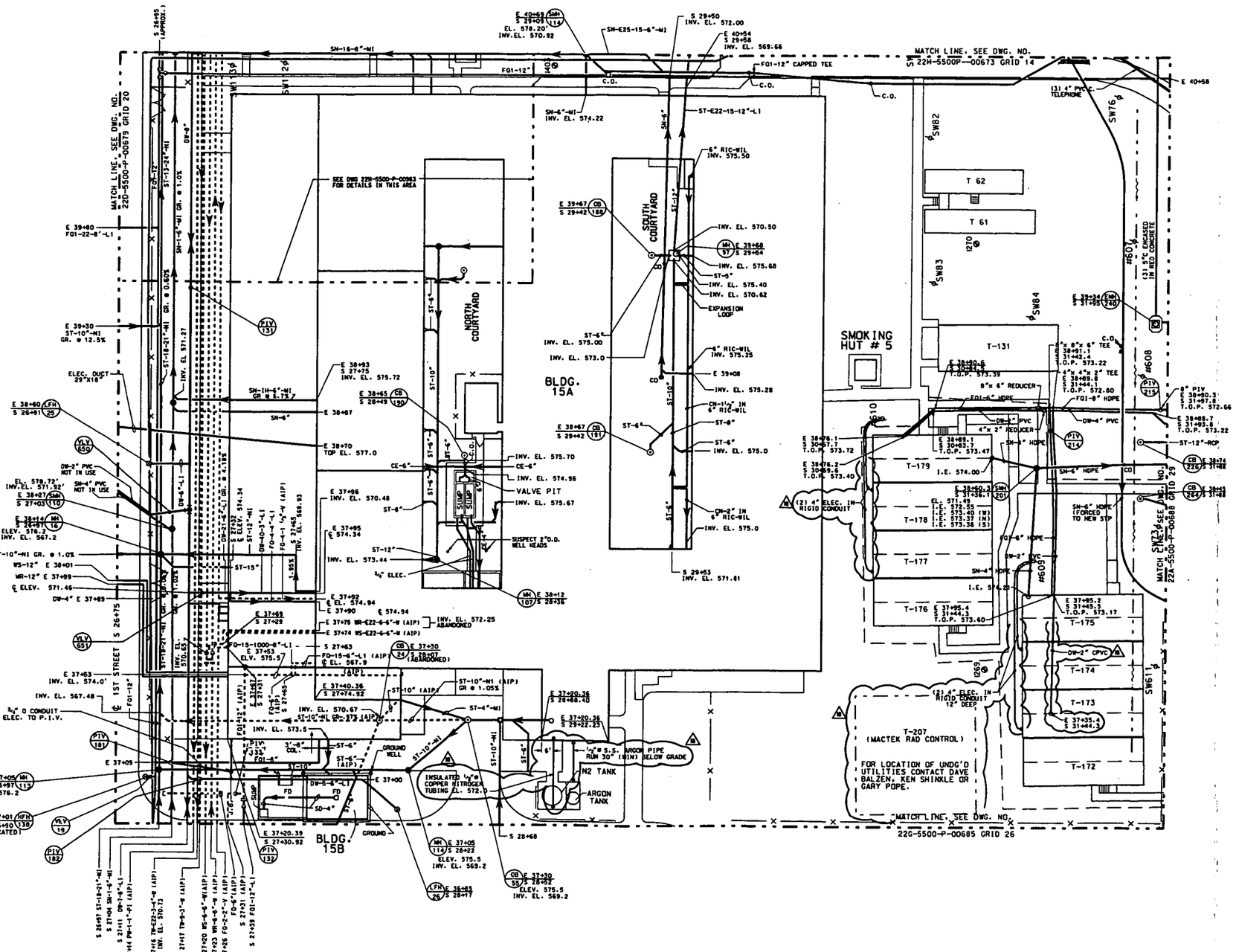
PLANT 8 — YARD AREA
GRID 20
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 7-10-90 DRAWN DEL TURPIN

22D-5500-P-00679 | 24

FILE NAME: /UNDER/22DP0679.DGN

4518



AS-BUILT EDM SURVEYS
J. McCORMACK
8-13-99 UT-102.

LEGEND:
- - - - - - ABANDONED
——— ACTIVE

NOTE:
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NO.	REVISIONS	DATE	DWN.	BY	APPD.
18	NUMBERED DW PIV'S & VLV'S NOT PREVIOUSLY NUMBERED, PIV'S 131 & 182, VLV'S 650 & 651, GENERAL UPDATE ADDED ELEC. CONDUIT TO TRAILERS T-173, T174, T177 & T178, ADDED DW-2" CPVC PER GARY POPE 6-18-02., GENERAL UPDATE	5/16/02	SJS/GES	GEP	

NO.	REVISIONS	DATE	DWN.	BY	APPD.	REF. DWG. NO.
						15X-5500-P-01991
						15X-5500-G-01667
						22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED ENGINEERING SPEC OR REQUIRED TOLERANCES ARE
FRACTIONS ± 1/64
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.1
.XX ± 0.05
.XXX ± 0.025
.XXXX ± 0.0005
CIVIL RELEASE DATE

APPROVALS			
CIVIL & STR.			SAFETY ENG. MAINTENANCE
ELECTRICAL			
ENGINEER			G.A.
INSTRUMENT MECHANICAL			FIRE PROTECT. WASTE MANAGE
CHECKED	GEP	5/29/02	D.O.E.
APPROVED	G.E. PAUL	5/29/02	SECURITY

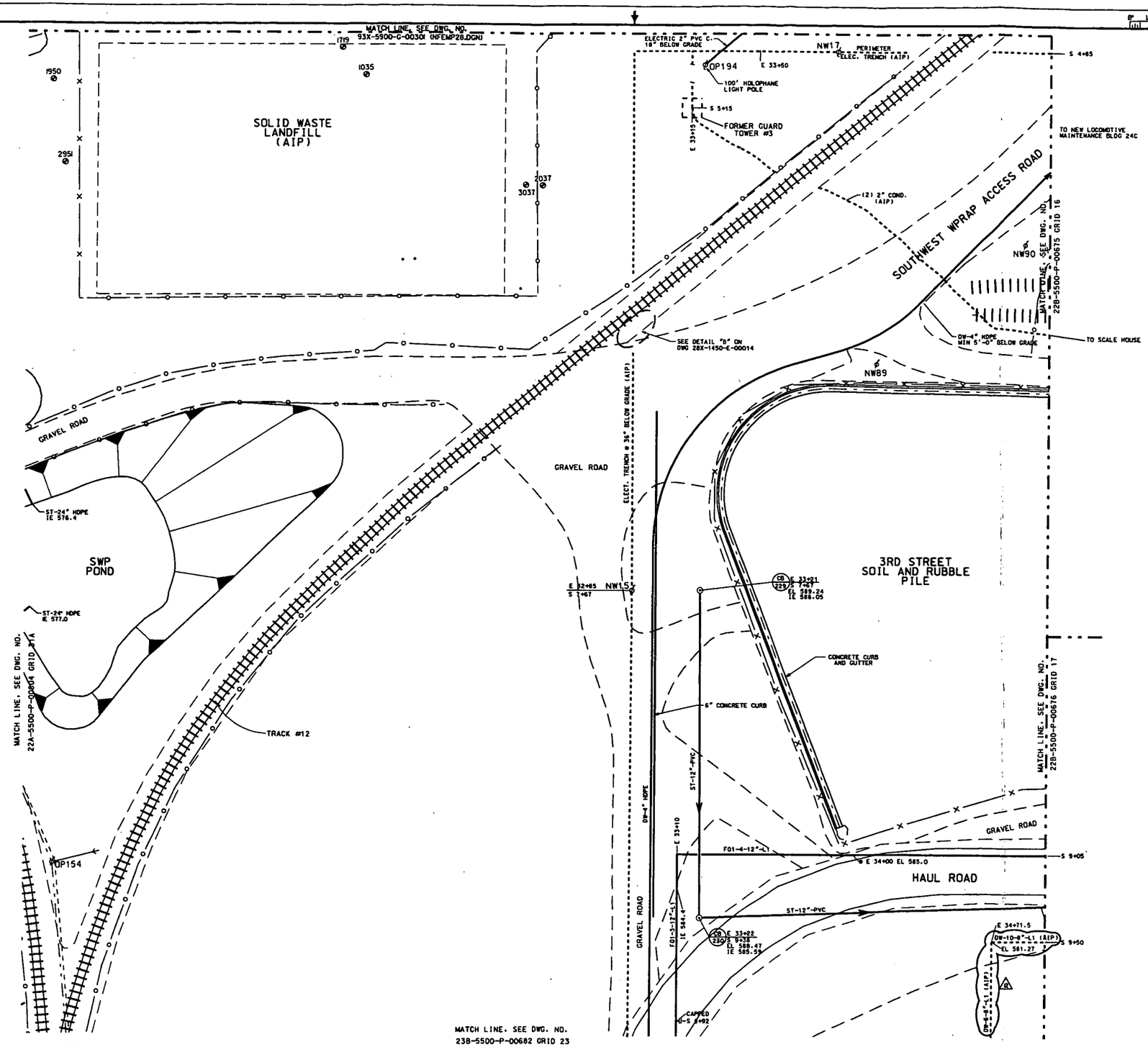
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 15-LAB. YARD AREA
GRID 21
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 7/17/99
DRAWN DEL TURPIN
22G-5500-P-00680 | 18

FILE NAME: /UNDER/22GP0680.DGN

000116



4518

AS-BUILT EDM SURVEYS

J. SCHWING
5-10-99 NL-106.TXT
6-3-99 060399NA.TXT

J. McCORMACK
11-20-99 RY-114.
11-23-99 RY-115.

000117

NOTES:
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3. FOR INFORMATION ON HAUL ROAD SEE P0691.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
12	A/P DW-10-8"L1 PER UT-698, GENERAL UPDATE	6/8/01	RML	GEP	7	UPDATED RELOCATED FIRE HYDRANT 66 AND ADDED PROPOSED HAUL ROAD	3-4-97	GES	GEP	
11	GENERAL UPDATE	1/2/99	RML	GEP	6	UPDATED	2-2-96	JSW	GEP	
10	ELECT. TRENCH A.I.P.	1/2/99	RML	GEP	5	UPDATED	12-5-95	JSW	GEP	
9	ADDED T32,330 DELETED OSDF	1/4/98	JSW/SJS	GEP	4	ADDED NOTE	11-20-95	GES	GEP	
	WAC TEXT, MONUMENT TEXT,				3	UPDATED	9-14-94	MET	GEP	
	ABANDONED (2) 2" COND. PER MARK-UP				2	UPDATED	8-1-93	GES	GEP	
8	UPDATED, ADDED DW-4"	1/20/91	SJS	GEP	1	UPDATED	1-1-9	RJW	GEP	22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/8
DECIMALS ± .0 = ±.5
.00 = ±.25
.000 = ±.125
.0000 = ±.0625
ANGLES ± 0.5DEG
FINAL RELEASE DATE

APPROVALS				
CIVIL & STR.			SAFETY ENG. MAINTENANCE	
ELECTRICAL				
ENGINEER			O.A.	
INSTRUMENT MECHANICAL			FIRE PROTECT. WASTE MANAGE.	
CHECKED	GEP		D.O.E.	
APPROVED	6/4/01	6/25/01	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

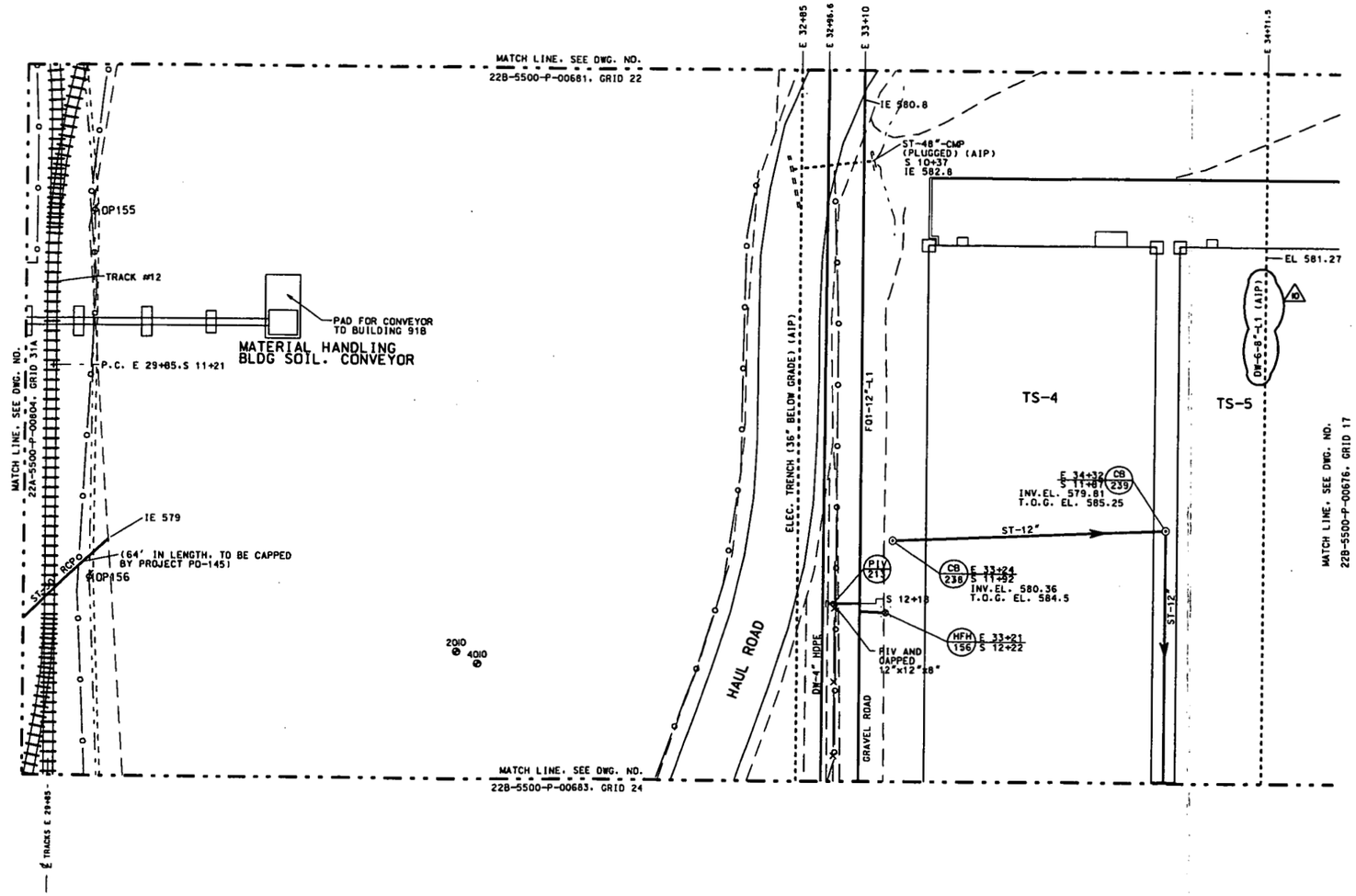
N.W. CORNER/SITE — YARD AREA
GRID 22
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 9/25/90
DRAWN E.J.S.

22B-5500-P-00681 | 12

FILE NAME: /UNDER/22BP0681.DGN

4518



000118

NOTE:
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3. FOR INFORMATION ON HAUL ROAD SEE POS8.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
					7	UPDATED ADDED PROPOSED HAUL ROAD AND RELOCATED FIRE HYDRANT 156	1-10-01	GES	GEP	
					6	UPDATED	0-4-96	JaW	GEP	
					5	UPDATED	1-15-96	JaW	GEP	
10	REMOVED T-53, AIP DW-6-8"L1, GENERAL UPDATE	1-1-92	RML	GEP	4	ADDED NOTE	1-10-95	GES	GEP	
9	ADD PW NUMBER TO FO1 LINE, ADDED T-53, SOIL	2-25-91	JaW	GEP	3	UPDATED	0-16-94	GES	GEP	
	CONVEYOR PAD, DELETED OSDF WAC TEXT				2	UPDATED	0-1-93	GES	GEP	
8	UPDATED, ADDED DW-P & RELOCATED FIRE HYDRANT 156	10-5-90	SJS	GEP	1	UPDATED	1-1-0	[illegible]	GEP	22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS				
CIVIL & STR.			SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			O.A.	
INSTRUMENT				
MECHANICAL			FIRE PROTECT.	
			WASTE MANAGE.	
CHECKED	GEP		O.O.E.	
APPROVED	E.E. PRE.	8/25/90	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

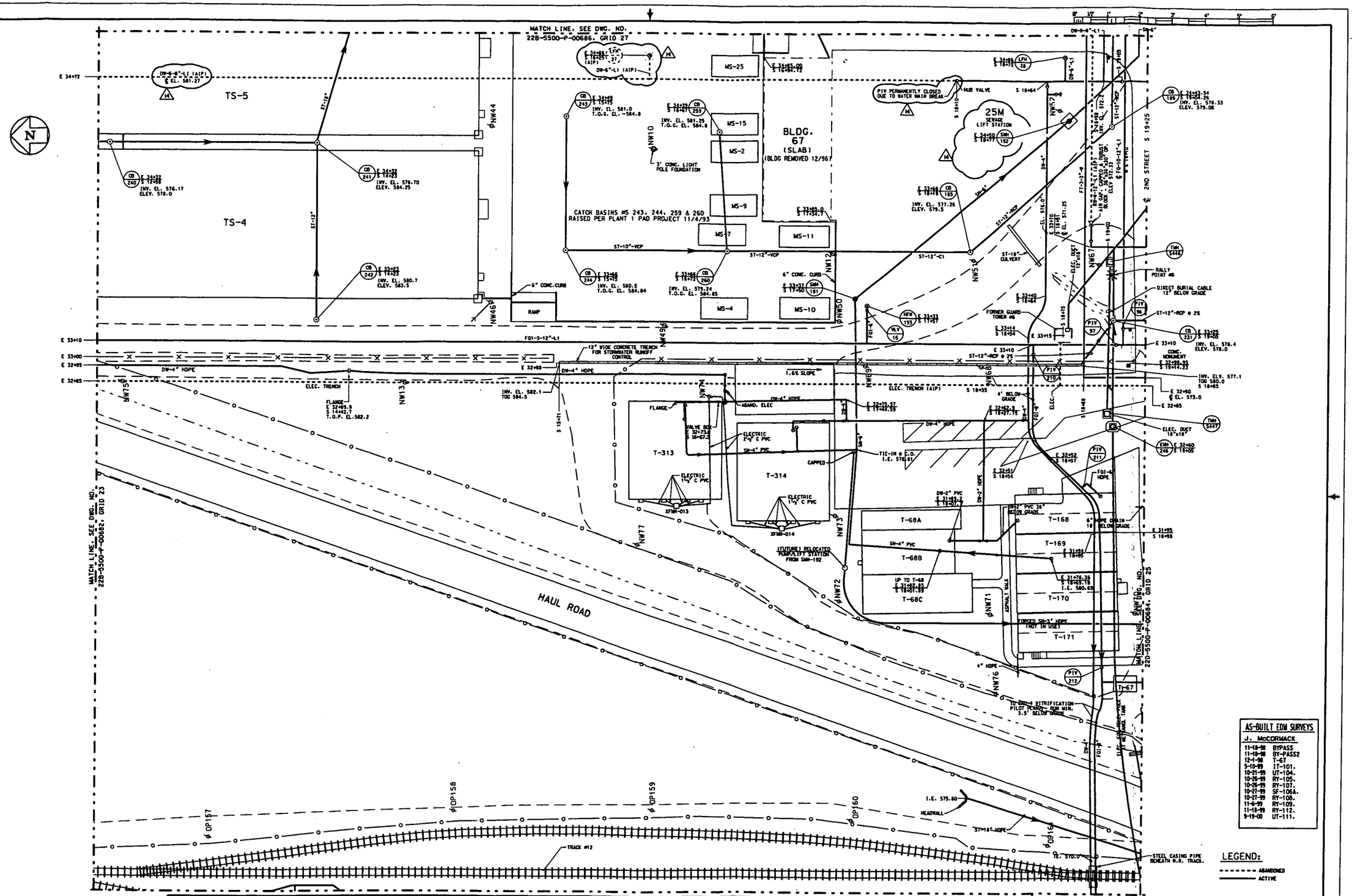
E. OF BLDG. 56 — YARD AREA

GRID 23
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 9/25/90
DRAWN E.A.S.

22B-5500-P-00682 | 10

FILE NAME: /UNDER/22BP00682.DGN



AS-BUILT EDM SURVEYS

J. McCORMACK

11-18-96	BYPASS
11-18-96	BY-PASS2
12-1-96	T-67
5-10-99	IT-101.
10-21-99	UT-104.
10-26-99	RY-105.
10-26-99	RY-107.
10-27-99	SF-106A.
10-27-99	RY-108.
11-6-99	RY-109.
11-18-99	RY-112.
9-19-00	UT-111.

LEGEND:

- ABANDONED
- ACTIVE

NOTE:
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3. FOR INFORMATION ON HAUL ROAD SEE PO6A.

NO.	REVISIONS	DATE	DWN. BY	APPD.
14	ADD NO. 25M TO SEWAGE LIFT STATION @ SWH 192, AIP DW-8" FROM PIV @ S 18+10 TO WEST & LFH 27, GENERAL UPDATE	6-9-02	SJS/RML	GEP
13	AS-BUILT UTILITIES TO T-168 TO T-171, GENERAL UPGRADE	12/15/99	RML	GEP
12	WORK COMPLETED DCN 3000-038, ISOLATE 12"RW	3/8/99	SJS	GEP
11	ADD DW-4" PER DCN: 1695-063, ADD EDM SURVEY TABLE, ADD PIV & VLV NUMBERS TO FOI LINES, ADD UTILITIES TO T-313 & T-314, ADD WATER TO T-68B, WORK COMPLETED TO ISOLATE RW-4-2" EAST OF PIV PER DCN 3000-038	2/3/98	RML/GES	GEP

REF. DWG. NO.
22B-5500-P-00588
22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

APPROVALS			
CIVIL & STRL			SAFETY ENG.
ELECTRICAL			MAINTENANCE
ENGINEER			O.A.
INSTRUMENT			
MECHANICAL			FIRE PROTECT.
			WASTE MANAGE
CHECKED	M.A.		O.O.E.
APPROVED	G.E. PHIL	9/13/00	SECURITY

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG. 67 YARD AREA

GRID 24
UNDERGROUND UTILITIES
SCALE 1"=20'

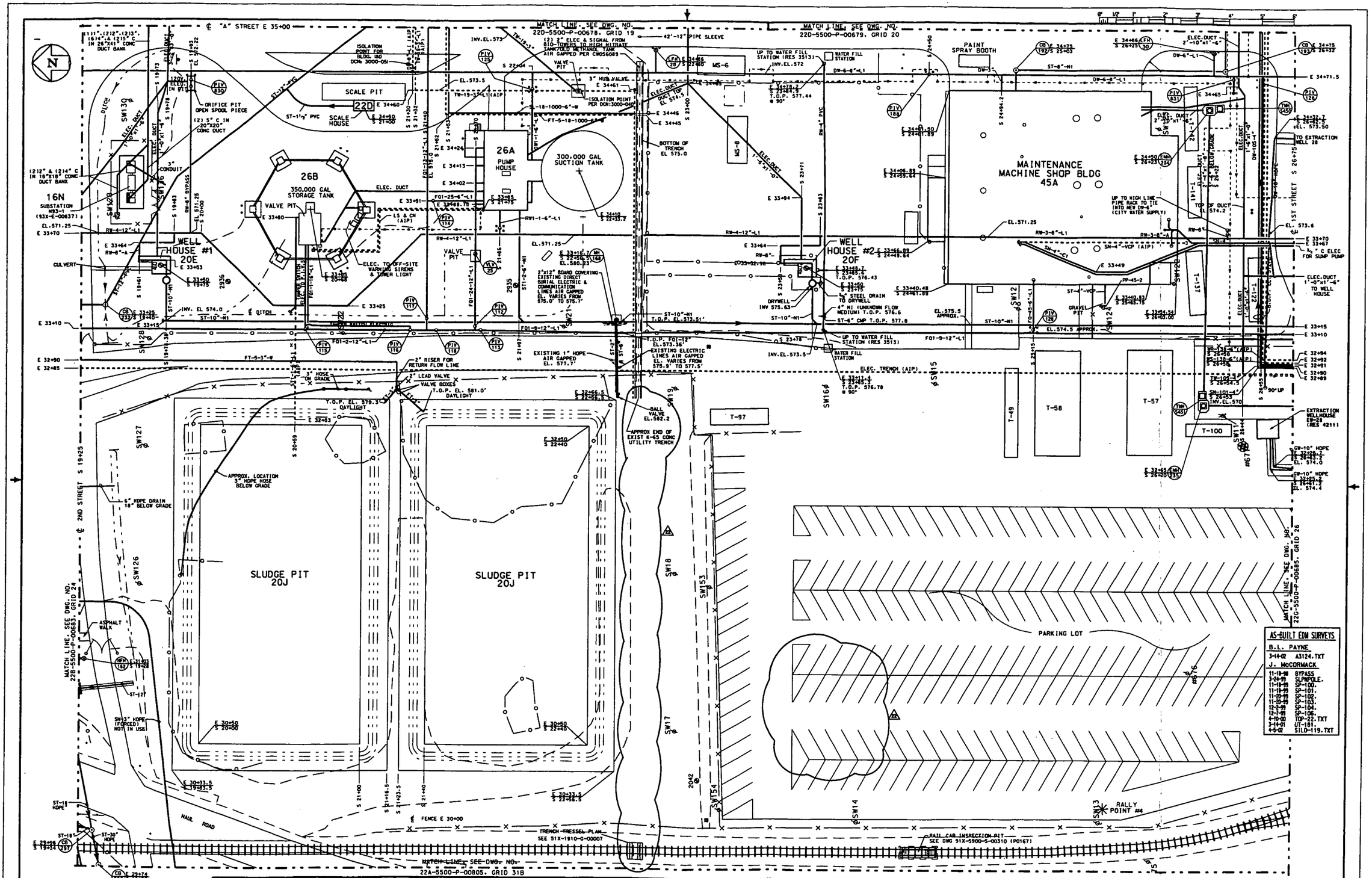
DATE 9/29/90
DRAWN S.J.S.

22B-5500-P-00683 | 14

FILE NAME: /UNDER/22BP0683.DGN

000119

4518



NOTES:
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NO.	REVISIONS	DATE	DWN. BY	APPD.
22	CONC. UTILITY TRENCH AND ALL PIPING	9/24/02	GES/RML	GEP
	REMOVED IN SUMMER OF 2002 BY SILO			
	PROJECTS, REMOVED SECTION A-A			

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
21	ADDED CALLOUT FOR PIPING REMOVED 6/02 FROM CONC. TRENCH (22E).	7/8/02	SJS		
	NUMBERED DW PM'S NOT PREVIOUSLY NUMBERED. PM'S 125, 126, 188,				
	630 & 631, GENERAL UPDATE				
20	ADD 2"C ELEC & SIGNAL FROM BIO-TOWERS (BD) TO HIGH	4/4/02	RML	GEP	51X-1910-G-00006
	NITRATE TANK, CHANGE SECTION A-A, ADD AS-BUILT SURVEY				22X-5500-P-00659
	PER B.L. PAYNE DATED 3/14/02, (RES 428) GENERAL UPDATE				26A-4445-P-00040

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/16
ANGLES ± 0° - 30'
DECIMALS
.X ± 0.4
.XX ± 0.08
.XXX ± 0.030
.XXXX ± 0.0100
DWG. RELEASE DATE

APPROVALS			
CIVIL & STR.		SAFETY ENG. MAINTENANCE	
ELECTRICAL			
ENGINEER		Q.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT. WASTE MANAGE.	
CHECKED	GP	7/24/02	O.O.E.
APPROVED	[illegible]	7/24/02	SECURITY

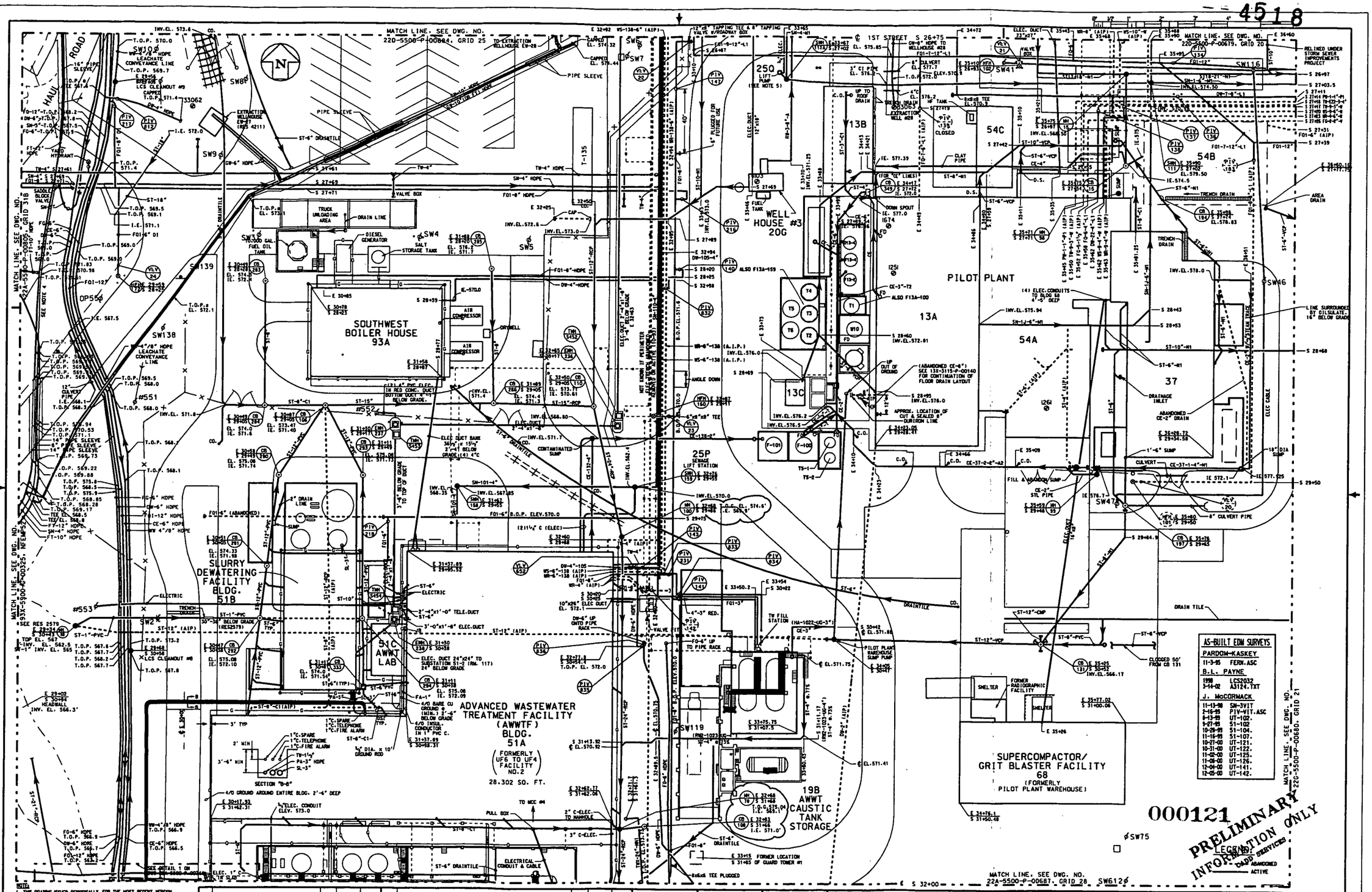
WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

BLDG 45, SLUDGE PITS — YARD AREA
GRID 25
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 9-7-90
DRAWN J. KING
22D-5500-P-00684 | 22

FILE NAME: /UNDER/22DP0684.DGN

000120



NOTE:
1. THIS DRAWING ISSUED PERIODICALLY FOR THE MOST RECENT VERSION OF THIS DRAWING, ACCESS THE FILENAME BELOW THE TITLE BLOCK.
2. COORDINATES SHOWN ON THIS DRAWING ARE TAKEN FROM EXISTING FEMP DRAWINGS AND ARE NOT VERIFIED TO BE "AS-BUILT". IT IS HIGHLY RECOMMENDED THAT A FIELD SURVEY BE PERFORMED PRIOR TO SITE DESIGN WORK.
3. CW-07 AND WW-4"/8" LINES LOCATED PER B.L. PAYNE AS-BUILT SURVEY, SEE /PAYNE/LCS/LCS2032.DGN
4. SEE PARSONS TOP-046 DWG 93X-5300-G-00009 FOR CONSTRUCTION DETAILS.
5. SEE RES2933, DRAWING 250-5500-P-00293.

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
										95X-5900-P-00430
					28	NUMBERED DW PW'S & VLV'S NOT PREVIOUSLY NUMBERED.	10/8/	SJS		96X-5900-E-00354
						PW'S (36, 137, 138, 143, 862, 832 THRU 836, VLV 652				93X-5900-G-00688
					27	ADDED NOTE 5, NO.5 25P & 25Q TO SEWAGE LIFT STATIONS, ADD	1/6/97	GEP/SJS	GEP	13X-5500-P-00619
						AS-BUILT SURVEY BY B.P. PAYNE DATED 3/14/02, GENERAL UPDATE				22X-5500-P-00659

NOTE: WEMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS ± 1/8
DECIMALS ± .X = ±.1 ±.XX = ±.03 ±.XXX = ±.010 ±.XXXX = ±.0005
ANGLES ± 0° - 30'
DIM. RELEASE DATE

APPROVALS			
DSR. & STR.		SAFETY ENG. MAINTENANCE	
ELECTRICAL			
ENGINEER		D.A.	
INSTRUMENT			
MECHANICAL		FIRE PROTECT. WASTE MANAGE	
CHECKED	GEP	R.D.E.	
APPROVED	G.E. PAUL 4/29/97	SECURITY	

WESTINGHOUSE ENVIRONMENTAL MANAGEMENT CO. OF OHIO
FERNALD, OHIO
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
U.S. DEPARTMENT OF ENERGY

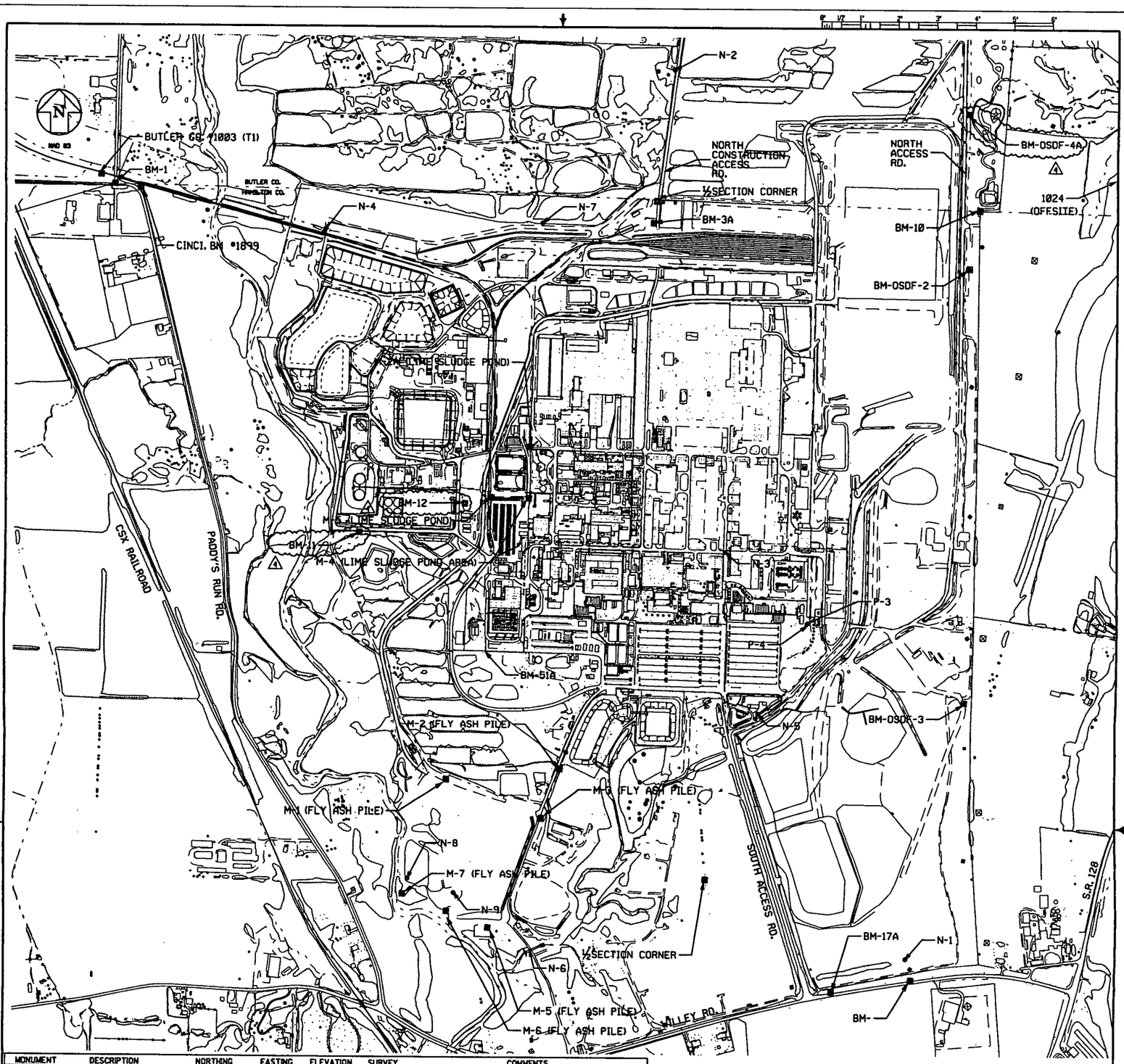
PILOT PLANT & BLDG SI — YARD AREA

GRID 26
UNDERGROUND UTILITIES
SCALE 1"=20'

DATE 9-5-90
DRAWN A. KANG

22G-5500-P-00685 | 28

FILE NAME: /UNDER/22GP0685.DGN



MONUMENT	DESCRIPTION	NORTHING	EASTING	ELEVATION	SURVEY	COMMENTS
BM-1	(ESTAB.)SITE ORIGIN (0,0)	482813.982	1345109.041	579.83	WOOLPERT	COUNTY SECTION CORNER GPS LOCATED
M-1A	LIME SLUDGE POND					DESTROYED RAIL UPGRADE 1997
M-2A	LIME SLUDGE POND					
M-4A	LIME SLUDGE POND					DESTROYED/COVERED PER BLDG 45 PARKING LOT PROJ.
M-5A	LIME SLUDGE POND					
M-1	FLY ASH PILE	478237.93	1347705.20	573.62	WOOLPERT	GPS LOCATED
M-2	FLY ASH PILE	478322.05	1348595.78	576.67	WOOLPERT	GPS LOCATED
M-3	FLY ASH PILE	477948.929	1348451.099	577.41	WOOLPERT	GPS LOCATED
M-4	FLY ASH PILE					DESTROYED 10/94 PER FLY ASH PILE DRAIN. DITCH PROJ.
M-5	FLY ASH PILE	477100.59	1348036.39	537.83	WOOLPERT	GPS LOCATED
M-6	FLY ASH PILE	477226.90	1347710.31	538.66	WOOLPERT	GPS LOCATED
M-7	FLY ASH PILE	477360.67	1347365.20	537.75	WOOLPERT	GPS LOCATED
M-5A/M-8	FLY ASH PILE	477071.77	1348810.37	537.60	WOOLPERT	GPS LOCATED
M-1	SAN LANDFILL					DESTROYED RAIL UPGRADE 1997
M-2	SAN LANDFILL					DESTROYED RAIL UPGRADE 1997
M-3	SAN LANDFILL					DESTROYED RAIL UPGRADE 1997
N-1	ALUMINUM CAPPED PIN	476876.20	1351301.43	607.88	WOOLPERT	GPS LOCATED
N-2	ALUMINUM CAPPED PIN	483717.88	1349475.83	634.26	WOOLPERT	GPS LOCATED
N-3	ALUMINUM CAPPED PIN	480007.25	1349883.72	579.44	WOOLPERT	GPS LOCATED
N-4	ALUMINUM CAPPED PIN	482445.14	1346725.45	576.91	WOOLPERT	GPS LOCATED
N-5	ALUMINUM CAPPED PIN	478758.71	1350146.60	580.37	WOOLPERT	GPS LOCATED
N-6	ALUMINUM CAPPED PIN	476928.55	1348369.68	551.99	WOOLPERT	GPS LOCATED
N-7	ALUMINUM CAPPED PIN	482526.88	1348443.85	585.57	WOOLPERT	GPS LOCATED
N-8	ALUMINUM CAPPED PIN	477479.18	1347404.43	538.88	WOOLPERT	GPS LOCATED
N-9	ALUMINUM CAPPED PIN	477370.11	1347767.16	537.99	WOOLPERT	GPS LOCATED
P-1	U.S. AEC				WOOLPERT	DESTROYED PER T-42 PROJECT
P-2	U.S. AEC				WOOLPERT	DESTROYED PER HAUL ROAD 1997
P-3	U.S. AEC	479464.687	1350529.596	577.18	WOOLPERT	PRODUCTION AREA BOUNDARY (10' OFFSET) GPS LOCATED
P-4	U.S. AEC	479454.81	1350519.26	577.74	WOOLPERT	PRODUCTION AREA BOUNDARY (10' OFFSET) GPS LOCATED
BM 1003	BUTLER CO.	482887.97	1345001.20	579.93	WOOLPERT	BUTLER COUNTY WITNESS GPS LOCATED
BM 1024		482524.62	1357525.75	542.64	WOOLPERT	GPS LOCATED
BM 1899	CITY OF CINCINNATI	482181.79	1345309.62	579.06	WOOLPERT	CINCINNATI WATER DEPT BM GPS LOCATED
½ SECTION	HAMILTON COUNTY					DESTROYED 8/94 - BASE STONE INTACT
½ SECTION	HAMILTON COUNTY					CAGIS #3160
BM-1A	U.S. DOE/WMCO					DESTROYED BY STP DEMOLITION PROJECT
BM-2A	U.S. DOE/WMCO					CAGIS #3454, WOOLPERT #551 DESTROYED PER OSDF
BM-3A	U.S. DOE/WMCO	482531.64	1349314.19	589.53	WOOLPERT	GPS LOCATED
BM-10	U.S. AEC	482637.962	1351857.178	615.88	WOOLPERT	GPS LOCATED
BM-17A	U.S. DOE/WMCO				WOOLPERT	DAMAGED-BRASS PLATE MISSING/DESTROYED
BM-51-A1						TO BE RE-SURVEYED
BM-	U.S. DOE/WMCO					TO BE RE-SURVEYED
8011	HAMILTON COUNTY	475374.29	1352068.16	614.20	WOOLPERT	CAGIS #8011 GPS LOCATED
BM-OSDF-2	ON-SITE DISPOSAL FAC.	482999.937	1351179.165	615.82	B.L. PAYNE	GPS LOCATED
BM-OSDF-3	ON-SITE DISPOSAL FAC.	478850.416	1351149.328	595.61	B.L. PAYNE	GPS LOCATED
BM-OSDF-4	ON-SITE DISPOSAL FAC.					DESTROYED
BM-11	SILOS AREA	480149.12	1347018.47	569.02	T. BAUMANN	#998, BRASS DISK LOCATED AT BASE OF SILOS CAMERA
BM-12	SILOS AREA	480368.83	1347842.41	577.76	T. BAUMANN	#9912, BRASS DISK ADJACENT TO HFH-171
BM-OSDF-4A	ON SITE DISPOSAL FAC.	483394.96	1351770.39	609.93	J. SCHWING	REPLACED BM-OSDF-4

LOCATION	FEMP	NAD27	NAD83	USGS
BUTTERFIELD NATIONAL MONUMENT	—	—	—	N 39° 18' 09.718" W 84° 42' 50.567"
BM-1	N 00+00 E 00+00	N 482,784.90 E 1,376,578.31	N 482,813.982 E 1,345,109.041	N 39° 18' 16.9" W 84° 42' 12.5"
CENTER PLANT 4A (CENTER OF FEMP)	S 21+35.38 E 43+72.89	—	N 480,559.36 E 1,349,421.62	N 39° 17' 55.1" W 84° 41' 14.1"
CENTER EAST WATER TOWER 200	S 23+75.21 E 54+00.0	—	N 480,291.53 E 1,350,442.15	N 39° 17' 54" W 84° 41' 03"

CAGIS #8011

PRELIMINARY

NOTES:
1. COORDINATES LISTED ON THIS DRAWING ARE BASED ON N.A.D. 83 FOR HORIZONTAL CONTROL.
2. BENCHMARKS LOCATED ARE EITHER CONCRETE MONUMENTS W/ CHISELED CROSSES OR CONCRETE MONUMENTS WITH BRASS PLATES.

NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.
6	ADDED COORDINATE BLOCK	1/5/98	JaW		
5	REVISED BM-8&12 COORDINATES PER DCN-40315-065	1/5/98	JaW	GEP	
4	ADDED BM-11/12, OSDF-4A REMOVED BM-1A & BM-OSDF-4, INCORP. DCN:20102-084	1/8/97	JaW	GEP	00X-7000-G-00058

FORMAT REVISED 4/15/96 FORM37A.DGN

NOTE: FERMCO C.A.D. DRAWING NOT TO BE REVISED MANUALLY

CONFIGURATION MANAGEMENT DRAWING
THIS DWG. ATTACHED AS CONTROLLED DOCUMENT TO MCR, CONTROL DWG. REF. SHEET.
COGNIZANT ENGINEER DATE

APPROVALS				
CIVIL & STR.	J. SCHWING	1/2/98	SAFETY ENG.	
ELECTRICAL			MAINTENANCE	
ENGINEER			O.A.	
INSTRUMENT			FIRE PROTECT.	
MECHANICAL			WASTE MANAGE	
			SECURITY	
			CRU	
CHECKED	GEP			
APPROVED	G.E. PAUL	1/2/98		

FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION
FERMCO
Fernald Environmental Management Project
U.S. DEPARTMENT OF ENERGY

SITEWIDE
MASTER FEMP
GPS BENCHMARK LOCATION PLAN
NO SCALE

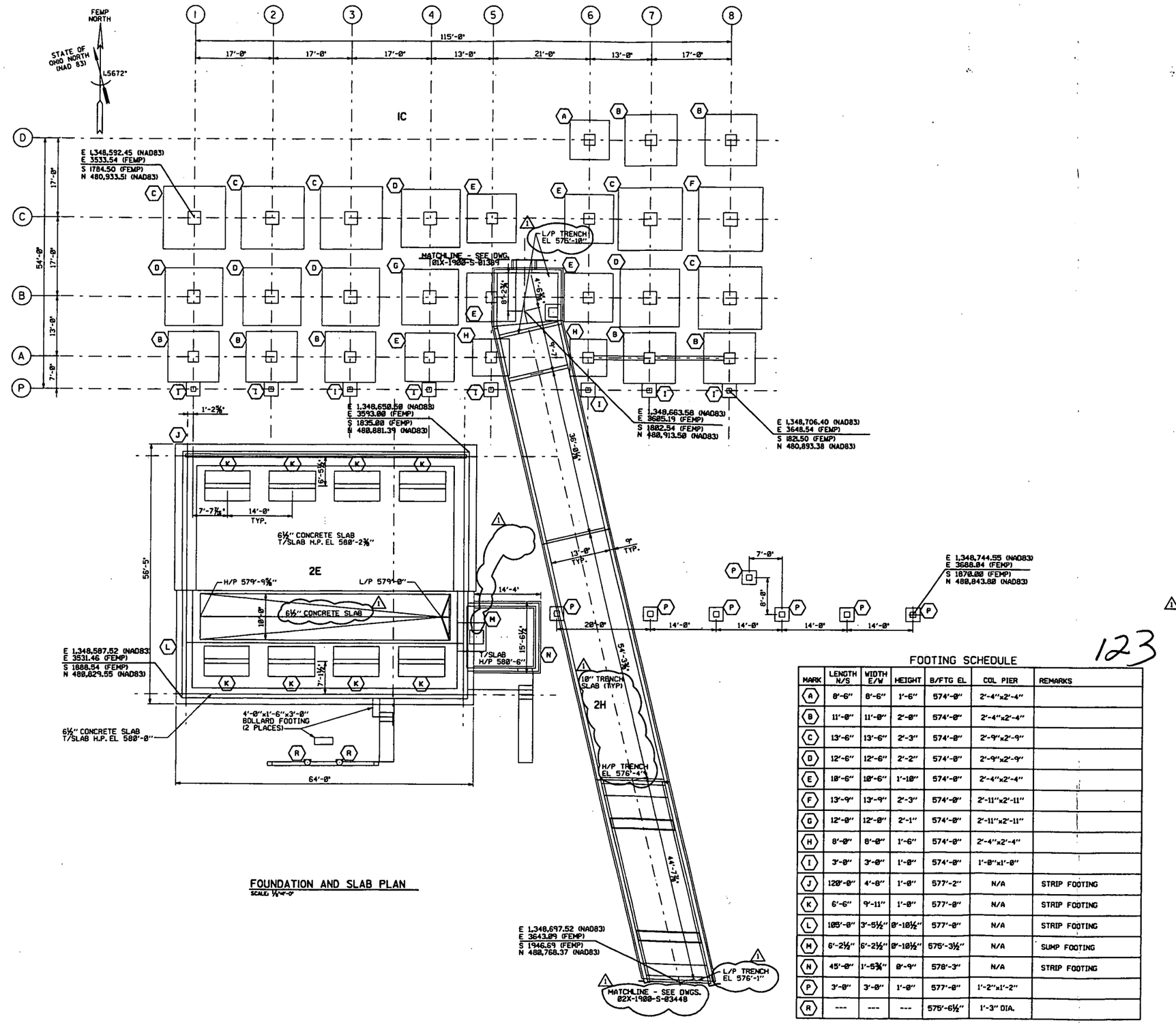
RES-2740
DATE JUNE 5, 1996
DRAWN JaW

00X-5500-G-01846 | 6

FILE NAME: /res2740/00xg1846.dgn

000122

4518



FOUNDATION AND SLAB PLAN

SCALE: ⅛"=1'-0"

123

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-6"	8'-6"	1'-6"	574'-0"	2'-4"x2'-4"	
B	11'-0"	11'-0"	2'-0"	574'-0"	2'-4"x2'-4"	
C	13'-6"	13'-6"	2'-3"	574'-0"	2'-9"x2'-9"	
D	12'-6"	12'-6"	2'-2"	574'-0"	2'-9"x2'-9"	
E	10'-6"	10'-6"	1'-10"	574'-0"	2'-4"x2'-4"	
F	13'-9"	13'-9"	2'-3"	574'-0"	2'-11"x2'-11"	
G	12'-0"	12'-0"	2'-1"	574'-0"	2'-11"x2'-11"	
H	8'-0"	8'-0"	1'-6"	574'-0"	2'-4"x2'-4"	
I	3'-0"	3'-0"	1'-0"	574'-0"	1'-0"x1'-0"	
J	120'-0"	4'-8"	1'-0"	577'-2"	N/A	STRIP FOOTING
K	6'-6"	9'-11"	1'-0"	577'-0"	N/A	STRIP FOOTING
L	105'-0"	3'-5½"	0'-10½"	577'-0"	N/A	STRIP FOOTING
M	6'-2½"	6'-2½"	0'-10½"	576'-3½"	N/A	SUMP FOOTING
N	45'-0"	1'-5¾"	0'-9"	578'-3"	N/A	STRIP FOOTING
P	3'-0"	3'-0"	1'-0"	577'-0"	1'-2"x1'-2"	
R	---	---	---	575'-6½"	1'-3" DIA.	

SCALE: 1/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SLAB NOT MODELED FOR IC DUE TO LACK OF INFORMATION.

4518

REF DWG NO.	DRAWING TITLE
01C-1450-S-00003	SILO FOUNDATION PLAN
01C-1450-S-00004	CONCRETE PLAN OF CONVEYOR TRENCH BET. SILOS AND ORE REFINING BUILDING C1-1
01C-3115-S-00396	REINF. DET'S - SAMPLING PLANT
02A-5500-S-02333	NFS STORAGE TANKS FOR THE REFINERY CONCRETE PAD PLAN
02A-5500-S-02334	NFS STORAGE TANKS FOR THE REFINERY CONCRETE PAD EXIST GRADE CONTOUR & SECTION
02A-5500-S-02335	NFS STORAGE TANKS FOR THE REFINERY CONCRETE PAD TANK SUPPORT & RETAINING WALLS
02A-5500-S-02336	NFS STORAGE TANKS FOR THE REFINERY CONCRETE PAD SECTIONS
02A-5500-S-02337	NFS STORAGE TANKS FOR THE REFINERY MISC CONCRETE WORK SECTIONS & DETAILS
02A-5500-S-02338	NFS STORAGE TANKS FOR THE REFINERY PUMPHOUSE FOUNDATION PLANS & SECTIONS
02X-1900-S-03448	STRUCTURE 2H AND PIT FOUNDATION AND SLAB PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
1	REVISED SUMP AND TRENCH INFORMATION	N/A	SDS 25JAN02	
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 18DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

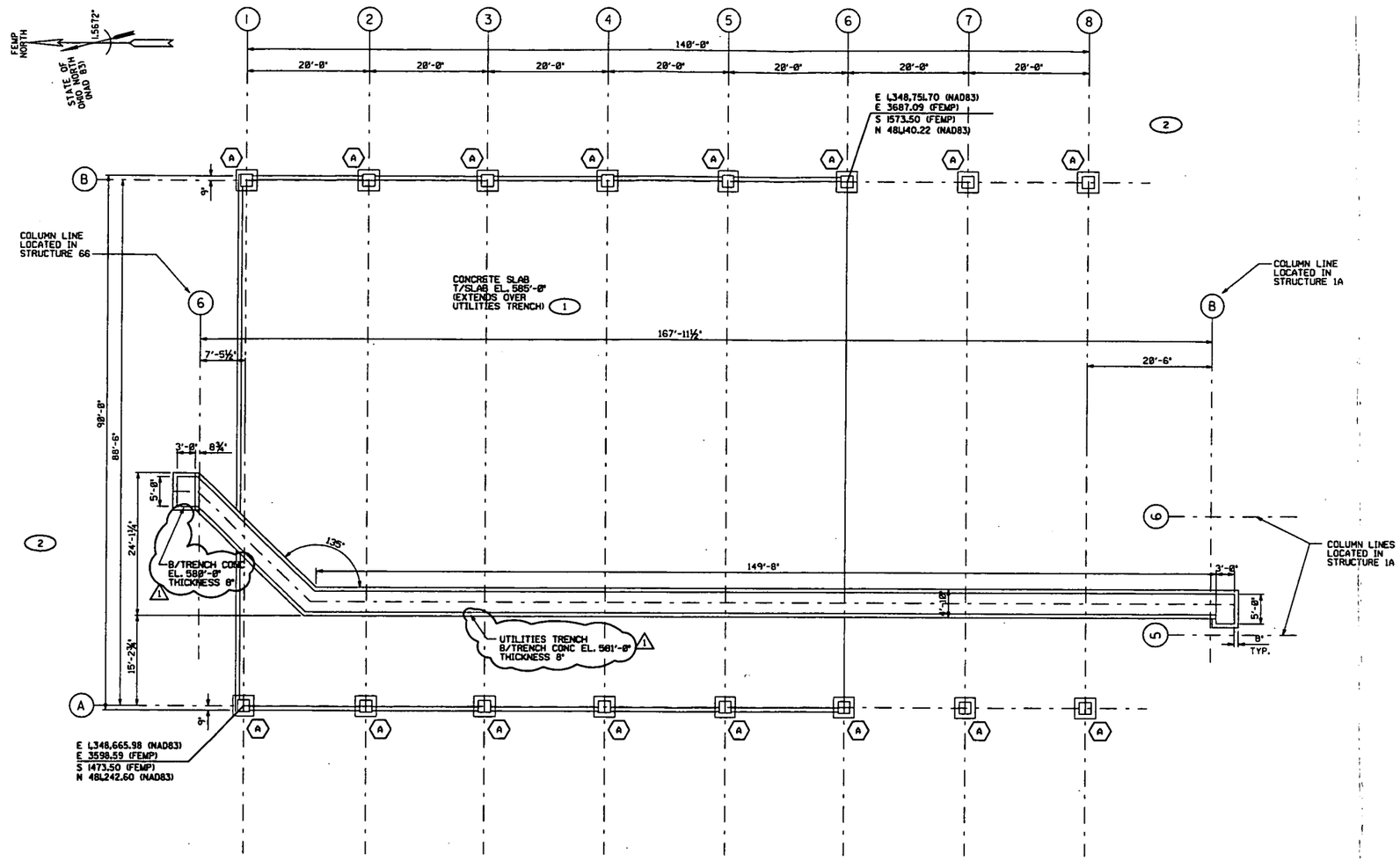
DRAWING TITLE
STRUCTURE SOUTH 2H, 2E AND 1C
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

EXISTING STRUCTURES AS CONFIRMED BY FIELD VERIFICATION. NO CHANGE TO CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	1/8"=1'-0"
JES NO.	FOP PROJECT NO.	DRAWN BY: K. DAVIS — DATE: 12NOV01
N/A	20810	TECHNICAL LEAD: J. ALCORN — DATE: 12NOV01
		CHECKED BY: J. ALCORN — DATE: 19NOV01
DRAWING INDEX CODE NO.		SHEET NO. / REV. NO.
01C-1900-S-01390		S-001 / 1



FOUNDATION AND SLAB PLAN
SCALE: 1/8"=1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. STRUCTURE 1B (BUTLER BLDG.) LACKED INFORMATION FOR BLDG. FOUNDATION WALLS. THEREFORE, STRUCTURE 56A BUTLER BLDG.) GB-2 FDN WALLS WERE USED PER 56A DRAWINGS 56X-7000-A-00001 AND 56X-7000-A-00002.

4518

KEYED NOTES

1. FOR THICKNESS OF CONCRETE SLAB, SEE DRAWING 74B-1900-S-00077.
2. FOR CONTINUATION OF ADJACENT SLAB, SEE DRAWING 74B-1900-S-00077.

REF DWG NO.	DRAWING TITLE
01D-5500-A-01338	DRUM STORAGE BUILDING FLOOR PLAN
01D-5500-S-00785	DRUM RECOND BLDG SERVICE LINE TRENCH AND TRENCH COVER LAYOUT & DETAILS

FOR INFORMATION ONLY

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-6"	3'-6"	1'-0"	581'-8"	2'-0"x2'-0"	

124

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ACHN BY
		DATE		
1	REVISED TRENCH NOTES	N/A	SDS 25JAN02	
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 18DEC01	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

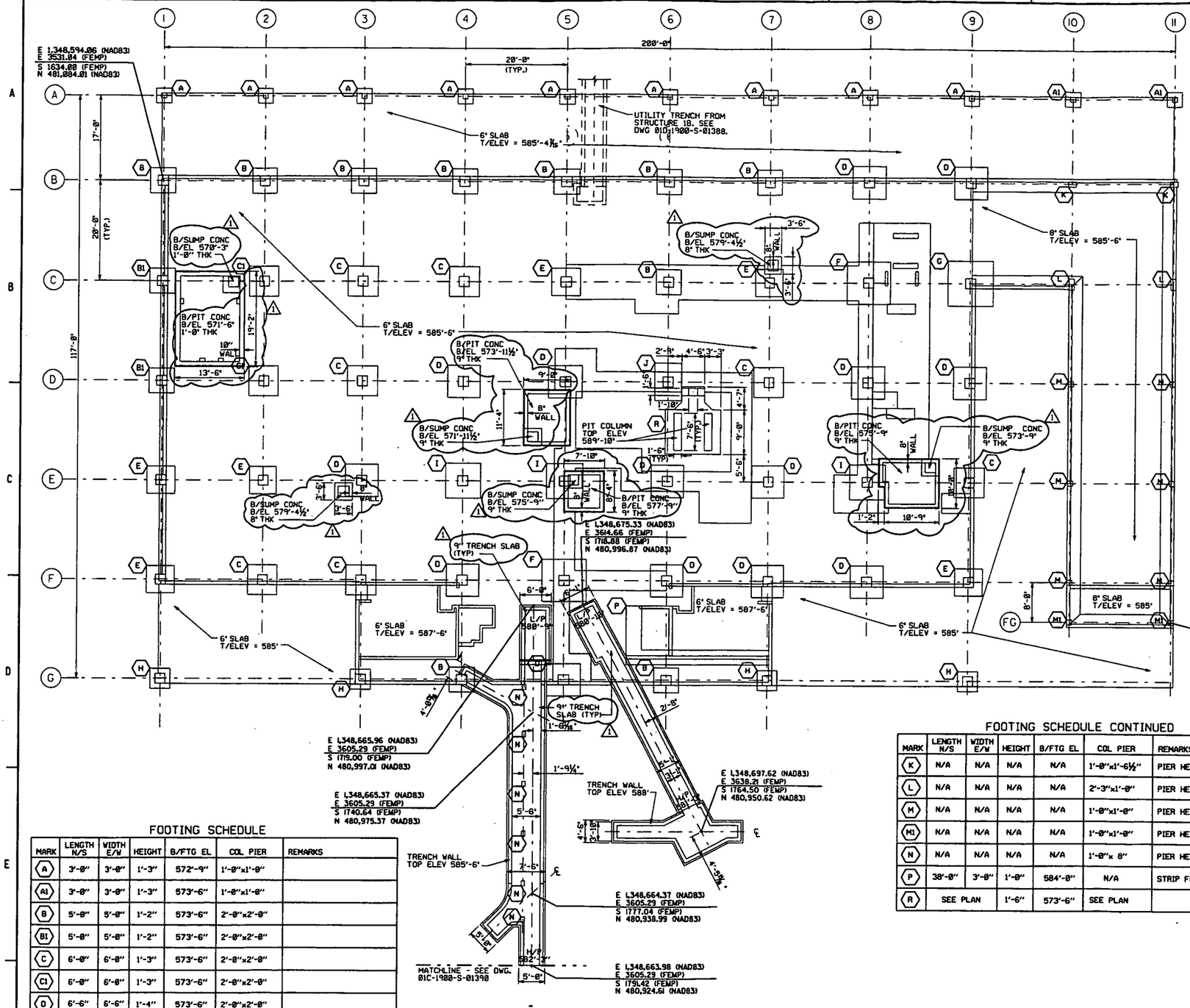
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 1B
FOUNDATION AND SLAB PLAN

TASK ORDER NO. L-010	OPTIONAL NO. N/A	SCALE 1/8"=1'-0"	
		DRAWN BY K. DAVIS	DATE 15NOV01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 15NOV01
		CHECKED BY J. ALCORN	DATE 15NOV01
DRAWING INDEX CODE NO. 01D-1900-S-01388		SHEET NO. S-001	REV. NO. 1

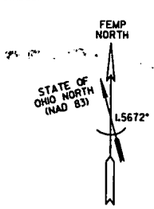
CONFIGURATION MANAGEMENT DRAWING
COGNIZANT ENGINEER DATE

SCALE: 1/8 INCH FOOT



FOUNDATION AND SLAB PLAN

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



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-0"	3'-0"	1'-3"	572'-9"	1'-0"x1'-0"	
A1	3'-0"	3'-0"	1'-3"	573'-6"	1'-0"x1'-0"	
B	5'-0"	5'-0"	1'-2"	573'-6"	2'-0"x2'-0"	
B1	5'-0"	5'-0"	1'-2"	573'-6"	2'-0"x2'-0"	
C	6'-0"	6'-0"	1'-3"	573'-6"	2'-0"x2'-0"	
C1	6'-0"	6'-0"	1'-3"	573'-6"	2'-0"x2'-0"	
D	6'-6"	6'-6"	1'-4"	573'-6"	2'-0"x2'-0"	
E	5'-6"	5'-6"	1'-2"	573'-6"	2'-0"x2'-0"	
F	8'-6"	8'-6"	1'-6"	573'-6"	2'-0"x2'-0"	
G	9'-0"	9'-0"	1'-6"	573'-6"	2'-0"x2'-0"	
H	4'-0"	4'-0"	1'-0"	582'-0"	2'-0"x2'-0"	
I	7'-0"	7'-0"	1'-5"	573'-6"	2'-0"x2'-0"	
J	5'-4"	7'-6"	1'-6"	573'-6"	2'-0"x2'-0"	

FOOTING SCHEDULE CONTINUED

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
K	N/A	N/A	N/A	N/A	1'-0"x1'-6½"	PIER HEIGHT = 3'-6"
L	N/A	N/A	N/A	N/A	2'-3"x1'-0"	PIER HEIGHT = 3'-6"
M	N/A	N/A	N/A	N/A	1'-0"x1'-0"	PIER HEIGHT = 3'-6"
M1	N/A	N/A	N/A	N/A	1'-0"x1'-0"	PIER HEIGHT = 3'-8"
N	N/A	N/A	N/A	N/A	1'-0"x 8"	PIER HEIGHT VARIES
P	38'-0"	3'-0"	1'-0"	584'-8"	N/A	STRIP FOOTING
R	SEE PLAN		1'-6"	573'-6"	SEE PLAN	

000125

SCALE: 1/8 INCH = FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
01A-1450-S-00006	CONCRETE CONVEYOR TRENCHES SAMPLING PLANT TO SILOS
01B-1450-S-00002	SAMPLING PLANT EQUIPMENT, FOUNDATIONS, AND SECTIONS
01X-1450-S-00055	CONCRETE PLAN OF FIRST FLOOR SAMPLING PLANT
01X-1450-S-00057	PLAN AND DETAILS OF FIRST FLOOR SLAB SAMPLING PLANT
01X-1450-S-00060	CONCRETE CONVEYOR PITS IN FIRST FLOOR SAMPLING PLANT
01X-1450-S-00061	PLAN, SECTIONS, ANCHOR BOLT LOCATIONS DRUMMING STATION @ MGX AND Q-11 SAMPLING PLANT
01X-3115-S-00392	SAMPLING PLANT
01B-3115-S-00398	THAWING AREA SAMPLING PLANT
01X-5500-A-01245	PREPARATION PLANT FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	IL	PM	RCHD BY
1	REVISED SUMP, PIT AND TRENCH INFORMATION	N/A	SDS 25JAN02	
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 16DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE NORTH 2H AND 1A
FOUNDATION AND SLAB PLAN

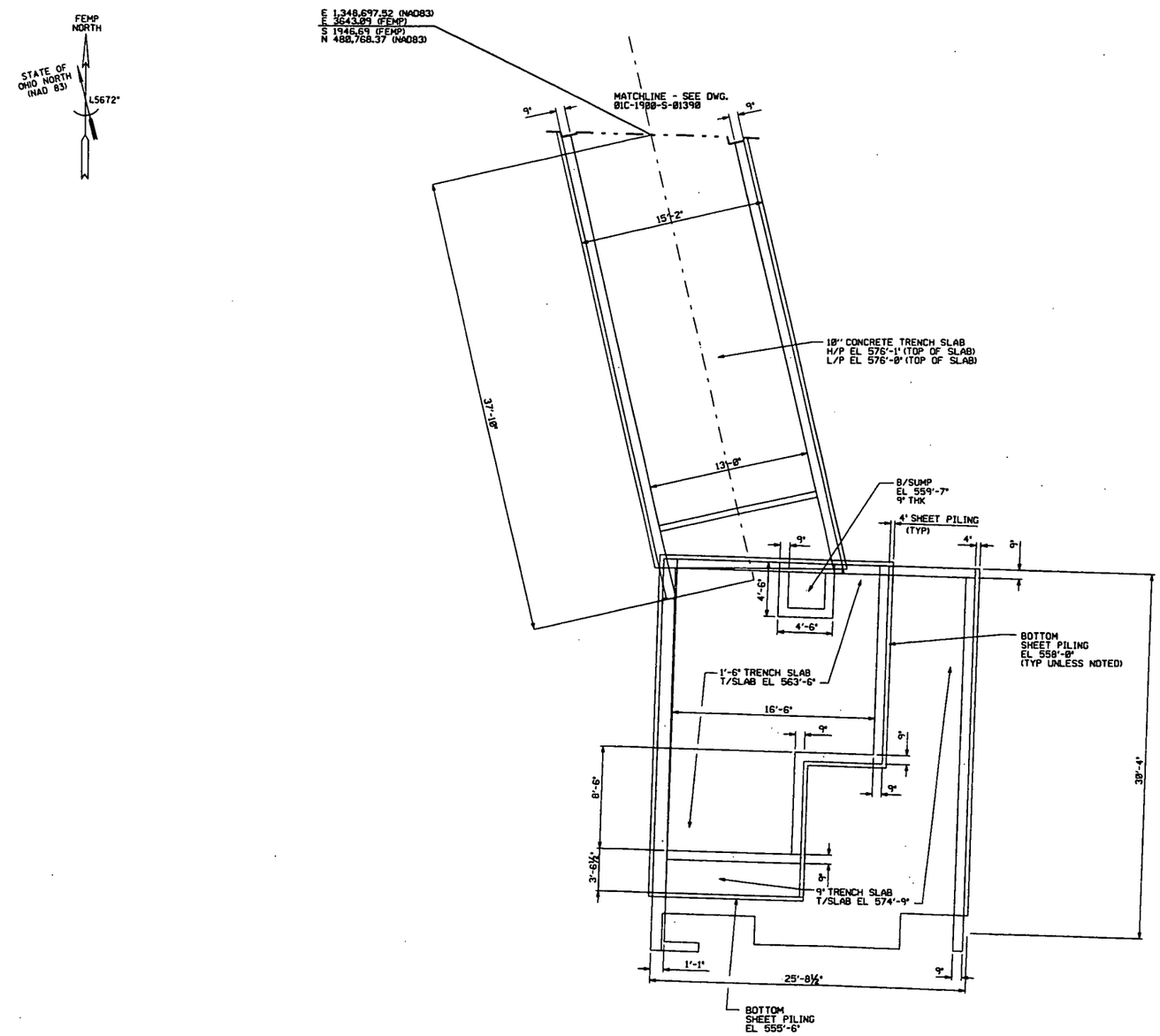
CONFIGURATION MANAGEMENT DRAWING

STATUS: STRUCTURES AS CONSTRUCTED REFLECTS ALL THE CHANGES INDICATED BY CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

0

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE: 1/8"=1'-0"
L-010	N/A	DRAWN BY G. THURMAN — DATE 14NOV01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 28NOV01
		CHECKED BY J. ALCORN — DATE 16NOV01
DRAWING INDEX CODE NO. 01X-1900-S-01389		SHEET NO. S-001 — REV. NO. 1



FOUNDATION AND SLAB PLAN

SCALE: ¼" = 1'-0"

000126

0' 2' 4' 8' 12'

SCALE: 1/4 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
01C-1450-S-00004	CONCRETE PLAN OF CONVEYOR TRENCH BET. SILOS AND ORE REFINING BUILDING
01C-3115-S-00402	SHEET PILING DETAILS FOR CONVEYOR PIT AT ORE REFINERY
01C-3115-S-00405	CONVEYOR TRENCH PIT AT ORE REFINERY BLDG 3001-C1-1 (NW CORNER)

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
		INITIALS AND DATE		
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

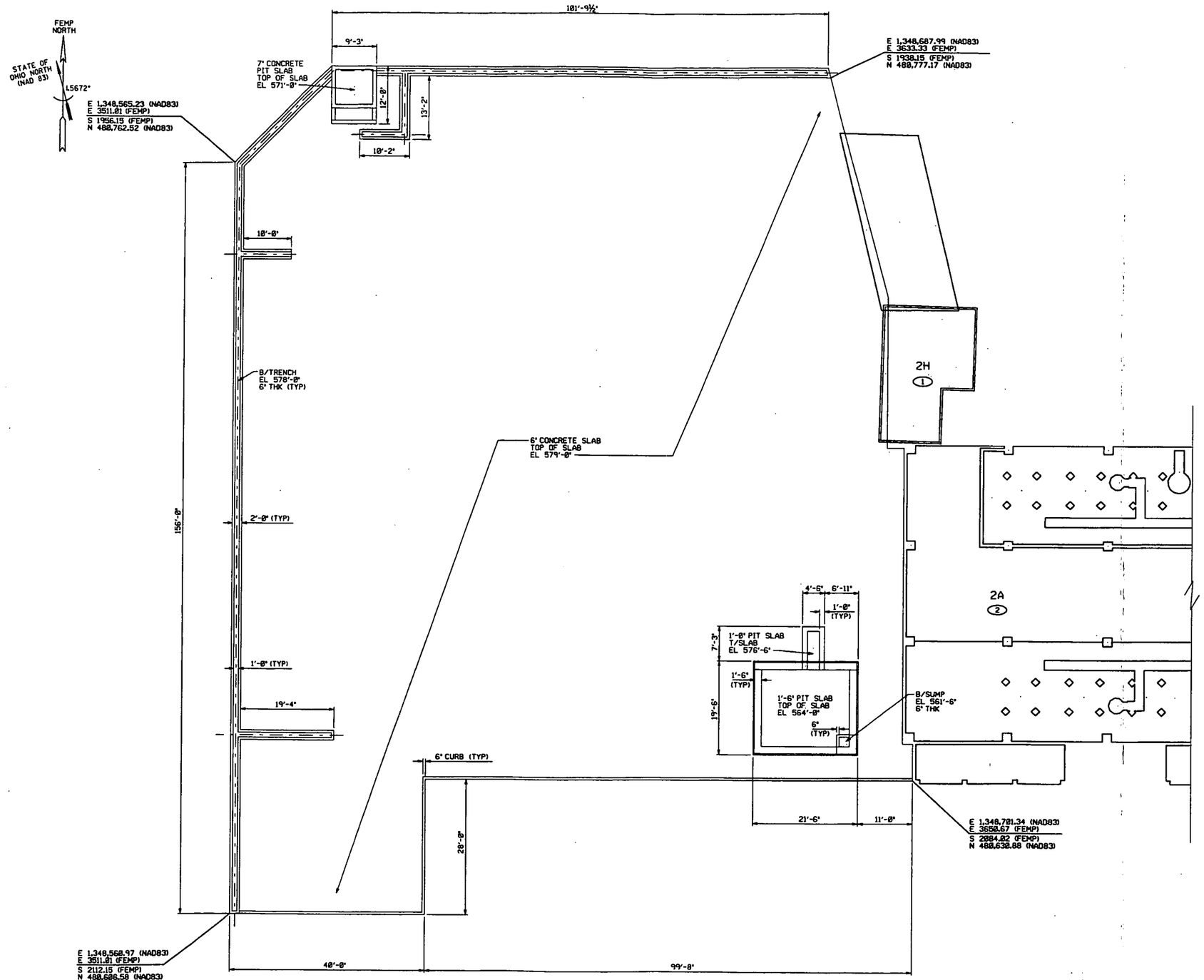
DRAWING TITLE
STRUCTURE 2H AND PIT
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

EXISTING DRAWINGS AS CONTROLLED BY DOE DOCUMENT 5400.1A, GENERAL CONFIGURATION MANAGEMENT CONTROL, DEC 05 1985.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"
L-010	N/A	DRAWN BY G. THURMAN — DATE 19DEC01
AES NO. N/A	FOP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 26DEC01
		CHECKED BY J. ALCORN — DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03448		SHEET NO. S-001 — REV. NO. 0



FOUNDATION AND SLAB PLAN
SCALE: 1/8" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

KEYED NOTES

ADDITIONAL DETAIL FOR EACH OF THE COMPONENT STRUCTURES IS LOCATED ON THE FOLLOWING DRAWINGS AND SKETCHES.

1. SEE DWG 02X-1900-S-03448 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK2H-1 FOR ISOMETRIC VIEW.
2. SEE DWG 02X-1900-S-03451 FOR FOUNDATION PLAN AND DWG 02X-1900-S-03452 FOR SLAB PLAN. SEE DWG SK2A-1 FOR ISOMETRIC VIEW.

REF DWG NO.	DRAWING TITLE
02A-5500-S-01689	SEETTLING PIT & PAD DRAINAGE TRENCHES PLOT PLAN & CONCRETE SECTIONS
02A-5500-S-01690	SEETTLING PIT & PAD DRAINAGE TRENCHES PIT PLAN, SECTIONS & DETAILS
02A-5500-S-01691	SEETTLING PIT & PAD DRAINAGE TRENCHES EQUIPMENT LOCATION & TRENCH PROFILES
02A-5500-S-01505	BUCKET ELEVATOR PIT PLAN, SECTIONS & DETAILS WEST PAD AREA

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

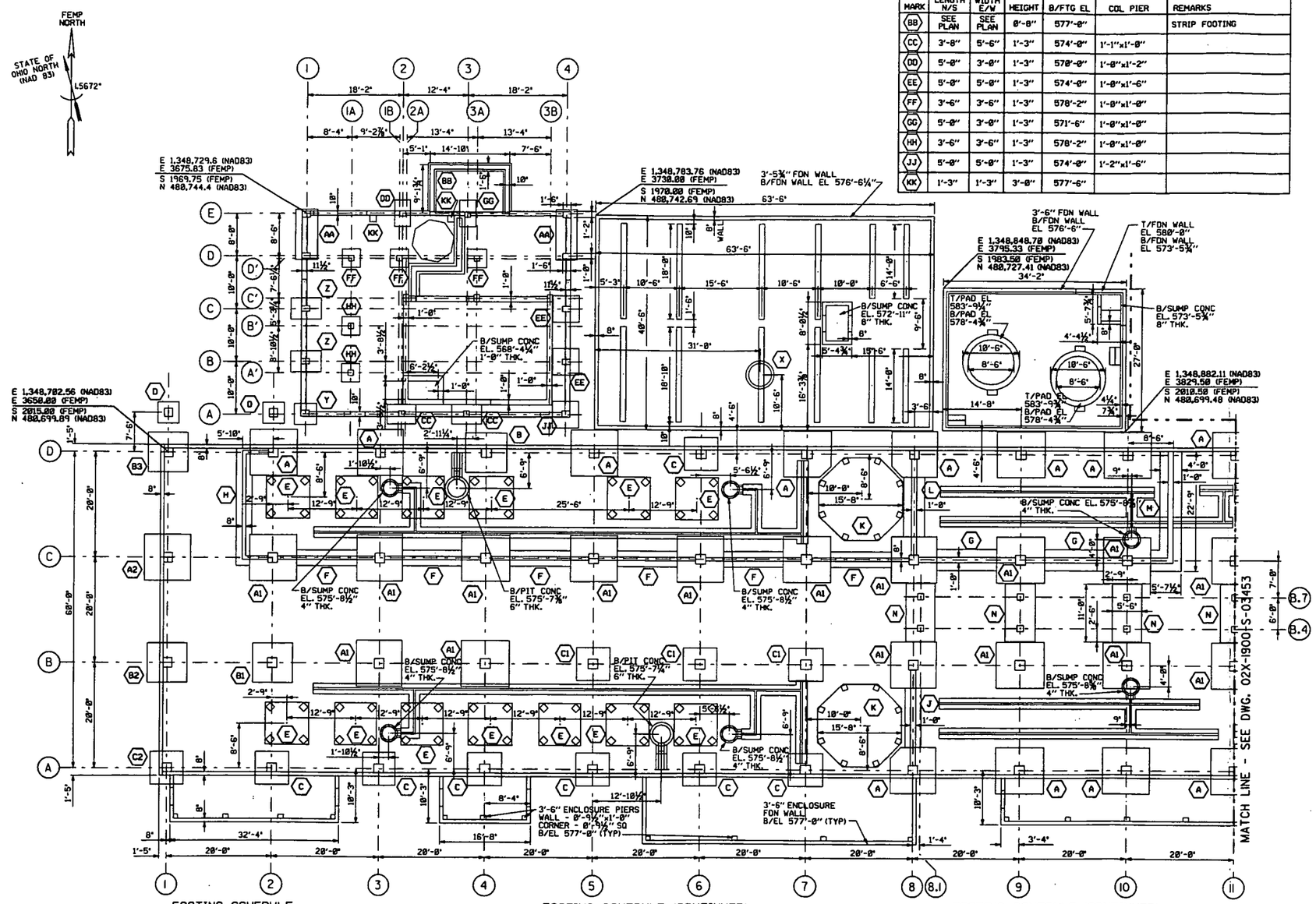
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 74B AND ELEVATOR PIT
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — TECH / REF
EXISTING STRUCTURES AS CONFIRMED DURING FIELD WALKDOWNS. SEE CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
REF NO.	FEP PROJECT NO.	DRAWN BY: G. THURMAN	DATE: 17DEC01
N/A	20810	TECHNICAL LEAD: J. ALCORN	DATE: 26DEC01
		CHECKED BY: J. ALCORN	DATE: 04JAN02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
02X-1900-S-03450		S-001	0



FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
BB	SEE PLAN	SEE PLAN	0'-8"	577'-0"		STRIP FOOTING
CC	3'-8"	5'-6"	1'-3"	574'-0"	1'-1"x1'-8"	
DD	5'-0"	3'-0"	1'-3"	570'-0"	1'-0"x1'-2"	
EE	5'-0"	5'-0"	1'-3"	574'-0"	1'-0"x1'-6"	
FF	3'-6"	3'-6"	1'-3"	578'-2"	1'-0"x1'-0"	
GG	5'-0"	3'-0"	1'-3"	571'-6"	1'-0"x1'-0"	
HH	3'-6"	3'-6"	1'-3"	578'-2"	1'-0"x1'-0"	
JJ	5'-0"	5'-0"	1'-3"	574'-0"	1'-2"x1'-6"	
KK	1'-3"	1'-3"	3'-0"	577'-6"		

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT. NITRIC ACID STOR.RETENT.DIKE & SUMP PUMP PLAN
02A-7000-S-00586	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC.PLAN & SECTS.SHT-1
02A-7000-S-00587	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC.SECTIONS & DETILS.
02A-7000-S-00599	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC.PLAN & SECTS.SHT-2
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL.SCHEDULE SECT.& DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG.EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG.EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00984	ORE REFINERY,DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-00910	DENITRATION AREA DENITRATION BLDG.EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	EQUIPMENT FOUNDATIONS SECT.-A ORE REFINERY BUILDING C1-1
02X-1450-S-00007	CONCRETE 1ST FLOOR PLAN SECTION "B" ORE REFINERY BLDG.C1-1
02X-1450-S-00008	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00009	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - "A"-BUILDING C1-1
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING C1-1 SECTION C
02X-1450-S-00015	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-C1-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG.C1-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG.C1-1
02X-1450-S-00018	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-S-01564	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
02X-5500-S-01565	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS ALT.SCHEME FOR DRAINAGE TRENCH
02X-5500-S-01566	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-M-00396	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02D-7000-A-00704	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION PLAN
02D-7000-A-00705	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION - SECTS.& DETAILS SHT-1
02D-7000-A-00711	DIGESTION AREA METAL DISSOLVER BUILDING FOUNDATION - SECTS.& DETAILS - SHT-2
02D-5500-A-02848	METAL DISSOLVER IMPROVEMENTS FOUNDATION & DECK MISC.DETAILS
02D-5500-A-02855	METAL DISSOLVER IMPROVEMENTS TANK FOUNDATION & DECK
02D-5500-A-02959	METAL DISSOLVER FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY INITIALS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-9"	8'-9"	1'-6"	574'-0"	1'-8"x1'-10"	
A1	8'-9"	8'-9"	1'-6"	574'-0"	1'-10"x1'-10"	
A2	8'-9"	8'-9"	1'-6"	574'-0"	1'-10"x1'-8"	
B	7'-6"	7'-6"	1'-4"	574'-0"	1'-8"x1'-10"	
B1	7'-6"	7'-6"	1'-4"	574'-0"	1'-10"x1'-10"	
B2	7'-6"	7'-6"	1'-4"	574'-0"	1'-10"x1'-8"	
B3	7'-6"	7'-6"	1'-4"	574'-0"	1'-8"x1'-8"	
C	6'-3"	6'-3"	1'-4"	574'-0"	1'-8"x1'-10"	

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
C1	6'-3"	6'-3"	1'-4"	574'-0"	1'-10"x1'-10"	
C2	6'-3"	6'-3"	1'-4"	574'-0"	1'-8"x1'-8"	
D	4'-0"	4'-0"	1'-0"	574'-0"	1'-7"x1'-7"	
E	8'-0"	8'-0"	1'-6"	574'-0"	1'-2"x1'-2"	
F	3'-0"	11'-3"	1'-0"	574'-0"		STRIP FOOTING
G	4'-0"	11'-3"	1'-0"	574'-0"		STRIP FOOTING
H	22'-3"	3'-0"	1'-0"	574'-0"		STRIP FOOTING
J	11'-3"	3'-0"	1'-0"	574'-0"		STRIP FOOTING

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
K	SEE PLAN	SEE PLAN	2'-0"	574'-0"	1'-0"x1'-0"	SHORT DIMENSION
L	11'-3"	4'-0"	1'-0"	574'-0"		STRIP FOOTING
M	SEE PLAN	SEE PLAN	1'-0"	574'-0"		STRIP FOOTING
N	11'-0"	5'-6"	1'-2"	574'-0"	1'-2"x1'-2"	
X	N/A	N/A	0'-6"	574'-0"		5'-4" DIAMETER
Y	4'-0"	4'-0"	1'-3"	574'-0"	1'-2"x1'-6"	
Z	5'-6"	4'-0"	1'-3"	574'-0"	1'-0"x1'-6"	
AA	9'-6"	4'-0"	1'-6"	571'-6"	SEE PLAN	

000128

FOUNDATION PLAN

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

SCALE: 1/8 INCH FOOT

UNITED STATES DEPARTMENT OF ENERGY

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME: LOCATION OF BELOW GRADE STRUCTURES GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE: STRUCTURE 2A WEST AND 2D FOUNDATION PLAN

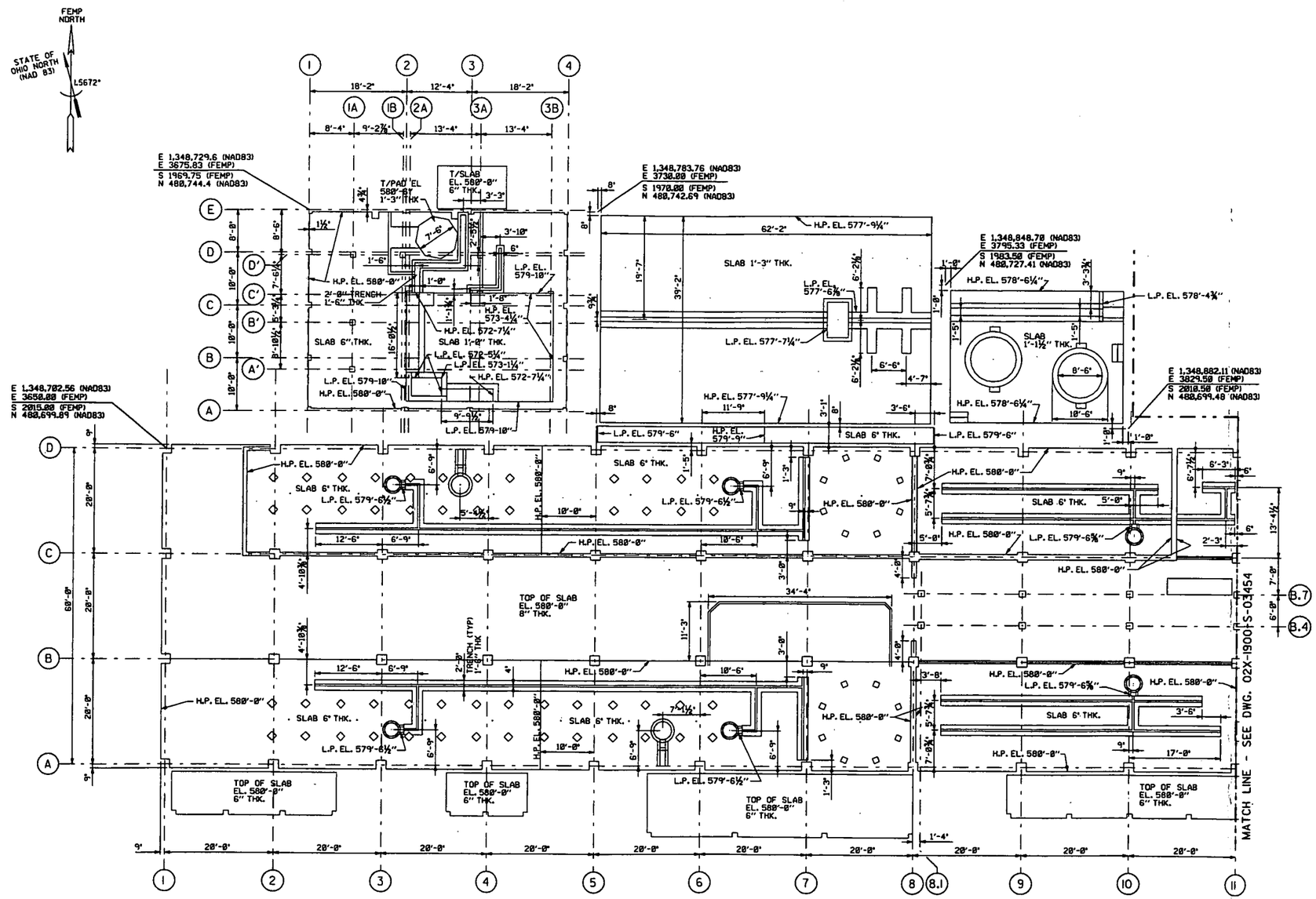
CONFIGURATION MANAGEMENT DRAWING — EXISTING ATTACHMENTS AS CONTROLLED UNDER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	1/8" = 1'-0"

RES NO.	FDF PROJECT NO.	DRAWN BY	DATE
N/A	20810	C. COX	18DEC01
		TECHNICAL LEAD: J. ALCORN	DATE 25DEC01
		CHECKED BY: J. ALCORN	DATE 04JAN02

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
02X-1900-S-03451	S-001	0



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

000129

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

-- 4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT. NITRIC ACID STOR.RETENT.DIKE & SUMP PUMP PLAN
02A-7000-S-00586	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC. PLAN & SECTS.SHT.1
02A-7000-S-00587	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC.SECTIONS & DETAILS
02A-7000-S-00599	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC.PLAN & SECTS.SHT.2
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL. SCHEDULE SECT.& DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG.EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG.EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00904	ORE REFINERY,DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-00910	DENITRATION AREA DENITRATION BLDG.EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	EQUIPMENT FOUNDATIONS SECT.-A
02X-1450-S-00007	ORE REFINERY BLDG.C1-1 CONCRETE 1ST FLOOR PLAN SECTION "B"
02X-1450-S-00008	ORE REFINERY BLDG.C1-1 EQUIPMENT FOUNDATIONS SECT.-C
02X-1450-S-00009	ORE REFINERY BUILDING - A CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS
02X-1450-S-00010	ORE REFINERY - SECTION - "A"-BUILDING C1-1 CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS
02X-1450-S-00015	ORE REFINERY BUILDING C1-1 SECTION C CONCRETE FOUNDATION PLAN SECT.-A
02X-1450-S-00016	ORE REFINERY BUILDING-C1-1 CONCRETE FOUNDATION PLAN SECTION-B
02X-1450-S-00017	ORE REFINERY BLDG.C1-1 CONCRETE FOUNDATION PLAN SECTION-C
02X-1450-S-00018	ORE REFINERY BLDG.C1-1 FOUNDATION PLAN & SECTIONS
02X-5500-S-01564	ELECTRICAL ENCLOSURES ORE REFINERY SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
02X-5500-S-01565	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS ALT.SCHEME FOR DRAINAGE TRENCH
02X-5500-S-01566	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-M-00396	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02D-7000-A-00784	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION PLAN
02D-7000-A-00785	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION - SECTS.& DETAILS SHT-1
02D-7000-A-00711	DIGESTION AREA METAL DISSOLVER BUILDING FOUNDATION - SECTS.& DETAILS - SHT-2
02D-5500-A-02848	METAL DISSOLVER IMPROVEMENTS FOUNDATION & DECK MISC.DETAILS
02D-5500-A-02855	METAL DISSOLVER IMPROVEMENTS TANK FOUNDATION & DECK
02D-5500-A-02959	METAL DISSOLVER FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
		INITIALS AND DATE		
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

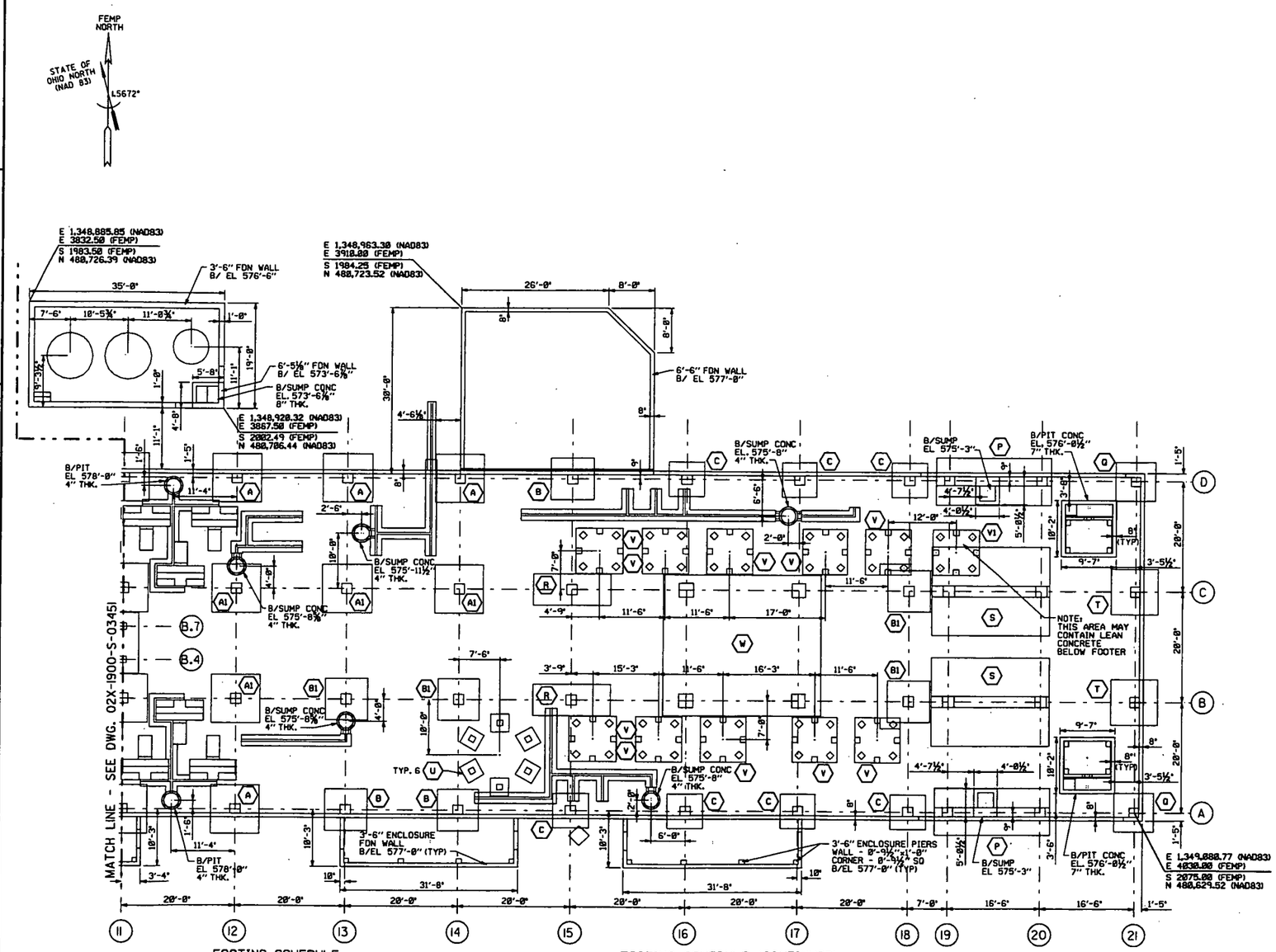
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A WEST AND 2D
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
		DRAWN BY C. COX	DATE 18DEC01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03452		SHEET NO. S-002	REV. NO. 0

COGNIZANT ENGINEER DATE



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-9"	8'-9"	1'-6"	574'-8"	1'-8"x1'-10"	
A1	8'-9"	8'-9"	1'-6"	574'-8"	1'-10"x1'-10"	
B	7'-6"	7'-6"	1'-4"	574'-8"	1'-8"x1'-10"	
B1	7'-6"	7'-6"	1'-4"	574'-8"	1'-10"x1'-10"	
C	6'-3"	6'-3"	1'-4"	574'-8"	1'-8"x1'-10"	
P	8'-6"	20'-6"	3'-3"	574'-8"	1'-8"x1'-10"	
Q	7'-8"	7'-8"	1'-3"	574'-8"	1'-8"x1'-8"	
R	5'-8"	13'-6"	1'-10"	574'-8"	1'-10"x1'-10"	

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
S	16'-8"	21'-0"	4'-6"	574'-0"	2'-0"x2'-0"	
T	8'-3"	8'-3"	1'-4"	574'-0"	1'-10"x1'-8"	
U	3'-3"	3'-3"	1'-2"	574'-0"	1'-8"x1'-8"	
V	8'-2"	8'-2"	1'-6"	574'-0"	1'-8"x1'-8"	
V1	8'-2"	8'-2"	1'-6"	575'-0"	1'-8"x1'-8"	
W	25'-6"	28'-0"	3'-0"	574'-0"	2'-6"x2'-6"	

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

000130

0' 4' 8' 16' 24'
SCALE: 1/8 INCH = FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT.
02B-5500-S-01558	NITRIC ACID STOR.RETEND.DIKE & SUMP PUMP PLAN
02C-7000-S-00867	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL.SCHEDULE SECT.& DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG.EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00884	DENITRATION AREA DENITRATION BLDG.EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00910	ORE REFINERY,DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02X-1450-S-00006	DENITRATION AREA DENITRATION BLDG.EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00007	EQUIPMENT FOUNDATIONS SECT.-A ORE REFINERY BUILDING C1-1
02X-1450-S-00008	CONCRETE 1ST FLOOR PLAN SECTION "B" ORE REFINERY BLDG.C1-1
02X-1450-S-00009	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - "A"-BUILDING C1-1
02X-1450-S-00012	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING C1-1 SECTION F
02X-1450-S-00015	CONCRETE EXTERIOR TRENCH AND FOUNDATIONS ORE REFINERY SOLVENT TREATMENT AREA BLDG.C1-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-C1-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG.C1-1
02X-1450-S-00018	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG.C1-1
02X-5500-M-01563	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-S-01567	SCOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02X-5500-S-01568	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION		INITIALS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

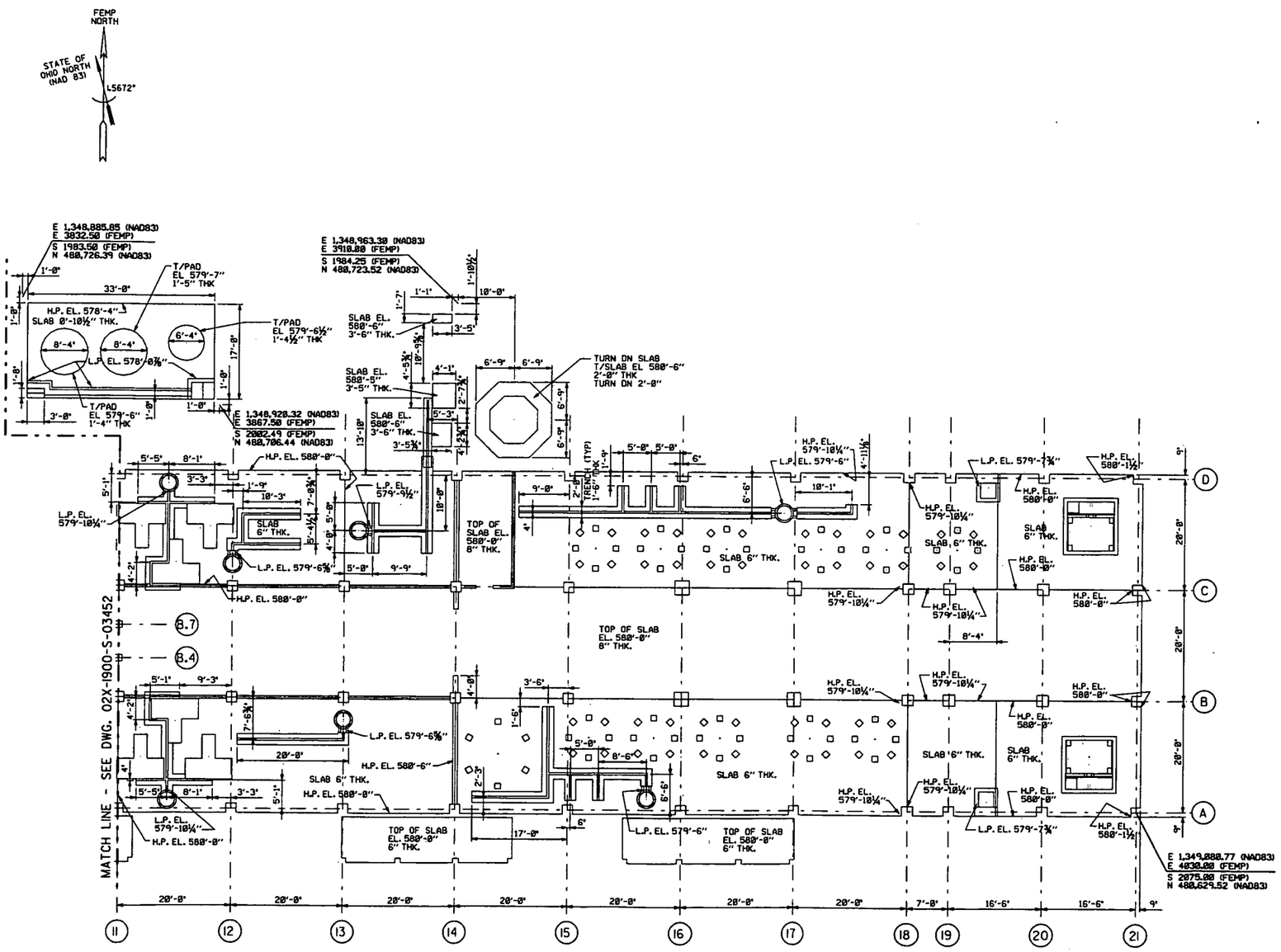
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING ATTACHMENTS IN CONTROLLED DOCUMENT MANAGEMENT SYSTEM: SEE NOTES.

TASK ORDER NO. L-010	OPTIONAL NO. N/A	SCALE 1/8" = 1'-0"	
		DRAWN BY C. COX	DATE 18DEC01
RES NO. N/A	FEP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 02X-1900-S-03453	SHEET NO. S-003 / REV. NO. 0



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

SCALE: 1/8 INCH FOOT

000131

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ. MAT. SPILL PROTECT. NITRIC ACID STOR. RETENT. DIKE & SUMP PUMP PLAN
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL. SCHEDULE SECT. & DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG. EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG. EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00984	ORE REFINERY, DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-00910	DENITRATION AREA DENITRATION BLDG. EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	EQUIPMENT FOUNDATIONS SECT.-A ORE REFINERY BUILDING C1-1
02X-1450-S-00007	CONCRETE 1ST FLOOR PLAN SECTION "B" ORE REFINERY BLDG. C1-1
02X-1450-S-00008	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00009	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - "A"-BUILDING C1-1
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING C1-1 SECTION C
02X-1450-S-00012	CONCRETE EXTERIOR TRENCH AND FOUNDATIONS ORE REFINERY SOLVENT TREATMENT AREA BLDG. C1-1
02X-1450-S-00015	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-C1-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG. C1-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG. C1-1
02X-1450-S-00018	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-M-01563	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02X-5500-S-01567	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
02X-5500-S-01568	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

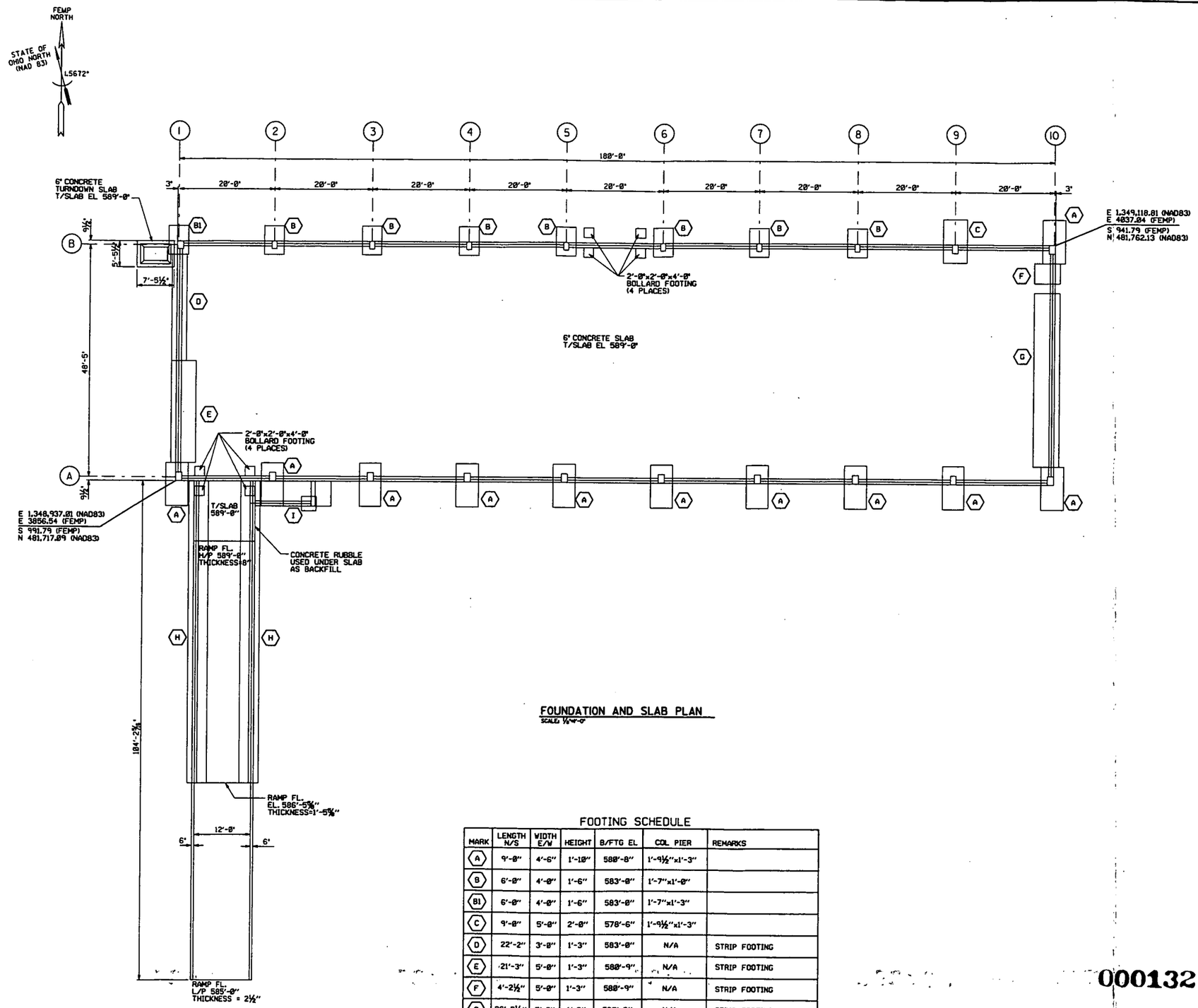
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — USE / NOT USE
EXISTING ATTACHMENTS AS CONTROLLED BY CONFIGURATION MANAGEMENT CENTRAL DATA BASE.
COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
ABS NO.	FOP PROJECT NO.	DRAWN BY C. COX	DATE 18DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN	DATE 20DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
02X-1900-S-03454		S-004	0



FOUNDATION AND SLAB PLAN

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

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	9'-0"	4'-6"	1'-10"	588'-8"	1'-9½"x1'-3"	
B	6'-0"	4'-0"	1'-6"	583'-0"	1'-7"x1'-0"	
B1	6'-0"	4'-0"	1'-6"	583'-0"	1'-7"x1'-3"	
C	9'-0"	5'-0"	2'-0"	578'-6"	1'-9½"x1'-3"	
D	22'-2"	3'-0"	1'-3"	583'-0"	N/A	STRIP FOOTING
E	21'-3"	5'-0"	1'-3"	580'-9"	N/A	STRIP FOOTING
F	4'-2½"	5'-0"	1'-3"	580'-9"	N/A	STRIP FOOTING
G	36'-2½"	5'-0"	1'-3"	580'-9"	N/A	STRIP FOOTING
H	63'-2"	4'-0"	1'-3"	580'-9"	N/A	STRIP FOOTING
I	3'-0"	3'-0"	1'-0"	581'-0"	N/A	STRIP FOOTING

000132

SCALE: 1/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

-- 4518

REF DWG NO.	DRAWING TITLE
17X-7000-S-00006	GENERAL STORAGE PAVED AREA PLOT PLAN
17X-7000-S-00007	GENERAL STORAGE PAVED AREA SECTIONS & DETAILS
56X-7000-A-00001	TEMPORARY STORAGE FACILITIES FOUNDATION PLAN
56X-7000-S-00002	TEMPORARY STORAGE FACILITIES FOUNDATIONS & 1ST FLOOR DETAILS
56X-5500-A-00006	CP STORAGE WAREHOUSE NEW FIRE PROTECTION VALVE HOUSE PLAN, ELEVATION & SECTIONS
75B-5500-C-00099	GRID 17 EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	MOD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 10/02/01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 17 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 56A
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

EXISTING DRAWINGS AS CONTROLLED BY THE FERNALD ENVIRONMENTAL MANAGEMENT CONFIGURATION MANAGEMENT CONTROL LEV. 00101.

COGNIZANT ENGINEER DATE

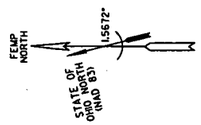
TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	1/8"=1'-0"

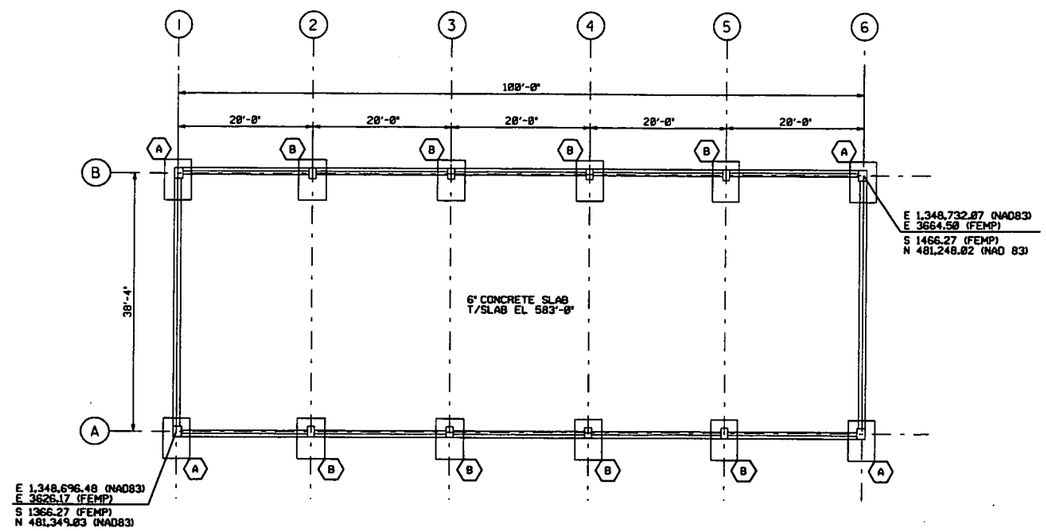
RES NO.	FDF PROJECT NO.	DRAWN BY	DATE
N/A	20810	J. ALCORN	01OCT01
		TECHNICAL LEAD: N. ROBERTS	01OCT01
		CHECKED BY	DATE

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
56X-1900-S-00050	S-001	0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-0"	6'-0"	1'-6"	577'-0"	1'-7"x1'-3"	SEE GENERAL NOTE 2
B	4'-0"	6'-0"	1'-6"	577'-0"	1'-7"x1'-0"	SEE GENERAL NOTE 2





FOUNDATION AND SLAB PLAN
SCALE: 1/8"=1'-0"

0' 4' 8' 16' 24'
SCALE: 1/8 INCH FOOT

000133

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. STRUCTURE 66 (BUTLER BLDG.) LACKED INFORMATION FOR BLDG. FOOTERS, COLUMN PIERS, & FOUNDATION WALLS. THEREFORE, STRUCTURE 56A (BUTLER BLDG.) TYPE II FOOTING AND COL. PIERS AND G8-2 FDN WALLS WERE USED INSTEAD PER 56A DRAWINGS 56X-7000-A-00001 AND 56X-7000-A-00002 AND MAY NOT REPRESENT ACTUAL CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
66X-5500-A-00002	DRUM RECONDITIONING BLDG. FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 10DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 66
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — YES / NO

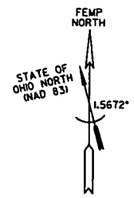
EXISTING ATTACHMENTS NOT COMPRISED OF CONTROL OF THE CHANGES MADE UNDER CONFIGURATION MANAGEMENT CONTROL, AS NOTED.

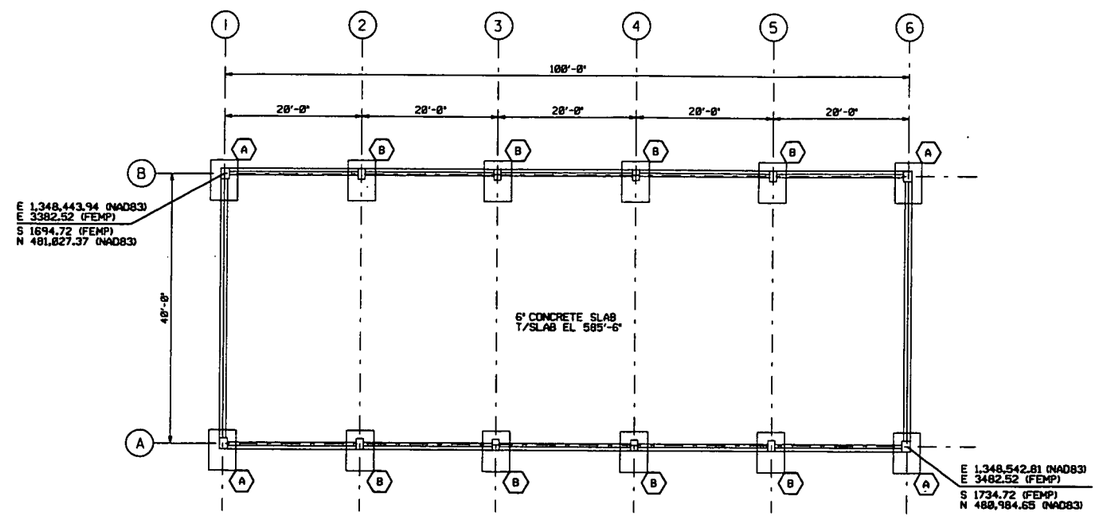
COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8"=1'-0"	
		DRAWN BY A. BETANZOS	DATE 14NOV01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 28NOV01
		CHECKED BY	DATE
DRAWING INDEX CODE NO. 66X-1900-S-00005		SHEET NO. S-001	REV. NO. 0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	6'-0"	4'-0"	1'-6"	579'-6"	1'-7"x1'-3"	SEE GENERAL NOTE 2
B	6'-0"	4'-0"	1'-6"	579'-6"	1'-7"x1'-0"	SEE GENERAL NOTE 2





FOUNDATION AND SLAB PLAN
SCALE: 1/8"=1'-0"

0' 4' 8' 16' 24'
SCALE: 1/8 INCH= FOOT

000134

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. STRUCTURE 67 (BUTLER BLDG.) LACKED INFORMATION FOR BLDG. FOOTERS, COLUMN PIERS, & FOUNDATION WALLS. THEREFORE, STRUCTURE 56A (BUTLER BLDG.) TYPE II FOOTING AND COL. PIERS AND GB-2 FDN WALLS WERE USED INSTEAD PER 56A DRAWINGS 56X-7000-A-00001 AND 56X-7000-A-00002 AND MAY NOT REPRESENT ACTUAL CONDITIONS.

— 4518

REF DWG NO.	DRAWING TITLE
75B-5500-G-00101	GRID 24 EXISTING SITE PLAN
67X-5500-A-00004	OLD PLANT 1 THORIUM WAREHOUSE FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 10/07/01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 24 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 67
FOUNDATION AND SLAB PLAN

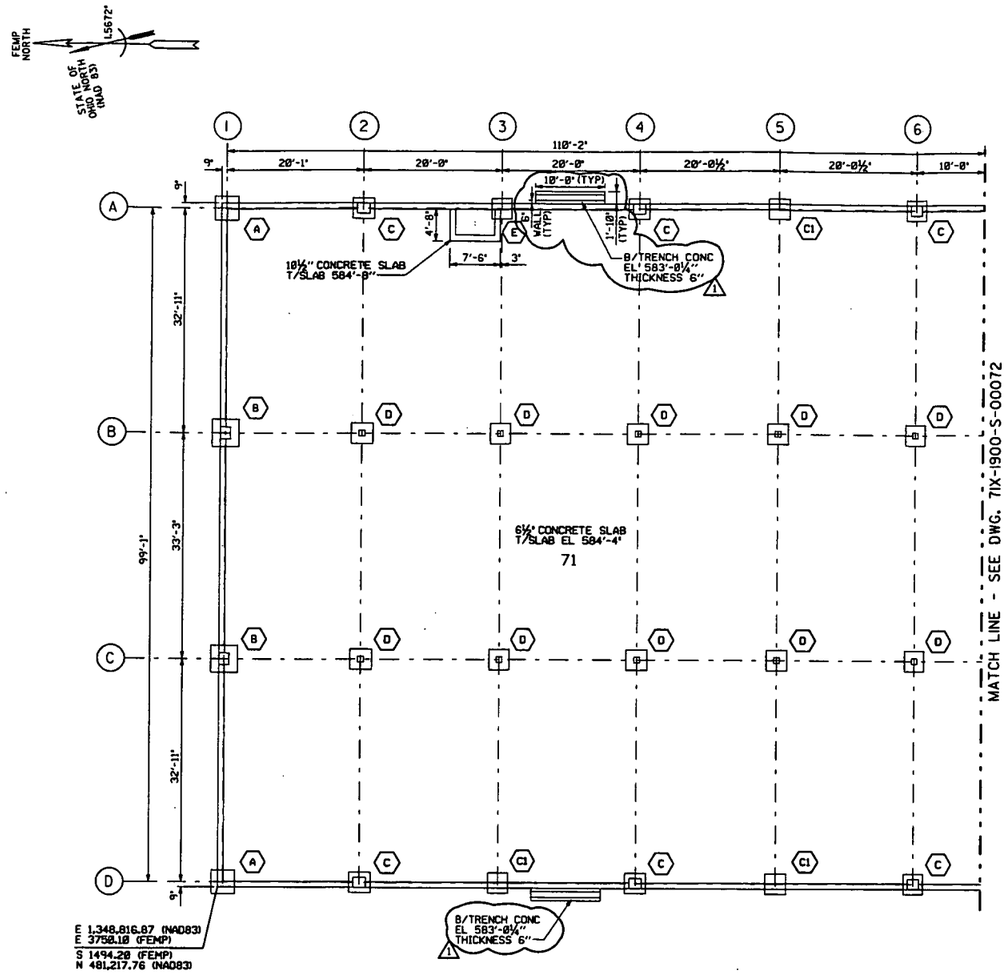
CONFIGURATION MANAGEMENT DRAWING

EXISTING STRUCTURES AS CONFIRMED BY FIELD VERIFICATION PER CONFIGURATION MANAGEMENT CONTROL. LEF 10/01.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	1/8"=1'-0"
RES NO.	FDP PROJECT NO.	DRAWN BY: A. BETANZOS — DATE: 14NOV01
N/A	20810	TECHNICAL LEAD: J. ALCORN — DATE: 28NOV01
		CHECKED BY — DATE

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
67X-1900-S-00006	S-001	0



FOUNDATION AND SLAB PLAN
SCALE: 1/8"=1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-6"	3'-6"	1'-0"	581'-8"	N/A	
B	4'-0"	4'-0"	1'-0"	581'-8"	1'-6"x1'-9"	
C	3'-0"	3'-0"	1'-0"	581'-8"	1'-9"x1'-6"	
C1	3'-0"	3'-0"	1'-0"	581'-8"	N/A	
D	3'-0"	3'-0"	1'-0"	582'-6"	10"x10"	
E	3'-0"	3'-0"	2'-0"	580'-8"	N/A	

000135

0' 4' 8' 16' 24'
SCALE: 1/8 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
71X-5500-A-00044	GEN. IN-PROCESS STORAGE WHSE. FLOOR PLAN
71X-5500-A-00004	GENERAL IN-PROCESS STORAGE WAREHOUSE ARCHITECTURAL ELEVATIONS AND SECTIONS
71X-5500-S-00005	GENERAL IN-PROCESS STORAGE WAREHOUSE CONCRETE FOUNDATION PLAN
71X-5500-S-00007	GENERAL IN-PROCESS STORAGE WAREHOUSE CONCRETE FOOTING DETAILS
758-5500-G-00014	GRID 27 EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	%	PM	RCM BY
1	REVISED TRENCH INFORMATION	N/A	SDS 25JAN02	
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 18DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

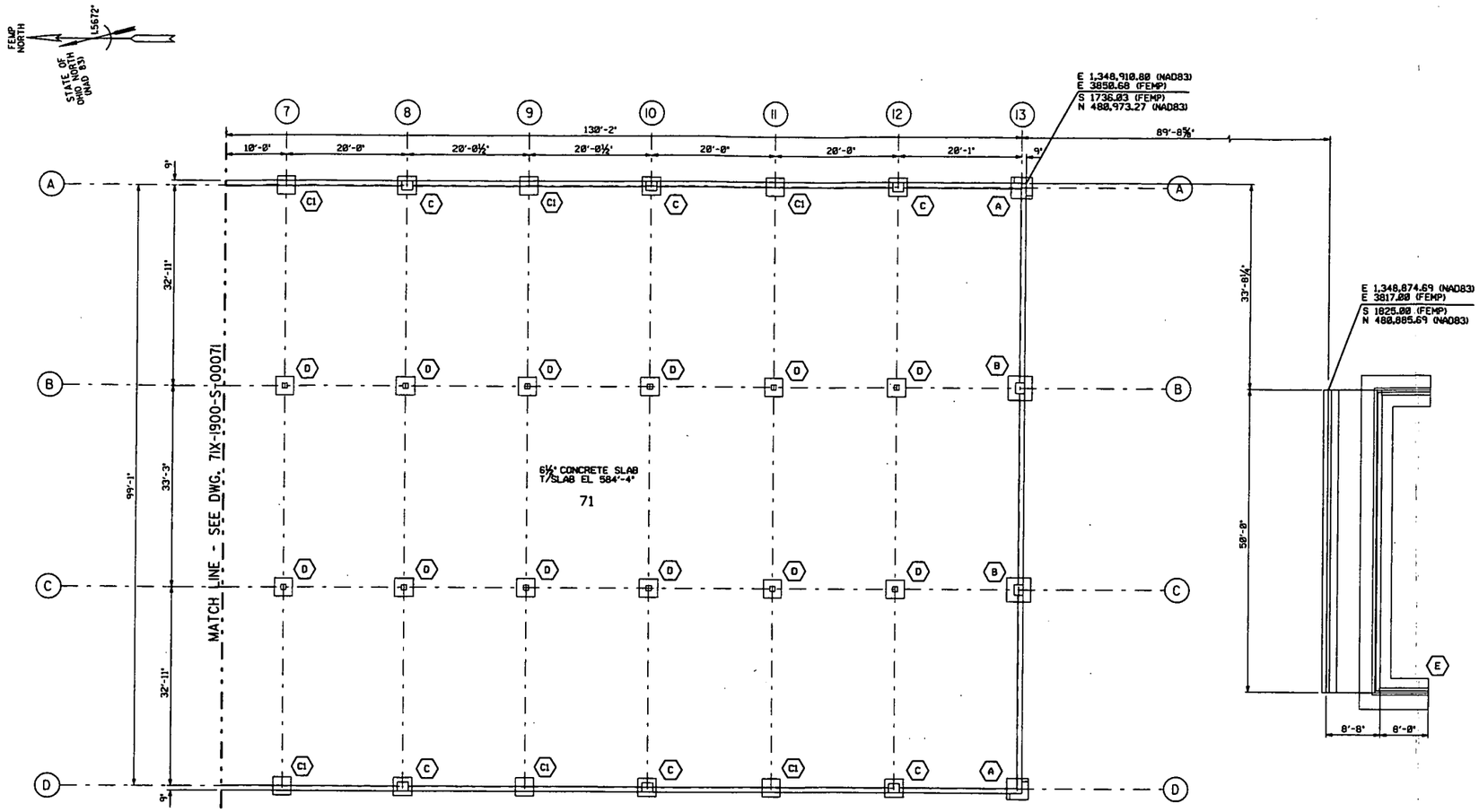
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 71 NORTH PORTION
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8"=1'-0"	
		DRAWN BY C. COX	DATE 15NOV01
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 29NOV01
		CHECKED BY J. ALCORN	DATE 16NOV01
DRAWING INDEX CODE NO. 71X-1900-S-00071		SHEET NO. S-001	REV. NO. 1

COGNIZANT ENGINEER DATE



FOUNDATION AND SLAB PLAN

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

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-6"	3'-6"	1'-0"	581'-8"	N/A	
B	4'-8"	4'-0"	1'-0"	581'-8"	1'-6"x1'-9"	
C	3'-0"	3'-0"	1'-0"	581'-8"	1'-9"x1'-6"	
C1	3'-0"	3'-0"	1'-0"	581'-8"	N/A	
D	3'-0"	3'-0"	1'-0"	582'-6"	10"x10"	
E	70'-0"	5'-2"	1'-0"	577'-0"	N/A	STRIP FOOTING

000136

SCALE: 1/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
71X-5500-A-00044	GEN. IN-PROCESS STORAGE WHSE. FLOOR PLAN
71X-5500-A-00004	GENERAL IN-PROCESS STORAGE WAREHOUSE ARCHITECTURAL ELEVATIONS AND SECTIONS
71X-5500-S-00005	GENERAL IN-PROCESS STORAGE WAREHOUSE CONCRETE FOUNDATION PLAN
71X-5500-S-00007	GENERAL IN-PROCESS STORAGE WAREHOUSE CONCRETE FOOTING DETAILS
750-5500-C-00014	GRID 27 EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 18DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 71 SOUTH PORTION
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

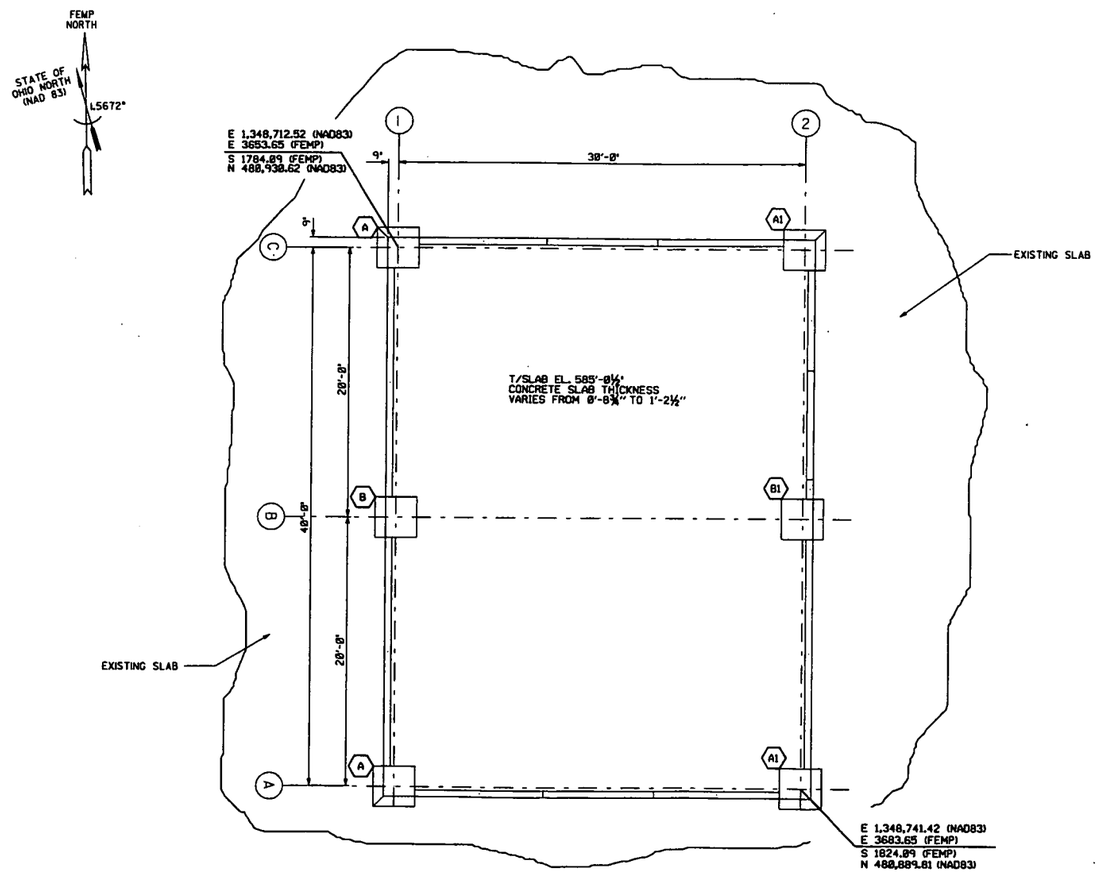
TASK ORDER NO.	OPTIONAL NO.	SCALE 1/8"=1'-0"
L-010	N/A	DRAWN BY C. COX — DATE 15NOV01
RES NO. N/A	FOP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 28NOV01
		CHECKED BY — DATE

COGNIZANT ENGINEER — DATE

DRAWING INDEX CODE NO. 71X-1900-S-00072 — SHEET NO. S-002 — REV. NO. 0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-0"	3'-0"	1'-6"	584'-4½"	N/A	
A1	3'-0"	3'-0"	1'-0¼"	584'-10¼"	N/A	
B	3'-0"	3'-0"	1'-6"	584'-4½"	N/A	
B1	3'-0"	3'-0"	1'-0¼"	584'-10¼"	N/A	



FOUNDATION AND SLAB PLAN
SCALE: ¼"=1'-0"

000137

0' 2' 4' 8' 12'
SCALE: 1/4 INCH = FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
72X-5500-S-00002	CONCRETE FOUNDATION FOR DRUM STORAGE BLDG SAMPLING PLANT AREA
72X-5500-A-00015	DRUM STORAGE FLOOR PLAN
750-5500-G-00014	GRID 27 EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 18DEC01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

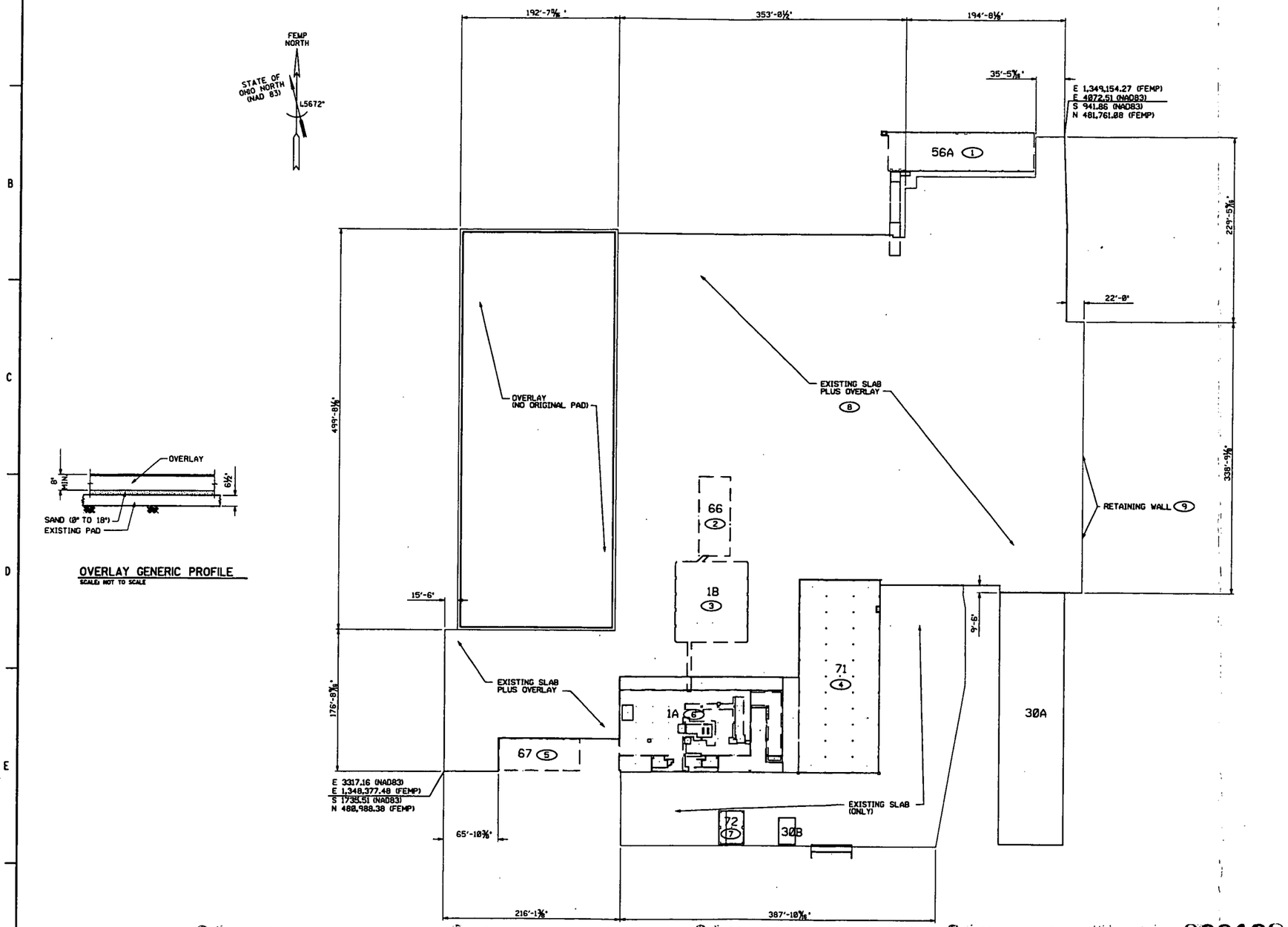
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 72
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	¼"=1'-0"	
REV. NO.	FOR PROJECT NO.	DRAWN BY: G. THURMAN	DATE 14NOV01
N/A	20810	TECHNICAL LEAD: J. ALCORN	DATE 28NOV01
		CHECKED BY	DATE
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
72X-1900-S-00018		S-001	0

COGNIZANT ENGINEER DATE



FOUNDATION AND SLAB PLAN
SCALE: 1"=50'

OVERLAY GENERIC PROFILE
SCALE: NOT TO SCALE

000138

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. ALL DIMENSIONS GIVEN ARE APPROXIMATE AND MUST BE FIELD VERIFIED.

— 4518

KEYED NOTES

ADDITIONAL DETAIL FOR EACH OF THE COMPONENT STRUCTURES IS LOCATED ON THE FOLLOWING DRAWINGS AND SKETCHES.

1. SEE DWG 56X-1900-S-00050 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK56-1 FOR ISOMETRIC VIEW.
2. SEE DWG 66X-1900-S-00005 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK66-1 FOR ISOMETRIC VIEW.
3. SEE DWG 01D-1900-S-01388 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK1B-1 FOR ISOMETRIC VIEW.
4. SEE DWGS 71X-1900-S-00071 AND 71X-1900-S-00071 FOR FOUNDATION AND SLAB PLAN. SEE DWGS SK71-1 AND SK71-2 FOR ISOMETRIC VIEW.
5. SEE DWG 67X-1900-S-00006 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK67-1 FOR ISOMETRIC VIEW.
6. SEE DWG 01X-1900-S-01389 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK1A-1 FOR ISOMETRIC VIEW.
7. SEE DWG 71X-1900-S-00072 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK72-1 FOR ISOMETRIC VIEW.
8. 74T PAD CONSISTS OF 2 DIFFERENT PADS. EXISTING PAD IS 6½" THICK. ELEVATION VARIES FROM H.P. OF 586'-9" TO L.P. OF 584'-0". OVERLAY PAD IS 8" THICK ELEVATIONS VARY FROM H.P. 586'-9" TO L.P. 584'-0". A SAND LAYER 0" TO 18" THICK WAS USED BETWEEN SLABS. SEE OVERLAY GENERIC PROFILE THIS SHEET.
9. SEE DWG 74B-5500-S-00078 FOR FOUNDATION AND SLAB INFORMATION.

REF DWG NO.	DRAWING TITLE
17X-1450-S-00004	PLAN OF DRUM STORAGE PAVED AREA
17X-1450-S-00005	DETAILS OF DRUM STORAGE PAVED AREA
30X-5500-A-00066	RECEIVING SCALES SHELTER FLOOR PLAN
74B-4445-G-00064	COVERED CONTROLLED STORAGE PAD - PLANT 1 CONSTRUCTION PHASE DETAILS
74B-4445-G-00067	COVERED CONTROLLED STORAGE PAD - PLANT 1 PHASES C, D, AND E
74B-4445-G-00068	COVERED CONTROLLED STORAGE PAD - PLANT 1 SITE DETAILS
74B-5500-S-00052	CONTROLLED STORAGE PAD PHASE A - SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS INDEX01	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 27 - TECHNICAL REFERENCE DRAWING

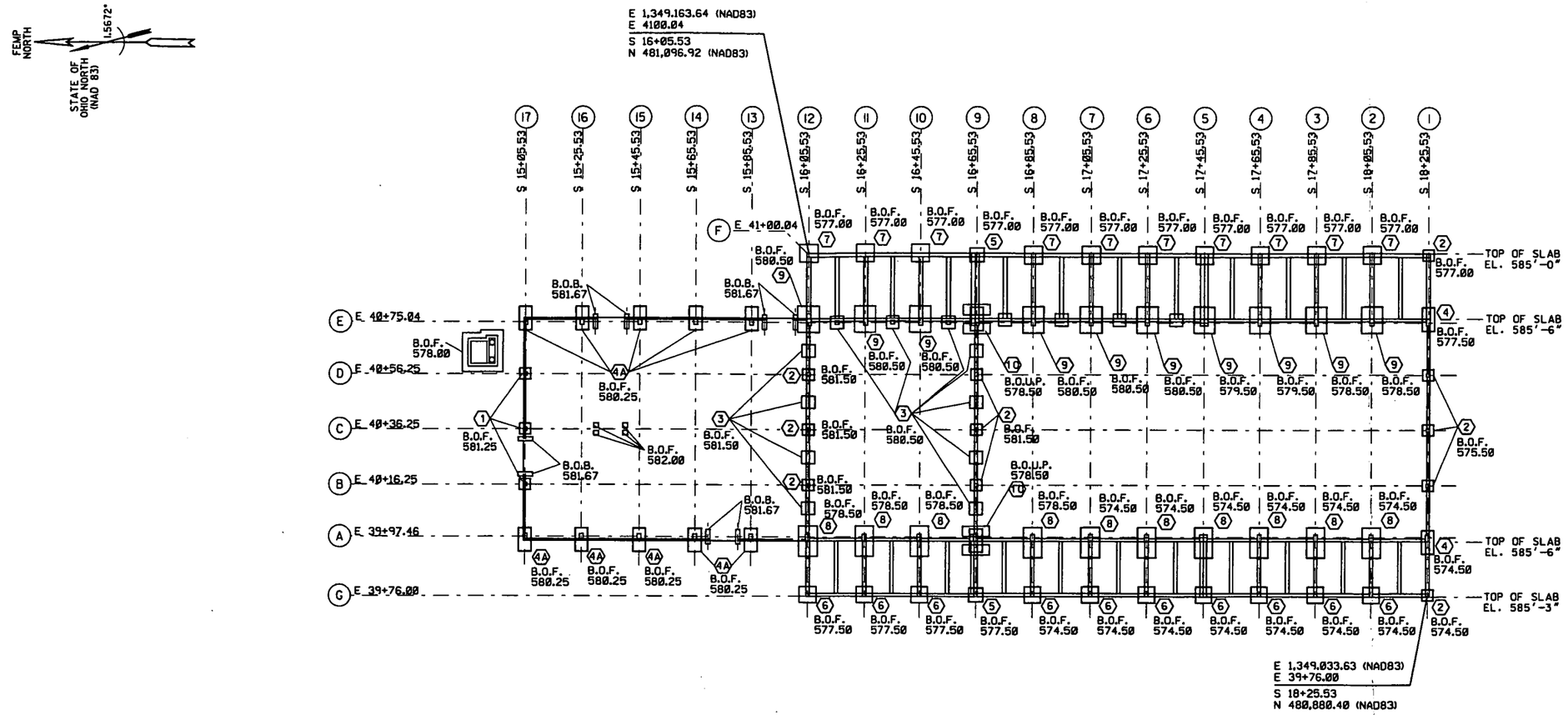
DRAWING TITLE
STRUCTURE 74T
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — EXISTING STRUCTURES AS CONFIRMED BY FIELD VERIFICATION. NEW CHANGES SUBJECT TO CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 1"=50'	
L-010	N/A	DRAWN BY G. THURMAN	DATE 19-01-01
RES NO. N/A	FOP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 19-01-01
		CHECKED BY	DATE
DRAWING INDEX CODE NO. 74B-1900-S-00077		SHEET NO. S-001	REV. NO. 0

4518



FOUNDATION AND SLAB PLAN

SCALE: 1" = 20'-0"

FOOTER SIZES			
I.D.	LENGTH	WIDTH	THICK
1	4'-0"	4'-0"	1'-3"
2	4'-0"	4'-0"	1'-0"
3	4'-6"	4'-6"	1'-0"
4	8'-6"	4'-6"	1'-3"
4A	8'-6"	4'-6"	1'-6"
5	5'-0"	5'-0"	1'-0"
6	5'-10"	5'-10"	1'-3"
7	6'-4"	6'-4"	1'-9"
8	11'-0"	6'-6"	1'-9"
9	9'-6"	7'-6"	1'-9"
10	9'-6"	3'-9"	2'-0"

REFERENCE DRAWINGS
75B-5500-G-00102
17X-3115-S-00012
30X-5500-S-00021
30X-5500-G-00063
30X-1450-S-00005
30X-1450-S-00006
30X-3115-S-00034
30X-7000-A-00010
30X-7000-S-00011
30A-5500-X-00052

BUMPER SIZES
5'-3"L 1'-6"W 3'-10"T

TEN TON SCALE FOOTER SIZE
15'-0"L 15'-0"W 1'-0"T

B.O.F. BOTTOM OF FOOTER
B.O.B. BOTTOM OF BUMPER FOOTER
B.O.U.P. BOTTOM OF UNDERPINNINGS

000139

NO.	REVISIONS	DATE	DWN. BY	APPD.	NO.	REVISIONS	DATE	DWN. BY	APPD.	REF. DWG. NO.

FORMAT REVISED 7/1/96 FORMAT REVISED 8/25/98 FDF4.DGN

NOTE:
FLUOR DANIEL FERNALD CADD DRAWING, DO NOT REVISE MANUALLY.

CONFIGURATION MANAGEMENT DRAWING
YES NO
SYSTEMS, STRUCTURES OR COMPONENTS IDENTIFIED ON THIS DRAWING ARE SUBJECT TO CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.
COGNIZANT ENGINEER DATE

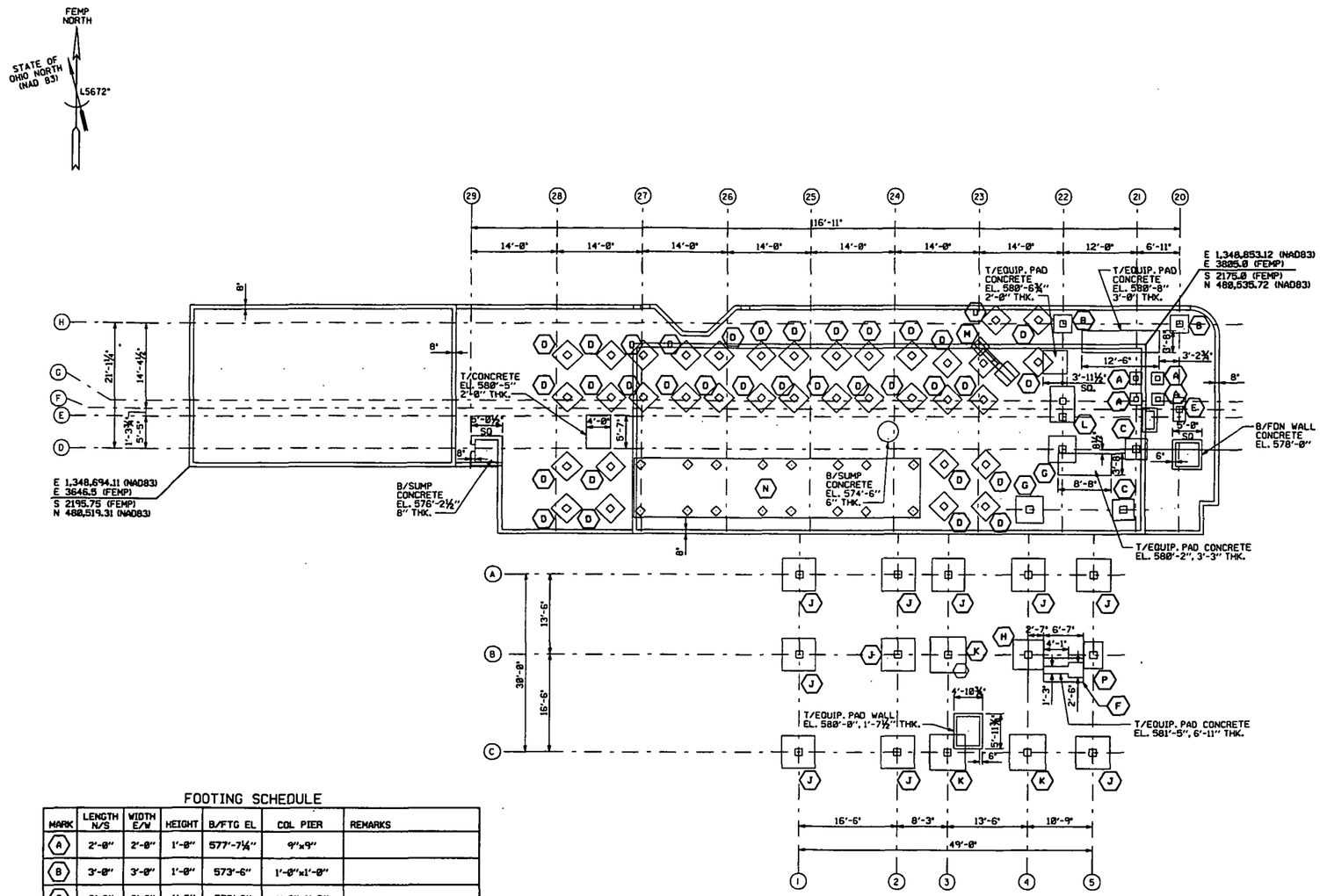
APPROVALS					
CIVIL & STR.			SAFETY ENG.		
ELECTRICAL			MAINTENANCE		
ENGINEER			FIRE PROTECT.		
INSTRUMENT			WASTE MANAGE		
MECHANICAL			SECURITY		
			PROJECTS		
CHECKED					
APPROVED					

Fernald Environmental Management Project
FLUOR DANIEL FERNALD
U.S. DEPARTMENT OF ENERGY

BUILDING 30A
CHEMICAL WAREHOUSE
FOUNDATION AND SLAB PLAN
SCALE: 1" = 20'-0"

RES 3769
DATE 12-22-98
DRAWN G. SCHWARZMAN
30X-5500-S-00091 | 0

FILE NAME: /RES3769/30XS0091.DGN



FOUNDATION PLAN
SCALE: ⅛" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	2'-0"	2'-0"	1'-0"	577'-7¼"	9"x9"	
B	3'-0"	3'-0"	1'-0"	573'-6"	1'-0"x1'-0"	
C	3'-6"	3'-6"	1'-3"	573'-3"	1'-2"x1'-2"	
D	3'-6"	3'-6"	1'-0"	573'-6"	1'-0"x1'-0"	ROTATED 45 DEGREES
E	4'-0"	2'-0"	1'-0"	573'-6"	1'-0"x1'-0"	
F	4'-0"	6'-7"	1'-3"	573'-3"	SEE PLAN	
G	4'-6"	4'-6"	1'-3"	573'-3"	1'-2"x1'-2"	
H	5'-0"	5'-0"	1'-3"	573'-3"	1'-2"x1'-2"	
J	5'-6"	5'-6"	1'-3"	573'-3"	1'-2"x1'-2"	
K	6'-0"	6'-0"	1'-3"	573'-3"	1'-2"x1'-2"	
L	6'-0"	4'-0"	1'-0"	573'-6"	1'-0"x1'-0" 1'-2"x1'-2"	
M	9'-0⅜"	3'-0"	1'-3"	573'-6"	1'-2"x1'-2"	
N	18'-0"	47'-6"	1'-6"	573'-0"	1'-2"x1'-2"	TOTAL OF 16 PIERS ON PAD ROTATED 45 DEGREES
P	4'-6"	3'-0"	1'-3"	573'-3"	1'-2"x1'-2"	T/PIER 581'-5"

000140

SCALE: 1/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02E-7000-S-00816	COMBINED RAFFINATE AREA - EAST PORTION CONCRETE FOUNDATIONS & PADS - PLAN
02E-7000-S-00817	COMBINED RAFFINATE AREA - EAST PORTION SECTIONS & DETAILS
02E-7000-S-00823	COMBINED RAFFINATE AREA - WEST PORTION CONCRETE FOUNDATIONS & PADS
02E-7000-S-00824	COMBINED RAFFINATE AREA NORTH PORTION - PLAN OF SLAB
02E-7000-S-00825	COMBINED RAFFINATE AREA WEST PORTION EXPANSION PLAN, SECTIONS & DETAILS
02X-1450-S-00019	COMBINED RAFFINATE AREA PLAN OF SLAB & EQUIPMENT FOUNDATIONS, ANCHOR BOLT LOCATIONS
02X-1450-S-00020	COMBINED RAFFINATE AREA SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

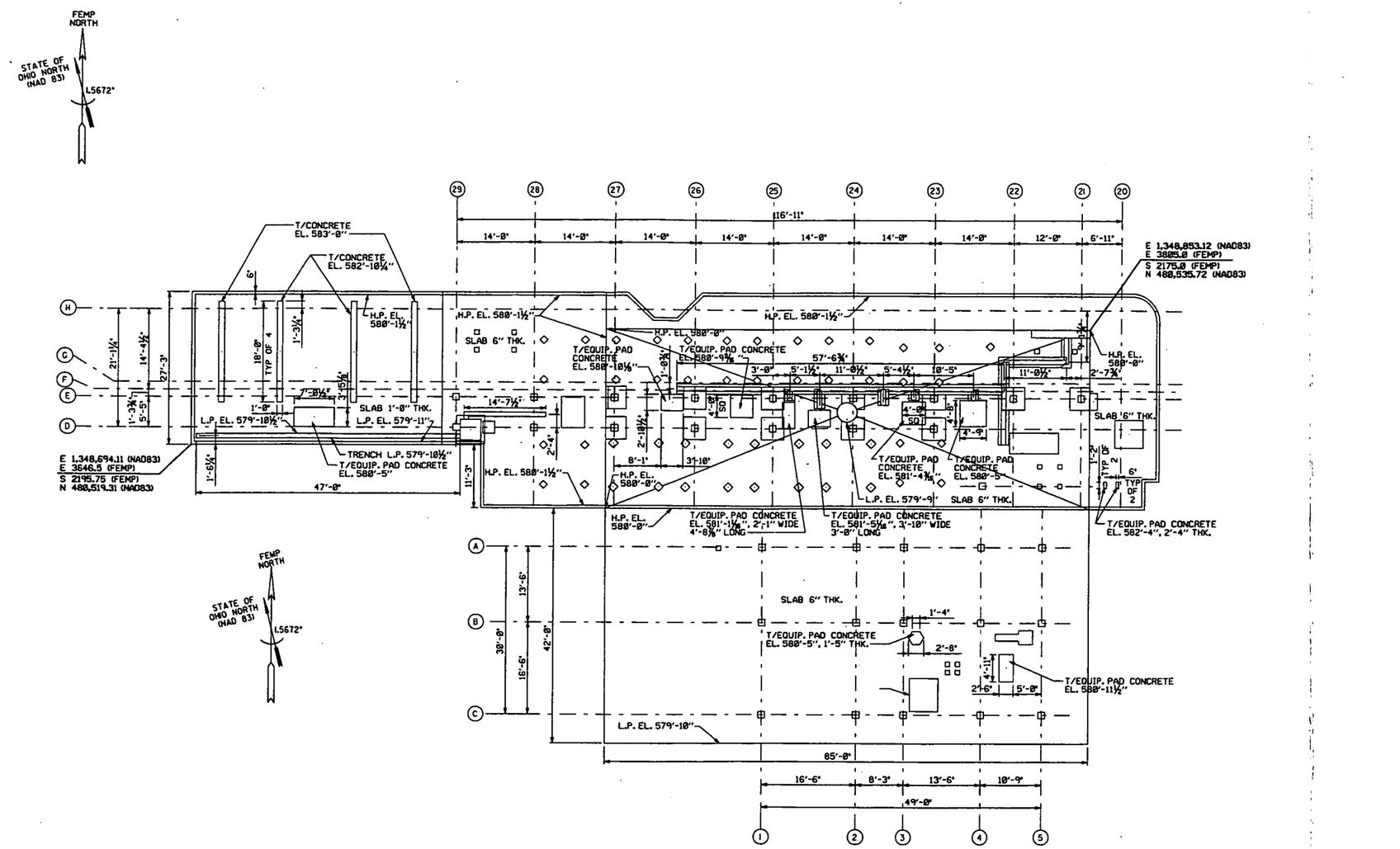
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3J
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE ⅛" = 1'-0"	
L-010	N/A	DRAWN BY A. MLEKODAJ	DATE 26DEC01
RES NO. N/A	FW PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 8JAN02
DRAWING INDEX CODE NO. 02E-1900-S-03457		SHEET NO. S-001	REV. NO. 0

COGNIZANT ENGINEER DATE



SLAB PLAN
SCALE: ⅛" = 1'-0"

000141

SCALE: 1/8 INCH = FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02E-7000-S-00816	COMBINED RAFFINATE AREA - EAST PORTION CONCRETE FOUNDATIONS & PADS - PLAN
02E-7000-S-00817	COMBINED RAFFINATE AREA - EAST PORTION SECTIONS & DETAILS
02E-7000-S-00823	COMBINED RAFFINATE AREA - WEST PORTION CONCRETE FOUNDATIONS & PADS
02E-7000-S-00824	COMBINED RAFFINATE AREA NORTH PORTION - PLAN OF SLAB
02E-7000-S-00825	COMBINED RAFFINATE AREA WEST PORTION EXPANSION PLAN SECTIONS & DETAILS
02X-1450-S-00819	COMBINED RAFFINATE AREA PLAN OF SLAB & EQUIPMENT FOUNDATIONS ANCHOR BOLT LOCATIONS
02X-1450-S-00820	COMBINED RAFFINATE AREA SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

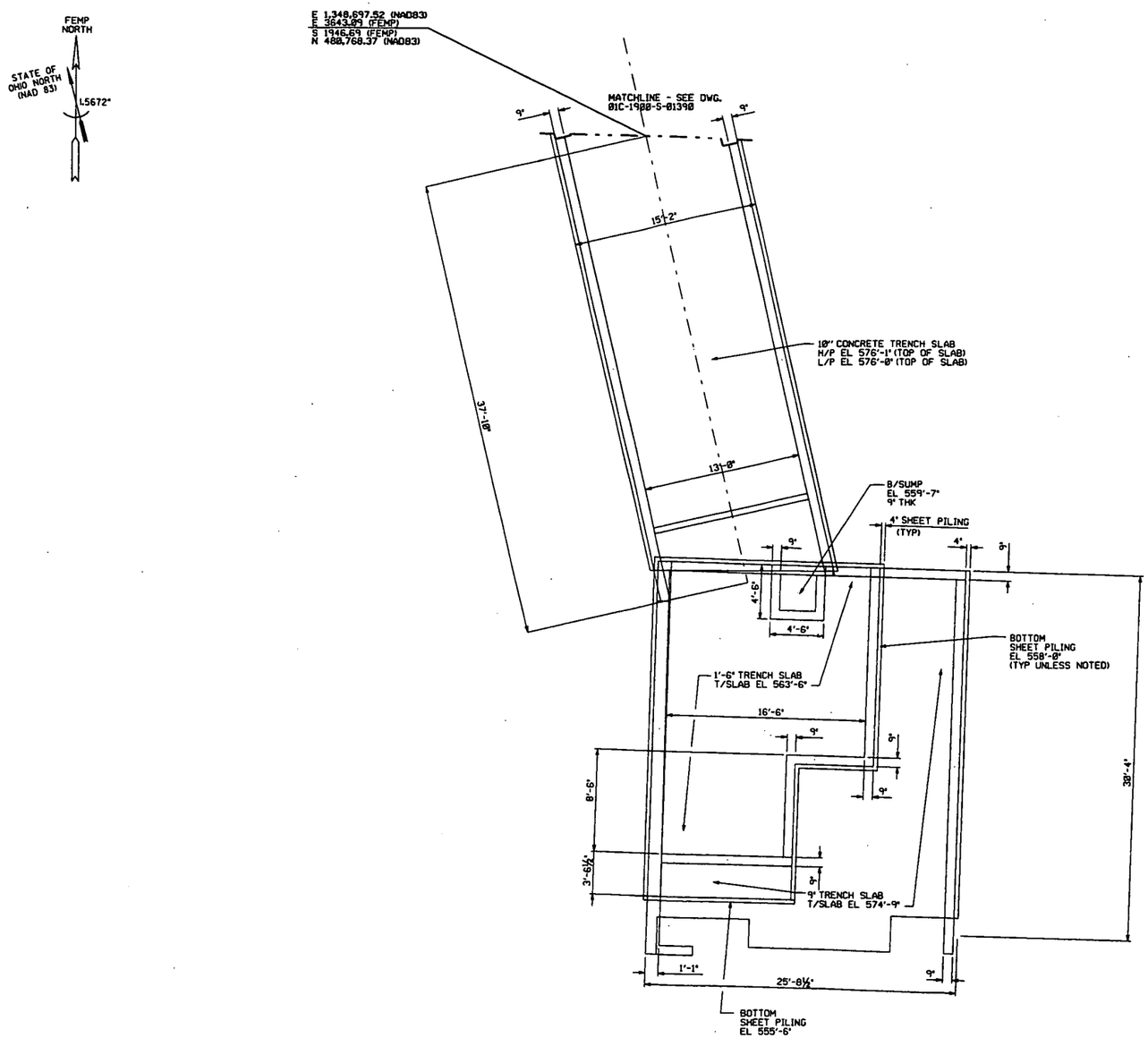
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3J
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING DRAWINGS AS CONTROLLED BY THE FERNALD ENVIRONMENTAL MANAGEMENT CONTROL LEV NOTED.
COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ⅛" = 1'-0"
L-010	N/A	
RES NO.	FDF PROJECT NO.	DRAWN BY A. MLEKODAJ — DATE 25DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN — DATE 25DEC01
		CHECKED BY J. ALCORN — DATE 03JAN02
DRAWING INDEX CODE NO.		SHEET NO. / REV. NO.
02E-1900-S-03458		S-002 / 0



FOUNDATION AND SLAB PLAN
SCALE: ¼" = 1'-0"

000142

SCALE: 1/4 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
01C-1450-S-00004	CONCRETE PLAN OF CONVEYOR TRENCH BET. SILOS AND ORE REFINING BUILDING
01C-3115-S-00402	SHEET PILING DETAILS FOR CONVEYOR PIT AT ORE REFINERY
01C-3115-S-00405	CONVEYOR TRENCH PIT AT ORE REFINERY BLDG 3001-C1-1 (NW CORNER)

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKHEED MARTIN ENGINEERING TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

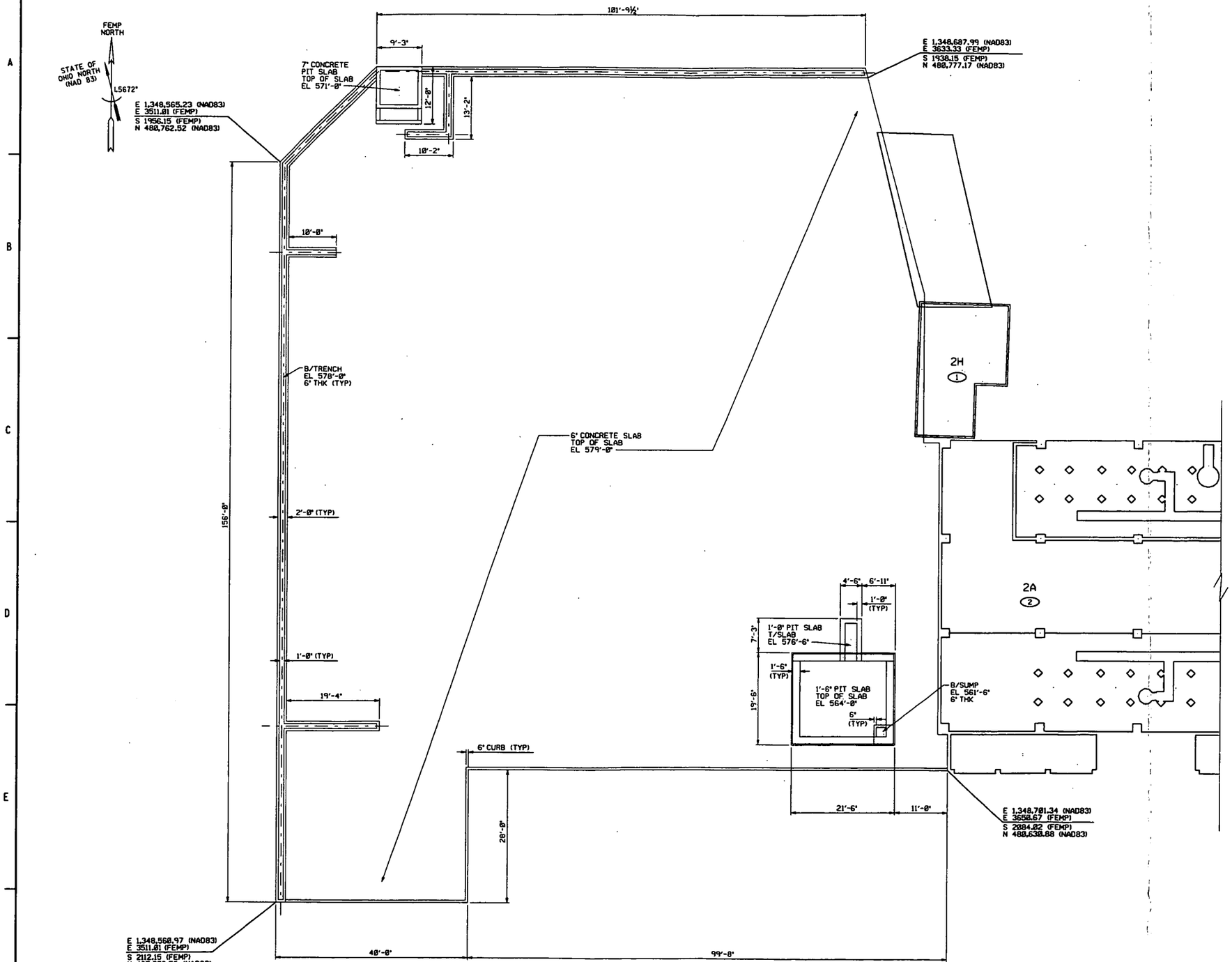
DRAWING TITLE
STRUCTURE 2H AND PIT
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
L-010	N/A	DRAWN BY G. THURMAN	DATE 1DEC01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02

COGNIZANT ENGINEER DATE

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
02X-1900-S-03448	S-001	0



FOUNDATION AND SLAB PLAN
SCALE: ½" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

KEYED NOTES

ADDITIONAL DETAIL FOR EACH OF THE COMPONENT STRUCTURES IS LOCATED ON THE FOLLOWING DRAWINGS AND SKETCHES.

1. SEE DWG 02X-1900-S-03448 FOR FOUNDATION AND SLAB PLAN. SEE DWG SK2H-1 FOR ISOMETRIC VIEW.
2. SEE DWG 02X-1900-S-03451 FOR FOUNDATION PLAN AND DWG 02X-1900-S-03452 FOR SLAB PLAN. SEE DWG SK2A-1 FOR ISOMETRIC VIEW.

REF DWG NO.	DRAWING TITLE
02A-5500-S-01689	SEETTLING PIT & PAD DRAINAGE TRENCHES PLOT PLAN & CONCRETE SECTIONS
02A-5500-S-01690	SEETTLING PIT & PAD DRAINAGE TRENCHES PIT PLAN, SECTIONS & DETAILS
02A-5500-S-01691	SEETTLING PIT & PAD DRAINAGE TRENCHES EQUIPMENT LOCATION & TRENCH PROFILES
02A-5500-S-01505	BUCKET ELEVATOR PIT PLAN, SECTIONS & DETAILS WEST PAD AREA

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

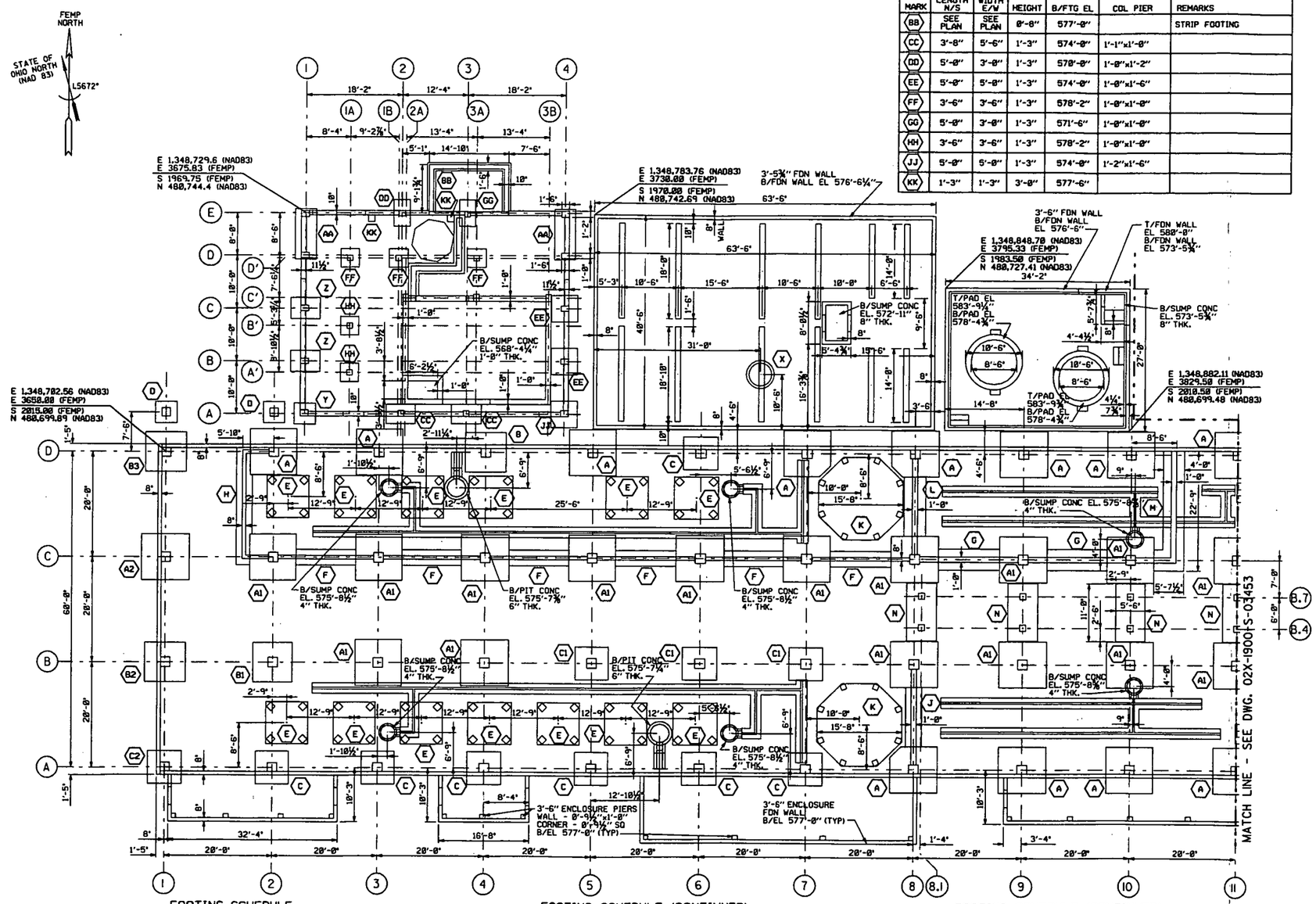
DRAWING TITLE
STRUCTURE 74B AND ELEVATOR PIT
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — TYPE / REF

EXISTING STRUCTURES AS CONFIRMED BY FIELD VERIFICATION. NO CHANGE TO CONFIGURATION MANAGEMENT CONTROL. NO REVIEW.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	½" = 1'-0"	
		DRAWN BY G. THURMAN	DATE 17DEC01
RES NO. N/A	FEP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03450		SHEET NO. S-001	REV. NO. 0



FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
BB	SEE PLAN	SEE PLAN	0'-8"	577'-0"		STRIP FOOTING
CC	3'-8"	5'-6"	1'-3"	574'-0"	1'-1"x1'-0"	
DD	5'-0"	3'-0"	1'-3"	570'-0"	1'-0"x1'-2"	
EE	5'-0"	5'-0"	1'-3"	574'-0"	1'-0"x1'-6"	
FF	3'-6"	3'-6"	1'-3"	578'-2"	1'-0"x1'-0"	
GG	5'-0"	3'-0"	1'-3"	571'-6"	1'-0"x1'-0"	
HH	3'-6"	3'-6"	1'-3"	578'-2"	1'-0"x1'-0"	
JJ	5'-0"	5'-0"	1'-3"	574'-0"	1'-2"x1'-6"	
KK	1'-3"	1'-3"	3'-0"	577'-6"		

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ. MAT. SPILL PROTECT. NITRIC ACID STOR. RETENT. DIKE & SUMP PUMP PLAN
02A-7000-S-00586	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC. PLAN & SECTS. SHT.1
02A-7000-S-00587	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC. SECTIONS & DETAILS.
02A-7000-S-00599	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F. FEED STORAGE CONC. PLAN & SECTS. SHT.2
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL SCHEDULE SECT & DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG. EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG. EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00904	ORE REFINERY, DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-00910	DENITRATION AREA DENITRATION BLDG. EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	ORE REFINERY BUILDING CI-1 EQUIPMENT FOUNDATIONS SECT.-A
02X-1450-S-00007	CONCRETE 1ST FLOOR PLAN SECTION "B" ORE REFINERY BLDG. CI-1
02X-1450-S-00008	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00009	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - "A"-BUILDING CI-1
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING CI-1 SECTION C
02X-1450-S-00015	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-CI-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG. CI-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG. CI-1
02X-1450-S-00018	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-S-01564	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
02X-5500-S-01565	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS ALT. SCHEME FOR DRAINAGE TRENCH
02X-5500-S-01566	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-M-00396	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02D-7000-A-00704	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION PLAN
02D-7000-A-00705	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION - SECTS. & DETAILS SHT-1
02D-7000-A-00711	DIGESTION AREA METAL DISSOLVER BUILDING FOUNDATION - SECTS. & DETAILS - SHT-2
02D-5500-A-02848	METAL DISSOLVER IMPROVEMENTS FOUNDATION & DECK MISC. DETAILS
02D-5500-A-02855	METAL DISSOLVER IMPROVEMENTS TANK FOUNDATION & DECK
02D-5500-A-02959	METAL DISSOLVER FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-9"	8'-9"	1'-6"	574'-0"	1'-8"x1'-10"	
A1	8'-9"	8'-9"	1'-6"	574'-0"	1'-10"x1'-10"	
A2	8'-9"	8'-9"	1'-6"	574'-0"	1'-10"x1'-8"	
B	7'-6"	7'-6"	1'-4"	574'-0"	1'-8"x1'-10"	
B1	7'-6"	7'-6"	1'-4"	574'-0"	1'-10"x1'-10"	
B2	7'-6"	7'-6"	1'-4"	574'-0"	1'-10"x1'-8"	
B3	7'-6"	7'-6"	1'-4"	574'-0"	1'-8"x1'-8"	
C	6'-3"	6'-3"	1'-4"	574'-0"	1'-8"x1'-10"	

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
C1	6'-3"	6'-3"	1'-4"	574'-0"	1'-10"x1'-10"	
C2	6'-3"	6'-3"	1'-4"	574'-0"	1'-8"x1'-8"	
D	4'-0"	4'-0"	1'-0"	574'-0"	1'-7"x1'-7"	
E	8'-0"	8'-0"	1'-6"	574'-0"	1'-2"x1'-2"	
F	3'-0"	11'-3"	1'-0"	574'-0"		STRIP FOOTING
G	4'-0"	11'-3"	1'-0"	574'-0"		STRIP FOOTING
H	22'-3"	3'-0"	1'-0"	574'-0"		STRIP FOOTING
J	11'-3"	3'-0"	1'-0"	574'-0"		STRIP FOOTING

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
K	SEE PLAN	SEE PLAN	2'-0"	574'-0"	1'-0"x1'-0"	SHORT DIMENSION
L	11'-3"	4'-0"	1'-0"	574'-0"		STRIP FOOTING
M	SEE PLAN	SEE PLAN	1'-0"	574'-0"		STRIP FOOTING
N	11'-0"	5'-6"	1'-2"	574'-0"	1'-2"x1'-2"	
X	N/A	N/A	0'-6"	574'-0"		5'-4" DIAMETER
Y	4'-0"	4'-0"	1'-3"	574'-0"	1'-2"x1'-6"	
Z	5'-6"	4'-0"	1'-3"	574'-0"	1'-0"x1'-6"	
AA	9'-6"	4'-0"	1'-6"	571'-6"	SEE PLAN	

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

SCALE: 1/8 INCH= FOOT

000144

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKHEED MARTIN ENERGY RESEARCH TECHNOLOGIES

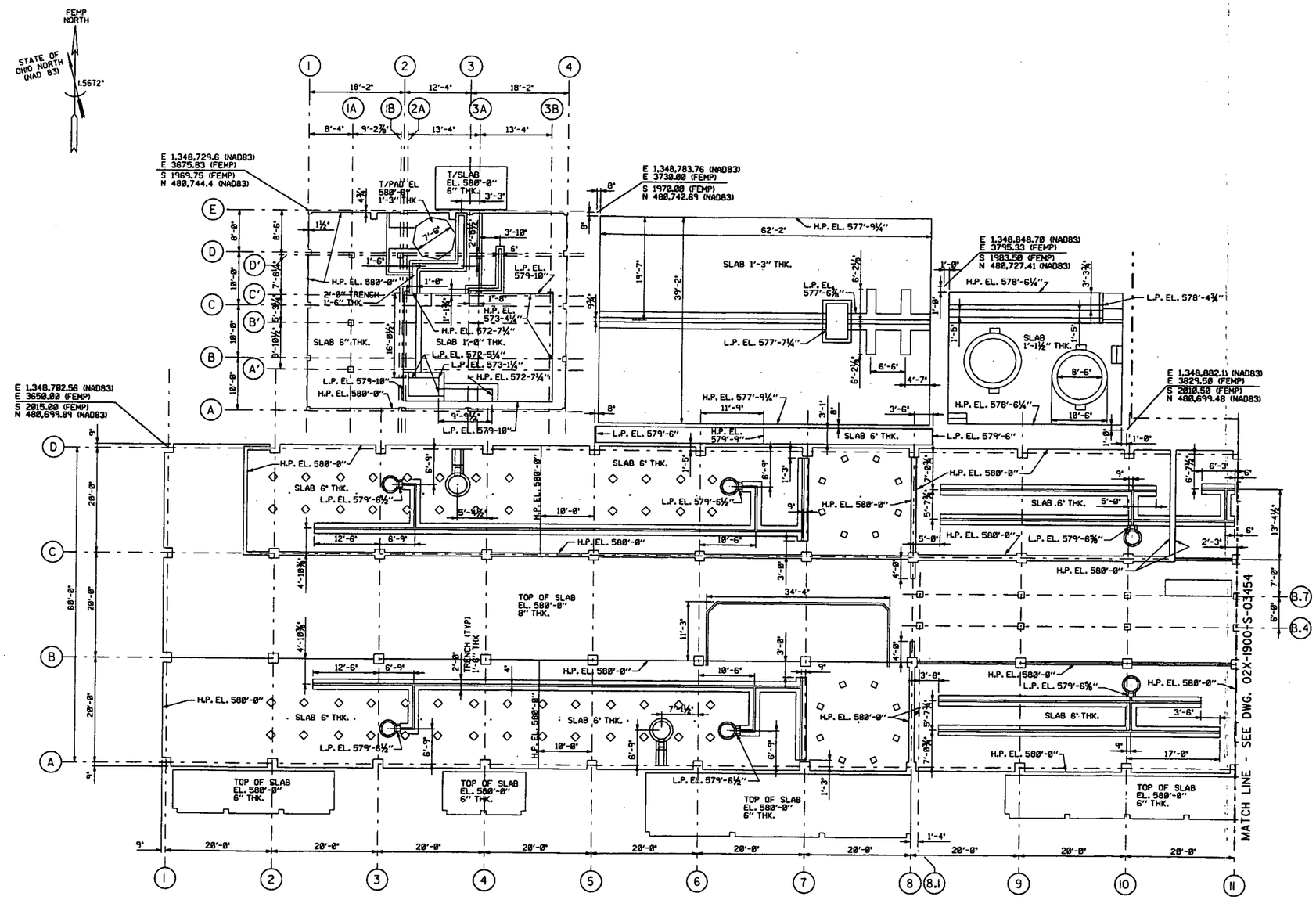
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A WEST AND 2D
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
RES NO.	FOR PROJECT NO.	DRAWN BY C. COX	DATE 18DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 24JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03451		SHEET NO. S-001	REV. NO. 0

COGNIZANT ENGINEER DATE



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

000145

SCALE: 1/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT. NITRIC ACID STOR.RETENT.DIKE & SUMP PUMP PLAN
02A-7000-S-00586	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F.FEED STORAGE CONC.PLAN & SECTS.SHT.1
02A-7000-S-00587	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F.FEED STORAGE CONC. SECTIONS & DETLS.
02A-7000-S-00599	ORE REFINERY DIGESTION AREA SLOP LIQUOR & A.F.FEED STORAGE CONC.PLAN & SECTS.SHT.2
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL.SCHEDULE SECT.& DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG. EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG. EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00984	ORE REFINERY.DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-00910	DENITRATION AREA DENITRATION BLDG. EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	EQUIPMENT FOUNDATIONS SECT.-A ORE REFINERY BUILDING CI-1
02X-1450-S-00007	CONCRETE 1ST FLOOR PLAN SECTION 'B' ORE REFINERY BLDG.CI-1
02X-1450-S-00008	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00009	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - 'A'-BUILDING CI-1
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING CI-1 SECTION C
02X-1450-S-00015	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-CI-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG.CI-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG.CI-1
02X-1450-S-00018	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-S-01564	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATION PLAN AND ELEVATIONS
02X-5500-S-01565	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS ALT SCHEME FOR DRAINAGE TRENCH
02X-5500-S-01566	SLOP LIQUOR CONCENTRATION AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-M-00396	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02D-7000-A-00704	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION PLAN
02D-7000-A-00705	DIGESTION AREA METAL DISSOLVER BLDG. FOUNDATION - SECTS.& DETAILS SHT-1
02D-7000-A-00711	DIGESTION AREA METAL DISSOLVER BUILDING FOUNDATION - SECTS.& DETAILS - SHT-2
02D-5500-A-02848	METAL DISSOLVER IMPROVEMENTS FOUNDATION & DECK MISC.DETAILS
02D-5500-A-02855	METAL DISSOLVER IMPROVEMENTS TANK FOUNDATION & DECK
02D-5500-A-02959	METAL DISSOLVER FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ROB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

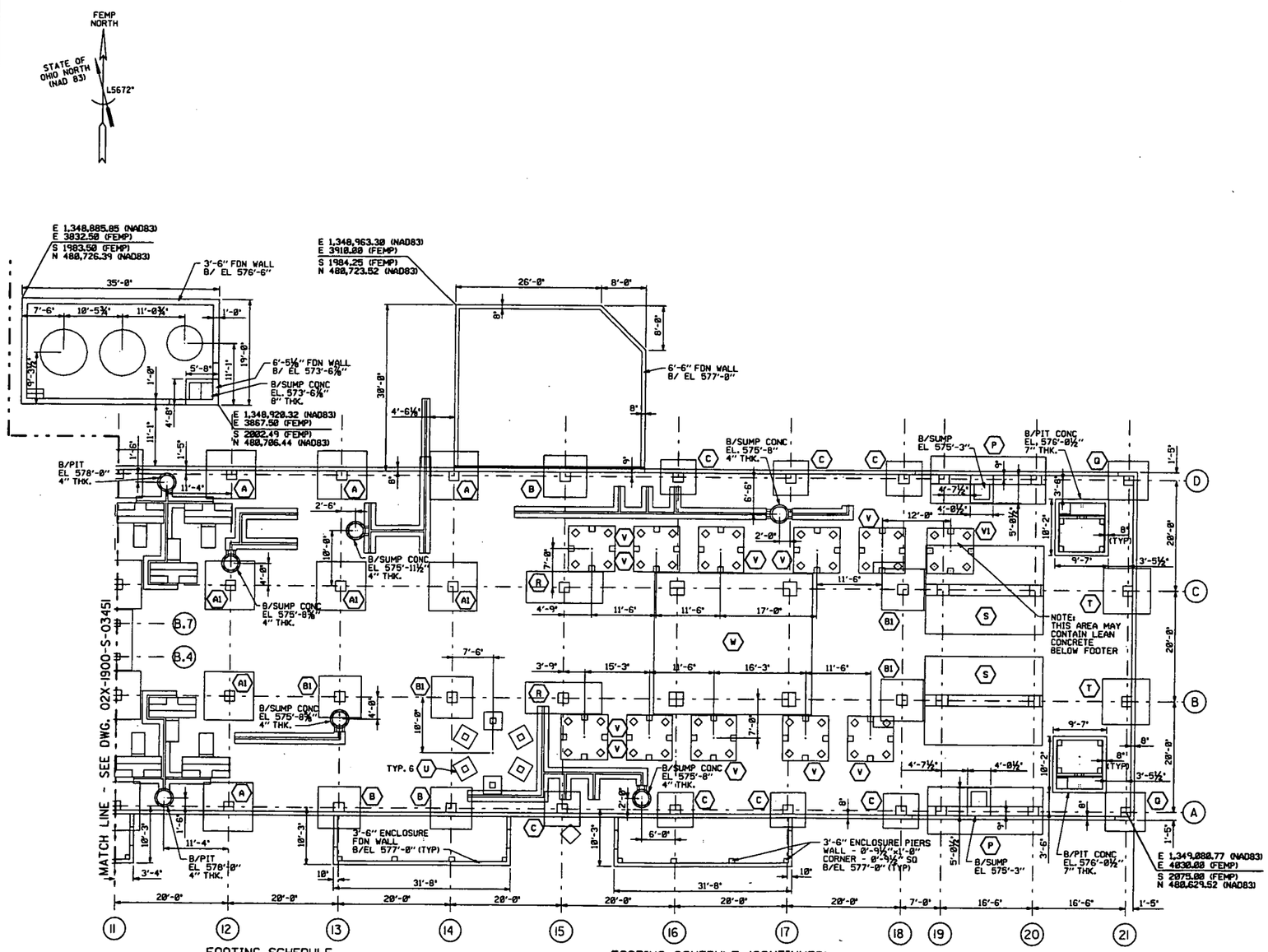
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A WEST AND 2D
SLAB PLAN

TASK ORDER NO. L-010	OPTIONAL NO. N/A	SCALE ⅛" = 1'-0"	
		DRAWN BY C. COX	DATE 18DEC01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03452		SHEET NO. S-002	REV. NO. 0

CONFIGURATION MANAGEMENT DRAWING
COGNIZANT ENGINEER DATE



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-9"	8'-9"	1'-6"	574'-0"	1'-8"x1'-10"	
A1	8'-9"	8'-9"	1'-6"	574'-0"	1'-10"x1'-10"	
B	7'-6"	7'-6"	1'-4"	574'-0"	1'-8"x1'-10"	
B1	7'-6"	7'-6"	1'-4"	574'-0"	1'-10"x1'-10"	
C	6'-3"	6'-3"	1'-4"	574'-0"	1'-8"x1'-10"	
P	8'-6"	20'-6"	3'-3"	574'-0"	1'-8"x1'-10"	
Q	7'-0"	7'-0"	1'-3"	574'-0"	1'-8"x1'-8"	
R	5'-8"	13'-6"	1'-10"	574'-0"	1'-10"x1'-10"	

FOOTING SCHEDULE (CONTINUED)

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
S	16'-0"	21'-0"	4'-6"	574'-0"	2'-0"x2'-0"	
T	8'-3"	8'-3"	1'-4"	574'-0"	1'-10"x1'-8"	
U	3'-3"	3'-3"	1'-2"	574'-0"	1'-0"x1'-0"	
V	8'-2"	8'-2"	1'-6"	574'-0"	1'-0"x1'-0"	
V1	8'-2"	8'-2"	1'-6"	575'-0"	1'-0"x1'-0"	
W	25'-6"	28'-0"	3'-0"	574'-0"	2'-6"x2'-6"	

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

000146

SCALE: 1/8 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT.
02B-5500-S-01558	NITRIC ACID STOR.RETENT.DUKE & SUMP PUMP PLAN
02C-7000-S-00867	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL.SCHEDULE SECT.& DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG.EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00984	DENITRATION AREA DENITRATION BLDG.EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-00918	ORE REFINERY, DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02X-1450-S-00006	DENITRATION AREA DENITRATION BLDG.EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00007	EQUIPMENT FOUNDATIONS SECT.-A
02X-1450-S-00008	ORE REFINERY BUILDING C1-1 CONCRETE 1ST FLOOR PLAN SECTION "B"
02X-1450-S-00009	ORE REFINERY BLDG.C1-1 EQUIPMENT FOUNDATIONS SECT.-C
02X-1450-S-00010	ORE REFINERY BUILDING - A CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS
02X-1450-S-00012	ORE REFINERY - SECTION - "A"-BUILDING C1-1 CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS
02X-1450-S-00015	ORE REFINERY BUILDING C1-1 SECTION C CONCRETE EXTERIOR TRENCH AND FOUNDATIONS
02X-1450-S-00016	ORE REFINERY SOLVENT TREATMENT AREA BLDG.C1-1 CONCRETE FOUNDATION PLAN SECT.-A
02X-1450-S-00017	ORE REFINERY BUILDING-C1-1 CONCRETE FOUNDATION PLAN SECTION-B
02X-1450-S-00018	ORE REFINERY BLDG.C1-1 CONCRETE FOUNDATION PLAN SECTION-C
02X-5500-M-01563	ORE REFINERY BLDG.C1-1 FOUNDATION PLAN & SECTIONS
02X-5500-S-01567	ELECTRICAL ENCLOSURES ORE REFINERY SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02X-5500-S-01568	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	R.	PM	NCHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

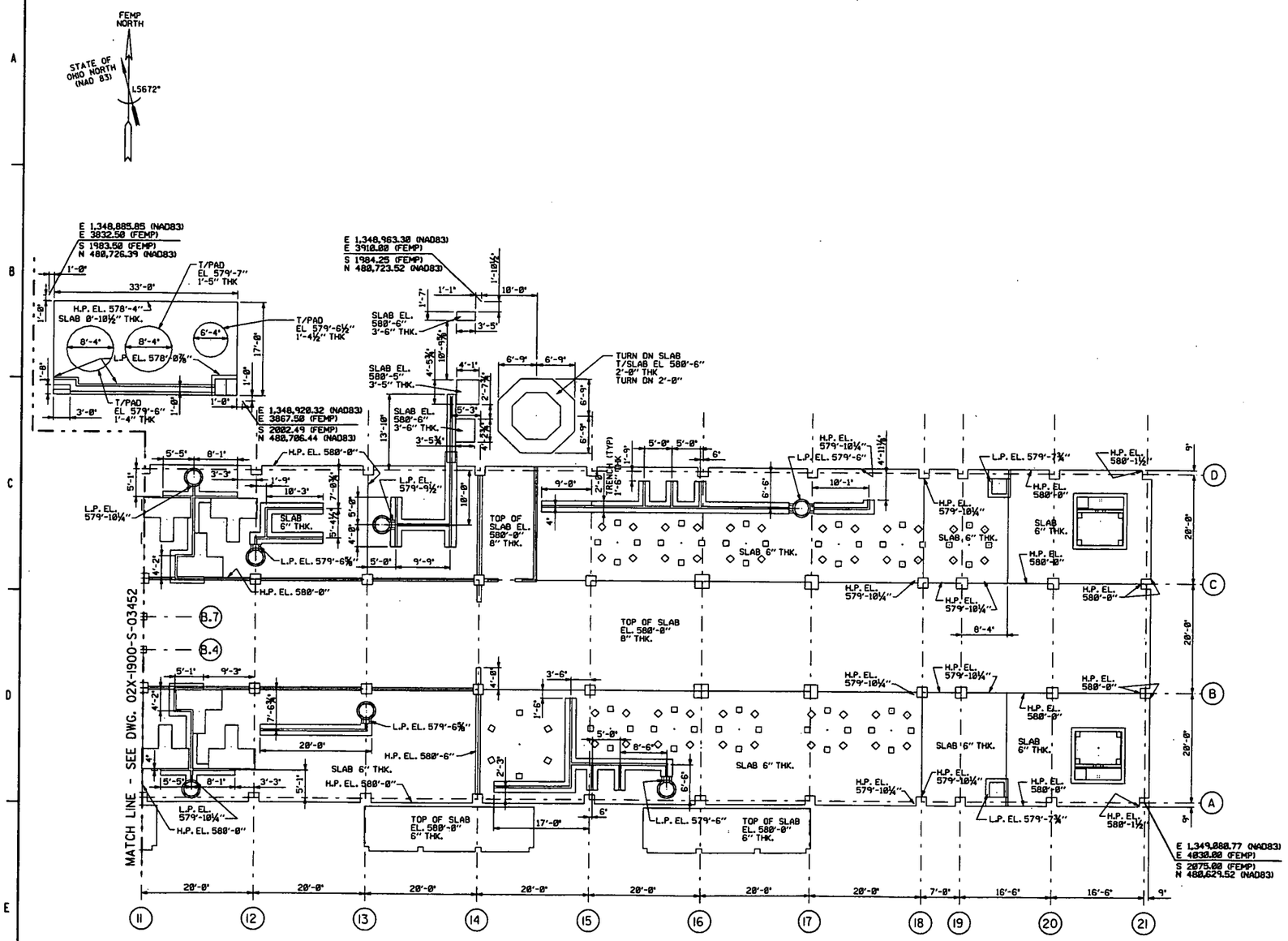
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
		DRAWN BY C. COX	DATE 18DEC01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03453		SHEET NO. S-003	REV. NO. 0

COGNIZANT ENGINEER DATE



SLAB PLAN

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

SCALE: 1/8 INCH = FOOT

000147

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

— 4518

REF DWG NO.	DRAWING TITLE
02A-5500-S-01580	PLANT 2 DIGESTION AREA SLURRY FEED TANKS FOUNDATION PLAN & DETAILS
02A-5500-S-02747	PLANT 2 DIGESTION AREA HAZ.MAT.SPILL PROTECT. NITRIC ACID STOR.RETENTI.DIKE & SUMP PUMP PLAN
02B-5500-S-01558	PLANT 2 EXTRACTION AREA FOUNDATION PLAN STRUCTURAL STEEL COL.SCHEDULE SECT.& DETAILS
02C-7000-S-00867	DENITRATION AREA DENITRATION BLDG.EXPANSION FOUNDATION PLAN & DETAILS
02C-7000-S-00876	DENITRATION AREA DENITRATION BLDG.EXPANSION FIRST FLOOR PLAN & DETAILS
02C-7000-S-03984	ORE REFINERY,DENITRATION AREA NEW REACTOR POT FOUNDATIONS CONCRETE PLAN & DETAILS
02C-7000-S-03910	DENITRATION AREA DENITRATION BLDG.EXPANSION DEMOLITION & ERECTION PROCEDURE
02X-1450-S-00006	EQUIPMENT FOUNDATIONS SECT.-A ORE REFINERY BUILDING C1-1
02X-1450-S-00007	CONCRETE 1ST FLOOR PLAN SECTION "B" ORE REFINERY BLDG.C1-1
02X-1450-S-00008	EQUIPMENT FOUNDATIONS SECT.-C ORE REFINERY BUILDING - A
02X-1450-S-00009	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY - SECTION - "A"-BUILDING C1-1
02X-1450-S-00010	CONCRETE FLOOR SLAB & EQUIPMENT FOUNDATIONS ORE REFINERY BUILDING C1-1 SECTION C
02X-1450-S-00012	CONCRETE EXTERIOR TRENCH AND FOUNDATIONS ORE REFINERY SOLVENT TREATMENT AREA BLDG.C1-1
02X-1450-S-00015	CONCRETE FOUNDATION PLAN SECT.-A ORE REFINERY BUILDING-C1-1
02X-1450-S-00016	CONCRETE FOUNDATION PLAN SECTION-B ORE REFINERY BLDG.C1-1
02X-1450-S-00017	CONCRETE FOUNDATION PLAN SECTION-C ORE REFINERY BLDG.C1-1
02X-1450-S-00018	FOUNDATION PLAN & SECTIONS ELECTRICAL ENCLOSURES ORE REFINERY
02X-5500-M-01563	SLOP LIQUOR CONCENTRATION AND SOLVENT STORAGE AREA PLOT PLAN AND EQUIPMENT LAYOUT
02X-5500-S-01567	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
02X-5500-S-01568	SOLVENT STORAGE AREA CONCRETE FOUNDATIONS SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	R	PM	RCVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

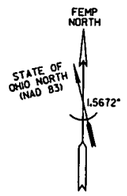
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

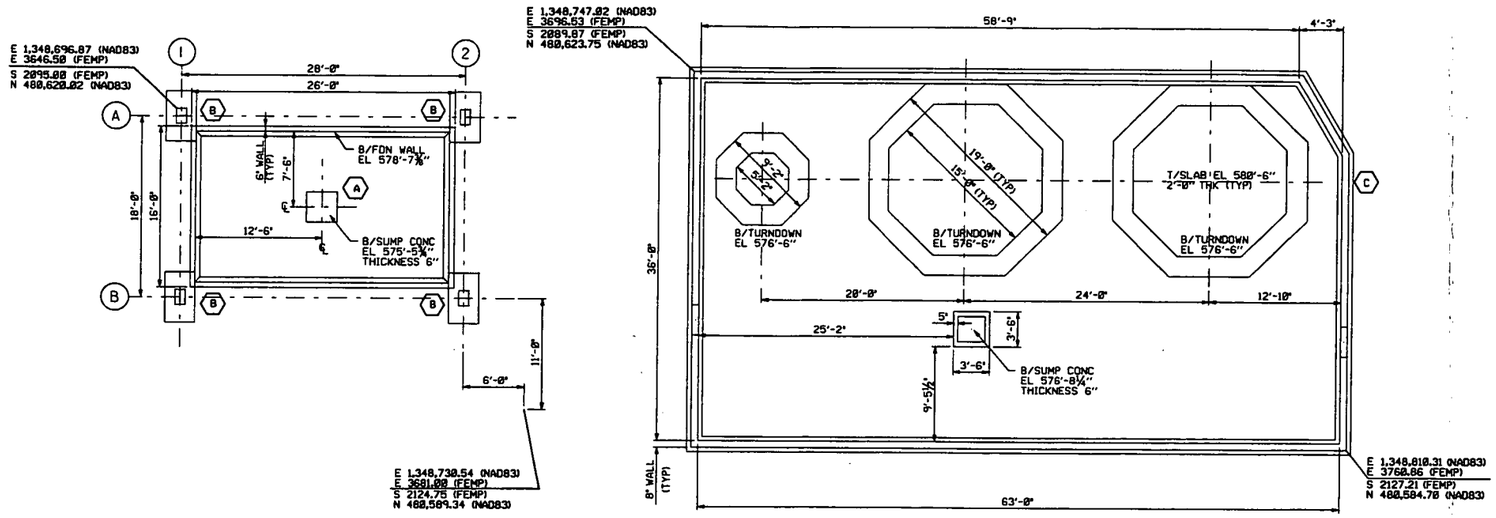
DRAWING TITLE
STRUCTURE 2A EAST, SOLVENT STORAGE AND TREATMENT AREAS
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/8" = 1'-0"	
RES NO.	FDF PROJECT NO.	DRAWN BY C. COX	DATE 18DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN	DATE 25DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
02X-1900-S-03454		S-004	0

COGNIZANT ENGINEER DATE





FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	3'-0"	3'-0"	0'-6"	575'-5¾"	N/A	
B	5'-0"	3'-0"	1'-0"	575'-10⅝"	1'-0" X 1'-6"	
C	SEE PLAN	SEE PLAN	0'-8"	576'-10"	N/A	STRIP FOOTING

000148

SCALE: 3/8 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
39B-5500-S-00016	LIQUID WASTE INCINERATOR SHELTER BLDG PLAN & ELEVATIONS
39B-5500-S-00017	LIQUID WASTE INCINERATOR WASTE OIL HANDLING CURBED PAD PLAN-ELEV-DETAIL
02A-5500-S-02747	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE SUMP PLAN
02A-5500-P-02443	REPLACE NITRIC ACID STORAGE PUMP BASES & SUMP PLAN & SECTIONS
02A-5500-S-02445	REPLACE NITRIC ACID STORAGE PUMP BASES & SUMP MISCELLANEOUS DETAILS
02A-5500-S-02750	HAZARDOUS MATERIALS SPILL PROTECTION ACID PROOF COVER & PUMPS PLAN
02X-1450-S-00009	FLOOR SLAB & EQUIPMENT LAYOUT ORE REFINERY SECTION "A"
02A-5500-S-02841	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE SUMP DETAIL
02A-5500-S-02748	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 39B AND NITRIC ACID STORAGE AREA FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

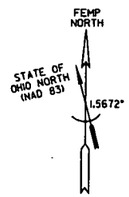
EXISTING (STRUCTURE) AS CONTROLLED BY THE FERNALD ENVIRONMENTAL MANAGEMENT CONTROL SYSTEM.

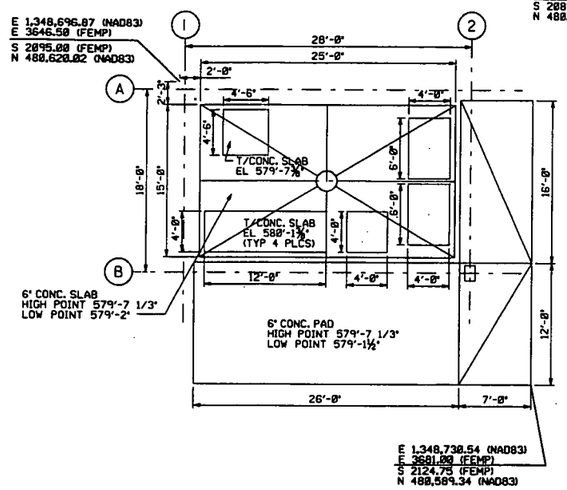
COGNIZANT ENGINEER DATE

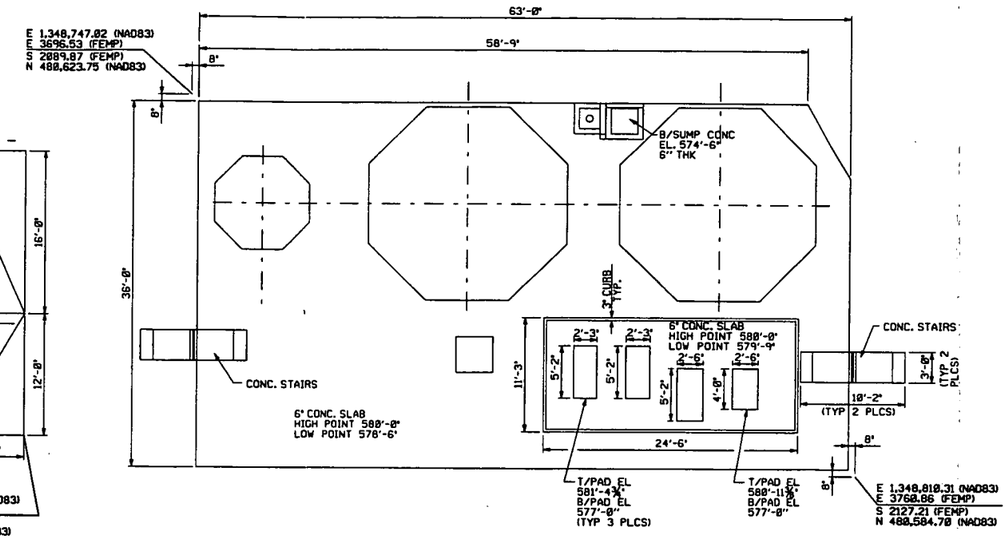
TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	3/16" = 1'-0"

RES. NO.	FSP PROJECT NO.	DRAWN BY	DATE
N/A	20810	J. LUTTRELL	28DEC01
		TECHNICAL LEAD: J. ALCORN	28DEC01
		CHECKED BY: J. ALCORN	04JAN02

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
02X-1900-S-03455	S-001	0







SLAB PLAN

SCALE: 3/16" = 1'-0"

000149

0' 3' 6' 12' 15'
SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

--4518

REF DWG NO.	DRAWING TITLE
39B-5500-S-00016	LIQUID WASTE INCINERATOR SHELTER BLDG PLAN & ELEVATIONS
39B-5500-S-00017	LIQUID WASTE INCINERATOR WASTE OIL HANDLING CURBED PAD PLAN-ELEV-DETAIL
02A-5500-S-02747	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE SUMP PLAN
02A-5500-P-02443	REPLACE NITRIC ACID STORAGE PUMP BASES & SUMP PLAN & SECTIONS
02A-5500-S-02445	REPLACE NITRIC ACID STORAGE PUMP BASES & SUMP MISCELLANEOUS DETAILS
02A-5500-S-02750	HAZARDOUS MATERIALS SPILL PROTECTION ACID PROOF COVER & PUMPS PLAN
02X-1450-S-00009	FLOOR SLAB & EQUIPMENT LAYOUT ORE REFINERY SECTION "A"
02A-5500-S-02841	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE SUMP DETAIL
02A-5500-S-02748	HAZARDOUS MATERIALS SPILL PROTECTION NITRIC ACID STORAGE RETENTION DIKE DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

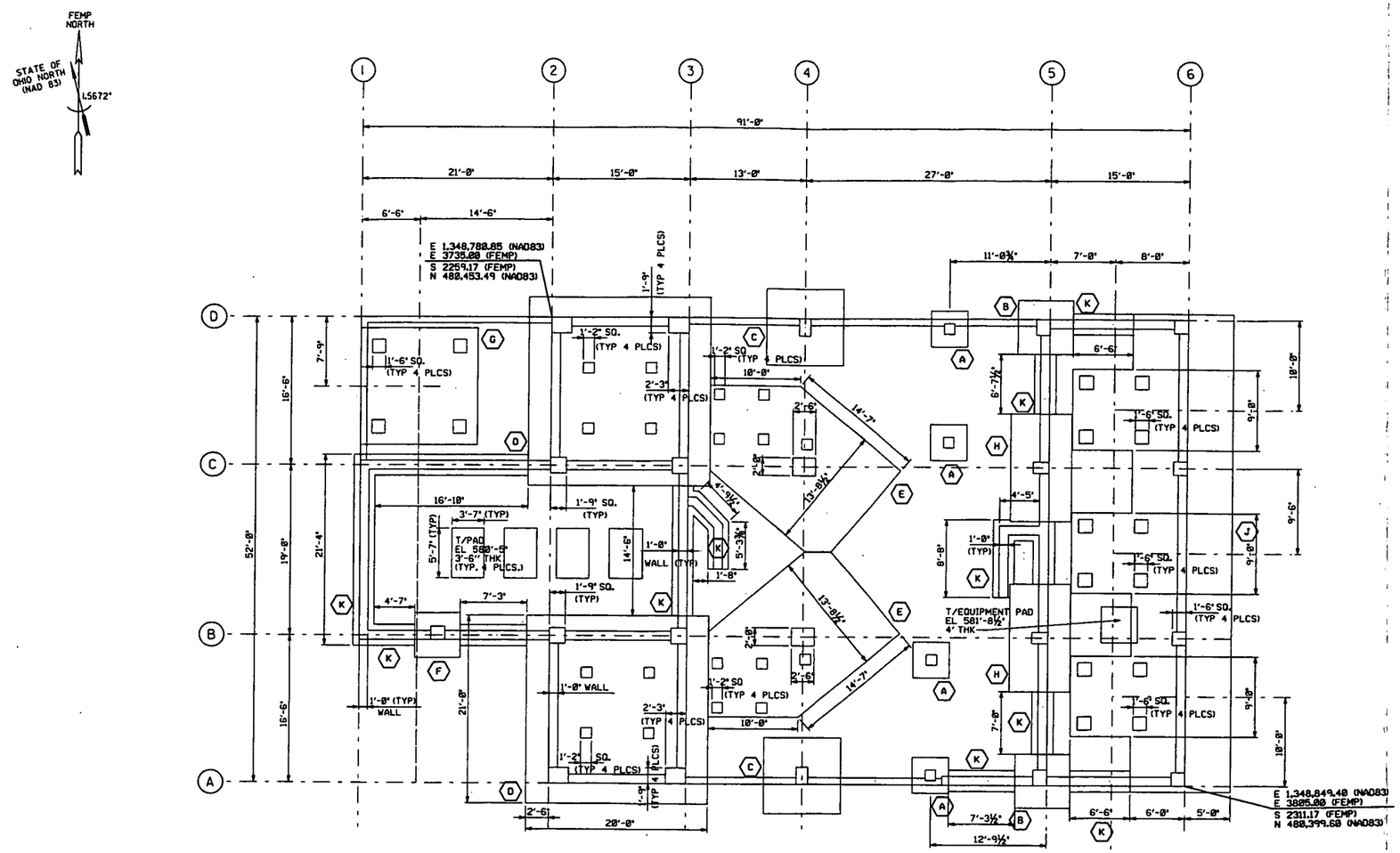
DRAWING TITLE
STRUCTURE 39B AND NITRIC ACID STORAGE AREA SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
CHECK BOX

EXISTING ATTACHED AS CONTROLLED COPIES ARE THE PROPERTY OF LOCKWOOD GREENE TECHNOLOGIES. CONTROL: LGT SITES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
L-010	N/A	DRAWN BY J. LUTTRELL	DATE 28DEC01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03456		SHEET NO. S-002	REV. NO. 0



FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-0"	4'-0"	1'-6"	573'-0"	1'-2"x1'-2"	
B	6'-0"	6'-0"	2'-0"	573'-0"	1'-9"x1'-6"	
C	8'-6"	8'-6"	2'-0"	574'-0"	1'-11"x1'-3"	
D	21'-0"	20'-0"	2'-0"	574'-0"	SEE PLAN	SPREAD FOOTING
E	SEE PLAN	SEE PLAN	2'-0"	574'-0"	SEE PLAN	SPREAD FOOTING
F	5'-0"	5'-0"	2'-0"	574'-0"	1'-6"x1'-6"	
G	13'-0"	13'-0"	2'-0"	574'-0"	SEE PLAN	SPREAD FOOTING
H	12'-0"	6'-8"	2'-0"	574'-0"	1'-3"x1'-9"	
J	53'-4"	SEE PLAN	2'-0"	574'-0"	SEE PLAN	SPREAD FOOTING
K	SEE PLAN	2'-4"	2'-0"	574'-0"	N/A	STRIP FOOTING

000150

SCALE: 3/16 INCH = FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00058	CONCRETE PLAN & DETAILS HOT RAFFINATE BUILDING C1-2
02X-1450-S-00059	CONCRETE FOOTING PLAN & DETAILS HOT RAFFINATE BUILDING C1-2

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	INITIALS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A SDS 25JAN02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

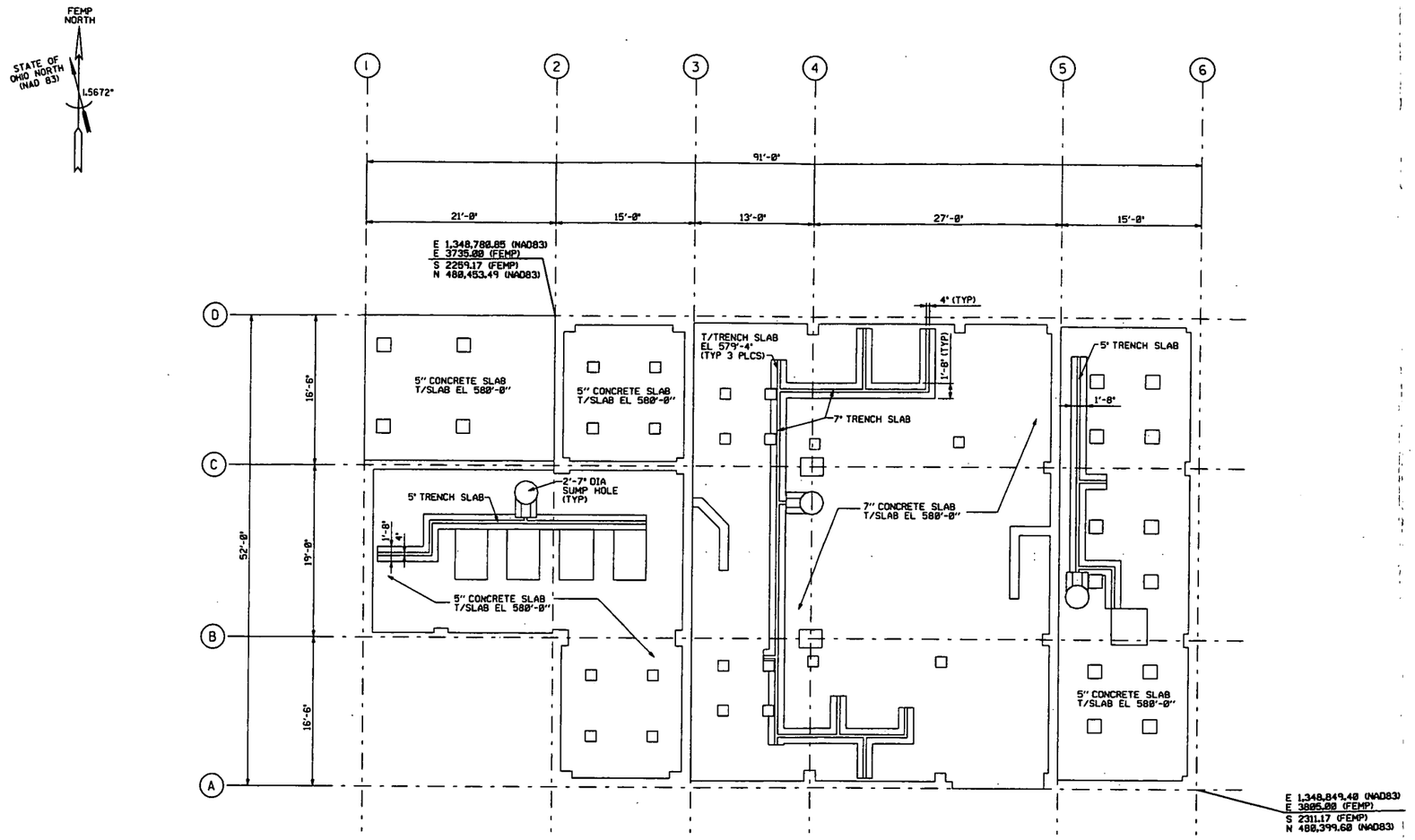
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3E
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"
L-010	N/A	DRAWN BY J. LONG — DATE 19DEC01
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 20DEC01
		CHECKED BY J. ALCORN — DATE 24JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03459		SHEET NO. S-001 — REV. NO. 0

COGNIZANT ENGINEER — DATE



SLAB PLAN
SCALE: 3/16" = 1'-0"

000151

SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00058	CONCRETE PLAN & DETAILS HOT RAFFINATE BUILDING C1-2
02X-1450-S-00059	CONCRETE FOOTING PLAN & DETAILS HOT RAFFINATE BUILDING C1-2

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
LOCKWOOD GREENE TECHNOLOGIES

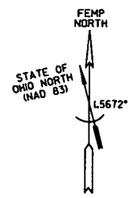
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

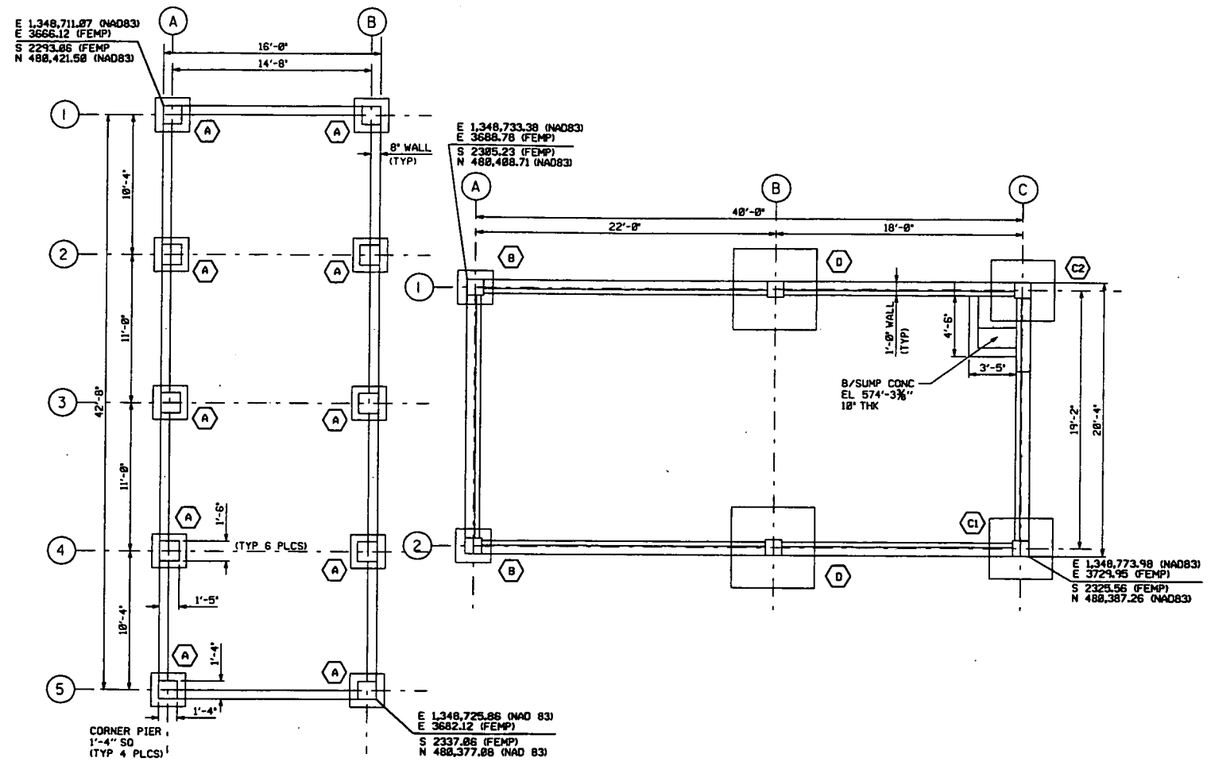
DRAWING TITLE
STRUCTURE 3E
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
L-010	N/A	DRAWN BY J. LONG	DATE 19DEC01
RES NO. N/A	FEP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 05JAN02
DRAWING INDEX CODE NO. 02X-1900-S-03460		SHEET NO. S-002	REV. NO. 0

COGNIZANT ENGINEER DATE





FOUNDATION PLAN
SCALE: ¼" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	2'-6"	2'-6"	0'-10"	576'-6"	SEE PLAN	
B	2'-6"	2'-6"	1'-0"	575'-6"	1'-2" X 1'-2"	
C1	4'-6"	4'-6"	1'-0"	575'-6"	1'-2" X 1'-2"	
C2	4'-6"	4'-6"	1'-0"	573'-3⅜"	1'-2" X 1'-2"	
D	6'-0"	6'-0"	1'-2"	575'-4"	1'-2" X 1'-2"	

000152

0' 2' 4' 8' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

-- 4518

REF DWG NO.	DRAWING TITLE
03A-5500-A-01023	REFRIGERATION BUILDING FLOOR PLAN
03A-5500-S-00411	DIGESTION FUME RECOVERY SYSTEM REFRIGERATION BLDG FDN PLAN ELEV & DETAILS
03A-5500-G-00402	DIGESTION FUME RECOVERY SYSTEM LOCATION PLAN
03A-5500-S-00403	DIGESTION FUME RECOVERY SYSTEM CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
03A-5500-S-00405	DIGESTION FUME RECOVERY SYSTEM CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-A-01024	DIGESTION FUME RECOVERY FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

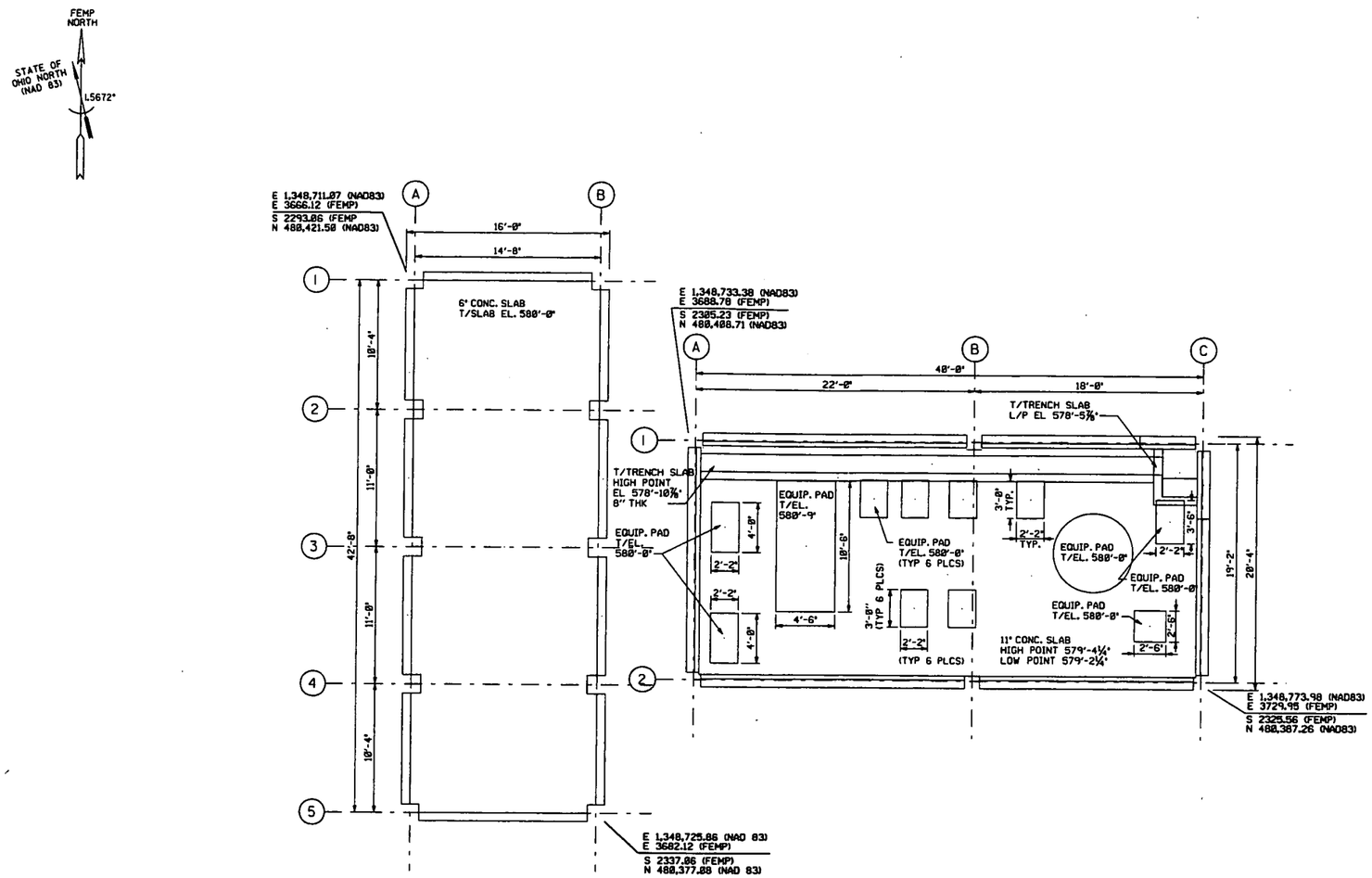
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3G AND 3F
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTRIBUTES AS CONTROLLED BY THE FERNALD CONFIGURATION MANAGEMENT CONTROL LEV ENTER.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
L-010	N/A	DRAWN BY J. LUTTRELL	DATE 28DEC01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 03A-1900-S-01044		SHEET NO. S-001	REV. NO. 0



SLAB PLAN
SCALE: ¼" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

-- 4518

REF DWG NO.	DRAWING TITLE
03A-5500-A-01023	REFRIGERATION BUILDING FLOOR PLAN
03A-5500-S-00411	DIGESTION FUME RECOVERY SYSTEM REFRIGERATION BLDG. FDN PLAN ELEV & DETAILS
03A-5500-C-00402	DIGESTION FUME RECOVERY SYSTEM LOCATION PLAN
03A-5500-S-00403	DIGESTION FUME RECOVERY SYSTEM CONCRETE FOUNDATIONS PLAN AND ELEVATIONS
03A-5500-S-00405	DIGESTION FUME RECOVERY SYSTEM CONCRETE FOUNDATIONS SECTIONS AND DETAILS
03A-5500-A-01024	DIGESTION FUME RECOVERY FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3G AND 3F
SLAB PLAN

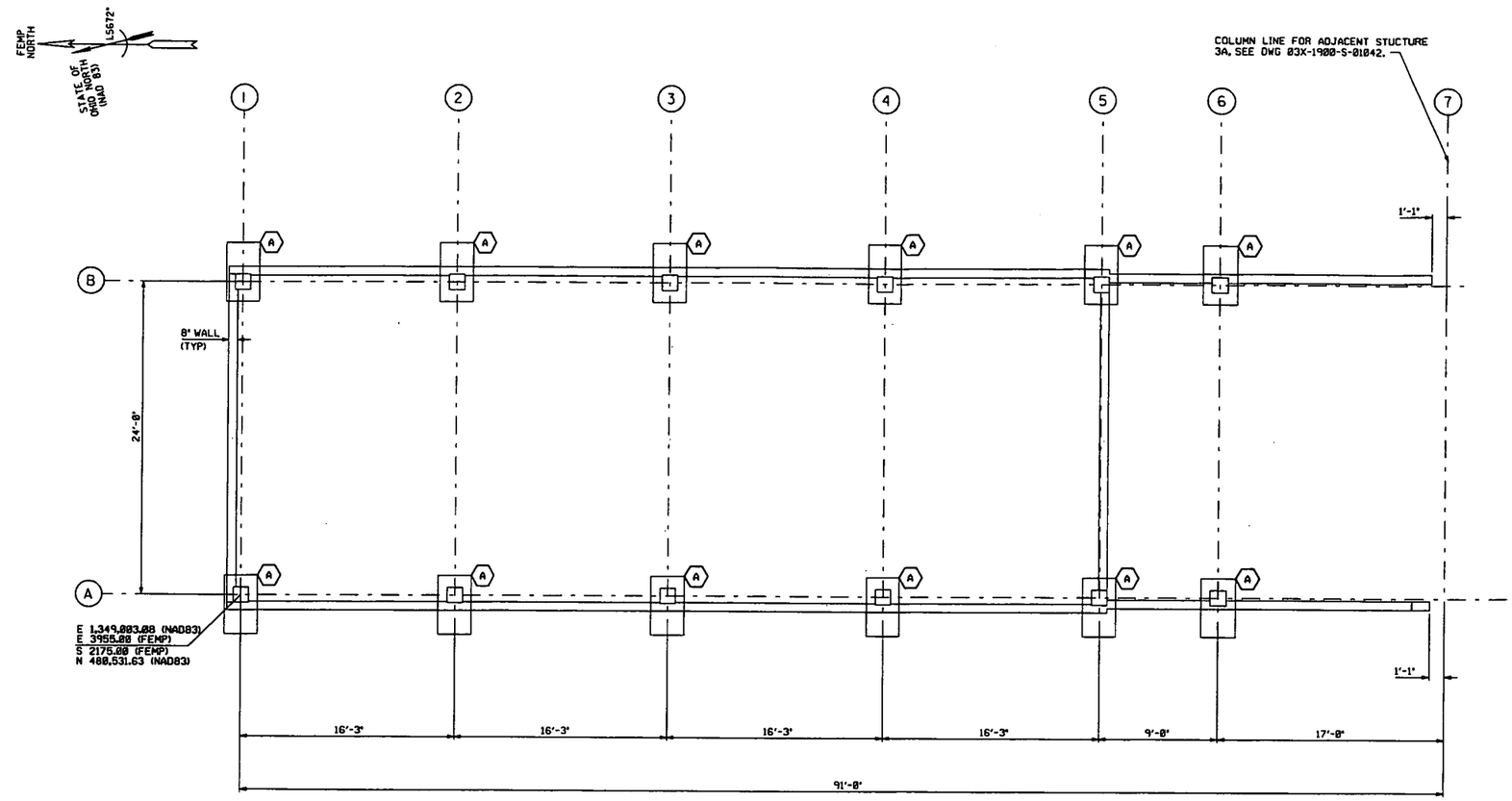
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
L-010	N/A	DRAWN BY J. LUTTRELL	DATE 28DEC01
RES. NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 28DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 03A-1900-S-01045		SHEET NO. S-002	REV. NO. 0

COGNIZANT ENGINEER DATE

SCALE: 1/4 INCH= FOOT

000153



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	2'-6"	4'-6"	1'-3"	574'-0"	1'-2"x1'-2"	

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

000154

0' 2' 4' 8' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00067	CONCRETE POWER CENTER BUILDING C1-5 ORE REFINERY
038-7000-S-00195	ELECTRIC POWER STATION CENTER BUILDING EXTENSION FOUNDATION PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKHEED MARTIN ENERGY RESEARCH TECHNOLOGIES

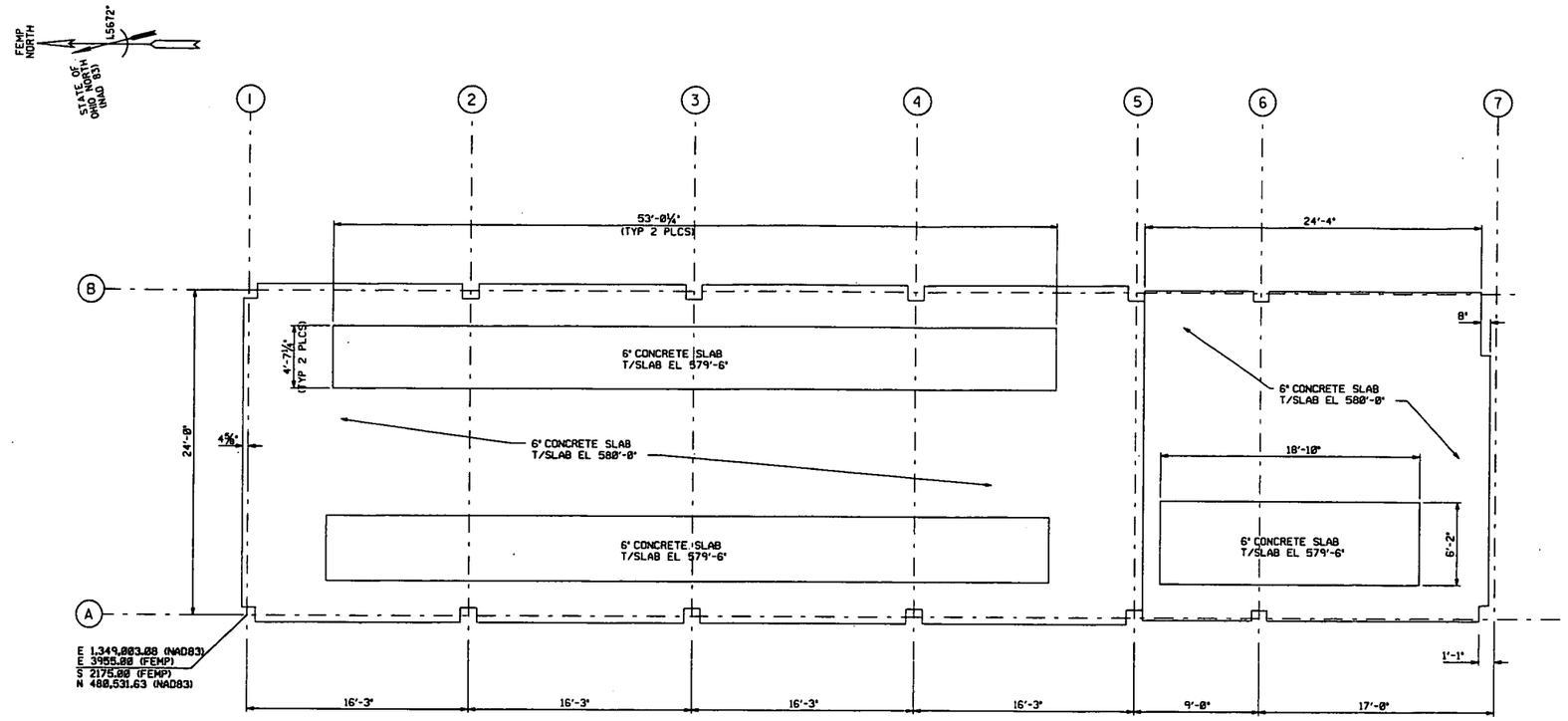
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3L
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING
DECK
DBCF
REVISIONS ATTACHED AS CONTROLLED DOCUMENTS PER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	1/4" = 1'-0"	
RES NO.	FOP PROJECT NO.	DRAWN BY G. THURMAN	DATE 28DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 08JAN02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
03B-1900-S-01050		S-001	0



SLAB PLAN
SCALE: ¼" = 1'-0"

000155

0' 2' 4' 8' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

— 4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00067	CONCRETE POWER CENTER BUILDING CI-5 ORE REFINERY
03B-7000-S-00195	ELECTRIC POWER STATION CENTER BUILDING EXTENSION FOUNDATION PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN92	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3L
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTACHED AS CONTROLLED COPY. ALL CHANGES MUST BE MADE VIA CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	¼" = 1'-0"	
		DRAWN BY G. THURMAN	DATE 28DEC91
REF NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 25DEC91
		CHECKED BY J. ALCORN	DATE 06JAN92
DRAWING INDEX CODE NO. 03B-1900-S-01051		SHEET NO. S-002	REV. NO. 0

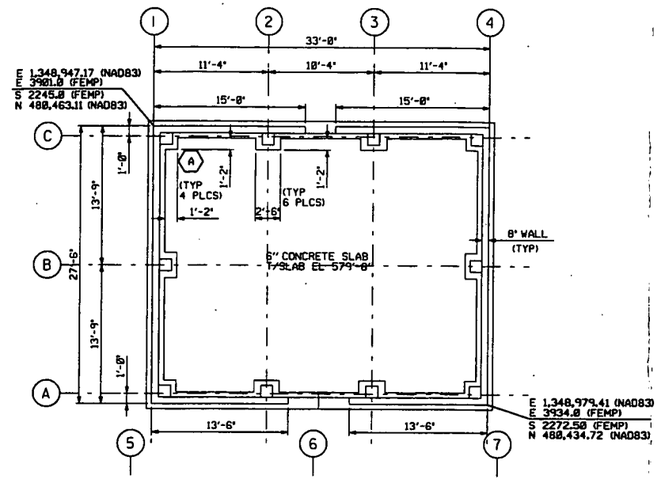
FEMP NORTH

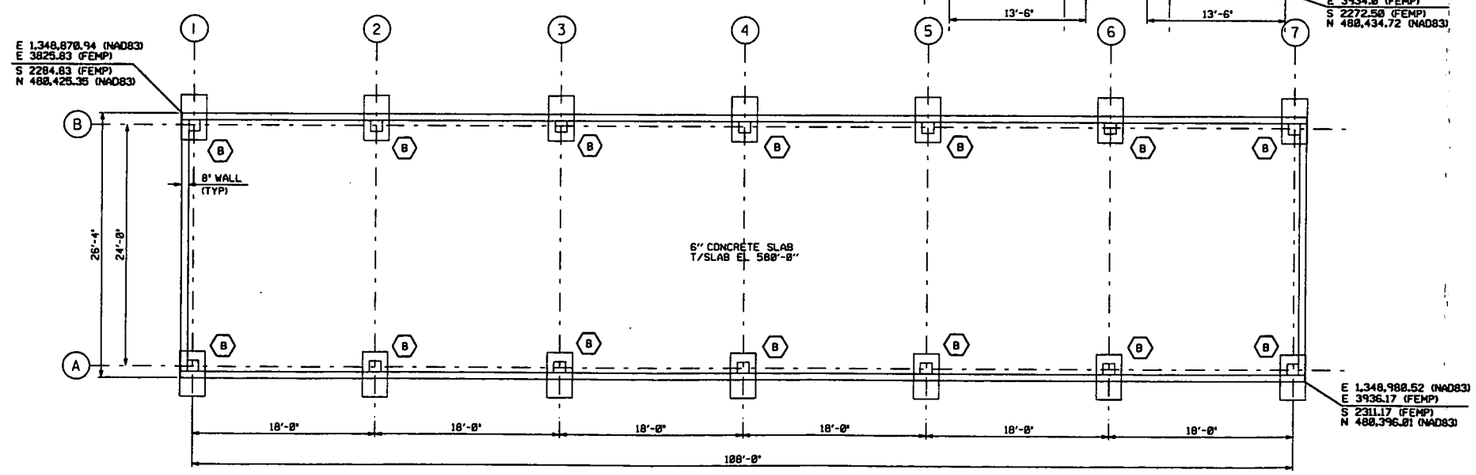
STATE OF OHIO NORTH (NAD 83)

1.5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	SEE PLAN	SEE PLAN	0'-8"	577'-8"	N/A	STRIP FOOTING
B	4'-6"	2'-6"	1'-3"	574'-8"	1'-2" X 1'-1"	





FOUNDATION AND SLAB PLAN

SCALE: 3/16"=1'-0"

000156

0' 3' 6' 12' 15'

SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

--4518

REF DWG NO.	DRAWING TITLE
03X-1450-S-00006	CONCRETE FOUNDATION PLAN & DETAILS CONTROL BLDG
03X-6500-A-01033	OZONE BUILDING FLOOR PLAN
03X-1450-A-00527	PLAN FOR OZONE BLDG NITRIC-ACID-RECOVERY

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME

LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE

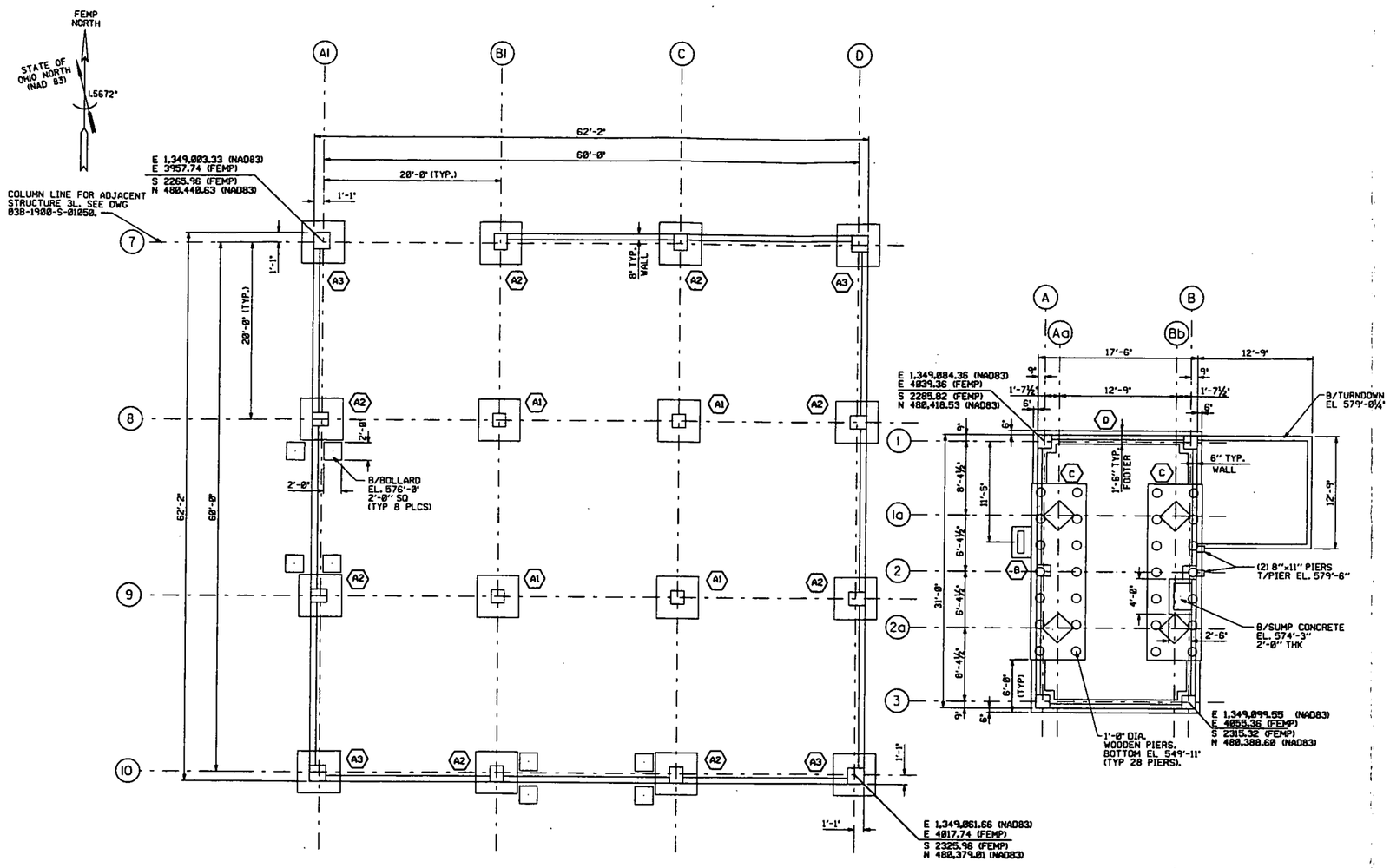
STRUCTURE 3C AND 3B
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

STATUS: ☐ PRELIMINARY ☐ CONSTRUCTION ☐ AS-BUILT ☐ CONTROLLED DRAWING MAINTENANCE CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"
L-010	N/A	DRAWN BY J. LUTTRELL — DATE 19DEC01
REF NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 20DEC01
		CHECKED BY J. ALCORN — DATE 04JAN02
DRAWING INDEX CODE NO. 03X-1900-S-01041		SHEET NO. S-001 — REV. NO. 0



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A1	4'-9"	4'-9"	1'-3"	574'-6"	1'-6" X 1'-6"	
A2	4'-9"	4'-9"	1'-3"	574'-6"	1'-10" X 1'-6"	
A3	4'-9"	4'-9"	1'-3"	574'-6"	1'-10" X 1'-10"	
B	3'-6"	2'-2"	1'-0"	574'-3"	0'-9" X 2'-6"	
C	20'-0"	6'-0"	2'-0"	574'-3"	2'-4" X 2'-6"	PIERS ROTATED
D	SEE PLAN	SEE PLAN	1'-0"	574'-3"	1'-6" X 1'-6" CORNER 1'-3" X 1'-6" WALL	STRIP FOOTING

FOUNDATION PLAN

SCALE: 3/16"=1'-0"

000157

SCALE: 1/16 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
038-7000-S-00161	ORE REFINERY WAREHOUSE & MAINTENANCE BUILDING FOUNDATION PLAN & SECTIONS
02E-550-A-03364	BULK LIME HANDLING FLOOR PLAN
18A-5500-S-00124	BULK LIME HANDLING SYSTEM CONCRETE SILO FOOTINGS & SLAKER BLDG FDNS
18X-3900-S-00800	GENERAL SUMP LIME BUILDING FOUNDATIONS
18X-3900-S-00831	GENERAL SUMP LIME BUILDING DEMOLITION

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

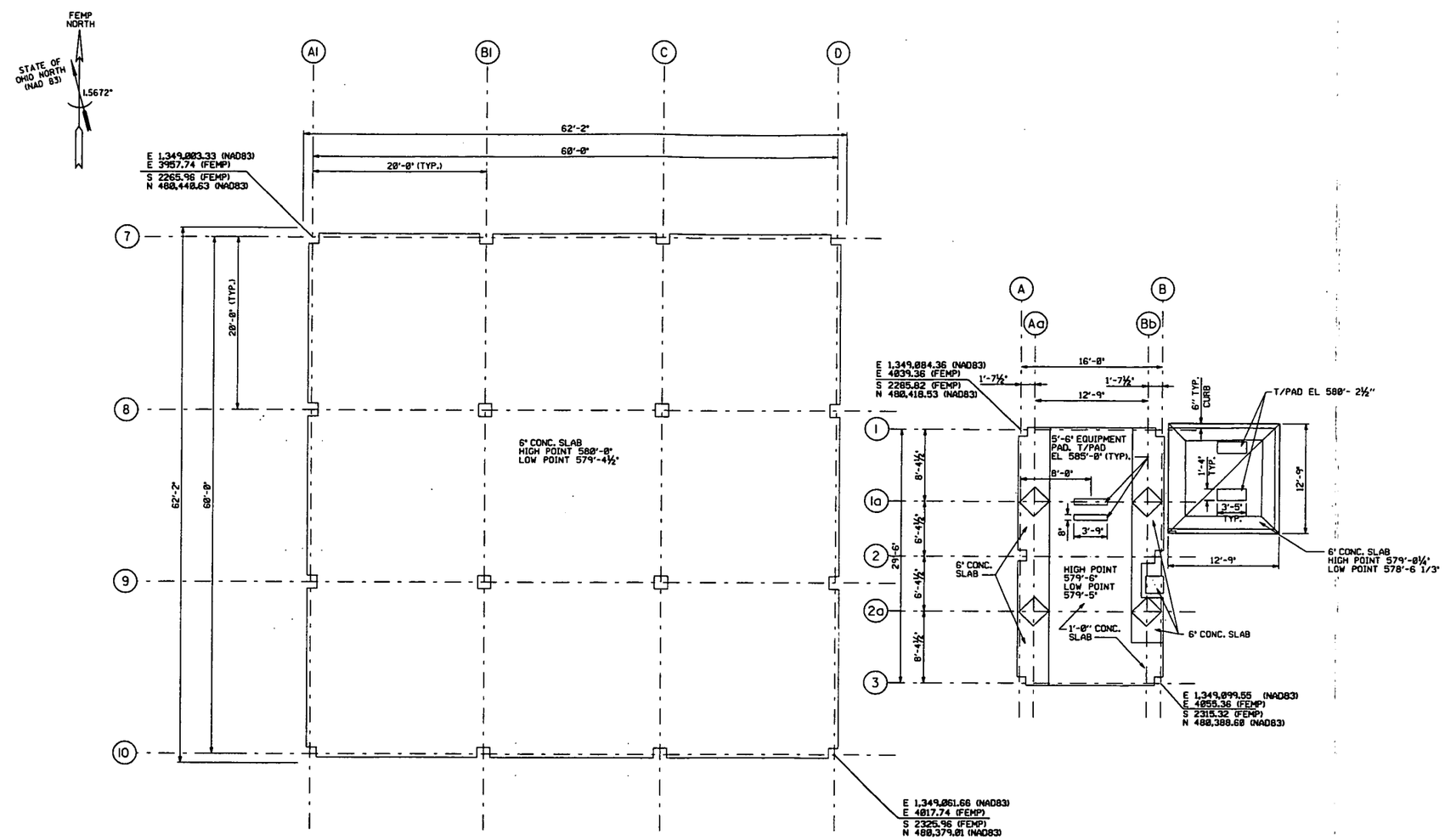
DRAWING TITLE
STRUCTURE 3A AND 2C
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"
L-010	N/A	DRAWN BY J. LUTTRELL — DATE 18DEC01
REQ NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 26DEC01
		CHECKED BY J. ALCORN — DATE 04JAN02

COGNIZANT ENGINEER — DATE

DRAWING INDEX CODE NO. 03X-1900-S-01042 — SHEET NO. S-001 — REV. NO. 0



SLAB PLAN
SCALE: 3/16"=1'-0"

SCALE: 3/16 INCH = 1 FOOT

000158

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
03B-7000-S-00161	ORE REFINERY WAREHOUSE & MAINTENANCE BUILDING FOUNDATION PLAN & SECTIONS
02E-550-A-03354	BULK LIME HANDLING FLOOR PLAN
18A-5500-S-00124	BULK LIME HANDLING SYSTEM CONCRETE SILO FOOTINGS & SLAKER BLDG FDNS
18X-3900-S-00800	GENERAL SUMP LIME BUILDING FOUNDATIONS
18X-3900-S-00831	GENERAL SUMP LIME BUILDING DEMOLITION

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

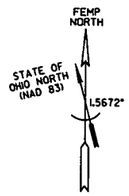
DRAWING TITLE
STRUCTURE 3A AND 2C
SLAB PLAN

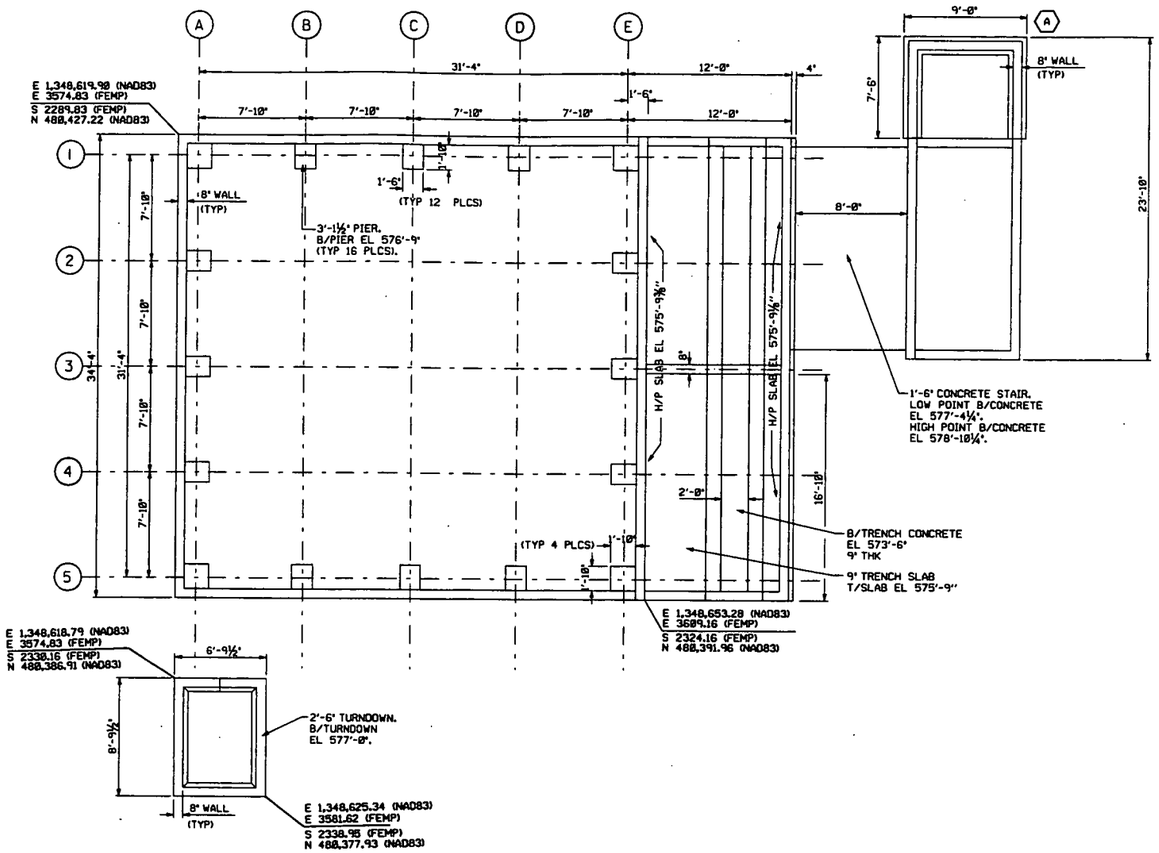
CONFIGURATION MANAGEMENT DRAWING

EXISTING STRUCTURES OR COMPONENTS MODIFIED BY THIS DRAWING ARE CONTROLLED BY CHANGE CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16"=1'-0"	
		DRAWN BY J. LUTTRELL	DATE 18DEC01
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 20DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 03X-1900-S-01043		SHEET NO. S-002	REV. NO. 0





FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	SEE PLAN	1'-4"	0'-9"	573'-6"	N/A	STRIP FOOTING

FOUNDATION PLAN
SCALE: ¼" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

– 4518

REF DWG NO.	DRAWING TITLE
39X-7000-A-00062	INCINERATOR BUILDING SPRINKLER RISER HOUSE
03X-7000-S-00216	COOLING TOWER AREA STRUC. CONC. PLAN & SECT'S
03X-7000-S-00217	COOLING TOWER AREA STRUC. CONC. PLAN & SECT'S
03X-7000-S-00244	COOLING TOWER AREA LIMESTONE PIT STRUC. CONC. - PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 39C AND 3K
FOUNDATION PLAN

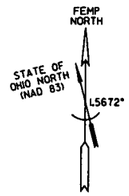
000159

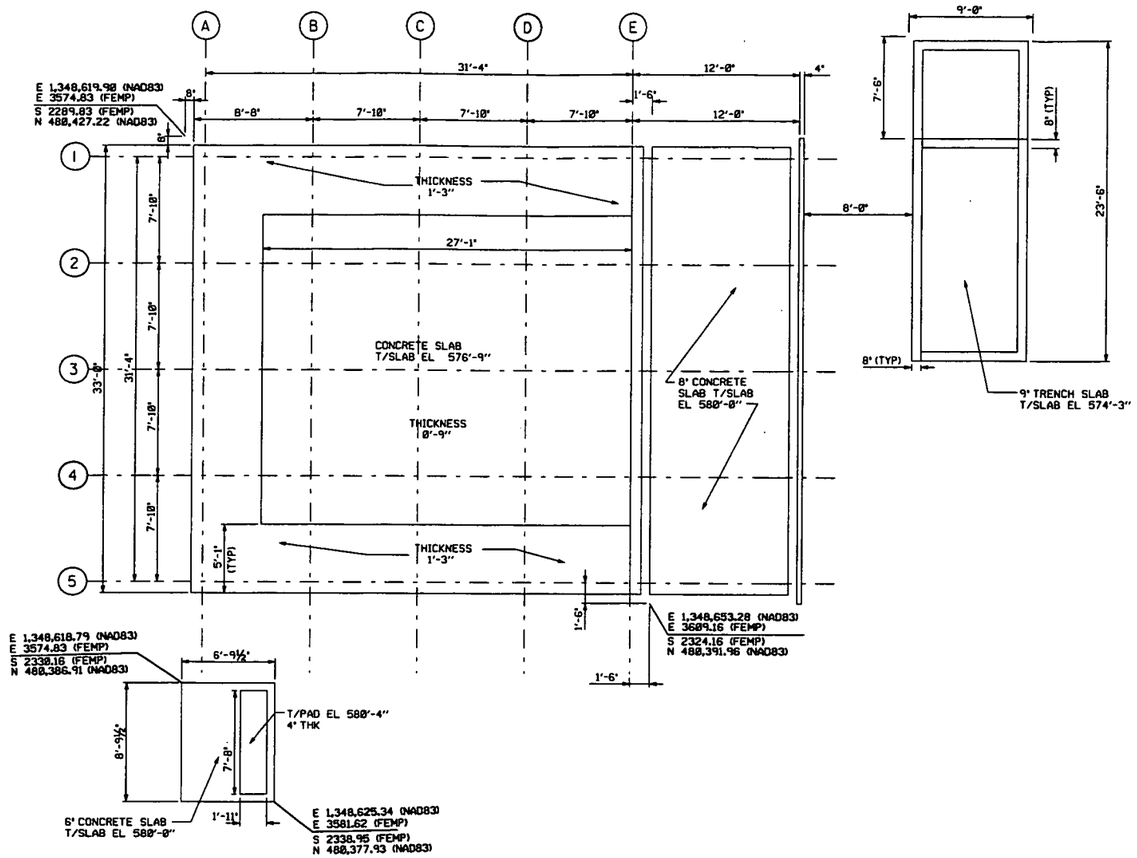
SCALE: 1/4 INCH = FOOT

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
L-010	N/A	DRAWN BY J. LONG	DATE 19DEC01
RES NO. N/A	FOP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 03X-1900-S-01046		SHEET NO. S-001	REV. NO. 0

COGNIZANT ENGINEER DATE





SLAB PLAN
SCALE: ¼" = 1'-0"

000160

0' 2' 4' 8' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
39X-7000-A-00062	INCINERATOR BUILDING SPRINKLER RISER HOUSE
03X-7000-S-00216	COOLING TOWER AREA STRUC. CONC. PLAN & SECT'S
03X-7000-S-00217	COOLING TOWER AREA STRUC. CONC. PLAN & SECT'S
03X-7000-S-00244	COOLING TOWER AREA LIMESTONE PIT STRUC. CONC. - PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	MCKB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKHEED MARTIN ENERGY RESEARCH TECHNOLOGIES

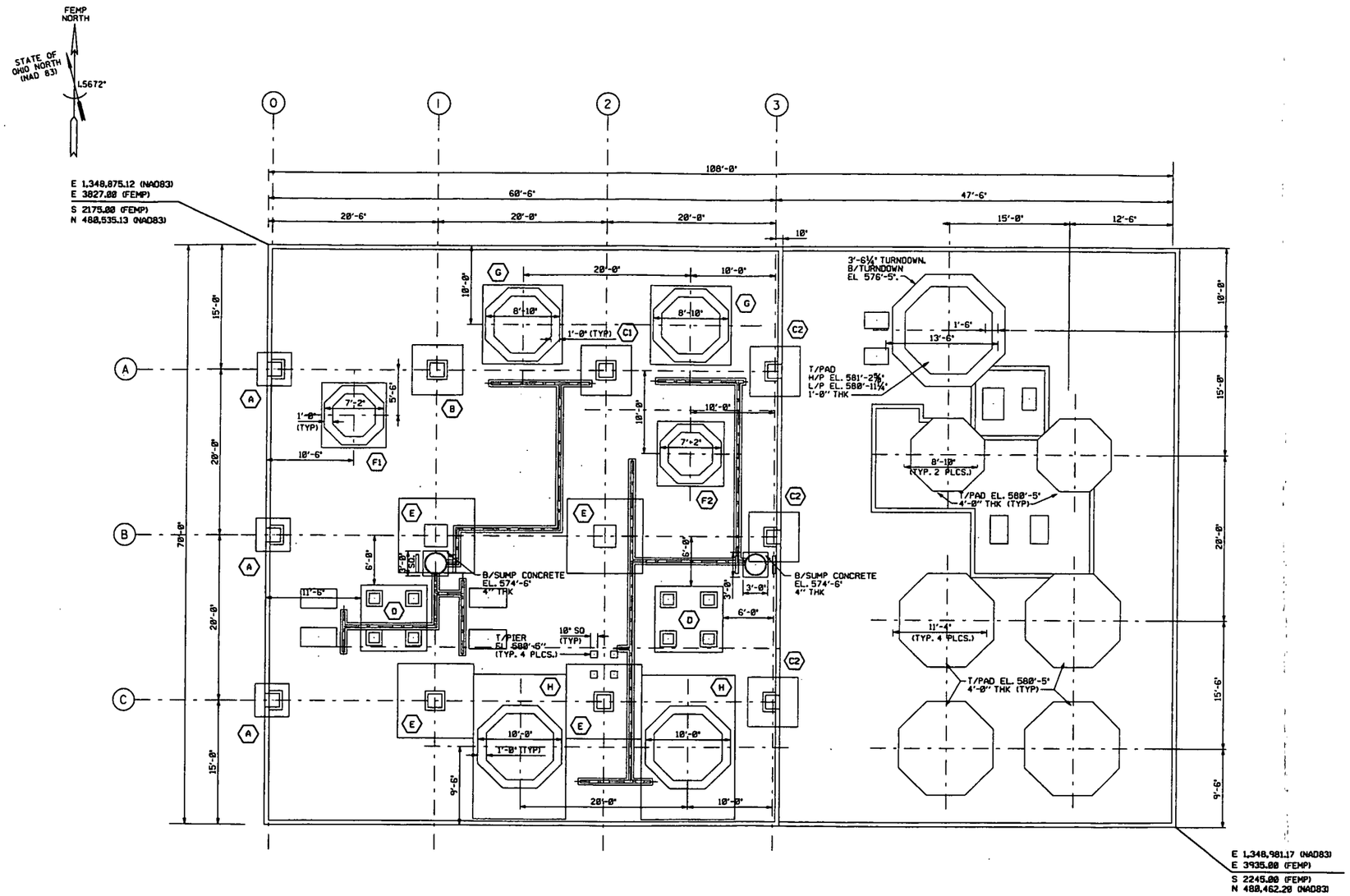
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 39C AND 3K
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING STRUCTURES AS CONTROLLED BY THE FERNALD CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"
L-010	N/A	DRAWN BY J. LONG — DATE 28DEC01
REF NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN — DATE 28DEC01
		CHECKED BY J. ALCORN — DATE 04JAN02
DRAWING INDEX CODE NO. 03X-1900-S-01047		SHEET NO. S-002 — REV. NO. 0



FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-0"	4'-0"	1'-0"	574'-0"	2'-4" X 1'-6"	
B	6'-0"	6'-0"	1'-3"	572'-5"	1'-8" X 1'-8"	
C1	6'-0"	6'-0"	1'-6"	571'-11"	1'-8" X 1'-8"	
C2	6'-0"	6'-0"	1'-6"	571'-11"	2'-4" X 1'-6"	
D	8'-0"	8'-0"	1'-3"	571'-11"	1'-3" X 1'-3"	TOTAL PIERS 4
E	9'-0"	9'-0"	1'-6"	571'-11"	1'-8" X 1'-8"	
F1	7'-10"	7'-10"	1'-0"	573'-5"	SEE PLAN	TANK FOUNDATION
F2	7'-10"	7'-10"	1'-6"	572'-11"	SEE PLAN	TANK FOUNDATION
G	9'-6"	9'-6"	1'-0"	571'-11"	SEE PLAN	TANK FOUNDATION
H	17'-6"	11'-0"	1'-6"	571'-11"	SEE PLAN	TANK FOUNDATION

000161

SCALE: 3/16 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
03X-1450-S-00013	CONCRETE FOUNDATION PLAN AND DETAILS NITRIC ACID RECOVERY
03X-1450-S-00014	CONCRETE EQUIPMENT FOUNDATION DETAILS NITRIC ACID RECOVERY
03X-5500-S-00761	REPLACEMENT OF NITRIC ACID RECOVERY PAD CONCRETE PAD PLAN VIEW & SECTIONS
03X-5500-S-00762	REPLACEMENT OF NITRIC ACID RECOVERY PAD CONCRETE JOINT SEALS SECTIONS & VIEW
03X-5500-S-00763	REPLACEMENT OF NITRIC ACID RECOVERY PAD SUMPS 7 DRAIN VIEWS & SECTIONS
03X-7000-S-00286	NITRIC ACID RECOVERY AREA EXPANSION FOR CONCENTRATOR FDN PLAN & DETAILS
03X-7000-S-00675	CONCRETE COLLAR FOR PIERS B1 & B2
03X-5500-S-00817	NITRIC ACID RECOVERY TOWER EAST AREA RETENTION DIKE PLAN-SECTIONS-DETAILS
03X-7000-S-00276	OZONATION FACILITIES EXPANSION ALTERATIONS-STEEL& CONCRETE

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

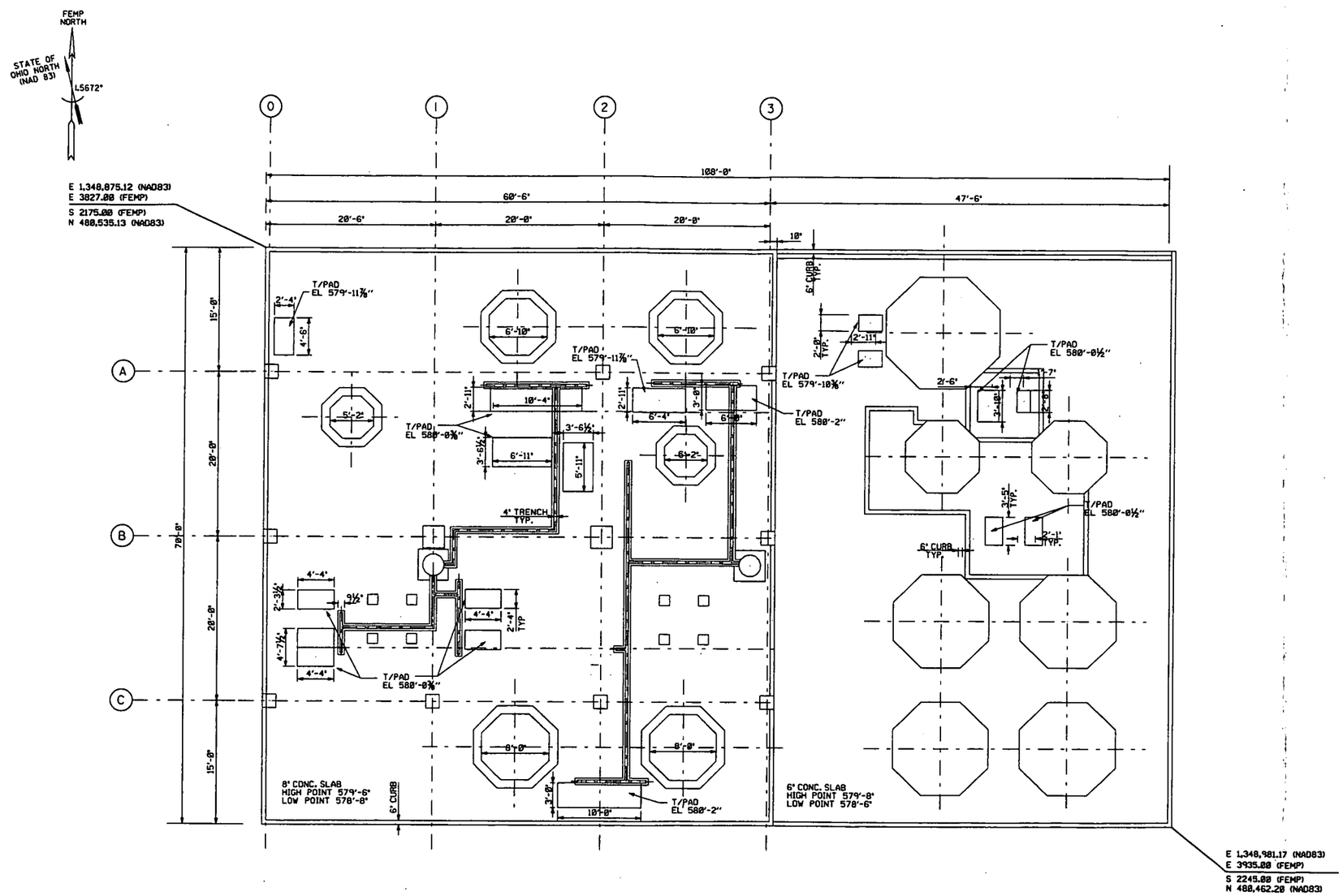
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3D
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16" = 1'-0"	
RES NO.	FOR PROJECT NO.	DRAWN BY J. LUTTRELL	DATE 25DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN	DATE 25DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 03X-1900-S-01048	SHEET NO. S-001 / REV. NO. 0



SLAB PLAN
SCALE: 3/16" = 1'-0"

000162

SCALE: 3/16 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
03X-1450-S-00013	CONCRETE FOUNDATION PLAN AND DETAILS NITRIC ACID RECOVERY
03X-1450-S-00014	CONCRETE EQUIPMENT FOUNDATION DETAILS NITRIC ACID RECOVERY
03X-5500-S-00761	REPLACEMENT OF NITRIC ACID RECOVERY PAD CONCRETE PAD PLAN VIEW & SECTIONS
03X-5500-S-00762	REPLACEMENT OF NITRIC ACID RECOVERY PAD CONCRETE JOINT SEALS SECTIONS & VIEW
03X-5500-S-00763	REPLACEMENT OF NITRIC ACID RECOVERY PAD SUMPS 7 DRAIN VIEWS & SECTIONS
03X-7000-S-00206	NITRIC ACID RECOVERY AREA EXPANSION FOR CONCENTRATOR FDN PLAN & DETAILS
03X-7000-S-00675	CONCRETE COLLAR FOR PIERS B1 & B2
03X-5500-S-00817	NITRIC ACID RECOVERY TOWER EAST AREA RETENTION DIKE PLAN-SECTIONS-DETAILS
03X-7000-S-00276	OZONATION FACILITIES EXPANSION ALTERATIONS-STEEL& CONCRETE

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDIB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

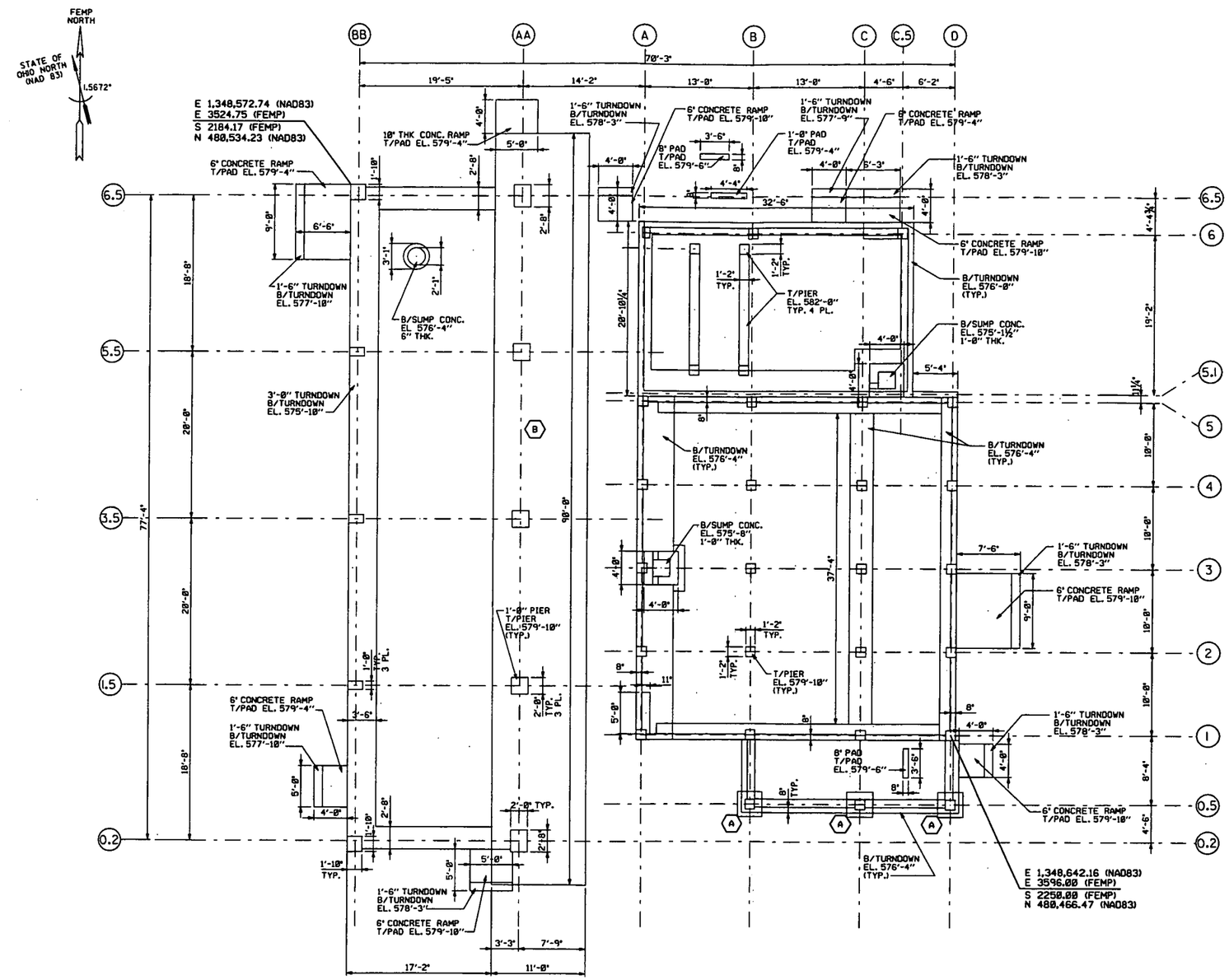
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3D
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16" = 1'-0"	
DRAWN BY J. LUTTRELL		DATE 26DEC01	
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
DRAWING INDEX CODE NO. 03X-1900-S-01049		SHEET NO. S-002	REV. NO. 0

COGNIZANT ENGINEER DATE



FOUNDATION PLAN
SCALE: 3/16"=1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	3'-0"	1'-0"	576'-4"	1'-2"x1'-2"	
(B)	90'-0"	11'-0"	6'-0"	572'-0"	SEE PLAN	

000163

SCALE: 1/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. ALTERNATE COLUMN DESIGNATIONS SHOWN ON SAME REFERENCE DRAWINGS, LISTED BELOW.

--4518

REF DWG NO.	DRAWING TITLE
18D-5900-S-00438	BDN FACILITY UPGRADE FOUNDATION AND SLAB PLAN, SECTIONS & DETAILS
18D-5900-S-00439	BDN FACILITY UPGRADE CONCRETE SECTIONS & DETAILS
18D-1920-S-00287	BIODENITRIFICATION SYSTEM BIOREACTOR FOUNDATION PLAN & SECTIONS
18D-1920-S-00288	BIODENITRIFICATION SYSTEM METHANOL STORAGE FOUNDATION PLAN & SECTIONS
18D-1900-S-00192	WATER POLLUTION CONTROL FOUNDATION AND SLAB PLAN
18D-1900-S-00193	WATER POLLUTION CONTROL SECTIONS & DETAILS
18D-1900-S-00194	WATER POLLUTION CONTROL SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

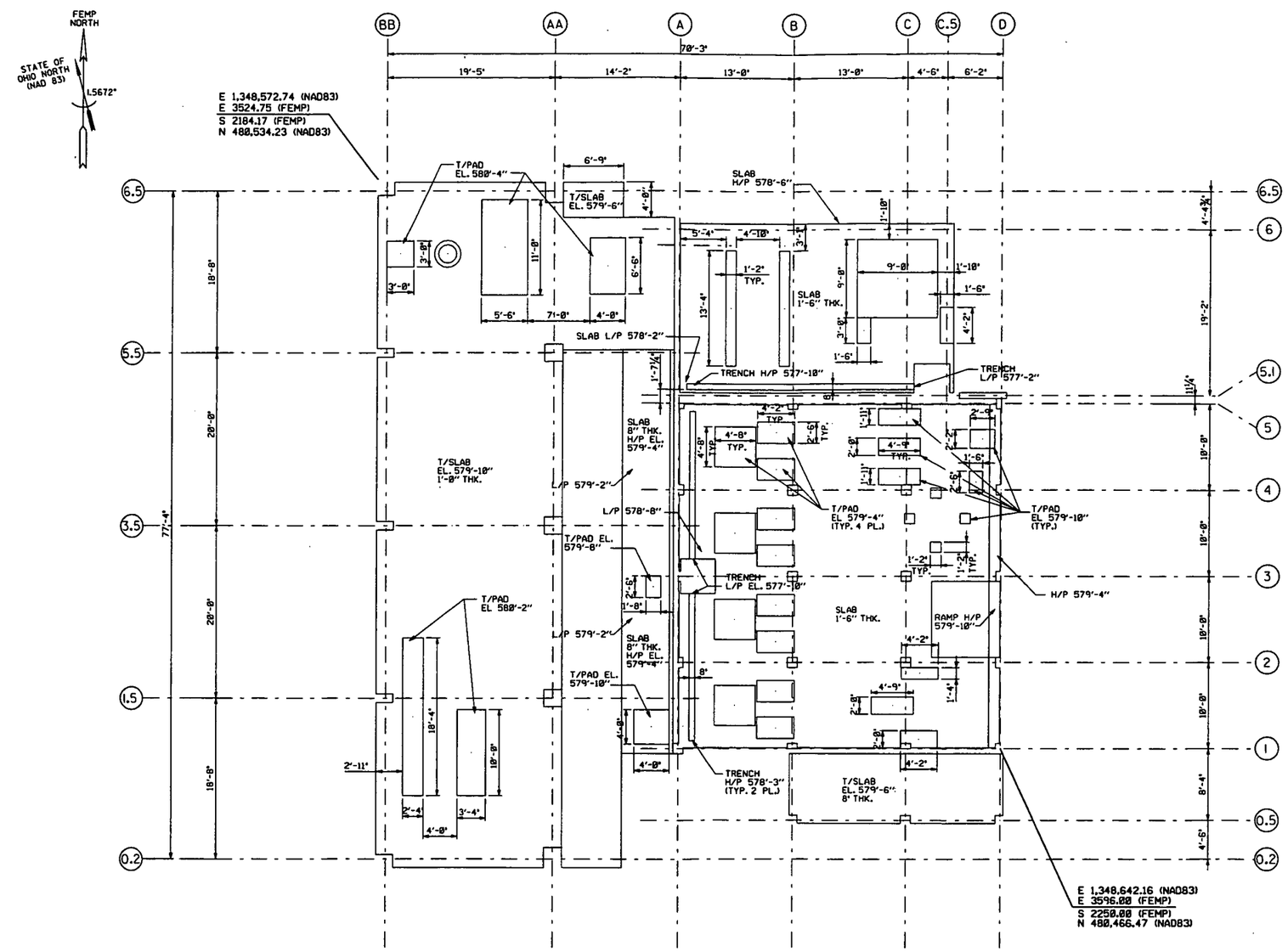
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 18D
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING ATTACHMENTS IN CONFORMED DRAWING ARE NOT CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"	
L-010	N/A	DRAWN BY K. DAVIS	DATE 26DEC01
AES NO. N/A	FOP PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 03JAN02
DRAWING INDEX CODE NO. 18D-1900-S-01416		SHEET NO. S-001	REV. NO. 0

COGNIZANT ENGINEER DATE



SLAB PLAN
SCALE: 3/16"=1'-0"

SCALE: 3/16 INCH= FOOT

000164

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. ALTERNATE COLUMN DESIGNATIONS SHOWN ON SAME REFERENCE DRAWINGS, LISTED BELOW.

4518

REF DWG NO.	DRAWING TITLE
18D-5900-S-00438	BDN FACILITY UPGRADE FOUNDATION AND SLAB PLAN, SECTIONS & DETAILS
18D-5900-S-00439	BDN FACILITY UPGRADE CONCRETE SECTIONS & DETAILS
18D-1920-S-00287	BIODENITRIFICATION SYSTEM BIOREACTOR FOUNDATION PLAN & SECTIONS
18D-1920-S-00288	BIODENITRIFICATION SYSTEM METHCANOL STORAGE FOUNDATION PLAN & SECTIONS
18D-1900-S-00192	WATER POLLUTION CONTROL FOUNDATION AND SLAB PLAN
18D-1900-S-00193	WATER POLLUTION CONTROL SECTIONS & DETAILS
18D-1900-S-00199	WATER POLLUTION CONTROL SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

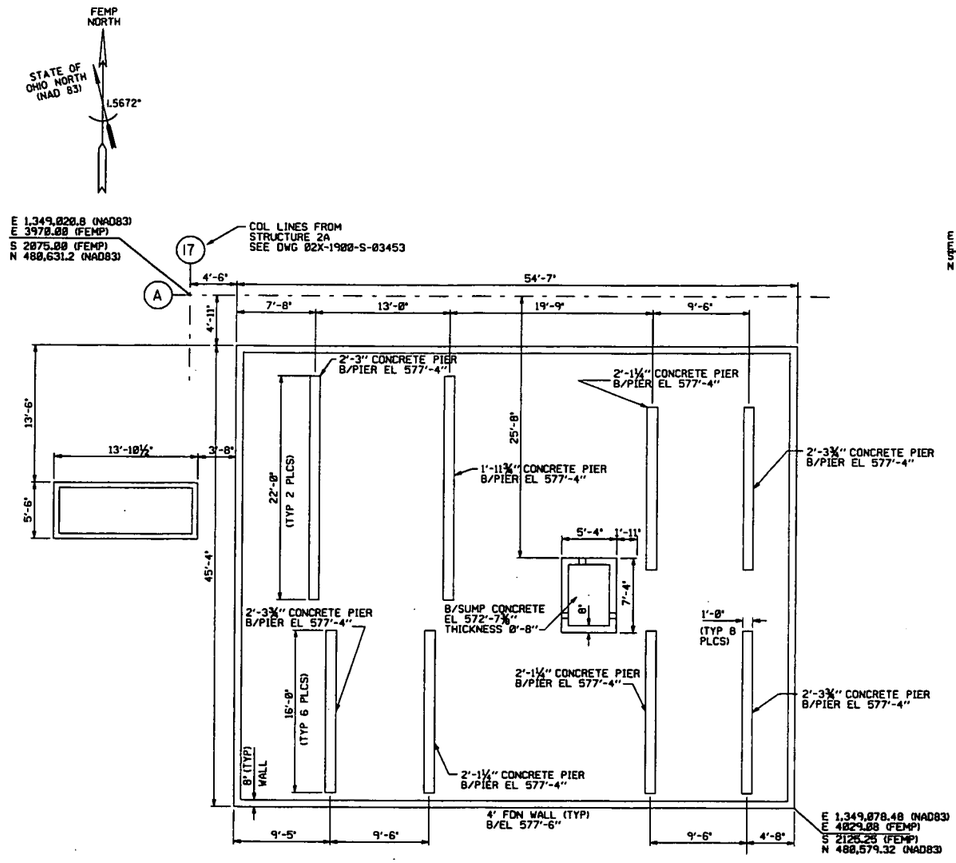
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

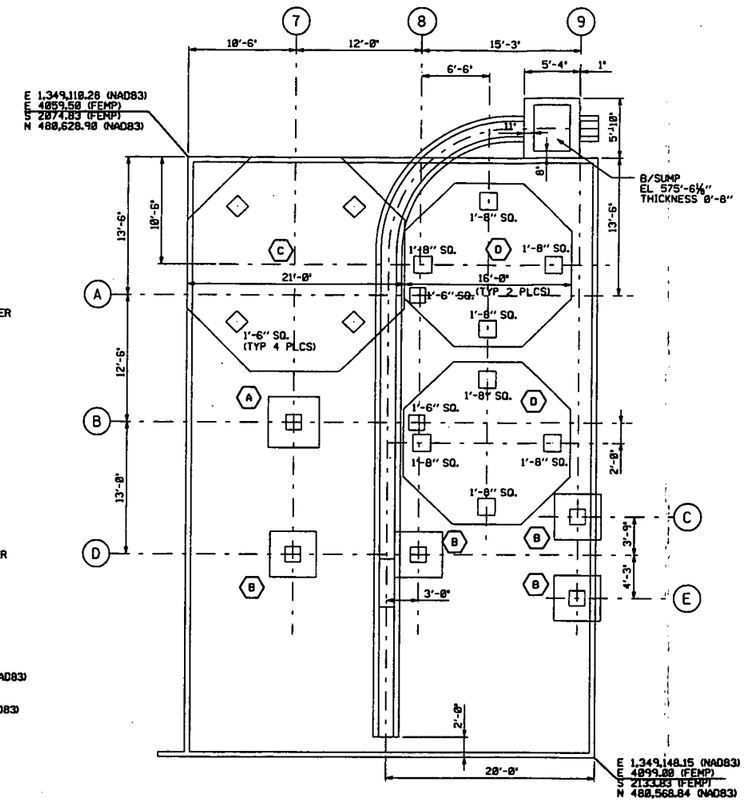
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 18D
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING STRUCTURES AS CONFIRMED BY CONFIGURATION MANAGEMENT CONTROL LEF 02183.
COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16"=1'-0"	
		DRAWN BY K. DAVIS	DATE 26DEC01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 03JAN02
DRAWING INDEX CODE NO. 18D-1900-S-01417		SHEET NO. S-002	REV. NO. 0





FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	5'-0"	5'-0"	1'-0"	575'-6"	1'-6"x1'-6"	
B	4'-6"	4'-6"	1'-0"	576'-6"	1'-6"x1'-6"	
C	SEE PLAN	N/A	1'-6"	576'-0"	SEE PLAN	
D	SEE PLAN	N/A	1'-6"	576'-0"	SEE PLAN	

FOUNDATION PLAN
SCALE: 3/16"=1'-0"

000165

SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02C-7000-S-00855	OK LIQUOR STORAGE CONC PLAN & MISC STEEL
02C-7000-S-00856	OK LIQUOR STORAGE CONC SECT'S & DET'LS SHEET NO.1
02C-7000-S-00859	OK LIQUOR STORAGE CONC SECTS & DETILS SHEET NO.2
02C-7000-S-00892	ORE REFINERY-DENITRATION AREA RELOCATED BACK-UP FILTERS CONCRETE FOUNDATION
18X-3900-S-00825	GENERAL SUMP MISCELLANEOUS FOUNDATIONS
18X-3900-S-00796	GENERAL SUMP EQUIPMENT FOUNDATIONS SH.1
18X-3900-S-00792	GENERAL SUMP FOUDATION LOCATION PLAN SHEET 1
18X-3900-S-00797	GENERAL SUMP EQUIPMENT FOUNDATIONS SH.2
18X-3900-S-00832	GENERAL SUMP PLATFORM FOUNDATIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY INITIALS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

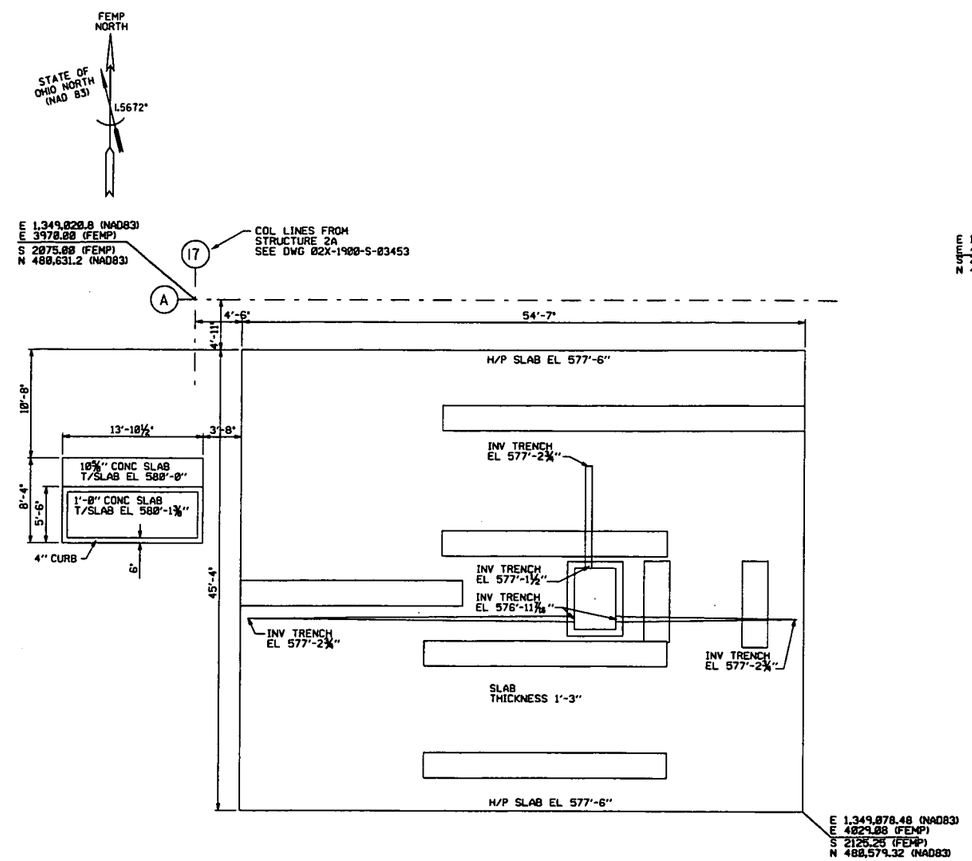
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10, 11 AND 13 FOUNDATION PLAN

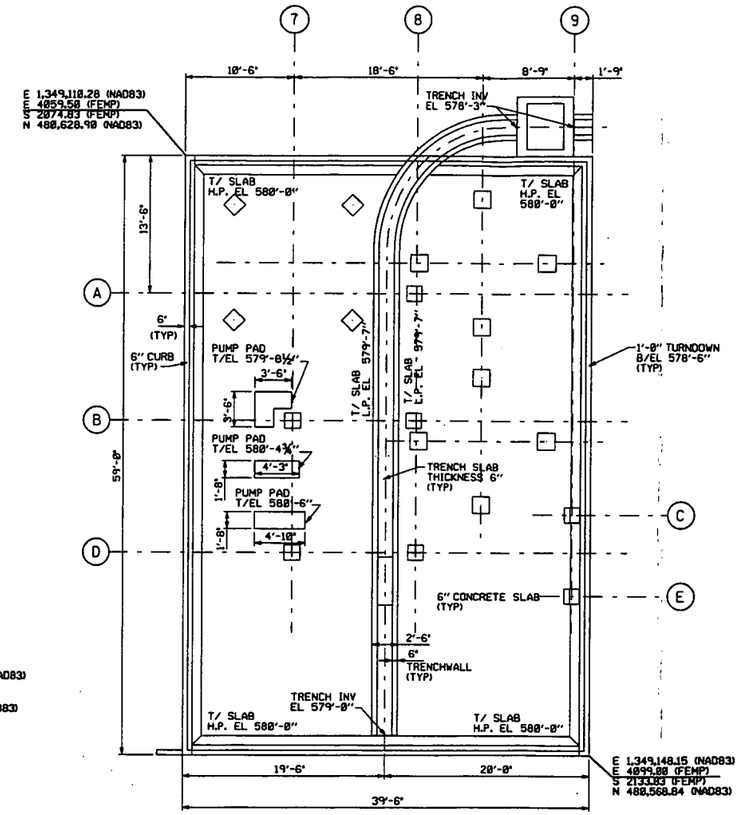
CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING ATTACHED AS CONTROLLED COPIES (ALL REVISIONS TO BE CONTROLLED VIA CHANGE MANAGEMENT CONTROL LEVEL DETAIL)

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16"=1'-0"	
DRAWN BY: J. ALCORN			DATE: 28DEC01
TECHNICAL LEAD: J. ALCORN			DATE: 25DEC01
CHECKED BY: J. ALCORN			DATE: 05JAN02
RES NO.	FOF PROJECT NO.		
N/A	20810		
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
18X-1900-S-01408		S-001	0

COGNIZANT ENGINEER — DATE



SLAB PLAN
SCALE: 3/16"=1'-0"



000166

SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02C-7000-S-00855	OK LIQUOR STORAGE CONC. PLAN & MISC STEEL
02C-7000-S-00856	OK LIQUOR STORAGE CONC SECT'S & DET'LS. SHEET NO.1
02C-7000-S-00859	OK LIQUOR STORAGE CONC. SECT'S & DET'LS. SHEET NO.2
02C-7000-S-00892	ORE REFINERY-DENITRATION AREA RELOCATED BACK-UP FILTERS CONCRETE FOUNDATION
18X-3900-S-00825	GENERAL SUMP MISCELLANEOUS FOUNDATIONS
18X-3900-S-00796	GENERAL SUMP EQUIPMENT FOUNDATIONS SH.1
18X-3900-S-00792	GENERAL SUMP FOUDATION LOCATION PLAN SHEET 1
18X-3900-S-00797	GENERAL SUMP EQUIPMENT FOUNDATIONS SH.2
18X-3900-S-00832	GENERAL SUMP PLATFORM FOUNDATIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
OK LIQUOR STORAGE AREA AND CONTAINMENT AREA FOR TANKS 10, 11 AND 13
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING — YES / NO

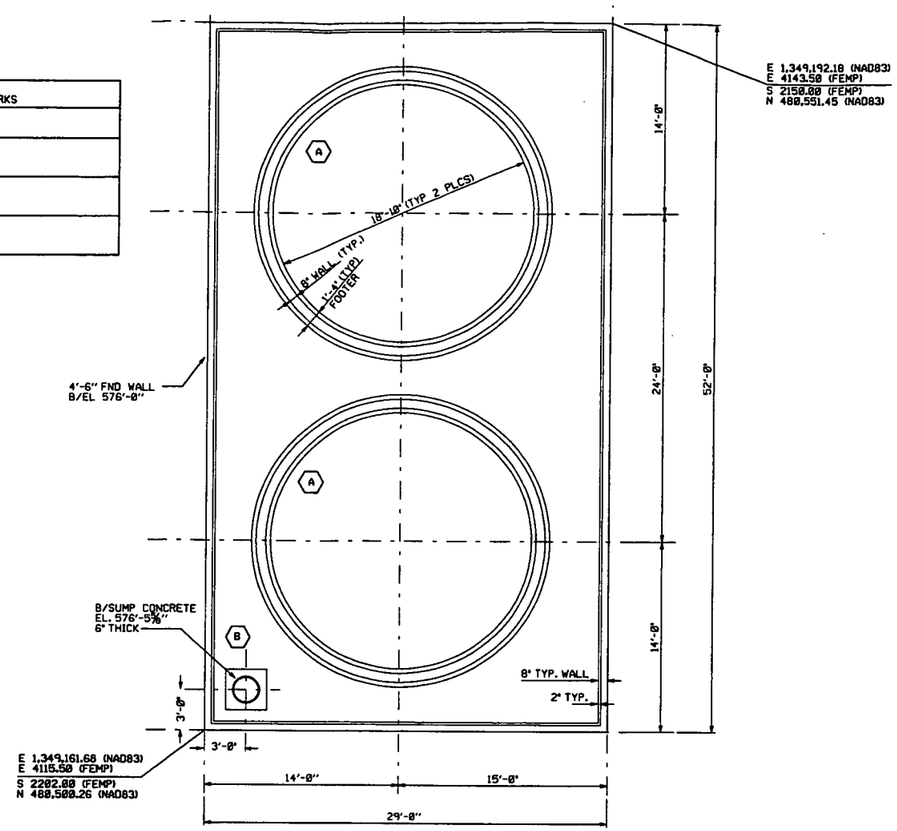
EXISTING ATTACHMENTS CONTAINED IN CONTROLLED DRAWING MANAGEMENT SYSTEM. SEE ATTACH.

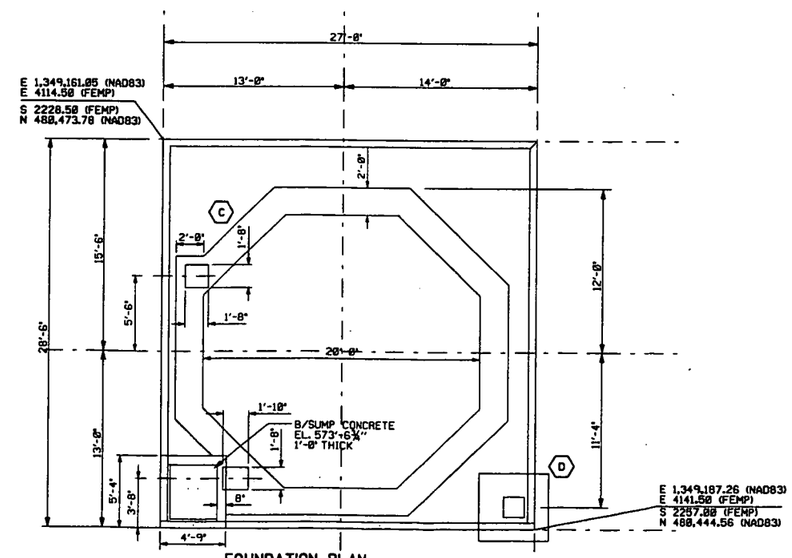
COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16"=1'-0"	
		DRAWN BY J. ALCORN	DATE 26DEC01
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 07JAN02
DRAWING INDEX CODE NO. 18X-1900-S-01409		SHEET NO. S-002	REV. NO. 0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	SEE PLAN		0'-6"	577'-6"	20'-10" DIA X 0'-8"	
B	3'-0"	3'-0"	0'-6"	576'-11⅝"	N/A	
C	SEE PLAN		1'-6"	575'-3"	SEE PLAN	
D	5'-0"	5'-0"	1'-6"	574'-9"	1'-6" X 1'-6"	





FOUNDATION PLAN
SCALE: ¼" - 1'-0"

000167

0' 2' 4' 6' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
18X-5500-S-00084	PLANT 3 GENERAL SUMP AREA CONCRETE FOUNDATIONS & PAD PLAN SECTIONS-DET.
18X-3900-S-00824	TANK 9 CONTAINMENT AREA PLAN AND DETAILS
18X-3900-S-00796	GENERAL SUMP EQUIPMENT FOUNDATIONS SH. 1
18X-3900-S-00799	GENERAL SUMP PIPE SUPPORT DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

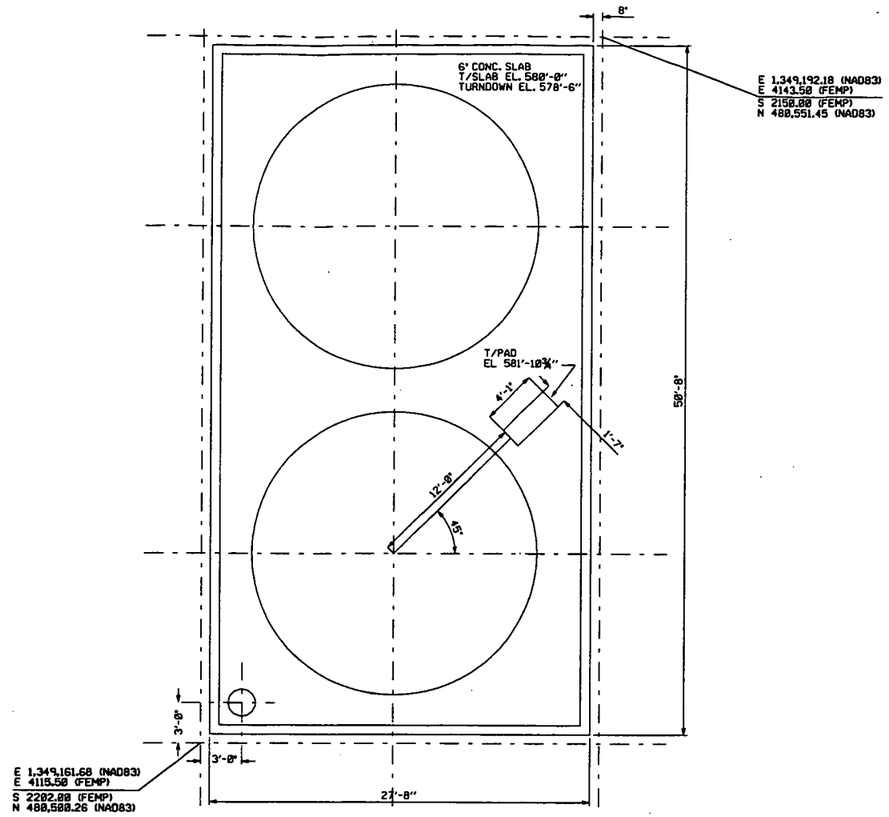
DRAWING TITLE
CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9
FOUNDATION PLAN

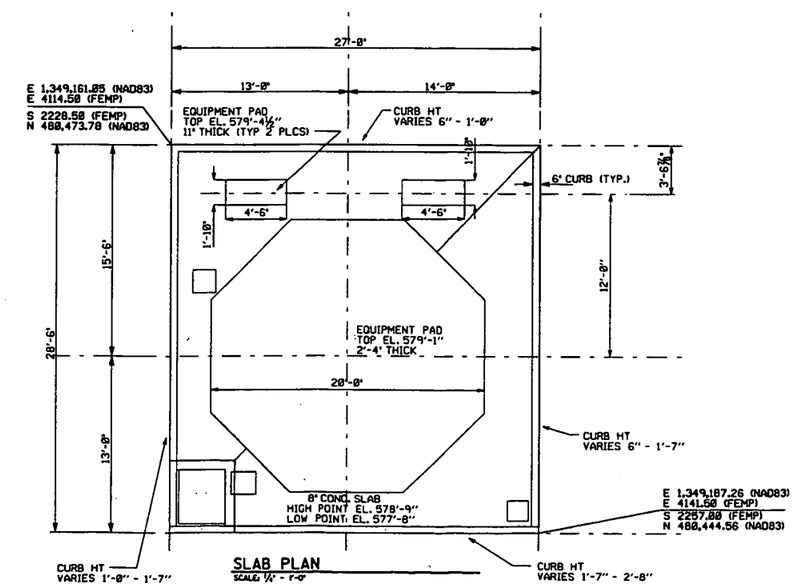
CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTRIBUTES ARE CONSISTENT WITH CONFIGURATION MANAGEMENT CONTROL LEVEL NOTED.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	¼" - 1'-0"
RES NO.	FDF PROJECT NO.	DRAWN BY J. LUTTRELL — DATE 21DEC01
N/A	20810	TECHNICAL LEAD J. ALCORN — DATE 26DEC01
		CHECKED BY J. ALCORN — DATE 07JAN02
DRAWING INDEX CODE NO.		SHEET NO. S-001 — REV. NO. 0
18X-1900-S-01410		





SLAB PLAN
SCALE: ¼" - 1'-0"

000168

0' 2' 4' 8' 12'
SCALE: 1/4 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
18X-5500-S-00084	PLANT 3 GENERAL SUMP AREA CONCRETE FOUNDATIONS & PAD PLAN SECTIONS-DET.
18X-3900-S-00824	TANK 9 CONTAINMENT AREA PLAN AND DETAILS
18X-3900-S-00796	GENERAL SUMP EQUIPMENT FOUNDATIONS SH. 1
18X-3900-S-00799	GENERAL SUMP PIPE SUPPORT DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	BCM BY	DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS		25JAN02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

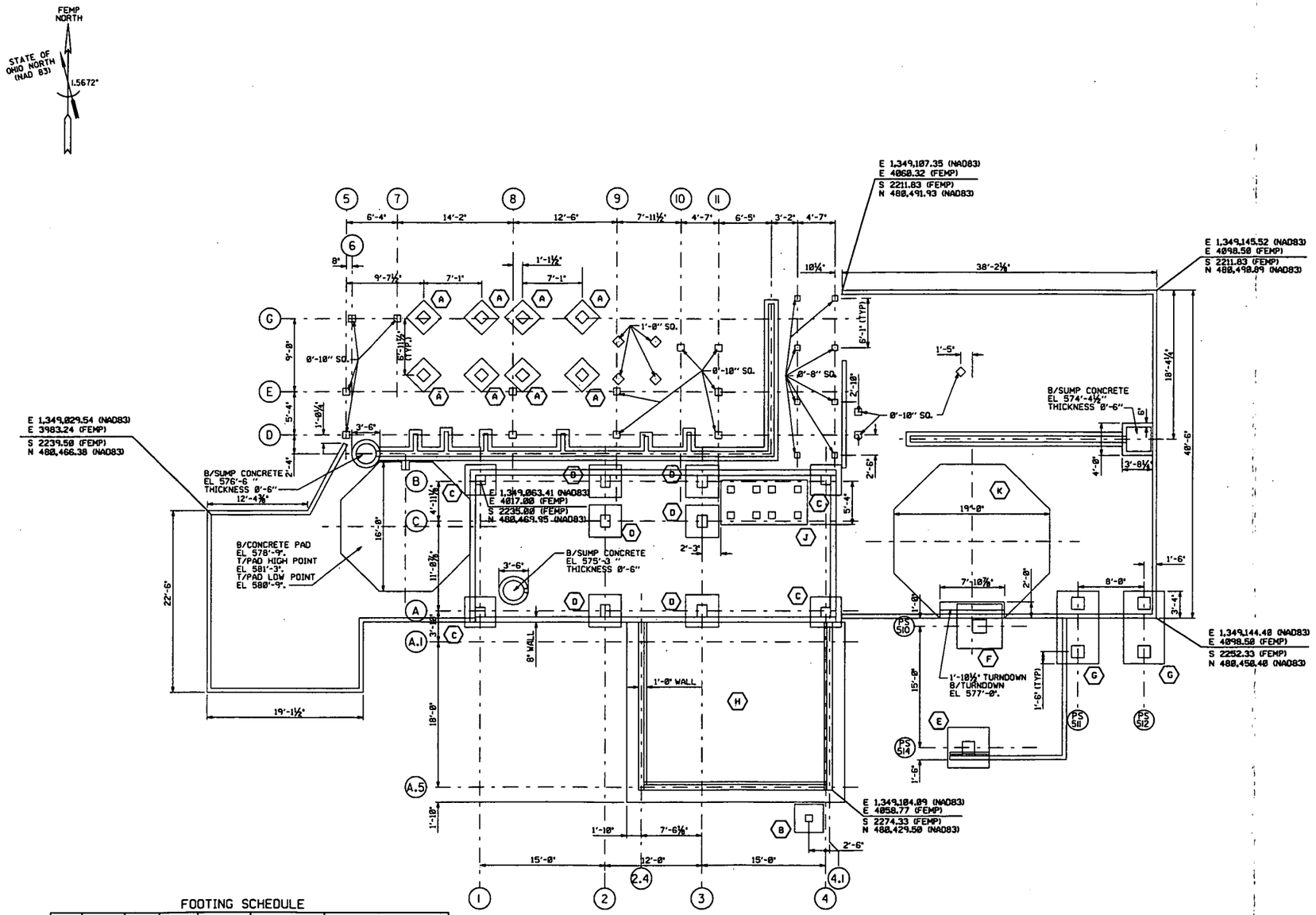
DRAWING TITLE
CONTAINMENT AREA FOR TANKS 8 AND 14 AND CONTAINMENT AREA FOR TANK 9 SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTRIBUTES AS CONTAINED HEREIN ARE THE SUBJECT OF CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	¼" - 1'-0"	
		DRAWN BY J. LUTTRELL	DATE 21DEC01
RES NO.	FOR PROJECT NO.	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
N/A	20810	CHECKED BY J. ALCORN	DATE 07JAN02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
18X-1900-S-01411		S-002	0

COGNIZANT ENGINEER DATE



FOUNDATION PLAN

SCALE: 3/16"=1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	-	-	1'-6"	572'-0"	1'-2" X 1'-2"	ROTATED (3'-0" SQ)
B	3'-6"	3'-6"	1'-0"	577'-6"	0'-10" X 0'-10"	
C	3'-9"	3'-9"	1'-0"	572'-0"	1'-2" X 1'-2"	
D	4'-0"	4'-0"	1'-6"	572'-0"	1'-2" X 1'-6"	
E	5'-0"	5'-0"	1'-6"	577'-9"	1'-6" X 1'-6"	
F	5'-6"	5'-6"	1'-6"	574'-0"	1'-8" X 1'-8"	
G	9'-0"	5'-0"	1'-6"	576'-6"	1'-6" X 1'-6"	
H	22'-6"	26'-0"	1'-6"	577'-0"	N/A	
J	10'-6"	5'-6"	1'-6"	572'-0"	0'-10" X 0'-10"	8 TOTAL PIERS
K	SEE PLAN		1'-10½"	578'-10½"	N/A	

000169

SCALE: 3/16 INCH= 1 FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00863	CONCRETE FOUNDATION PLAN
02G-7000-S-00689	REFINERY SUMP COLLECTION SYSTEM C1-3 REFINERY SUMP AREA - WEST END PLAN & SECTIONS
02G-7000-S-00708	REFINERY SUMP AREA - EAST END PLAN & SECTIONS
18X-3900-S-00798	GENERAL SUMP MISCELLANEOUS DETAILS
02X-1450-S-00864	FOUNDATION PLAN & SECTIONS REFINERY SUMP COLLECTION SYSTEM C1-3
18X-3900-S-00795	GENERAL SUMP CONTROL BUILDING FOUNDATION AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ACRS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

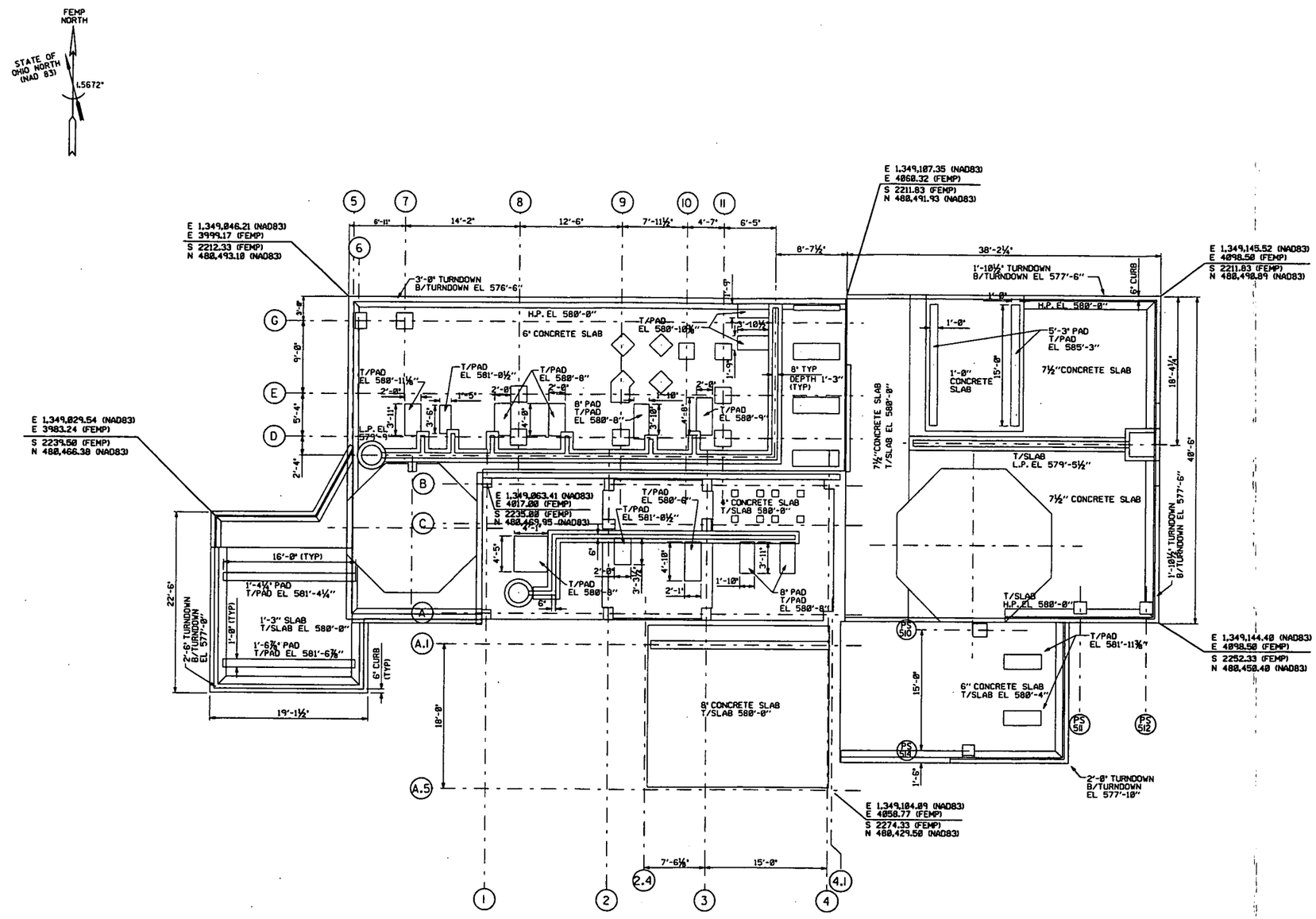
DRAWING TITLE
STRUCTURE 3H AND 2B
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

EXISTING STRUCTURES ON CONTROLLED DRAWINGS MAY NOT REFLECT CONFIGURATION MANAGEMENT CHANGES. SEE DETAIL.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"	
L-010	N/A	DRAWN BY J. ALCORN	DATE 20DEC01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 20DEC01
		CHECKED BY J. ALCORN	DATE 05JAN02
DRAWING INDEX CODE NO. 18X-1900-S-01412		SHEET NO. S-001	REV. NO. 0



SLAB PLAN
SCALE: 3/16"=1'-0"

000170

SCALE: 3/16 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02X-1450-S-00063	CONCRETE FOUNDATION PLAN
02G-7000-S-00689	REFINERY SUMP COLLECTION SYSTEM C1-3
02G-7000-S-00708	REFINERY SUMP AREA - WEST END PLAN & SECTIONS
18X-3900-S-00798	REFINERY SUMP AREA - EAST END PLAN & SECTIONS
02X-1450-S-00064	GENERAL SUMP MISCELLANEOUS DETAILS
18X-3900-S-00795	FOUNDATION PLAN & SECTIONS REFINERY SUMP COLLECTION SYSTEM C1-3
	GENERAL SUMP CONTROL BUILDING FOUNDATION AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	NCW BY	DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SOS		25JAN02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

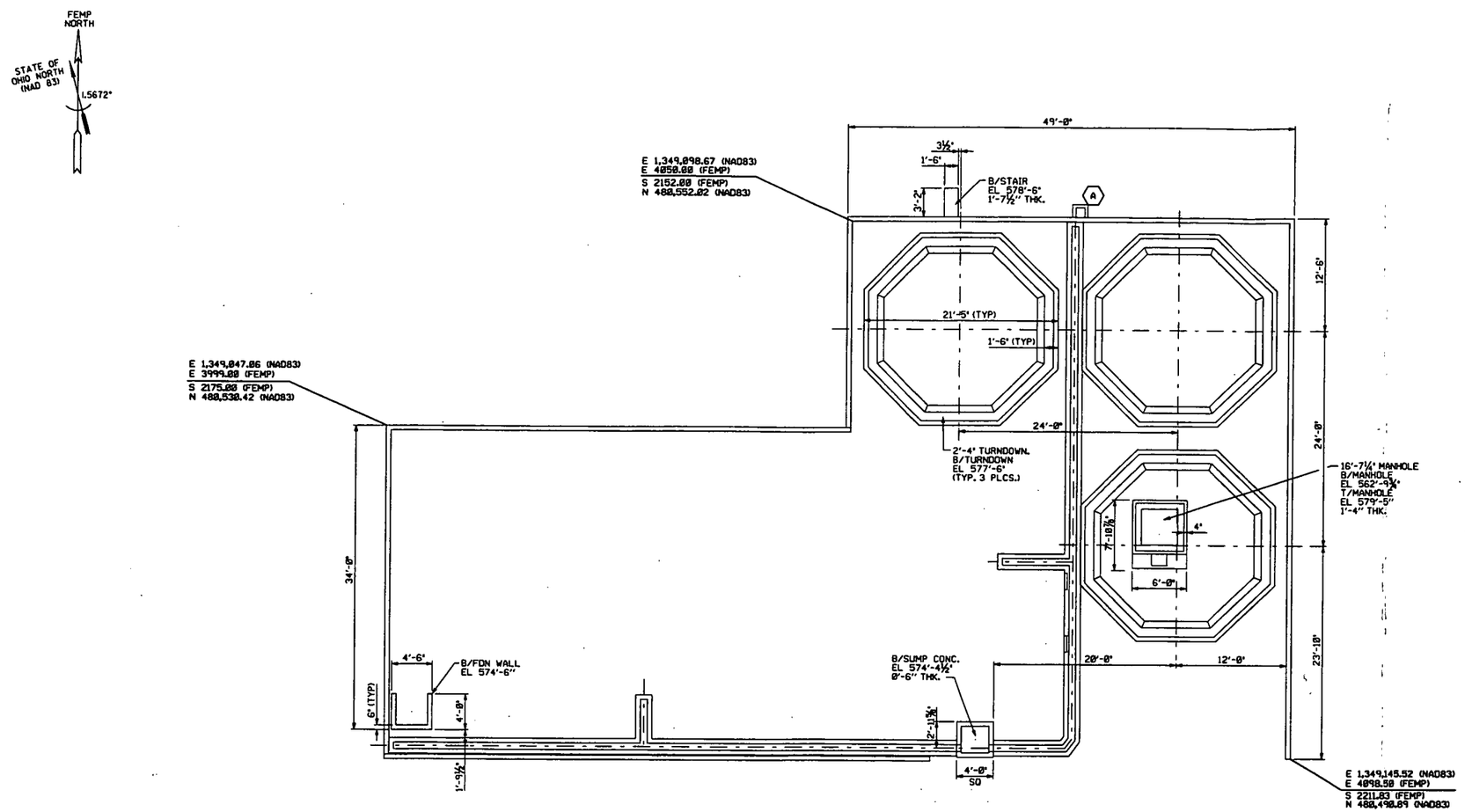
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 3H AND 2B
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"	
L-010	N/A	DRAWN BY J. ALCORN	DATE 21DEC01
RES NO. N/A	FOR PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 05JAN02
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 18X-1900-S-01413	SHEET NO. S-002 REV. NO. 0



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	1'-5"	1'-8"	0'-9"	577'-6"	1'-1"x1'-0"	

FOUNDATION PLAN

SCALE: 3/16"=1'-0"

000171

SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
18X-7000-S-00035	GENERAL SUMP AREA TANK FDN'S PLAN & DETAILS
18X-7000-S-00036	GENERAL SUMP AREA PLAN - SECTIONS & DETAILS
18X-1450-S-00001	CONCRETE FOUNDATION PLAN GENERAL SUMP
22X-1450-S-00121	MANHOLE #34 & #500 STORM SEWER SYSTEM
18X-3900-S-00799	GENERAL SUMP PIPE SUPPORT DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 18B
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING — TEST / DEC

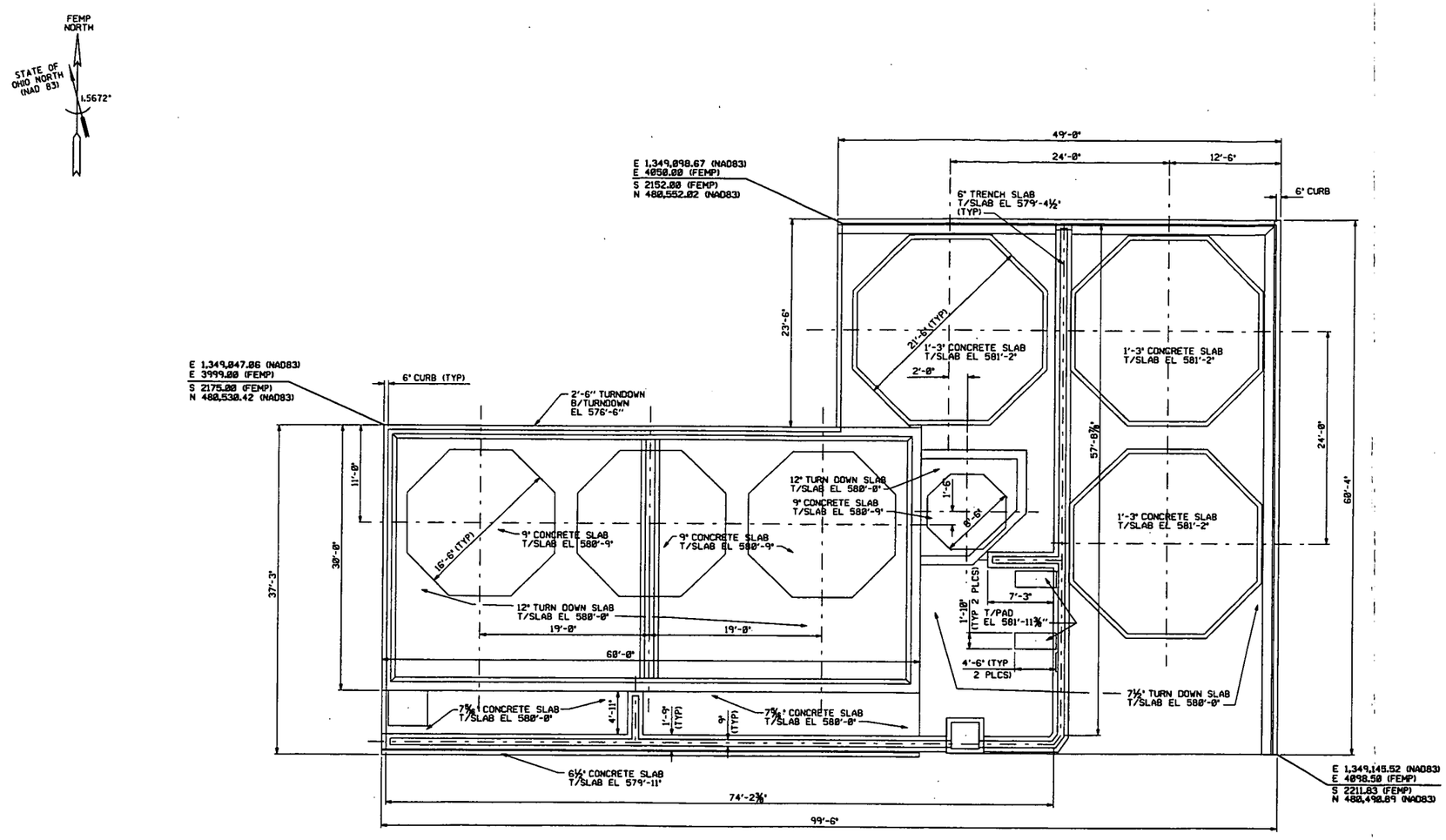
EXISTING ATTRIBUTES AS CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL. LEV NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
L-010	N/A	3/16"=1'-0"

RES NO.	FOR PROJECT NO.	DRAWN BY	DATE
N/A	20810	G. THURMAN	21DEC01
		TECHNICAL LEAD J. ALCORN	26DEC01
		CHECKED BY J. ALCORN	04JAN02

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
18X-1900-S-01414	S-001	0



SLAB PLAN
SCALE: 3/16"=1'-0"

000172

0' 3' 6' 12' 18'
SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
18X-7000-S-00035	GENERAL SUMP AREA TANK FDNS PLAN & DETAILS
18X-7000-S-00036	GENERAL SUMP AREA PLAN - SECTIONS & DETAILS
18X-1450-S-00001	CONCRETE FOUNDATION PLAN GENERAL SUMP
22X-1450-S-00121	MANHOLE #34 & #580 STORM SEWER SYSTEM
18X-3900-S-00799	GENERAL SUMP PIPE SUPPORT DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

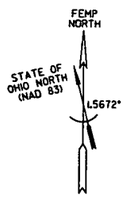
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

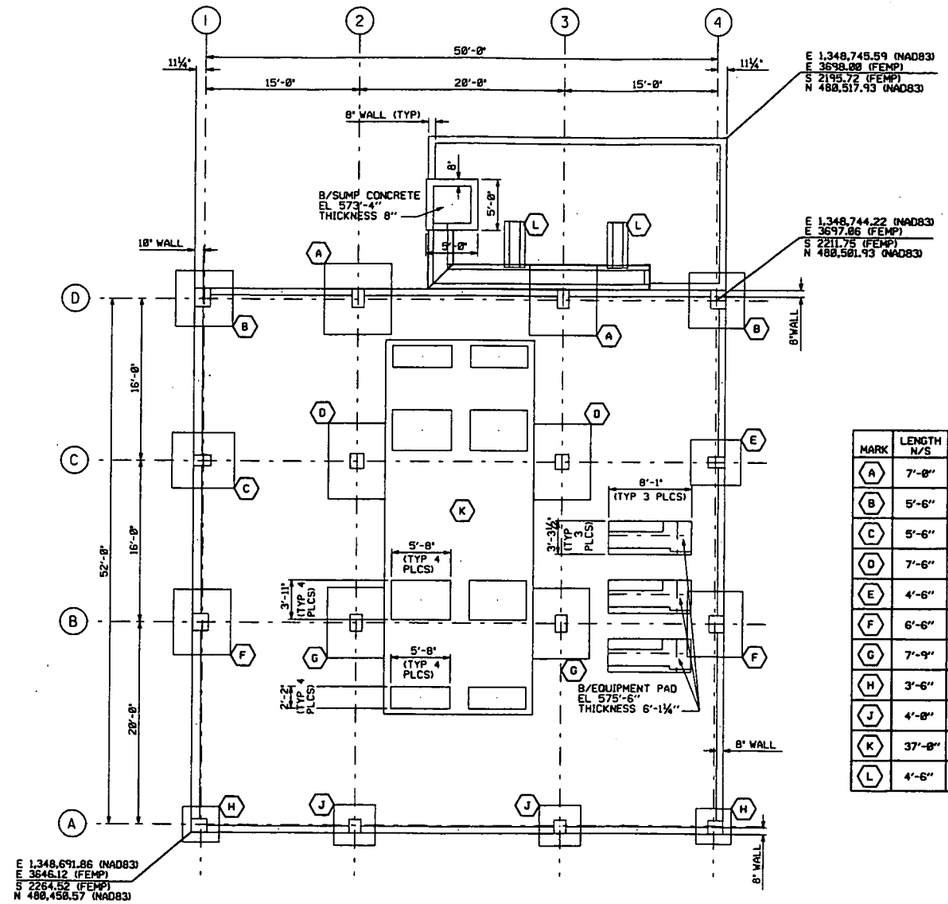
DRAWING TITLE
STRUCTURE 18B
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
USE LATEST REVISION OF CONTROLLED DOCUMENT MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16"=1'-0"
L-010	N/A	DRAWN BY G. THURMAN DATE 21DEC01
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN DATE 26DEC01
		CHECKED BY J. ALCORN DATE 04JAN02
DRAWING INDEX CODE NO. 18X-1900-S-01415		SHEET NO. S-002 REV. NO. 0





FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	7'-0"	6'-6"	1'-3"	575'-6"	1'-10"x1'-2"	
B	5'-6"	5'-6"	1'-3"	575'-6"	1'-10"x1'-4"	
C	5'-6"	6'-0"	1'-3"	575'-6"	1'-1"x1'-6"	
D	7'-6"	5'-6"	1'-3"	575'-6"	1'-6"x1'-4"	
E	4'-6"	5'-0"	1'-3"	575'-6"	1'-1"x1'-8"	
F	6'-6"	5'-6"	1'-3"	575'-6"	1'-8"x1'-4"	
G	7'-9"	5'-6"	1'-3"	575'-6"	1'-8"x1'-2"	
H	3'-6"	3'-6"	1'-3"	575'-6"	1'-4"x1'-6"	
J	4'-0"	4'-0"	1'-3"	575'-6"	1'-4"x1'-2"	
K	37'-0"	14'-6"	1'-6"	575'-6"	SEE PLAN	SPREAD FOOTING
L	4'-6"	2'-0"	1'-0"	575'-6"	4'-6"x1'-0"	STRIP FOOTING

000173

0' 3' 6' 12' 16'
SCALE: 3/16 INCH= FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
02F-7000-S-00964	INCINERATOR BUILDING FOUNDATION PLAN
02F-7000-S-00965	INCINERATOR BUILDING 1ST FLOOR PLAN @ EL. 588'-0"
02F-7000-S-00966	ORE REFINERY - CALCINER BLDG CONCR SECTIONS & DETAILS
02F-7000-S-01001	INCINERATOR BLDG - NORTH PAD SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN82	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

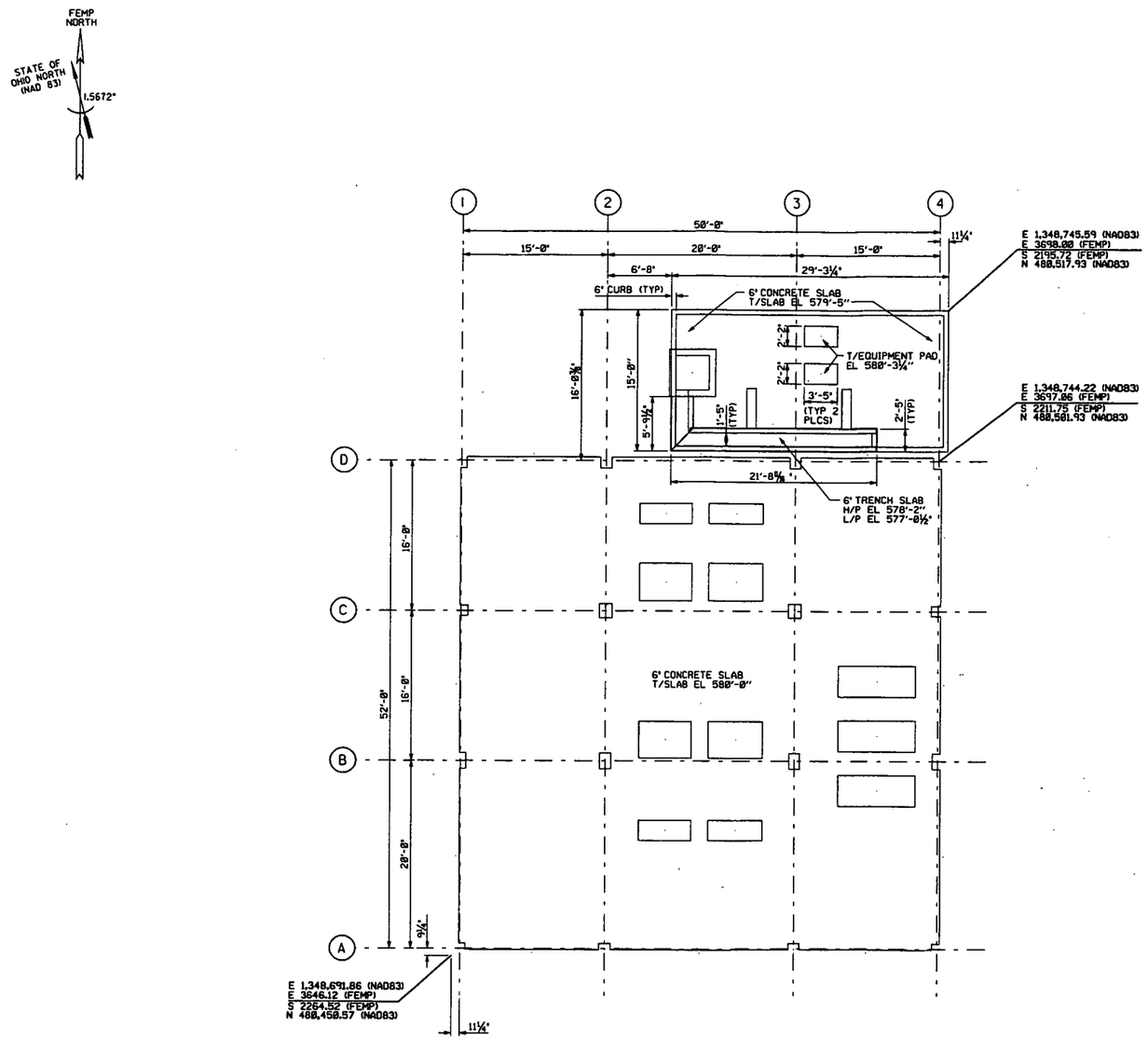
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 39A
FOUNDATION PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
L-010	N/A	3/16" = 1'-0"	
		DRAWN BY G. THURMAN	DATE 21DEC81
RES NO. N/A	FOF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 25DEC81
		CHECKED BY J. ALCORN	DATE 04JAN82
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 39X-1900-S-00073	SHEET NO. S-001 / REV. NO. 0



SLAB PLAN
SCALE: 3/16" = 1'-0"

000174

SCALE: 3/16 INCH FOOT

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION REFERENCE DRAWINGS LISTED BELOW AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

- 4518

REF DWG NO.	DRAWING TITLE
02F-7000-S-00964	INCINERATOR BUILDING FOUNDATION PLAN
02F-7000-S-00965	INCINERATOR BUILDING 1ST FLOOR PLAN @ EL 580'-0"
02F-7000-S-00966	ORE REFINERY - CALCINER BLDG CONCR. SECTIONS & DETAILS
02F-7000-S-01001	INCINERATOR BLDG - NORTH PAD. SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PW	RDW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	SDS 25JAN02	

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

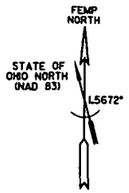
THIS DRAWING PREPARED BY LOCKWOOD GREENE TECHNOLOGIES

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
STRUCTURE 39A
SLAB PLAN

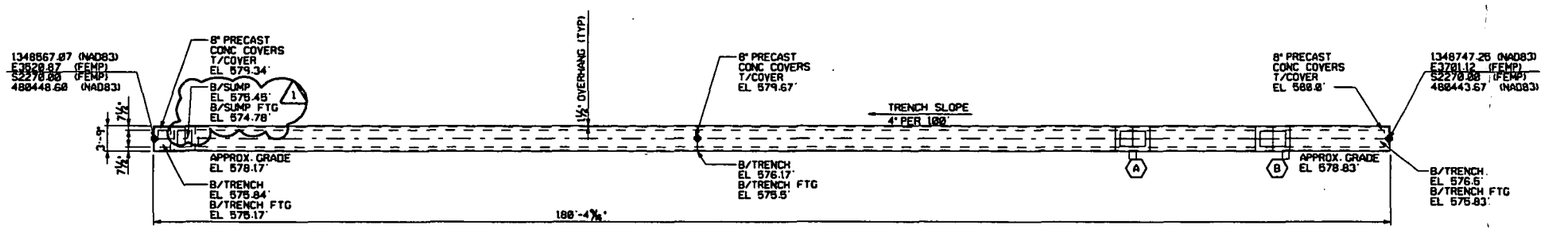
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO. L-010	OPTIONAL NO. N/A	SCALE 3/16" = 1'-0"	
		DRAWN BY G. THURMAN	DATE 21DEC01
RES NO. N/A	FDF PROJECT NO. 20810	TECHNICAL LEAD J. ALCORN	DATE 26DEC01
		CHECKED BY J. ALCORN	DATE 04JAN02
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 39X-1900-S-00074	SHEET NO. S-002 / REV. NO. 0



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	1'-4"	1'-0"	5'-1¾"	575'-0¾"	N/A	PIPE SUPPORT
(B)	1'-4"	1'-0"	5'-1¾"	575'-1¾"	N/A	PIPE SUPPORT



FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ⅛"=1'-0"

000175

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK65-2.

- 4518

REF DWG NO.	DRAWING TITLE
34X-3115-S-00078	SLURRY TRENCH
75D-5500-G-00018	GRID 19 - EXISTING SITE PLAN
02F-7000-S-01088	CALCINER BLDG - OUTSIDE PIPE SUPPORTS
24A-7000-G-00038	CALCINER BLDG - ROADS & WALKS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
1	REVISED LEADER FOR SUMP NOTE, ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 02/28/92	KLR 02/28/92
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/92	KLR 01/29/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 19 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
K65 TRENCH
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — FOR INFO / REF

EXISTING ATTACHED AS CONTENT SCANNED AS WELL DESIGN, CONTENT ACCEPTED BY MANAGEMENT CONTROL OF WORK.

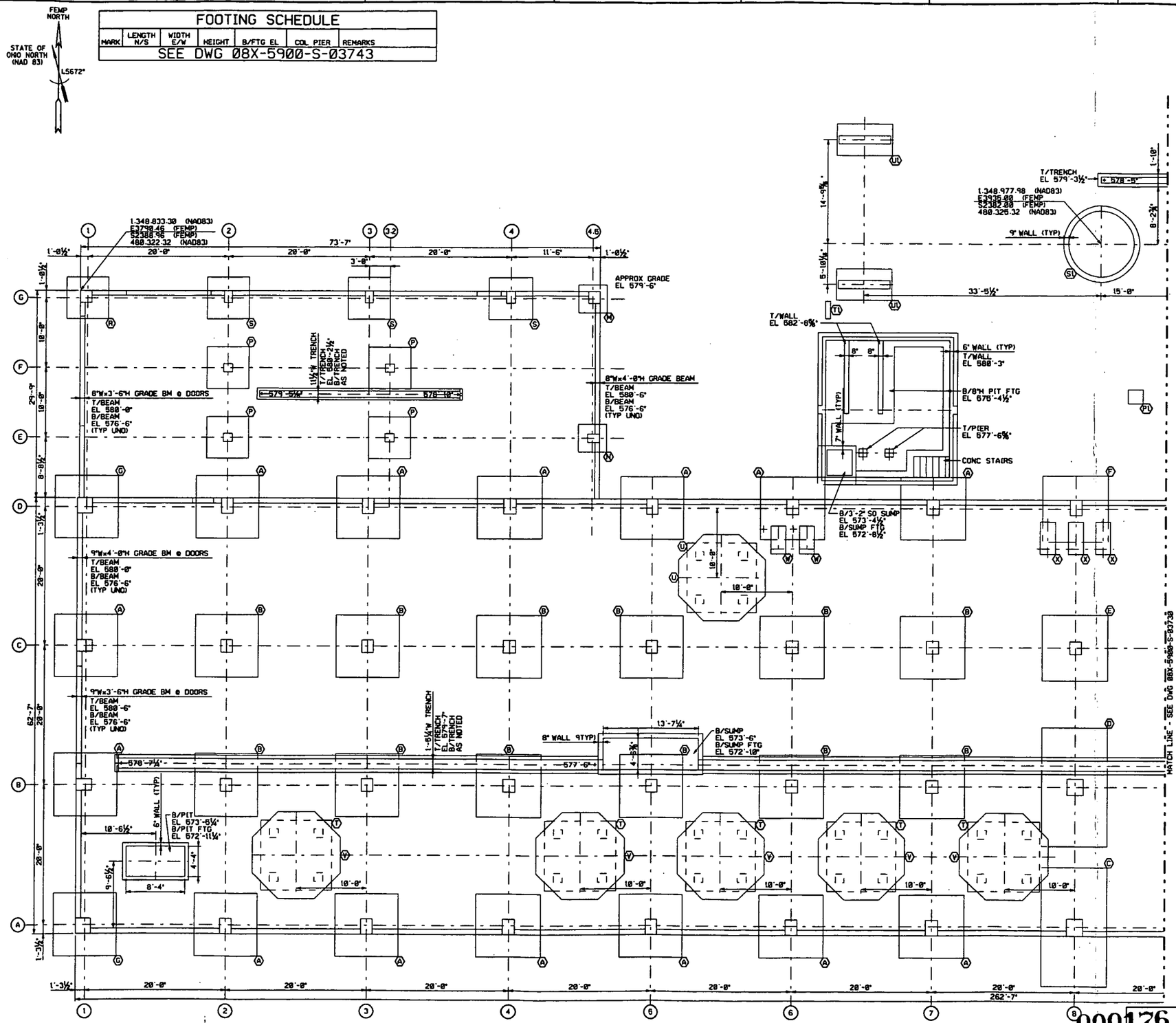
COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY: K.L. RABBITT	DATE: 12/05/91
SES NO. 4327	FEF PROJECT NO. 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 12/19/91
DRAWING INDEX CODE NO. 34X-5900-S-00151		SHEET NO. S0001	REV. NO. 1

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
SEE DWG 08X-5900-S-03743						



FOUNDATION PLAN - WEST

000176

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8A-1.

4518

REF DWG NO.	DRAWING TITLE
08A-5500-S-01426	FOUNDATIONS & PAD FOR FILTER FEED TANK
08A-5500-S-01442	FOUNDATIONS & PLATFORM FOR SO2 STORAGE TANK PLAN, ELEV, SECTIONS & DETAILS
08A-5500-S-01780	CURBED ACID BRICK FLOOR AREA GENERAL ARRANGEMENT PLAN & SECTIONS
08D-5500-S-01482	STRUCTURAL AND CONCRETE FOUNDATION
08X-1450-S-00002	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "A"
08X-1450-S-00003	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "B"
08X-1450-S-00005	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "C"
08X-1450-S-00006	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00007	CONCRETE EQUIPMENT FOUNDATIONS-AREA A, B, & C SCRAP PLANT
08X-1450-S-00008	CONCRETE DETAILS-EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00009	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00024	CONCRETE FOUNDATION PLAN AND DETAILS SCRAP PLANT
08X-1450-S-00025	CONCRETE ELEVATOR PIT AND LOADING PLATFORM SCRAP PLANT
08X-3900-S-02824	PLANT 8 ELEVATOR DEMOLITION PLAN
08X-5500-P-01129	UAP, PROCESS MISCELLANEOUS PIPING DETAILS
08X-5500-S-01090	UAP, PROCESS CONCRETE FOUNDATIONS LAYOUT
08X-5500-S-01091	UAP, PROCESS CONCRETE FOUNDATIONS DETAILS
08X-5500-S-01268	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - SECTIONS & DETAILS
08X-5500-S-01269	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - DETAILS
08X-5500-S-01331	CONCRETE PAD & TRENCH PLAN, SECTIONS & DETAILS
08X-5500-S-01573	SURFACE DRAINAGE IMPROVEMENT AREA PLAN & SECTION
08X-5500-S-01588	RECOVERY FACILITY BOX FURNACE-PROD. DRUM PIT & SUMP DETAILS
08X-5500-S-02383	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP PLAN
08X-5500-S-02384	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE SECTIONS & DETAILS
08X-5500-S-02394	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP DETAILS
08X-5945-S-00419	SCRAP PLANT EXPANSION PLANT EFFLUENT SURGE FOUNDATIONS
FPF-3043-C43-538	HATCH PLAN OF OIL HYDRAULIC FREIGHT ELEVATOR
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74D, & 88 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74D, & 88 - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03743	BUILDING 8A FOOTING SCHEDULE
08X-5900-S-03730	BUILDING 8A FOUNDATION PLAN - EAST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	IL	PM	REVW BY / DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/25/92	LMH 10/26/92

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

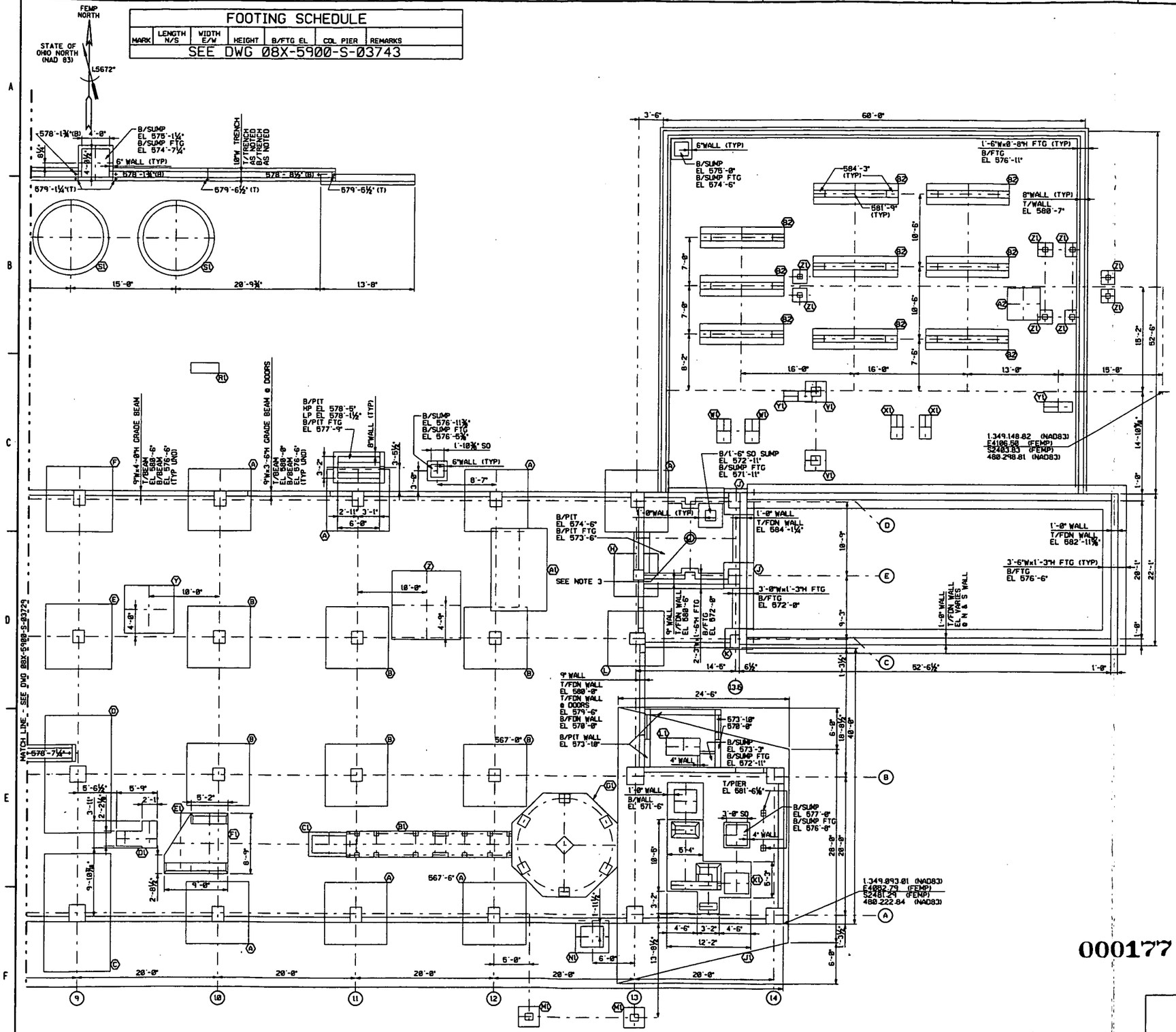
DRAWING TITLE
BUILDING 8A
FOUNDATION PLAN - WEST
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 10/25/92
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 08X-5900-S-03729	SHEET NO. S0001 / REV. NO. 0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
SEE DWG 08X-5900-S-03743						



000177

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8A-1.
3. 20" DIA CASING WITH 12" DIA HYDRULIC RAM, BOTTOM OF CASING EL 553'-0" WITH BOTTOM OF HYDRULIC RAM EL 553'-6".

4518

REF DWG NO.	DRAWING TITLE
08A-5500-S-01426	FOUNDATIONS & PAD FOR FILTER FEED TANK
08A-5500-S-01442	FOUNDATIONS & PLATFORM FOR SO2 STORAGE TANK PLAN, ELEV, SECTIONS & DETAILS
08A-5500-S-01780	CURBED ACID BRICK FLOOR AREA GENERAL ARRANGEMENT PLAN & SECTIONS
08D-5500-S-01482	STRUCTURAL AND CONCRETE FOUNDATION
08X-1450-S-00002	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "A"
08X-1450-S-00003	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "B"
08X-1450-S-00005	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "C"
08X-1450-S-00006	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00007	CONCRETE EQUIPMENT FOUNDATIONS-AREA A, B, & C SCRAP PLANT
08X-1450-S-00008	CONCRETE DETAILS-EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00009	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00024	CONCRETE FOUNDATION PLAN AND DETAILS SCRAP PLANT
08X-1450-S-00026	CONCRETE ELEVATOR PIT AND LOADING PLATFORM SCRAP PLANT
08X-3900-S-02824	PLANT 8 ELEVATOR DEMOLITION PLAN
08X-5500-P-01129	U.A.P. PROCESS MISCELLANEOUS PIPING DETAILS
08X-5500-S-01090	U.A.P. PROCESS CONCRETE FOUNDATIONS LAYOUT
08X-5500-S-01091	U.A.P. PROCESS CONCRETE FOUNDATIONS DETAILS
08X-5500-S-01268	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - SECTIONS & DETAILS
08X-5500-S-01269	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - DETAILS
08X-5500-S-01331	CONCRETE PAD & TRENCH PLAN, SECTIONS & DETAILS
08X-5500-S-01573	SURFACE DRAINAGE IMPROVEMENT AREA PLAN & SECTION
08X-5500-S-01588	RECOVERY FACILITY BOX FURNACE-PROD. DRUM PIT & SUMP DETAILS
08X-5500-S-02383	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP PLAN
08X-5500-S-02384	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE SECTIONS & DETAILS
08X-5500-S-02394	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP DETAILS
08X-5945-S-00419	SCRAP PLANT EXPANSION PLANT EFFLUENT SURGE FOUNDATIONS
FPF-3043-C43-538	HATCH PLAN OF OIL HYDRAULIC FREIGHT ELEVATOR
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8E, 8H, 18H, 74C, 74D & 80 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8E, 8H, 18H, 74C, 74D & 80 - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03743	BUILDING 8A FOOTING SCHEDULE
08X-5900-S-03729	BUILDING 8A FOUNDATION PLAN - WEST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	FM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/25/92	LNH 10/26/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8A
FOUNDATION PLAN - EAST
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"
060	N/A	DRAWN BY K.L. RABBITT — DATE 01/25/92
REV NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 02/11/92
COGNIZANT ENGINEER — DATE	DRAWING INDEX CODE NO. 08X-5900-S-03730	SHEET NO. S0002 — REV. NO. 0

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	9'-0"	9'-0"	1'-6"	572'-8" UNO	1'-8"x2'-2½"	T/PIER EL 580'-6"
B	9'-0"	9'-0"	1'-6"	572'-8" UNO	1'-8"x1'-10"	T/PIER EL 580'-6"
C	17'-0"	9'-6"	2'-6"	572'-8"	2'-4"x2'-5½"	T/PIER EL 580'-6"
D	17'-0"	9'-6"	2'-6"	572'-8"	2'-4" SQ	T/PIER EL 580'-6"
E	9'-6"	9'-6"	1'-6"	572'-8"	1'-8"x1'-10"	T/PIER EL 580'-6"
F	9'-6"	9'-6"	1'-6"	572'-8"	1'-8"x2'-2½"	T/PIER EL 580'-6"
G	9'-8"	9'-8"	1'-6"	572'-8"	2'-1½"x2'-2½"	T/PIER EL 580'-6"
H	6'-3"	6'-3"	1'-3"	578'-6"	1'-6"x1'-8½"	T/PIER EL 580'-6"
J	3'-9"	4'-3"	1'-3"	572'-8"	2'-1½"x1'-10½"	T/PIER EL 580'-6"
K	3'-8"	3'-8"	1'-3"	572'-8"	1'-10½"x2'-3½"	T/PIER EL 580'-6"
L	8'-8"	8'-8"	1'-6"	578'-6"	1'-8"x2'-2½"	T/PIER EL 580'-6"
M	4'-8"	4'-8"	1'-6"	575'-8"	1'-8½"x1'-7½"	T/PIER EL 580'-6"
N	4'-8"	4'-8"	1'-6"	575'-8"	1'-2"x1'-8½"	T/PIER EL 580'-6"
P	6'-8"	6'-8"	1'-6"	577'-6"	1'-2"x1'-4"	T/PIER EL 580'-6"
R	6'-8"	6'-8"	1'-6"	575'-8"	1'-8½"x1'-7½"	T/PIER EL 580'-6"
S	6'-8"	6'-8"	1'-6"	575'-8"	1'-8½"x1'-2"	T/PIER EL 580'-6"
T	18'-8"	18'-8"	1'-3"	572'-8"	(4)1'-3" SQ	T/PIER EL 579'-6"
U	12'-5" OCTOGON	12'-5" OCTOGON	1'-9"	579'-6"	N/A	T/PAD FTG EL 581'-3"
V	12'-5" OCTOGON	12'-5" OCTOGON	1'-7"	579'-6"	N/A	T/PAD FTG EL 581'-1"
W	4'-8"	2'-1"	1'-3"	579'-2"	N/A	T/FTG EL 580'-5"
X	4'-8"	2'-2"	1'-3"	579'-2"	N/A	T/FTG EL 580'-5"
Y	7'-8"	7'-8"	1'-8"	579'-8"	N/A	T/FTG EL 580'-8"
Z	18'-8"	18'-8"	1'-8"	579'-8"	N/A	T/FTG EL 580'-8"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A1	12'-8"	8'-8"	1'-3"	578'-9"	N/A	T/FTG EL 580'-8"
B1	3'-9"	23'-10"	1'-8"	579'-8"	(12)8"x8" (2)8"x2'-3"	T/PIER EL 580'-5"
C1	3'-6"	6'-8"	1'-3"	572'-8"	2'-6"x5'-8"	T/PIER EL 580'-8"
D1	SEE PLAN	SEE PLAN	1'-3"	579'-1⅞"	N/A	T/FTG EL 580'-4⅞"
E1	7'-9"	9'-8"	1'-3"	574'-8"	(21)1'-6½"x5'-2"	T/PIER EL 579'-2"
F1	SEE PLAN	SEE PLAN	8'-10"	579'-2"	SEE NOTE 2	T/PIER EL 582'-1½"
G1	15'-8" OCTOGON	15'-8" OCTOGON	2'-8"	567'-8"	1'-10" SQ CENTER (6)1'-3"x1'-6"	T/PIER EL 580'-10¼" CENTER T/PIER EL 580'-2" (6-TYP)
H1	15'-8"	15'-8"	8'-10"	579'-2"	N/A	SEE SLAB PLAN
J1	SEE PLAN	SEE PLAN	3'-8"	567'-8"	VARIES	SEE NOTE 2
K1	SEE PLAN	SEE PLAN	1'-6"	578'-8"	VARIES	SEE NOTE 2
L1	2'-6"	5'-8"	5'-4"	578'-8"	N/A	SITS ON FOOTING AJ
M1	3'-8"	3'-8"	1'-3"	572'-8"	1'-8"x1'-2"	T/PIER EL 580'-5"
N1	4'-8"	4'-8"	1'-3"	572'-8"	3'-8"x3'-2"	T/PIER EL 579'-10"
P1	2'-8"	2'-8"	4'-6"	575'-6"	N/A	T/FTG EL 580'-8"
R1	1'-6"	4'-8"	2'-10½"	577'-8"	N/A	T/FTG EL 579'-10½"
S1	18'-11" DIA	18'-11" DIA	3'-6"	577'-5⅛"	N/A	T/FTG EL 580'-11⅛"
T1	2'-6"	8'-9"	2'-6"	578'-3"	N/A	T/FTG EL 580'-9"
U1	4'-6"	8'-8"	1'-8"	576'-3"	1'-2"x7'-6"	T/PIER EL 580'-2"
V1	3'-8"	3'-8"	1'-8"	571'-3"	1'-4" SQ	T/PIER EL 580'-2"
W1	3'-6"	2'-8"	1'-8"	578'-4⅞"	N/A	T/FTG EL 580'-8⅞"
X1	3'-6"	2'-8"	1'-8"	579'-7¼"	N/A	T/FTG EL 581'-3¼"
Y1	1'-6"	3'-11"	1'-4"	578'-9¼"	N/A	T/FTG EL 580'-1¼"
Z1	2'-8"	2'-8"	8'-8"	577'-1⅝"	8'-8" SQ	T/PIER EL 580'-3⅝"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A2	4'-8"	4'-8"	1'-8"	578'-11"	N/A	SAFETY SHOWER PAD, SEE NOTE 2
B2	3'-8"	12'-8"	1'-6"	576'-9"	1'-8"x12'-8"	T/PIER EL (SEE PLAN & ISO VIEW)

000178

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
08A-5500-S-01426	FOUNDATIONS & PAD FOR FILTER FEED TANK
08A-5500-S-01442	FOUNDATIONS & PLATFORM FOR SO2 STORAGE TANK PLAN ELEV SECTIONS & DETAILS
08A-5500-S-01780	CURBED ACID BRICK FLOOR AREA GENERAL ARRANGEMENT PLAN & SECTIONS
08D-5500-S-01482	STRUCTURAL AND CONCRETE FOUNDATION
08X-1450-S-00002	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "A"
08X-1450-S-00003	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "B"
08X-1450-S-00005	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "C"
08X-1450-S-00006	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00007	CONCRETE EQUIPMENT FOUNDATIONS-AREA A, B, & C SCRAP PLANT
08X-1450-S-00008	CONCRETE DETAILS-EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00009	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00024	CONCRETE FOUNDATION PLAN AND DETAILS SCRAP PLANT
08X-1450-S-00025	CONCRETE ELEVATOR PIT AND LOADING PLATFORM SCRAP PLANT
08X-3900-S-02824	PLANT 8 ELEVATOR DEMOLITION PLAN
08X-5500-P-01129	U.A.P. PROCESS MISCELLANEOUS PIPING DETAILS
08X-5500-S-01090	U.A.P. PROCESS CONCRETE FOUNDATIONS LAYOUT
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08X-5500-S-01268	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - SECTIONS & DETAILS
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08X-5945-S-00419	SCRAP PLANT EXPANSION PLANT EFFLUENT SURGE FOUNDATIONS
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SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74G & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74G & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03729	BUILDING 8A FOUNDATION PLAN - WEST
08X-5900-S-03730	BUILDING 8A FOUNDATION PLAN - EAST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	FM	REVIEW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/29/92	LNH 10/29/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

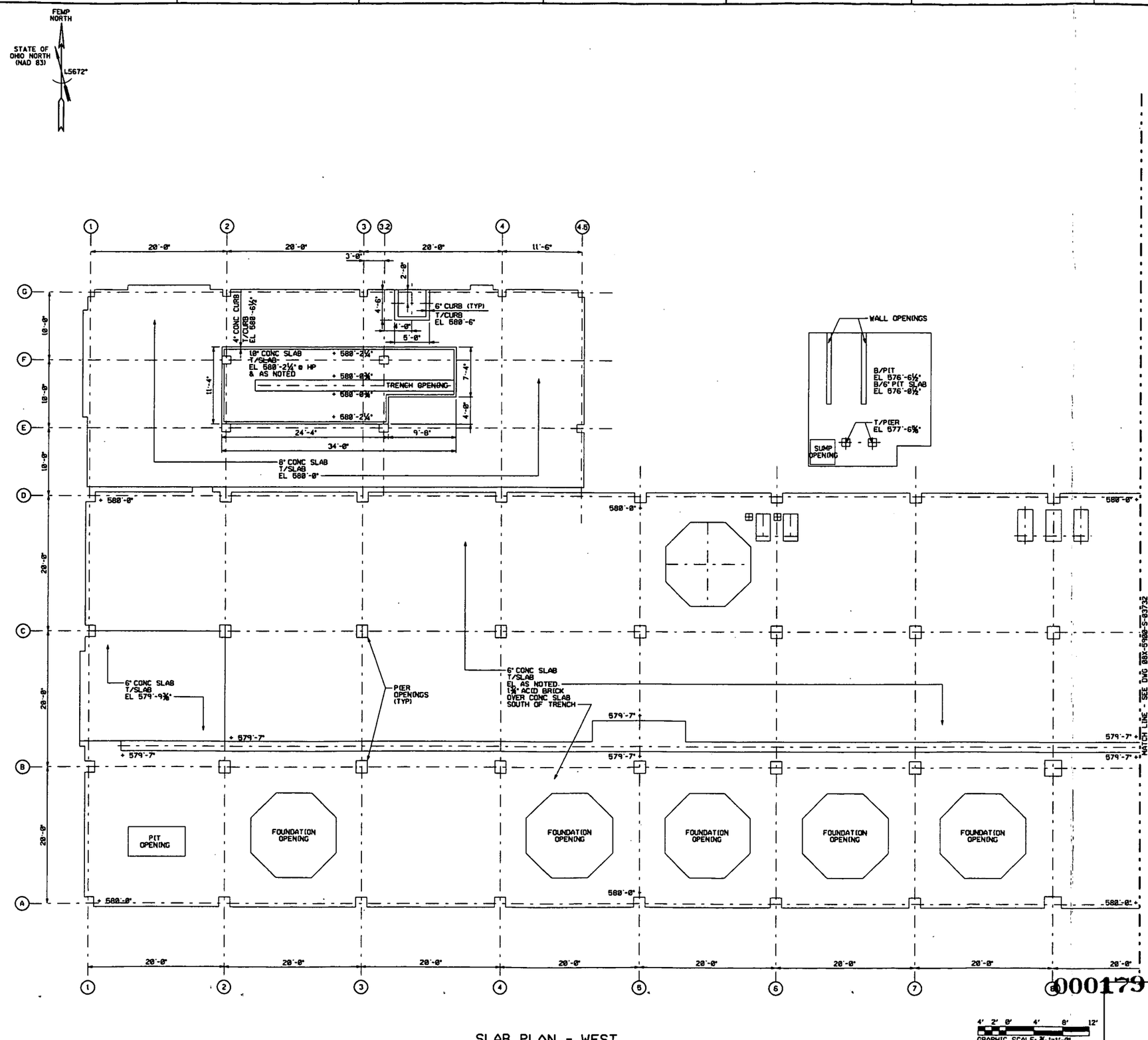
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8A
FOOTING SCHEDULE

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE: NONE
060	N/A	DRAWN BY: L. N. HAGAMAN — DATE: 02/19/92
REV NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD: N/A — DATE: N/A; CHECKED BY: DOREEN REED — DATE: 02/11/92
COGNIZANT ENGINEER — DATE	DRAWING INDEX CODE NO. 08X-5900-S-03743	SHEET NO. S0003 — REV. NO. 0

SEAL



SLAB PLAN - WEST

NOTES

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-- 4518

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08A-5500-S-01426	FOUNDATIONS & PAD FOR FILTER FEED TANK
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08A-5500-S-01780	CORBEL ACID BRICK FLOOR AREA GENERAL ARRANGEMENT PLAN & SECTIONS
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08X-1450-S-00002	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "A"
08X-1450-S-00003	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "B"
08X-1450-S-00005	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "C"
08X-1450-S-00006	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00007	CONCRETE EQUIPMENT FOUNDATIONS-AREA A, B, & C SCRAP PLANT
08X-1450-S-00008	CONCRETE DETAILS-EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00009	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00024	CONCRETE FOUNDATION PLAN AND DETAILS SCRAP PLANT
08X-1450-S-00025	CONCRETE ELEVATOR PIT AND LOADING PLATFORM SCRAP PLANT
08X-3900-S-02824	PLANT 8 ELEVATOR DEMOLITION PLAN
08X-5500-P-01129	U.A.P. PROCESS MISCELLANEOUS PIPING DETAILS
08X-5500-S-01090	U.A.P. PROCESS CONCRETE FOUNDATIONS LAYOUT
08X-5500-S-01091	U.A.P. PROCESS CONCRETE FOUNDATIONS DETAILS
08X-5500-S-01268	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - SECTIONS & DETAILS
08X-5500-S-01269	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - DETAILS
08X-5500-S-01331	CONCRETE PAD & TRENCH - PLAN SECTIONS & DETAILS
08X-5500-S-01573	SURFACE DRAINAGE IMPROVEMENT AREA PLAN & SECTION
08X-5500-S-01588	RECOVERY FACILITY BOX FURNACE-PROD DRUM PIT & SUMP DETAILS
08X-5500-S-02383	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP PLAN
08X-5500-S-02384	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE SECTIONS & DETAILS
08X-5500-S-02394	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP DETAILS
08X-5945-S-00419	SCRAP PLANT EXPANSION PLANT EFFLUENT SURGE FOUNDATIONS
FPF-3843-C43-538	HATCH PLAN OF OIL HYDRAULIC FREIGHT ELEVATOR
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 88 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 88 - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03732	BUILDING 8A SLAB PLAN - EAST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DESIGN BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/28/92	LNH 01/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8A
SLAB PLAN - WEST
WITHOUT HIDDEN LINES

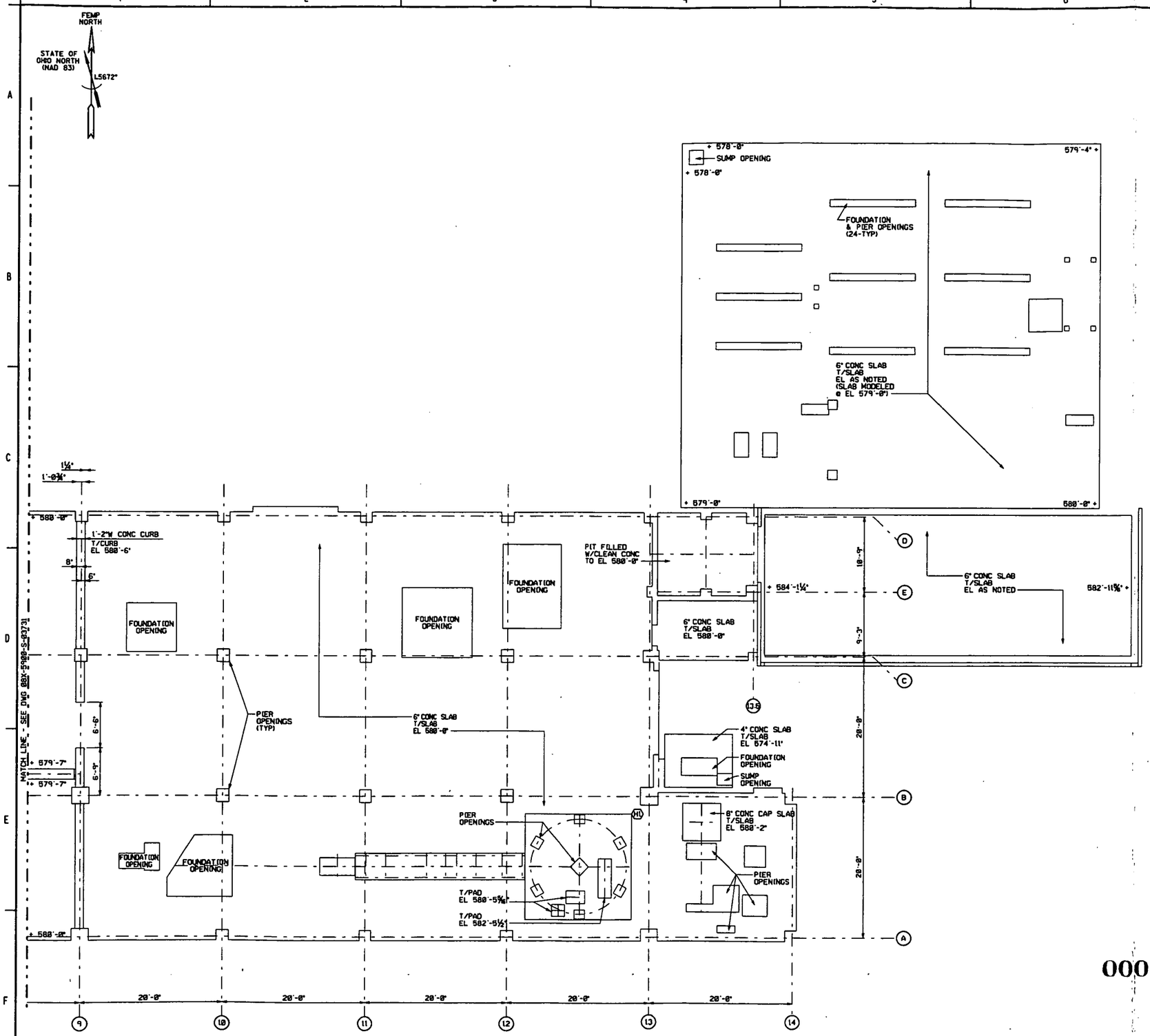
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/25/92
HES NO. 4327	FEMP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 08X-5900-S-03731		SHEET NO. S0004	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

000179



SLAB PLAN - EAST

000180

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8A-1.

-- 4518

REF DWG NO.	DRAWING TITLE
08A-5500-S-01426	FOUNDATIONS & PAD FOR FILTER FEED TANK
08A-5500-S-01442	FOUNDATIONS & PLATFORM FOR SO2 STORAGE TANK PLAN, ELEV, SECTIONS & DETAILS
08A-5500-S-01780	CURBED ACID BRICK FLOOR AREA GENERAL ARRANGEMENT PLAN & SECTIONS
08D-5500-S-01482	STRUCTURAL AND CONCRETE FOUNDATION
08X-1450-S-00002	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "A"
08X-1450-S-00003	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "B"
08X-1450-S-00005	CONCRETE PLAN OF EQUIPMENT FOUNDATIONS SCRAP PLANT - AREA "C"
08X-1450-S-00006	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00007	CONCRETE EQUIPMENT FOUNDATIONS-AREA A, B, & C SCRAP PLANT
08X-1450-S-00008	CONCRETE DETAILS-EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00009	CONCRETE DETAILS OF EQUIPMENT FOUNDATIONS SCRAP PLANT
08X-1450-S-00024	CONCRETE FOUNDATION PLAN AND DETAILS SCRAP PLANT
08X-1450-S-00026	CONCRETE ELEVATOR PIT AND LOADING PLATFORM SCRAP PLANT
08X-3900-S-02824	PLANT 8 ELEVATOR DEMOLITION PLAN
08X-5500-P-01129	U.A.P. PROCESS MISCELLANEOUS PIPING DETAILS
08X-5500-S-01898	U.A.P. PROCESS CONCRETE FOUNDATIONS LAYOUT
08X-5500-S-01891	U.A.P. PROCESS CONCRETE FOUNDATIONS DETAILS
08X-5500-S-01268	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - SECTIONS & DETAILS
08X-5500-S-01269	FEED PREP OFF SITE MATERIAL EQUIPMENT SUPPORTS STRUCTURAL - DETAILS
08X-5500-S-01331	CONCRETE PAD & TRENCH PLAN SECTIONS & DETAILS
08X-5500-S-01573	SURFACE DRAINAGE IMPROVEMENT AREA PLAN & SECTION
08X-5500-S-01588	RECOVERY FACILITY BOX FURNACE-PROD DRUM PIT & SUMP DETAILS
08X-5500-S-02383	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP PLAN
08X-5500-S-02384	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE SECTIONS & DETAILS
08X-5500-S-02394	HAZARDOUS MATERIALS SPILL PROTECTION CAUSTIC SODA STORAGE RETENTION DIKE & SUMP PUMP DETAILS
08X-5945-S-00419	SCRAP PLANT EXPANSION PLANT EFFLUENT SURGE FOUNDATIONS
FPF-3043-C43-538	HATCH PLAN OF OIL HYDRAULIC FREIGHT ELEVATOR
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74D & 88 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74D & 88 - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03731	BUILDING 8A SLAB PLAN - WEST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DESIGN BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/25/02	LNH 01/28/02

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

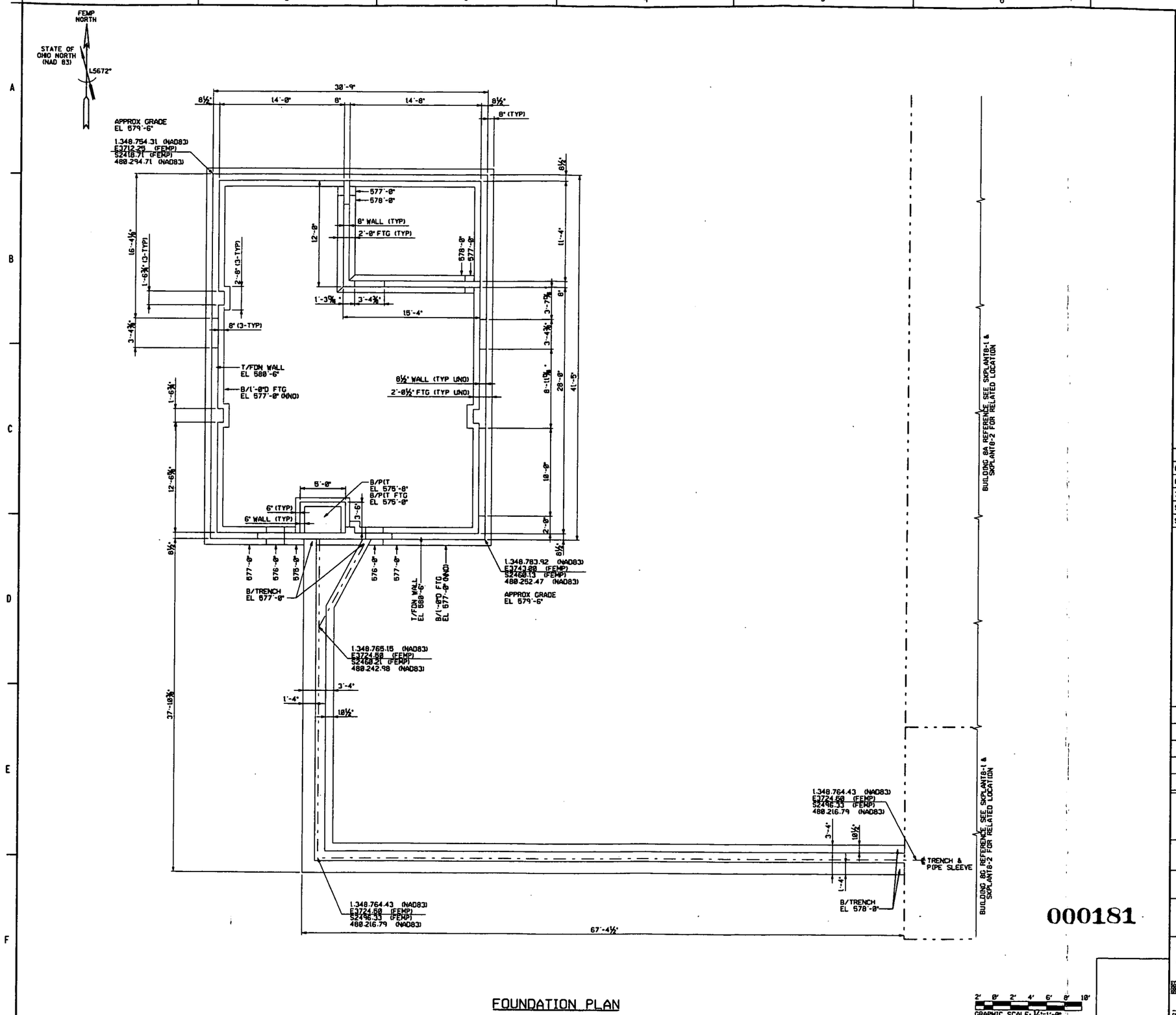
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8A
SLAB PLAN - EAST
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING STRUCTURES AS CONTROLLED BY THE FEMP DRAWING CONTROL CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
060	N/A	DRAWN BY K.L. RABBITT	DATE 01/25/02
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 08X-5900-S-03732		SHEET NO. S0005	REV. NO. 0

COGNIZANT ENGINEER DATE SEAL



FOUNDATION PLAN

000181

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8B-1.

4518

REF DWG NO.	DRAWING TITLE
08X-5500-A-01176	FOUNDATION & FOOTING PLAN - WALL & DOORS. PLAN ELEVATIONS & SECTIONS
08X-5500-P-01184	INTER-PLANT SERVICES TRENCH DETAILS MISC. PIPING & CONCRETE DETAILS
750-5500-G-00019	GRID 20 - EXISTING SITE PLAN
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 88 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 88 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	NOW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

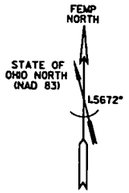
DRAWING TITLE
BUILDING 8B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

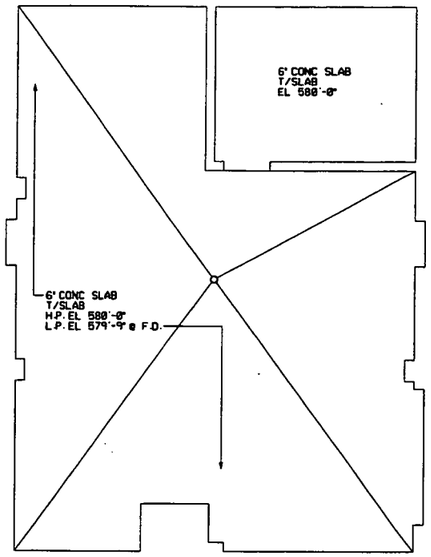
CONFIGURATION MANAGEMENT DRAWING

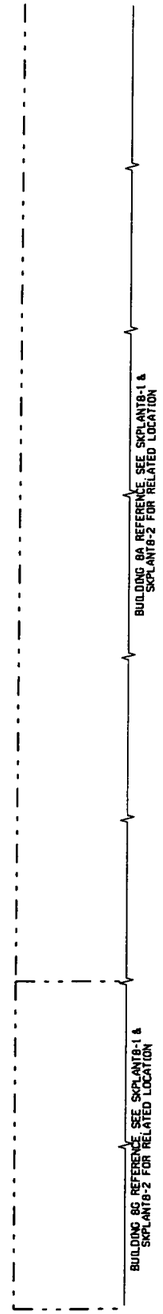
TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/22/92
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 08H-5900-S-03733		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL







SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

000182

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK88-1.

4518

REF DWG NO.	DRAWING TITLE
08X-5500-A-01176	FOUNDATION & FOOTING PLAN - WALL & DOORS. PLAN ELEVATIONS & SECTIONS
08X-5500-P-01184	INTER-PLANT SERVICES TRENCH DETAILS MISC. PIPING & CONCRETE DETAILS
75D-5500-G-00019	GRID 20 - EXISTING SITE PLAN
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/82	LNH 03/28/82

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8B
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	¼" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 01/22/82
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/82
DRAWING INDEX CODE NO. 08H-5900-S-03734		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

FEMP NORTH

STATE OF OHIO NORTH (NAD 83)

L5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-0"	14'-0"	2'-0"	575'-0"	2'-6" SQ	T/PIER EL 580'-6"
B	10'-0"	12'-0"	2'-0"	575'-0"	2'-6" SQ	T/PIER EL 580'-6"
C	11'-0"	11'-0"	2'-0"	575'-0"	VARIES	SEE NOTE 2
D	9'-0"	9'-0"	1'-6"	575'-6"	2'-6½"x2'-6" 2'-6½" SQ @ 4-EQ	T/PIER EL 580'-6"
E	10'-0"	10'-0"	1'-6"	575'-6"	2'-6¼"x2'-7½"	T/PIER EL 580'-6"
F	11'-0"	11'-0"	2'-0"	575'-0"	2'-6"x2-6 9/16"	T/PIER EL 581'-0"
G	10'-0"	10'-0"	2'-0"	575'-0"	2'-6"x2-6 9/16"	T/PIER EL 581'-0"
H	5'-0"	5'-0"	1'-6"	575'-6"	1'-2"x1'-11 3/16"	T/PIER EL 581'-0"

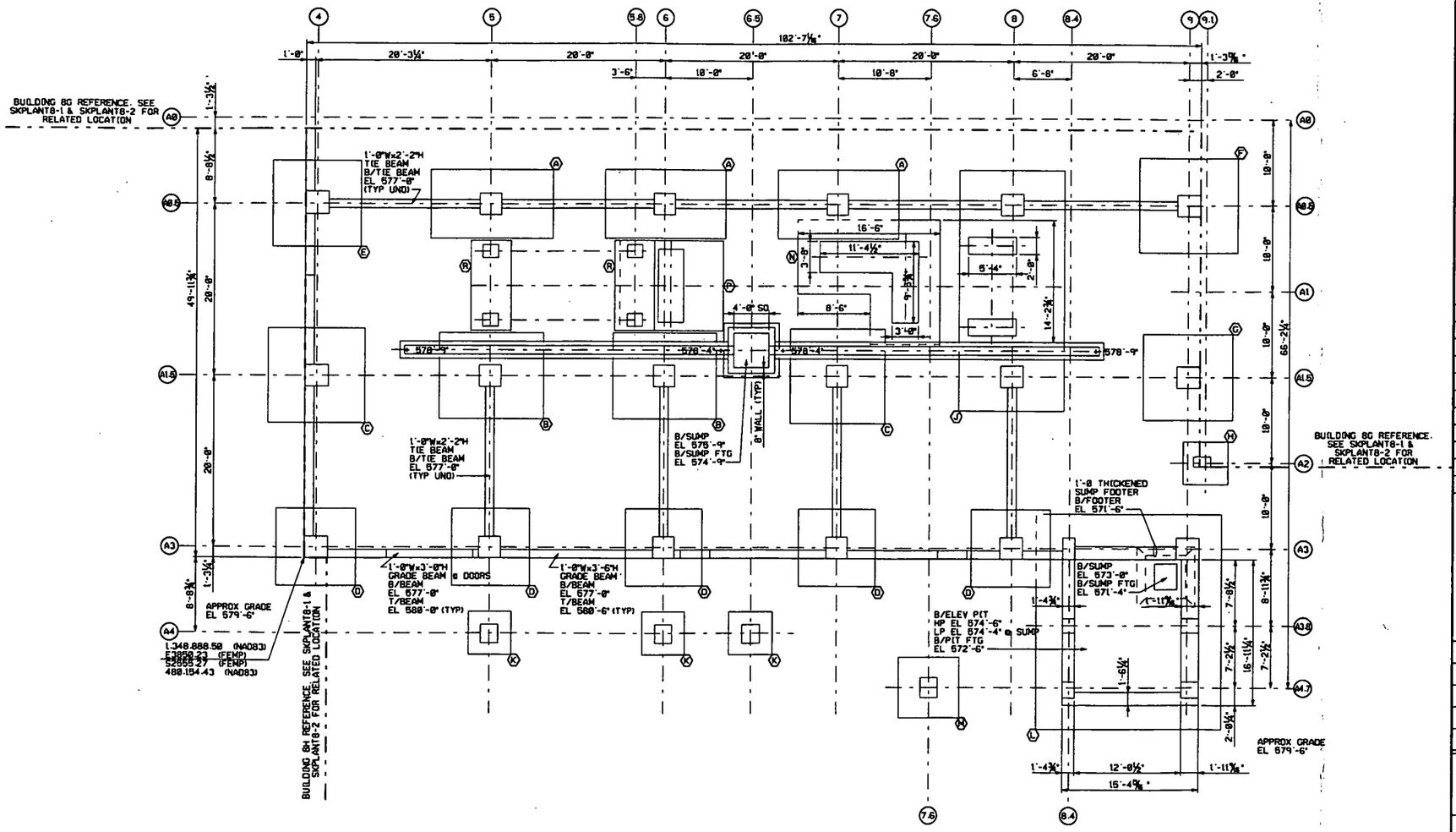
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
J	28'-0"	12'-0"	2'-6"	574'-6"	(2)2'-6" SQ	T/PIER EL 580'-6"
K	5'-0"	5'-0"	1'-6"	576'-0"	2'-2"x2'-0"	T/PIER EL 580'-6"
L	25'-0"	21'-0"	2'-0"	572'-6"	VARIES	SEE NOTE 2
M	7'-0"	7'-0"	1'-6"	573'-0"	2'-4"x2'-0"	T/PIER EL 580'-6"
N	SEE PLAN	SEE PLAN	2'-0"	571'-0"	SEE PLAN	T/PIER HP EL 587'-1"
P	10'-6"	12'-0"	2'-0"	571'-0"	8'-6"x3'-0"	T/PIER EL 586'-9 9/16"
R	10'-6"	4'-8"	1'-6"	576'-0"	(2)1'-6"x1'-10"	T/PIER EL 580'-6"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8C-1.

4518



FOUNDATION PLAN

000183

REF DWG NO.	DRAWING TITLE
08F-3900-S-02523	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 1
08F-3900-S-02524	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 2
08F-3900-S-02525	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 1
08F-3900-S-02526	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 2
08F-3900-S-02527	ROTARY KILN EQUIPMENT FOUNDATIONS
08F-3900-S-02558	ROTARY KILN MISCELLANEOUS DETAILS
08X-3900-S-02826	ELEVATOR PLANT 8 PLAN AND DETAILS
08X-3900-S-02828	ELEVATOR PLANT 8 SECTIONS AND DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

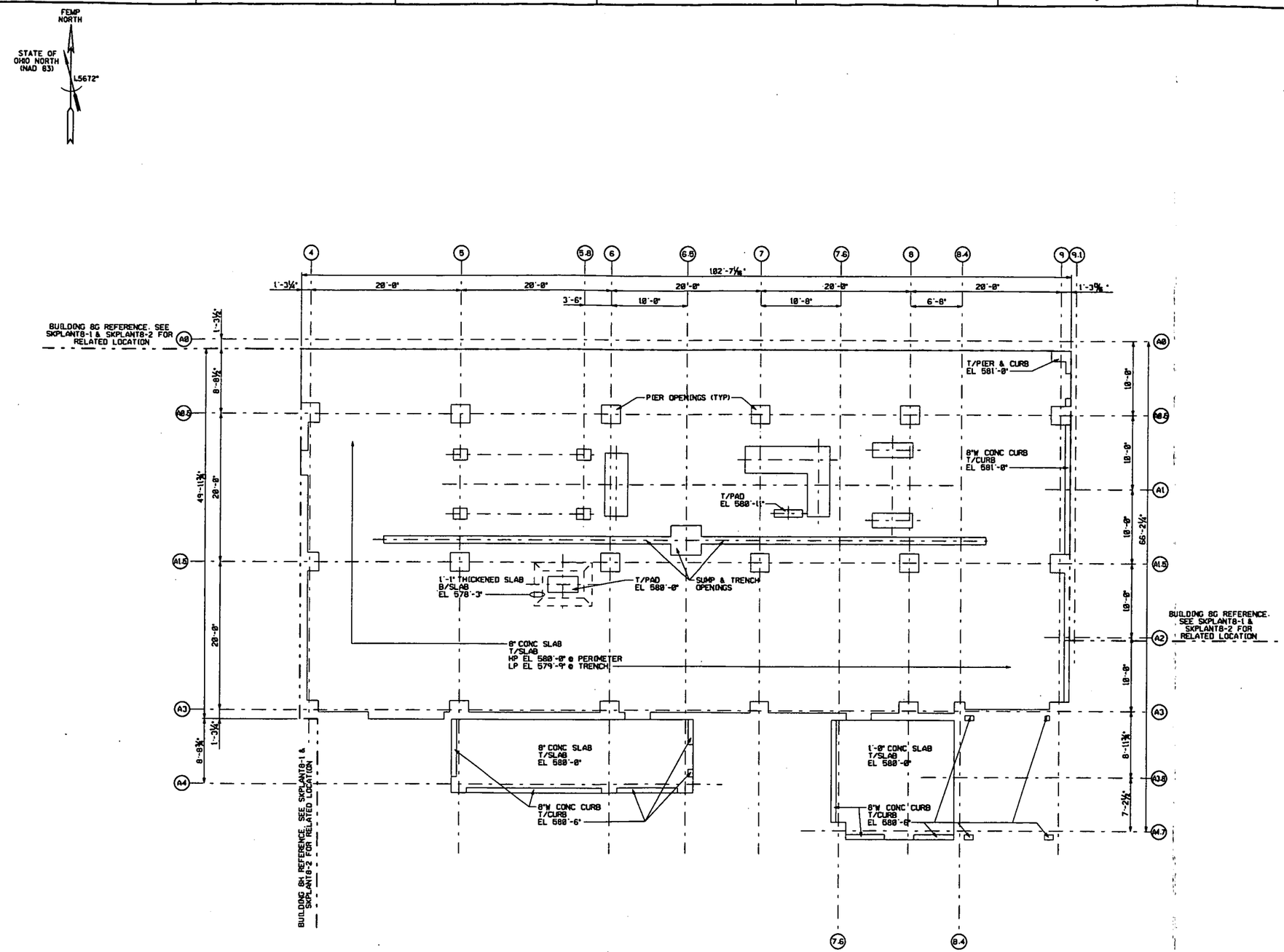
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8C
FOUNDATION PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"
060	N/A	DRAWN BY K. L. RABBITT — DATE 01/21/02
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 02/11/02
COGNIZANT ENGINEER — DATE	DRAWING INDEX CODE NO. 08H-5900-S-03735	SHEET NO. S0001 — REV. NO. 0

SEAL



SLAB PLAN

000184

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8C-1.

4518

REF DWG NO.	DRAWING TITLE
08F-3900-S-02523	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 1
08F-3900-S-02524	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 2
08F-3900-S-02525	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 1
08F-3900-S-02526	ROTARY KILN BUILDING FOUNDATION PLAN - SHEET 2
08F-3900-S-02527	ROTARY KILN EQUIPMENT FOUNDATIONS
08F-3900-S-02558	ROTARY KILN MISCELLANEOUS DETAILS
08X-3900-S-02826	ELEVATOR PLANT 8 PLAN AND DETAILS
08X-3900-S-02828	ELEVATOR PLANT 8 SECTIONS AND DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

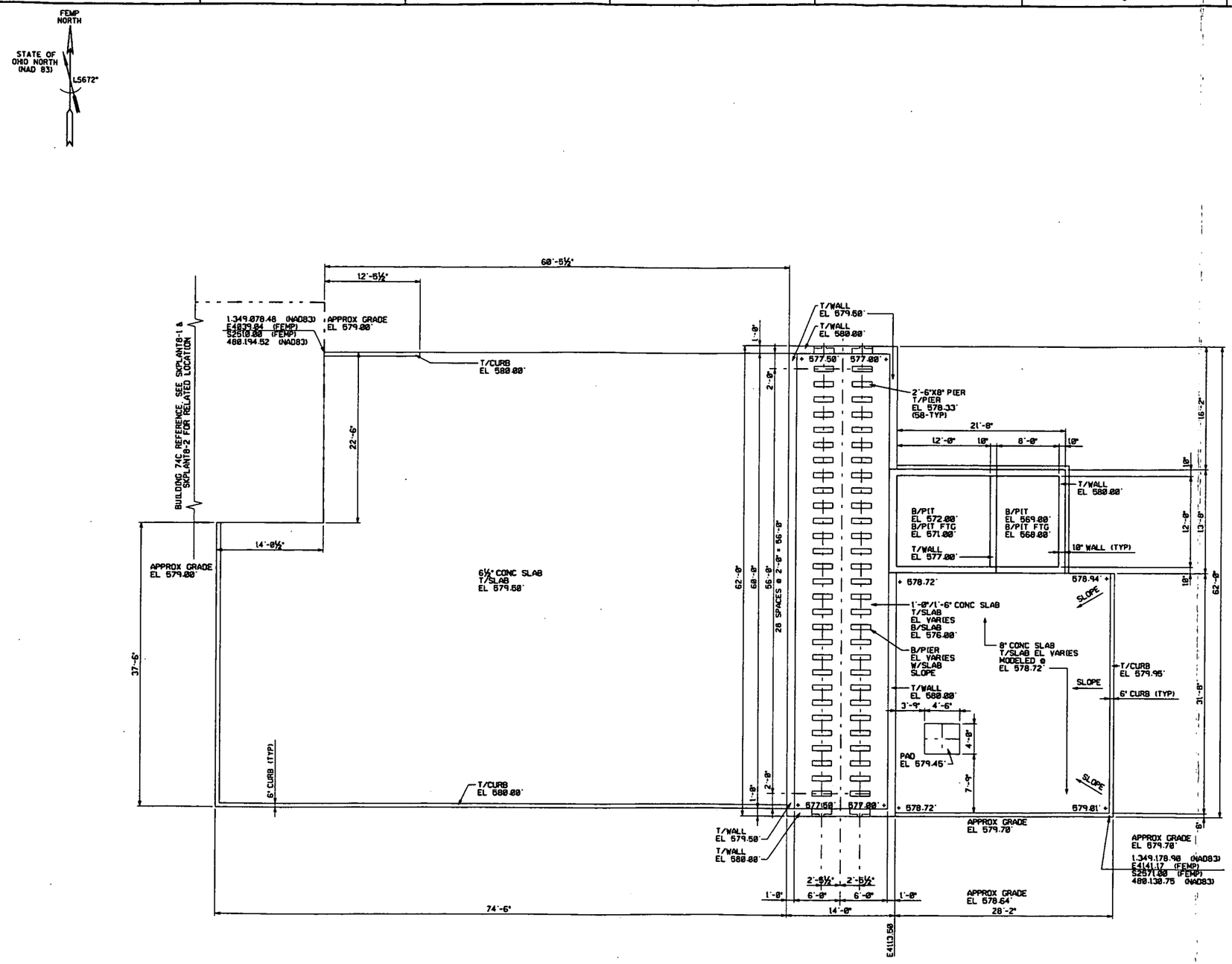
DRAWING TITLE
BUILDING 8C
SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 03/21/02
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 08H-5900-S-03736		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: 3/16"=1'-0"

000185

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8D-1.

-- 4518

REF DWG NO.	DRAWING TITLE
88X-3115-S-02091	CAR WASH PIT & FILTER SCRAP PLANT REINFORCING DETAILS
88X-5500-S-01365	OFF-SITE FEED PREPARATION PAD PLAN & SECTIONS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8E, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8E, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/25/92	LNH 03/25/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8D
FOUNDATION AND SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING YES NO
EXISTING ATTACHED AS CONFIRMED CONFIGURATION MANAGEMENT CONTROL LEV LEVEL

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"
060	N/A	DRAWN BY K. L. RABBITT — DATE 01/25/92
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 02/11/92
DRAWING INDEX CODE NO. 24B-5900-S-00202		SHEET NO. S0001 — REV. NO. 0

SEAL

FEMP NORTH

STATE OF OHIO NORTH (NAD 83) L5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	9'-0"	9'-0"	1'-6"	570'-0"	2'-2½"x1'-8"	T/PIER EL 580'-6"
(B)	5'-3"	15'-6"	2'-0"	570'-0"	2'-2½"x1'-8"	T/PIER EL 580'-6"
(C)	9'-6"	9'-6"	1'-6"	570'-0"	(4)1'-0"x1'-0"	T/PIER EL 579'-6"
(D)	7'-0¾"	7'-2¾"	1'-6"	570'-0"	(4)1'-2"x1'-4"	T/PIER EL 579'-0"
(E)	17'-6" OCTOGON	17'-6" OCTOGON	1'-3½"	579'-6"	N/A	T/FTG EL 580'-9½"
(F)	7'-0¾"	7'-2¾"	1'-0"	579'-0"	(4)1'-2"x1'-4"	T/PIER EL 580'-5"
(G)	12'-0 7/16"	12'-0 7/16"	1'-6"	570'-0"	(1)1'-6" SQ (4)1'-6"x1'-1"	T/PIER EL 579'-2"
(H)	15'-3½"	13'-6"	0'-10"	579'-2"	SEE ISO VIEW	SEE NOTE 2
(J)	9'-8"	7'-0"	1'-6"	570'-0"	(4)1'-0"x1'-0"	T/PIER EL 579'-0"
(K)	11'-0"	7'-0"	1'-0"	579'-0"	N/A	T/PIER EL 580'-0"
(L)	13'-10"	8'-0"	1'-6"	570'-0"	SEE NOTE 2	T/PIER EL 583'-9⅝"

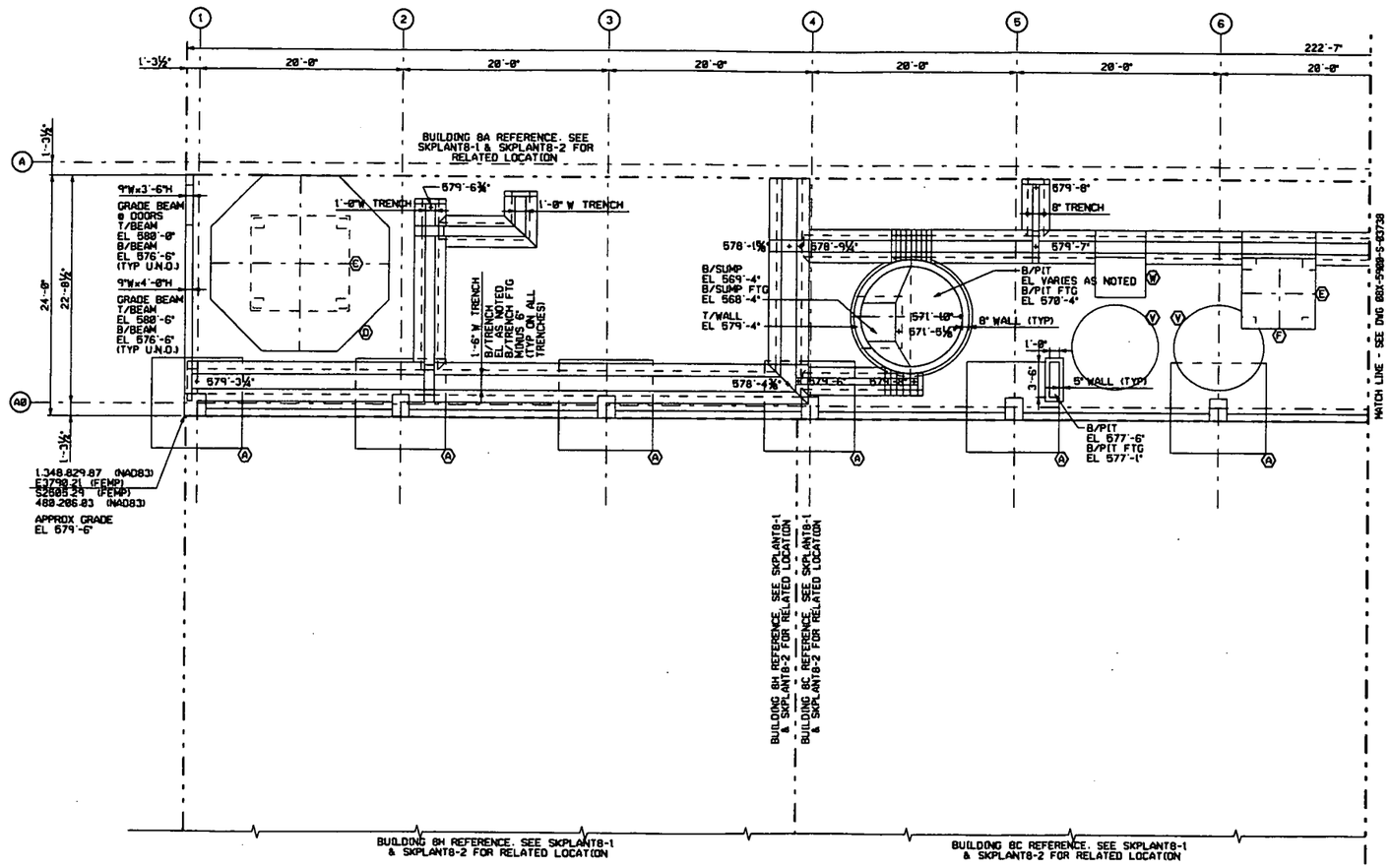
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(M)	2'-6"	2'-6"	1'-0"	570'-0"	1'-0" SQ	T/PIER EL 580'-6"
(N)	5'-11"	4'-0"	9'-6"	570'-0"	SEE NOTE 4	T/PIER EL 583'-9⅝"
(P)	9'-9"	6'-0"	1'-6"	570'-0"	9'-8"x4'-0"	T/PIER EL 583'-11¼"
(R)	5'-11"	9'-2"	1'-6"	570'-0"	(4)1'-0" SQ	T/PIER EL 579'-0"
(S)	9'-8"	7'-10"	1'-0"	579'-0"	N/A	T/PIER EL 580'-0"
(T)	8'-0"	8'-0"	1'-6"	577'-0"	8'-11"x0'-10" ROTATED 45°	T/PIER EL 580'-6"
(U)	4'-0"	4'-0"	1'-0"	576'-6" U.N.O.	1'-0" SQ	T/PIER EL 581'-0"
(V)	8'-6" DIA	8'-6" DIA	2'-0"	579'-0"	N/A	T/FTG EL 581'-0"
(W)	4'-0"	5'-0"	3'-0"	577'-6"	N/A	T/FTG EL 580'-6"
(X)	4'-0"	4'-0"	1'-0"	576'-6"	1'-0" SQ	T/PIER EL 579'-4"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8G-1.
3. ALL ELEVATIONS SHOWN ON PLAN ARE TO THE TOP OF CONCRETE, ACID BRICK & PROTECTIVE LINERS WERE SUBTRACTED.

4518



REF DWG NO.	DRAWING TITLE
08X-5500-A-02395	SCRAP RECOVERY PLANT FLOOR PLAN
08X-5500-S-01510	STORAGE FACILITIES CONCRETE FOUNDATION PLAN, SECTIONS & DETAILS
08X-5500-S-01613	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE FURNACE FOUNDATION AND DETAILS
08X-5500-S-01614	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE MISCELLANEOUS DETAILS
08X-5945-S-00282	SCRAP PLANT EXPANSION SCRUBBER LIQUOR ACCOUNTABILITY TANK
08X-5945-S-00285	SCRAP PLANT EXPANSION FOUNDATION FOR OXIDATION FURNACE
08X-5945-S-00288	SCRAP PLANT EXPANSION BUILDING FOUNDATIONS AND PLAN AT EL 580'-0"
08X-5945-S-00355	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-1
08X-5945-S-00356	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-2
08X-5945-S-00437	SCRAP PLANT EXPANSION FLUID-SOLIDS REACTOR CONCRETE & FOUNDATION DETAILS
08X-5945-S-00447	SCRAP PLANT EXPANSION ACID FILTRATE SURGE TANK & MISCELLANEOUS FOUNDATIONS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8B - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8B - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03738	BUILDING 8G FOUNDATION PLAN - EAST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DRWN BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/23/92	LNH 03/23/92

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8G
FOUNDATION PLAN - WEST
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 03/23/92
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 08X-5900-S-03737		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

000186

FOUNDATION PLAN - WEST

GRAPHIC SCALE: 3/16"=1'-0"

FEMP NORTH

STATE OF OHIO NORTH (NAD 83)

L5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	9'-0"	9'-0"	1'-6"	570'-0"	2'-2½"x1'-8"	T/PIER EL 580'-6"
B	5'-3"	15'-6"	2'-0"	570'-0"	2'-2½"x1'-8"	T/PIER EL 580'-6"
C	9'-6"	9'-6"	1'-6"	570'-0"	(4)1'-0"x1'-0"	T/PIER EL 579'-6"
D	7'-0¾"	7'-2¾"	1'-6"	570'-0"	(4)1'-2"x1'-4"	T/PIER EL 579'-0"
E	17'-6" OCTOGON	17'-6" OCTOGON	1'-3½"	579'-6"	N/A	T/FTG EL 580'-9½"
F	7'-0¾"	7'-2¾"	1'-0"	579'-0"	(4)1'-2"x1'-4"	T/PIER EL 580'-5"
G	12'-0 7/16"	12'-0 7/16"	1'-6"	570'-0"	(1)1'-6" SQ (4)1'-6"x1'-1"	T/PIER EL 579'-2"
H	15'-3½"	13'-6"	0'-10"	579'-2"	SEE ISO VIEW	SEE NOTE 2
J	9'-8"	7'-0"	1'-6"	570'-0"	(4)1'-0"x1'-0"	T/PIER EL 579'-0"
K	11'-0"	7'-0"	1'-0"	579'-0"	N/A	T/PIER EL 580'-0"
L	13'-10"	8'-0"	1'-6"	570'-0"	SEE NOTE 2	T/PIER EL 583'-9⅝"

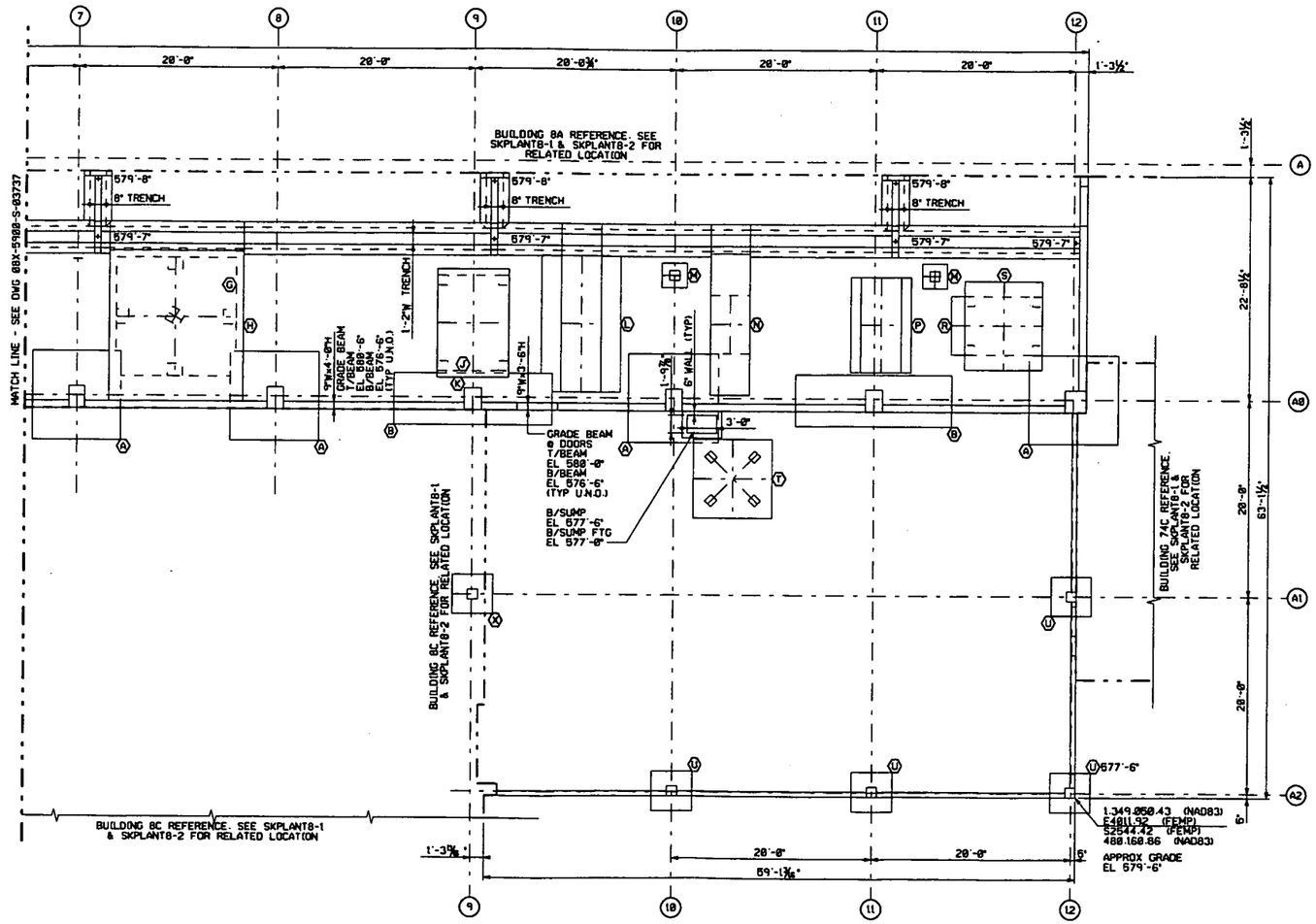
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
M	2'-6"	2'-6"	1'-0"	570'-0"	1'-0" SQ	T/PIER EL 580'-6"
N	5'-11"	4'-0"	9'-6"	570'-0"	SEE NOTE 4	T/PIER EL 583'-9⅝"
P	9'-8"	6'-0"	1'-6"	570'-0"	9'-8"x4'-0"	T/PIER EL 583'-11¼"
R	5'-11"	9'-2"	1'-6"	570'-0"	(4)1'-0" SQ	T/PIER EL 579'-0"
S	9'-0"	7'-10"	1'-0"	579'-0"	N/A	T/PIER EL 580'-0"
T	8'-0"	8'-0"	1'-6"	577'-0"	0'-11"x0'-10" ROTATED 45°	T/PIER EL 580'-6"
U	4'-0"	4'-0"	1'-0"	576'-6" U.N.O.	1'-0" SQ	T/PIER EL 581'-0"
V	8'-6" DIA	8'-6" DIA	2'-0"	579'-0"	N/A	T/FTG EL 581'-0"
W	4'-0"	5'-0"	3'-0"	577'-6"	N/A	T/FTG EL 580'-6"
X	4'-0"	4'-0"	1'-0"	576'-6"	1'-0" SQ	T/PIER EL 579'-4"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8G-1.
3. ALL ELEVATIONS SHOWN ON PLAN ARE TO THE TOP OF CONCRETE, ACID BRICK & PROTECTIVE LINERS WERE SUBTRACTED.
4. 13'-10"x4'-0" BELOW SLAB, 14'-4"x4'-0" ABOVE SLAB.

-- 4518



000187

FOUNDATION PLAN - EAST

REF DWG NO.	DRAWING TITLE
08X-5500-A-02395	SCRAP RECOVERY PLANT FLOOR PLAN
08X-5500-S-01510	STORAGE FACILITIES CONCRETE FOUNDATION PLAN, SECTIONS & DETAILS
08X-5500-S-01613	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE FURNACE FOUNDATION AND DETAILS
08X-5500-S-01614	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE MISCELLANEOUS DETAILS
08X-5945-S-00282	SCRAP PLANT EXPANSION SCRUBBER LIQUOR ACCOUNTABILITY TANK
08X-5945-S-00285	SCRAP PLANT EXPANSION FOUNDATION FOR OXIDATION FURNACE
08X-5945-S-00288	SCRAP PLANT EXPANSION BUILDING FOUNDATIONS AND PLAN AT EL 580'-0"
08X-5945-S-00355	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-1
08X-5945-S-00356	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-2
08X-5945-S-00437	SCRAP PLANT EXPANSION FLUID-SOLIDS REACTOR CONCRETE & FOUNDATION DETAILS
08X-5945-S-00447	SCRAP PLANT EXPANSION ACID FILTRATE SURGE TANK & MISCELLANEOUS FOUNDATIONS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03737	BUILDING 8G FOUNDATION PLAN - WEST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/29/92	LMH 10/29/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8G
FOUNDATION PLAN - EAST
WITH HIDDEN LINES

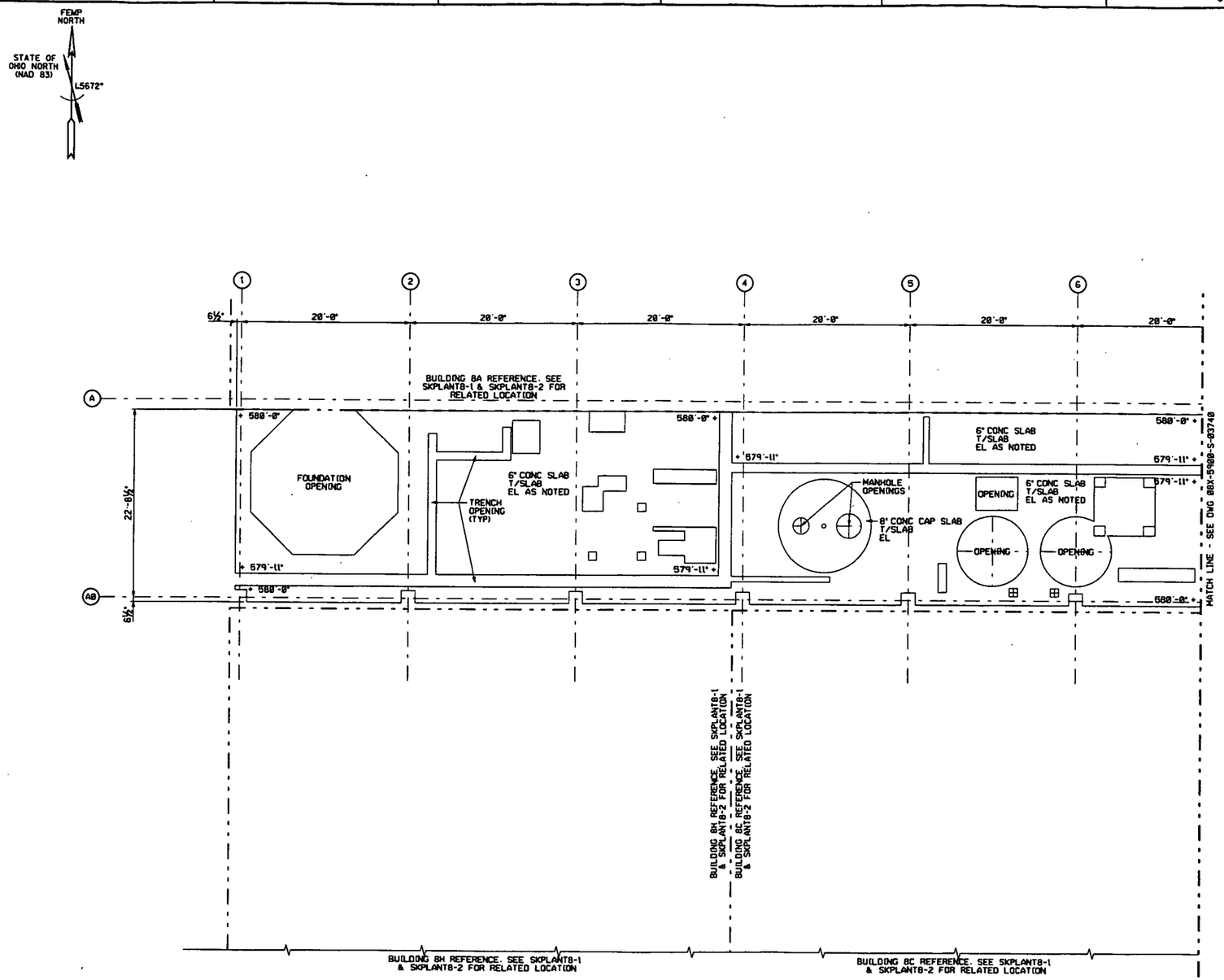
CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTACHED AS CONTROLLED DOCUMENT UNDER FERNALD ENVIRONMENTAL MANAGEMENT PROJECT CONFIGURATION MANAGEMENT CONTROL SYSTEM.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 08/23/92
REV. NO. 4327	TOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 08X-5900-S-03738		SHEET NO. S0002	REV. NO. 0

SEAL



SLAB PLAN - WEST

GRAPHIC SCALE: 3/16"=1'-0"

000188

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8G-1.
3. ALL ELEVATIONS SHOWN ON PLAN ARE TO THE TOP OF CONCRETE. ACID BRICK & PROTECTIVE LINERS WERE SUBTRACTED.

- 4518

REF DWG NO.	DRAWING TITLE
08X-5500-A-02395	SCRAP RECOVERY PLANT FLOOR PLAN
08X-5500-S-01510	STORAGE FACILITIES CONCRETE FOUNDATION PLAN, SECTIONS & DETAILS
08X-5500-S-01613	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE FURNACE FOUNDATION AND DETAILS
08X-5500-S-01614	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.A.P. FURNACE CONCRETE MISCELLANEOUS DETAILS
08X-5945-S-00282	SCRAP PLANT EXPANSION SCRUBBER LIQUOR ACCOUNTABILITY TANK
08X-5945-S-00285	SCRAP PLANT EXPANSION FOUNDATION FOR OXIDATION FURNACE
08X-5945-S-00288	SCRAP PLANT EXPANSION BUILDING FOUNDATIONS AND PLAN AT EL 580'-0"
08X-5945-S-00355	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-1
08X-5945-S-00356	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-2
08X-5945-S-00437	SCRAP PLANT EXPANSION FLUID-SOLIDS REACTOR CONCRETE & FOUNDATION DETAILS
08X-5945-S-00447	SCRAP PLANT EXPANSION ACID FILTRATE SURGE TANK & MISCELLANEOUS FOUNDATIONS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8R - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8R - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03740	BUILDING 8G SLAB PLAN - EAST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIEW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

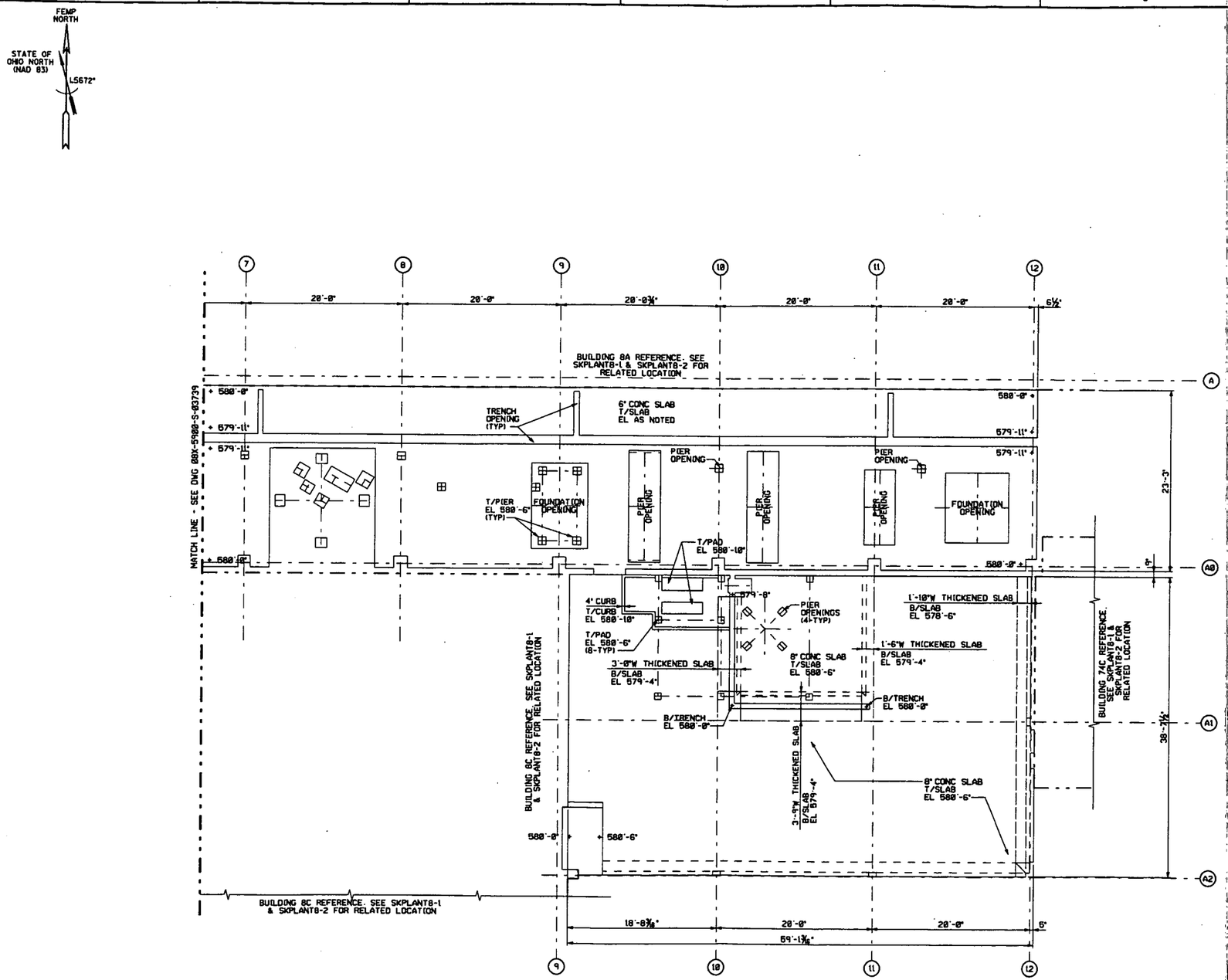
DRAWING TITLE
BUILDING 8G
SLAB PLAN - WEST
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
TYPE 1 / TYPE 2
EXISTING STRUCTURES AS CONTROLLED BY FERNALD ENVIRONMENTAL MANAGEMENT CONTROL LEVEL SUPPORT.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 01/29/92
REF NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 08X-5900-S-03739		SHEET NO. S0003	REV. NO. 0

SEAL



SLAB PLAN - EAST

000189

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK8G-1.
3. ALL ELEVATIONS SHOWN ON PLAN ARE TO THE TOP OF CONCRETE, ACID BRICK & PROTECTIVE LINERS WERE SUBTRACTED.

-- 4518

REF DWG NO.	DRAWING TITLE
08X-5500-A-02395	SCRAP RECOVERY PLANT FLOOR PLAN
08X-5500-S-01510	STORAGE FACILITIES CONCRETE FOUNDATION PLAN, SECTIONS & DETAILS
08X-5500-S-01613	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.G.P. FURNACE CONCRETE FURNACE FOUNDATION AND DETAILS
08X-5500-S-01614	FACILITY FOR CO-EXTRUSION BILLETS RECOVERY FACILITY - U.G.P. FURNACE CONCRETE MISCELLANEOUS DETAILS
08X-5945-S-00282	SCRAP PLANT EXPANSION SCRUBBER LIQUOR ACCOUNTABILITY TANK
08X-5945-S-00285	SCRAP PLANT EXPANSION FOUNDATION FOR OXIDATION FURNACE
08X-5945-S-00288	SCRAP PLANT EXPANSION BUILDING FOUNDATIONS AND PLAN AT EL 580'-0"
08X-5945-S-00355	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-1
08X-5945-S-00356	SCRAP PLANT EXPANSION ROTARY KILN CONCRETE FOUNDATIONS SH-2
08X-5945-S-00437	SCRAP PLANT EXPANSION FLUID-SOLIDS REACTOR CONCRETE & FOUNDATION DETAILS
08X-5945-S-00447	SCRAP PLANT EXPANSION ACID FILTRATE SURGE TANK & MISCELLANEOUS FOUNDATIONS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74G & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74G & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW
08X-5900-S-03739	BUILDING 8G SLAB PLAN - WEST

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8G
SLAB PLAN - EAST
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
REV NO.	FOF PROJECT NO.	DRAWN BY: L. N. HAGANAN	DATE: 03/25/02
4327	20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 02/11/02

COGNIZANT ENGINEER | DATE

DRAWING INDEX CODE NO.: 08X-5900-S-03740 | SHEET NO.: S0004 | REV. NO.: 0

SEAL

FEMP NORTH

STATE OF OHIO NORTH (NAD 83)

L5672"

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	7'-0"	7'-0"	1'-6"	575'-6"	2'-0"x2'-2"	T/PIER EL 580'-6"
B	7'-0"	7'-0"	1'-6"	575'-6"	2'-4½"x2'-2"	T/PIER EL 580'-6"
C	7'-0"	7'-0"	1'-6"	575'-6"	2'-0" SQ	T/PIER EL 580'-6"
D	6'-0"	6'-0"	1'-6"	575'-6"	2'-0" SQ	T/PIER EL 580'-6"
E	6'-0"	6'-0"	1'-6"	575'-6"	2'-2' SQ	T/PIER EL 580'-6"

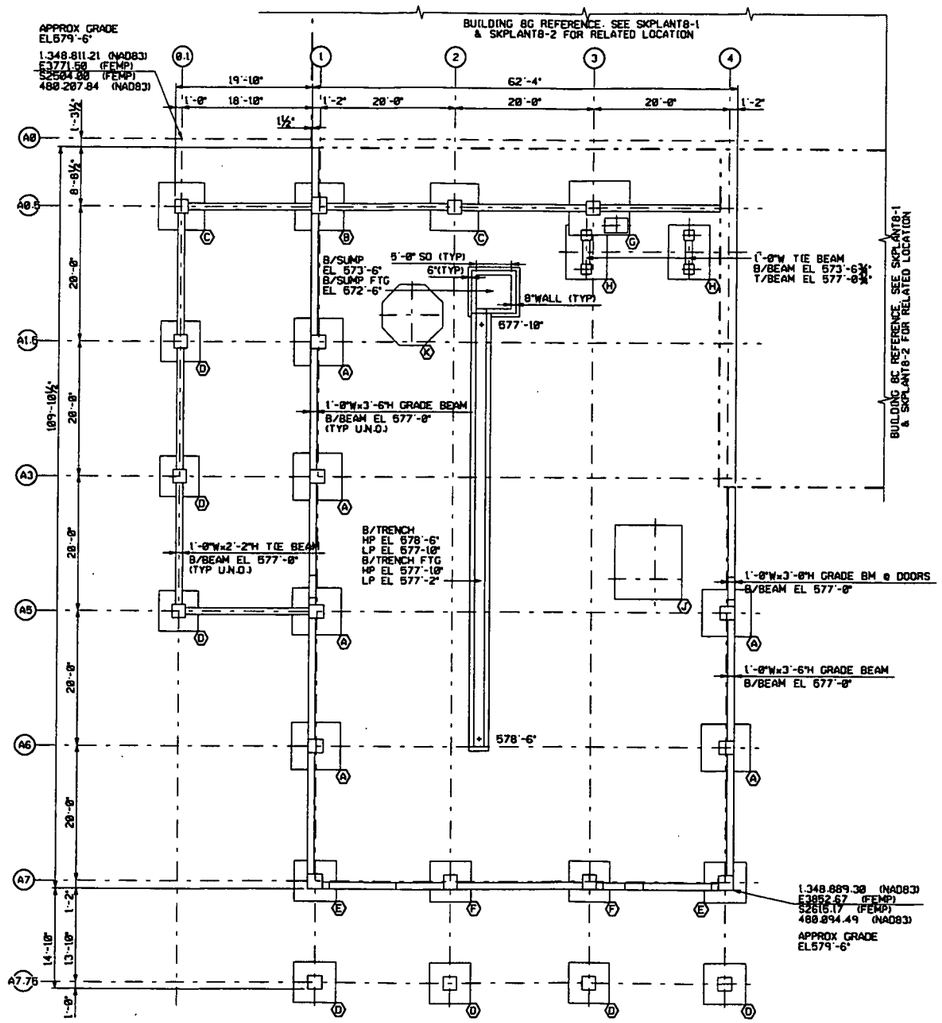
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
F	6'-0"	6'-0"	1'-6"	575'-6"	2'-2"x2'-0"	T/PIER EL 580'-6"
G	8'-0"	9'-0"	1'-6"	575'-6"	(1) 2'-0" SQ (1) 2'-2"x2'-6"	T/PIER EL 580'-6"
H	8'-½"	6'-0"	1'-6"	572'-¾"	(2) 1'-6" SQ	T/PIER EL 579'-11¾"
J	11'-0"	10'-0"	1'-9"	578'-3"	N/A	T/FDN EL 580'-0"
K	9'-0" OCTOGON	9'-0" OCTOGON	1'-10½"	579'-0"	N/A	T/FDN EL 580'-10½"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK08H-1.

4518



FOUNDATION PLAN

GRAPHIC SCALE: ⅛"=1'-0"

000190

REF DWG NO.	DRAWING TITLE
08J-3900-S-02777	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 1
08J-3900-S-02778	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 2
08J-3900-S-02780	DRUM RECONDITIONING SUMP AND FLOOR DRAIN DETAILS
08J-3900-S-02782	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 2
08J-3900-S-02783	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 3
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 8H
FOUNDATION PLAN
WITHOUT HIDDEN LINES

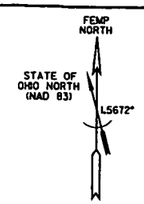
CONFIGURATION MANAGEMENT DRAWING — CHECK ONLY IF SHEET

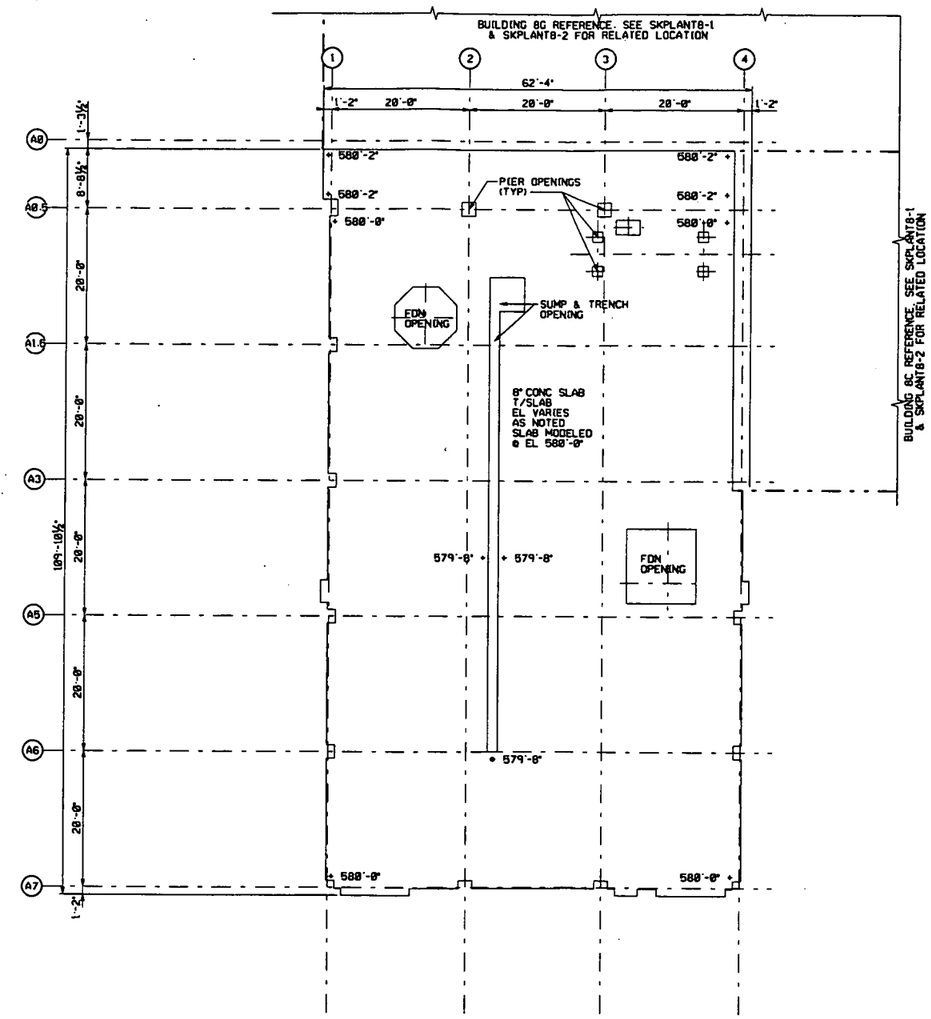
EXISTING ATTACHED AS CONTROLLED DRAWING ON DATE SHOWN. CONTROL DRAWING NUMBER CONTROL LEV. NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/19/02
REF. NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 08X-5900-S-03741		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER — DATE

SEAL





SLAB PLAN

GRAPHIC SCALE: ⅛"=1'-0"

000191

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK08H-1.

4518

REF DWG NO.	DRAWING TITLE
08J-3900-S-02777	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 1
08J-3900-S-02778	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 2
08J-3900-S-02780	DRUM RECONDITIONING SUMP AND FLOOR DRAIN DETAILS
08J-3900-S-02782	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 2
08J-3900-S-02783	DRUM RECONDITIONING FOUNDATION LOCATION PLAN - SHEET 3
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/02	LNH 10/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

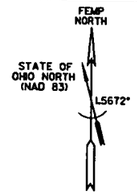
DRAWING TITLE
BUILDING 8H
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 10/19/02
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 08X-5900-S-03742		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



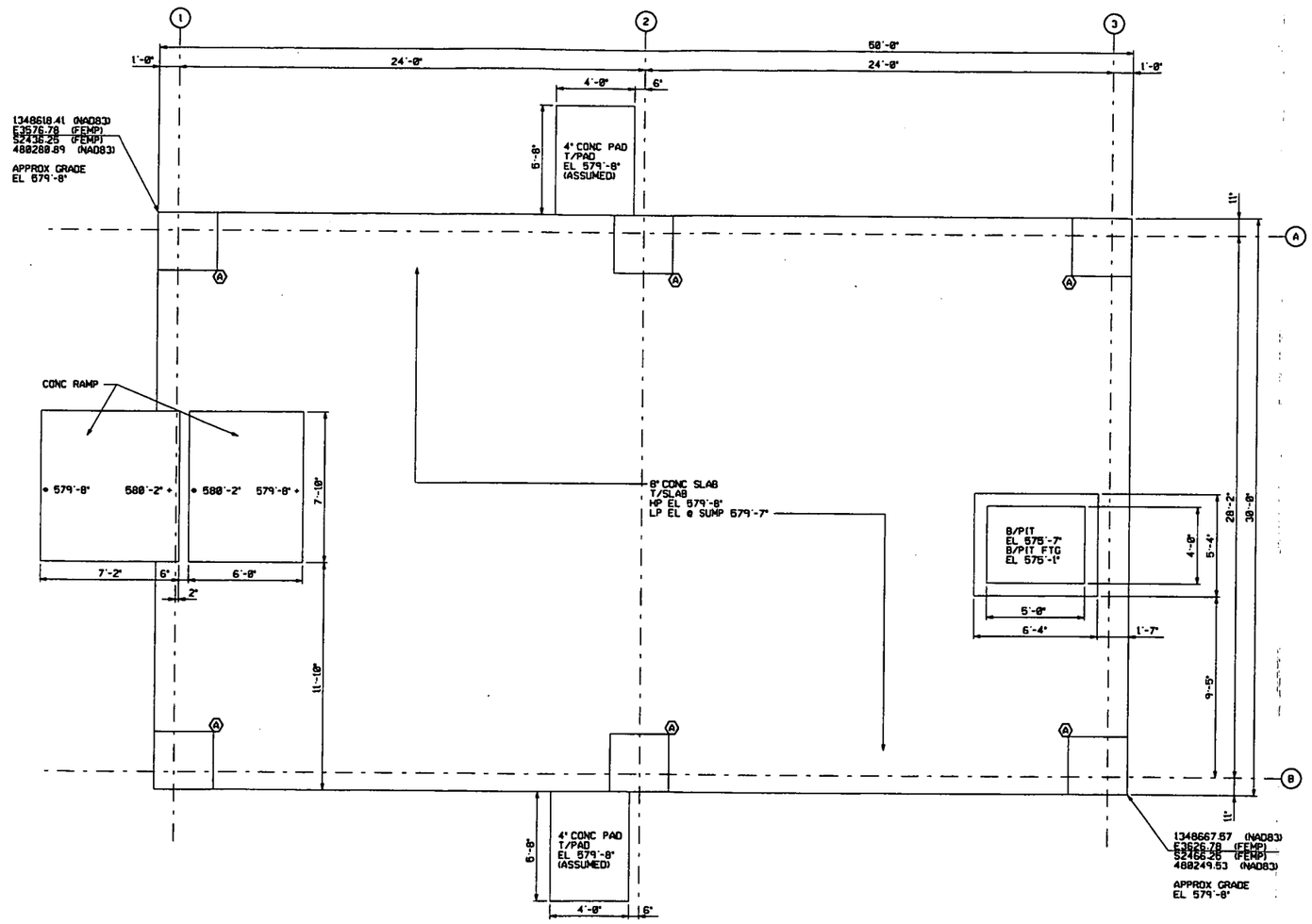
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	3'-0"	3'-6"	576'-02"	N/A	

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK18H-1.
3. SEE SKPLANT8-1 & SKPLANT8-2 FOR BUILDING RELATED LOCATION.

— 4518



FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: 3/8"=1'-0"

000192

REF DWG NO.	DRAWING TITLE
18D-5500-S-00995	DEWATERING BLDG FDN & PAD - DETAIL SHEET 1
18D-5500-S-00996	DEWATERING BLDG SECTION & DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

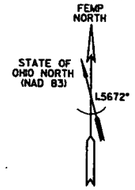
DRAWING TITLE
BUILDING 18H
FOUNDATION AND SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/8" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/23/02
RES NO. 4327	TOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 18D-5900-S-01418		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

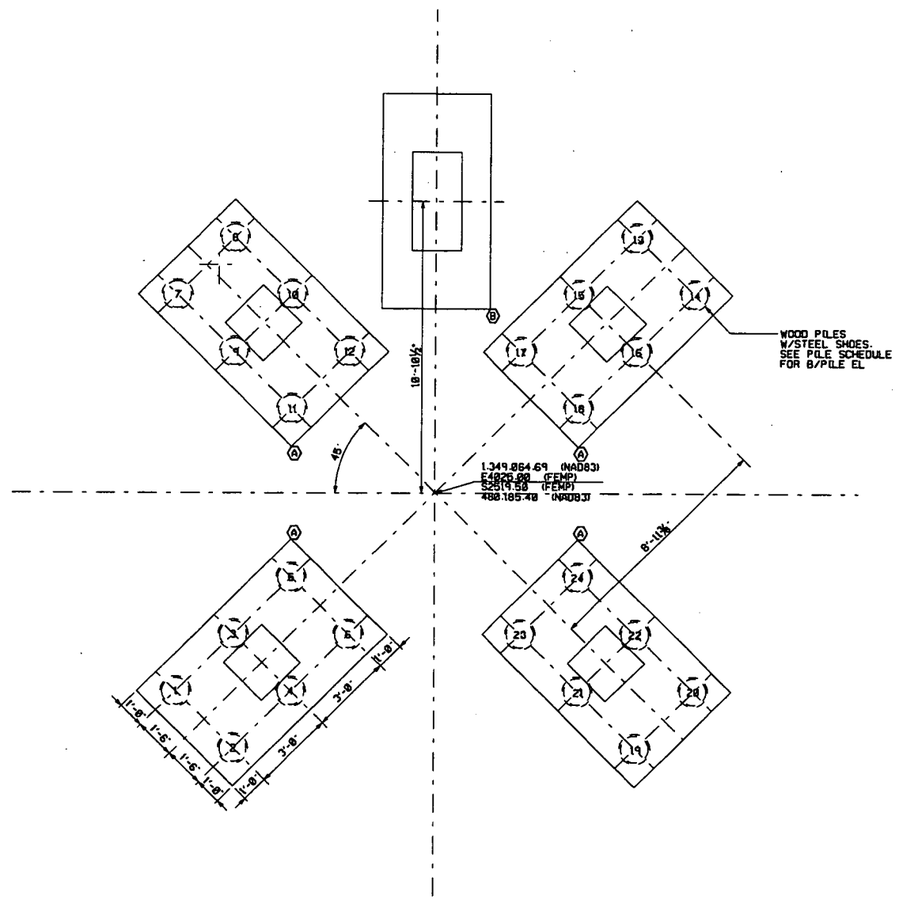


FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	8'-0"	5'-0"	2'-0"	575'-6"	2'-0" SQ	T/PIER EL 580'-0"
B	8'-0"	4'-0"	1'-0"	577'-6"	3'-8"x1'-10"	T/PIER EL 579'-11¾"

PILE SCHEDULE

NO.	DIA.	T/PILE EL	B/PILE EL	PILE LENGTH
1	1'-0"	575'-9"	556'-9"	19'-0"
2	1'-0"	575'-9"	557'-9"	18'-0"
3	1'-0"	575'-9"	556'-1"	19'-8"
4	1'-0"	575'-9"	555'-9"	20'-0"
5	1'-0"	575'-9"	555'-3"	20'-6"
6	1'-0"	575'-9"	556'-2"	19'-7"
7	1'-0"	575'-9"	556'-9"	19'-0"
8	1'-0"	575'-9"	556'-9"	19'-0"
9	1'-0"	575'-9"	555'-10"	19'-11"
10	1'-0"	575'-9"	554'-6"	21'-3"
11	1'-0"	575'-9"	557'-9"	18'-0"
12	1'-0"	575'-9"	556'-1"	19'-8"
13	1'-0"	575'-9"	555'-9"	20'-0"
14	1'-0"	575'-9"	558'-9"	17'-0"
15	1'-0"	575'-9"	557'-9"	18'-0"
16	1'-0"	575'-9"	556'-9"	19'-0"
17	1'-0"	575'-9"	556'-9"	19'-0"
18	1'-0"	575'-9"	557'-9"	18'-0"
19	1'-0"	575'-9"	557'-7"	18'-2"
20	1'-0"	575'-9"	557'-5"	18'-4"
21	1'-0"	575'-9"	558'-3"	17'-6"
22	1'-0"	575'-9"	559'-3"	16'-6"
23	1'-0"	575'-9"	558'-9"	17'-0"
24	1'-0"	575'-9"	557'-9"	18'-0"



FOUNDATION PLAN

GRAPHIC SCALE: ½"=1'-0"

000193

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK74C-1.
3. SEE SKPLANT8-1 & SKPLANT8-2 FOR BUILDING RELATED LOCATION.

4518

REF DWG NO.	DRAWING TITLE
88X-5500-S-01649	CONCRETE - SILO PIERS AND FOOTINGS AND DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIEW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LMH 10/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

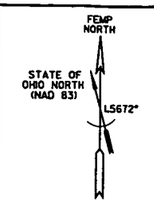
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

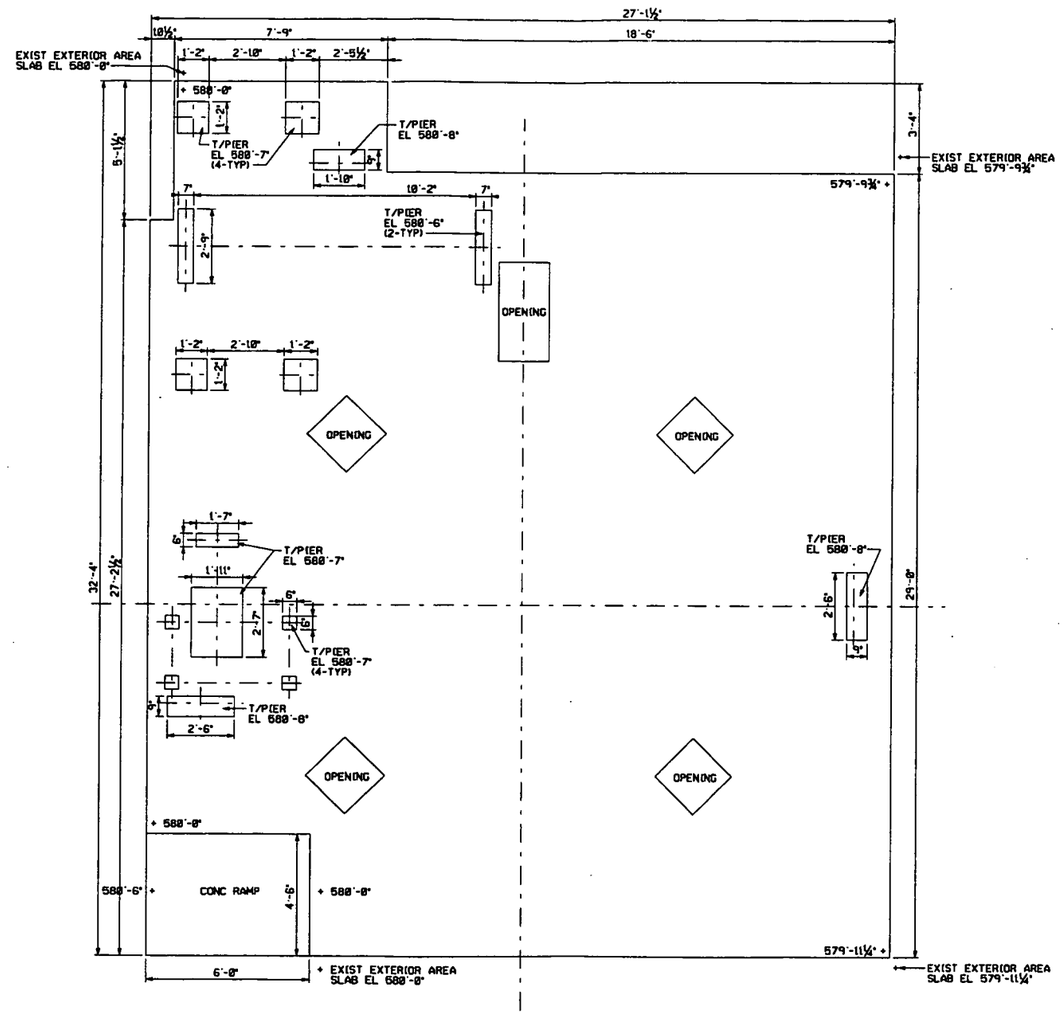
DRAWING TITLE
BUILDING 74C
FOUNDATION PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — EXISTING ASPECT RATIO ON CONCRETE COMPLIES WITH MANAGEMENT CONTROL SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE ½" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 01/31/92
REV NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 74D-5900-S-00079	SHEET NO. S0001 / REV. NO. 0

SEAL





SLAB PLAN

GRAPHIC SCALE: ½"=1'-0"

000194

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK74C-1.
3. SEE SKPLANT8-1 & SKPLANT8-2 FOR BUILDING RELATED LOCATION.

--4518

REF DWG NO.	DRAWING TITLE
08X-5500-S-01649	CONCRETE - SILO PIERS AND FOOTINGS AND DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

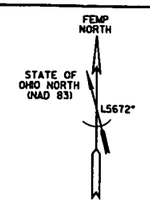
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 74C
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
YES / NO
EXISTING STRUCTURES OR COMPONENTS CONFORM TO THE DRAWING. USE STRICT REF NOTES.
COGNIZANT ENGINEER DATE

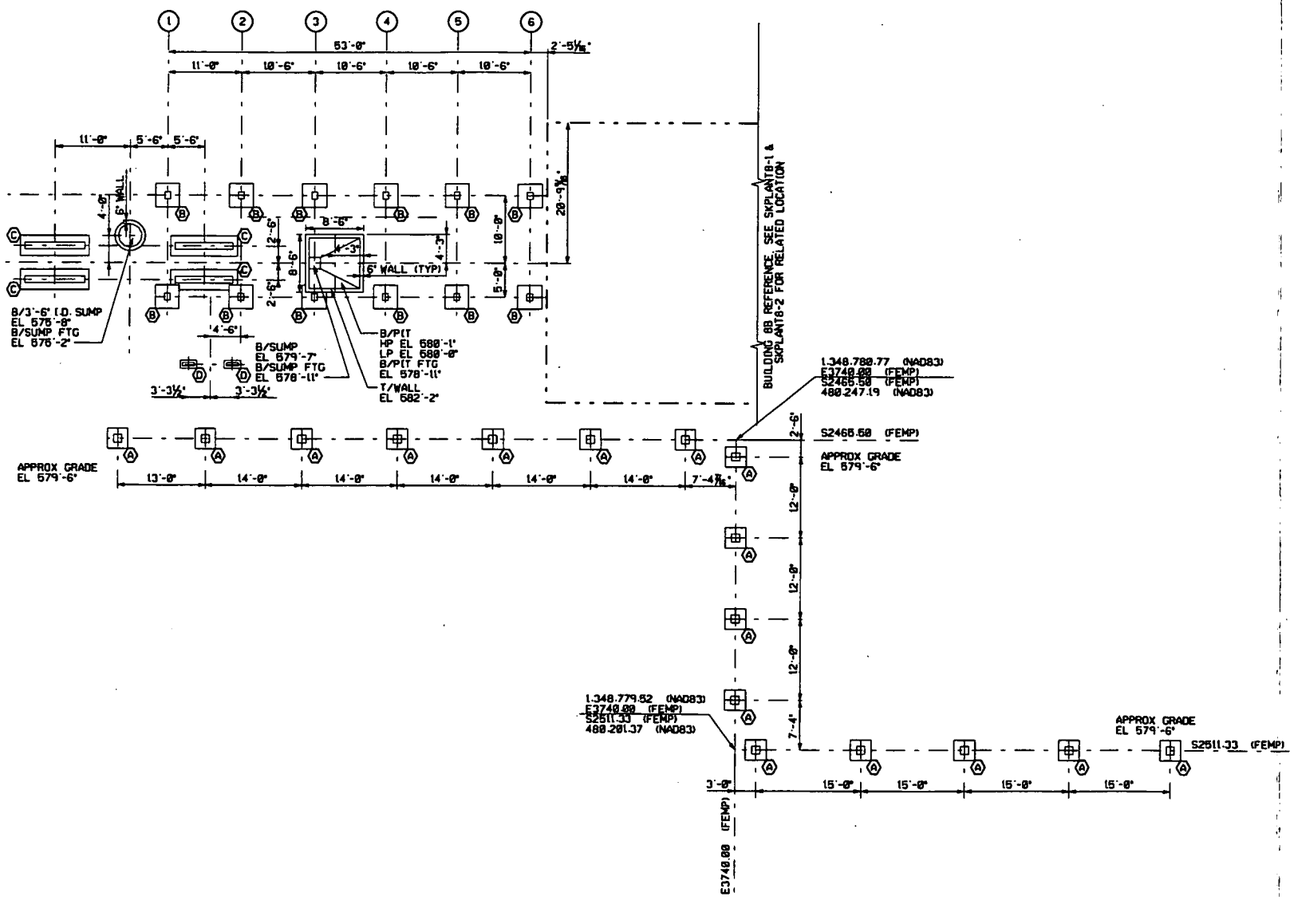
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	½" = 1'-0"	
		DRAWN BY: L. N. HAGAMAN	DATE: 01/31/92
RES NO.: 4327	FOR PROJECT NO.: 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 02/11/92
DRAWING INDEX CODE NO.: 74D-5900-S-00080		SHEET NO.: S0002	REV. NO.: 0

SEAL



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	3'-0"	1'-0"	575'-11"	1'-2" SQ	T/PIER EL 579'-11"
(B)	3'-6"	3'-6"	1'-0"	577'-0"	1'-0"x0'-10"	T/PIER EL 580'-0"
(C)	3'-0"	10'-0"	1'-0"	577'-0"	1'-0"x8'-6"	T/PIER EL 582'-6"
(D)	1'-2"	2'-6"	1'-0"	576'-6"	6'-6"x1'-10"	T/PIER EL 581'-0"



FOUNDATION PLAN

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

000195

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK74Q-1.

4518

REF DWG NO.	DRAWING TITLE
088-5500-S-01673	CONCRETE - PLAN, SECTIONS & DETAILS
088-5500-S-01877	CONCRETE & COVERING PLAN - SECTIONS - DETAILS
088-5500-S-01878	HCL METAL DISSOLVER EXTENSION PAD - WASH POOL - SECTIONS & DETAILS
088-5500-S-01880	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR LAYOUT
088-5500-S-01882	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR PLAN
088-5500-S-01883	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #1
088-5500-S-01884	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #2
088-5500-S-01885	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #3
088-5500-S-01886	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #4
088-5500-S-01887	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #5
08X-5500-S-01674	CONCRETE PIER FOUNDATIONS FOR YARD PIPING - PLAN
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 88 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 88 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

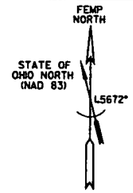
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

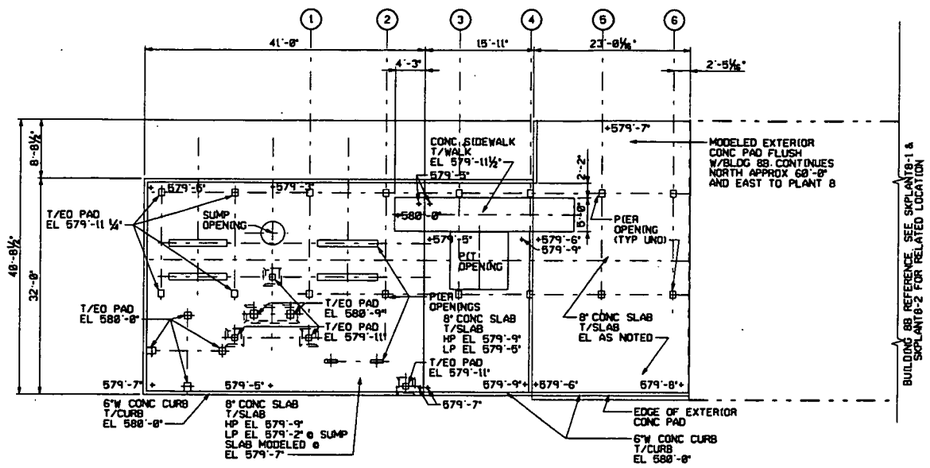
DRAWING TITLE
BUILDING 74Q
FOUNDATION PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTACHED AS CONTROLLED DOCUMENTS UNDER CONFIGURATION MANAGEMENT CONTROL. SEE ISTEL.
COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 1/8" = 1'-0"
060	N/A	DRAWN BY K. L. RABBITT — DATE 02/01/02
RCS NO. 4327	FGF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 02/11/02
DRAWING INDEX CODE NO. 74D-5900-S-00081		SHEET NO. S0001 — REV. NO. 0

SEAL





SLAB PLAN

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

000196

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK740-1.

-- 4518

REF DWG NO.	DRAWING TITLE
088-5500-S-01673	CONCRETE - PLAN, SECTIONS & DETAILS
088-5500-S-01677	CONCRETE & COVERING PLAN - SECTIONS - DETAILS
088-5500-S-01878	HCL METAL DISSOLVER EXTENSION PAD - WASH POOL - SECTIONS & DETAILS
088-5500-S-01880	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR LAYOUT
088-5500-S-01882	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR PLAN
088-5500-S-01883	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #1
088-5500-S-01884	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #2
088-5500-S-01885	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #3
088-5500-S-01886	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #4
088-5500-S-01887	HCL METAL DISSOLVER EXTENSION PAD - CONCRETE & ACID BRICK FLOOR SECT.& DETAILS SHEET #5
08X-5500-S-01674	CONCRETE PIER FOUNDATIONS FOR YARD PIPING - PLAN
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 8Q - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/82	LNH 03/28/82

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 74Q
SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTRIBUTES AS CONTROLLED BY THE FERNALD CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	1/8" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 02/01/82
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/82
DRAWING INDEX CODE NO. 74D-5900-S-00082		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

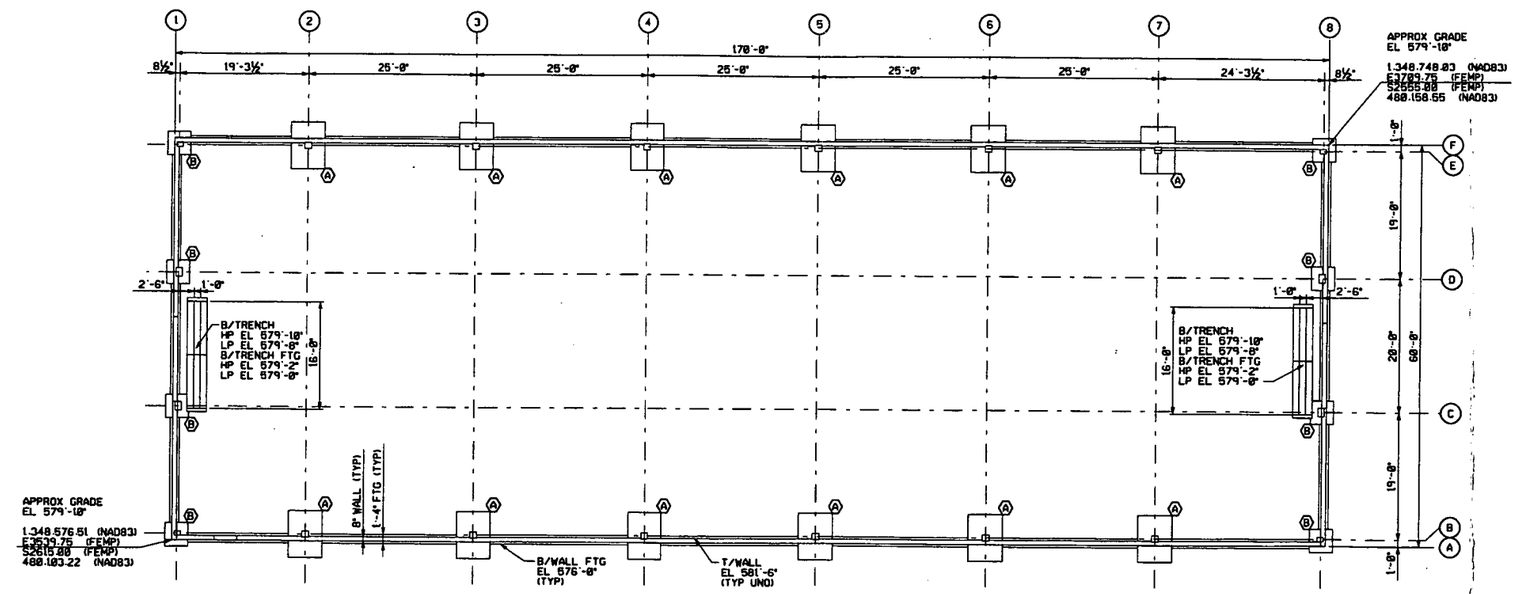
FEMP NORTH

STATE OF OHIO NORTH (NAD 83)

L5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	7'-0"	5'-0"	1'-0"	576'-0"	1'-6"x1'-0"	T/PIER EL 580'-6"
(B)	3'-6"	3'-6"	1'-0"	576'-0"	1'-3½" SQ	T/PIER EL 580'-6"



FOUNDATION PLAN

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

000197

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK80-1.
3. SEE SKPLANT8-1 & SKPLANT8-2 FOR BUILDING RELATED LOCATION.

4518

REF DWG NO.	DRAWING TITLE
750-5500-G-00019	GRID 20 - EXISTING SITE PLAN
80X-4445-A-00003	WAREHOUSE PLANT 8 - FOUNDATION PLAN & DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 80 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q & 80 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/82	LNH 03/28/82

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

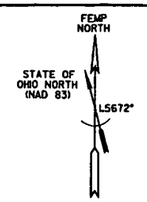
DRAWING TITLE
BUILDING 80
FOUNDATION PLAN
WITHOUT HIDDEN LINES

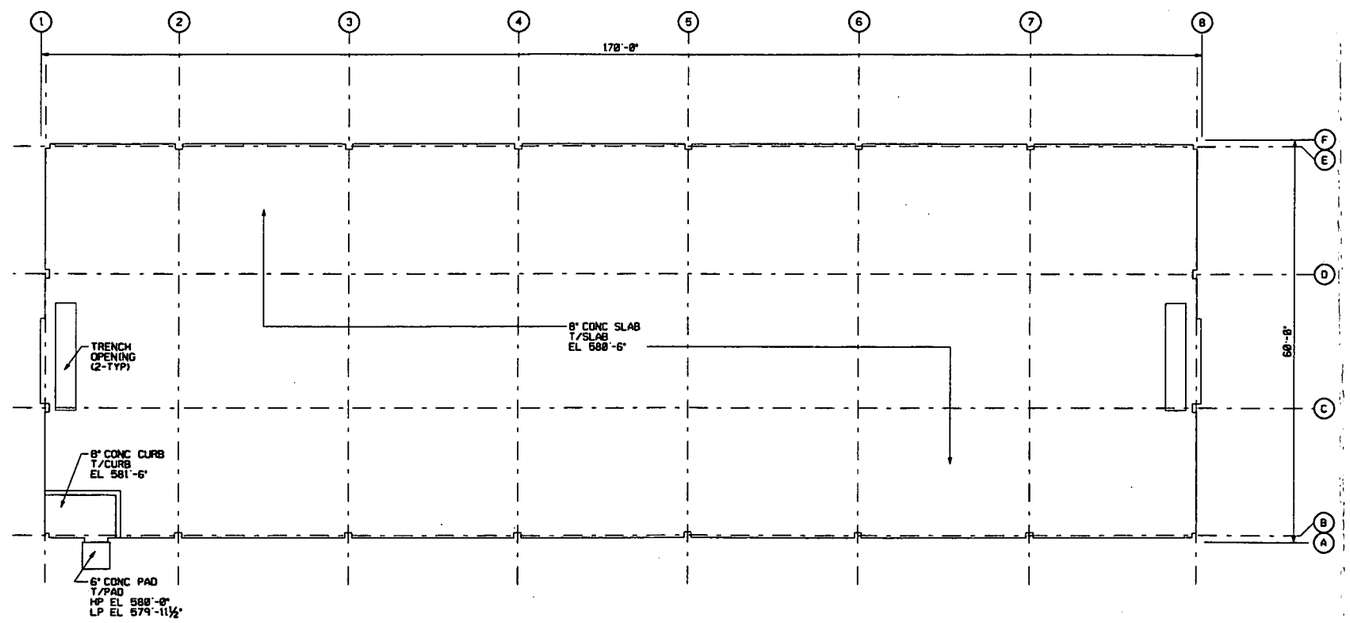
CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING STRUCTURES OR COMPONENTS SHOWN ON THIS DRAWING ARE SUBJECT TO THE CHANGE PROCESS OF DOE'S MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE 1/8" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/23/82
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/82
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 80X-5900-S-00049	SHEET NO. S0001 / REV. NO. 0

SEAL





SLAB PLAN

GRAPHIC SCALE: ⅛"=1'-0"

000198

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK80-1.
3. SEE SKPLANT8-1 & SKPLANT8-2 FOR BUILDING RELATED LOCATION.

—4518

REF DWG NO.	DRAWING TITLE
750-5500-G-00019	GRID 20 - EXISTING SITE PLAN
80X-4445-A-00003	WAREHOUSE PLANT 8 - FOUNDATION PLAN & DETAILS
SKPLANT8-1	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION ISOMETRIC VIEW
SKPLANT8-2	PLANT 8 - BLDG'S 8A, 8B, 8C, 8D, 8G, 8H, 18H, 74C, 74Q, & 80 - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LNH 10/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 20 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 80
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING YES NO

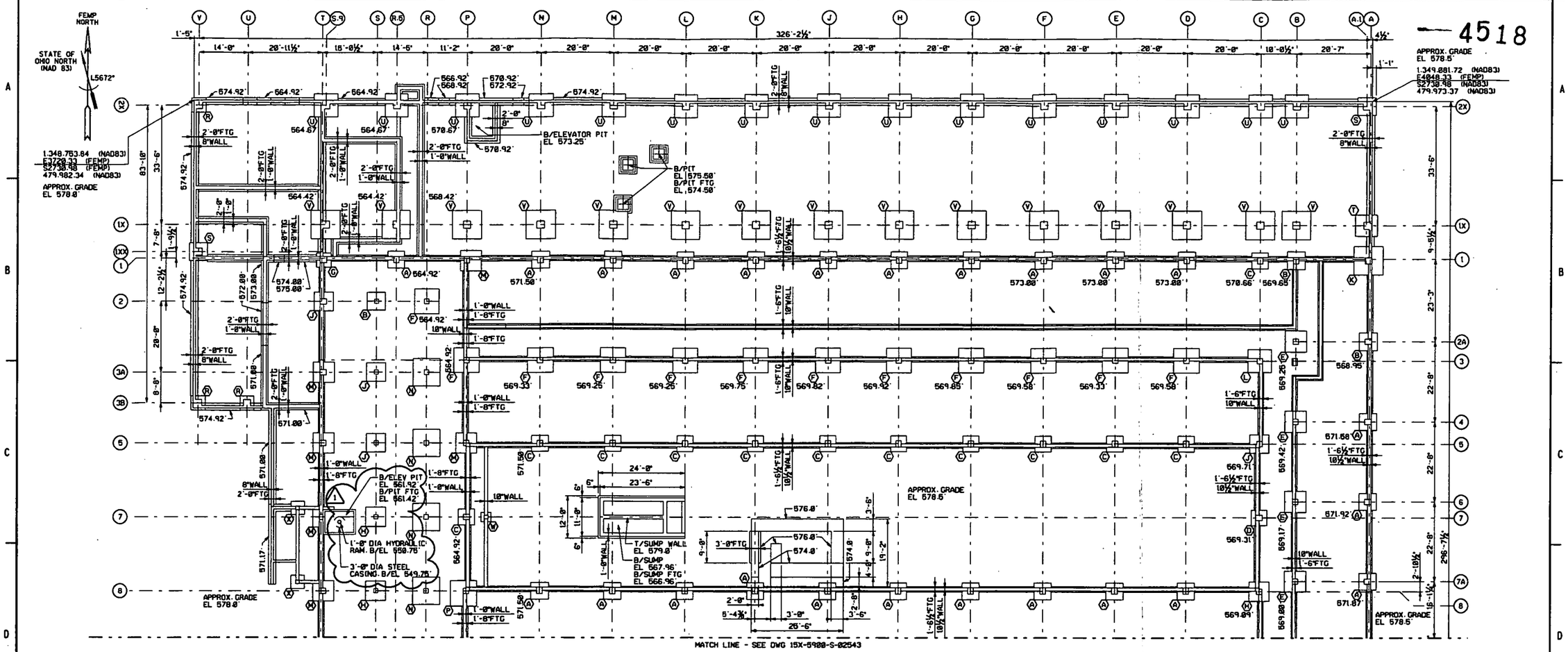
EXISTING ATTRIBUTES AS CONTAINED ON THIS DRAWING ARE UNDER CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/23/92
RES NO. 4327	FUF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/92
DRAWING INDEX CODE NO. 80X-5900-S-00050		SHEET NO. S0002	REV. NO. 0

SEAL

4518



FOUNDATION PLAN - NORTH

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-9"	4'-9"	1'-6"	574.00' (UNO)	VARIES	SEE NOTE 2
B	5'-0"	5'-0"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
C	4'-6"	4'-6"	1'-6"	574.00' (UNO)	VARIES	SEE NOTE 2
D	4'-4"	4'-4"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
E	6'-0"	6'-0"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
F	7'-0"	7'-0"	1'-6"	569.50' (UNO)	VARIES	SEE NOTE 2
G	4'-0"	4'-0"	1'-6"	564.92' (UNO)	VARIES	SEE NOTE 2
H	5'-6"	5'-6"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
J	5'-3"	5'-3"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
K	8'-0"	8'-0"	1'-6"	568.50'	VARIES	SEE NOTE 2
L	6'-6"	6'-6"	1'-3"	569.69'	VARIES	SEE NOTE 2
M	5'-9"	5'-9"	1'-3"	565.17'	VARIES	SEE NOTE 2
N	7'-9"	7'-9"	1'-8"	564.75'	VARIES	SEE NOTE 2
P	7'-3"	7'-3"	1'-6"	564.92'	VARIES	SEE NOTE 2
R	4'-0"	4'-0"	1'-0"	574.92'	VARIES	SEE NOTE 2
S	5'-0"	5'-0"	1'-0"	574.92'	VARIES	SEE NOTE 2
T	6'-0"	6'-0"	1'-3"	574.67'	VARIES	SEE NOTE 2
U	6'-6"	6'-6"	1'-3"	574.67' (UNO)	VARIES	SEE NOTE 2
V	8'-0"	8'-0"	1'-6"	576.50' (UNO)	2'-0"x2'-0"	SLAB HAUNCH
W	2'-8"	2'-8"	1'-0"	565.50'	12"x12"	
X	3'-9"	3'-9"	1'-4"	567.50'	12"x12"	
Y	4'-0"	4'-0"	2'-0"	572.50'	3'-0"x3'-0"	
Z	5'-0"	19'-3"	1'-9"	564.67'	VARIES	SEE NOTE 2

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
AA	5'-0"	19'-10"	1'-9"	564.67'	VARIES	SEE NOTE 2
AB	6'-4"	6'-4"	1'-6"	564.92'	1'-6" SQ	
AC	3'-0"	3'-0"	1'-3"	565.17'	VARIES	SEE NOTE 2
AD	3'-6"	3'-6"	1'-3"	565.17'	VARIES	SEE NOTE 2
AE	SEE PLAN	SEE PLAN	2'-6"	563.92'	VARIES	SEE NOTE 2
AF	6'-0"	6'-0"	1'-3"	572.67' (UNO)	VARIES	SEE NOTE 2
AG	5'-0"	7'-0"	1'-3"	572.67'	2'-0" SQ	
AH	5'-6"	5'-6"	1'-3"	571.50' (UNO)	VARIES	SEE NOTE 2
AJ	5'-0"	5'-0"	1'-3"	574.00' (UNO)	VARIES	SEE NOTE 2
AK	6'-6"	6'-6"	1'-3"	574.00'	VARIES	SEE NOTE 2
AL	7'-6"	7'-6"	1'-3"	574.00'	1'-6" SQ	
AM	5'-6"	6'-6"	1'-3"	574.00'	VARIES	SEE NOTE 2
AN	11'-6"	5'-0"	1'-3"	574.00'	(2) 1'-6" SQ	
AP	11'-6"	5'-6"	1'-3"	574.00'	(4) 1'-6"x1'-4"	
AR	6'-0"	6'-0"	1'-6"	561.42'(UNO)	VARIES	SEE NOTE 2
AS	5'-6"	5'-6"	1'-6"	563.75'		SEE NOTE 2
AT	7'-6"	7'-6"	1'-6"	561.50'		SEE NOTE 2
AU	8'-0"	8'-0"	1'-6"	561.50' (UNO)	VARIES	SEE NOTE 2
AV	6'-6"	6'-6"	1'-6"	561.50' (UNO)	1'-6" SQ	
AW	9'-6"	9'-6"	1'-9"	SEE PLAN	VARIES	SEE NOTE 2
AX	8'-6"	8'-6"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
AY	7'-0"	7'-0"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
AZ	14'-0"	5'-6"	1'-3"	567.00'	(2) 1'-6" SQ	

REF DWG NO.	DRAWING TITLE
15X-1450-S-00002	FOUNDATION PLAN
15X-1450-S-00034	DETAILS OF SUMP LIQUOR TANKS
15X-3115-S-00165	EAST HALF - FOUND. PLAN
15X-3115-S-00166	WEST HALF - FOUND. PLAN
15X-5500-A-00455	ELEVATOR - PLAN & SECTIONS
15X-5500-C-00024	GRID 21 - EXISTING SITE PLAN
15X-5500-S-00495	PLAN, ELEVATIONS, SECTIONS & DETAILS
15X-5500-S-00528	CONCRETE PLAN - SECTIONS 1-1 & 2-2
15X-5500-S-00529	MISCELLANEOUS DETAILS - SHEET NO.1
15X-5500-S-00530	MISCELLANEOUS DETAILS - SHEET NO.2
15X-5500-S-01261	FOUNDATION PLAN
15X-5500-S-01285	FOUNDATION PLAN
15X-5500-S-01669	FOUNDATION PLAN
15X-7000-S-00109	FOUNDATION PLAN - WEST SIDE
15X-7000-S-00110	FOUNDATION PLAN - EAST SIDE
15X-7000-S-00111	FOUNDATION DETAILS - SHEET #1
15X-7000-S-00112	FOUNDATION DETAILS - SHEET #2
15X-7000-S-00113	FOUNDATION DETAILS - SHEET #3
15X-7000-S-00132	BASEMENT WALLS - SECTIONS & DETAILS
15X-7000-S-00133	GROUND FLOOR DETAILS - SHEET 2
15X-7000-S-00146	PLANS & DETAILS
15X-8600-S-02162	FOUNDATION PLAN
15X-8600-S-02163	FOUNDATION ELEVATIONS & DETAILS
15X-8600-S-02166	CONCRETE SECTIONS AND DETAILS
15X-8600-S-02169	SCHEDULES AND DETAILS

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK15A-1.
3. ALL FOUNDATION WALL STRIP FOOTINGS BETWEEEN COLUMNS ARE TYPICALLY FLUSH WITH BOTTOM OF COLUMN FOOTING ELEVATION, EXCEPT AS NOTED.

000199

GRAPHIC SCALE: 3/32" = 1'-0"

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
1	CHANGED PIT, RAM, AND CASING ELEVATIONS. ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 02/28/02	KLR 02/28/02
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/02	KLR 01/29/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

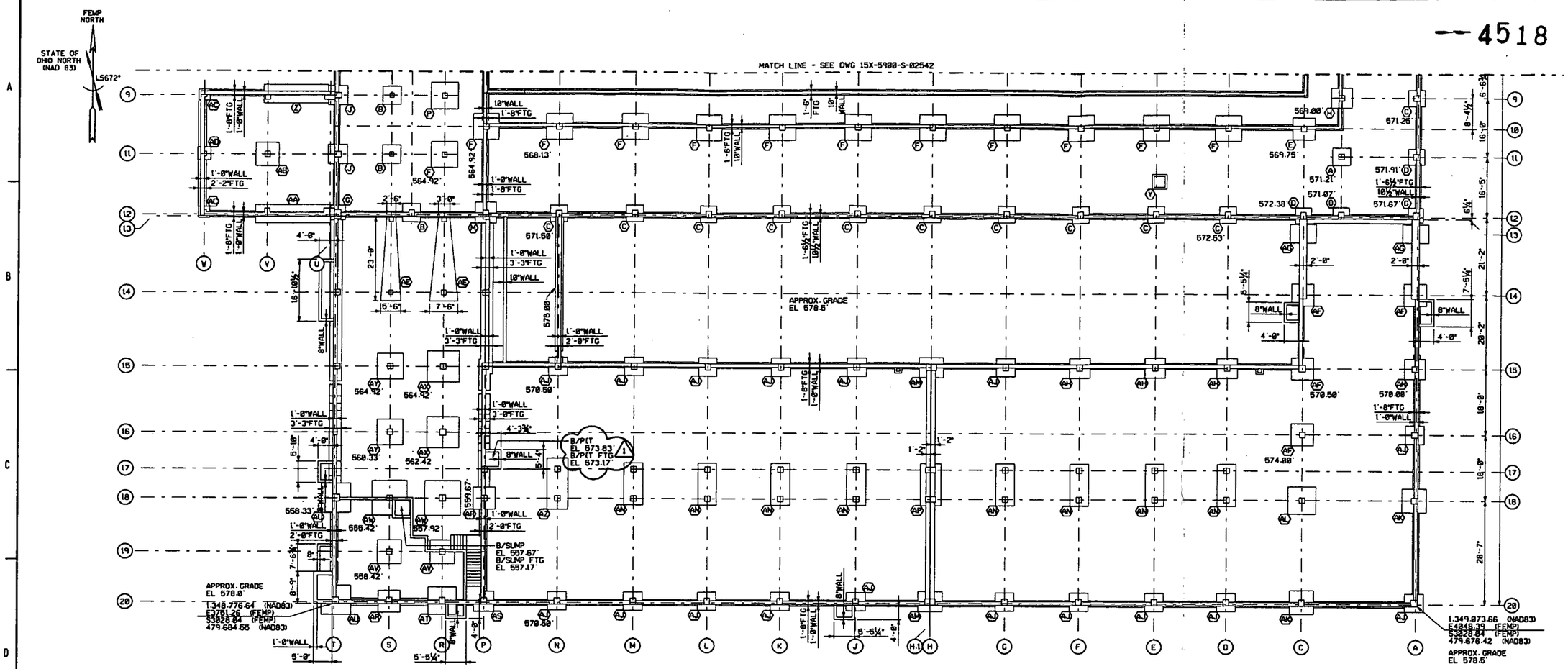
DRAWING TITLE
BUILDING 15A
FOUNDATION PLAN - NORTH
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — CHECK / DATE
EXISTING ATTACHMENTS AS CONTAINED IN THE CM DRAWING DATABASE AS OF THE DATE SHOWN ARE CONTROLLED BY CONTROL LEVEL NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/32" = 1'-0"	
RES NO. 4327	FOR PROJECT NO. 20810	DRAWN BY K. L. RABBITT	DATE 12/06/01
		TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 12/31/01

COGNIZANT ENGINEER — DATE — SEAL

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
15X-5900-S-02542	S0001	1



4518

FOUNDATION PLAN - SOUTH

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-9"	4'-9"	1'-6"	574.88' (UNO)	VARIES	SEE NOTE 2
B	5'-0"	5'-0"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
C	4'-6"	4'-6"	1'-6"	574.88' (UNO)	VARIES	SEE NOTE 2
D	4'-4"	4'-4"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
E	6'-0"	6'-0"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
F	7'-0"	7'-0"	1'-6"	569.58' (UNO)	VARIES	SEE NOTE 2
G	4'-0"	4'-0"	1'-6"	564.92' (UNO)	VARIES	SEE NOTE 2
H	5'-6"	5'-6"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
J	5'-3"	5'-3"	1'-3"	565.17' (UNO)	VARIES	SEE NOTE 2
K	8'-8"	8'-8"	1'-6"	568.58'	VARIES	SEE NOTE 2
L	6'-6"	6'-6"	1'-3"	569.69'	VARIES	SEE NOTE 2
M	5'-9"	5'-9"	1'-3"	565.17'	VARIES	SEE NOTE 2
N	7'-9"	7'-9"	1'-8"	564.75'	VARIES	SEE NOTE 2
P	7'-3"	7'-3"	1'-6"	564.92'	VARIES	SEE NOTE 2
R	4'-0"	4'-0"	1'-0"	574.92'	VARIES	SEE NOTE 2
S	5'-0"	5'-0"	1'-0"	574.92'	VARIES	SEE NOTE 2
T	6'-0"	6'-0"	1'-3"	574.67'	VARIES	SEE NOTE 2
U	6'-6"	6'-6"	1'-3"	574.67' (UNO)	VARIES	SEE NOTE 2
V	8'-0"	8'-0"	1'-6"	576.58' (UNO)	2'-0"x2'-0"	SLAB HAUNCH
W	2'-8"	2'-8"	1'-0"	565.58'	12"x12"	
X	3'-9"	3'-9"	1'-4"	567.58'	12"x12"	
Y	4'-0"	4'-0"	2'-0"	572.58'	3'-0"x3'-0"	
Z	5'-0"	19'-3"	1'-9"	564.67'	VARIES	SEE NOTE 2

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
AA	5'-0"	19'-10"	1'-9"	564.67'	VARIES	SEE NOTE 2
AB	6'-4"	6'-4"	1'-6"	564.92'	1'-6" SQ	
AC	3'-0"	3'-0"	1'-3"	565.17'	VARIES	SEE NOTE 2
AD	3'-6"	3'-6"	1'-3"	565.17'	VARIES	SEE NOTE 2
AE	SEE PLAN	SEE PLAN	2'-6"	563.92'	VARIES	SEE NOTE 2
AF	6'-0"	6'-0"	1'-3"	572.67' (UNO)	VARIES	SEE NOTE 2
AG	5'-0"	7'-0"	1'-3"	572.67'	2'-0" SQ	
AH	5'-6"	5'-6"	1'-3"	571.58' (UNO)	VARIES	SEE NOTE 2
AJ	5'-0"	5'-0"	1'-3"	574.00' (UNO)	VARIES	SEE NOTE 2
AK	6'-6"	6'-6"	1'-3"	574.00'	VARIES	SEE NOTE 2
AL	7'-6"	7'-6"	1'-3"	574.00'	1'-6" SQ	
AM	5'-6"	6'-6"	1'-3"	574.00'	VARIES	SEE NOTE 2
AN	11'-6"	5'-0"	1'-3"	574.00'	(2) 1'-6" SQ	
AP	11'-6"	5'-6"	1'-3"	574.00'	(4) 1'-6"x1'-4"	
AR	6'-0"	6'-0"	1'-6"	561.42' (UNO)	VARIES	SEE NOTE 2
AS	5'-6"	5'-6"	1'-6"	563.75'		SEE NOTE 2
AT	7'-6"	7'-6"	1'-6"	561.58'		SEE NOTE 2
AU	8'-0"	8'-0"	1'-6"	561.58' (UNO)	VARIES	SEE NOTE 2
AV	6'-6"	6'-6"	1'-6"	561.58' (UNO)	1'-6" SQ	
AW	9'-6"	9'-6"	1'-9"	SEE PLAN	VARIES	SEE NOTE 2
AX	8'-6"	8'-6"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
AY	7'-0"	7'-0"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
AZ	14'-0"	5'-6"	1'-3"	567.00'	(2) 1'-6" SQ	

REF DWG NO.	DRAWING TITLE
15X-1450-S-00002	FOUNDATION PLAN
15X-1450-S-00034	DETAILS OF SUMP LIQUOR TANKS
15X-3115-S-00165	EAST HALF - FOUND. PLAN
15X-3115-S-00166	WEST HALF - FOUND. PLAN
15X-5500-A-00455	ELEVATOR - PLAN & SECTIONS
15X-5500-G-00024	GRID 21 - EXISTING SITE PLAN
15X-5500-S-00495	PLAN, ELEVATIONS, SECTIONS & DETAILS
15X-5500-S-00520	CONCRETE PLAN - SECTIONS 1-1 & 2-2
15X-5500-S-00529	MISCELLANEOUS DETAILS - SHEET NO.1
15X-5500-S-00530	MISCELLANEOUS DETAILS - SHEET NO.2
15X-5500-S-01261	FOUNDATION PLAN
15X-5500-S-01285	FOUNDATION PLAN
15X-5500-S-01669	FOUNDATION PLAN
15X-7000-S-00109	FOUNDATION PLAN - WEST SIDE
15X-7000-S-00110	FOUNDATION PLAN - EAST SIDE
15X-7000-S-00111	FOUNDATION DETAILS - SHEET #1
15X-7000-S-00112	FOUNDATION DETAILS - SHEET #2
15X-7000-S-00113	FOUNDATION DETAILS - SHEET #3
15X-7000-S-00132	BASEMENT WALLS - SECTIONS & DETAILS
15X-7000-S-00133	GROUND FLOOR DETAILS - SHEET 2
15X-7000-S-00146	PLANS & DETAILS
15X-8600-S-02162	FOUNDATION PLAN
15X-8600-S-02163	FOUNDATION ELEVATIONS & DETAILS
15X-8600-S-02166	CONCRETE SECTIONS AND DETAILS
15X-8600-S-02169	SCHEDULES AND DETAILS

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK15A-1.
3. ALL FOUNDATION WALL STRIP FOOTINGS BETWEEEN COLUMNS ARE TYPICALLY FLUSH WITH BOTTOM OF COLUMN FOOTING ELEVATION, EXCEPT AS NOTED.

000200

8' 0' 8' 16' 24'
GRAPHIC SCALE: 3/32" = 1'-0"

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIW BY
1	CHANGED B/SUMP TO B/PIT. ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 12/20/12	KLR 12/20/12
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 11/21/12	KLR 11/21/12

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 15A
FOUNDATION PLAN - SOUTH
WITHOUT HIDDEN LINES

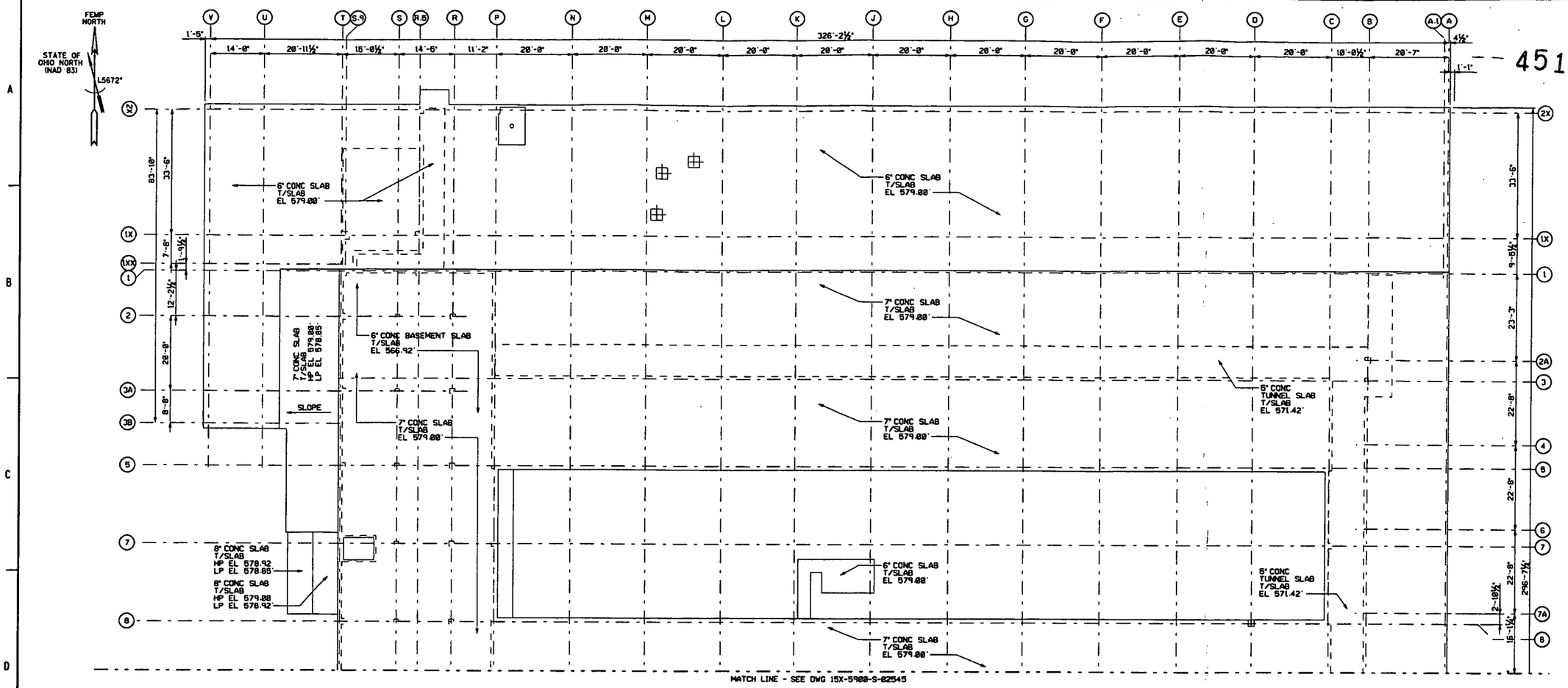
CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING STRUCTURES AS CONSTRUCTED WITH NO REVISIONS TO CONFIGURATION MANAGEMENT CONTROL DO NOTED.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/32" = 1'-0"	
DRAWN BY: K. L. RABBITT			DATE: 12/05/01
RES NO.: 4327	FOP PROJECT NO.: 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 12/31/01
DRAWING INDEX CODE NO.: 15X-5900-S-02543		SHEET NO.: S0002	REV. NO.: 1

COGNIZANT ENGINEER DATE

SEAL



4518

SLAB PLAN - NORTH

REF DWG NO.	DRAWING TITLE
15X-1450-S-00002	FOUNDATION PLAN
15X-1450-S-00034	DETAILS OF SUMP LIQUOR TANKS
15X-3115-S-00165	EAST HALF - FOUND. PLAN
15X-3115-S-00166	WEST HALF - FOUND. PLAN
15X-5500-A-00455	ELEVATOR - PLAN & SECTIONS
15X-5500-G-00024	GRID 21 - EXISTING SITE PLAN
15X-5500-S-00495	PLAN, ELEVATIONS, SECTIONS & DETAILS
15X-5500-S-00528	CONCRETE PLAN - SECTIONS 1-1 & 2-2
15X-5500-S-00529	MISCELLANEOUS DETAILS - SHEET NO.1
15X-5500-S-00530	MISCELLANEOUS DETAILS - SHEET NO.2
15X-5500-S-01261	FOUNDATION PLAN
15X-5500-S-01285	FOUNDATION PLAN
15X-5500-S-01669	FOUNDATION PLAN
15X-7000-S-00109	FOUNDATION PLAN - WEST SIDE
15X-7000-S-00110	FOUNDATION PLAN - EAST SIDE
15X-7000-S-00111	FOUNDATION DETAILS - SHEET #1
15X-7000-S-00112	FOUNDATION DETAILS - SHEET #2
15X-7000-S-00113	FOUNDATION DETAILS - SHEET #3
15X-7000-S-00132	BASEMENT WALLS - SECTIONS & DETAILS
15X-7000-S-00133	GROUND FLOOR DETAILS - SHEET 2
15X-7000-S-00146	PLANS & DETAILS
15X-8600-S-02162	FOUNDATION PLAN
15X-8600-S-02163	FOUNDATION ELEVATIONS & DETAILS
15X-8600-S-02166	CONCRETE SECTIONS AND DETAILS
15X-8600-S-02169	SCHEDULES AND DETAILS

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK15A-1.

000201

GRAPHIC SCALE: 1/32" = 1'-0"

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/24/02	KLR 01/24/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 15A
SLAB PLAN - NORTH
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

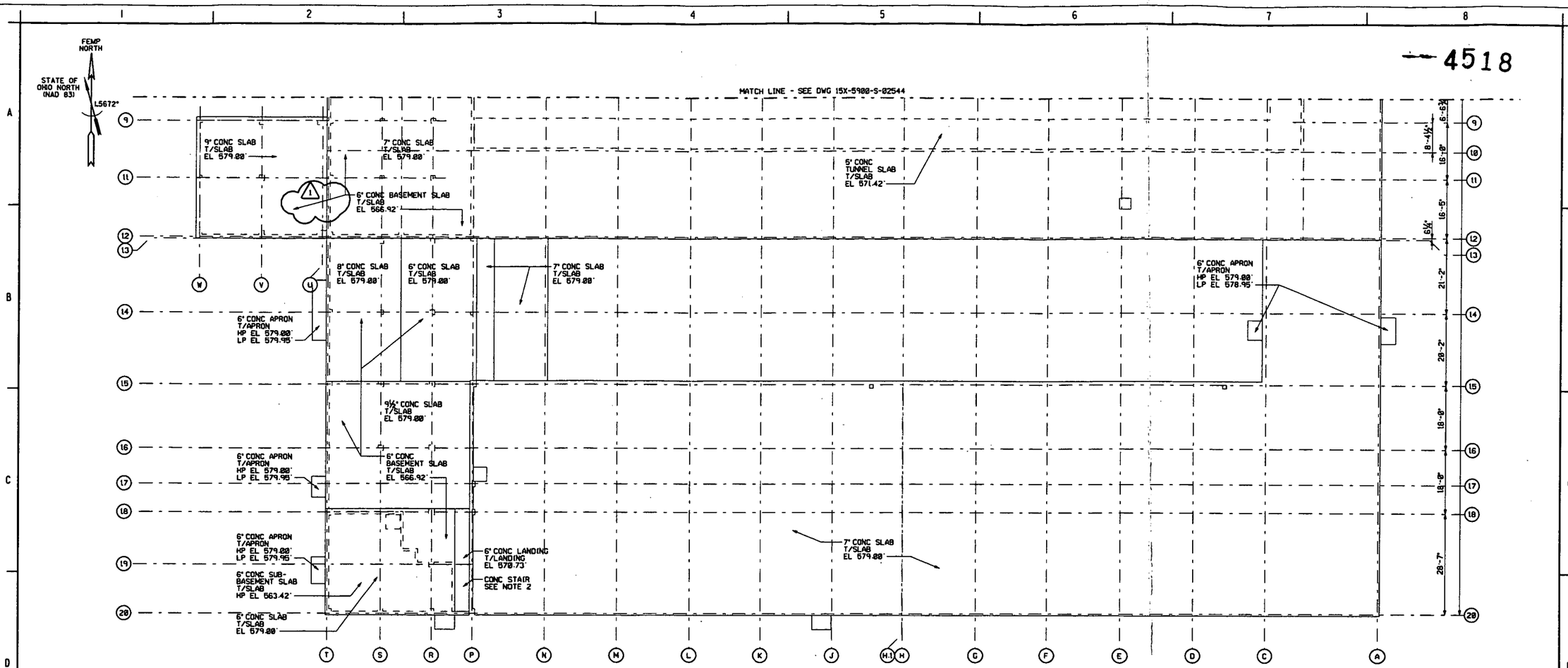
EXISTING ATTACHED AS CONTROLLED DRAWING IN THE DELEAD CONTROLLED DOCUMENT MANAGEMENT CENTRAL FILE (DCFC)

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 1/32" = 1'-0"	
060	N/A	DRAWN BY K.L. RABBITT	DATE 12/06/01
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 12/31/01
DRAWING INDEX CODE NO. 15X-5900-S-02544		SHEET NO. S0003	REV. NO. 0

SEAL

4518



SLAB PLAN - SOUTH

REF DWG NO.	DRAWING TITLE
15X-1450-S-00002	FOUNDATION PLAN
15X-1450-S-00034	DETAILS OF SUMP LIQUOR TANKS
15X-3115-S-00165	EAST HALF - FOUND. PLAN
15X-3115-S-00166	WEST HALF - FOUND. PLAN
15X-5500-A-00455	ELEVATOR - PLAN & SECTIONS
15X-5500-G-00024	GRID 21 - EXISTING SITE PLAN
15X-5500-S-00495	PLAN, ELEVATIONS, SECTIONS & DETAILS
15X-5500-S-00528	CONCRETE PLAN - SECTIONS 1-1 & 2-2
15X-5500-S-00529	MISCELLANEOUS DETAILS - SHEET NO.1
15X-5500-S-00530	MISCELLANEOUS DETAILS - SHEET NO.2
15X-5500-S-01261	FOUNDATION PLAN
15X-5500-S-01285	FOUNDATION PLAN
15X-5500-S-01669	FOUNDATION PLAN
15X-7000-S-00109	FOUNDATION PLAN - WEST SIDE
15X-7000-S-00110	FOUNDATION PLAN - EAST SIDE
15X-7000-S-00111	FOUNDATION DETAILS - SHEET #1
15X-7000-S-00112	FOUNDATION DETAILS - SHEET #2
15X-7000-S-00113	FOUNDATION DETAILS - SHEET #3
15X-7000-S-00132	BASEMENT WALLS - SECTIONS & DETAILS
15X-7000-S-00133	GROUND FLOOR DETAILS - SHEET 2
15X-7000-S-00146	PLANS & DETAILS
15X-8600-S-02162	FOUNDATION PLAN
15X-8600-S-02163	FOUNDATION ELEVATIONS & DETAILS
15X-8600-S-02166	CONCRETE SECTIONS AND DETAILS
15X-8600-S-02169	SCHEDULES AND DETAILS

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK15A-1.

000202

8' 0' 8' 16' 24'
GRAPHIC SCALE: 3/32"=1'-0"

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
1	ADDED LEADER TO BASEMENT SLAB. ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 12/26/02	KLR 12/26/02
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/02	KLR 01/29/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

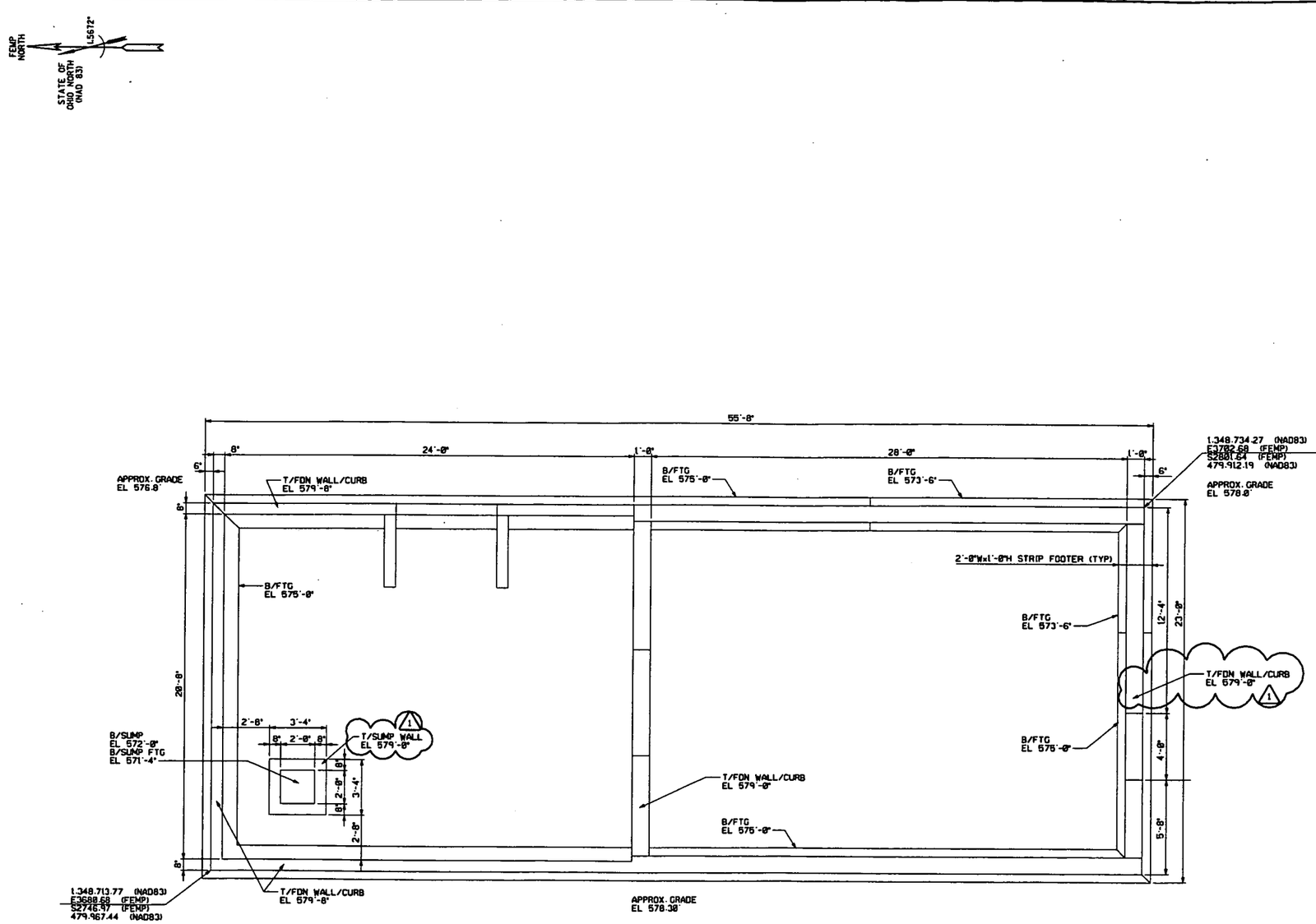
DRAWING TITLE
BUILDING 15A
SLAB PLAN - SOUTH
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTRIBUTES ARE CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL-LED SITES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/32" = 1'-0"
060	N/A	DRAWN BY K. L. RABBITT — DATE 12/06/01
AES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 12/31/01
DRAWING INDEX CODE NO. 15X-5900-S-02545		SHEET NO. S0004 — REV. NO. 1

SEAL



FOUNDATION PLAN

2' 1' 0' 2' 4' 6'
GRAPHIC SCALE: ⅜"=1'-0"

000203

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK158-1.

4518

REF DWG NO.	DRAWING TITLE
15A-4445-A-02431	LAB PAD & CHEMICAL BLDG
15A-5508-A-02454	FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
		INITIALS AND DATE		
1	CHANGED SUMP WALL NOTE AND FDN WALL ELEV ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 02/28/02	KLR 02/28/02
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/02	KLR 01/29/02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

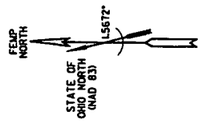
DRAWING TITLE
BUILDING 15B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

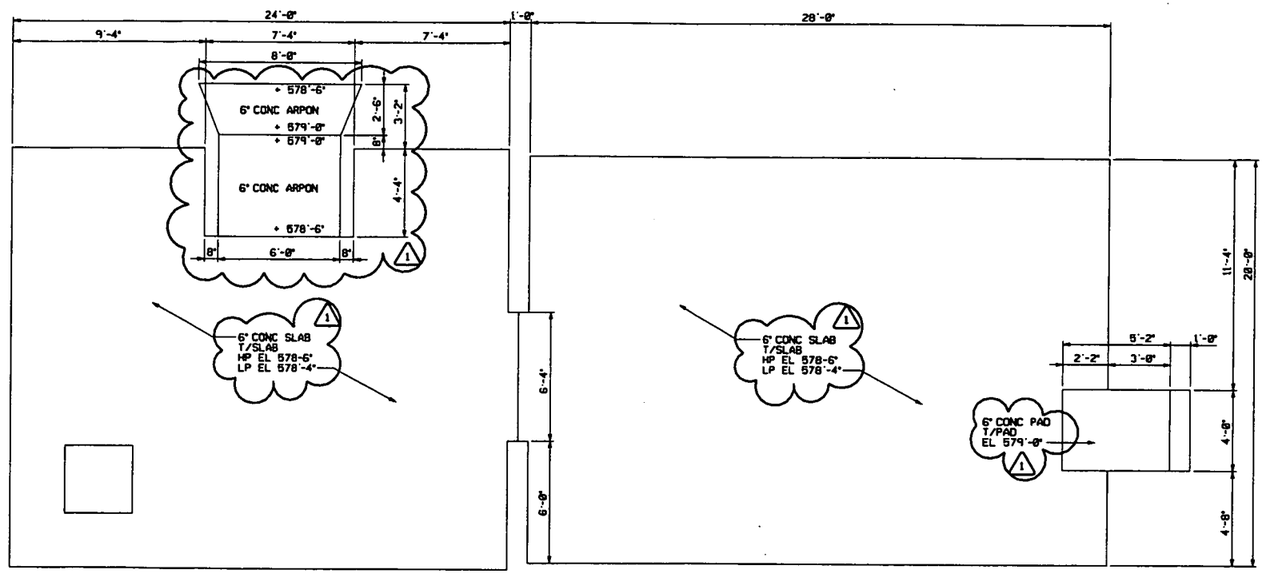
CONFIGURATION MANAGEMENT DRAWING
EXISTING DRAWINGS OR COMPONENTS CONTROLLED IN THE FERNALD CONFIGURATION MANAGEMENT CONTROL SYSTEM.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ⅜" = 1'-0"
060	N/A	DRAWN BY L. N. HAGAMAN — DATE 12/19/01
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 12/31/01
DRAWING INDEX CODE NO. 15X-5900-S-02546		SHEET NO. S0001 — REV. NO. 1

SEAL





SLAB PLAN

GRAPHIC SCALE: 3/8"=1'-0"

000204

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK158-1.

- 4518

REF DWG NO.	DRAWING TITLE
15A-4445-A-02431	LAB PAD & CHEMICAL BLDG
15A-5500-A-02454	FLOOR PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
1	ADDED APRON&PAD EL. CHANGED PAD TO SLAB, ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 12/29/92	KLR 12/29/92
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 11/25/92	KLR 11/25/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 21 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 15B
SLAB PLAN
WITHOUT HIDDEN LINES

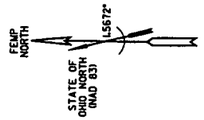
CONFIGURATION MANAGEMENT DRAWING

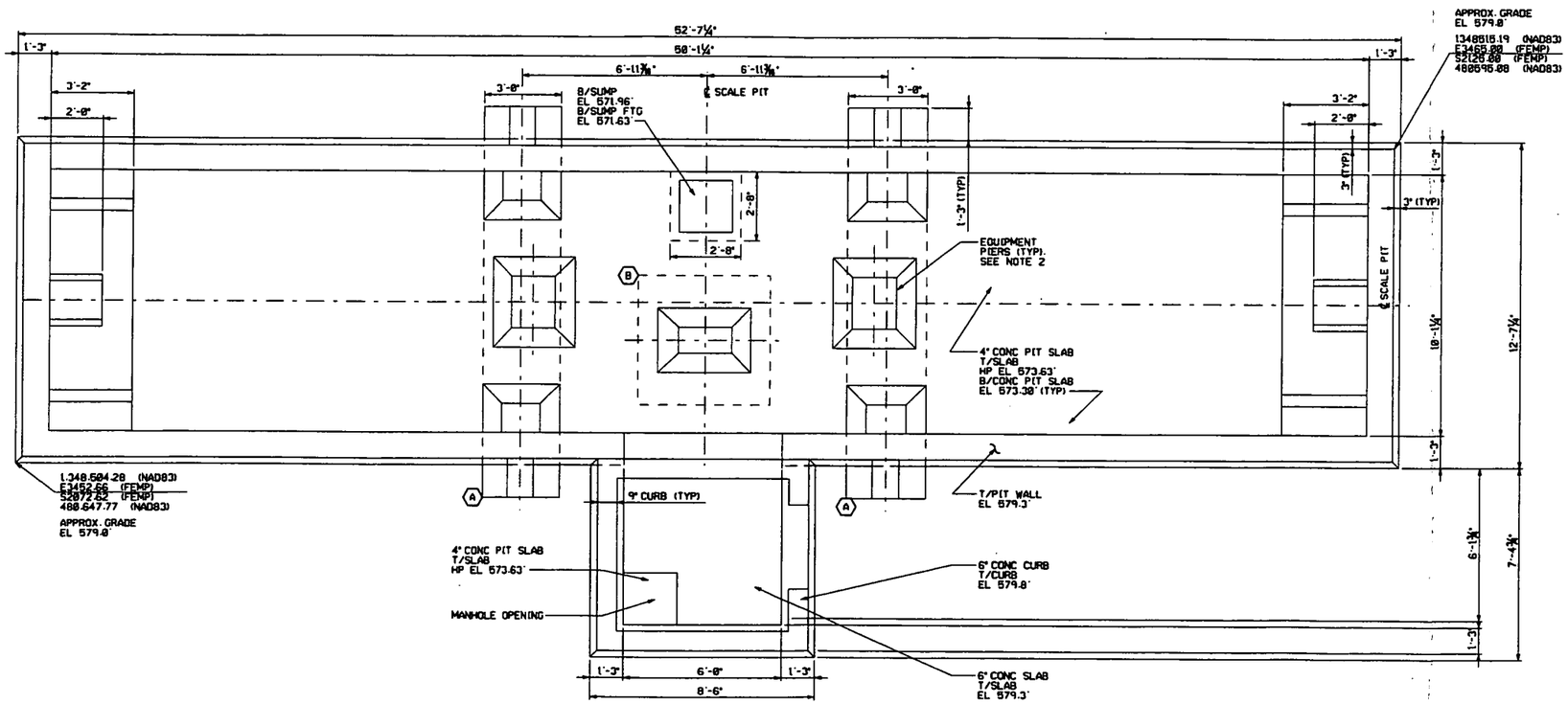
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/8" = 1'-0"	
		DRAWN BY: L. N. HAGAMAN	DATE 12/19/91
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 12/31/91
DRAWING INDEX CODE NO. 15X-5900-S-02547		SHEET NO. S0002	REV. NO. 1

COGNIZANT ENGINEER DATE

SEAL

FOOTING SCHEDULE						
MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	15'-1¼"	0'-8"	572'-7½"	N/A	
(B)	5'-0"	5'-0"	2'-0"	571'-3⅜"	N/A	





FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ½"=1'-0"

000205

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK220-1.

4518

REF DWG NO.	DRAWING TITLE
220-1450-S-00126	PLANS & DETAILS OF TRUCK SCALE PIT

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/29/02	KLR 10/29/02

DETAILS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
SCALE 22D
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

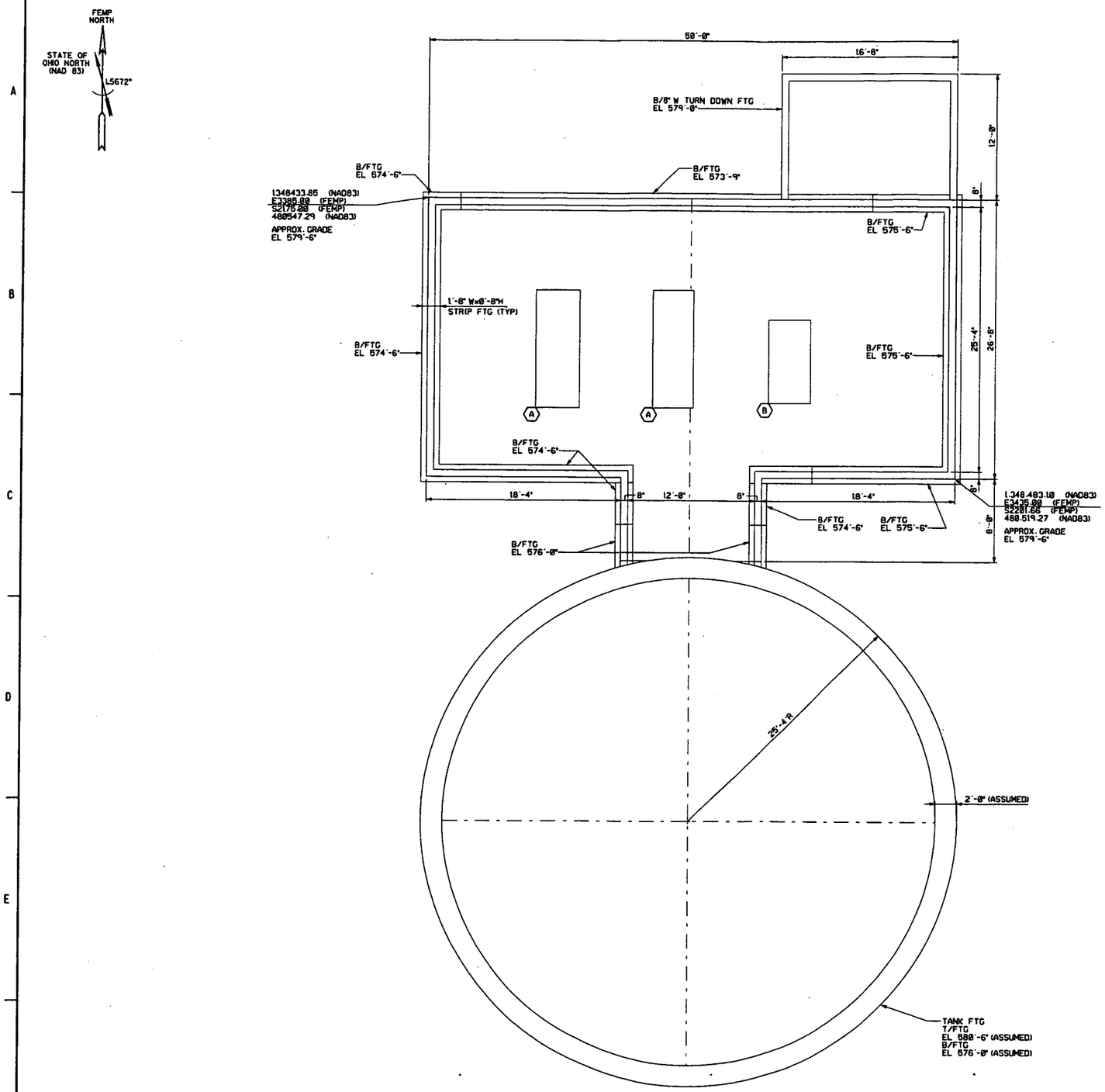
CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTACHMENT AS CONTROLLED BY THE "AS-BUILT" DRAWING MAINTENANCE PROCEDURE CONTROL LIST ENTRY.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	½" = 1'-0"	
RES NO.	FOF PROJECT NO.	DRAWN BY K.L. RABBITT	DATE 11/29/01
4327	20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/01
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
22D-5900-S-00979		S0001	0

SEAL



FOUNDATION PLAN

FOOTING SCHEDULE						
MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	11'-3"	4'-0"	1'-8"	579'-6"	N/A	T/FTG EL 581'-2"
B	8'-0"	4'-0"	1'-8"	579'-6"	N/A	T/FTG EL 581'-2"

GRAPHIC SCALE: ¼"=1'-0"

000206

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK26A-1.

-- 4518

REF DWG NO.	DRAWING TITLE
26A-5500-A-00127	FLOOR PLAN
26A-4445-A-00020	ELEVATIONS & SECTIONS
22D-5500-X-00755	LAYOUT AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/24/92	KLR 01/24/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

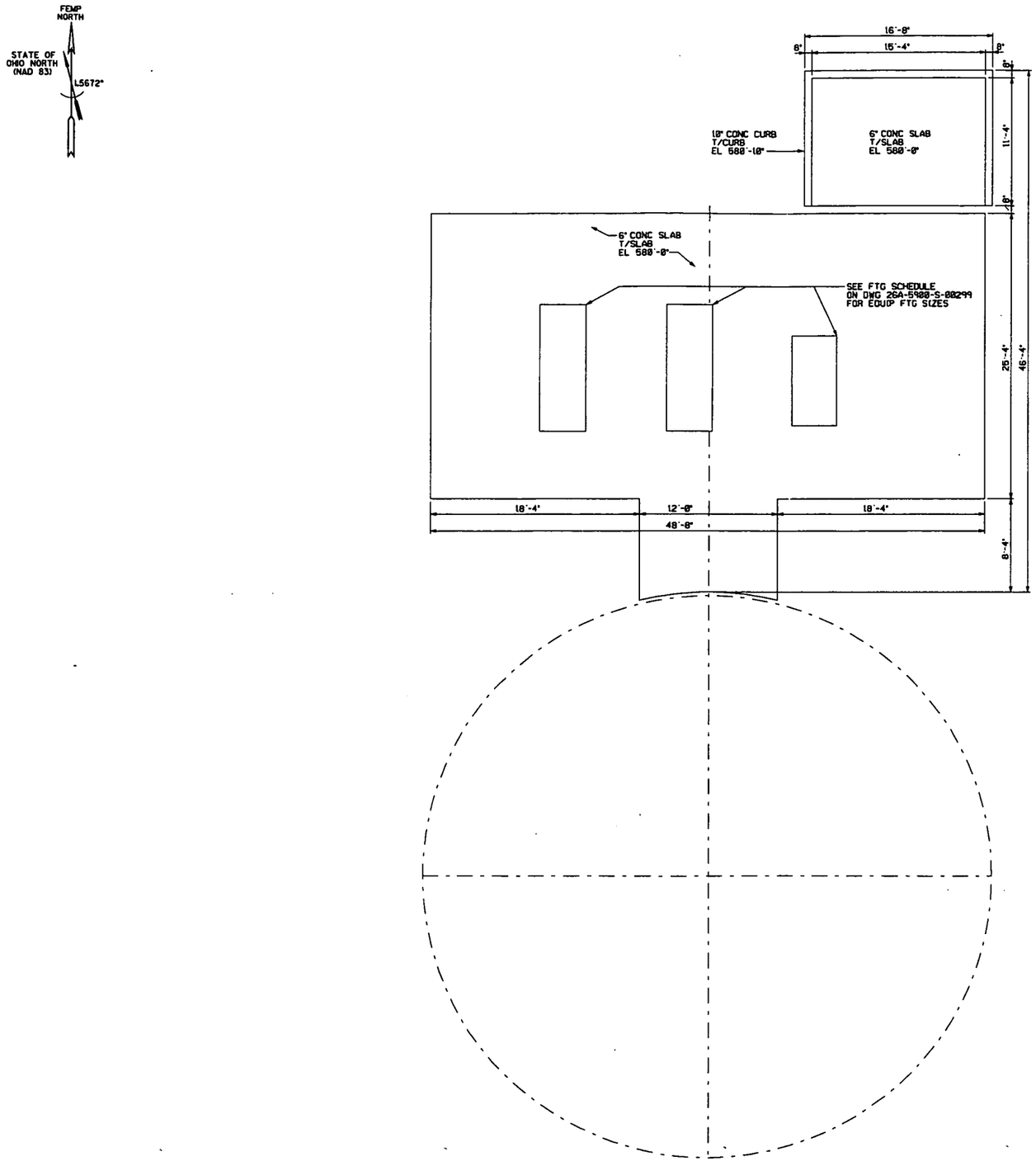
DRAWING TITLE
BUILDING 26A
FOUNDATION PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING ALTHOUGH NOT CONFORMED TO CONFIGURATION MANAGEMENT CONTROL LEV. ACTUAL

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	¼" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 12/03/91
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/91
DRAWING INDEX CODE NO. 26A-5900-S-00299		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

000207

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK26A-1.

4518

REF DWG NO.	DRAWING TITLE
26A-5500-A-00127	FLOOR PLAN
26A-4445-A-00020	ELEVATIONS & SECTIONS
22D-5500-X-00755	LAYOUT AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/02	KLR 01/29/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 26A
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
USE
INFO
EXISTING ATTACHED AS CONTROLLED DRAWING IN CONFIGURATION MANAGEMENT CONTROL FOR REVIEW.

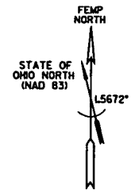
COGNIZANT ENGINEER DATE

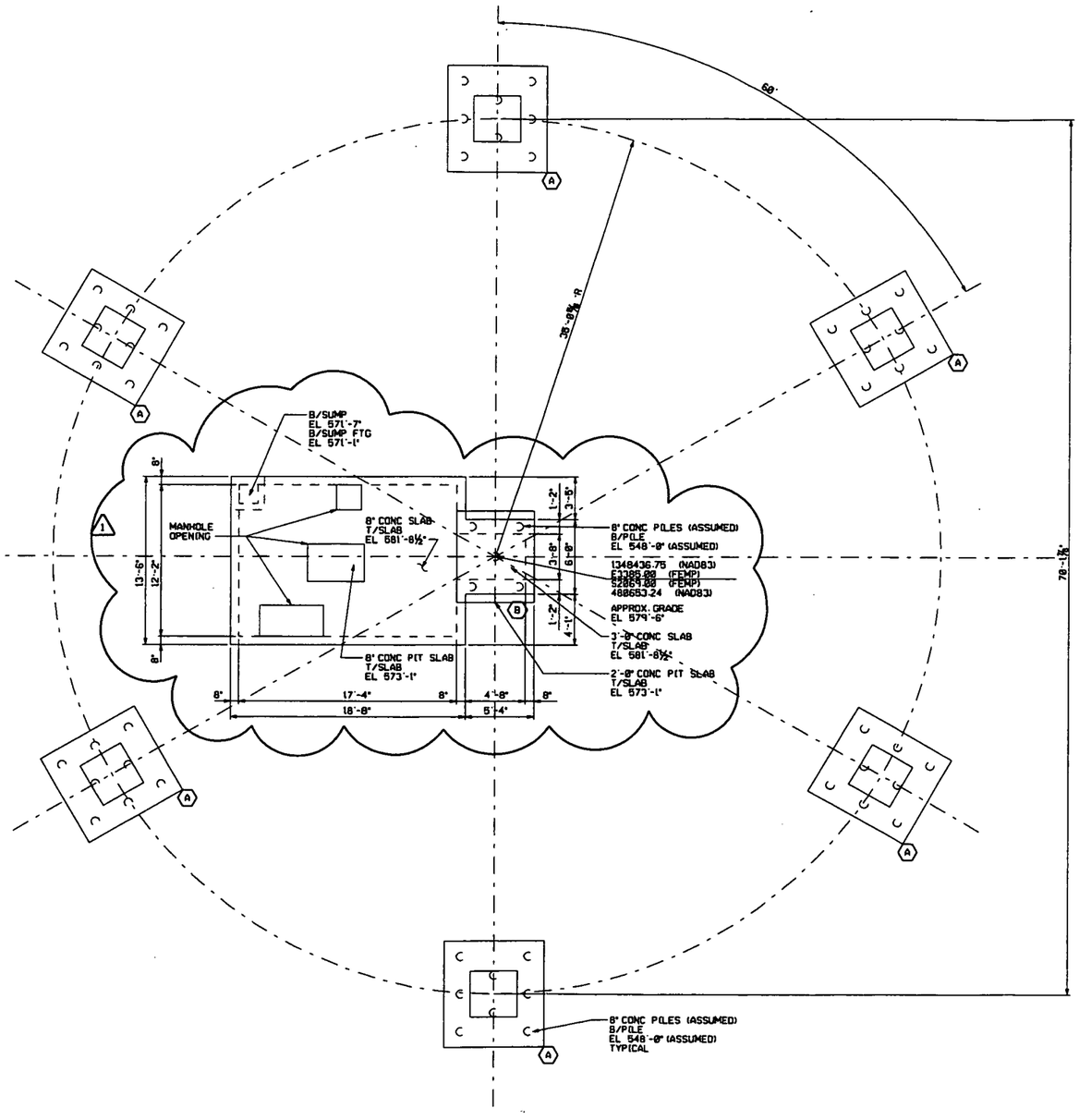
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	¼" = 1'-0"	
		DRAWN BY: K.L. RABBITT	DATE: 11/28/01
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: D. REED	DATE: 12/21/01
DRAWING INDEX CODE NO. 26A-5900-S-00300		SHEET NO. S0002	REV. NO. 0

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	8'-6"	7'-9"	2'-2"	573'-8½"	3'-8" SQ	T/PIER EL 581'-8½"
(B)	7'-4"	6'-0"	2'-0"	571'-1"	N/A	





FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

000208

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK268-1.
3. ASSUMED PILES CAST IN PLACE TO ELEVATION 548'-0" (TOP OF GREAT MIAMI AQUIFER SAND AND GRAVEL STRATUM). COULD NOT BE VERIFIED BY ANY DRAWING OR HISTORICAL DOCUMENT.

- 4518

REF DWG NO.	DRAWING TITLE
268-5500-S-00239	FOUNDATION PLAN
268-5500-S-00240	CENTER PIER & VALVE PIT

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIEW BY
1	ADDED PIT DIMS AND NOTES, ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 12/28/92	KLR 12/28/92
0	ISSUE FOR TECHNICAL REFERENCE ONLY.	N/A	KG 11/29/92	KLR 11/29/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
ELEVATED WATER STORAGE TANK 268
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — INDEX / INFO

DRAWING ATTACHMENTS OR CONTENTS CONTROLLED BY NEFMP CONFIGURATION MANAGEMENT CONTROL LIST (CML)

TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
060	N/A	DRAWN BY K.L. RABBITT	DATE 11/28/91
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/91
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 268-5900-S-00301	SHEET NO. S0001 / REV. NO. 0

SEAL

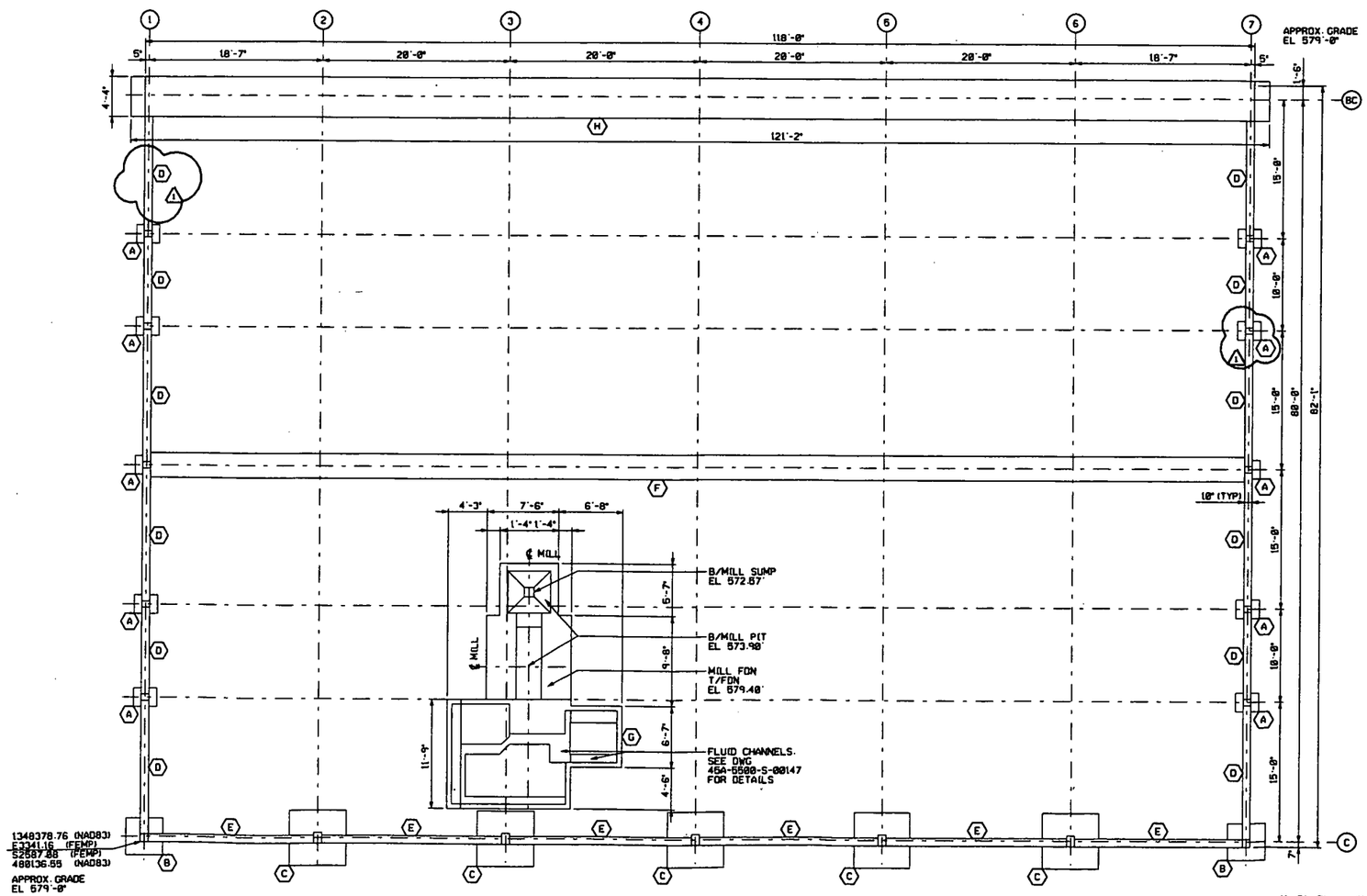
FEMP NORTH

STATE OF OHIO NORTH (NAD 83)

L5672°

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	2'-0"	2'-6"	0'-10"	576.40'	8"x10"	
B	4'-0"	4'-0"	0'-10"	576.40'	10"x10"	
C	6'-0"	6'-0"	1'-0"	576.40'	1'-2"x10"	
D	SEE PLAN	0'-10"	1'-0"	578.40'	N/A	
E	0'-10"	SEE PLAN	1'-0"	578.40'	N/A	
F	2'-8" @ TOP 2'-0" @ BOTTOM		0'-4"	578.40'	N/A	
G	SEE PLAN	SEE PLAN	VARIES	571.98'	N/A	SEE NOTE 2
H	SEE PLAN	SEE PLAN	VARIES	576.40'	N/A	SEE NOTE 2



FOUNDATION PLAN

000209

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK45A-1.

4518

REF DWG NO.	DRAWING TITLE
45A-5500-S-00087	FOUNDATION PLAN & DETAILS
45A-5500-X-00086	BLDG AREA COMPOSITE PLAN
45A-5500-S-00147	FOUNDATION PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	KCRB BY
1	ADDED FOOTER MARKS. ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 12/20/92	KLR 12/20/92
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/29/92	KLR 01/29/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 45A
FOUNDATION PLAN
WITHOUT HIDDEN LINES

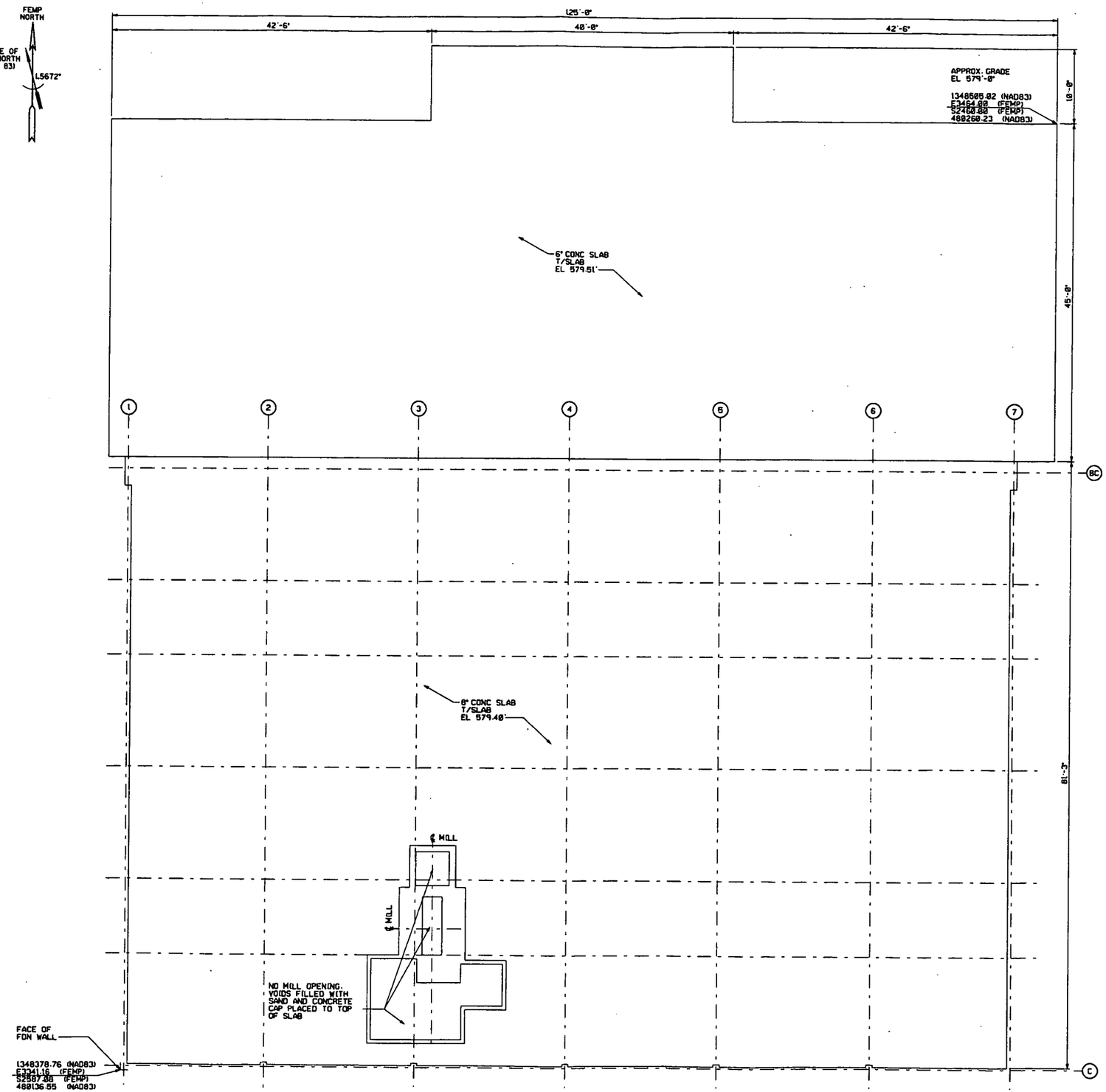
CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING ATTACHED AS CONTROLLED DRAWING IN THE DOCUMENT MANAGEMENT CENTRAL FILE SYSTEM.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 12/04/91
REV NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/91
DRAWING INDEX CODE NO. 45X-5900-S-00265		SHEET NO. S0001	REV. NO. 0

SEAL



SLAB PLAN

000210

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK45A-1.

4518

REF DWG NO.	DRAWING TITLE
45A-5500-S-00087	FOUNDATION PLAN & DETAILS
45A-5500-X-00086	BLDG AREA COMPOSITE PLAN
45A-5500-S-00147	FOUNDATION PLAN & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	IL	PM	REVIS BY
		INITIALS AND DATE		
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/25/02	KLR 01/25/02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

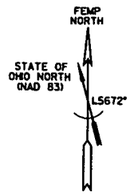
DRAWING TITLE
BUILDING 45A
SLAB PLAN
WITHOUT HIDDEN LINES

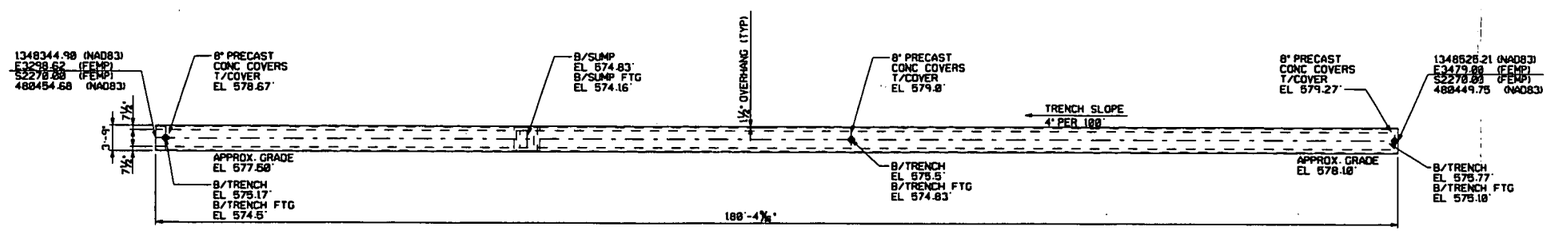
CONFIGURATION MANAGEMENT DRAWING
EXISTING DRAWINGS AS CONTROLLED BY FERNALD MANAGEMENT CONTROL SYSTEM

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/8" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 12/04/01
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/01
DRAWING INDEX CODE NO. 45X-5900-S-00266		SHEET NO. S0002	REV. NO. 0

SEAL





FOUNDATION AND SLAB PLAN

000211

4' 0' 4' 8' 12' 16' 20'
GRAPHIC SCALE: ⅛"=1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK65-1.

--4518

REF DWG NO.	DRAWING TITLE
34X-3115-S-00078	SLURRY TRENCH

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
		INITIALS AND DATE		
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/29/92	KLR 10/29/92

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

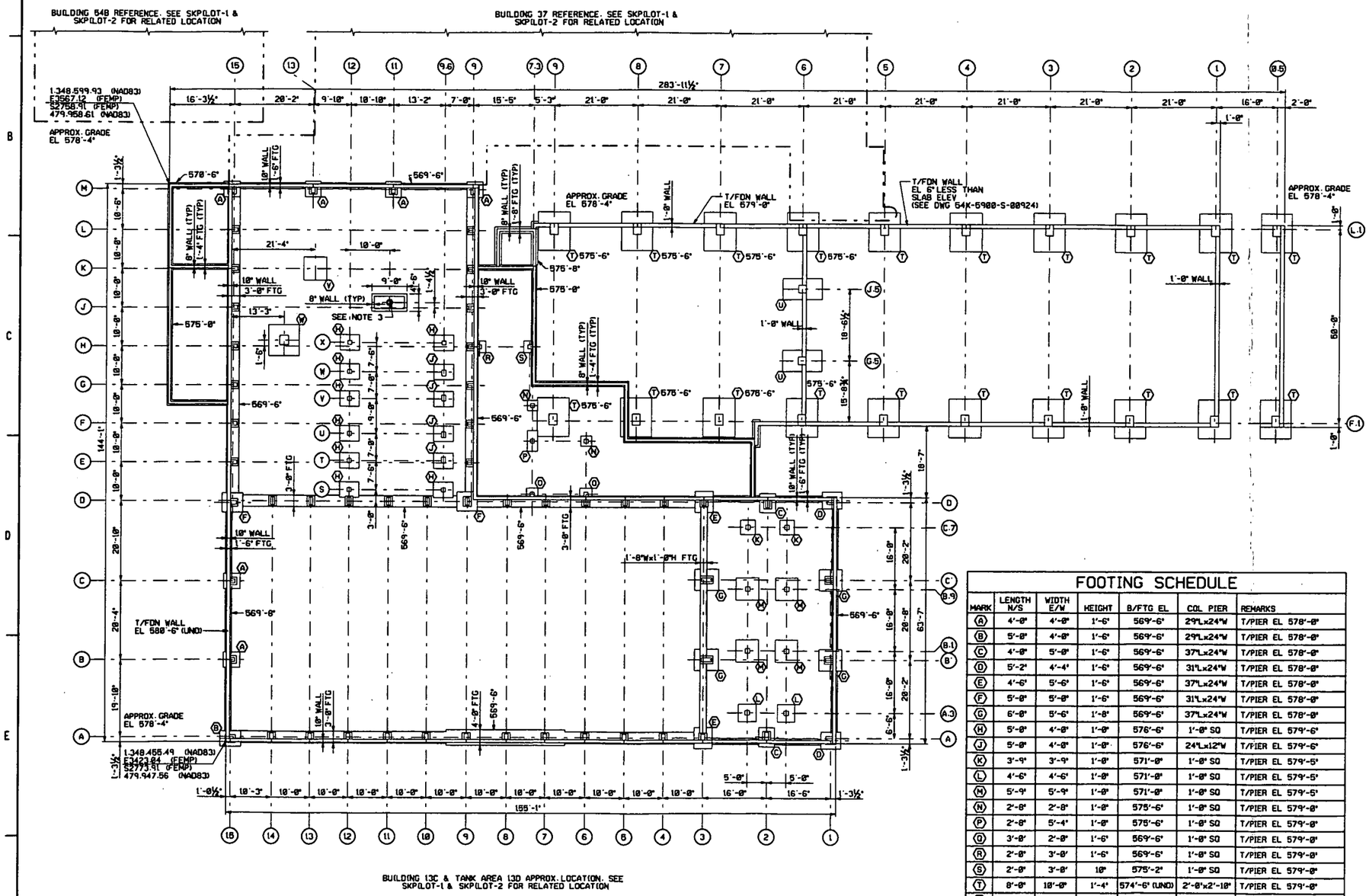
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 25 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
K65 TRENCH
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTACHED/REFERENCED COMPONENTS CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 12/05/91
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY D. REED	DATE 12/21/91
COGNIZANT ENGINEER / DATE	DRAWING INDEX CODE NO. 34X-5900-S-00150	SHEET NO. S0001	REV. NO. 0

SEAL



FOUNDATION PLAN

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	4'-0"	4'-0"	1'-6"	569'-6"	29"Lx24"W	T/PIER EL 578'-0"
(B)	5'-0"	4'-0"	1'-6"	569'-6"	29"Lx24"W	T/PIER EL 578'-0"
(C)	4'-0"	5'-0"	1'-6"	569'-6"	37"Lx24"W	T/PIER EL 578'-0"
(D)	5'-2"	4'-4"	1'-6"	569'-6"	31"Lx24"W	T/PIER EL 578'-0"
(E)	4'-6"	5'-6"	1'-6"	569'-6"	37"Lx24"W	T/PIER EL 578'-0"
(F)	5'-0"	5'-0"	1'-6"	569'-6"	31"Lx24"W	T/PIER EL 578'-0"
(G)	6'-0"	5'-6"	1'-8"	569'-6"	37"Lx24"W	T/PIER EL 578'-0"
(H)	5'-0"	4'-0"	1'-0"	576'-6"	1'-0" SQ	T/PIER EL 579'-6"
(J)	5'-0"	4'-0"	1'-0"	576'-6"	24"Lx12"W	T/PIER EL 579'-6"
(K)	3'-9"	3'-9"	1'-0"	571'-0"	1'-0" SQ	T/PIER EL 579'-5"
(L)	4'-6"	4'-6"	1'-0"	571'-0"	1'-0" SQ	T/PIER EL 579'-5"
(M)	5'-9"	5'-9"	1'-0"	571'-0"	1'-0" SQ	T/PIER EL 579'-5"
(N)	2'-8"	2'-8"	1'-0"	575'-6"	1'-0" SQ	T/PIER EL 579'-8"
(P)	2'-8"	5'-4"	1'-0"	575'-6"	1'-0" SQ	T/PIER EL 579'-8"
(Q)	3'-8'	2'-0"	1'-6"	569'-6"	1'-0" SQ	T/PIER EL 579'-8"
(R)	2'-0"	3'-0'	1'-6"	569'-6"	1'-0" SQ	T/PIER EL 579'-8"
(S)	2'-0"	3'-0'	10"	575'-2"	1'-0" SQ	T/PIER EL 579'-8"
(T)	8'-0"	10'-0"	1'-4"	574'-6" (UNO)	2'-8"x2'-10"	T/PIER EL 579'-8"
(U)	10'-0"	5'-6"	3'-6"	573'-4"	2'-0" SQ	T/PIER EL 579'-8"
(V)	6'-0"	6'-0"	3'-6"	575'-3½"	N/A	T/PIER EL 579'-8"
(W)	8'-0"	8'-0"	1'-4"	576'-3½"	2'-3"Wx2'-5½"L	T/PIER EL 578'-9½"

000212

GRAPHIC SCALE: 3/32" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK54A-1.
3. 18" I.D. WELL CASING. B/CASING EL 553'-3½'. ASSUMED 12" DIA. HYDRAULIC CYLINDER B/CYLINDER EL 553'-7½'. B/CONC CASING SEAL EL 552'-9½'.

4518

REF DWG NO.	DRAWING TITLE
05E-7000-M-00139	INSTALLATION OF FURNACE RAMS - SHEET NO.1
13X-1450-S-00002	FOUNDATION PLAN & DETAILS
13X-1450-S-00003	FOUNDATION PLAN & DETAILS AT ELEV 579 & 591
13X-3115-A-00146	ARCHITECTURAL LAYOUT
13X-3115-S-00145	FOUNDATION PLAN
13X-3115-S-00578	FOUNDATION PLAN
13X-5500-A-00761	FLOOR PLAN
37A-5500-S-00621	JOLTER FOUNDATION & DETAILS
37X-5500-A-00443	WOMENS RESTROOM - PILOT PLANT
37X-5500-P-00799	PLAN & VIEWS
54X-1910-S-00350	AUTOCLAVE BLDG FOUNDATION AND GROUND FLOOR PLAN
54X-1910-S-00356	DISSOCIATOR SHED PLANS AND MISC FOUNDATION PLAN
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/92	LNH 03/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 13A, 54A, & 74U
FOUNDATION PLAN
WITHOUT HIDDEN LINES

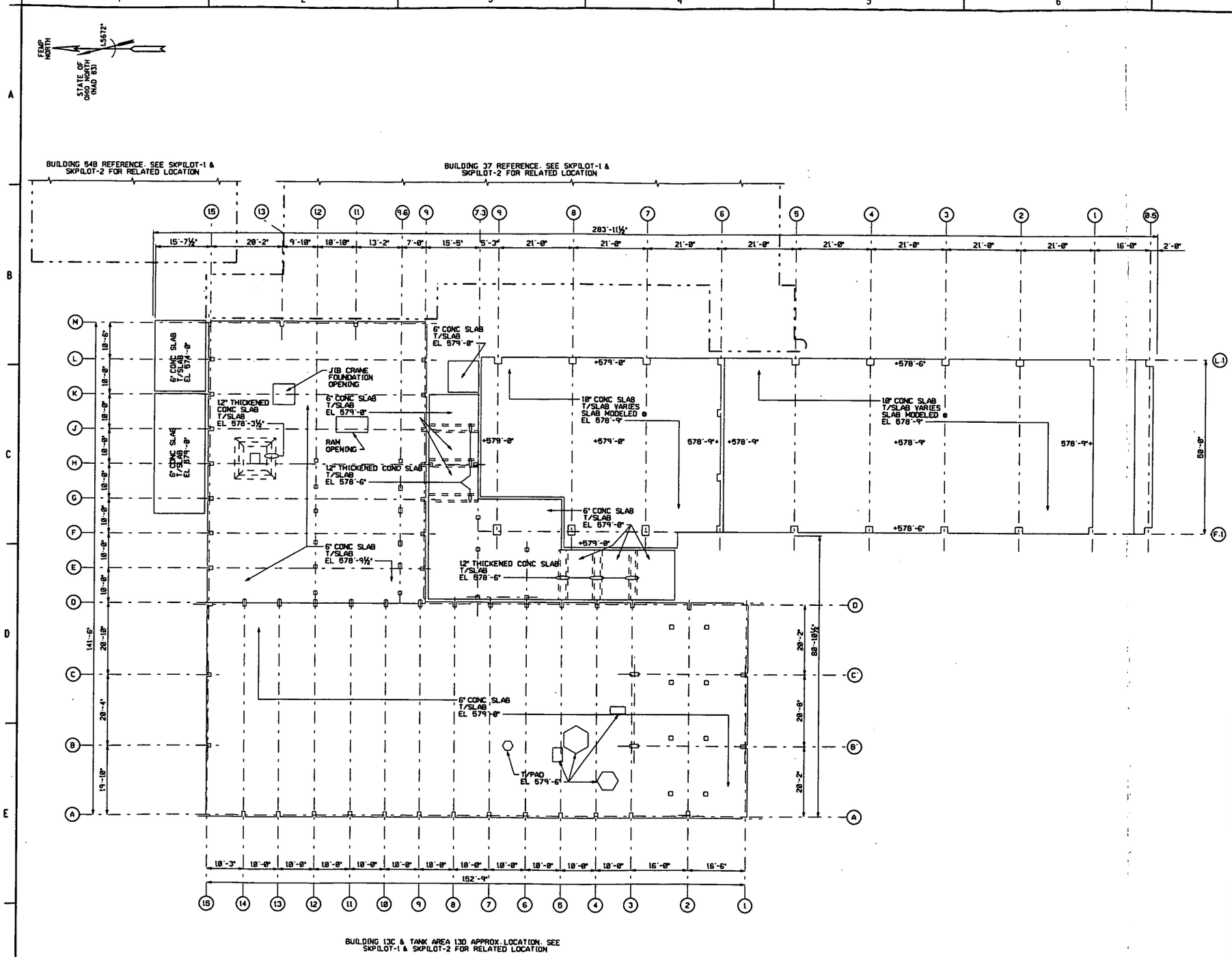
CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING ATTACHMENTS OR CONTROLLED DOCUMENTS (CONFIGURATION MANAGEMENT CONTROL) SEE NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	DATE
060	N/A	3/32" = 1'-0"	
		DRAWN BY K. L. RABBITT	03/19/92
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/17/92

COGNIZANT ENGINEER — DATE

DRAWING INDEX CODE NO.	SHEET NO.	REV. NO.
54X-5900-S-00923	S0001	0

SEAL



SLAB PLAN

000213

GRAPHIC SCALE: 3/32" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK54A-1.

4518

REF DWG NO.	DRAWING TITLE
05E-7000-M-00139	INSTALLATION OF FURNACE RAMS - SHEET NO.1
13X-1450-S-00002	FOUNDATION PLAN & DETAILS
13X-1450-S-00003	FOUNDATION PLAN & DETAILS AT ELEV 579 & 591
13X-3115-A-00146	ARCHITECTURAL LAYOUT
13X-3115-S-00145	FOUNDATION PLAN
13X-3115-S-00578	FOUNDATION PLAN
13X-5500-A-00761	FLOOR PLAN
37A-5500-S-00621	JOLTER FOUNDATION & DETAILS
37X-5500-A-00443	WOMENS RESTROOM - PILOT PLANT
37X-5500-P-00799	PLAN & VIEWS
54X-1910-S-00350	AUTOCLAVE BLDG FOUNDATION AND GROUND FLOOR PLAN
54X-1910-S-00356	DISSOCIATOR SHED PLANS AND MISC FOUNDATION PLAN
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ACHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LNH 10/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 13A, 54A, & 74U
SLAB PLAN
WITH HIDDEN LINES

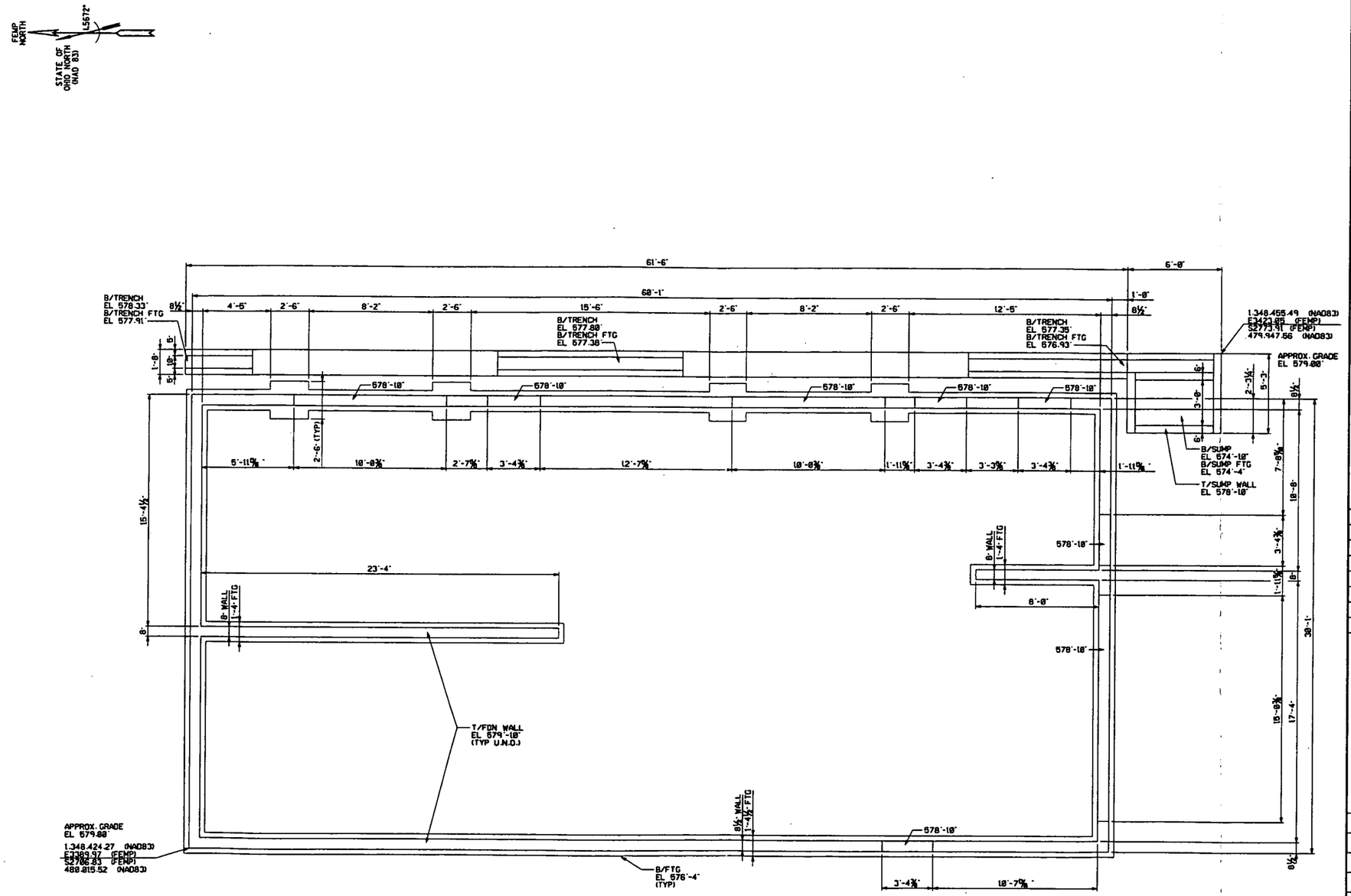
CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTACHMENTS OR COMPONENTS CONFIRMED AS THEY REFLECT THE VISION 2000 CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/32" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 10/18/92
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 10/17/92
DRAWING INDEX CODE NO. 54X-5900-S-00924		SHEET NO. S0002	REV. NO. 0

SEAL



FOUNDATION PLAN

GRAPHIC SCALE: 3/8"=1'-0"

000214

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK138-1.

4518

REF DWG NO.	DRAWING TITLE
13C-5500-A-00251	PLANS & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/25/92	LNH 10/25/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

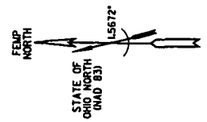
DRAWING TITLE
BUILDING 13B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

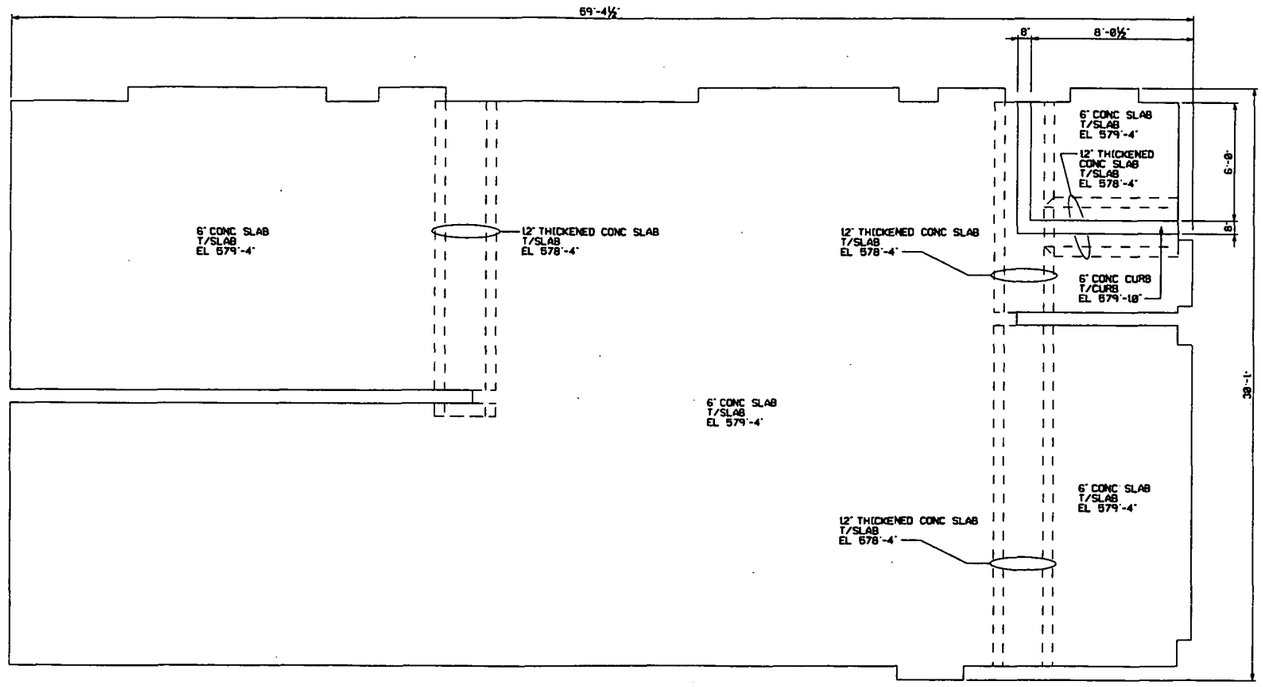
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/8" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/05/92
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/92
DRAWING INDEX CODE NO. 13X-5900-S-00781		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL





SLAB PLAN

GRAPHIC SCALE: 3/8"=1'-0"

000215

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK138-1.

-- 4518

REF DWG NO.	DRAWING TITLE
13C-5500-A-00251	PLANS & SECTIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/92	LNH 03/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 13B
SLAB PLAN
WITH HIDDEN LINES

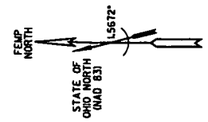
CONFIGURATION MANAGEMENT DRAWING

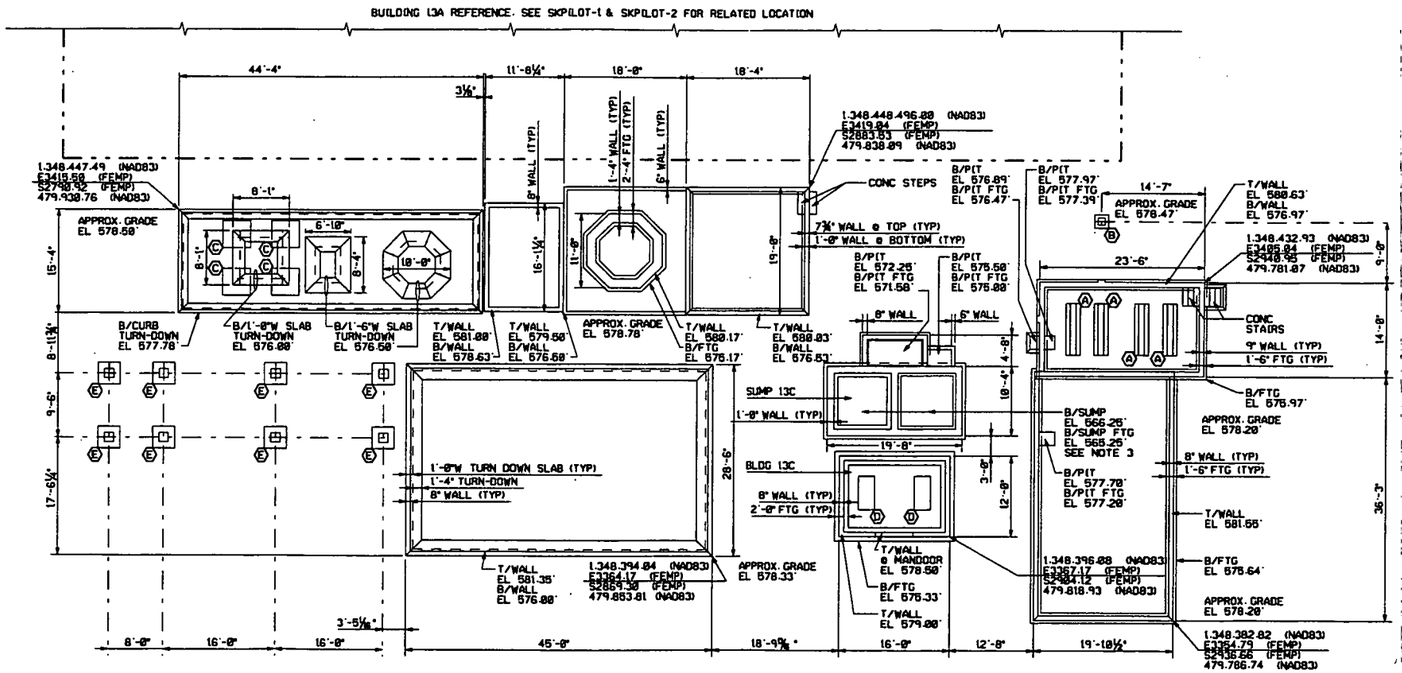
EXISTING ATTACHED OR CONTAINED DOCUMENTS ARE NOT SHOWN. USE UNDER CONTROL OF CONFIGURATION MANAGEMENT CONTROL OF NOTED.

COGNIZANT ENGINEER DATE

SEAL

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/8" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/05/92
REF NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/92
DRAWING INDEX CODE NO. 13X-5900-S-00782		SHEET NO. S0002	REV. NO. 0





FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	2'-8"	7'-8"	1'-0"	575.13'	0'-10"x7'-8"	T/PIER EL 579.13'
(B)	2'-0"	2'-0"	1'-0"	574.47'	1'-0" SQ	T/PIER EL 578.55'
(C)	4'-0"	4'-0"	1'-6"	571.00'	1'-0" SQ	T/PIER EL 575'-10⅞"
(D)	2'-4"	5'-0"	1'-4"	578.00'	N/A	T/FTG EL 579.33'
(E)	3'-3"	3'-3"	0'-8"	575.42'	1'-4" SQ	T/PIER EL 579.00'

FOUNDATION PLAN

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

000216

NOTES:

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK13CD-1.
3. BOTTOM OF PIT & SUMP ELEVATIONS SHOWN WERE TAKEN FROM ORIGINAL PIT & SUMP DESIGN DRAWINGS. FOR MODIFIED BOTTOM OF PIT & SUMP ELEVATIONS (WHICH SLOPE), SEE DRAWING 13X-5500-S-00397.

4518

REF DWG NO.	DRAWING TITLE
13A-5500-P-00268	PLAN, ELEVATION, SECTIONS, & DETAILS
13A-5500-S-00269	CONCRETE FOUNDATIONS PLAN, SECTIONS AND DETAILS
13C-5500-A-00250	PILOT PLAN
13X-3115-S-00123	REINFORCING DETAILS
13X-1450-A-00126	PLAN & SECTIONS
13X-1450-S-00139	NITRIC ACID STORAGE TANKS & FLUME ABSORPTION COL. FDNS. - PILOT PLANT
13X-5500-P-00292	SOLVENT STORAGE SYSTEM LAYOUT
13X-5500-S-00280	ACID PROOF PAD FOR EXISTING HNO3 TANKS PLANS & SECTIONS
13X-5500-S-00397	PLAN & SECTIONS
13X-5500-S-00403	CONCRETE FOUNDATION PLAN AND ELEVATION
13X-5500-S-00607	CONCRETE WORK PLAN & SECTIONS
13X-5500-S-00608	DIKE PAD #4 PLAN-SECTIONS & DETAILS
13X-5500-S-00609	DIKED PAD #3 PLAN-SECTIONS & DETAILS
13X-5500-S-00739	PLAN - SECTIONS & DETAILS
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY	DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/82	LNH 03/28/82	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
TANK AREA 13C & 13D
FOUNDATION PLAN
WITH HIDDEN LINES

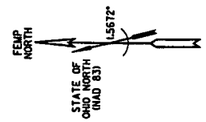
CONFIGURATION MANAGEMENT DRAWING — DRAFT / ISSUED

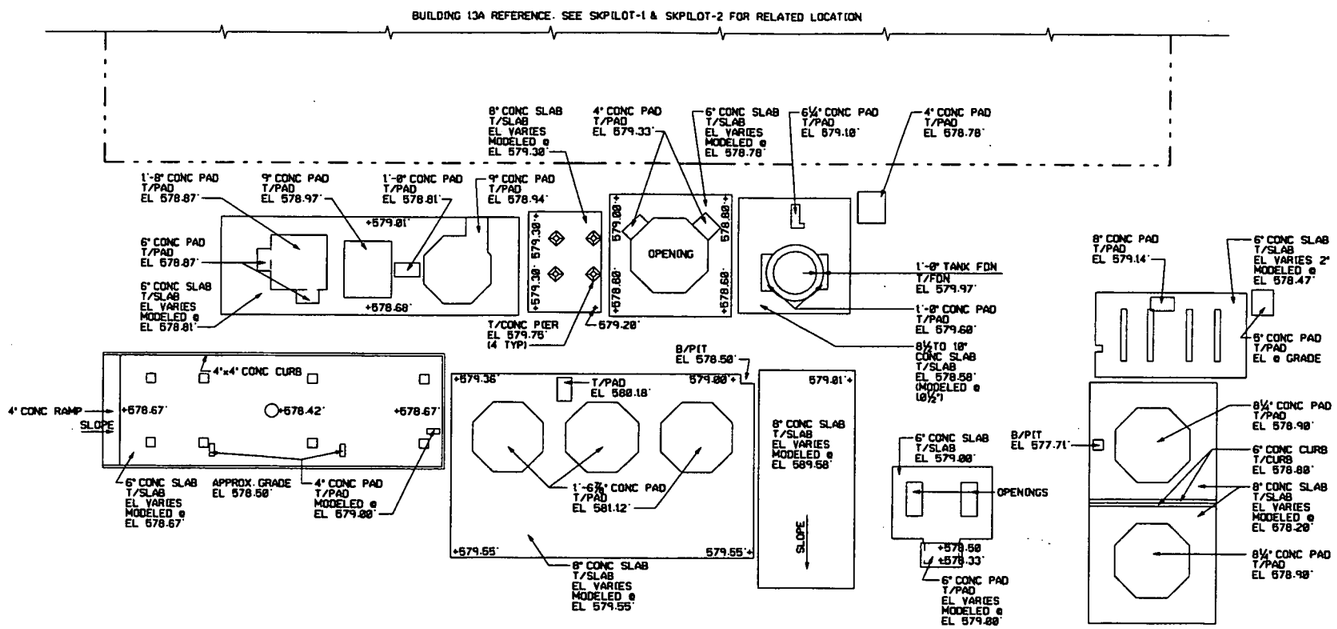
EXISTING AS-BUILTS AS CONTAINED IN CURRENT CONFIGURATION MANAGEMENT CONTROL DOCUMENTS.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
		DRAWN BY: L. N. HAGAMAN	DATE: 01/12/82
REV. NO.: 4327	FOP PROJECT NO.: 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 01/17/82
DRAWING INDEX CODE NO.: 13X-5900-S-00779		SHEET NO.: S0001	REV. NO.: 0

SEAL





SLAB PLAN

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

000217

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK13CD-1.
3. SPOT ELEVATION FOR EXTERIOR PADS AND GRADE GIVEN IN DECIMAL, EXAMPLE (578.01').

- 4518

REF DWG NO.	DRAWING TITLE
13A-5500-P-00268	PLAN, ELEVATION, SECTIONS, & DETAILS
13A-5500-S-00269	CONCRETE FOUNDATIONS PLAN, SECTIONS AND DETAILS
13C-5500-A-00250	PILOT PLAN
13X-3115-S-00123	REINFORCING DETAILS
13X-1450-A-00126	PLAN & SECTIONS
13X-1450-S-00139	NITRIC ACID STORAGE TANKS & PLUME ABSORPTION COL. FDNS. - PILOT PLANT
13X-5500-P-00202	SOLVENT STORAGE SYSTEM LAYOUT
13X-5500-S-00280	ACID PROOF PAD FOR EXISTING HNO3 TANKS PLANS & SECTIONS
13X-5500-S-00397	PLAN & SECTIONS
13X-5500-S-00403	CONCRETE FOUNDATION PLAN AND ELEVATION
13X-5500-S-00607	CONCRETE WORK PLAN & SECTIONS
13X-5500-S-00608	DIKE PAD #4 PLAN-SECTIONS & DETAILS
13X-5500-S-00609	DIKED PAD #3 PLAN-SECTIONS & DETAILS
13X-5500-S-00739	PLAN - SECTIONS & DETAILS
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	KCRB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
TANK AREA 13C & 13D
SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTACHED AS COMPOSED DOCUMENT IN CONFIGURATION MANAGEMENT CONTROL LEV 00FEL

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
		DRAWN BY L. M. HAGAMAN	DATE 01/12/02
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/02
DRAWING INDEX CODE NO. 13X-5900-S-00780		SHEET NO. S0002	REV. NO. 0

SEAL

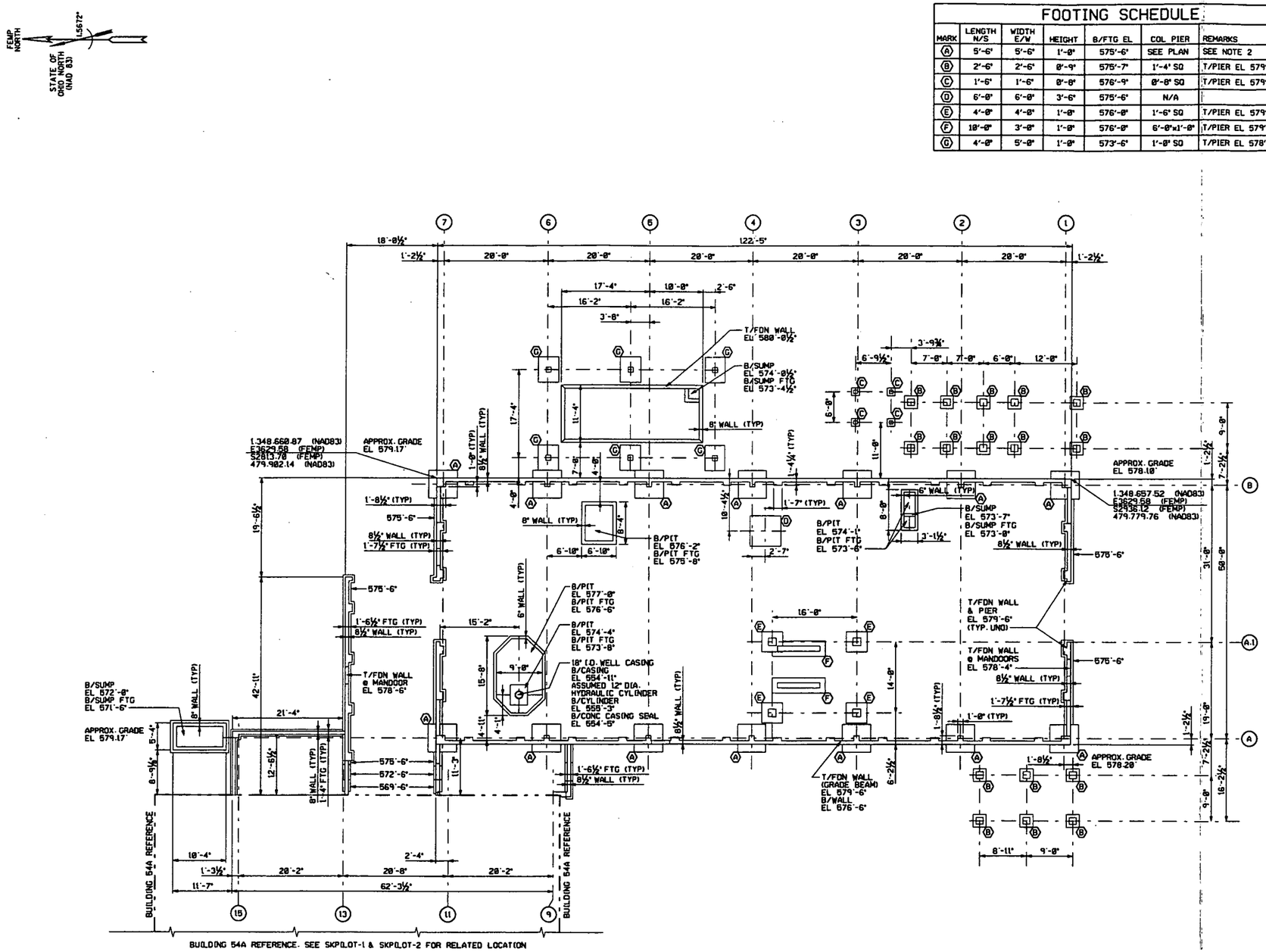
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	5'-6"	5'-6"	1'-0"	575'-6"	SEE PLAN	SEE NOTE 2
B	2'-6"	2'-6"	0'-9"	575'-7"	1'-4" SQ	T/PIER EL 579'-11"
C	1'-6"	1'-6"	0'-8"	576'-9"	0'-8" SQ	T/PIER EL 579'-6"
D	6'-0"	6'-0"	3'-6"	575'-6"	N/A	
E	4'-0"	4'-0"	1'-0"	576'-0"	1'-6" SQ	T/PIER EL 579'-3"
F	18'-0"	3'-0"	1'-0"	576'-0"	6'-0"x1'-0"	T/PIER EL 579'-4"
G	4'-0"	5'-0"	1'-0"	573'-6"	1'-0" SQ	T/PIER EL 578'-4"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK37-1.

- 4518



FOUNDATION PLAN

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

000218

REF DWG NO.	DRAWING TITLE
37A-5500-A-00552	FOUNDATION PLAN
37A-5500-A-00553	FOUNDATION DETAILS
37A-5500-P-00570	COOLING WATER SUMP LAYOUT
37A-5500-S-00562	FOUNDATION & ANCHOR BOLTS LAYOUT & SECTIONS
37A-5500-S-00571	COOLING WATER SUMP LAYOUT SECTIONS & DETAILS
37A-5500-S-00638	CONCRETE PIERS & DRAINAGE PADS
37A-5500-S-00733	CONCRETE PIERS & DRAINAGE PADS
37A-5500-S-00817	PLAN & ELEVATIONS
37A-5500-S-00820	PIT DETAILS
37A-5500-S-00932	MISCELLANEOUS DETAILS
37A-5500-X-00668	GENERAL EQUIPMENT ARRANGEMENT
37A-5500-X-00930	PLAN & ELEVATIONS
37A-5500-S-00651	PLAN, SECTIONS, & ELEVATIONS
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 37
FOUNDATION PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

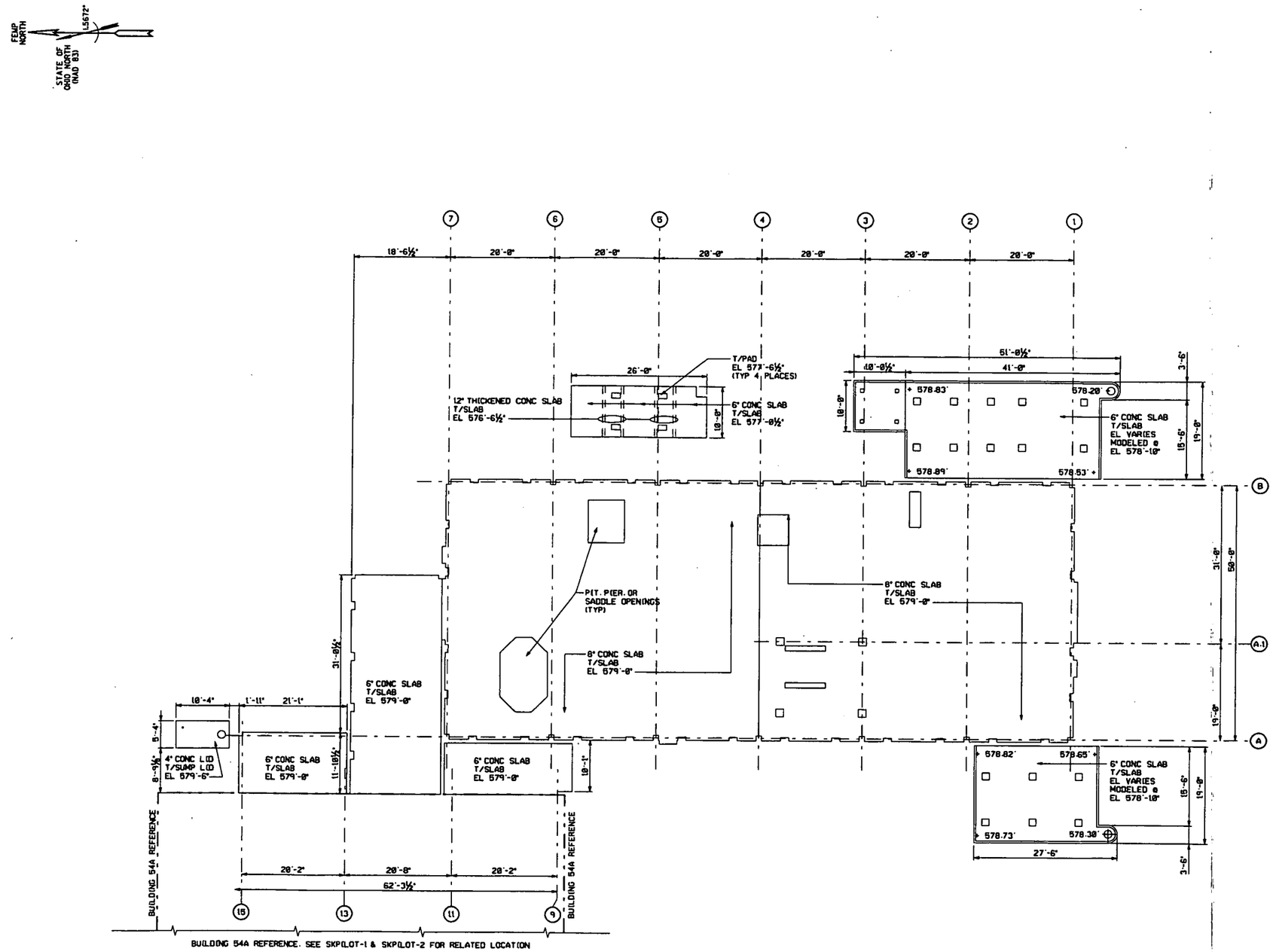
TASK ORDER NO.	OPTIONAL NO.	SCALE
060	N/A	1/8" = 1'-0"

RES NO.	FDF PROJECT NO.	DRAWN BY	DATE
4327	20810	K. L. RABBITT	01/18/02
		TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/02

COGNIZANT ENGINEER DATE

DRAWING INDEX CODE NO. 37X-5900-S-01303 SHEET NO. S0001 REV. NO. 0

SEAL



SLAB PLAN

000219

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK37-1.
3. SPOT ELEVATION FOR EXTERIOR PADS AND GRADE GIVEN IN DECIMAL, EXAMPLE (578.01').

4518

REF DWG NO.	DRAWING TITLE
37A-5500-A-00552	FOUNDATION PLAN
37A-5500-A-00553	FOUNDATION DETAILS
37A-5500-P-00570	COOLING WATER SUMP LAYOUT
37A-5500-S-00562	FOUNDATION & ANCHOR BOLTS LAYOUT & SECTIONS
37A-5500-S-00571	COOLING WATER SUMP LAYOUT SECTIONS & DETAILS
37A-5500-S-00638	CONCRETE PIERS & DRAINAGE PADS
37A-5500-S-00733	CONCRETE PIERS & DRAINAGE PADS
37A-5500-S-00817	PLAN & ELEVATIONS
37A-5500-S-00820	PIT DETAILS
37A-5500-S-00932	MISCELLANEOUS DETAILS
37A-5500-X-00668	GENERAL EQUIPMENT ARRANGEMENT
37A-5500-X-00930	PLAN & ELEVATIONS
37A-5500-S-00651	PLAN, SECTIONS, & ELEVATIONS
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	BCW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

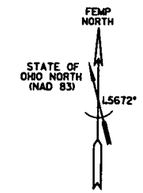
DRAWING TITLE
BUILDING 37
SLAB PLAN
WITH HIDDEN LINES

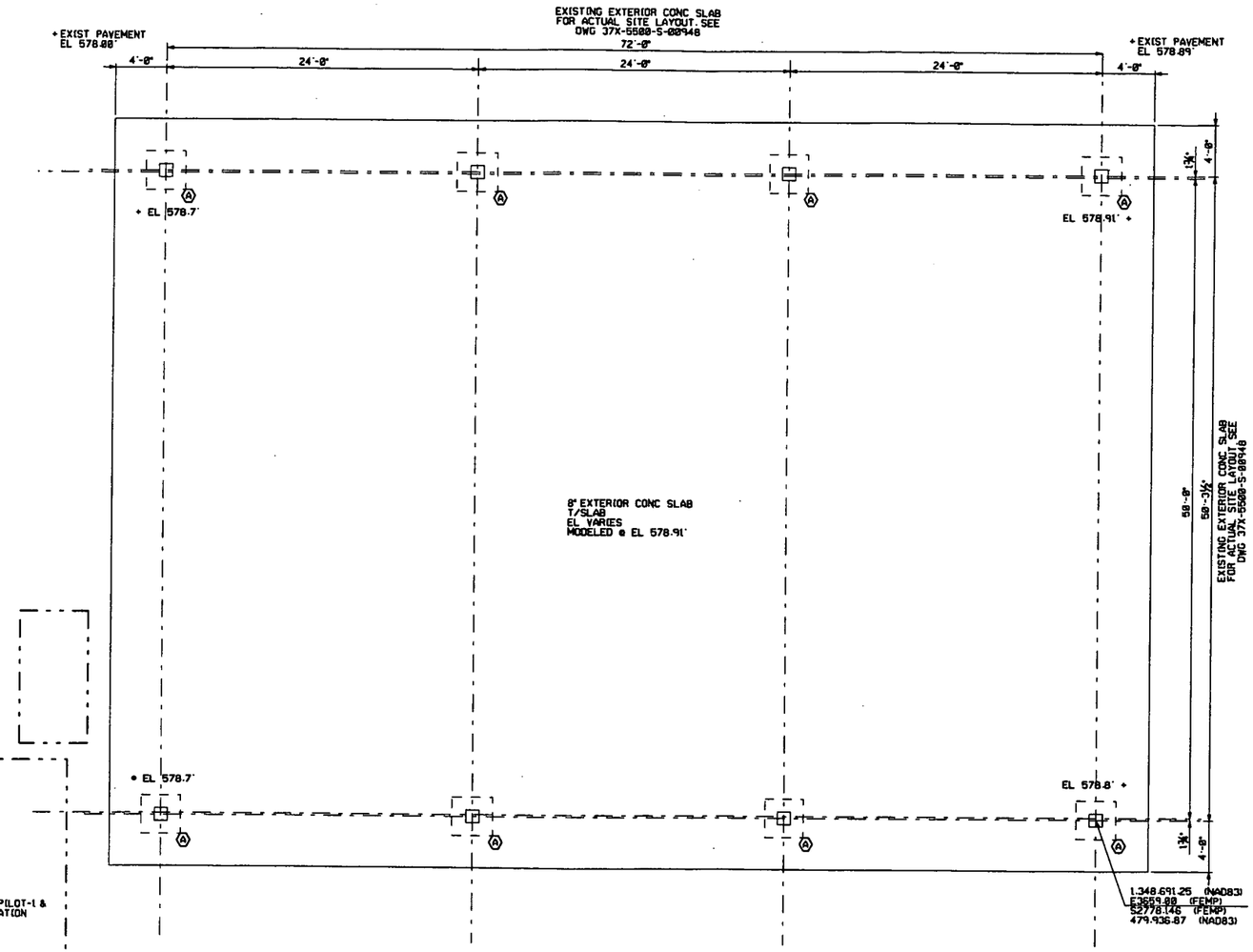
CONFIGURATION MANAGEMENT DRAWING — YES / NO

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 01/18/02
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/02
COGNIZANT ENGINEER / DATE	DRAWING INDEX CODE NO. 37X-5900-S-01304	SHEET NO. S0002	REV. NO. 0

SEAL

FOOTING SCHEDULE						
MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	3'-0"	1'-0"	577'-3"	12" SQ	T/PIER EL 580'-3"





FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

000220

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK54B-1.

4518

REF DWG NO.	DRAWING TITLE
37X-5500-S-00948	WEATHER SHELTER - PLAN
37X-5500-S-00949	ROOF PLAN, ELEVATION & SECTION
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68, & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

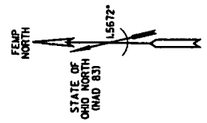
DRAWING TITLE
BUILDING 54B
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

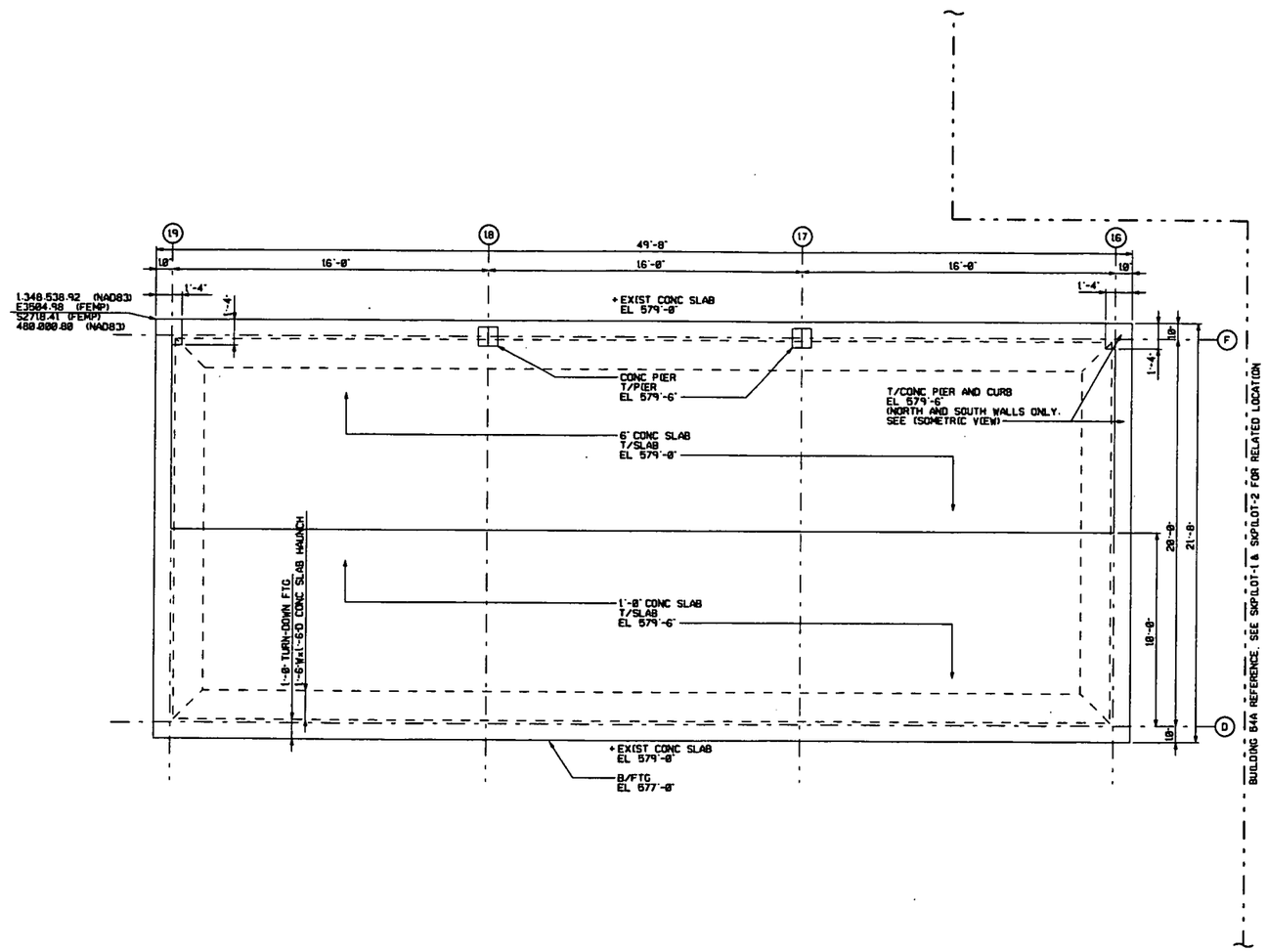
TASK ORDER NO.	OPTIONAL NO.	SCALE ¼" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 03/04/02
RES NO. 4327	FSI PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/17/02
DRAWING INDEX CODE NO. 54D-5900-S-00925		SHEET NO. S0001	REV. NO. 0

CONFIGURATION MANAGEMENT DRAWING

COGNIZANT ENGINEER DATE

SEAL





FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: 3/8"=1'-0"

000221

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK54C-1.

4518

REF DWG NO.	DRAWING TITLE
54X-1910-S-00356	DISSOCIATOR SHED PLANS AND MISC. FOUNDATION PLANS
SKPILOT-1	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68 & 74U - FOUNDATION ISOMETRIC VIEW
SKPILOT-2	OLD PILOT PLANT - BLDG'S 13A B C & D, 37, 54A B & C, 68 & 74U - FOUNDATION AND SLAB ISOMETRIC VIEW

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	IL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

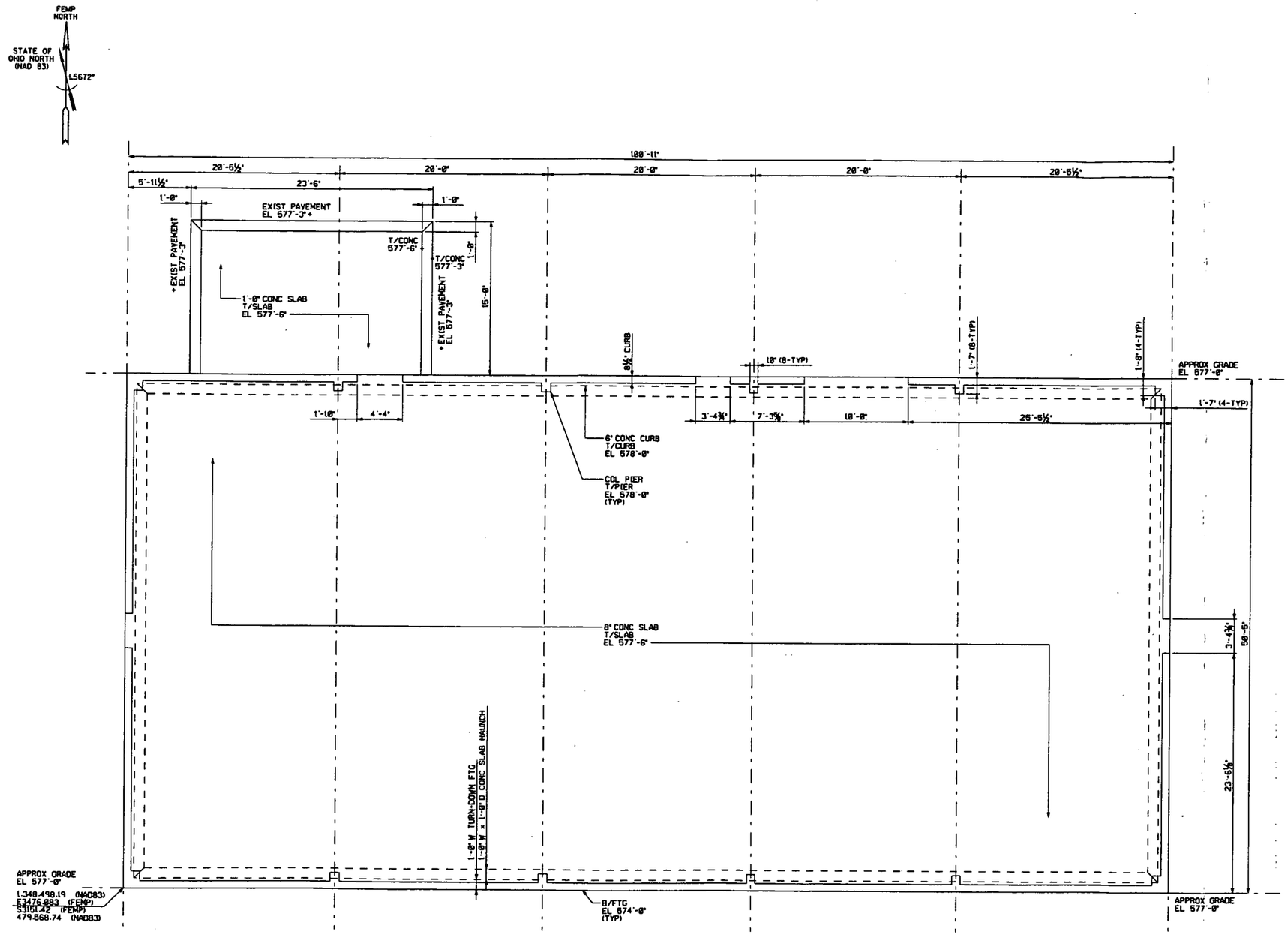
DRAWING TITLE
BUILDING 54C
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/8" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 03/07/92
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/17/92
DRAWING INDEX CODE NO. 54X-5900-S-00926		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

000222

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK68-1.

4518

REF DWG NO.	DRAWING TITLE
68X-5500-S-00007	LAYOUT AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 26 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 68
FOUNDATION AND SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING ATTACHED AS CONTROLS ACCESS TO NEWLY ISSUED CONTROLS UNDER CONFIGURATION MANAGEMENT CONTROL (CF) SYSTEM.

COGNIZANT ENGINEER — DATE

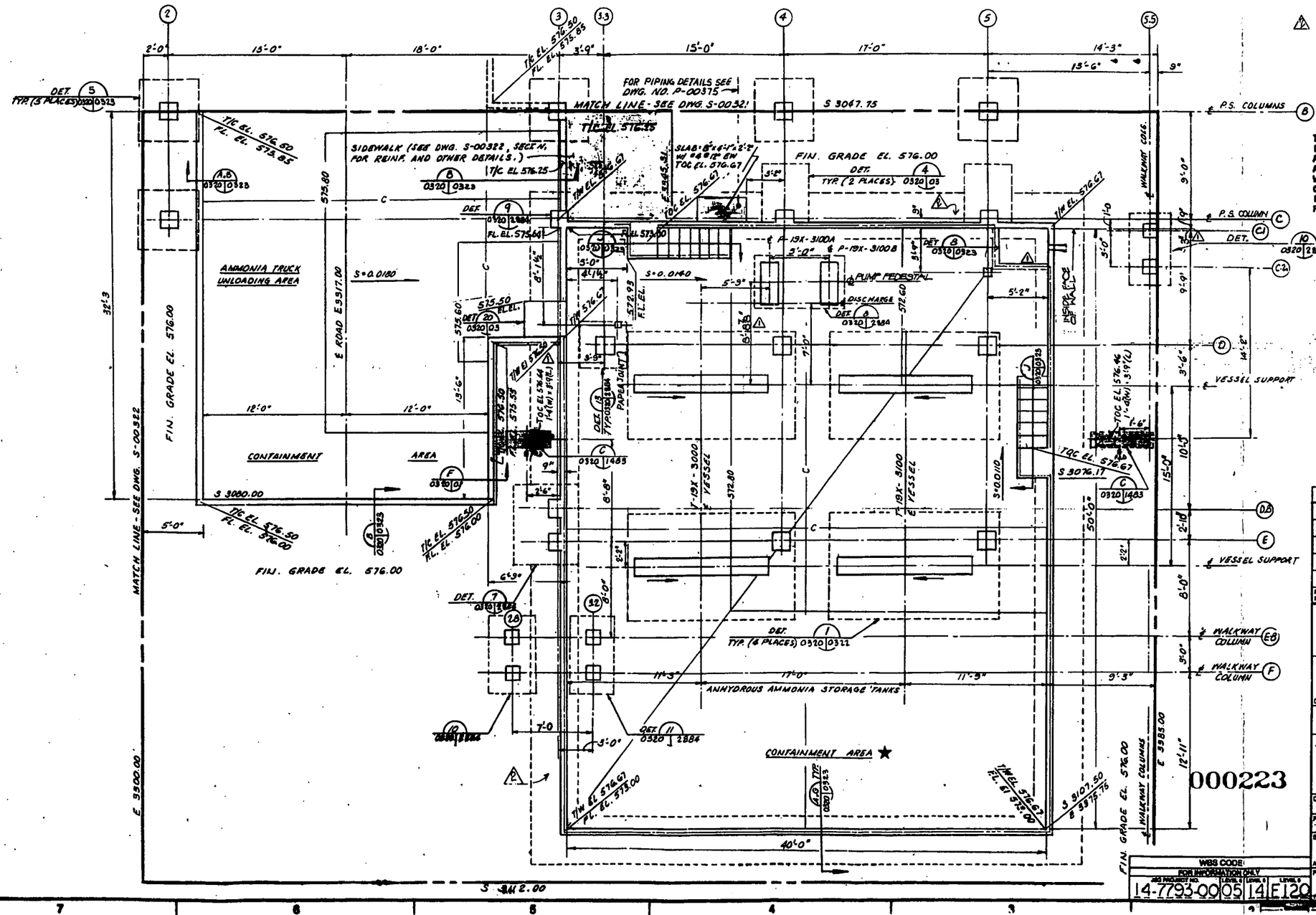
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	¼" = 1'-0"	
		DRAWN BY K.L. RABBITT	DATE 01/05/02
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/17/02
DRAWING INDEX CODE NO. 68X-5900-S-00091		SHEET NO. S0001	REV. NO. 0

SEAL

GENERAL NOTES 4518

1. THIS DRAWING WAS PREPARED ACCORDING TO THE GRADING AND DRAINAGE SHOWN ON SANDERS & THOMAS' SITE PLAN NO. SIX-1910-G-0000S.
2. FINISH GRADE IS TO CONFORM WITH THIS DRAWING, WHERE SOIL CONDITIONS ARE DISTURBED DURING CONSTRUCTION.
3. SEE PIPING DWG P-00375 FOR UNDERGROUND PIPING.
4. THE SYMBOL "C" DENOTES A CONTRACTION JOINT PER DETAIL D ON DWG. S-00323.
5. FOR HANDRAIL AND ANCHORAGE, SEE DWGS S-01457 AND S-01458. THE SYMBOL ———— DENOTES HANDRAILS ON THE PLAN.

THE "SS" IN THIS DRAWING REVISION NUMBER BLOCK INDICATES THAT THIS DRAWING DEPICTS A SAFETY SYSTEM AND/OR DESIGN FEATURE FOR SAFETY THAT MAY NOT BE ALTERED OR CHANGED EITHER FUNCTIONALLY OR PHYSICALLY WITHOUT WRITTEN AUTHORIZATION FROM THE UNCO ISM COMMITTEE. THE STAR SYMBOL (★) ON THIS DRAWING INDICATES A CRITICAL COMPONENT OF THE SYSTEM AND/OR FEATURE.



FOR INFORMATION ONLY
CADD SERVICES

REF. DWG.
00X-3900-S-01483
028-3900-S-02584
19X-3900-S-00323

DO NOT SCALE REDUCED DRAWINGS

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION	A-E INITIALS AND DATE	OPER	DOE
S	UPDATED			
Q	ADDED AS-BUILT HANDRAILS			
I	GENERAL REVISIONS			
O	CERTIFIED FOR CONSTRUCTION			
B	ISSUED FOR 100% DESIGN REVIEW			
A	ISSUED FOR 50% DESIGN REVIEW			

UNITED STATES
DEPARTMENT OF ENERGY

JACOBS ENGINEERING GROUP INC.
PASADENA, CALIFORNIA

DOE CONTRACT NO DE-AC05-850R21462 A-E NO. 3900

PROJECT NAME
PRODUCTIVITY & RADIOLOGICAL IMPROVEMENTS

DRAWING TITLE
TANK FARM PROJECT PLANT 19
AMMONIA STORAGE AREA
FOUNDATION LOCATION PLAN
AND FINISH GRADING PLAN

DRAWN BY D. RHODES DATE 12-3-85 DESIGNED BY D. RHODES DATE 2-3-86 CHECKED BY D. RHODES DATE 3-6-86
PLANT PMPC BLDG. FLOOR SCALE 1/4"=1' CLASS

SUBMITTED FOR APPROVAL A-E DATE 3-17-86
APPROVAL RECOMMENDED G. W. HELMS 4-1-86 OPER CONTRACTOR DATE
DRAWING APPROVED DOE DATE

WBS CODE FOR INFORMATION ONLY
JACOBS PROJECT NO. 14-7793-00 | LEVEL 1 05 | LEVEL 2 14 | LEVEL 3 F120 | LEVEL 4 85-D-140

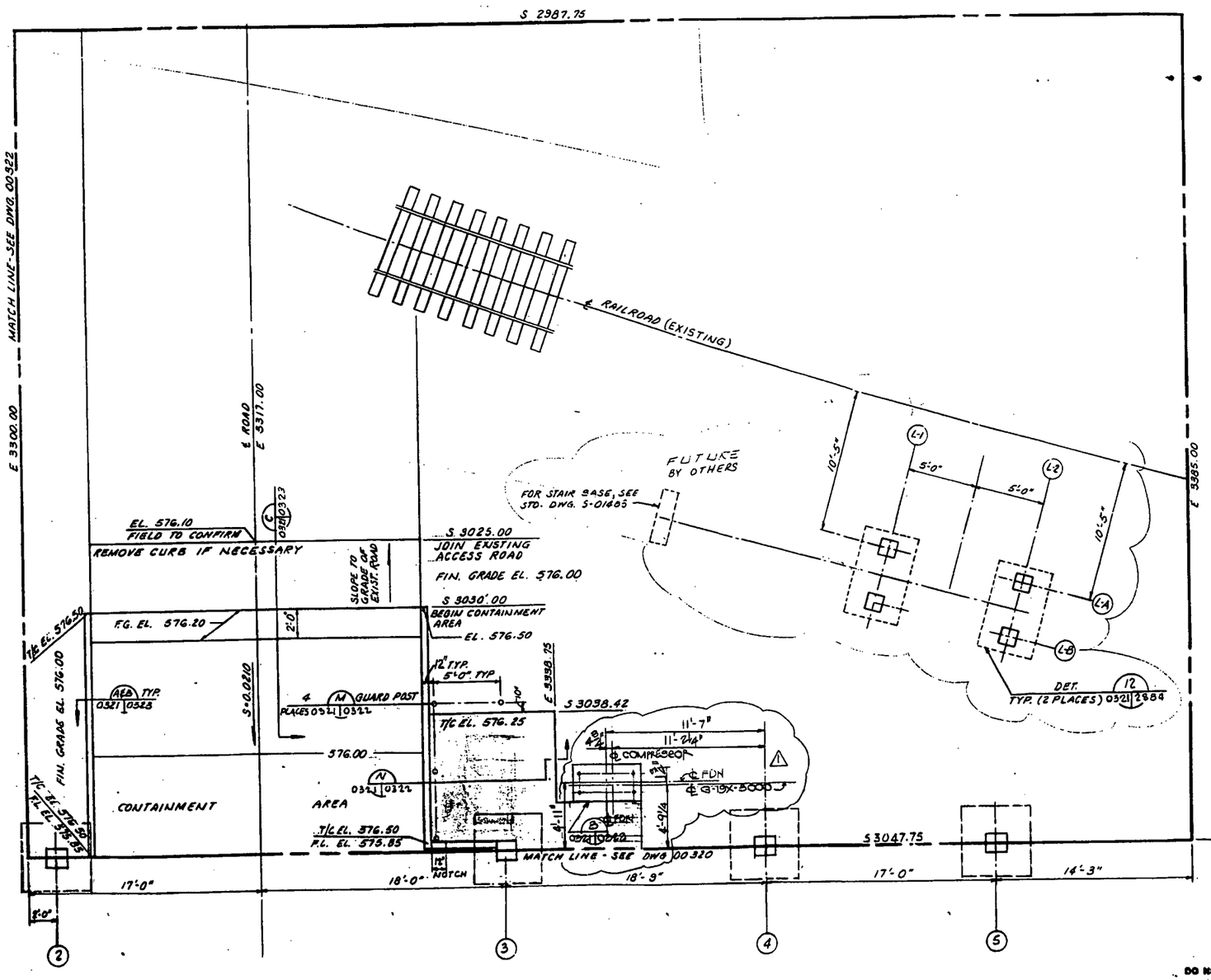
PROJECT NO. 19X | DRAWING NUMBER 3900 S 00320 | REV NO. SS

000223

GENERAL NOTES

1. FOR GENERAL NOTES, SEE DWG. S-00320.

— 4518



FOR INFORMATION ONLY
CADD SERVICES

000224

DO NOT SCALE REDUCED DRAWING

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION	A-E	OPER	DOE
1	GENERAL REVISION.			
0	CERTIFIED FOR CONSTRUCTION			
B	ISSUED FOR 100% DESIGN REVIEW			
A	ISSUED FOR 50% DESIGN REVIEW			

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY

JACOBS ENGINEERING GROUP INC.
PASADENA, CALIFORNIA

DOE CONTRACT NO DE-AC05-85OR21462 A-E NO. 3900

PROJECT NAME: **PRODUCTIVITY & RADIOLOGICAL IMPROVEMENTS**

DRAWING TITLE: TANK FARM PROJECT PLANT 19
AMMONIA STORAGE AREA
FOUNDATION LOCATION PLAN
AND FINISH GRADING PLAN

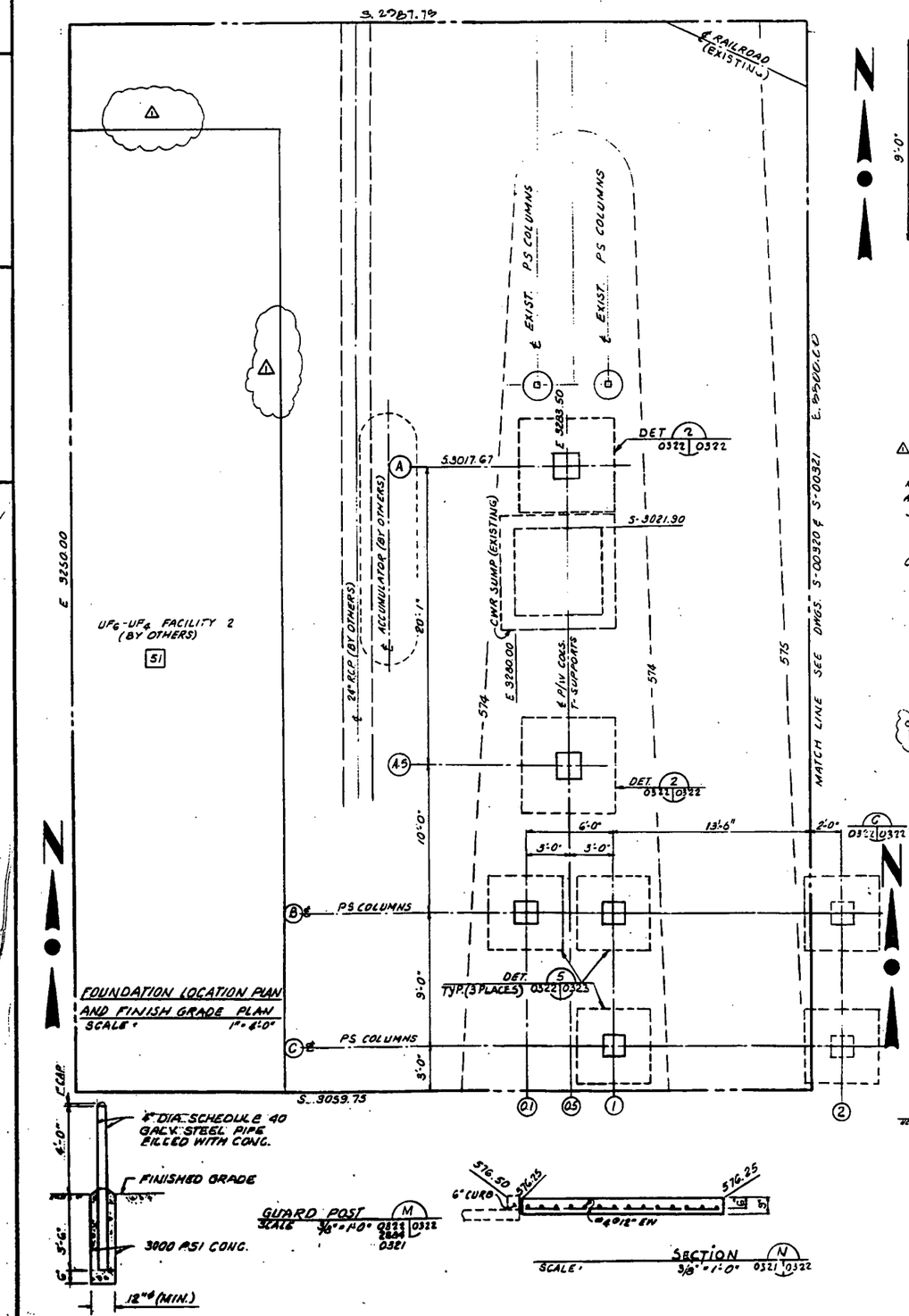
DRAWN BY D. RHODES — DATE 12-9-85 — DESIGNED BY D. RHODES — DATE 3-5-86 — CHECKED BY RHODES — DATE 3-6-86

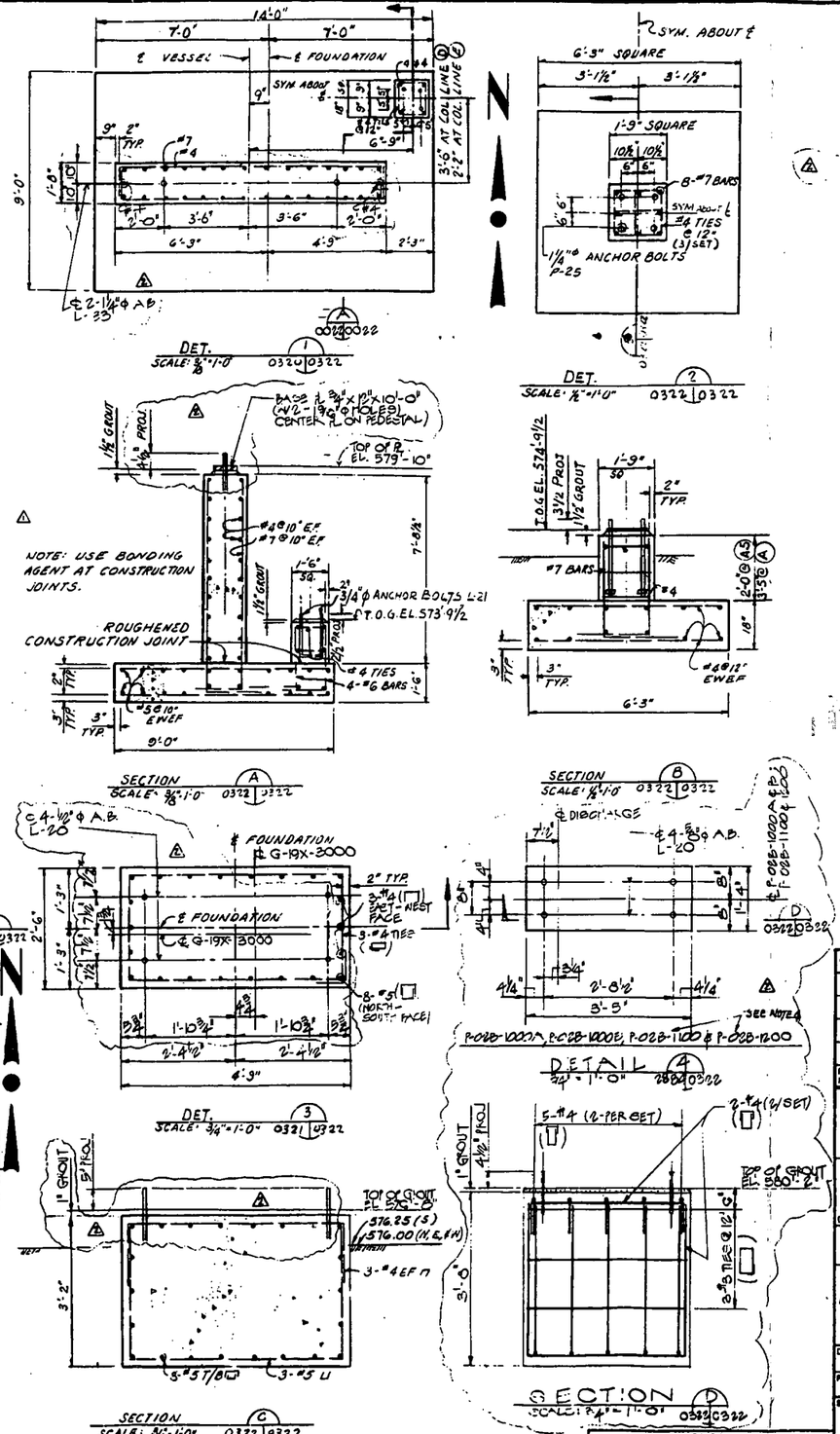
PLANT SMPC — BLDG. — FLOOR — SCALE 1/8"=1'-0" — CLASS

SUBMITTED FOR APPROVAL — A-E DATE 3-17-86
APPROVAL RECOMMENDED R.W. HUNTER 4-1-86 — OPER CONTRACTOR DATE
DRAWING APPROVED P. STUMBO POD. M.A. BARNES — DOE DATE 4-7-86

WBS CODE — FOR INFORMATION ONLY
JOB ACCOUNT NO. 14-7793-0005 — UNIT 1 14 — UNIT 2 F — UNIT 3 121

PROJECT NO. 85 D 140 — DRAWING NUMBER 19X 3900 S 00321 — REV NO. 1





GENERAL NOTES

4518

1. FOR STRUCTURAL NOTES, SEE DWG. S-00323.
2. —
3. DASHED LINE DENOTES CONTOUR OF EQUAL ELEVATION.
4. FOR ORIENTATION OF P-02B-1100 & P-02B-1200 SEE DWG. S-02B34.

FOR INFORMATION ONLY
CADD SERVICES

000225

DO NOT SCALE REDUCED DRAWING

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION	DRAWN	CHECKED	APPROVED	OPER	DOE
2	REMOVED HOLD ON EQUIPMENT LOCATIONS					
1	GENERAL REVISIONS — NEW					
0	CERTIFIED FOR CONSTRUCTION					
B	ISSUED FOR 100% DESIGN REVIEW					
A	ISSUED FOR 50% DESIGN REVIEW					

UNITED STATES DEPARTMENT OF ENERGY

JACOBS ENGINEERING GROUP INC.
PASADENA, CALIFORNIA

DOE CONTRACT NO DE-AC05-85OR21462 A-E NO. 3900

PROJECT NAME
PRODUCTIVITY & RADIOLOGICAL IMPROVEMENTS

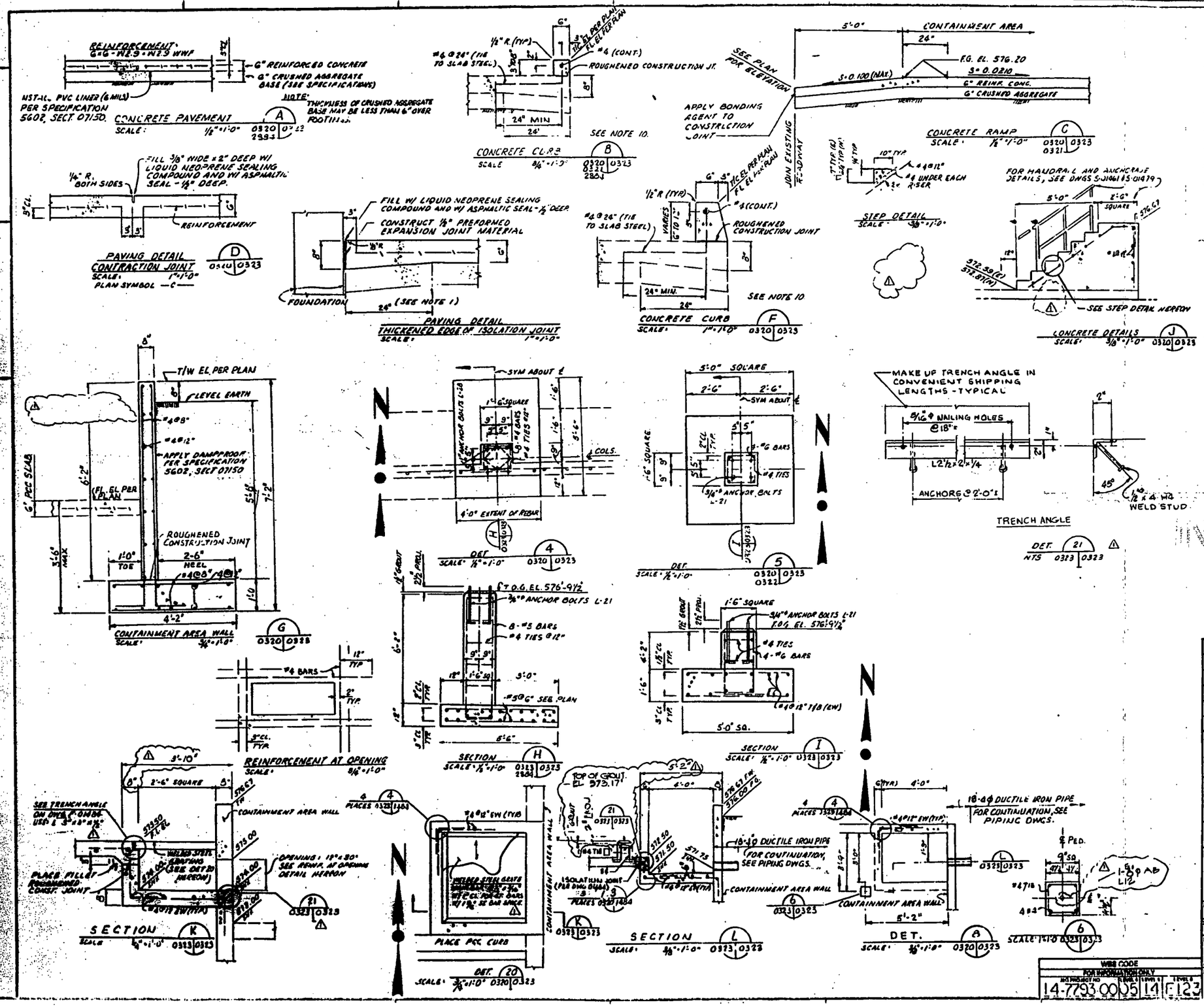
DRAWING TITLE
TANK FARM PROJECT — PLANT 19
AMMONIA STORAGE AREA
FOUNDATION LOCATION PLAN, FINISH GRADING PLAN, AND DETAILS

DRAWN BY D. RHODES — DATE 4-3-85 — DESIGNED CHECKED BY — DATE 3-3-86 — CHECKED BY D. RHODES — DATE 3-18-86
PLANT FMPC — BLDG. — FLOOR — SCALE NOTED — CLASS

SUBMITTED FOR APPROVAL — APPROVAL RECOMMENDED R.W. HELMIG 4-1-86 — DRAWING APPROVED R. STUMPO POL. MA. DAQIAS
A-E DATE 3-19-86 — OPER. CONTRACTOR DATE — DOE DATE 4-4-86

WBS CODE — FOR INFORMATION ONLY
A/E PROJECT NO. 14-7793-00 — PHASE 05 — LEVEL 1 14 — LEVEL 2 F122

PROJECT NO. 85 D 140 — DRAWING NUMBER 19X 3900 S 00322 — REV. NO. 2



GENERAL NOTES

1. ISOLATION JOINTS SHALL BE CONSTRUCTED AROUND ALL FOUNDATIONS, MANHOLES, CATCH BASINS, OR OTHER PROTRUSIONS THROUGH THE CONCRETE PAVEMENT.
2. CONCRETE: SEE SECTION 03310.
3. REBAR.: ASTM A-615, GRADE 60
4. ⟷ INDICATES DIRECTION OF SPAN FOR GRATING.
5. CHAMFER EXPOSED EDGES OF CONCRETE 3/4" x 45°
6. LOCATION OF ANCHOR BOLTS ARE EXACT. ADJUST REINFORCING BARS AS NECESSARY.
7. APPLY BONDING AGENT TO ALL CONSTRUCTION JOINTS
8. △
9. CONTRACTOR TO FIELD CHECK AND VERIFY ALL DIMENSIONS AND NOTIFY COMPANY OF DISCREPANCES PRIOR TO THE INSTALLATION OF TANKS AND EQUIPMENT.
10. SLOPE COMPACTED EARTH IN CUT OR FILL FROM TOP OF CURB OF ROADWAYS AT A SLOPE OF 2 HORIZONTAL ON 1 VERTICAL.

FOR INFORMATION ONLY
CADD SERVICES

INFORMATION ONLY
SEP / 3 2002
000226

DO NOT SCALE REDUCED DRAWING

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION				
1	GENERAL REVISIONS				
0	CERTIFIED FOR CONSTRUCTION				
B	ISSUED FOR 100% DESIGN REVIEW				
A	ISSUED FOR 50% DESIGN REVIEW				

UNITED STATES DEPARTMENT OF ENERGY

JACOBS ENGINEERING GROUP INC.
PASADENA, CALIFORNIA

DOE CONTRACT NO. DE-AC05-85OR21462 A&E NO. 3900

PROJECT NAME: **PRODUCTIVITY & RADIOLOGICAL IMPROVEMENTS**

DRAWING TITLE: TANK FARM PROJECT AMMONIA STORAGE AREA SUMP SECTIONS AND DETAILS — PLANT 19

D. RHODES

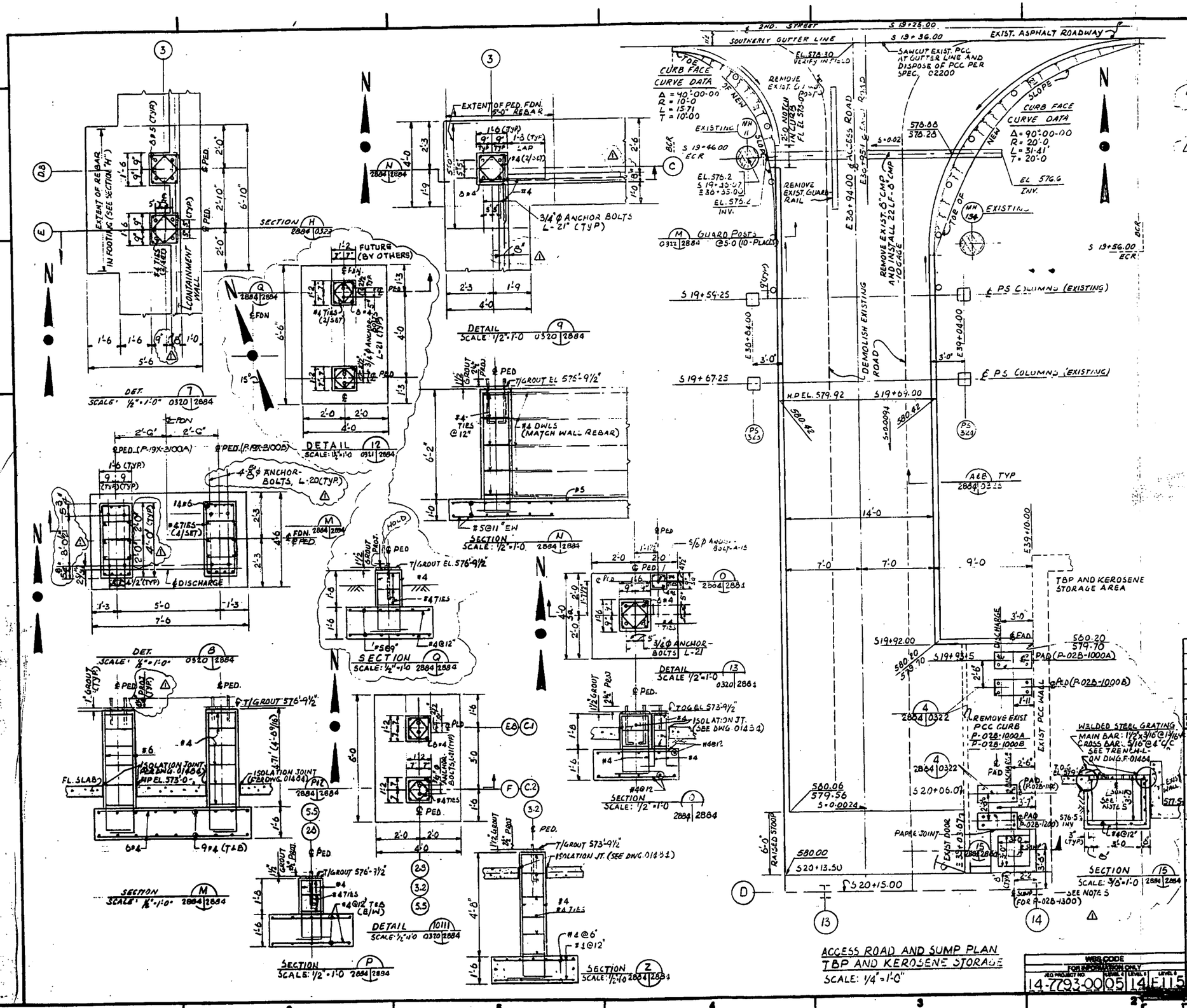
WBS CODE FOR INFORMATION ONLY: 14-7793.0005 14 F123

PROJECT NO					
85-D-140	19X	3900	S	00323	1

4518

GENERAL NOTES

1. FOR STRUCTURAL NOTES, SEE DWG. S-00323
2.
3. SEE DWG. F-01434 FOR ANCHOR BOLT DETAILS
4.
5. FOR SUPPORT FOR P-02B-1300, TBP & KEROSENE STORAGE, SEE DWG. S-00273



FOR INFORMATION ONLY
FOR INFORMATION ONLY
CADD SERVICES

000227

DO NOT SCALE REDUCED DRAWING.

REV NO	ISSUE OR REVISION PURPOSE - DESCRIPTION	INITIALS AND DATE		
1	GENERAL REVISIONS DR KSW	SGB 10-11-86	AP 10-23-86	PE 10-23-86
0	CERTIFIED FOR CONSTRUCTION			
B	ISSUED FOR 100% DESIGN REVIEW	10-20-85		
A	ISSUED FOR 50% DESIGN REVIEW			

UNITED STATES DEPARTMENT OF ENERGY

JACOBS ENGINEERING GROUP INC.
PASADENA, CALIFORNIA

DOE CONTRACT NO DE-AC05-850R21462 A-E NO. 3900

PROJECT NAME: **PRODUCTIVITY & RADIOLOGICAL IMPROVEMENTS**

DRAWING TITLE: TANK FARM PROJECT PLANT 02
TBP AND KEROSENE STORAGE
FOUNDATION LOCATION PLAN
AND MISCELLANEOUS SECTIONS AND DETAILS

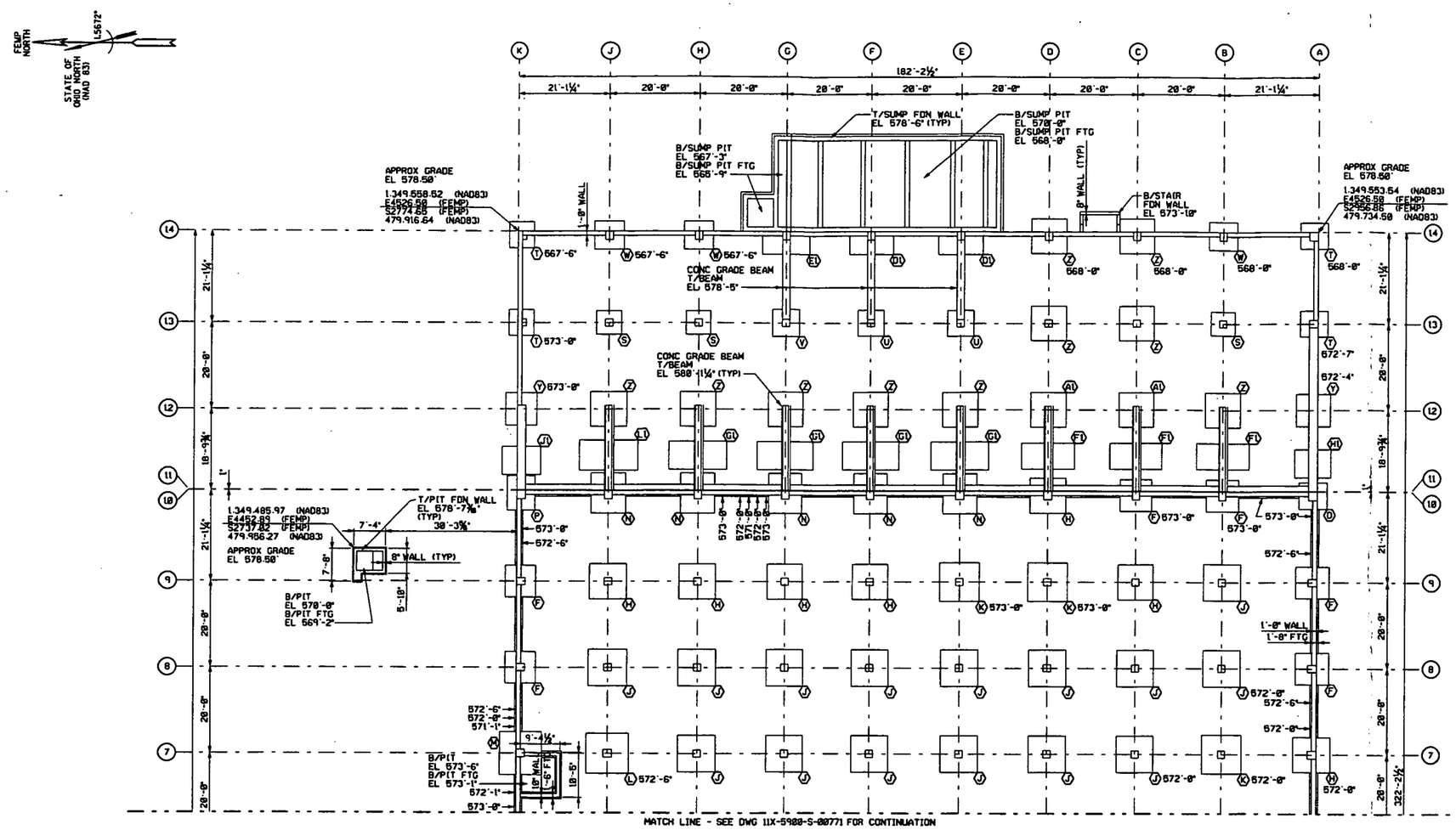
DRAWN BY: S. PEIRIS DATE 2-5-85 — D. RHODES

PLANT: FMPC | BLDG. | FLOOR | SCALE: NOTED | CLASS

SUBMITTED FOR APPROVAL: A-E DATE 3-27-86
APPROVAL RECOMMENDED: R. W. HOLMES 4-1-86 OPER CONTRACTOR DATE
DRAWING APPROVED: R. STUMPO FOR M.A. PAGLIA DOE DATE 4-1-86

WBS CODE FOR INFORMATION ONLY: JEG PROJECT NO. 14-7793-00 | LEVEL 4 05 | LEVEL 5 14 | LEVEL 6 E115

PROJECT NO. 85-D-140 | 02B | 3900 | S | 02884 | REV. NO. 1



FOUNDATION PLAN - EAST

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-2"	4'-2"	1'-3"	571'-6"	1'-11¼" SQ	
B	4'-10"	4'-10"	1'-3"	571'-6"	VARIES	SEE NOTE 2
C	5'-2"	5'-2"	1'-3"	571'-6" (UNO)	1'-8" SQ	
D	6'-2"	6'-2"	1'-3"	573'-0"	1'-11¼" SQ	
E	6'-8"	6'-8"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
F	7'-4"	7'-4"	1'-6"	572'-6" (UNO)	VARIES	SEE NOTE 2
G	7'-8"	7'-8"	1'-6"	571'-6" (UNO)	1'-8" SQ	
H	8'-2"	8'-2"	1'-6"	573'-0"	VARIES	SEE NOTE 2
J	8'-6"	8'-6"	1'-6"	572'-6" (UNO)	VARIES	SEE NOTE 2
K	9'-0"	9'-0"	1'-8"	571'-6" (UNO)	VARIES	SEE NOTE 2
L	9'-4"	9'-4"	1'-8"	572'-0" (UNO)	VARIES	SEE NOTE 2
M	10'-0"	10'-0"	2'-0"	SEE PLAN	VARIES	SEE NOTE 2
N	7'-8"	9'-4"	1'-6"	573'-0"	1'-8"x1'-11¼"	
P	6'-8"	8'-0"	1'-3"	573'-0"	1'-11¼" SQ	
Q	5'-6"	7'-4"	1'-3"	571'-6" (UNO)	1'-8"x1'-11¼"	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
R	5'-4"	6'-4"	1'-3"	570'-6"	1'-11¼" SQ	
S	5'-6"	5'-6"	1'-3"	573'-0"	1'-8" SQ	
T	6'-0"	6'-0"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
U	6'-0"	6'-0"	1'-6"	570'-0"	1'-8" SQ	
V	6'-3"	6'-3"	1'-6"	568'-5"	1'-8" SQ	
W	6'-6"	6'-6"	1'-3"	571'-6" (UNO)	VARIES	SEE NOTE 2
X	7'-0"	7'-0"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
Y	7'-6"	7'-6"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
Z	8'-0"	8'-0"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
A1	9'-0"	9'-0"	1'-6"	573'-0"	1'-8" SQ	
B1	3'-0"	5'-0"	1'-3"	571'-6"	VARIES	SEE NOTE 2 & 3
C1	6'-0"	5'-0"	1'-3"	570'-6"	1'-11¼"x1'-8"	
D1	10'-0"	5'-3"	1'-6"	568'-0"	1'-8"x1'-11¼"	
E1	11'-0"	5'-3"	1'-6"	565'-9"	1'-8"x1'-11¼"	
F1	12'-0"	6'-0"	1'-9"	573'-0"	N/A	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
G1	13'-0"	6'-6"	1'-9"	573'-0"	N/A	
H1	8'-0"	6'-6"	1'-6"	573'-0"	N/A	
J1	9'-3"	6'-6"	1'-6"	573'-0"	N/A	
K1	8'-0"	7'-6"	1'-6"	570'-0"	1'-11¼"x1'-8"	
L1	13'-0"	7'-0"	1'-9"	573'-0"	N/A	
M1	4'-3"	4'-3"	1'-0"	576'-0"	1'-9¼" SQ	
N1	3'-10"	3'-10"	1'-0"	577'-0"	1'-4" SQ	
P1	4'-9"	4'-9"	1'-0"	576'-0"	1'-9¼" SQ	
Q1	4'-6"	4'-6"	1'-0"	576'-0"	VARIES	SEE NOTE 2
R1	4'-0"	4'-0"	1'-0"	576'-0"	VARIES	SEE NOTE 2
S1	3'-10"	3'-10"	1'-0"	576'-0"	VARIES	SEE NOTE 2
T1	4'-6"	4'-6"	1'-0"	576'-0"	1'-9¼" SQ	

GRAPHIC SCALE: 3/32" = 1'-0"

000228

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK11-1.

4518

REF DWG NO.	DRAWING TITLE
11C-4445-S-00471	FOUNDATION PLAN & DETAILS
11X-1450-A-00007	ELEVATOR & DUMBWAITER SHAFTS
11X-1450-S-00013	FOUNDATION PLAN
11X-1450-S-00622	SERVICE BUILDING RECEIVING SUMP
11X-5500-S-00705	PLAN, SECTIONS & DETAILS
11X-7000-S-00053	FOUNDATION PLAN
11X-7000-S-00078	FOUNDATION DETAILS SHEET #1
11X-7000-S-00083	FOUNDATION DETAILS SHEET #2
11X-7000-S-00084	FOUNDATION DETAILS SHEET #3

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

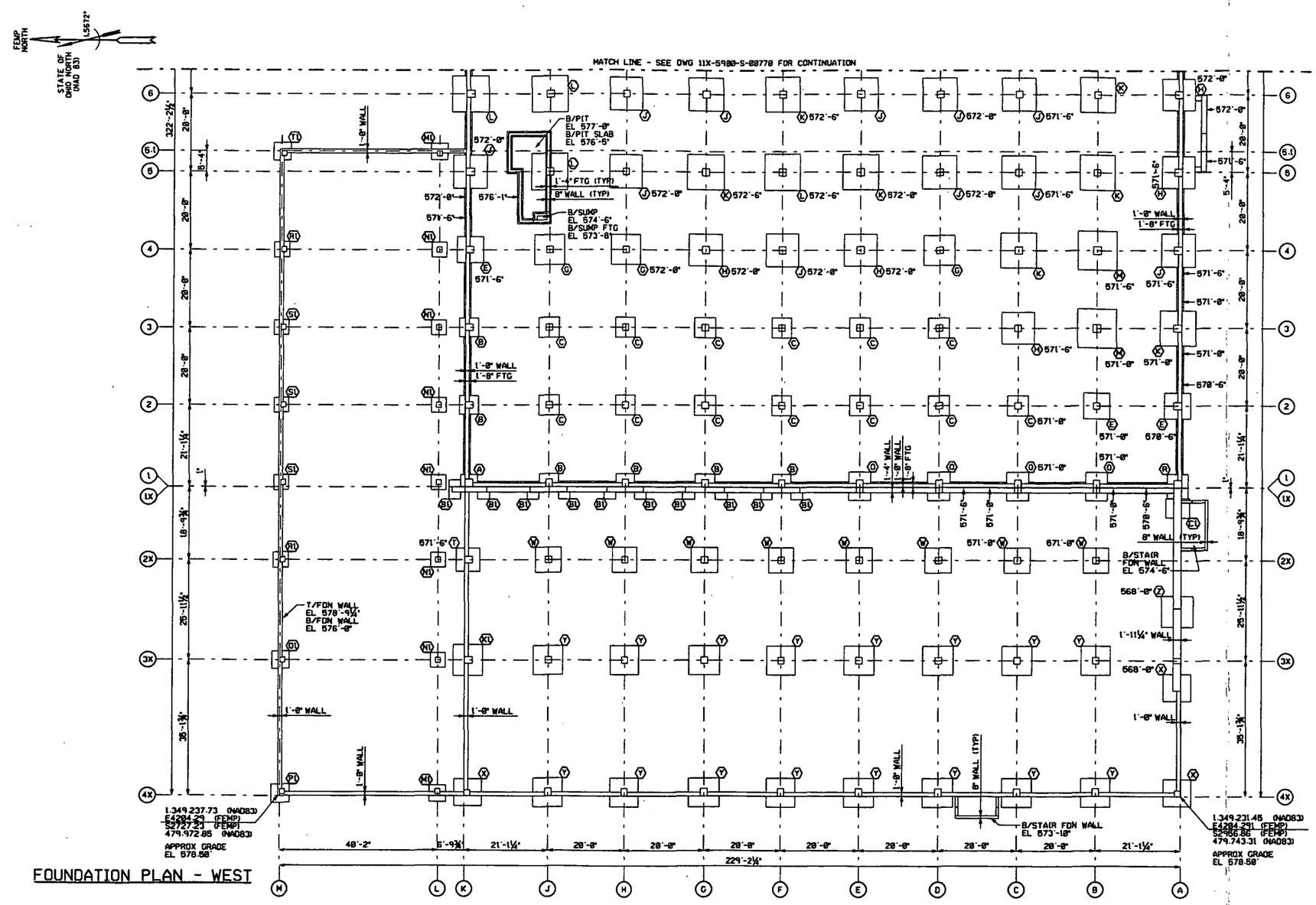
DRAWING TITLE
BUILDING 11
FOUNDATION PLAN - EAST
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING — YES / NO
EXISTING ATTACHED AS CONTROLLED DOCUMENTS PER CONFIGURATION MANAGEMENT CONTROL LEV 00TEX

TASK ORDER NO.	OPTIONAL NO.	SCALE
060	N/A	3/32" = 1'-0"
DRAWN BY: L. HAGAMAN/K. RABBIT		DATE 12/31/01
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
CHECKED BY: DOREEN REED		DATE 01/11/02
DRAWING INDEX CODE NO. 11X-5900-S-00770	SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER — DATE

SEAL



FOUNDATION PLAN - WEST

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-2"	4'-2"	1'-3"	571'-6"	1'-11¼" SQ	
B	4'-10"	4'-10"	1'-3"	571'-6"	VARIES	SEE NOTE 2
C	5'-2"	5'-2"	1'-3"	571'-6" (UNO)	1'-8" SQ	
D	6'-2"	6'-2"	1'-3"	573'-0"	1'-11¼" SQ	
E	6'-8"	6'-8"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
F	7'-4"	7'-4"	1'-6"	572'-6" (UNO)	VARIES	SEE NOTE 2
G	7'-8"	7'-8"	1'-6"	571'-6" (UNO)	1'-8" SQ	
H	8'-2"	8'-2"	1'-6"	573'-0"	VARIES	SEE NOTE 2
J	8'-6"	8'-6"	1'-6"	572'-6" (UNO)	VARIES	SEE NOTE 2
K	9'-0"	9'-0"	1'-8"	571'-6" (UNO)	VARIES	SEE NOTE 2
L	9'-4"	9'-4"	1'-8"	572'-0" (UNO)	VARIES	SEE NOTE 2
M	10'-0"	10'-0"	2'-0"	SEE PLAN	VARIES	SEE NOTE 2
N	7'-8"	9'-4"	1'-6"	573'-0"	1'-8"x1'-11¼"	
P	6'-8"	8'-0"	1'-3"	573'-0"	1'-11¼" SQ	
Q	5'-6"	7'-4"	1'-3"	571'-6" (UNO)	1'-8"x1'-11¼"	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
R	5'-4"	6'-4"	1'-3"	570'-6"	1'-11¼" SQ	
S	5'-6"	5'-6"	1'-3"	573'-0"	1'-8" SQ	
T	6'-0"	6'-0"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
U	6'-0"	6'-0"	1'-6"	570'-0"	1'-8" SQ	
V	6'-3"	6'-3"	1'-6"	568'-5"	1'-8" SQ	
W	6'-6"	6'-6"	1'-3"	571'-6" (UNO)	VARIES	SEE NOTE 2
X	7'-0"	7'-0"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
Y	7'-6"	7'-6"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
Z	8'-0"	8'-0"	1'-6"	570'-0" (UNO)	VARIES	SEE NOTE 2
A1	9'-0"	9'-0"	1'-6"	573'-0"	1'-8" SQ	
B1	3'-8"	5'-0"	1'-3"	571'-6"	VARIES	SEE NOTE 2 & 3
C1	6'-8"	5'-0"	1'-3"	570'-6"	1'-11¼"x1'-8"	
D1	10'-0"	5'-3"	1'-6"	568'-0"	1'-8"x1'-11¼"	
E1	11'-0"	5'-3"	1'-6"	565'-9"	1'-8"x1'-11¼"	
F1	12'-0"	6'-0"	1'-9"	573'-0"	N/A	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
G1	13'-0"	6'-6"	1'-9"	573'-0"	N/A	
H1	8'-0"	6'-6"	1'-6"	573'-0"	N/A	
J1	9'-3"	6'-6"	1'-6"	573'-0"	N/A	
K1	8'-0"	7'-6"	1'-6"	570'-0"	1'-11¼"x1'-8"	
L1	13'-0"	7'-0"	1'-9"	573'-0"	N/A	
M1	4'-3"	4'-3"	1'-0"	576'-0"	1'-9¼" SQ	
N1	3'-10"	3'-10"	1'-0"	577'-0"	1'-4" SQ	
P1	4'-9"	4'-9"	1'-0"	576'-0"	1'-9¼" SQ	
Q1	4'-6"	4'-6"	1'-0"	576'-0"	VARIES	SEE NOTE 2
R1	4'-8"	4'-8"	1'-0"	576'-0"	VARIES	SEE NOTE 2
S1	3'-10"	3'-10"	1'-0"	576'-0"	VARIES	SEE NOTE 2
T1	4'-6"	4'-6"	1'-0"	576'-0"	1'-9¼" SQ	

000229

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK11-1.
3. FOOTERS DESIGNATED BY MARK B1 ARE BUTTED AGAINST COLUMN LINE 1 FOOTERS.

4518

REF DWG NO.	DRAWING TITLE
11C-4445-S-00471	FOUNDATION PLAN & DETAILS
11X-1450-A-00007	ELEVATOR & DUMBWAITER SHAFTS
11X-1450-S-00013	FOUNDATION PLAN
11X-1450-S-00622	SERVICE BUILDING RECEIVING SUMP
11X-5500-S-00705	PLAN, SECTIONS & DETAILS
11X-7000-S-00053	FOUNDATION PLAN
11X-7000-S-00078	FOUNDATION DETAILS SHEET #1
11X-7000-S-00083	FOUNDATION DETAILS SHEET #2
11X-7000-S-00084	FOUNDATION DETAILS SHEET #3

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LNH 10/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 11
FOUNDATION PLAN- WEST
WITHOUT HIDDEN LINES

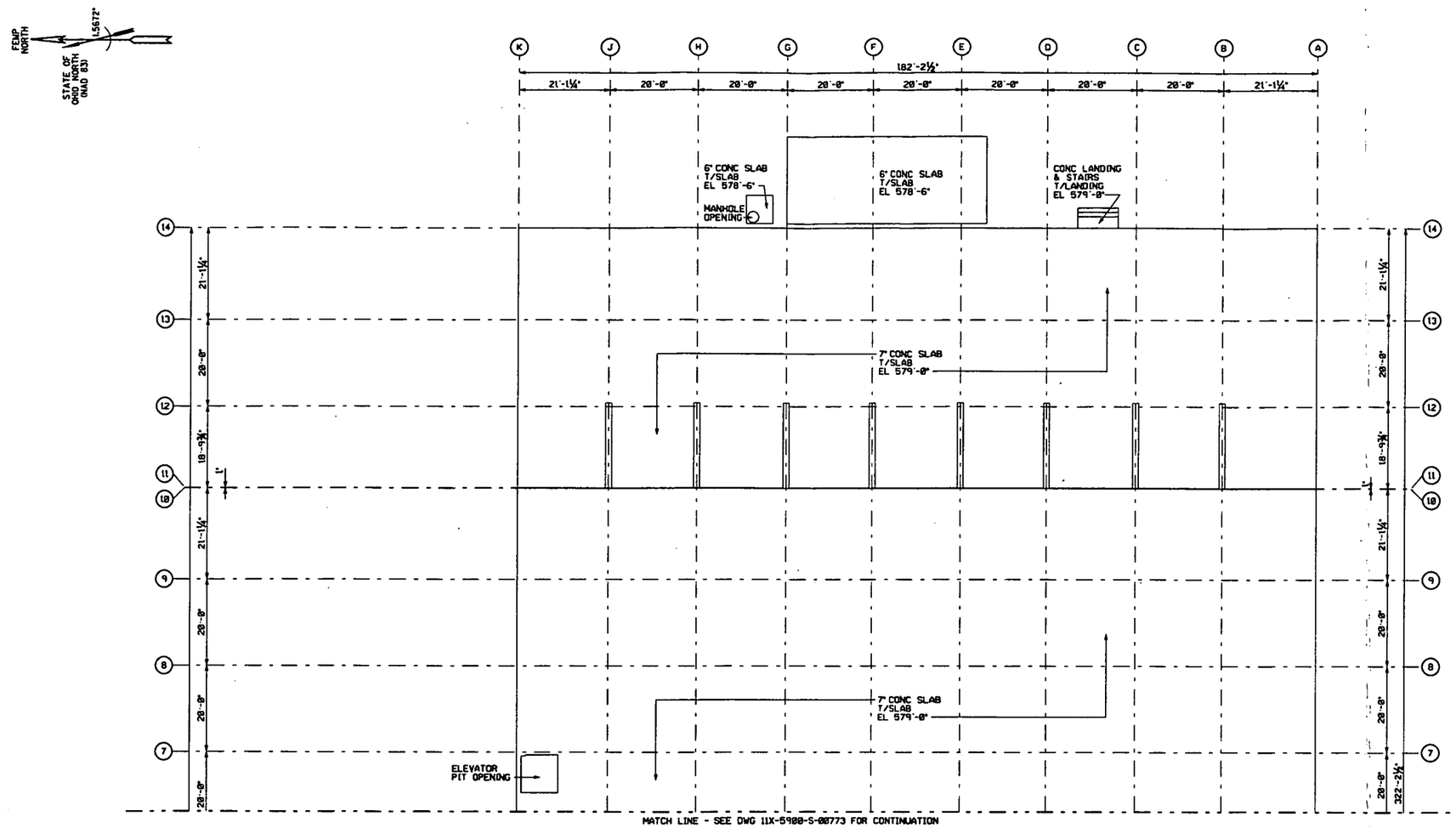
CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING ATTACHMENTS AS CONTAINED CONCURRENT WITH THIS DRAWING, SEE VENDOR DOCUMENTS FROM MANAGEMENT CONTROL SEE ABOVE.

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE
060	N/A	3/32" = 1'-0"
DRAWN BY: L. HAGAMAN/K. RABBIT		DATE: 12/31/91
RES NO.: 4327	FW PROJECT NO.: 20810	TECHNICAL LEAD: N/A — DATE: N/A
		CHECKED BY: DOREEN REED — DATE: 10/11/92
DRAWING INDEX CODE NO.: 11X-5900-S-00771		SHEET NO.: S0002 — REV. NO.: 0

SEAL



SLAB PLAN - EAST

000230

8' 0' 8' 16' 24'
GRAPHIC SCALE: 3/32" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK11-1.

4518

REF DWG NO.	DRAWING TITLE
11C-4445-S-00471	FOUNDATION PLAN & DETAILS
11X-1450-A-00007	ELEVATOR & DUMBWAITER SHAFTS
11X-1450-S-00013	FOUNDATION PLAN
11X-1450-S-00622	SERVICE BUILDING RECEIVING SUMP
11X-5500-S-00705	PLAN, SECTIONS & DETAILS
11X-7000-S-00053	FOUNDATION PLAN
11X-7000-S-00078	FOUNDATION DETAILS SHEET #1
11X-7000-S-00083	FOUNDATION DETAILS SHEET #2
11X-7000-S-00084	FOUNDATION DETAILS SHEET #3

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCM BY	DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KC 03/26/92	LMH 03/26/92	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

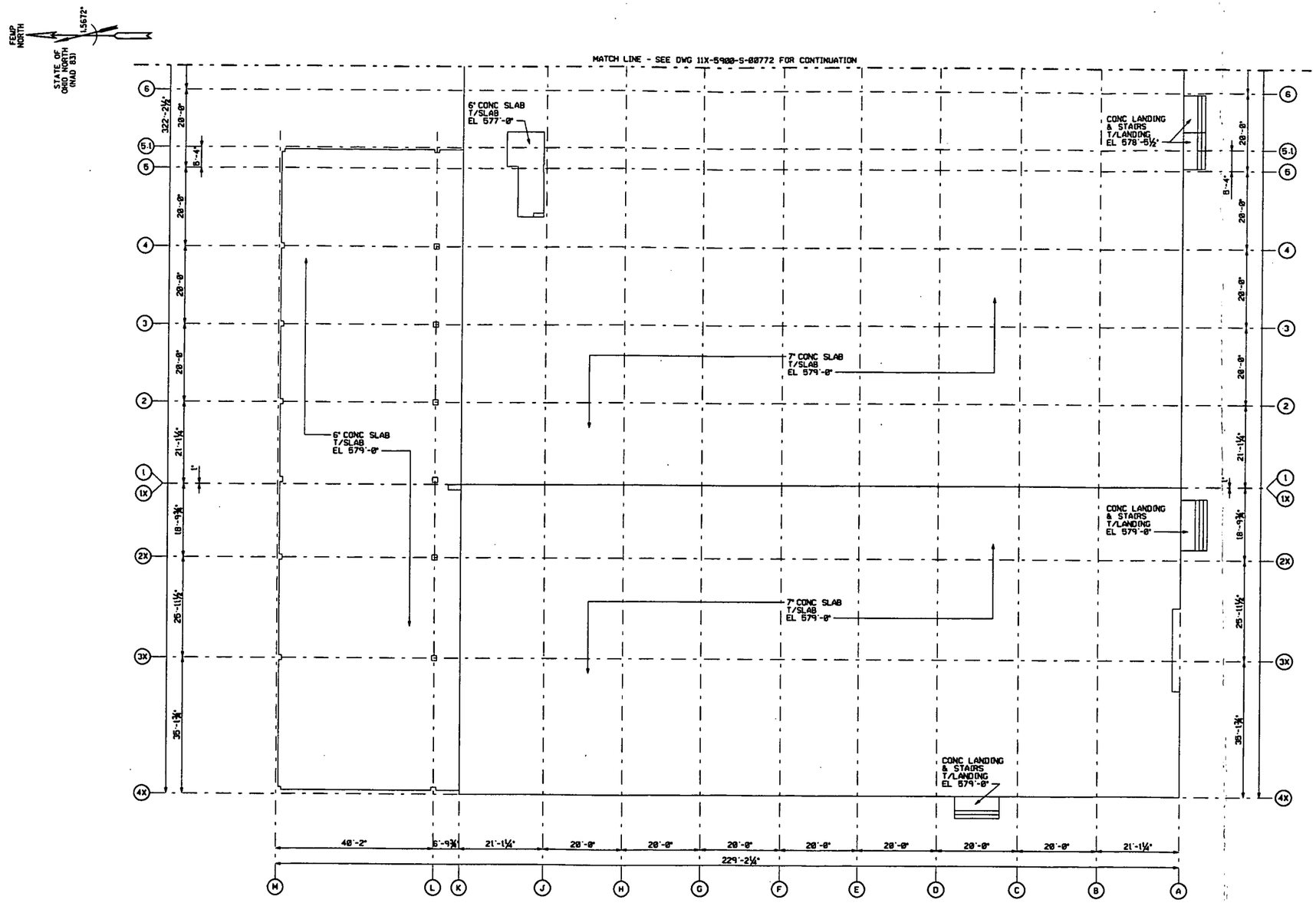
DRAWING TITLE
BUILDING 11
SLAB PLAN - EAST
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/32" = 1'-0"
060	N/A	DRAWN BY L. HAGAMAN/K. RABBIT — DATE 12/31/91
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 05/11/92
DRAWING INDEX CODE NO. 11X-5900-S-00772		SHEET NO. S0003 — REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



SLAB PLAN - WEST

GRAPHIC SCALE: 1/32" = 1'-0"

000231

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK11-1.

4518

REF DWG NO.	DRAWING TITLE
11C-4445-S-00471	FOUNDATION PLAN & DETAILS
11X-1450-A-00007	ELEVATOR & DUMBWAITER SHAFTS
11X-1450-S-00013	FOUNDATION PLAN
11X-1450-S-00622	SERVICE BUILDING RECEIVING SUMP
11X-5500-S-00705	PLAN, SECTIONS & DETAILS
11X-7000-S-00053	FOUNDATION PLAN
11X-7000-S-00078	FOUNDATION DETAILS SHEET #1
11X-7000-S-00083	FOUNDATION DETAILS SHEET #2
11X-7000-S-00084	FOUNDATION DETAILS SHEET #3

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/25/92	LMH 03/25/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

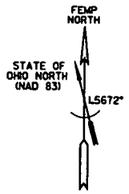
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 11
SLAB PLAN - WEST
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

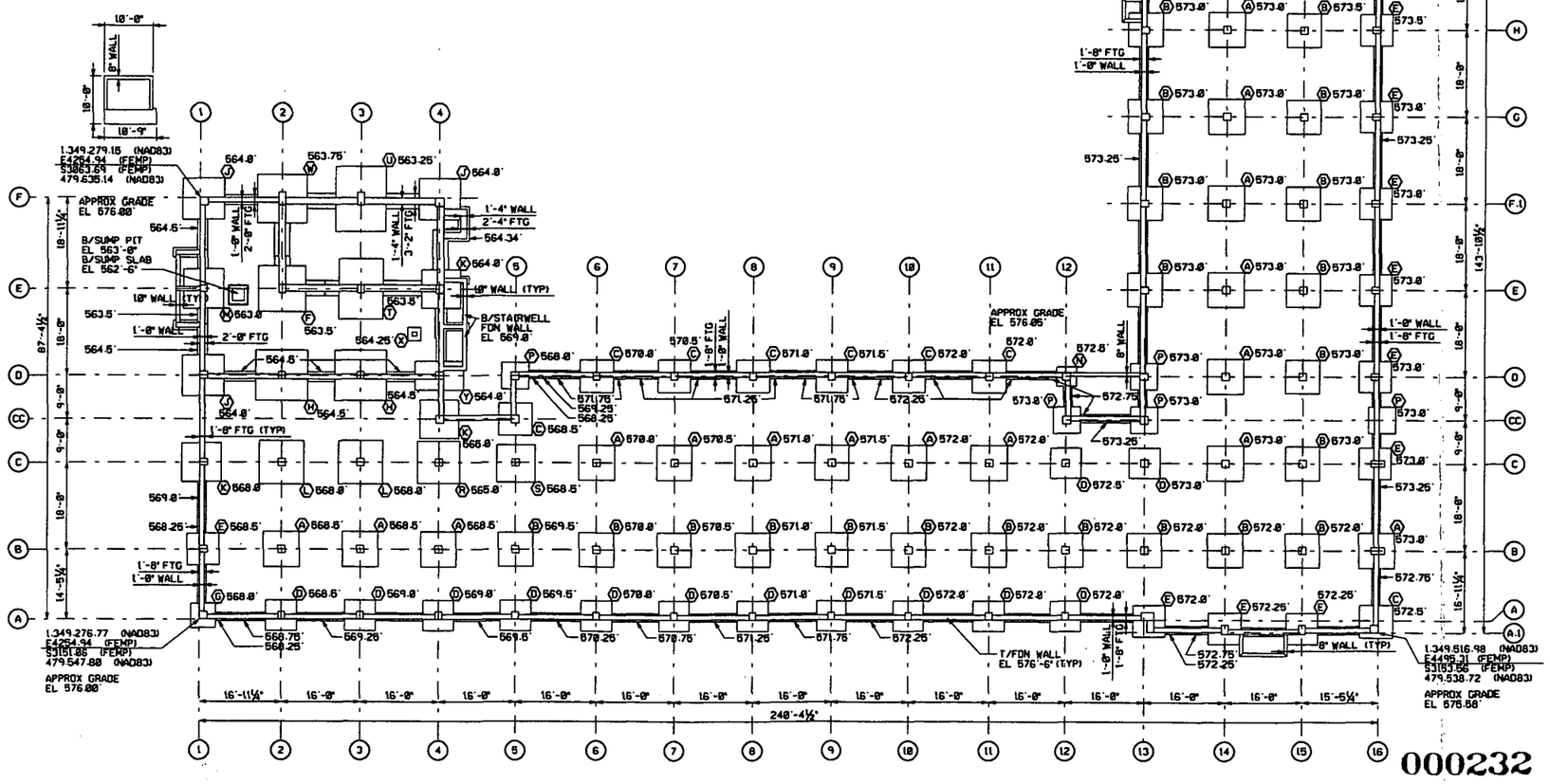
TASK ORDER NO.	OPTIONAL NO.	SCALE 1/32" = 1'-0"
060	N/A	DRAWN BY L. HAGAMAN/K. RABBIT — DATE 12/31/91
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 03/11/92
DRAWING INDEX CODE NO. 11X-5900-S-00773		SHEET NO. S0004 — REV. NO. 0

COGNIZANT ENGINEER — DATE



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	7'-3"	7'-3"	1'-3"	SEE PLAN	18"x18"	SEE NOTE 2
B	7'-0"	7'-0"	1'-3"	SEE PLAN	18"x18"	SEE NOTE 2
C	6'-9"	6'-9"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
D	6'-3"	6'-3"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
E	6'-6"	6'-6"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
F	9'-6"	9'-6"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
G	5'-0"	5'-0"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
H	10'-6"	10'-6"	1'-9"	SEE PLAN	VARIES	SEE NOTE 2
J	8'-6"	8'-6"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
K	8'-0"	8'-0"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
L	9'-0"	9'-0"	1'-6"	SEE PLAN	18"x18"	SEE NOTE 2
M	8'-3"	8'-3"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
N	4'-0"	4'-0"	1'-3"	572.5'	19"x19"	
P	5'-6"	5'-6"	1'-3"	SEE PLAN	VARIES	SEE NOTE 2
R	8'-9"	8'-9"	1'-6"	565.0'	18"x18"	
S	7'-9"	7'-9"	1'-3"	568.5'	18"x18"	
T	12'-6"	9'-0"	2'-0"	563.5'	16"x19"	
U	13'-6"	10'-3"	2'-3"	563.25'	16"x14"	
W	10'-0"	10'-0"	1'-9"	563.75	16"x14"	
X	2'-9"	2'-9"	1'-3"	564.25'	12"x10"	
Y	6'-0"	10'-0"	1'-6"	564.0'	19"x19"	



FOUNDATION PLAN

GRAPHIC SCALE: 1/32" = 1'-0"

000232

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK14AB-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-G-00025	EXISTING SITE PLAN
14X-1450-S-00008	FOUNDATION PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	NOB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

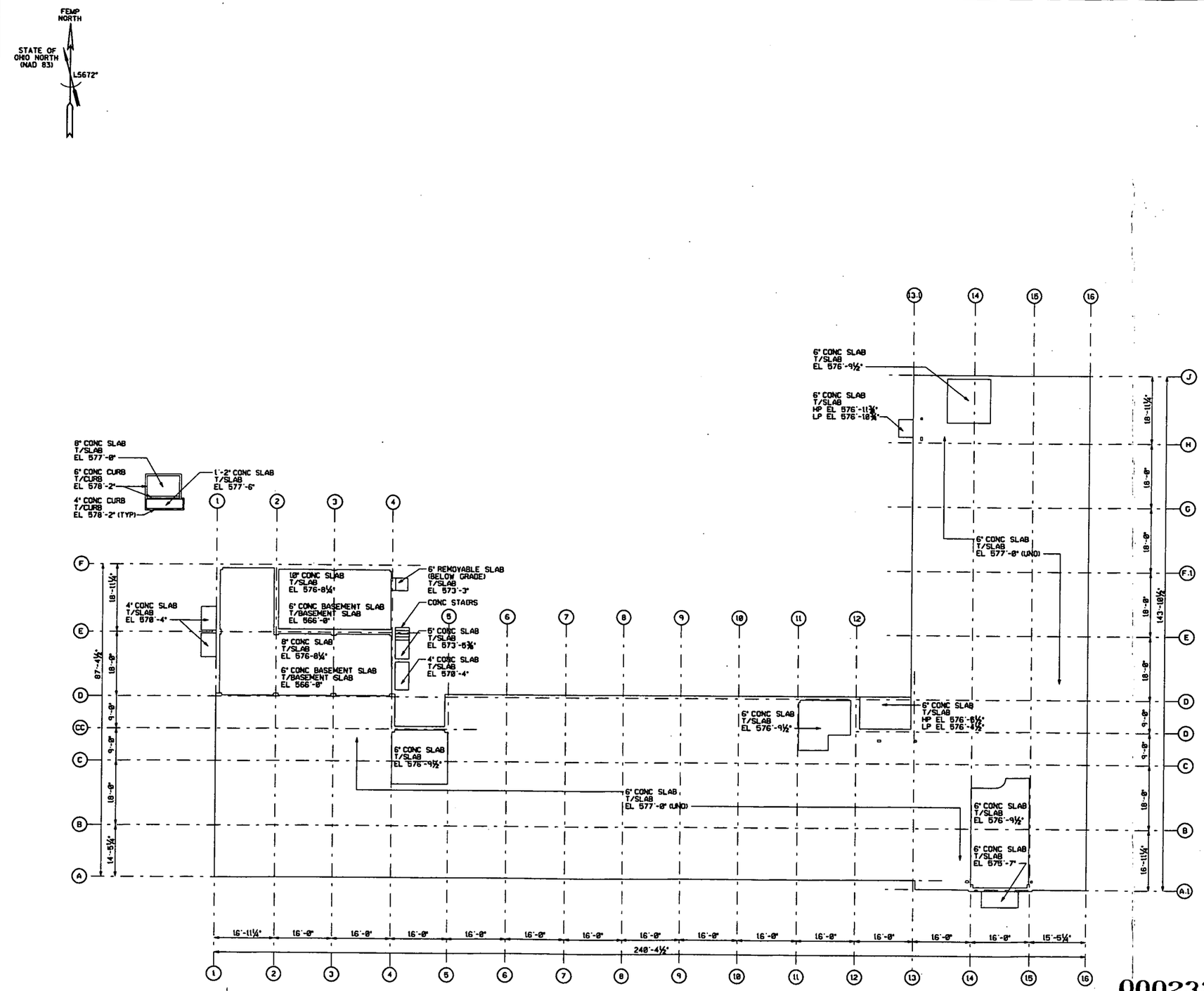
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 14A & 14B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE
060	N/A	3/32" = 1'-0"
DRAWN BY: L. N. HAGAMAN		DATE: 12/26/01
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD: N/A — DATE: N/A
CHECKED BY: DOREEN REED		DATE: 01/11/02
DRAWING INDEX CODE NO. 14X-5900-S-00531	SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER — DATE — SEAL



SLAB PLAN

000233

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK14AB-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-C-00025	EXISTING SITE PLAN
14X-1450-S-00008	FOUNDATION PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ACHR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/25/92	LNH 03/25/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 14A & 14B
SLAB PLAN
WITHOUT HIDDEN LINES

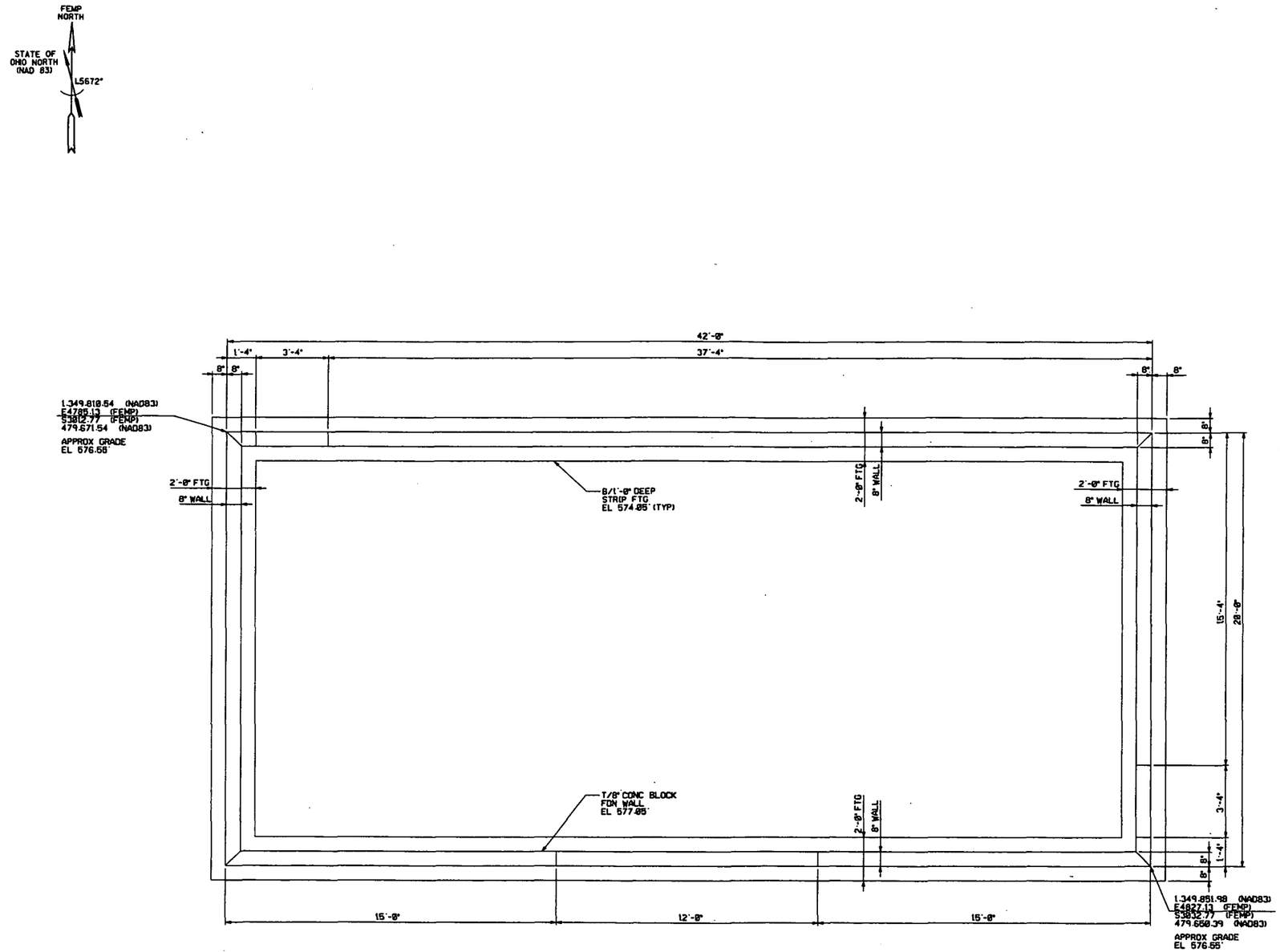
CONFIGURATION MANAGEMENT DRAWING — TASK / INFO

EXISTING ATTACHED OR CONTROLLED CONFIGURATION MANAGEMENT DRAWING. CIP ENTRY.

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/32" = 1'-0"
060	N/A	DRAWN BY L. N. HAGAMAN — DATE 12/25/91
REV. NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 01/11/92
DRAWING INDEX CODE NO. 14X-5900-S-00532		SHEET NO. S0002 — REV. NO. 0

COGNIZANT ENGINEER — DATE

SEAL



FOUNDATION PLAN

GRAPHIC SCALE: ½"=1'-0"

000234

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK168-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-C-00026	EXISTING SITE PLAN
16H-5500-A-00089	FLOOR PLAN
16H-1900-A-00047	FLOOR PLAN, ELEVATIONS, & DETAILS
16H-1900-A-00048	SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	DL	PM	DRN BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/02	LNH 03/26/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 16B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

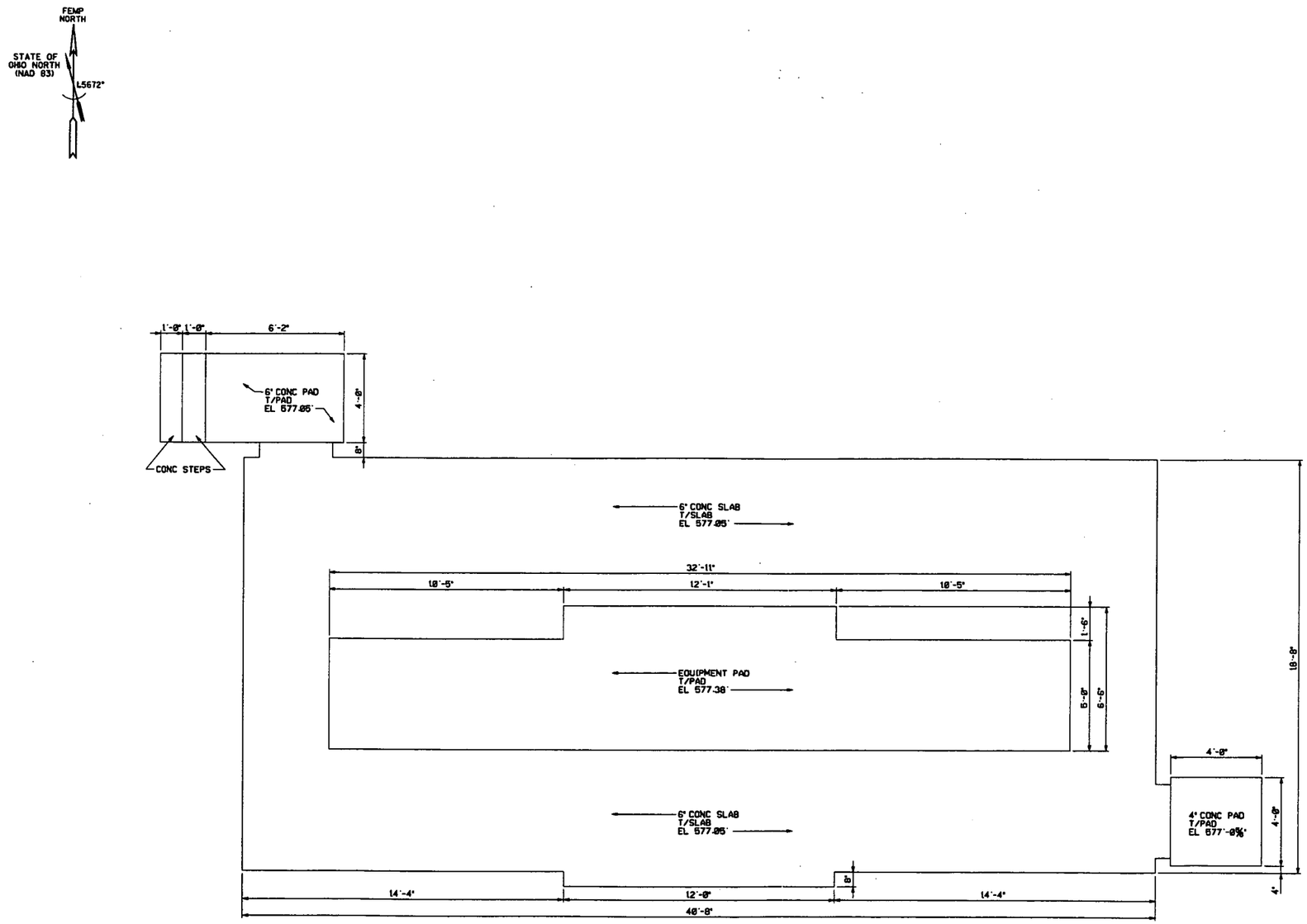
CONFIGURATION MANAGEMENT DRAWING

EXISTING DRAWINGS AS CONTRACTED FOR ARE PRESENTED AS PART OF CONFIGURATION MANAGEMENT CONTROL. CAP SHEET.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ½" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 12/21/01
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/11/02
DRAWING INDEX CODE NO. 16H-5900-S-00114		SHEET NO. S0001	REV. NO. 0

SEAL



SLAB PLAN

GRAPHIC SCALE: ½"=1'-0"

000235

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK16B-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-C-00025	EXISTING SITE PLAN
16H-5500-A-00089	FLOOR PLAN
16H-1900-A-00047	FLOOR PLAN, ELEVATIONS, & DETAILS
16H-1900-A-00048	SECTIONS AON DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LNH 10/28/92

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 16B
SLAB PLAN
WITHOUT HIDDEN LINES

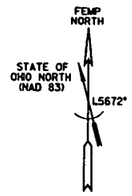
CONFIGURATION MANAGEMENT DRAWING

EXISTING ATTACHMENTS OR CONTENTS CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL. SEE INFO.

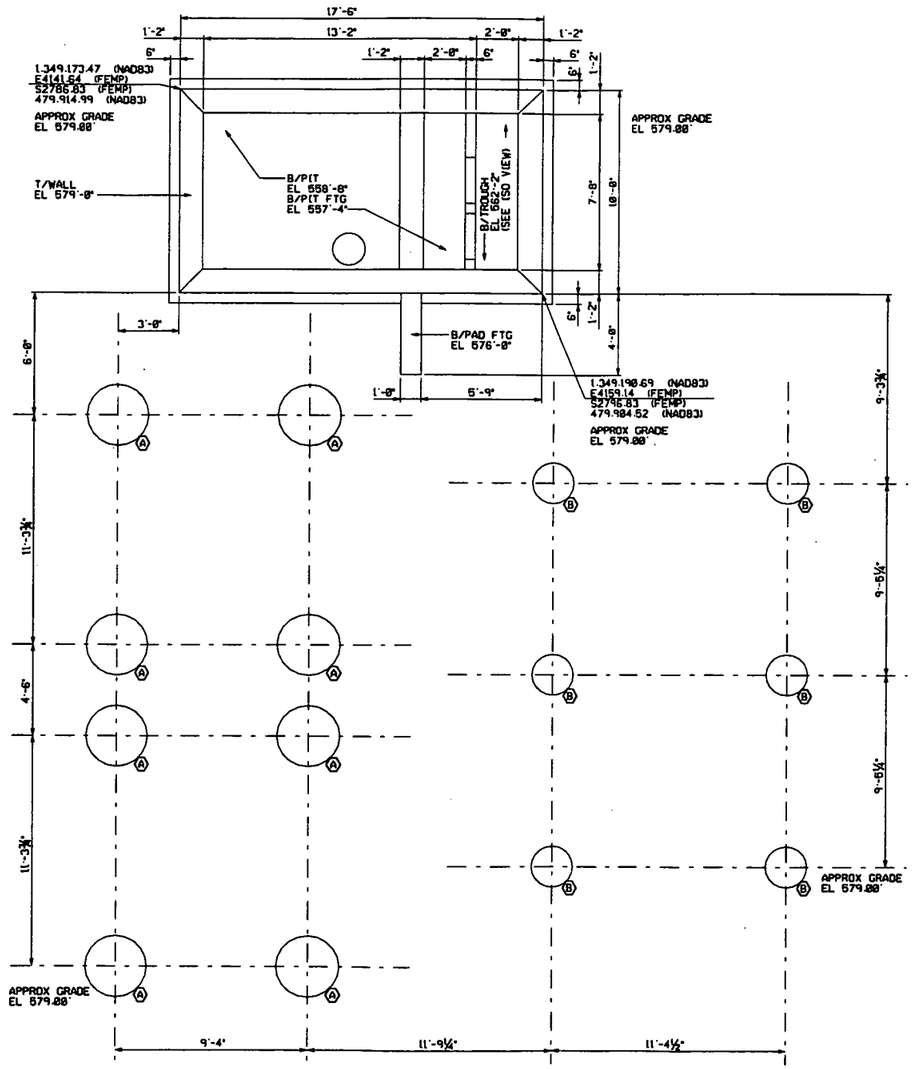
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	½" = 1'-0"	
		DRAWN BY: L. N. HAGAMAN	DATE: 12/23/91
RES NO.: 4327	FDF PROJECT NO.: 20810	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: DOREEN REED	DATE: 01/11/92
DRAWING INDEX CODE NO.: 16H-5900-S-00115		SHEET NO.: S0002	REV. NO.: 0

COGNIZANT ENGINEER DATE

SEAL



FOOTING SCHEDULE						
MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0" DIA	3'-0" DIA	4'-0"	576'-0"	N/A	T/FTG EL 580'-0"
(B)	2'-0" DIA	2'-0" DIA	4'-0"	575'-6"	N/A	T/FTG EL 579'-6"



FOUNDATION PLAN

GRAPHIC SCALE: ¾"=1'-0"

000236

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK22B-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-G-00825	EXISTING SITE PLAN
14X-5500-E-00396	ELECTRICAL - PLANS & DETAILS
14X-5500-S-00497	E.O.C. GENERATOR DIKE, DETAILS
22G-5500-S-00426	STRUCTURAL DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/92	LNH 03/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

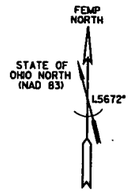
DRAWING TITLE
BUILDING 22B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

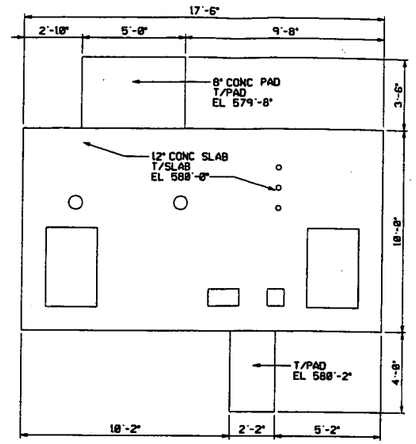
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE ¾" = 1'-0"	
060	N/A	DRAWN BY L. N. HAGAMAN	DATE 12/23/91
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/11/92
DRAWING INDEX CODE NO. 22G-5900-S-00980		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL





SLAB PLAN

GRAPHIC SCALE: ⅜"=1'-0"

000237

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK22B-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-C-00025	EXISTING SITE PLAN
14X-5500-E-00396	ELECTRICAL - PLANS & DETAILS
14X-5500-S-00497	E.O.C. GENERATOR DIKE, DETAILS
22G-5500-S-00426	STRUCTURAL DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

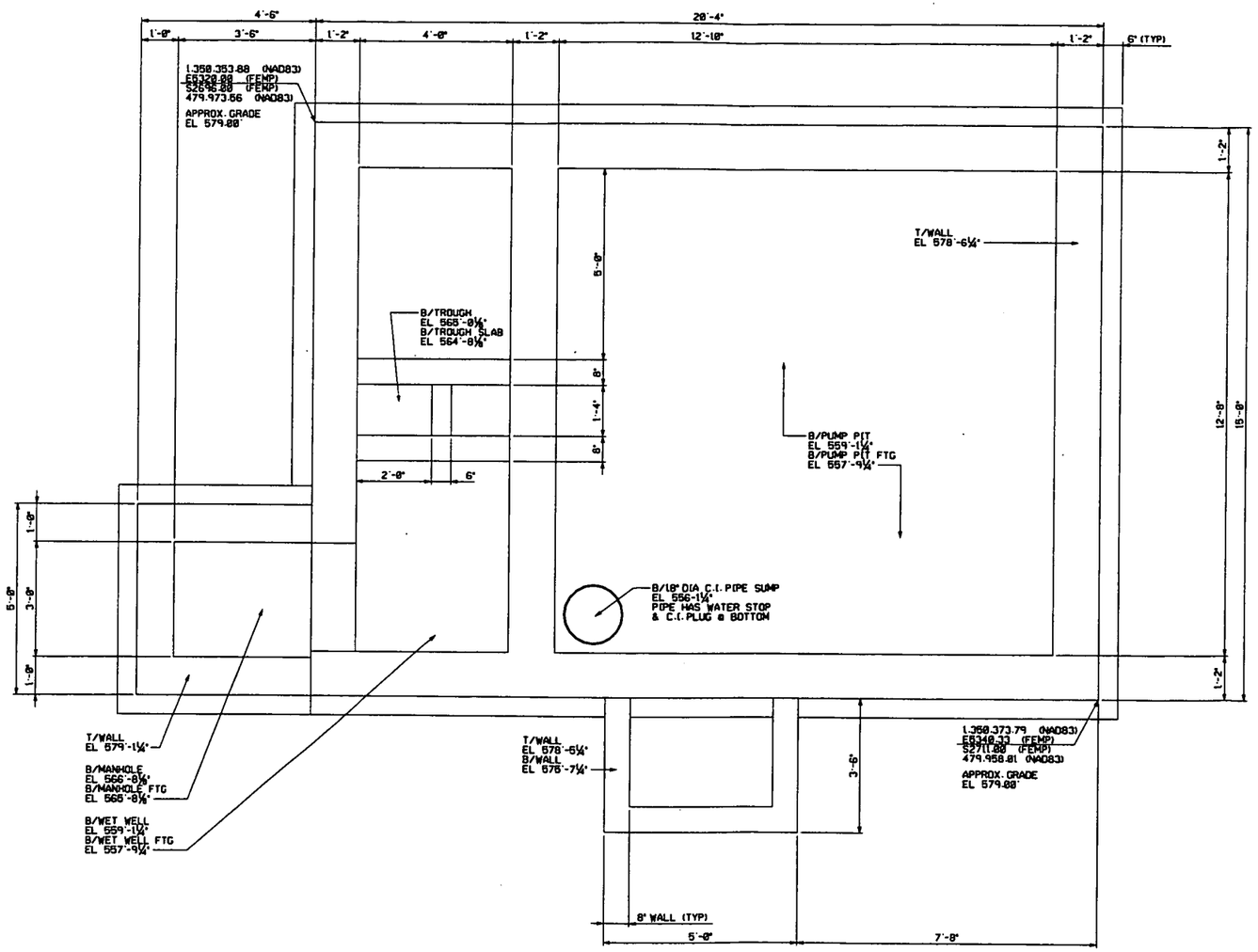
DRAWING TITLE
BUILDING 22B
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO. 060	OPTIONAL NO. N/A	SCALE ⅜" = 1'-0"	
		DRAWN BY L. N. HAGAMAN	DATE 12/23/01
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/11/02
DRAWING INDEX CODE NO. 22G-5900-S-00981		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



FOUNDATION PLAN

GRAPHIC SCALE: ¾"=1'-0"

000238

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK25C-1.

4518

REF DWG NO.	DRAWING TITLE
25H-1450-S-00015	SANITARY SEWERS LIFT STATION

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/28/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

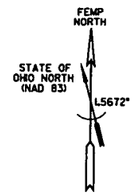
DRAWING TITLE
BUILDING 25C
FOUNDATION PLAN
WITHOUT HIDDEN LINES

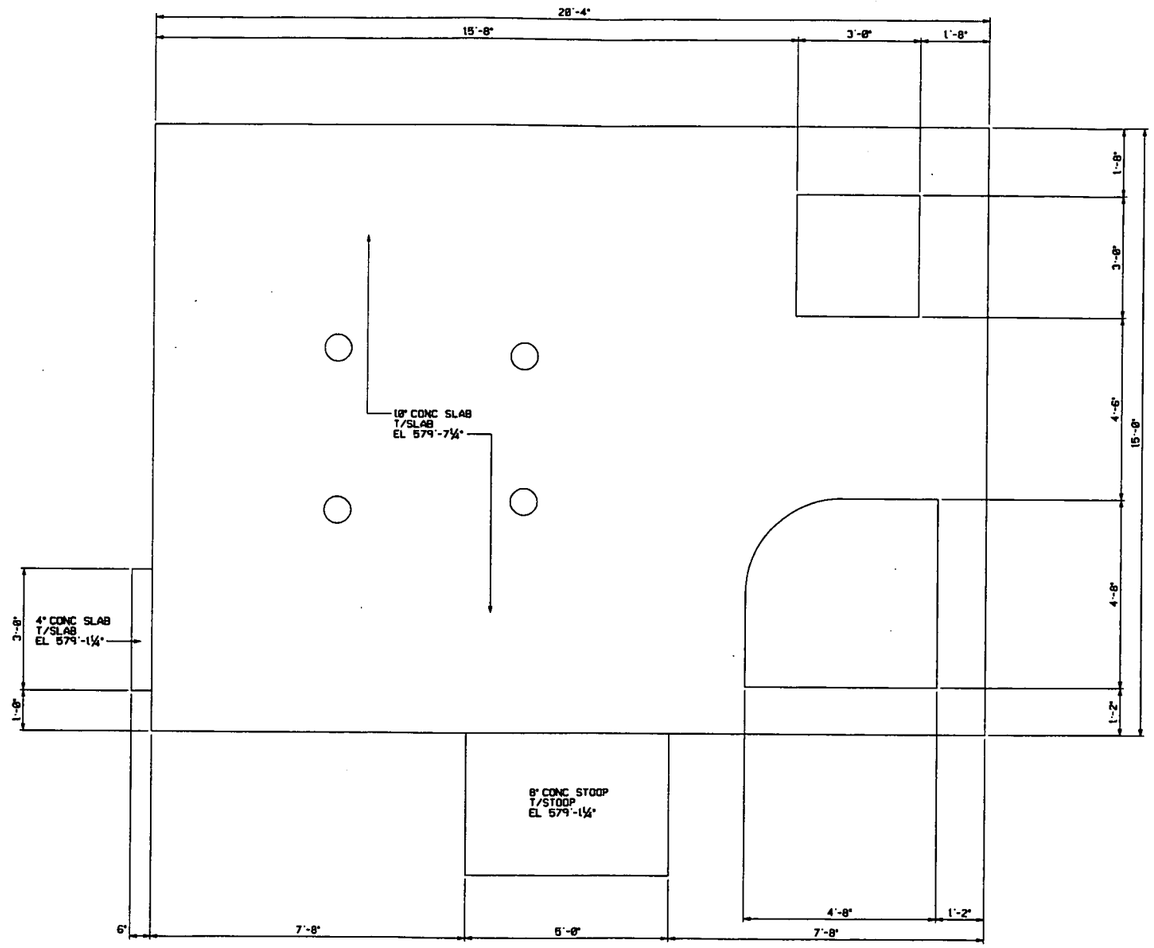
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	¾" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/15/92
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/92
DRAWING INDEX CODE NO. 25H-5900-S-00227		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL





SLAB PLAN

GRAPHIC SCALE: ¾"=1'-0"

000239

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK25C-1.

--4518

REF DWG NO.	DRAWING TITLE
25H-1450-S-00015	SANITARY SEWERS LIFT STATION

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 25C
SLAB PLAN
WITHOUT HIDDEN LINES

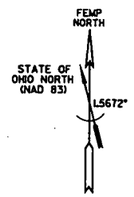
CONFIGURATION MANAGEMENT DRAWING

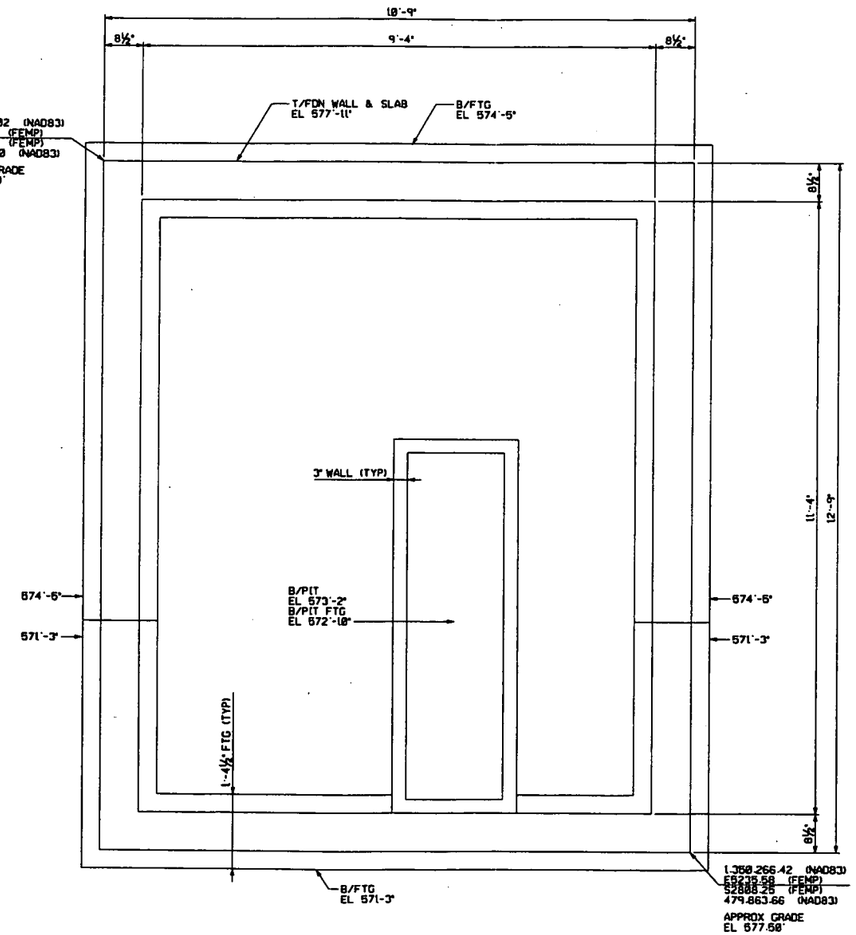
EXISTING ATTRIBUTES OF CONTROLLED DRAWING MUST BE CHANGED VIA CONFIGURATION MANAGEMENT CONTROL. SEE NOTES.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ¾" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/15/92
REF NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/92
DRAWING INDEX CODE NO. 25H-5900-S-00228		SHEET NO. S0002	REV. NO. 0

SEAL





FOUNDATION PLAN

GRAPHIC SCALE: 1"=1'-0"

000240

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK26C-1.

--4518

REF DWG NO.	DRAWING TITLE
16X-5500-A-00033	MAIN ELECTRICAL SUB-STATION - STRAINER HOUSE FOR NEW FOG SPRAY SYSTEM - TRANS 1 & 2

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHB BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 26C
FOUNDATION PLAN
WITHOUT HIDDEN LINES

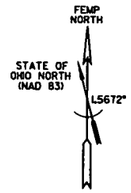
CONFIGURATION MANAGEMENT DRAWING

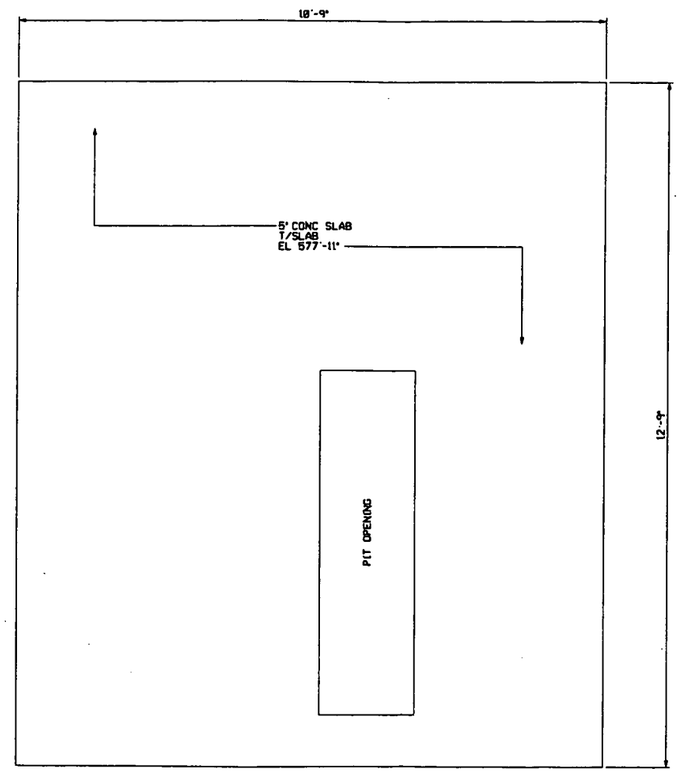
EXISTING ATTACHED AS CONFIRMED CONFIGURATION MANAGEMENT CONTROL. SEE BELOW.

COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	1" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/15/02
REF. NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/02
DRAWING INDEX CODE NO. 16X-5900-S-00117		SHEET NO. S0001	REV. NO. 0

SEAL





SLAB PLAN

GRAPHIC SCALE: 1"=1'-0"

000241

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK26C-1.

4518

REF DWG NO.	DRAWING TITLE
16X-5500-A-00033	MAIN ELECTRICAL SUB-STATION - STRAINER HOUSE FOR NEW FOG SPRAY SYSTEM - TRANS 1 & 2

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 26C
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 1" = 1'-0"	
060	N/A	DRAWN BY K. L. RABBITT	DATE 01/15/02
RES NO. 4327	FDF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/02
DRAWING INDEX CODE NO. 16X-5900-S-00118		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-9"	4'-9"	1'-3"	575'-11"	1'-4" SQ	T/PIER EL 577'-8"
B	4'-3"	4'-3"	1'-3"	573'-6" (UNO)	1'-4"x1'-7¼"	T/PIER EL 577'-8"
C	4'-3"	4'-3"	1'-3"	572'-6" (UNO)	1'-7¼"x1'-4"	T/PIER EL 577'-8"
D	3'-6"	3'-6"	1'-3"	574'-0"	1'-7¼"x1'-7¼"	T/PIER EL 577'-8"
E	8'-0"	9'-0"	1'-4"	573'-2"	2'-8"x2'-2"	T/PIER EL 577'-8"
F	8'-0"	9'-0"	1'-4"	573'-6"	2'-8"x2'-5¼"	T/PIER EL 577'-8"
G	5'-0"	5'-0"	1'-3"	573'-2"	1'-4" SQ	T/PIER EL 577'-8"
H	3'-6"	3'-6"	1'-3"	573'-6"	1'-7¼"x1'-7¼"	T/PIER EL 577'-8"
J	13'-0"	8'-0"	0'-6"	573'-2"	N/A	
K	5'-6"	5'-6"	1'-0"	573'-0"	1'-3"x1'-6"	T/PIER EL 577'-8"
L	5'-0"	2'-1"	1'-0"	573'-6"	SEE NOTE 2	T/PIER EL 577'-8"

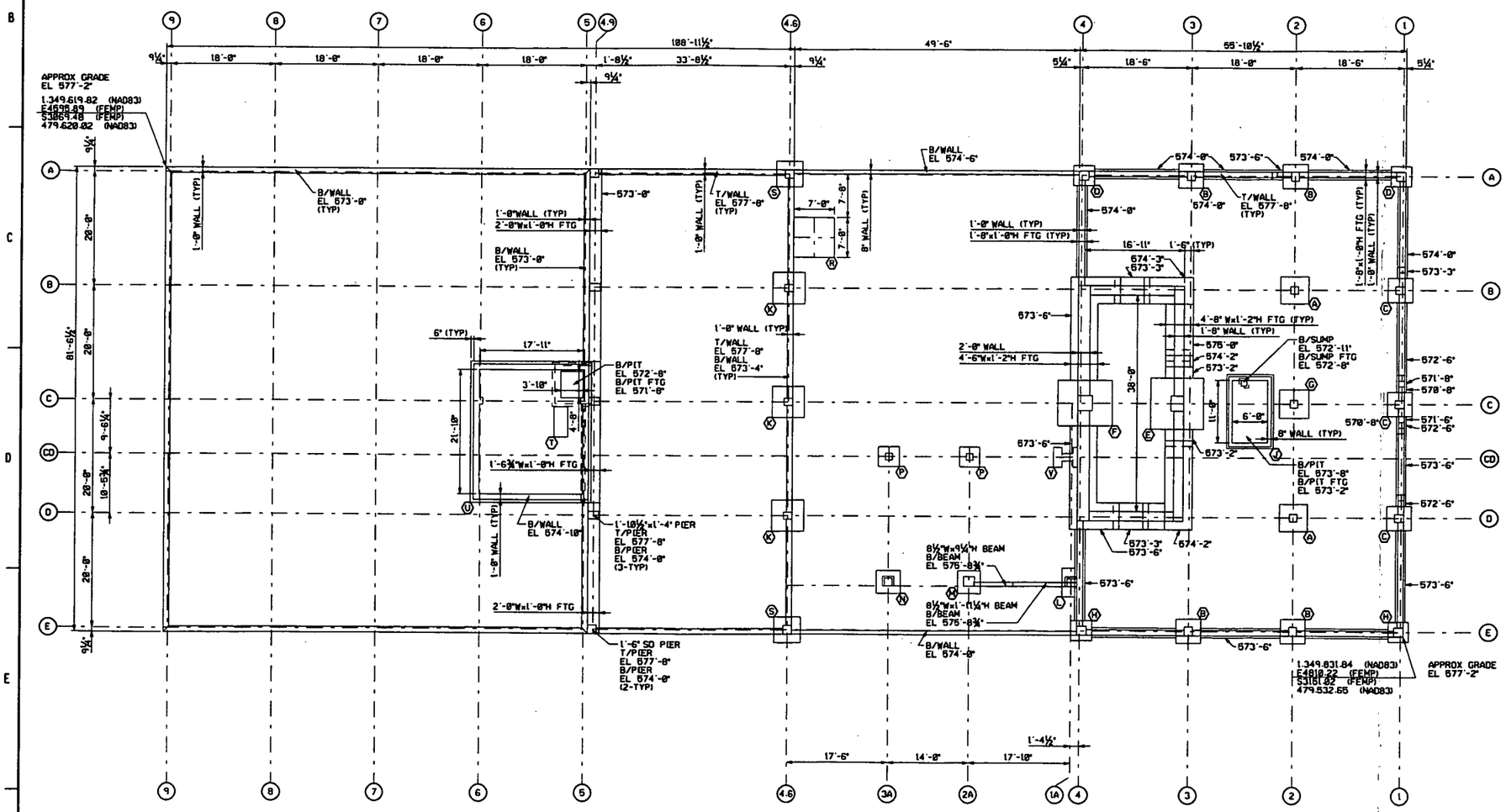
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
M	4'-0"	4'-0"	1'-0"	573'-0"	1'-8"x1'-10¾"	T/PIER EL 576'-6"
N	4'-0"	4'-0"	1'-0"	573'-0"	1'-8"x1-10¾" 1'-4½"x1'-3¾"	T/PIER EL 577'-8"
P	3'-6"	3'-6"	1'-0"	573'-6"	1'-2" SQ	T/PIER EL 577'-8"
R	7'-0"	7'-0"	4'-0"	573'-0"	N/A	T/FTG EL 577'-0"
S	4'-6"	4'-6"	1'-0"	573'-0"	1'-6" SQ	T/PIER EL 577'-8"
T	5'-4"	2'-4"	3'-4"	571'-8"	N/A	
U	24'-10"	20'-10¼"	1'-2"	573'-8"	N/A	
V	3'-6" IRR	4'-0" IRR	3'-2" IRR	573'-6"	N/A	

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK28AB-1.

4518



FOUNDATION PLAN

000242

REF DWG NO.	DRAWING TITLE
28A-1450-S-00004	ROOF FRAMING & FOUNDATION PLAN GUARD HOUSE C28-1
28A-5500-A-00210	PERSONNEL & SECURITY BLDG. FLOOR PLAN
28A-5500-E-00147	GUARD HOUSE RADIO ANTENNA TOWERS PLAN - ELEV - DETAILS
28A-5500-E-00162	GUARD HOUSE RADIO ANTENNA TOWERS DETAIL SHEET #1
28B-5500-S-00223	FOUNDATION PLAN SECTIONS AND DETAILS
28B-7000-S-00030	PERSONNEL & SECURITY BLDG. GROUND FL & FOUNDATION PLANS & SECTIONS
28B-7000-S-00032	PERSONNEL & SECURITY BLDG. FOUNDATION & GROUND FLOOR PLAN
28B-7000-S-00033	PERSONNEL & SECURITY BLDG. FOUNDATION DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/92	LNH 10/28/92

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

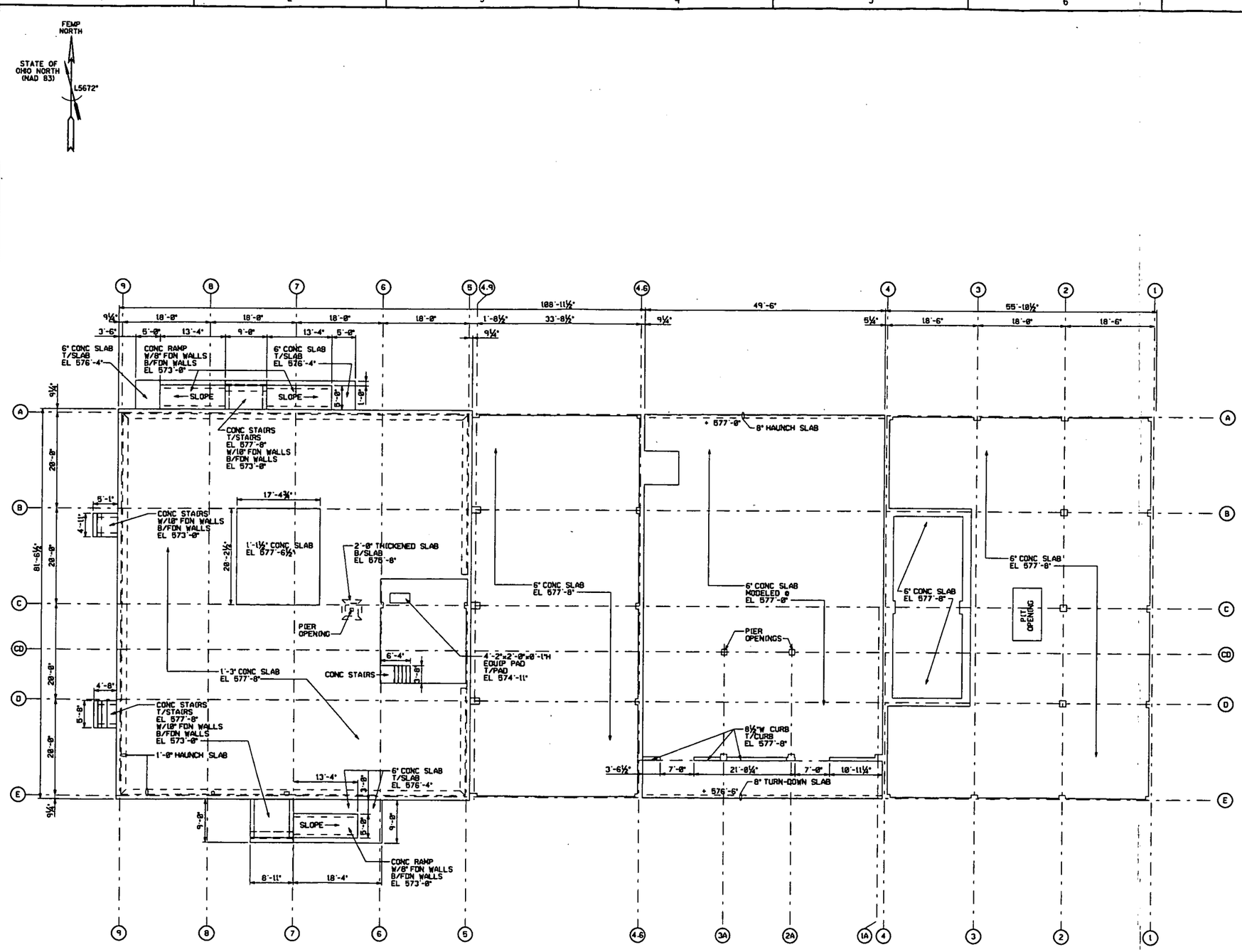
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 28A & B
FOUNDATION PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING
EXISTING DRAWINGS AS CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL USE ONLY.
COGNIZANT ENGINEER DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE ½" = 1'-0"
060	N/A	DRAWN BY L. N. HAGAMAN — DATE 02/11/92
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 02/11/92
DRAWING INDEX CODE NO. 28B-5900-S-00345	SHEET NO. S0001	REV. NO. 0

SEAL



SLAB PLAN

000243

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK28AB-1.

4518

REF DWG NO.	DRAWING TITLE
28A-1450-S-00004	ROOF FRAMING & FOUNDATION PLAN GUARD HOUSE C28-1
28A-5500-A-00210	PERSONNEL & SECURITY BLDG. FLOOR PLAN
28A-5500-E-00147	GUARD HOUSE RADIO ANTENNA TOWERS PLAN - ELEV - DETAILS
28A-5500-E-00162	GUARD HOUSE RADIO ANTENNA TOWERS DETAIL SHEET #1
28B-5500-S-00223	FOUNDATION PLAN SECTIONS AND DETAILS
28B-7000-S-00030	PERSONNEL & SECURITY BLDG. GROUND FL & FOUNDATION PLANS & SECTIONS
28B-7000-S-00032	PERSONNEL & SECURITY BLDG. FOUNDATION & GROUND FLOOR PLAN
28B-7000-S-00033	PERSONNEL & SECURITY BLDG. FOUNDATION DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCHD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

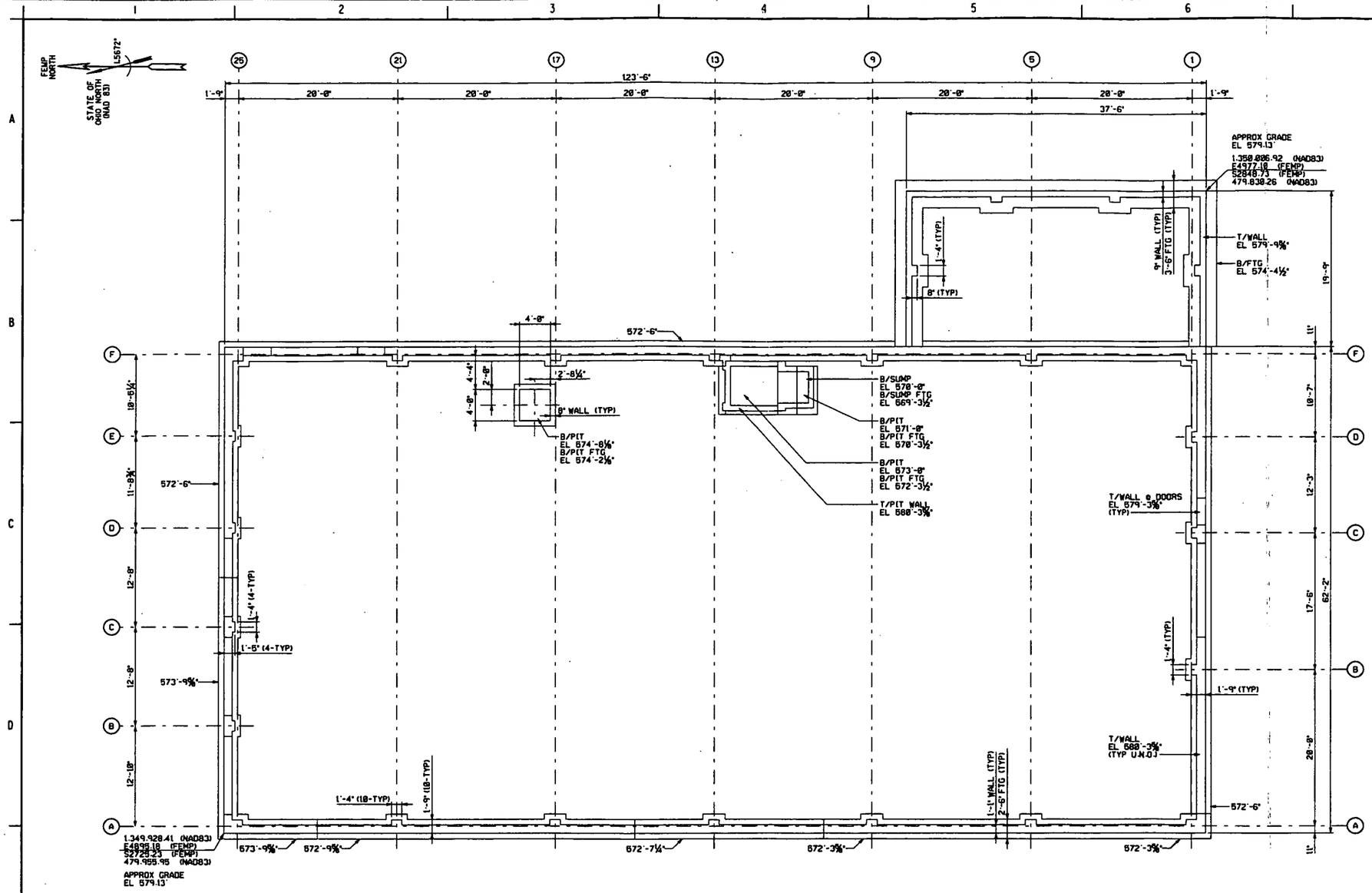
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 28A & B
SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅛" = 1'-0"	
		DRAWN BY L. N. HAGAMAN	DATE 02/11/02
RES NO. 4327	FOF PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 03/11/02
DRAWING INDEX CODE NO. 28B-5900-S-00346		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE SEAL



FOUNDATION PLAN

GRAPHIC SCALE: 3/16"=1'-0"

000244

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK31AB-1.

4518

REF DWG NO.	DRAWING TITLE
22H-5500-S-00527	TRUCK WEIGH SCALES INSTALLATION & DETAILS
31X-3115-A-00013	GARAGE C 31 ARCHITECTURAL LAYOUT
31X-3115-S-00011	REINFORCING DETAILS FOR THE GARAGE BUILDING
31X-5500-A-00023	TRANSPORTATION OFFICE
31X-5500-E-00048	TRANSPORTATION OFFICE
31X-5900-S-00019	TRANSPORTATION OFFICE FOOTING REVISIONS
75H-5500-G-00026	GRID 7 - EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY	DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 01/25/92	LNH 03/25/92	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 31A & 31B
FOUNDATION PLAN
WITHOUT HIDDEN LINES

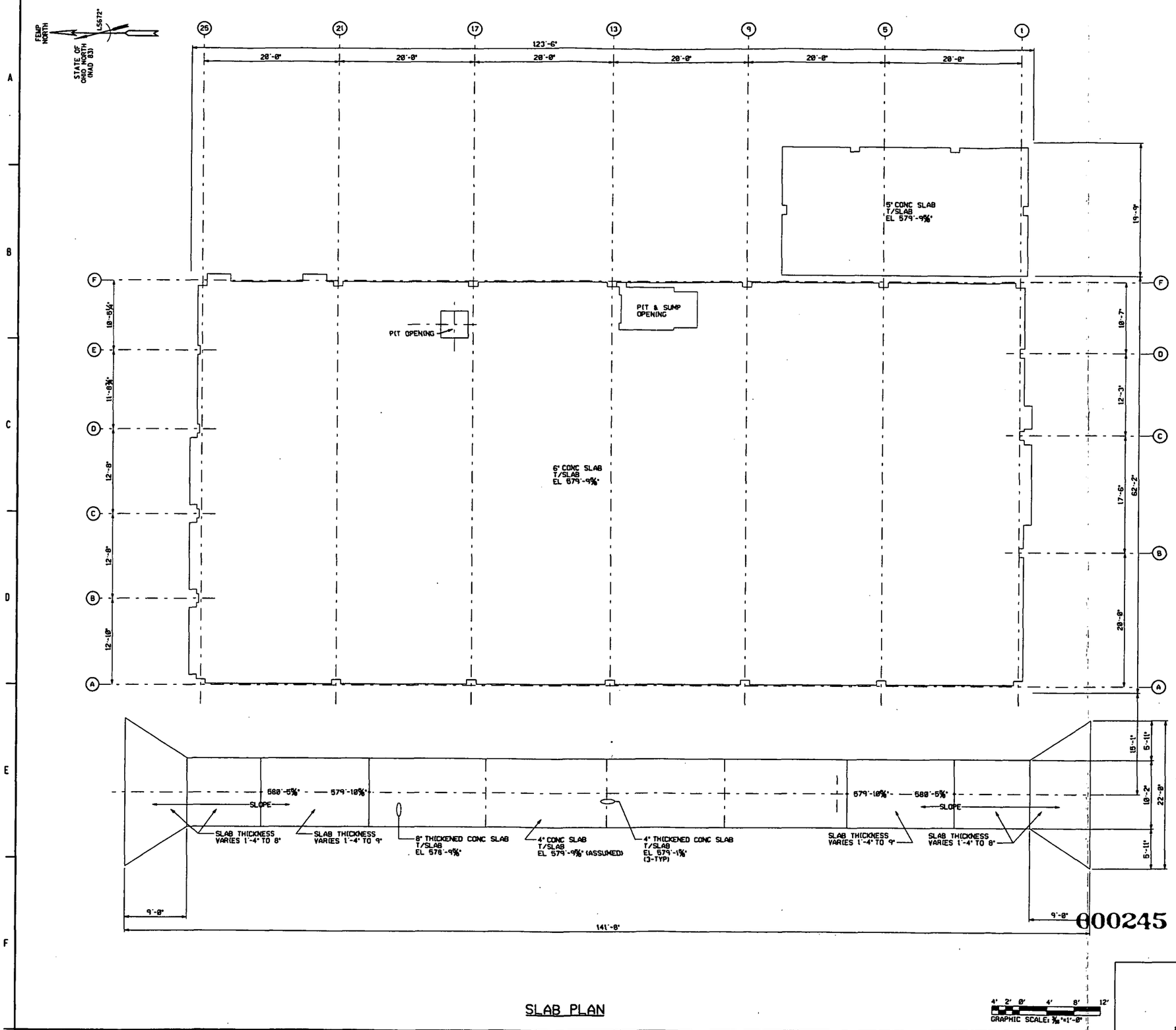
CONFIGURATION MANAGEMENT DRAWING
EXISTING STRUCTURES OR CONTROLS CONFIGURATION MANAGEMENT CONTROL. SEE DATEL.

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/16" = 1'-0"
060	N/A	DRAWN BY K.L. RABBITT — DATE 01/15/92
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A — DATE N/A
		CHECKED BY DOREEN REED — DATE 01/24/92

COGNIZANT ENGINEER — DATE

DRAWING INDEX CODE NO. 31X-5900-S-00059 — SHEET NO. S0001 — REV. NO. 0

SEAL



SLAB PLAN

000245

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK31AB-1.

4518

REF DWG NO.	DRAWING TITLE
22H-5500-S-00527	TRUCK WEIGH SCALES INSTALLATION & DETAILS
31X-3115-A-00013	GARAGE C 31 ARCHITECTURAL LAYOUT
31X-3115-S-00011	REINFORCING DETAILS FOR THE GARAGE BUILDING
31X-5500-A-00023	TRANSPORTATION OFFICE
31X-5500-E-00040	TRANSPORTATION OFFICE
31X-5900-S-00019	TRANSPORTATION OFFICE FOOTING REVISIONS
75H-5500-G-00026	GRID 7 - EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVW BY
Ø	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 31A & 31B
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

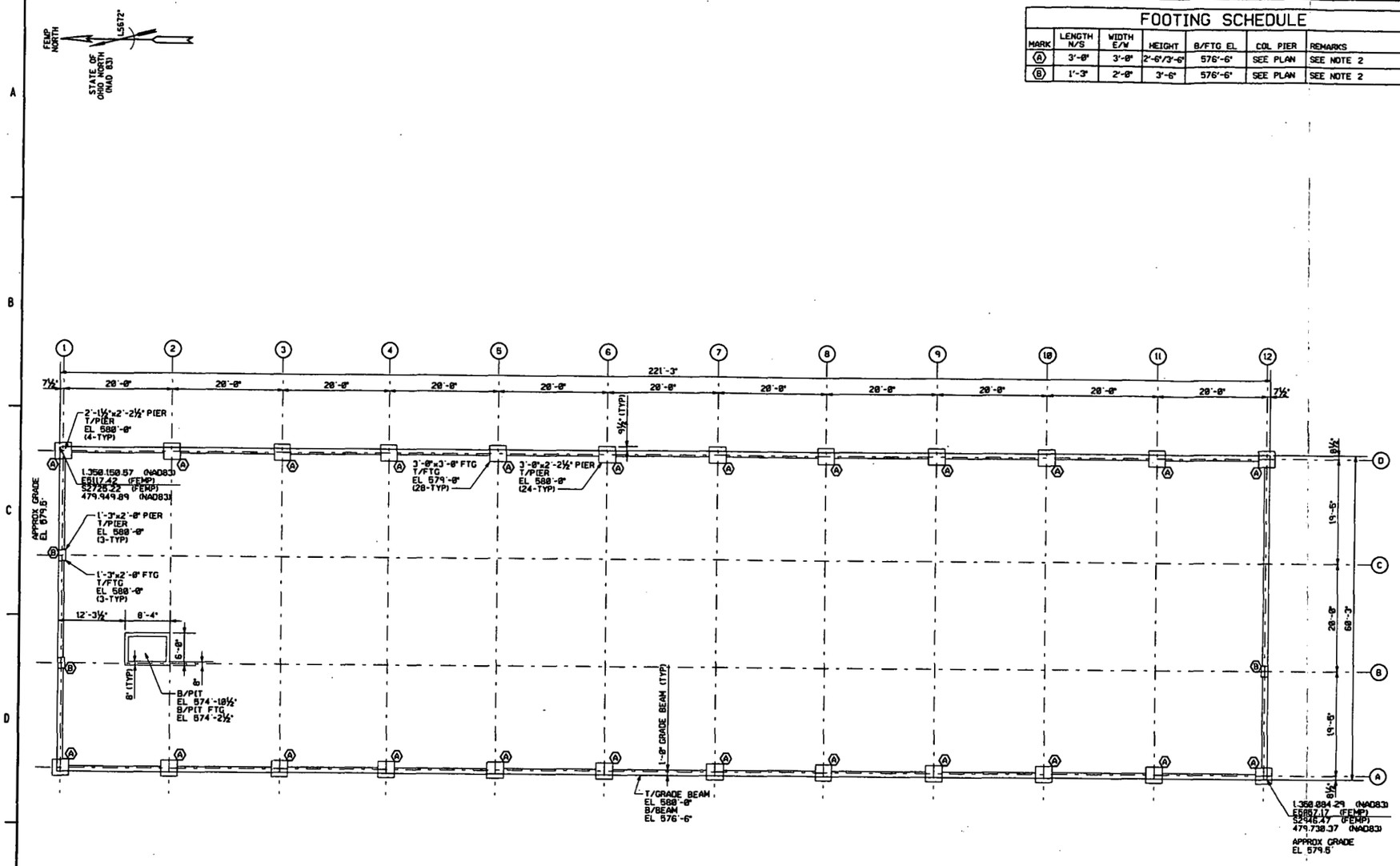
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/16" = 1'-0"	
RES NO.	FOR PROJECT NO.	DRAWN BY: K. L. RABBITT	DATE 01/16/02
4327	20810	TECHNICAL LEAD: N/A	DATE N/A
		CHECKED BY: DOREEN REED	DATE 03/24/02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
31X-5900-S-00060		S0002	Ø

COGNIZANT ENGINEER DATE

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(A)	3'-0"	3'-0"	2'-6"/3'-6"	576'-6"	SEE PLAN	SEE NOTE 2
(B)	1'-3"	2'-0"	3'-6"	576'-6"	SEE PLAN	SEE NOTE 2



FOUNDATION PLAN

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

000246

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK46ABC-1.

--4518

REF DWG NO.	DRAWING TITLE
46X-3115-A-00001	REPAIR SHOP - BLDG. K
46X-5500-A-00039	HEAVY EQUIPMENT BUILDING FLOOR PLAN
75H-5500-C-00026	GRID 7 - EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	DCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/26/92	LNH 03/26/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

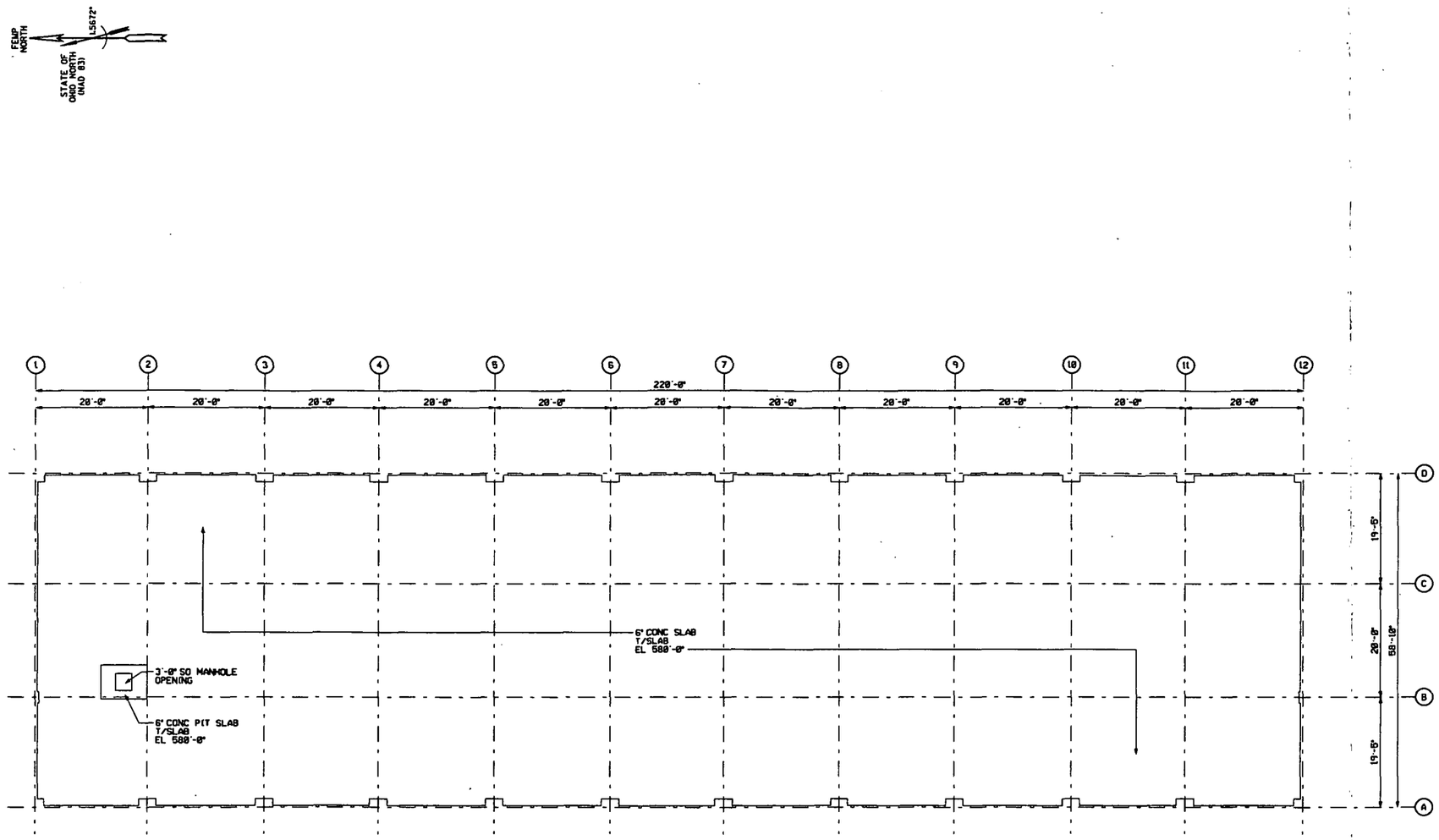
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 46A, 46B, & 46C
FOUNDATION PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	1/8" = 1'-0"	
		DRAWN BY K. L. RABBITT	DATE 01/15/92
REV. NO. 4327	F/P PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/92
COGNIZANT ENGINEER DATE	DRAWING INDEX CODE NO. 46X-5900-S-00068	SHEET NO. S0001	REV. NO. 0

SEAL



SLAB PLAN

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

000247

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK46ABC-1.

4518

REF DWG NO.	DRAWING TITLE
46X-3115-A-00001	REPAIR SHOP - BLDG. K
46X-5500-A-00039	HEAVY EQUIPMENT BUILDING FLOOR PLAN
75H-5500-C-00026	GRID 7 - EXISTING SITE PLAN

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	ROR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/92	LNH 03/28/92

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 7 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 46A, 46B, & 46C
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

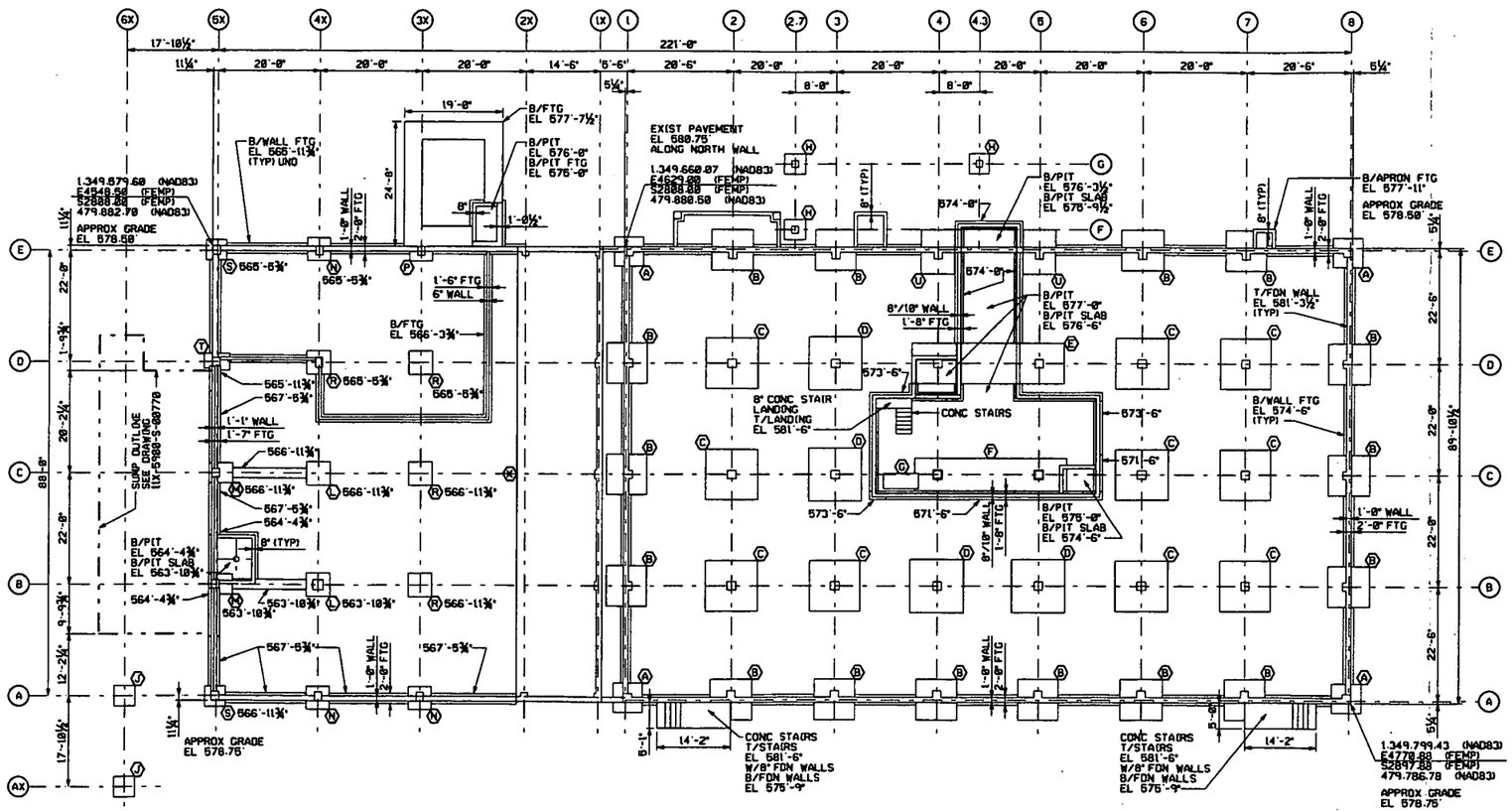
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	1/8" = 1'-0"	
RES NO.	FEP PROJECT NO.	DRAWN BY K. L. RABBITT	DATE 01/15/92
4327	20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/24/92
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
46X-5900-S-00069		S0002	0

COGNIZANT ENGINEER DATE

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	5'-9"	5'-9"	1'-2"	574'-4"	1'-8¾" SQ	
B	8'-0"	8'-0"	1'-6"	574'-0"	VARIES	SEE NOTE 2
C	10'-0"	10'-0"	1'-10"	573'-8"	1'-8" SQ	
D	10'-6"	10'-6"	1'-10"	573'-8"	1'-8" SQ	
E	8'-0"	30'-0"	2'-0"	573'-6"	(2) 1'-8" SQ	
F	6'-6"	30'-0"	2'-0"	571'-6"	(2) 1'-10" SQ	
G	3'-0"	6'-9"	5'-11"	571'-6"	N/A	
H	4'-0"	4'-0"	1'-0"	578'-0"	1'-4" SQ	
J	4'-0"	4'-0"	1'-6"	576'-6"	N/A	
K	89'-10½"	10'-8"	1'-6"	566'-11¾"	N/A	1'-0"W x 2'-8"H KEY B/KEY EL 564'-11¾"
L	4'-8"	4'-8"	1'-6"	SEE PLAN	N/A	2'-0" SQ PIER @ COL B/4X
M	4'-0"	4'-0"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
N	4'-6"	4'-6"	1'-6"	SEE PLAN	1'-9"x1'-4"	SEE NOTE 2
P	4'-6"	4'-6"	1'-6"	565'-5¾"	VARIES	SEE NOTE 2
R	4'-8"	4'-8"	1'-6"	SEE PLAN	N/A	
S	4'-0"	4'-0"	1'-6"	SEE PLAN	VARIES	SEE NOTE 2
T	3'-4"	5'-0"	1'-6"	565'-5¾"	VARIES	SEE NOTE 2
U	8'-9"	6'-6"	1'-6"	574'-0"	VARIES	SEE NOTE 2



FOUNDATION PLAN

GRAPHIC SCALE: 3/32" = 1'-0"

000248

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK53A-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-G-00025	EXISTING SITE PLAN
53X-7000-S-00014	FOUNDATION PLAN & DETAILS
53X-7000-S-00018	GROUND FLOOR PLAN & DETAILS
53X-7000-S-00039	GROUND FLOOR DETAILS
538-8600-S-00304	STRUCTURAL PLANS & DETAILS
538-8600-A-00298	SECTIONS & DETAILS
538-8600-S-00295	FOUNDATION PLAN
538-8600-S-00299	FOUNDATION DETAILS
538-8600-S-00300	STRUCTURAL SECTIONS
538-8600-S-00301	STRUCTURAL DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVIS BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

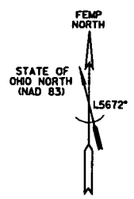
DRAWING TITLE
BUILDING 53A
FOUNDATION PLAN
WITHOUT HIDDEN LINES

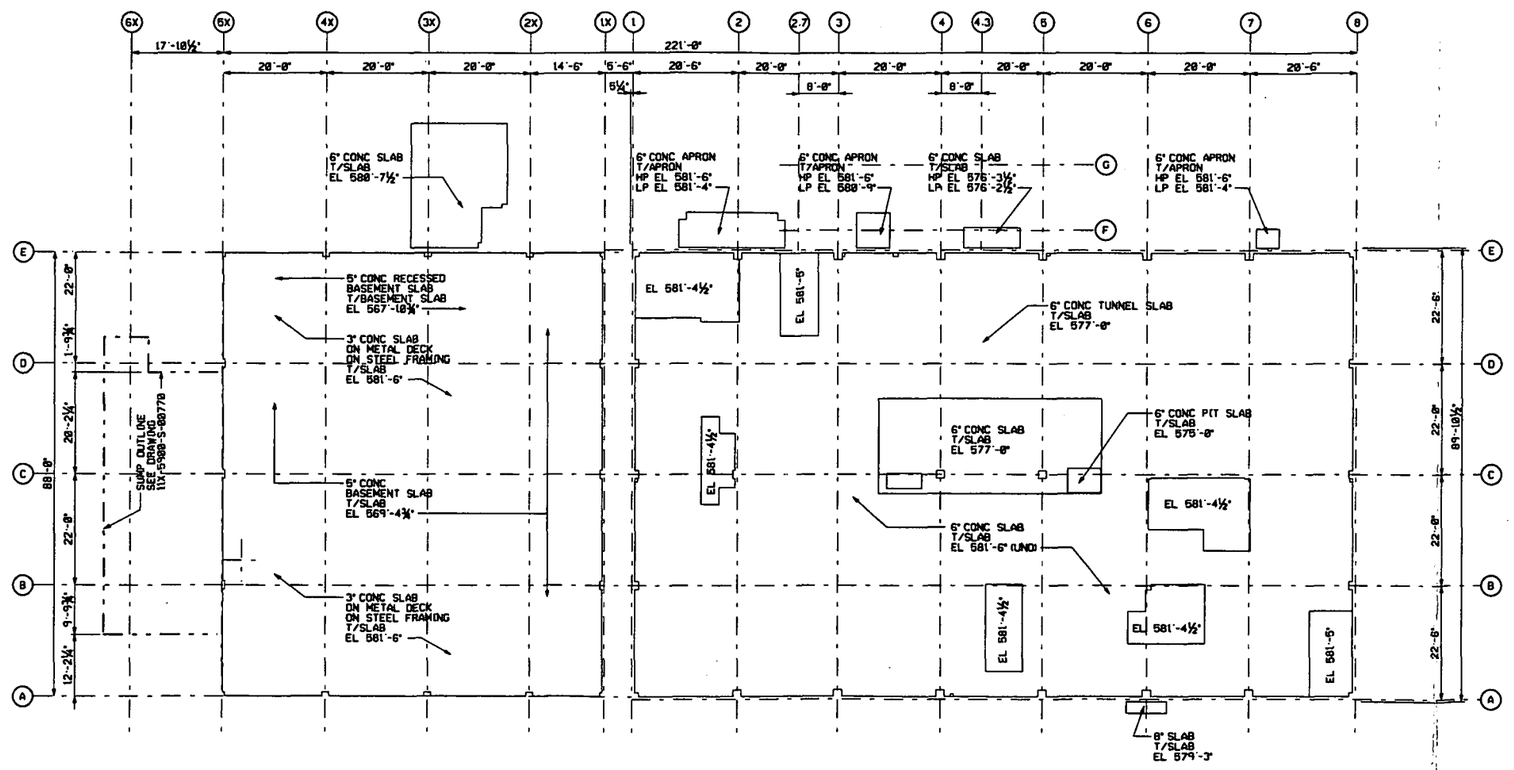
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/32" = 1'-0"	
060	N/A	DRAWN BY K.L. RABBITT	DATE 12/26/01
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/11/02
DRAWING INDEX CODE NO. 53B-5900-S-00431		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL





SLAB PLAN

GRAPHIC SCALE: 3/32" = 1'-0"

000249

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK53A-1.

4518

REF DWG NO.	DRAWING TITLE
75H-5500-G-00025	EXISTING SITE PLAN
53X-7000-S-00014	FOUNDATION PLAN & DETAILS
53X-7000-S-00018	GROUND FLOOR PLAN & DETAILS
53X-7000-S-00039	GROUND FLOOR DETAILS
538-8600-S-00384	STRUCTURAL PLANS & DETAILS
538-8600-A-00298	SECTIONS & DETAILS
538-8600-S-00295	FOUNDATION PLAN
538-8600-S-00299	FOUNDATION DETAILS
538-8600-S-00380	STRUCTURAL SECTIONS
538-8600-S-00381	STRUCTURAL DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCMD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/25/02	LNH 10/25/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 53A
SLAB PLAN
WITHOUT HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

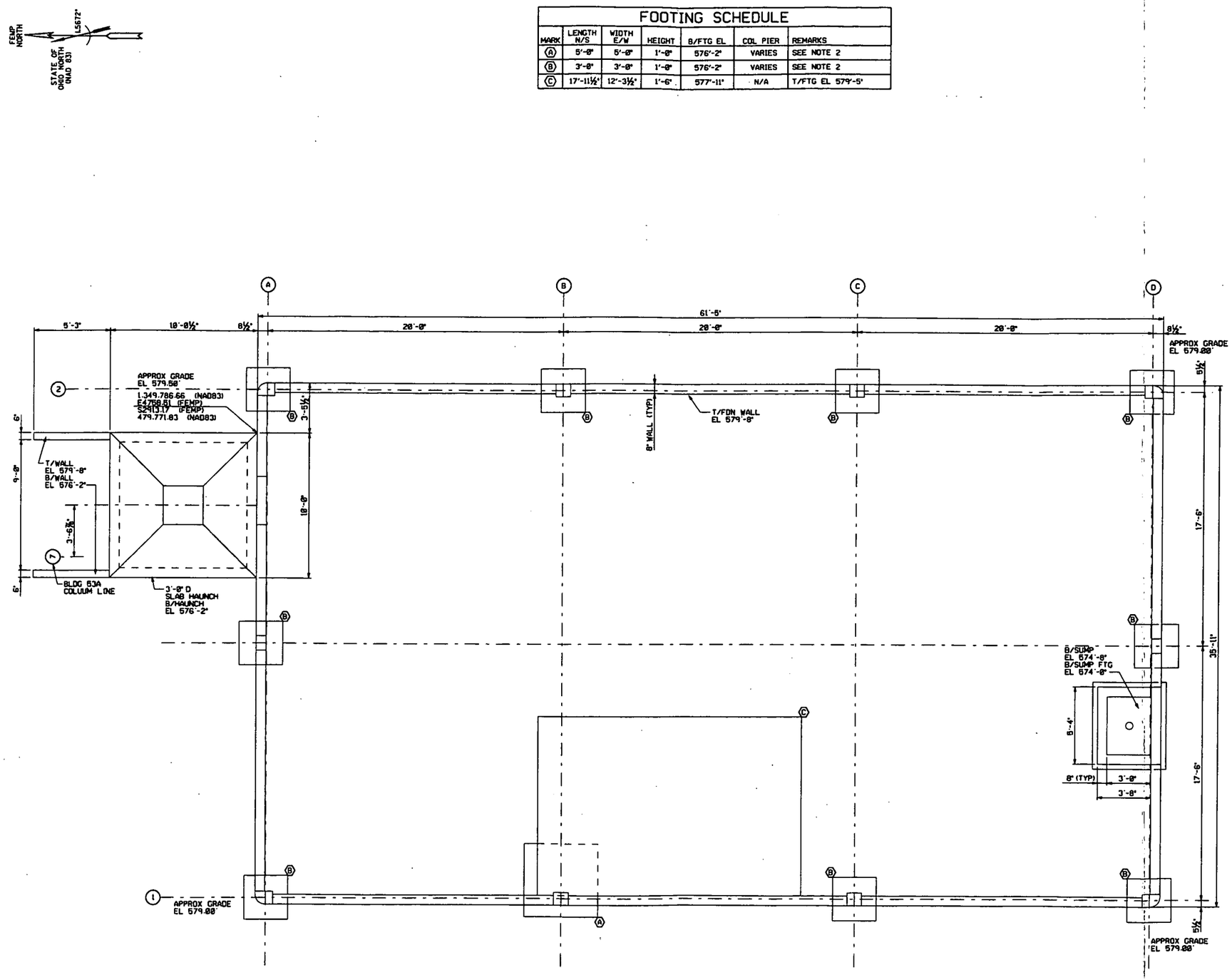
TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	3/32" = 1'-0"	
REV NO.	FOF PROJECT NO.	DRAWN BY K.L. RABBITT	DATE 12/26/01
4327	20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/11/02
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
53B-5900-S-00432		S0002	0

COGNIZANT ENGINEER DATE

SEAL

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	5'-0"	5'-0"	1'-0"	576'-2"	VARIES	SEE NOTE 2
B	3'-0"	3'-0"	1'-0"	576'-2"	VARIES	SEE NOTE 2
C	17'-11½"	12'-3½"	1'-6"	577'-11"	N/A	T/FTG EL 579'-5"



FOUNDATION PLAN

GRAPHIC SCALE: ⅜"=1'-0"

000250

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK538-1.

4518

REF DWG NO.	DRAWING TITLE
53C-8600-S-00194	FOUNDATION AND FLOOR SLAB PLAN
53C-8600-S-00196	STRUCTURAL SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 10/28/02	LNH 10/28/02

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

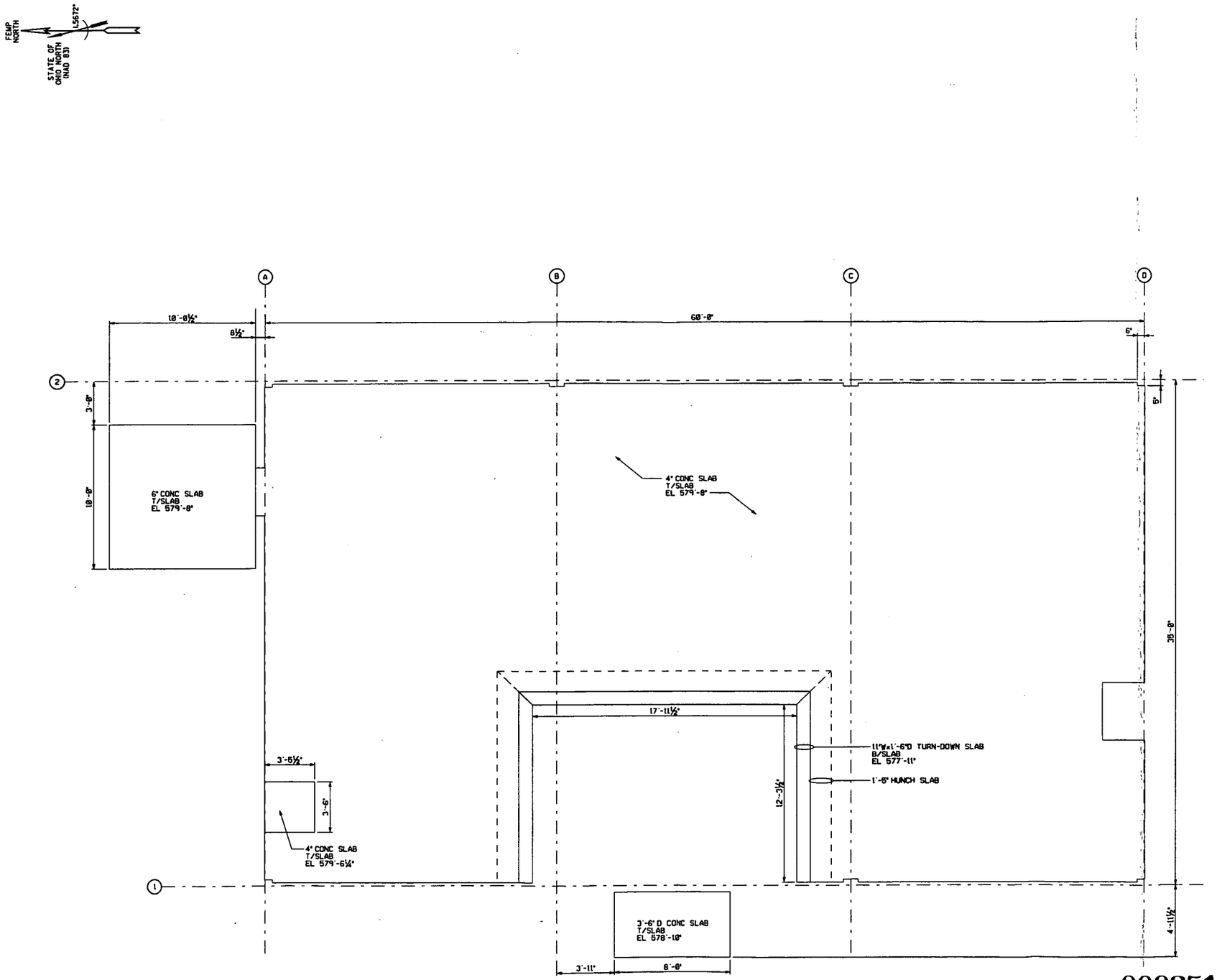
PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 53B
FOUNDATION PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
060	N/A	⅜" = 1'-0"	
		DRAWN BY L. N. HAGAMAN	DATE 12/23/02
RES NO. 4327	FOP PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 01/11/02
COGNIZANT ENGINEER	DATE	DRAWING INDEX CODE NO. 53C-5900-S-00433	SHEET NO. S0001 / REV. NO. 0

SEAL



SLAB PLAN

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. SEE EXISTING REFERENCED DRAWINGS FOR CONSTRUCTION DETAILS AND/OR ISOMETRIC DRAWING SK538-1.

4518

REF DWG NO.	DRAWING TITLE
53C-8600-S-00194	FOUNDATION AND FLOOR SLAB PLAN
53C-8600-S-00195	STRUCTURAL SECTIONS AND DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RCM BY
		DETAILS AND DATE		
0	ISSUED FOR TECHNICAL REFERENCE ONLY.	N/A	KG 03/28/02	LNH 03/28/02

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 14 - TECHNICAL REFERENCE DRAWING

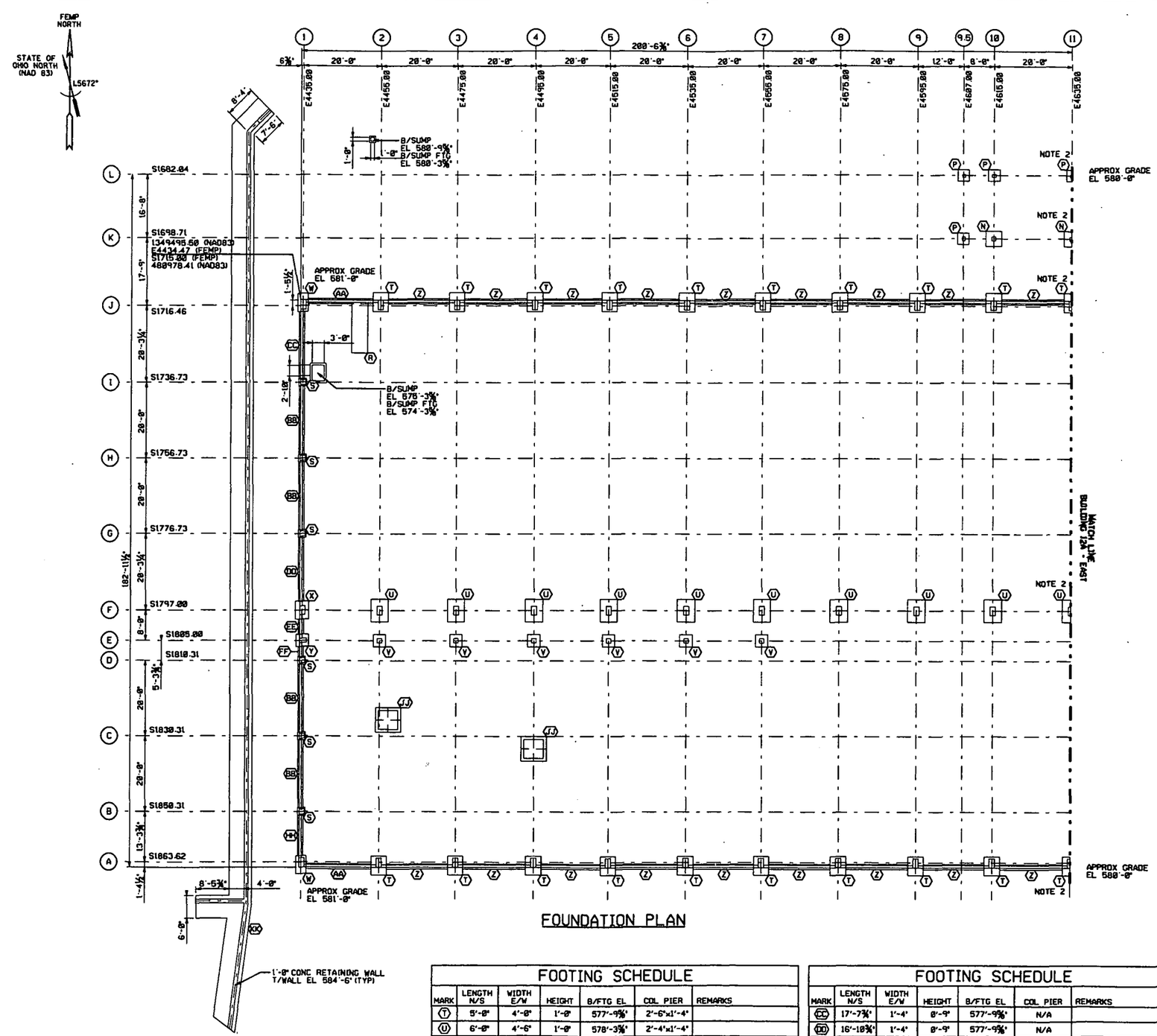
DRAWING TITLE
BUILDING 53B
SLAB PLAN
WITH HIDDEN LINES

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO. 060	OPTIONAL NO. N/A	SCALE ⅜" = 1'-0"	
		DRAWN BY L. N. HAGAMAN	DATE 12/23/01
RES NO. 4327	FOR PROJECT NO. 20810	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY DOREEN REED	DATE 02/11/02
DRAWING INDEX CODE NO. 53C-5900-S-00434		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



FOUNDATION PLAN

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(N)	4'-0"	4'-0"	1'-6"	579'-5⅝"	1'-0" SQ	
(P)	3'-0"	3'-0"	3'-0"	577'-11⅝"	0'-9"x1'-0" @ L10,11,12 1'-0"x0'-9" @ K9,5,13 9" SQ @ L9,5,13	
(R)	13'-3"	4'-2"	3'-6"	578'-3⅝"		

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(T)	5'-0"	4'-0"	1'-0"	577'-9⅝"	2'-6"x1'-4"	
(U)	6'-0"	4'-6"	1'-0"	578'-3⅝"	2'-4"x1'-4"	
(V)	3'-3"	3'-3"	1'-0"	577'-9⅝"	1'-2" SQ	
(W)	4'-9"	2'-8"	1'-0"	577'-9⅝"	2'-6"x1'-4"	
(X)	4'-9"	3'-6"	1'-0"	577'-9⅝"	2'-4"x1'-4"	
(Y)	3'-3"	3'-3"	1'-0"	577'-9⅝"	1'-2"x1'-9"	
(Z)	1'-4"	16'-0"	1'-0"	577'-9⅝"	N/A	
(AA)	1'-4"	16'-8"	1'-0"	577'-9⅝"	N/A	
(BB)	18'-0"	1'-4"	0'-9"	577'-9⅝"	N/A	
(S)	2'-0"	2'-0"	0'-9"	577'-9⅝"	1'-4" SQ	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
(CC)	17'-7¾"	1'-4"	0'-9"	577'-9⅝"	N/A	
(DD)	16'-10¾"	1'-4"	0'-9"	577'-9⅝"	N/A	
(EE)	4'-0"	1'-4"	1'-0"	577'-9⅝"	N/A	
(FF)	2'-8¼"	1'-4"	0'-9"	577'-9⅝"	N/A	
(HH)	18'-8¼"	1'-4"	0'-9"	577'-9⅝"	N/A	
(JJ)	6'-6"	6'-6"	1'-0"	576'-3⅝"	5'-0" SQ	
(KK)	259'-0"	6'-0"	1'-0"	575'-0"	N/A	T/RETAIN WALL 584'-6"

GRAPHIC SCALE: 1/20 "=1'-0"

000252

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.
2. ONE-HALF OF ITEM SHOWN. REFERENCE MATCH LINE OF DRAWING 12X-5900-S-00476 FOR CONTINUATION.

4518

REF DWG NO.	DRAWING TITLE
12X-1450-S-00014	FOUNDATION AND ANCHOR BOLT PLAN
12X-1450-S-00015	FOUNDATION AND ANCHOR BOLT DETAILS
12B-5500-S-00287	LOADING RAMP & DETAILS
12B-5500-S-00296	RECEIVING & SHIPPING BLDG
12B-5500-S-00297	DETAILS
12X-5500-C-00306	PLOT PLAN AND UNDERGROUND SERVICES
12X-5500-S-00307	FOOTING LAYOUT & DETAILS
12X-5500-A-00309	ELEVATION & SECTIONS
12X-5500-S-00311	TYPICAL WALL SECTIONS
12X-5500-A-00417	FLOOR PLAN
12X-5500-S-00428	DRUM CONTAINMENT LAYOUT

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY / DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 12A - WEST
FOUNDATION PLAN

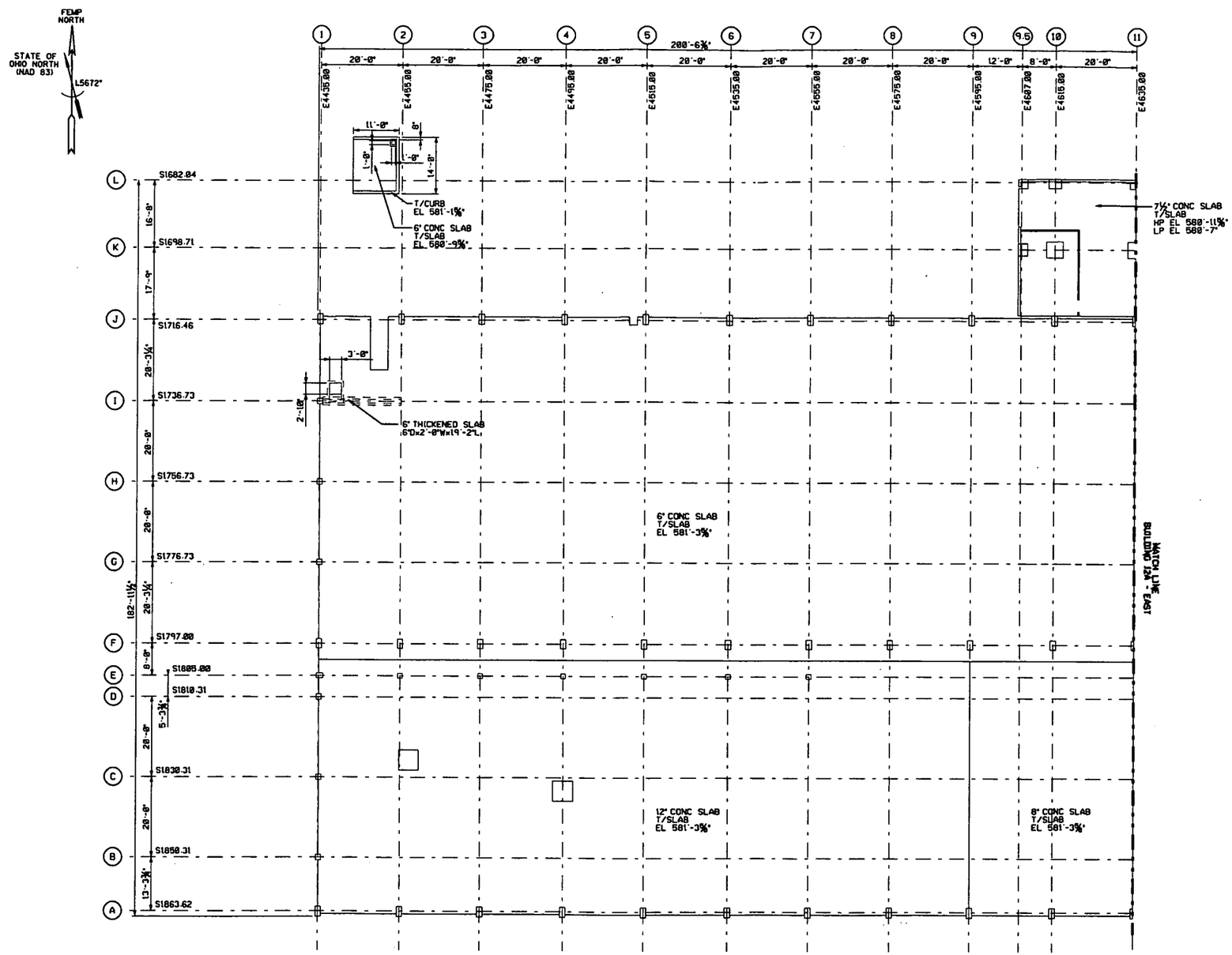
CONFIGURATION MANAGEMENT DRAWING — YES / NO

EXISTING ATTACHED AS CONTRACTOR COMPLETION DRAWING (CONTROLLED BY CONTROL MANAGEMENT CENTRAL FILE SYSTEM)

COGNIZANT ENGINEER — DATE

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	1/20 " = 1'-0"	
RES NO.	TOP PROJECT NO.	DRAWN BY: HAGANAN	DATE: 06/23/99
3769	N/A	TECHNICAL LEAD: N/A	DATE: N/A
		CHECKED BY: RJADHAV	DATE: 07/26/99
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
12X-5900-S-00477		S0001	0

SEAL



SLAB PLAN

GRAPHIC SCALE: 3/32" = 1'-0"

000253

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
12X-1450-S-00014	FOUNDATION AND ANCHOR BOLT PLAN
12X-1450-S-00015	FOUNDATION AND ANCHOR BOLT DETAILS
12B-5500-S-00287	LOADING RAMP & DETAILS
12B-5500-S-00296	RECEIVING & SHIPPING BLDG
12B-5500-S-00297	DETAILS
12X-5500-G-00306	PLOT PLAN AND UNDERGROUND SERVICES
12X-5500-S-00307	FOOTING LAYOUT & DETAILS
12X-5500-A-00309	ELEVATION & SECTIONS
12X-5500-S-00311	TYPICAL WALL SECTIONS
12X-5500-A-00417	FLOOR PLAN
12X-5500-S-00420	DRUM CONTAINMENT LAYOUT

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

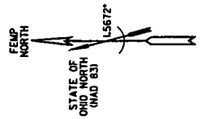
DRAWING TITLE
BUILDING 12A - WEST
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE 3/32" = 1'-0"	
025	N/A	DRAWN BY HAGAMAN	DATE 06/23/99
RES NO. 3769	FOP PROJECT NO. N/A	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY RJAOHAV	DATE 07/26/99
DRAWING INDEX CODE NO. 12X-5900-S-00479		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL



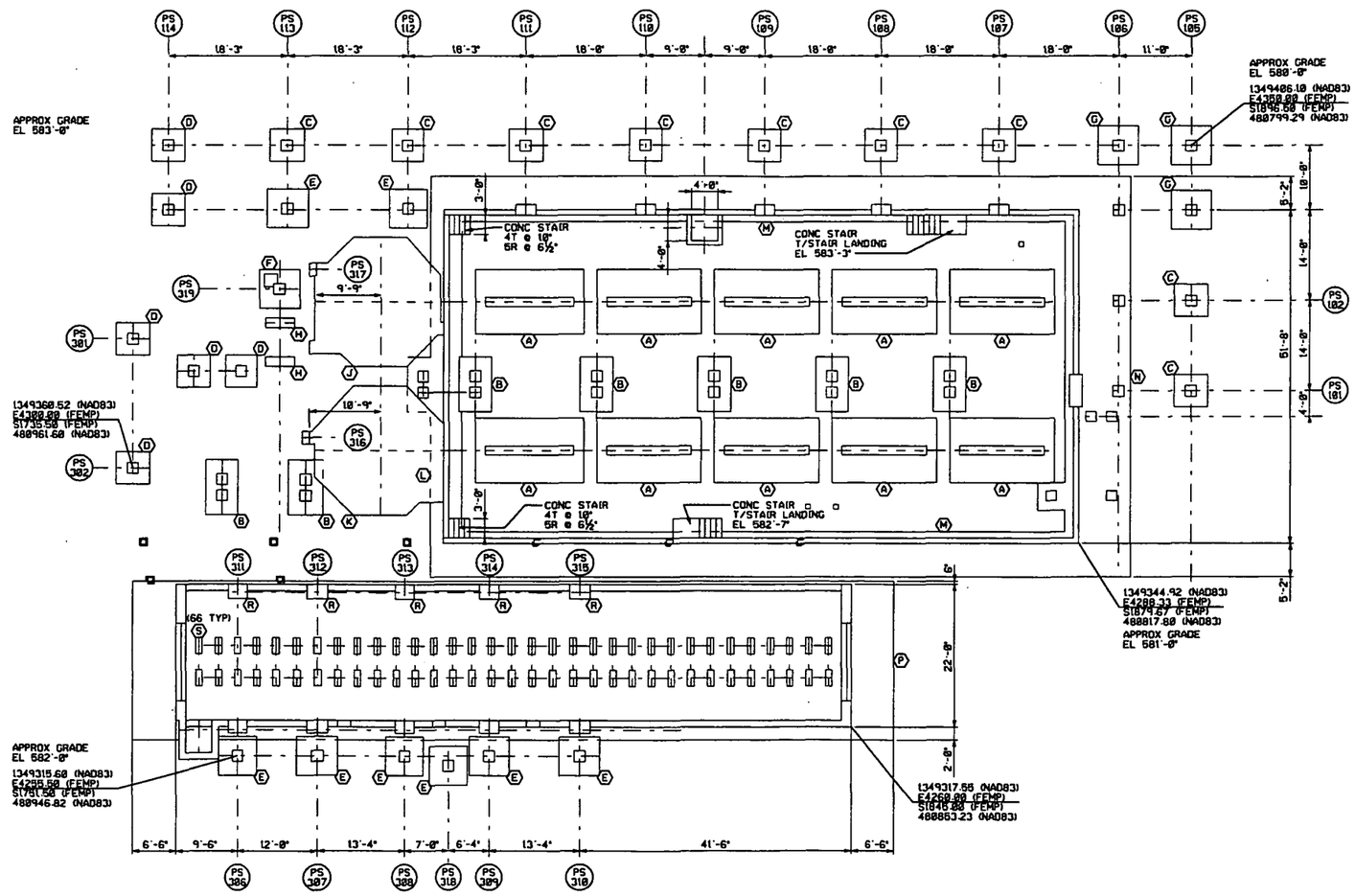
FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	16'-0"	10'-0"	1'-6"	575'-0"	13'-0"x2'-1"	
B	5'-0"	8'-6"	1'-6"	575'-0"	(2) 1'-8" SQ	
C	5'-0"	5'-0"	1'-6"	575'-0"	1'-8" SQ	
D	5'-0"	5'-0"	1'-6"	577'-6"	1'-8" SQ	
E	6'-0"	6'-0"	1'-6"	577'-6"	1'-8" SQ	
F	6'-0"	6'-0"	1'-4"	578'-6"	1'-8" SQ	2'-0" SQ PEDESTAL NE OF PIER
G	6'-0"	6'-0"	1'-6"	575'-0"	1'-8" SQ	
H	4'-3"	1'-6"	4'-0"	580'-2"	N/A	
J	20'-0"	20'-0"	3'-4½"	579'-8½"	N/A	OCTAGON TANK PAD
K	20'-0"	20'-0"	3'-4½"	579'-8½"	N/A	OCTAGON TANK PAD
L	5'-0"	37'-8"	1'-6"	575'-0"	N/A	STRIP FOOTING
M	186'-1"	7'-0"	1'-6"	575'-0"	N/A	STRIP FOOTING
N	9'-8"	37'-8"	1'-6"	575'-0"	N/A	STRIP FOOTING
P	116'-0"	24'-6"	2'-3"	573'-3"	N/A	
R	3'-0"	2'-3"	7'-9"	575'-6"	N/A	PILASTERS SIT ON MAT FOOTING
S	1'-0"	2'-6"	5'-5"	575'-6"	N/A	PIERS SIT ON MAT FOOTING

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518



FOUNDATION PLAN

GRAPHIC SCALE: ⅛"=1'-0"

000254

REF DWG NO.	DRAWING TITLE
19X-3900-G-00304	FINISH GRADING PLAN
19X-3900-G-00306	FINISH GRADING PLAN
19X-3900-S-00308	FOUNDATION LOCATION PLAN
19X-3900-S-00311	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS - SH.1
19X-3900-S-00312	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS - SH.2
19X-3900-S-00314	FOUNDATION LOCATION PLAN
19X-3900-S-00316	MISCELLANEOUS EQUIPMENT FOUNDATIONS & SUMPS
19X-3900-S-00319	MISCELLANEOUS FOUNDATIONS
19X-3900-S-00382	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

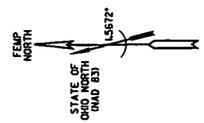
DRAWING TITLE
TANK FARM 19A
FOUNDATION PLAN

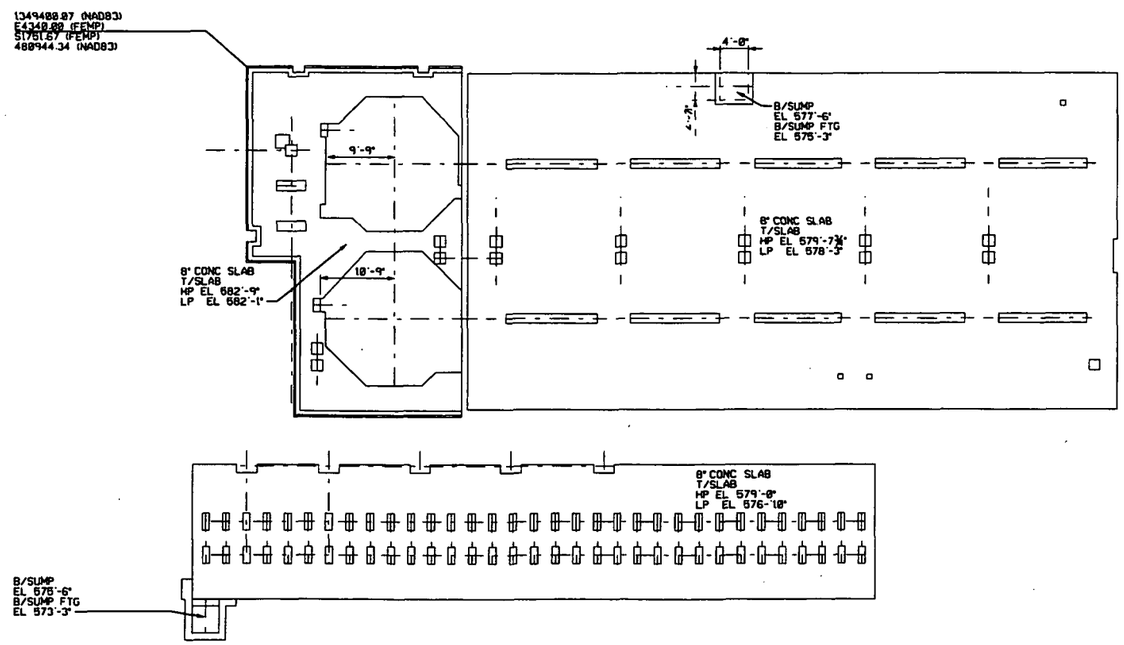
CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	⅛" = 1'-0"	
REV NO.	FOR PROJECT NO.	DRAWN BY HAGAMAN/WHITTLE	DATE 06/24/99
3769	N/A	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY RJADHAV	DATE 07/26/99
DRAWING INDEX CODE NO.		SHEET NO.	REV. NO.
19X-5900-S-00696		S0001	0

COGNIZANT ENGINEER DATE

SEAL





SLAB PLAN

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

000255

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
19X-3900-G-00384	FINISH GRADING PLAN
19X-3900-G-00386	FINISH GRADING PLAN
19X-3900-S-00388	FOUNDATION LOCATION PLAN
19X-3900-S-00311	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS - SH. 1
19X-3900-S-00312	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS - SH. 2
19X-3900-S-00314	FOUNDATION LOCATION PLAN
19X-3900-S-00316	MISCELLANEOUS EQUIPMENT FOUNDATIONS & SUMPS
19X-3900-S-00319	MISCELLANEOUS FOUNDATIONS
19X-3900-S-00382	TANK FARM AREA FOUNDATIONS SECTIONS & DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	NCSR BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LMH 8/13/99

DETAILS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
TANK FARM 19A
SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
EXISTING ATTACHMENTS AS CONTROLLED BY CONFIGURATION MANAGEMENT CONTROL. SEE ENTER.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	1/8" = 1'-0"	
		DRAWN BY HAGAMAN/WHITTLE	DATE 06/24/99
RES NO. 3769	FOP PROJECT NO. N/A	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY R.JADWAY	DATE 07/26/99
DRAWING INDEX CODE NO. 19X-5900-S-00697		SHEET NO. S0002	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

FEMP NORTH — 1.5672° — STATE OF OHIO NORTH (NAD 83)

PAD SCHEDULE

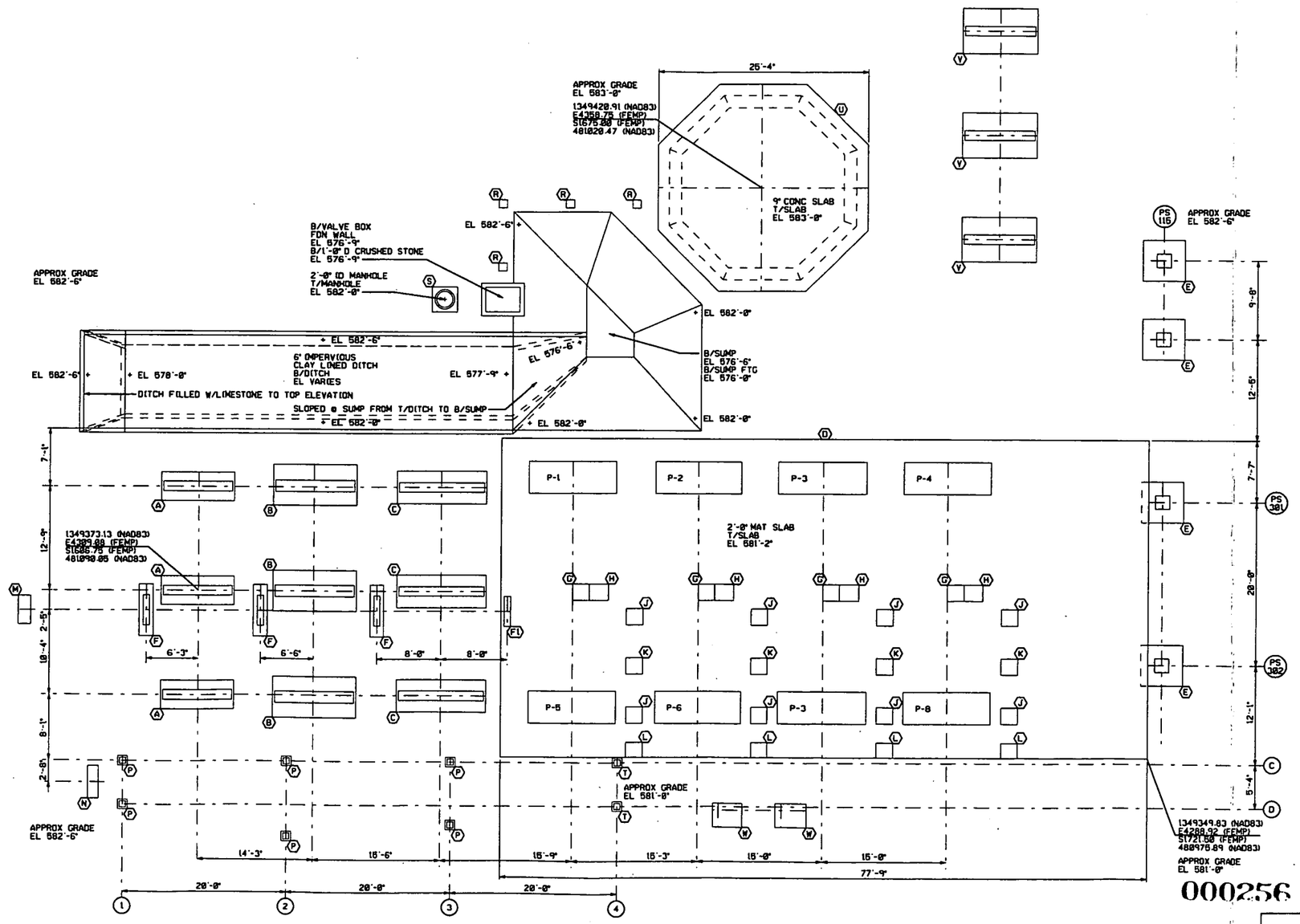
EQ PAD #	LENGTH N/S	WIDTH E/W	HEIGHT	T/CONC EL	REMARKS
P-1	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-2	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-3	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-4	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-5	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-6	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-7	10'-6"	3'-11"	1'-8½"	582'-10½"	
P-8	10'-6"	3'-11"	1'-8½"	582'-10½"	

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	9'-0"	3'-6"	1'-0"	579'-6"	8'-6"x1'-2"	
B	10'-0"	5'-0"	1'-0"	579'-6"	9'-6"x1'-5"	
C	11'-0"	4'-0"	1'-0"	579'-6"	10'-6"x1'-2"	
D	77'-9"	39'-0"	2'-0"	579'-2"	N/A	
E	5'-0"	5'-0"	1'-6"	577'-6"	1'-8" SQ	
F	1'-8"	6'-4"	1'-0"	579'-6"	0'-9"x3'-8"	
F1	N/A	N/A	1'-7"	581'-2"	0'-9"x3'-8"	PIER ONLY
G	2'-0"	2'-0"	2'-1½"	581'-2"	N/A	PIER ONLY
H	2'-4"	2'-0"	1'-8½"	581'-2"	N/A	PIER ONLY
J	2'-0"	2'-0"	4'-10¼"	581'-2"	N/A	PIER ONLY
K	2'-0"	2'-0"	1'-11¾"	581'-2"	N/A	PIER ONLY
L	2'-0"	1'-10"	1'-11¾"	581'-2"	N/A	PIER ONLY

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
M	1'-6"	3'-6"	3'-5¾"	579'-6"	N/A	
N	1'-6"	4'-0"	3'-7"	579'-6"	N/A	
P	1'-9"	1'-9"	1'-0"	579'-6"	0'-9" SQ	
R	1'-0"	1'-0"	1'-4"	582'-8"	N/A	
S	3'-1"	3'-1"	0'-9¼"	574'-2¾"	N/A	
T	1'-2"	1'-2"	1'-0"	579'-2"	0'-9" SQ	
U	SEE PLAN	SEE PLAN	2'-9"	579'-6"	N/A	STRIP FOOTING
V	9'-6"	5'-6"	1'-0"	579'-2"	8'-6"x1'-2"	
W	3'-7"	2'-11"	3'-7¼"	579'-6"	N/A	



FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: 3/16" = 1'-0"

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
19X-1450-S-00001	PLOT PLAN
19X-1450-S-00002	FOUNDATION DETAILS
19X-1450-G-00043	PLAN DRAINAGE DITCH & SUMP
19X-7000-S-00050	FOUNDATION PLAN
19X-7000-S-00065	SECTIONS & DETAILS
19X-3115-S-00133	FOUNDATIONS
19X-5500-G-00209	EXISTING TANK FARM LAYOUT
19X-3900-S-00319	MISCELLANEOUS FOUNDATIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDM BY	DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

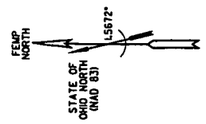
DRAWING TITLE
TANK FARM 19D
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	3/16" = 1'-0"	
DRAWN BY HAGAMAN/WHITTLE		DATE 06/25/99	
RCS NO. 3769	FOP PROJECT NO. N/A	TECHNICAL LEAD N/A	DATE N/A
CHECKED BY RJADHAV		DATE 07/26/99	
DRAWING INDEX CODE NO. 19X-5900-S-00699		SHEET NO. S0001	REV. NO. 0

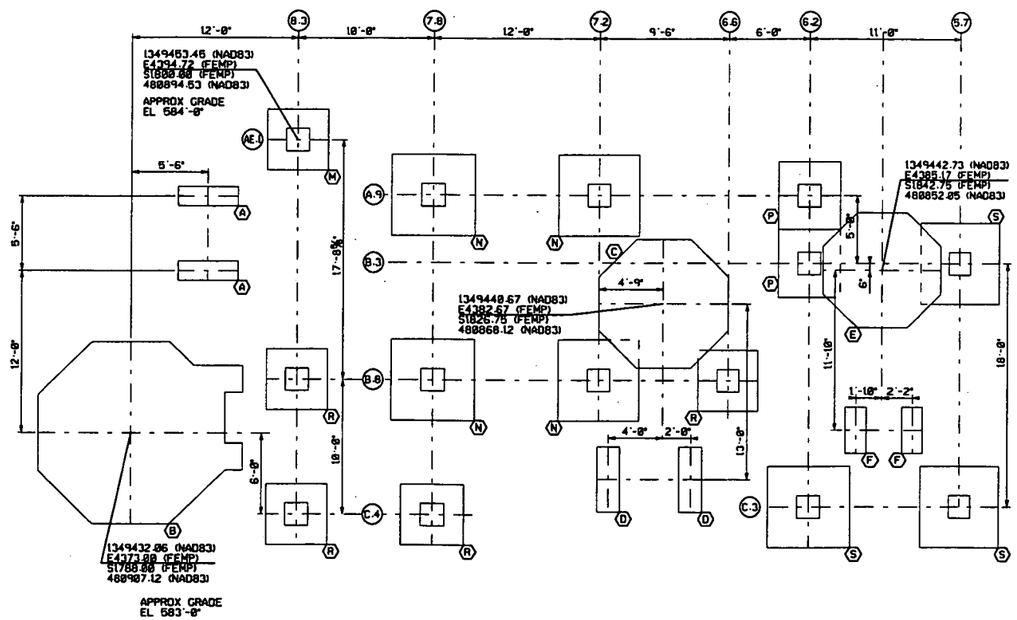
COGNIZANT ENGINEER DATE

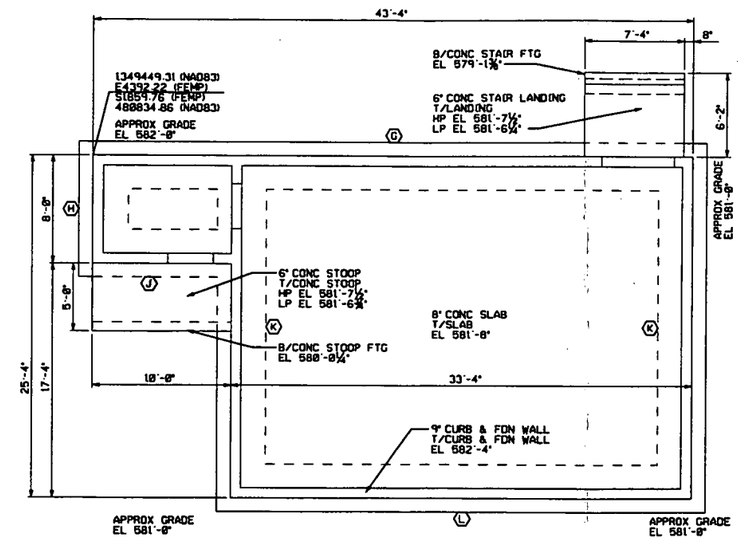
SEAL



FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL	COL PIER	REMARKS
A	4'-3"	1'-5"	2'-8"	581'-2"	N/A	
B	13'-6"	13'-6"	3'-8"	580'-0"	N/A	OCTAGON TANK PAD
C	9'-6"	9'-6"	3'-10"	579'-6"	N/A	OCTAGON TANK PAD
D	1'-8"	4'-10"	2'-8"	580'-5⅞"	N/A	
E	8'-6"	8'-6"	3'-10"	578'-10"	N/A	OCTAGON TANK PAD
F	1'-6"	3'-5"	3'-0"	580'-10¾"	N/A	
G	45'-4"	3'-6"	1'-3"	576'-9"	N/A	
H	3'-6"	3'-0"	1'-3"	576'-9"	N/A	
J	10'-0"	3'-6"	1'-3"	576'-9"	N/A	
K	3'-6"	20'-4"	1'-3"	576'-9"	N/A	
L	35'-4"	3'-6"	1'-3"	576'-9"	N/A	
M	4'-6"	4'-6"	1'-6"	577'-9"	1'-8" SQ	
N	6'-0"	6'-0"	1'-6"	576'-6"	1'-8" SQ	
P	4'-6"	5'-0"	1'-6"	576'-6"	1'-8" SQ	
R	4'-6"	4'-6"	1'-6"	576'-6"	1'-8" SQ	
S	6'-0"	6'-0"	1'-6"	576'-6"	1'-8" SQ	





NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
19X-3900-G-00386	FINISH GRADING PLAN
19X-3900-S-00308	FOUNDATION LOCATION PLAN
19X-3900-S-00310	MISCELLANEOUS FOUNDATIONS
19X-3900-S-00315	CONTROL HOUSE FOUNDATION PLAN
19X-3900-S-00319	MISCELLANEOUS FOUNDATIONS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	RDB BY	DETAILS AND DATE
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99	

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 19C AND TANK FARM 19E
FOUNDATION AND SLAB PLAN

CONFIGURATION MANAGEMENT DRAWING
THIS DRAWING ATTACHED AS CONTROLLED DOCUMENT IN THE CONFIGURATION MANAGEMENT CONTROL LIST (CCL)

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	¼" = 1'-0"	
		DRAWN BY HAGAMAN/WHITTLE	DATE 06/24/99
RES NO. 3769	FDF PROJECT NO. N/A	TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY R.JACHAV	DATE 07/26/99
DRAWING INDEX CODE NO. 19X-5900-S-00698		SHEET NO. S0001	REV. NO. 0

COGNIZANT ENGINEER DATE

SEAL

000257

FOUNDATION AND SLAB PLAN

GRAPHIC SCALE: ¼"=1'-0"

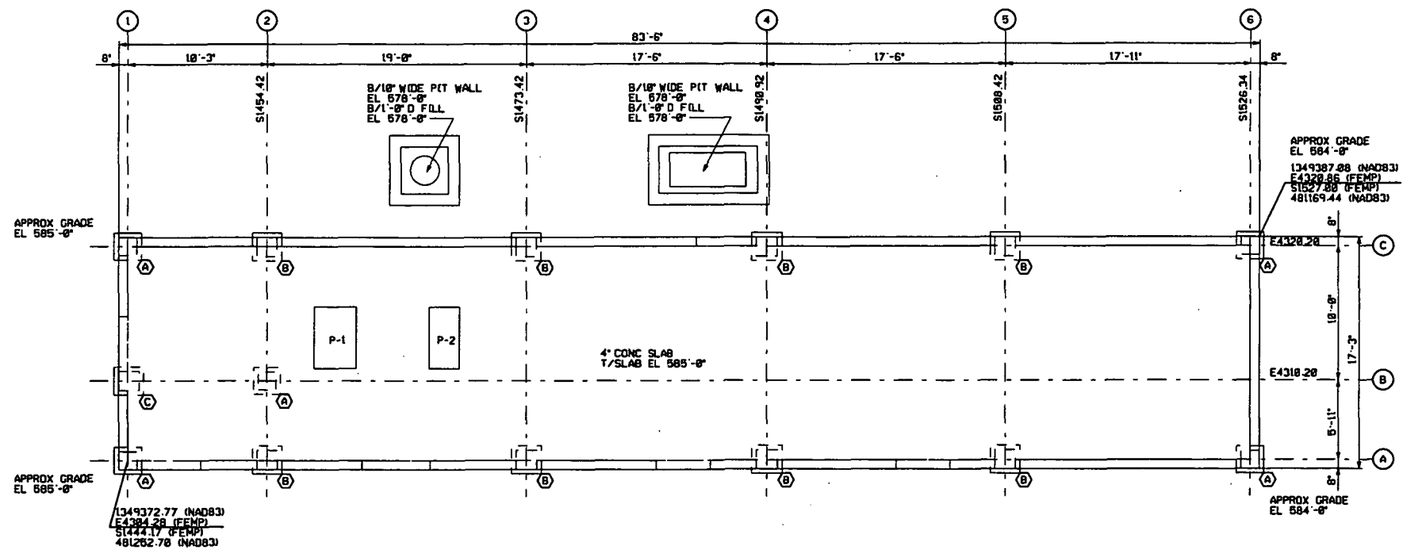
FEMP NORTH
15°12'
STATE OF OHIO NORTH (NAD 83)

FOOTING SCHEDULE

MARK	LENGTH N/S	WIDTH E/W	HEIGHT	B/FTG EL.	COL. PIER	REMARKS
A	2'-0"	2'-0"	0'-8"	580'-8"	1'-4" SQ	
B	2'-2"	2'-1"	0'-8"	580'-8"	1'-6"x1'-5"	
C	2'-1"	2'-2"	0'-8"	580'-8"	1'-5"x1'-6"	

PAD SCHEDULE

EQ PAD #	LENGTH N/S	WIDTH E/W	HEIGHT	T/CONC EL	REMARKS
P-1	3'-1"	4'-7"	2'-9"	585'-5"	
P-2	2'-3"	4'-7"	2'-9"	585'-5"	



FOUNDATION AND SLAB PLAN

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

NOTES

1. THE INFORMATION SHOWN ON THIS DRAWING WAS COMPILED FROM EXISTING CONSTRUCTION DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS.

4518

REF DWG NO.	DRAWING TITLE
20X-5500-A-00432	PUMP HOUSE & POWER CENTER PHOTO LOCATIONS
20X-5500-A-00409	FLOOR PLAN
20B-3115-S-00173	FOUNDATION DETAILS

FOR INFORMATION ONLY

REV. NO.	ISSUE OR REVISION PURPOSE - DESCRIPTION	TL	PM	REVD BY
0	ISSUED FOR TECHNICAL REFERENCE ONLY	N/A	JJG 8/13/99	LNH 8/13/99

INITIALS AND DATE

UNITED STATES DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
PARSONS I & T GROUP
CINCINNATI, OHIO

PROJECT NAME
LOCATION OF BELOW GRADE STRUCTURES
GRID 11 - TECHNICAL REFERENCE DRAWING

DRAWING TITLE
BUILDING 20A
FOUNDATION AND SLAB PLAN

000258

CONFIGURATION MANAGEMENT DRAWING — TASK / SHEET

EXISTING ATTACHED AS CONFIGURED DRAWING PER NO SHEET NO. TASK NO. 025 CONTROL DOF NOTES.

TASK ORDER NO.	OPTIONAL NO.	SCALE	
025	N/A	1/4" = 1'-0"	
RES NO. 3769	FDF PROJECT NO. N/A	DRAWN BY HAGAMAN/RABBITT	DATE 05/12/99
		TECHNICAL LEAD N/A	DATE N/A
		CHECKED BY R.JADHAV	DATE 07/26/99

COGNIZANT ENGINEER — DATE

DRAWING INDEX CODE NO. 20B-5900-S-00456 — SHEET NO. S0001 — REV. NO. 0

SEAL