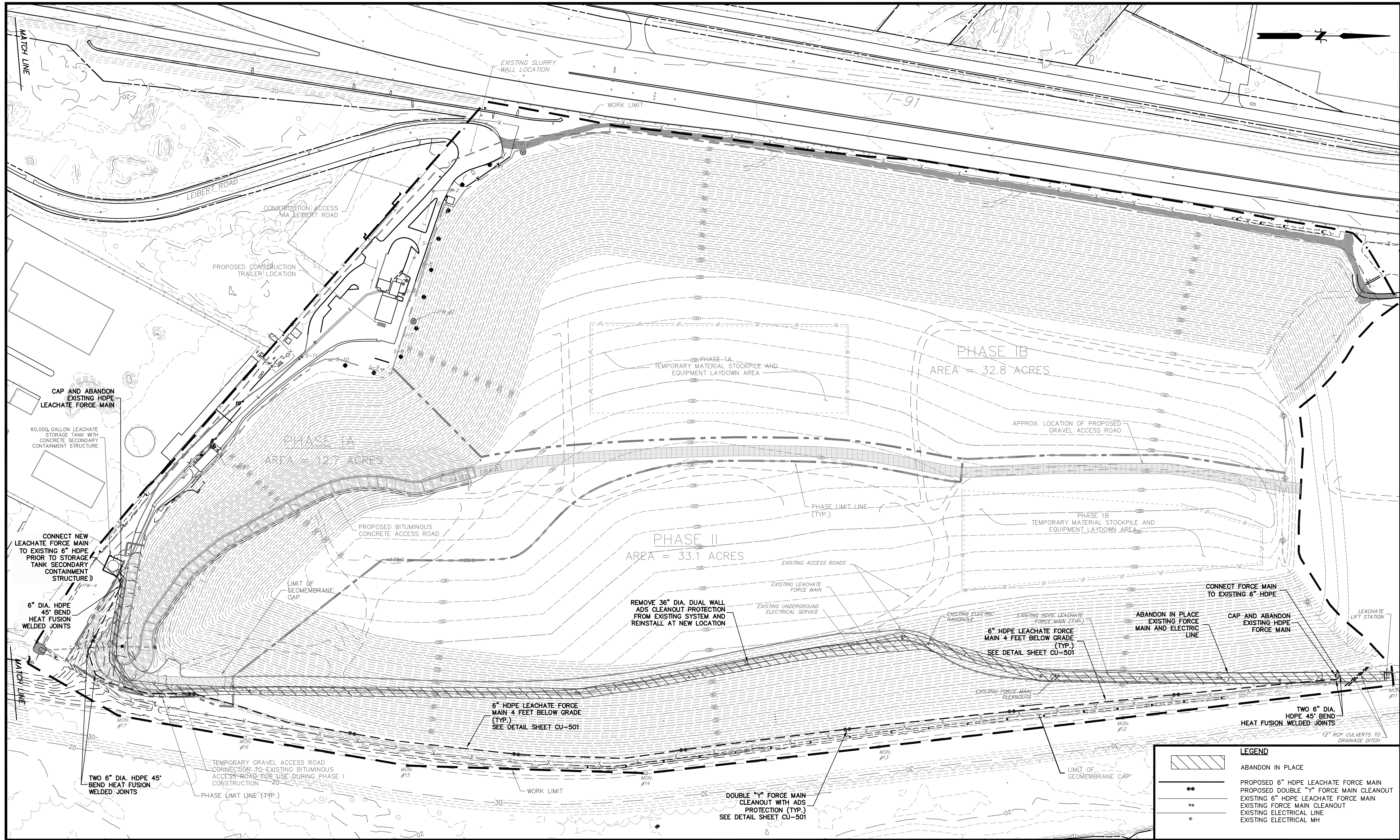


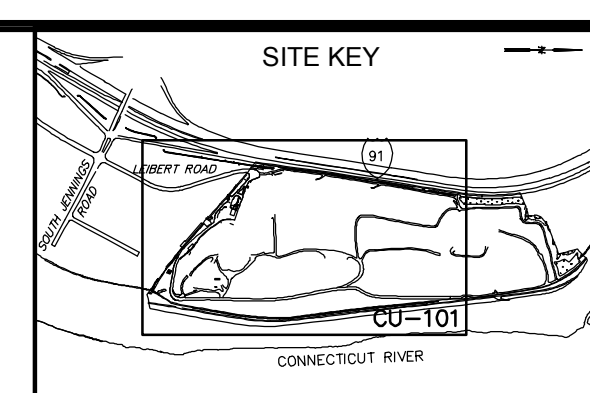
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 CTB: FO_STANDARD
 LMAN: FM-RELOC
 IMS VIEW: MS100
 LGS: ROT90



No.	DATE	DESCRIPTION	BY
1.	6/8/07	ADDENDUM NO. 1	
REVISIONS			

PROJ. MANAGER:	CML
CHIEF DESIGNER:	DRL
REVIEWED BY:	DATE

SEAL	SEAL	SEAL	SEAL
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SCALE:	HORIZ.: 1" = 100'
	VERT.: 1" = 10'
DATUM:	HORIZ.: NAD 27
	VERT.: NGVD 29
GRAPHIC SCALE	

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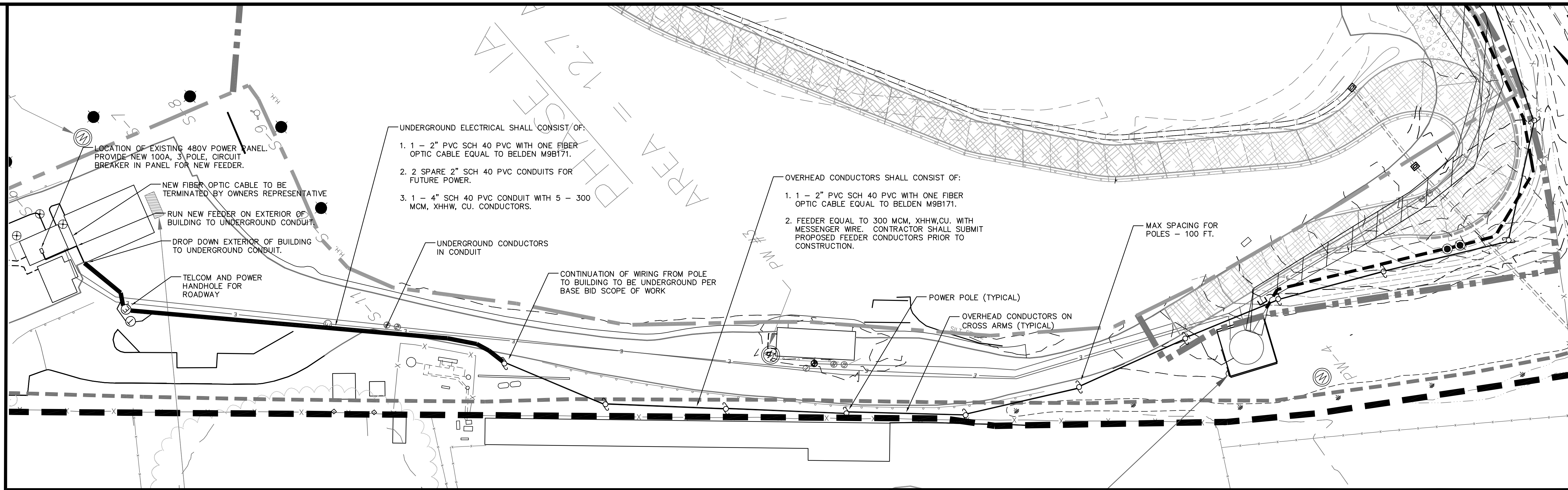
CONNECTICUT RESOURCES RECOVERY AUTHORITY
FORCE MAIN RELOCATION PLAN
 HARTFORD LANDFILL CLOSURE
 MSW/INTERIM ASH DISPOSAL AREA
 HARTFORD CONNECTICUT

PROJ. No.: 04-0174.H12
 DATE: JUNE 2007
CU-101

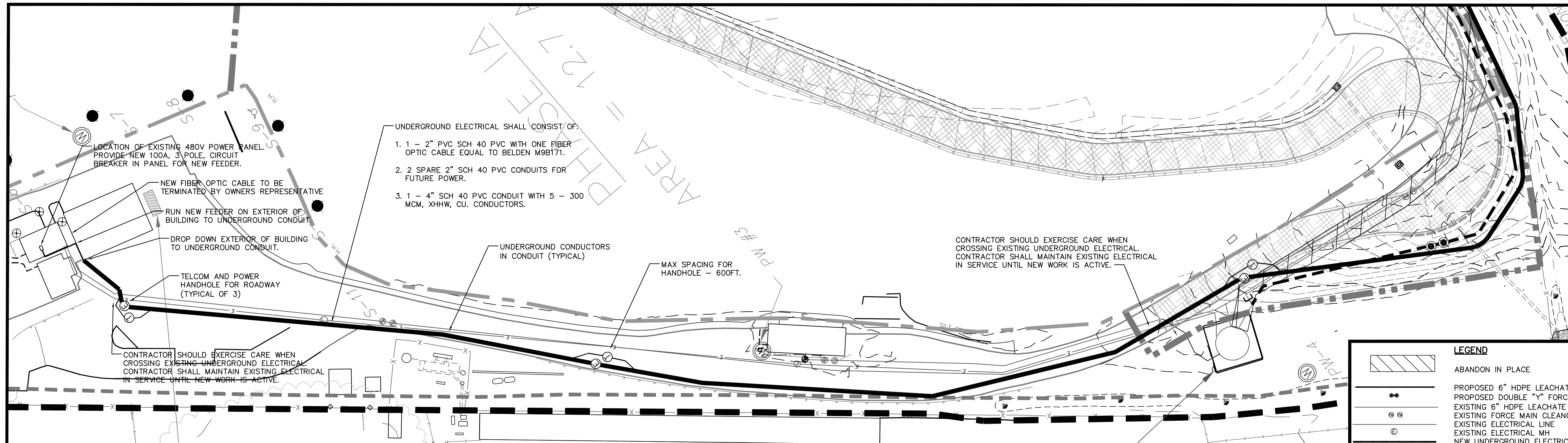
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CTB: FO_STANDARD

LMS VIEW: MS100



2 OVERHEAD ELECTRICAL PLAN - ALTERNATE BID #7A
SCALE: 1"=40'



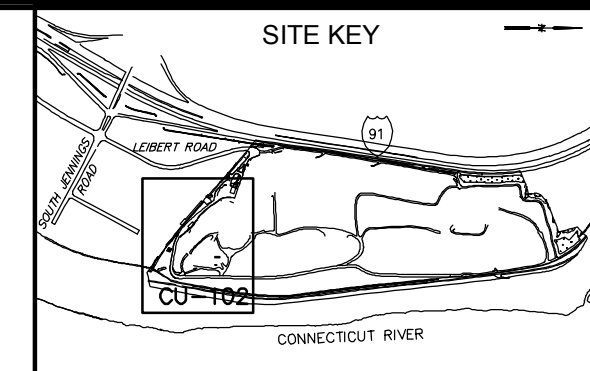
1 UNDERGROUND ELECTRICAL PLAN - BASE BID
SCALE: 1"=40'

LEGEND	
	ABANDON IN PLACE
	PROPOSED 6" HDPE LEACHATE FORCE MAIN
	PROPOSED DOUBLE "Y" FORCE MAIN CLEANOUT
	EXISTING 6" HDPE LEACHATE FORCE MAIN
	EXISTING FORCE MAIN CLEANOUT
	EXISTING ELECTRICAL LINE
	EXISTING ELECTRICAL MH
	NEW UNDERGROUND ELECTRICAL LINE
	NEW OVERHEAD ELECTRICAL LINE
	NEW POWER HANDHOLE
	NEW TELCOM HANDHOLE
	NEW TELEPHONE POLE

No.	DATE	DESCRIPTION	BY
1.	6/8/07	ADDENDUM NO. 1	ALP

PROJ. MANAGER:	CML
CHIEF DESIGNER:	ALP
REVIEWED BY:	DATE
JMC	6/8/07

SEAL	SEAL		
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SCALE:	HORIZ.: 1" = 40'
	VERT.: NGVD 29
DATUM:	HORIZ.: NAD 27
	VERT.: NGVD 29
GRAPHIC SCALE	

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CONNECTICUT RESOURCES RECOVERY AUTHORITY

ELECTRICAL RELOCATION PLAN

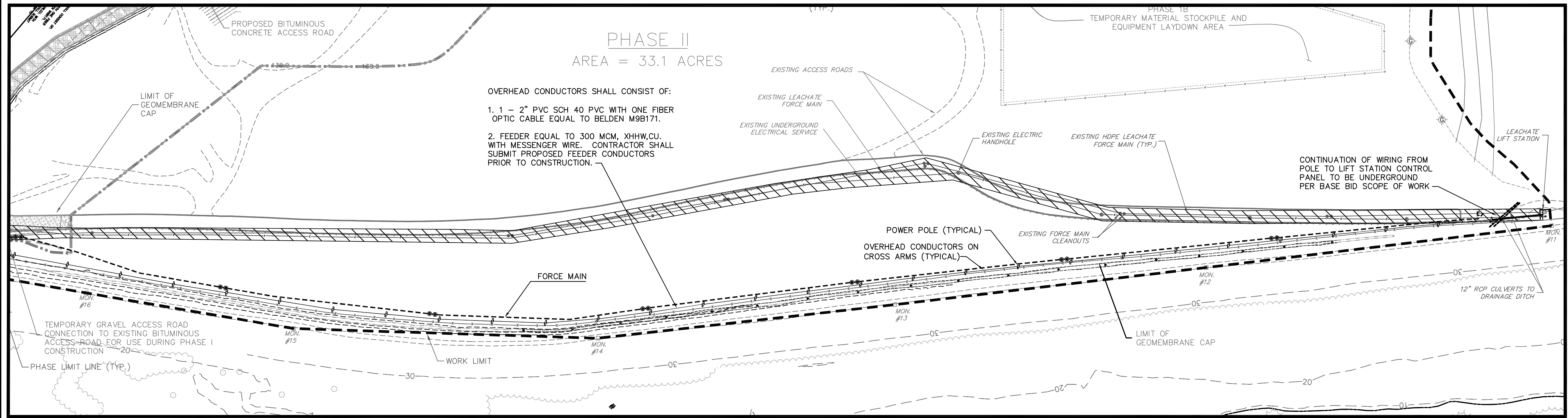
HARTFORD LANDFILL CLOSURE
MSW/INTERIM ASH DISPOSAL AREA

HARTFORD CONNECTICUT

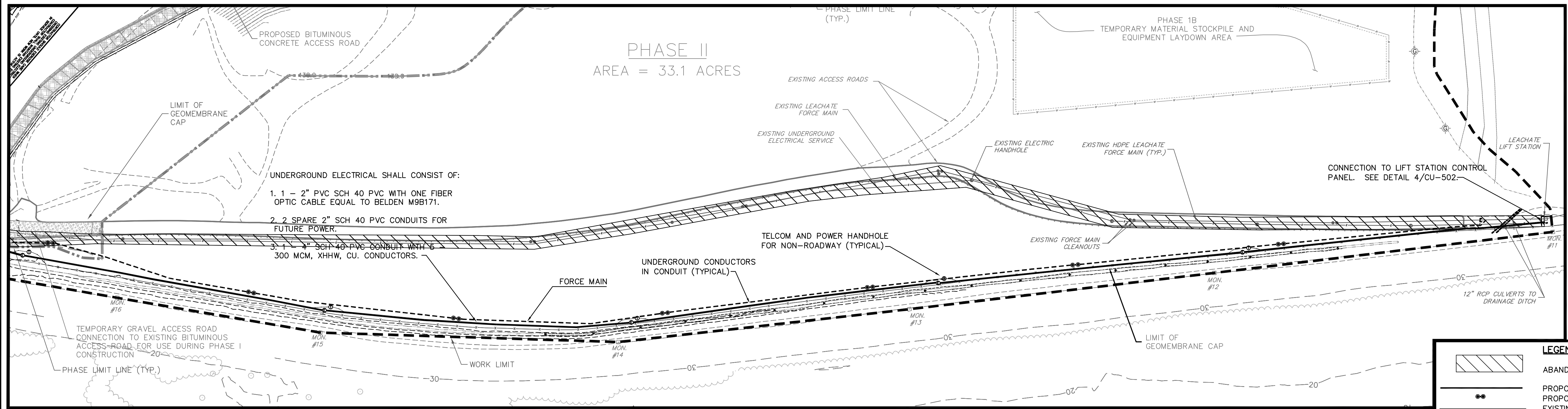
PROJ. No.: 04-0174.H12
DATE: JUNE 2007

CU-102

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2 ELECTRICAL PLAN - ALTERNATE BID
SCALE: 1"=100'

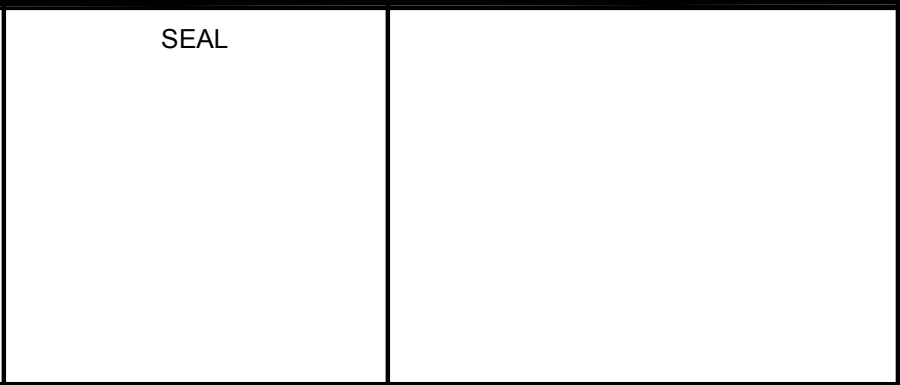


1 ELECTRICAL PLAN - BASE BID
SCALE: 1"=100'

LEGEND	
	ABANDON IN PLACE
	PROPOSED 6" HDPE LEACHATE FORCE MAIN
	PROPOSED DOUBLE "Y" FORCE MAIN CLEANOUT
	EXISTING 6" HDPE LEACHATE FORCE MAIN
	EXISTING FORCE MAIN CLEANOUT
	EXISTING ELECTRICAL LINE
	EXISTING ELECTRICAL MH
	NEW UNDERGROUND ELECTRICAL LINE
	NEW OVERHEAD ELECTRICAL LINE
	NEW POWER HANDHOLE
	NEW TELCOM HANDHOLE
	NEW TELEPHONE POLE

No.	DATE	DESCRIPTION	BY
1.	6/8/07	ADDENDUM NO. 1	ALP
		DESCRIPTION	BY
REVISIONS			

PROJ. MANAGER:	CML	SEAL	
CHIEF DESIGNER:	ALP	SEAL	
REVIEWED BY:	DATE		
JMC	6/8/07		



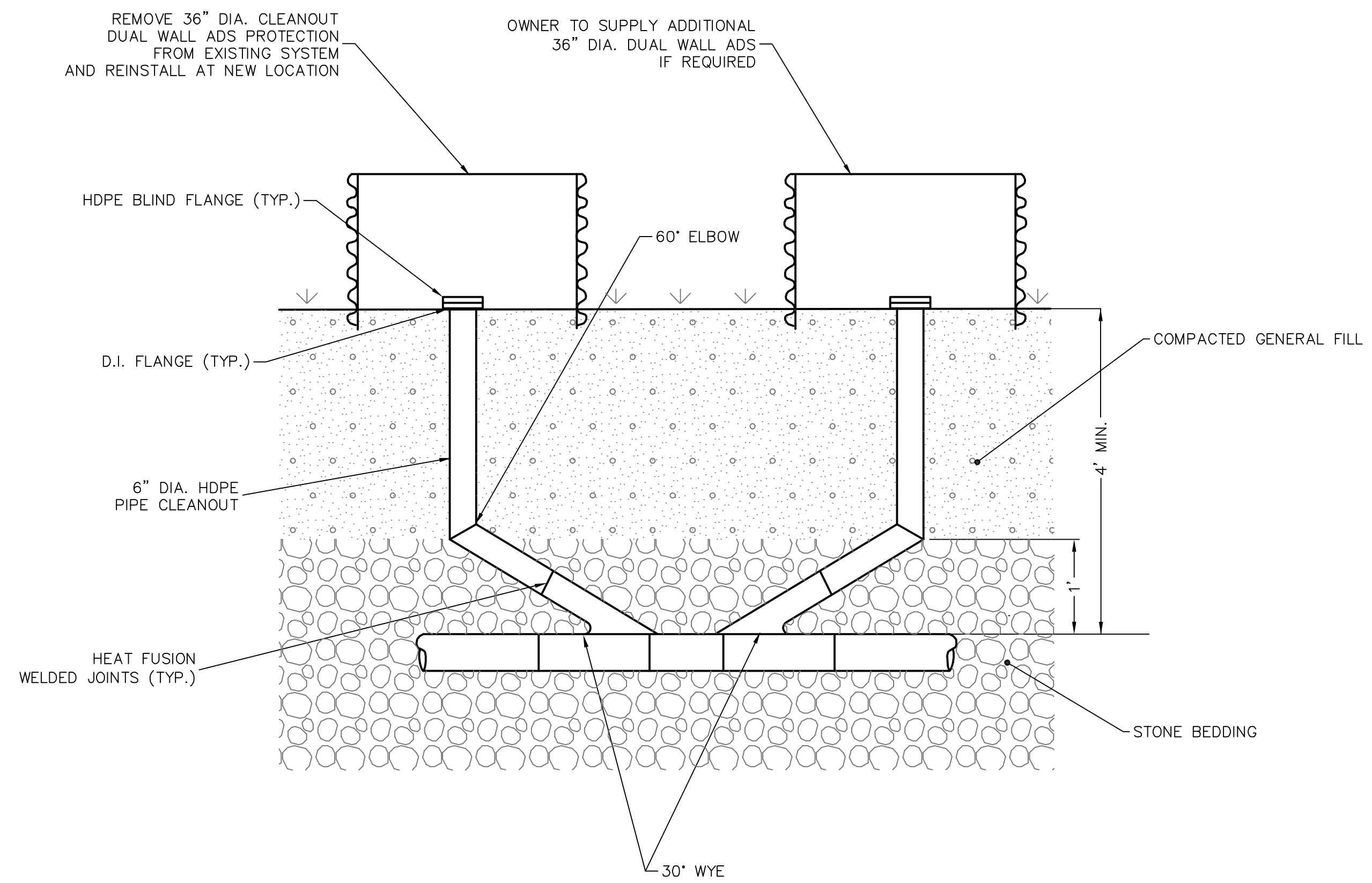
SCALE:	HORIZ.: 1" = 100'
	VERT.: 1" = 100'
DATUM:	HORIZ.: NAD 27
	VERT.: NGVD 29
GRAPHIC SCALE	

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CONNECTICUT RESOURCES RECOVERY AUTHORITY
 ELECTRICAL RELOCATION PLAN
 HARTFORD LANDFILL CLOSURE
 MSW/INTERIM ASH DISPOSAL AREA
 HARTFORD CONNECTICUT

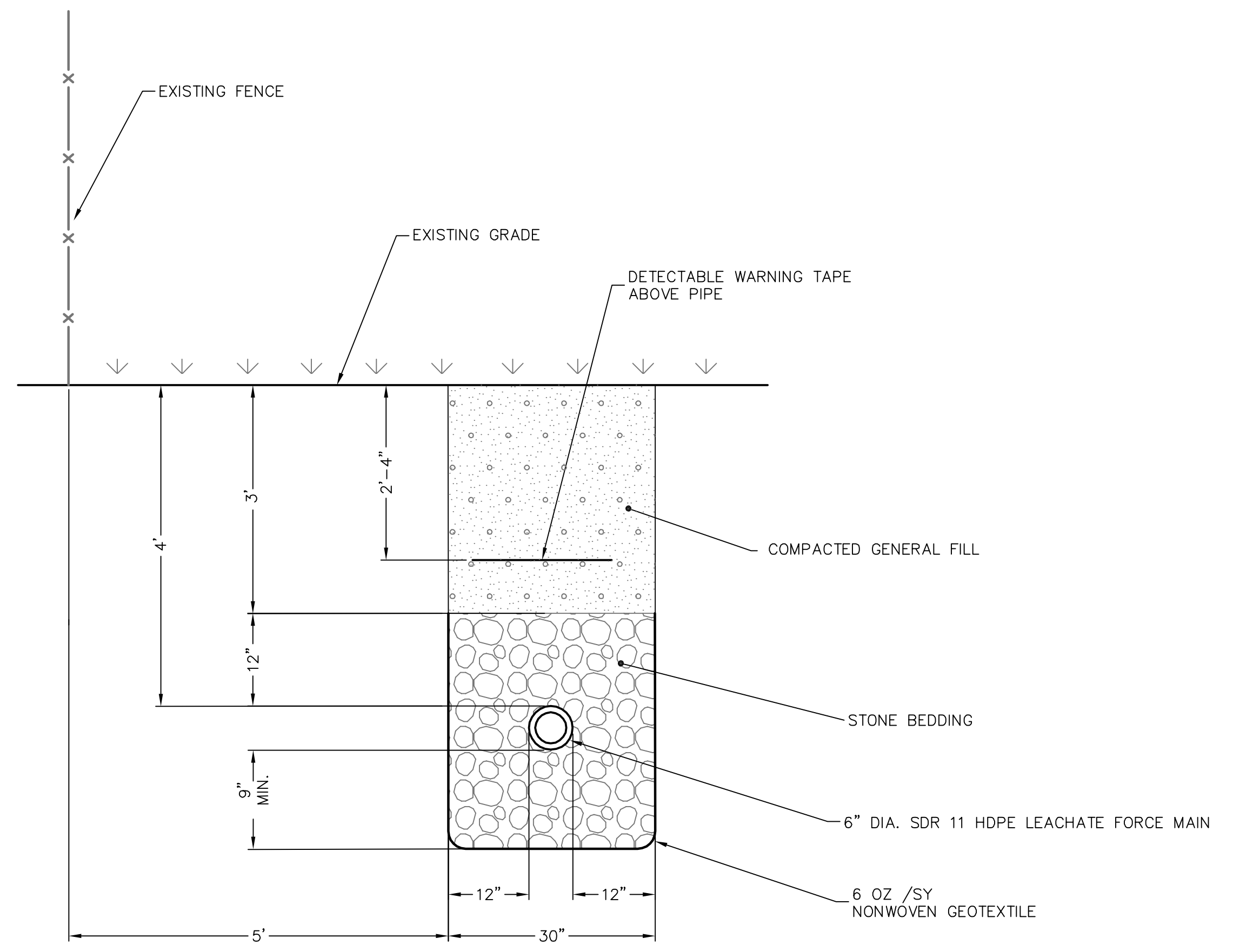
PROJ. No.: 04-0174.H12
 DATE: JUNE 2007
CU-103

File Path: J:\DWG\GP20040174H12\Detail\04174H12Detail.dwg, Layout: CU-501 Thu, Jun 08, 2007 - 7:56 AM User: KSpear
 LMS VIEW: SITE-1
 CTB: FO_STANDARD
 LMAN: DETAILS



THIS CLEANOUT SHALL BE INSTALLED EVERY 400 FEET ALONG THE LEACHATE FORCE MAIN

1 PIPE CLEANOUT DETAIL
NOT TO SCALE



2 LEACHATE FORCE MAIN TRENCH DETAIL
NOT TO SCALE

No.	DATE	DESCRIPTION	BY
1.	6/8/07	ADDENDUM NO. 1	
REVISIONS			

PROJ. MANAGER:		SEAL	
CHIEF DESIGNER:		SEAL	
REVIEWED BY:	DATE		

SCALE:	HORZ.: NTS
	VERT.:
DATUM:	HORZ.:
	VERT.:
GRAPHIC SCALE	

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CONNECTICUT RESOURCES RECOVERY AUTHORITY

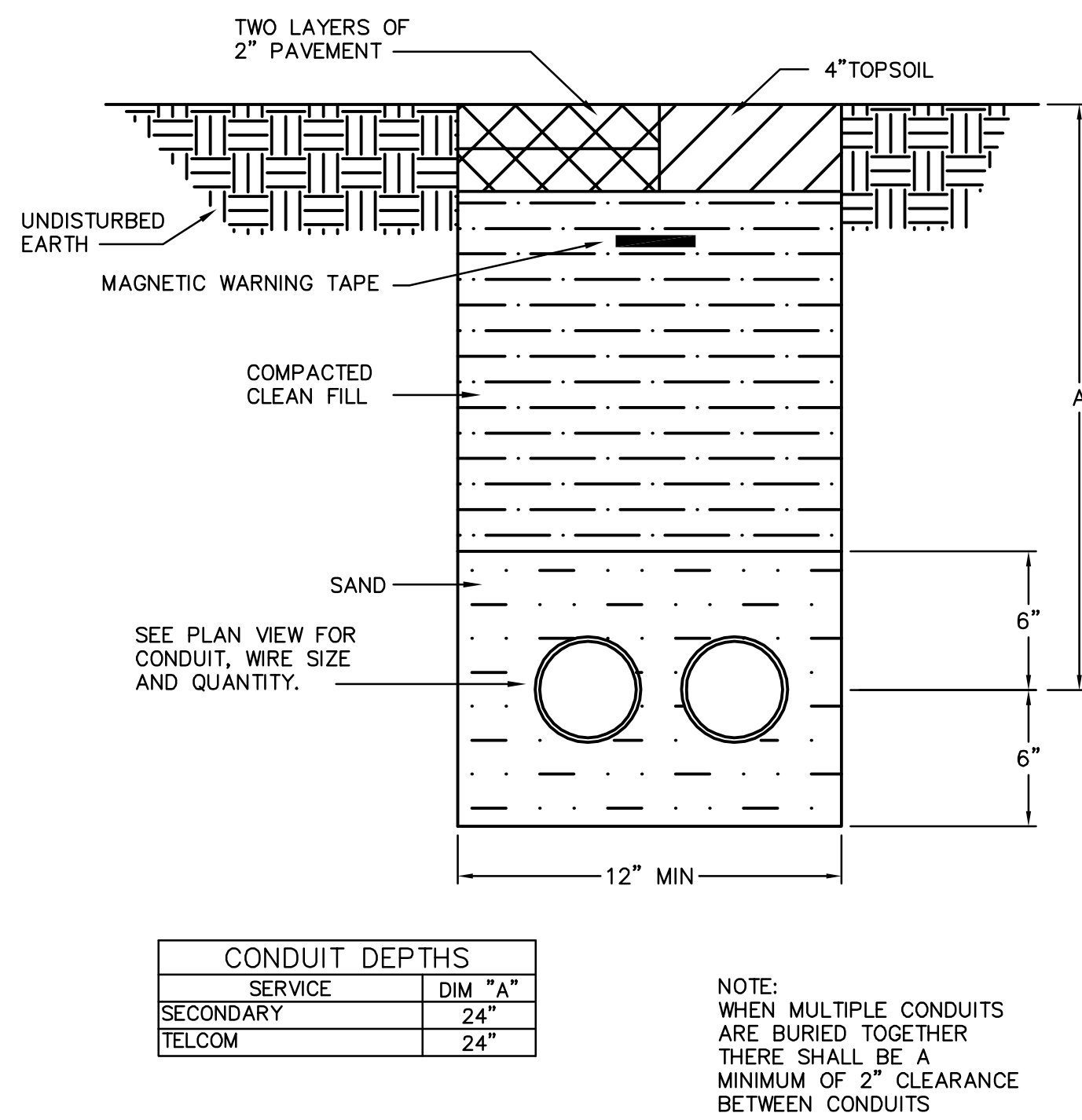
FORCE MAIN RELOCATION DETAILS

HARTFORD LANDFILL CLOSURE
MSW/INTERIM ASH DISPOSAL AREA
HARTFORD CONNECTICUT

PROJ. No.: 04-0174.H12
DATE: JUNE 2007

CU-501

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 LMAN: DETAILS
 LMS VIEW: SITE-1
 LGS:

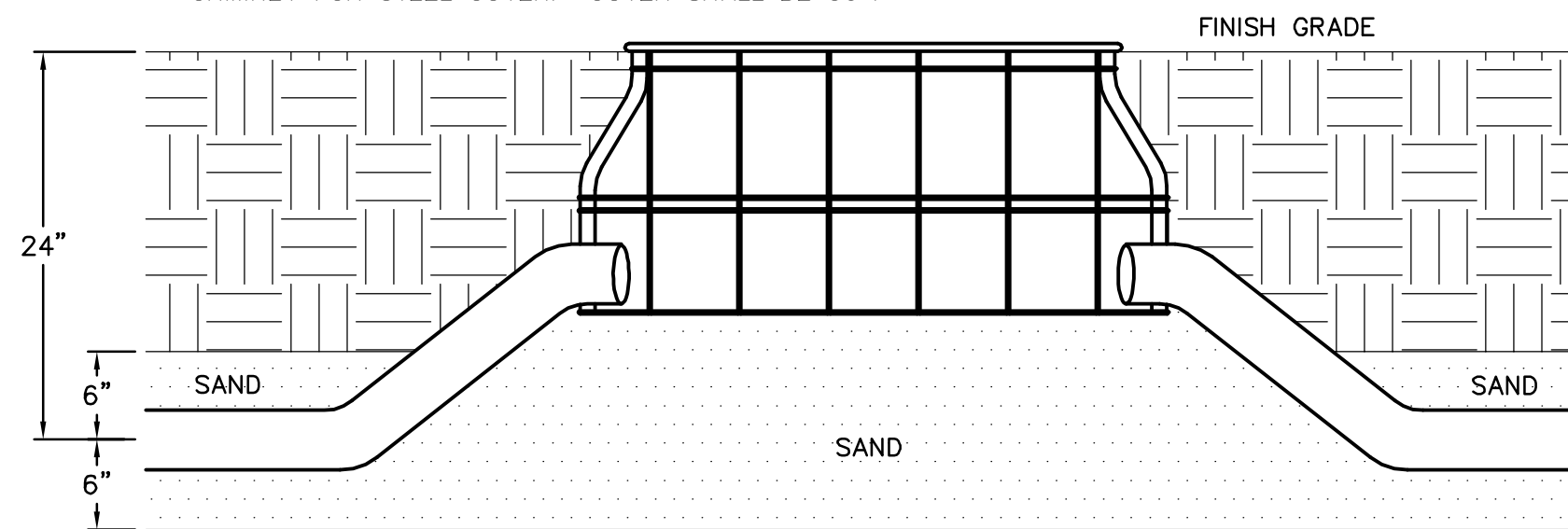


2 BURIED CONDUIT DETAIL
NOT TO SCALE

PROVIDE IN-GROUND HANDHOLE BOX:
 - POLYMER CONCRETE
 - TOP RING
 - REINFORCING RIBS
 - 3000 PSI MIN.
 - OPEN BOTTOM
 - WITH COVER EQUAL TO CARSON

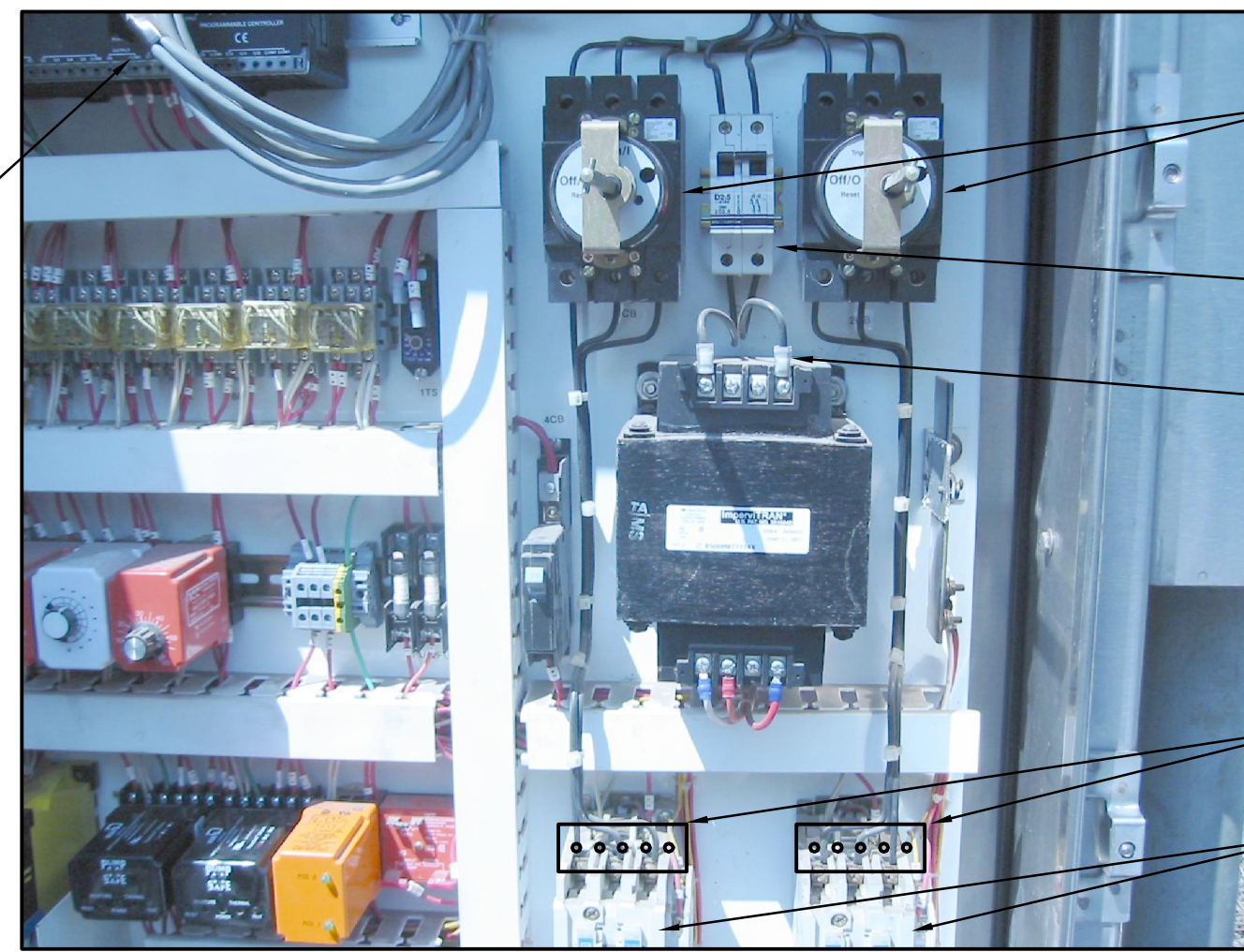
NON-ROADWAY POWER HANDHOLE EQUAL TO CARSON INDUSTRIES MODEL H1730-18, HEAVY DUTY
 NON-ROADWAY TELCOM HANDHOLE EQUAL TO CARSON INDUSTRIES MODEL H1118-12, HEAVY DUTY

ROADWAY HANDHOLE EQUAL TO OLD CASTLE HH2X2 24" HIGH. CONTRACTOR SHALL PROVIDE BRICK CHIMNEY FOR STEEL COVER. COVER SHALL BE 30"φ

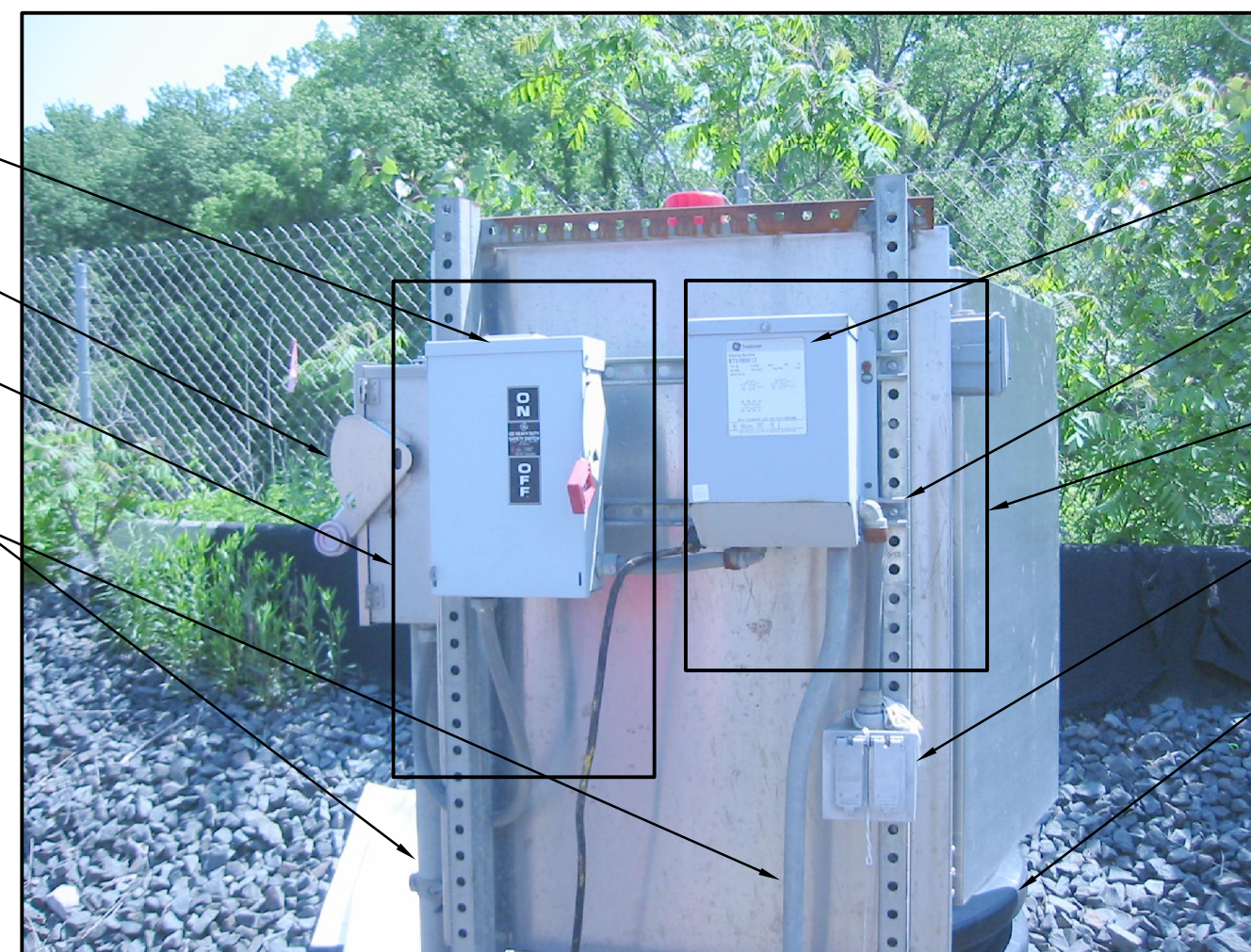


1 ELECTRICAL HANDHOLE DETAIL
NOT TO SCALE

NEW FIBER OPTIC CABLE TO BE TERMINATED BY OWNERS REPRESENTATIVE



REMOVE DISCONNECTS INCLUDING HANDLES ON THE FRONT OF THE ENCLOSURE AND PLUG THE HOLES.
 REMOVE CIRCUIT BREAKER
 NEW BRANCH CIRCUIT TO PRIMARY SIDE OF EXISTING CONTROL TRANSFORMER
 NEW DISTRIBUTION BLOCK FOR EACH PUMP.
 REMOVE MOTOR STARTERS



REMOVE DISCONNECT
 REMOVE MAIN DISCONNECT AFTER NEW POWER FEED IS ACTIVE.
 NEW POWER PANEL
 REMOVE CONDUITS 5FT. PAST ENCLOSURES

REMOVE CONTROL POWER TRANSFORMER
 ADD STRUT FOR MOUNTING AS NECESSARY
 NEW VFD ENCLOSURE
 REMOVE RECEPTACLE
 EXISTING ELECTRICAL HANDHOLE

GENERAL NOTE: POWER TO ALL PUMPS MUST NOT BE DISCONNECTED FOR MORE THAN 24 HOURS. OWNER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY POWER OUTAGE.

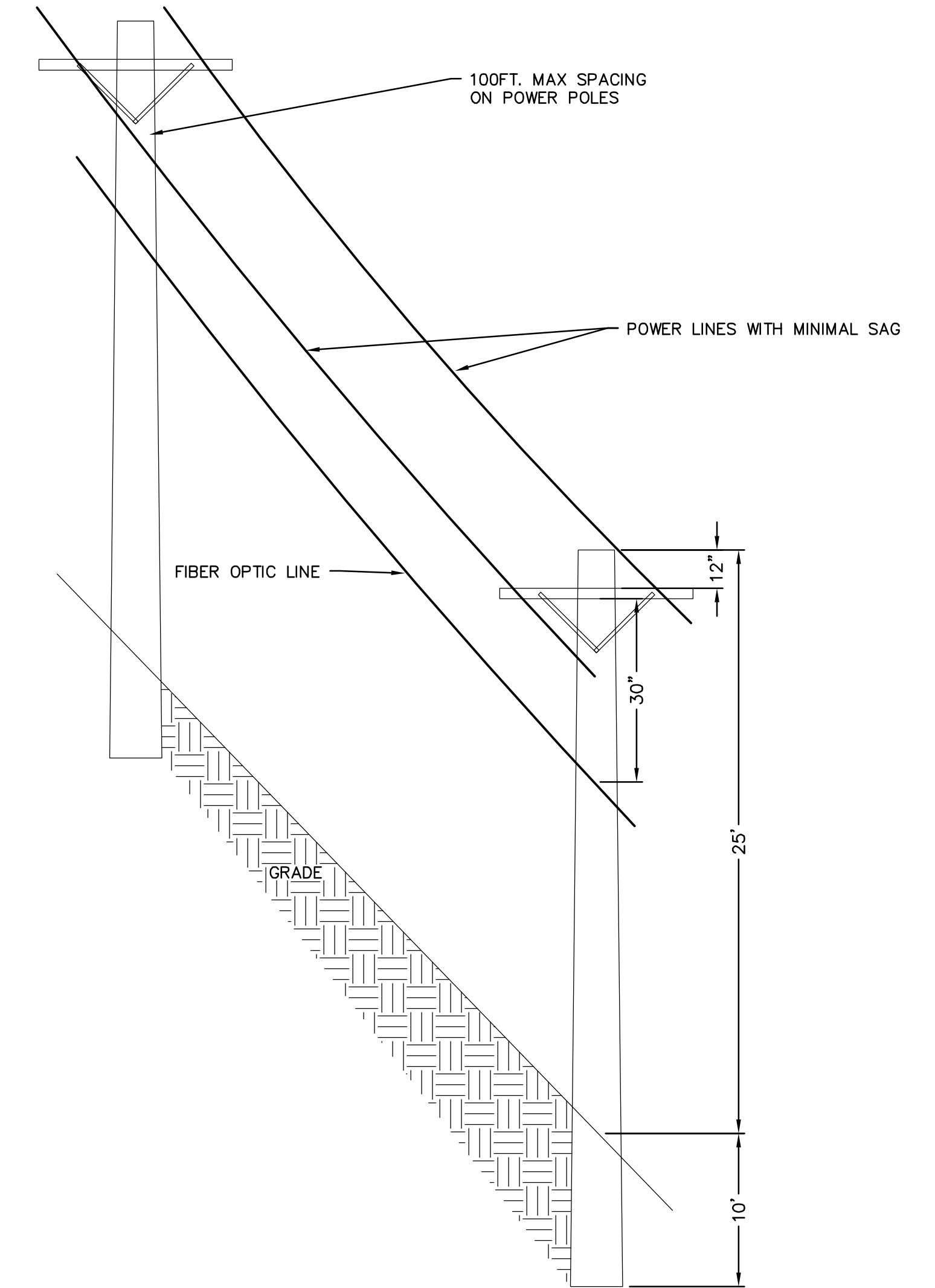
4 PANEL/VFD INSTALLATION
NOT TO SCALE

HARTFORD LANDFILL DUPLEX PUMP CONTROL MODIFICATION REQUIREMENTS AND VARIABLE FREQUENCY DRIVE INSTALLATION.

NOTE: UPDATED ELECTRICAL SCHEMATICS FOR DUPLEX PUMP CONTROL SYSTEM WERE NOT AVAILABLE AT TIME OF DESIGN. CONTRACTOR'S SYSTEM INTEGRATOR IS RESPONSIBLE FOR FIELD INVESTIGATION AND ASCERTAINING EXISTING CONDITIONS WITH RESPECT TO CONTROLS WIRING AND PLC CODE / SYSTEM OPERATION.

- PROVIDE POWER DISTRIBUTION BLOCKS IN EXISTING DUPLEX PUMP CONTROL PANEL FOR EACH PUMP MOTOR CONNECTION. THE POWER DISTRIBUTION BLOCKS SHALL BE RATED IN ACCORDANCE WITH NEC REQUIREMENTS. PROVIDE FINGER-SAFE COVERS. LOAD SIDE (OUTPUT) OF NEWLY INSTALLED VARIABLE FREQUENCY DRIVES (LOCATED IN SEPARATE ENCLOSURE) SHALL BE CONNECTED TO THE LINE SIDE (INPUT) OF THE NEWLY PROVIDED POWER DISTRIBUTION BLOCKS. EACH PUMP MOTOR SHALL BE CONNECTED TO THE LOAD-SIDE OF ITS RESPECTIVE POWER DISTRIBUTION BLOCK.
- MODIFY EXISTING DUPLEX PUMP CONTROL SYSTEM AND PROVIDE DRY "RUN" CONTACTS TO VARIABLE FREQUENCY DRIVE RUN CIRCUIT ON DRIVE'S CONTROL TERMINAL BLOCK FOR EACH PUMP.
- PROVIDE PROGRAMMING OF "PRE-SELECTED" SPEED WITH ASSOCIATED WIRING ON DRIVE'S CONTROL TERMINAL BLOCK FOR EACH PUMP. PRE-SELECTED SPEED SHALL BE AS APPROPRIATE FOR PUMP'S NEW DUTY POINT.
- MODIFY EXISTING DUPLEX PUMP CONTROL SYSTEM AND PROVIDE A "VFD FAULT" PILOT LIGHT WIRED TO THE VFD'S PROGRAMMABLE OUTPUT CONTACT ON THE DRIVE'S CONTROL TERMINAL BLOCK FOR EACH PUMP.
- PROVIDE NEMA 3R VENTED STEEL ENCLOSURE TO BE MOUNTED AS INDICATED IN DETAIL 4. ENCLOSURE SHALL BE PROVIDED WITH TWO 10HP, 460V, 3P VARIABLE TORQUE VFD'S IN ACCORDANCE WITH SECTION 16269 - VARIABLE FREQUENCY CONTROLLERS. PROVIDE INTEGRAL HEATER/FAN UNIT WITH INTEGRAL THERMOSTAT. PROVIDE COOLING FAN UNIT WITH THERMOSTAT. PROGRAM AND CONFIGURE FOR COMPLETE AND OPERATIONAL SYSTEM TO WORK IN CONJUNCTION WITH MODIFIED DUPLEX PUMP CONTROL SYSTEM AS DESCRIBED ABOVE.
- PROVIDE VFD PROGRAMMING IN ACCORDANCE WITH SECTION 16269 - VARIABLE FREQUENCY CONTROLLERS.

3 VARIABLE FREQUENCY DRIVE NOTES
NOT TO SCALE



6 POWER POLE DETAIL
NOT TO SCALE

SCHEDULE FOR PANEL P-1									
Panel Designation:	P-1	Frame Size:	100A	Volts:	480				
Mounting:	Surface	MLO/VCB (Amps):	MCB	Phase:	3				
TVSS Type:	N/A	A.I.C.:	12,000	Wire:	4				
CKT	DESCRIPTION	V/A	VOLTS	PH	WIRE	CONDUIT	AMPS	POLES	REMARKS
1	Lift Station Pump #1	11,626	480	3	#8 AWG	3/4" PVC	35	3	
2	Lift Station Pump #2	11,626	480	3	#8 AWG	3/4" PVC	35	3	
3	Ash Pit Pump #1	3,986	480	3	#6 AWG	3/4" PVC	20	3	
4	Ash Pit Pump #2	3,986	480	3	#6 AWG	3/4" PVC	20	3	
5	Ash Pit Pump #3	3,986	480	3	#6 AWG	3/4" PVC	20	3	
6	Ash Pit Pump #4	3,986	480	3	#6 AWG	3/4" PVC	20	3	
7	Control Power Transformer	600	480	1	#12 AWG	3/4" PVC	20	2	
8	Spare C/B's		480	3			20	6	2 - 3 pole circuit breakers
9	Spare Space							4	

NOTE 1: PANEL P-1 SHALL BE NEMA 3R.

NOTE 2: FOR CIRCUITS 1, 2, AND 7, CONNECTIONS TO EXISTING LOADS SHALL BE MADE INSIDE EXISTING CONTROL PANEL.

NOTE 3: FOR CIRCUITS 3-6, CONNECTIONS TO EXISTING LOADS SHALL BE MADE INSIDE EXISTING MANHOLE LOCATED IN FRONT OF EXISTING CONTROL PANEL.

5 PANELBOARD SCHEDULE
NOT TO SCALE

No.	DATE	DESCRIPTION	ALP	BY
1.	6/8/07	ADDENDUM NO. 1	ALP	
REVISIONS				

PROJ. MANAGER:	CML	SEAL
CHIEF DESIGNER:	ALP	SEAL
REVIEWED BY:	DATE	
JMC	6/8/07	

SCALE:	HORIZ.: NTS	
	VERT.:	
DATUM:	HORIZ.:	
	VERT.:	
GRAPHIC SCALE		

SCALE:	HORIZ.: NTS
	VERT.:
DATUM:	HORIZ.:
	VERT.:
GRAPHIC SCALE	

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ELECTRICAL RELOCATION DETAILS

HARTFORD LANDFILL CLOSURE
MSW/INTERIM ASH DISPOSAL AREA

HARTFORD CONNECTICUT

PROJ. No.: 04-0174.H12
DATE: JUNE 2007

CU-502