

CBS
 BLOOMINGTON PROJECT
 PITTSBURGH, PENNSYLVANIA

NEAL'S LANDFILL SPRING TREATMENT FACILITY

OPERATIONS AND MAINTENANCE PLAN - VOLUME II

NEAL'S LANDFILL SPRING TREATMENT FACILITY

Drawing No.	Title
G-1 (1 of 2)	INDEX TO DRAWINGS
G-1 (2 of 2)	INDEX TO DRAWINGS
C-1A	NEAL'S LANDFILL SITE PLAN
C-1B	TREATMENT FACILITY SITE PLAN AND EQUIPMENT LAYOUT
C-2	SOUTHWEST SEEP SITE PLAN AND PUMP STATION
C-5	NORTH SPRING SITE PLAN AND PUMP STATION
C-6	SOUTH SPRING COLLECTION SYSTEM
M-1	PUMP AND PREFILTER PIPING ISOMETRIC
M-2	CARBON VESSELS A AND B PIPING ISOMETRIC
M-3	BACKWASH COLLECTION TANK & PIPING ISOMETRIC
M-4	SETTLING BASIN
M-5	SETTLING BASIN
M-6	SETTLING BASIN
91-86-0153	CALGON MODEL 10 ADSORBER SYSTEM
91-86-0165	CALGON MODEL 10 ADSORBER DETAILS
P-1	PROCESS FLOW DIAGRAM
I-1	LEGEND AND MISC DETAILS
I-2	PROCESS AND INSTRUMENTATION DIAGRAM
I-3	MISCELLANEOUS CONTROL DIAGRAMS
I-4	NORTH SPRING PUMP STATION CONTROL DIAGRAM
I-5	PUMP CONTROL PANEL, LOCAL STATION, SCHEMATIC
I-7	PUMP CONTROL PANEL, LOCAL STATION, GENERAL ARRANGEMENT
I-10	DATA ACQUISITION SYSTEM
E-1	SITE PLAN, ELECTRICAL
E-2	LIGHTING AND POWER FOR CONTROL BUILDING
E-3	LIGHTING FOR SETTLING BASIN
E-4	TREATMENT FACILITY DISTRIBUTION POWER DIAGRAM
E-5	SCADA CONTROL CIRCUITS

CONARD'S BRANCH UPSTREAM PUMP STATION

Drawing No.	Title
G-1	COVER
C-1	PUMP STATION PLAN
C-2	SECTION VIEW
C-3	PLAN AND ELEVATION
E-1	PUMP STATION, ELECTRICAL

CONARD'S BRANCH DOWNSTREAM PUMP STATION

Drawing No.	Title
G-1	COVER DRAWING
G-2	GENERAL NOTES AND OVERALL SITE MAP
G-3	SOIL BORING LOGS
G-4	SOIL BORING LOGS
PR-1	DESIGN CRITERIA AND CONSTRUCTION SEQUENCE
PR-2	PROCESS FLOW DIAGRAM
PR-3	PLAN AND PROFILE FORCEMAIN
PR-4	PLAN AND PROFILE FORCEMAIN
PR-5	PLAN AND PROFILE EFFLUENT DISCHARGE LINE
PR-6	PLAN AND PROFILE EFFLUENT DISCHARGE LINE
PR-7	DOWNSTREAM SEEP PUMP STATION SITE PLAN
PR-8	PUMP STATION GRADING PLAN
PR-9	DOWNSTREAM SEEP PUMP STATION SECTION AND DETAILS
PR-9A	SCOUR POOL PLAN
PR-10	DETAILS
PR-11	DETAILS
PR-12	PUMP STATION DETAILS
PR-13	CLARIFIER PLAN AND SECTION
E-1	ELECTRICAL GENERAL NOTES AND SYMBOLS
E-2	ELECTRICAL SITE PLAN
E-3	ELECTRICAL PLANS
E-4	ELECTRICAL PLAN
E-5	ELECTRICAL DETAILS
E-6	PUMP STATION ELECTRICAL PLAN AND DETAILS



③ Revisions

No.	Date	Revision	By	CBS Corporation		
1	11/92	As Built	DRD	G-1 (1 OF 2) INDEX TO DRAWINGS Neal's Landfill Spring Treatment Facility		
2	5/02	As Built	JBP			
3	2/12	2012 Updates	RLR			
			Drawn By:	Date:	Scale:	
			RLR	3/28/12	NTS	

DRAWINGS NO LONGER CURRENT

DRAWING NUMBER	TITLE	DRAWING STATUS	DATE OF REVISION
B329-001	NEAL'S LANDFILL SITE PLAN	Superseded by C-1	11/1992
B329-002	NEAL'S LANDFILL COLLECTION & TREATMENT FACILITY P&ID	Superseded by I-2	11/1992
B329-003	NEAL'S LANDFILL WATER TREATMENT FACILITY BUILDING EQUIPMENT LAYOUT	Superseded by G-2	11/1992
B329-004	SOUTHWEST SEEP SITE PLAN AND PUMPING STATION	Superseded by C-2	11/1992
B329-005	SOUTH SPRING SITE PLAN	Superseded by C-3 & C-4	11/1992
B329-006	NORTH SPRING SITE PLAN	Superseded by C-5	11/1992
B329-007	NEAL'S LANDFILL EROSION AND SEDIMENT CONTROL PLAN	Irrelevant/Inappropriate to Drawing Package	11/1992
B329-008	SOUTH SPRING COLLECTION TANK	Superseded by C-6	11/1992
B329-009	SETTLING TANK	Superseded by M-4, M-5, & M-6	11/1992
B329-010	SELF PRIMING PUMP SKID WELDMENT	Irrelevant/Inappropriate to Drawing Package	11/1992
B329-011	SELF PRIMING PUMP SKID ASSEMBLY	Deleted from Drawing Package	11/1992
B329-012	DEWATERING PUMP SKID	Deleted from Drawing Package	11/1992
B329-013	DISPOSABLE CONTAINER FILL LID ASSEMBLY	Deleted from Drawing Package	11/1992
D2032-1	PUMP CONTROL PANEL, LOCAL STATION, SCHEMATIC	Superseded by I-5	11/1992
D2031-2	PUMP CONTROL PANEL, REMOTE STATION, SCHEMATIC	Superseded by I-6	11/1992
D2031-3	PUMP CONTROL PANEL, LOCAL STATION, GENERAL ARRANGEMENT	Superseded by I-7	11/1992
D2031-4	PUMP CONTROL PANEL, REMOTE STATION, GENERAL ARRANGEMENT	Superseded by I-8	11/1992
D2031-5	PUMP CONTROL PANEL, FIELD CONNECTION DIAGRAM	Superseded by I-9	11/1992
G-2	TREATMENT FACILITY SITE PLAN AND EQUIPMENT LAYOUT	Superseded by C-1B	3/2012
C-3	SOUTH SPRING SITE PLAN	ARCHIVE	3/2012
C-4	SOUTH SPRING SITE PLAN	ARCHIVE	3/2012
I-6	PUMP CONTROL PANEL, REMOTE STATION, SCHEMATIC	ARCHIVE	3/2012
I-8	PUMP CONTROL PANEL, REMOTE STATION, GENERAL ARRANGEMENT	ARCHIVE	3/2012
I-9	PUMP CONTROL PANEL, FIELD CONNECTION DIAGRAM	ARCHIVE	3/2012



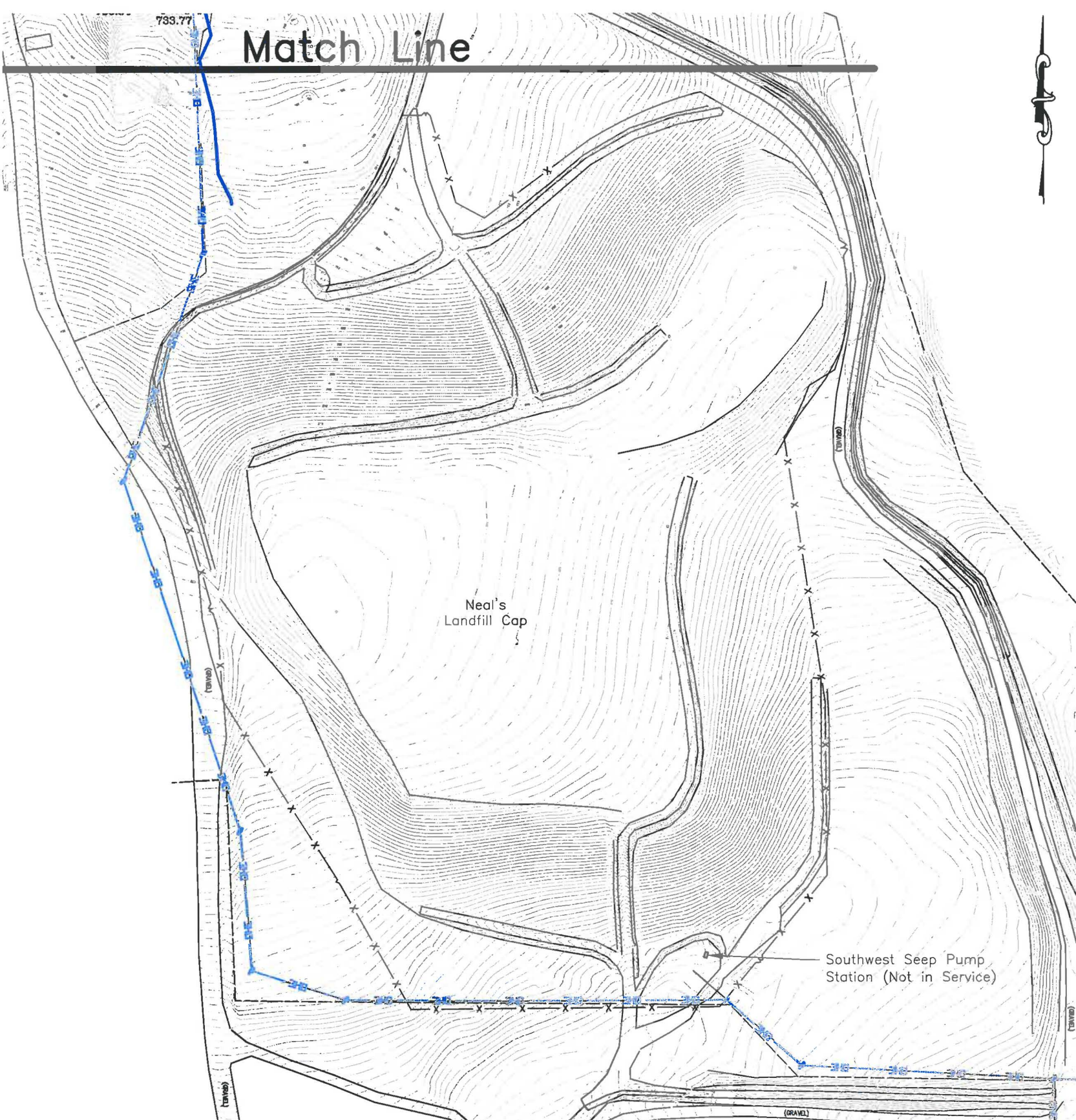
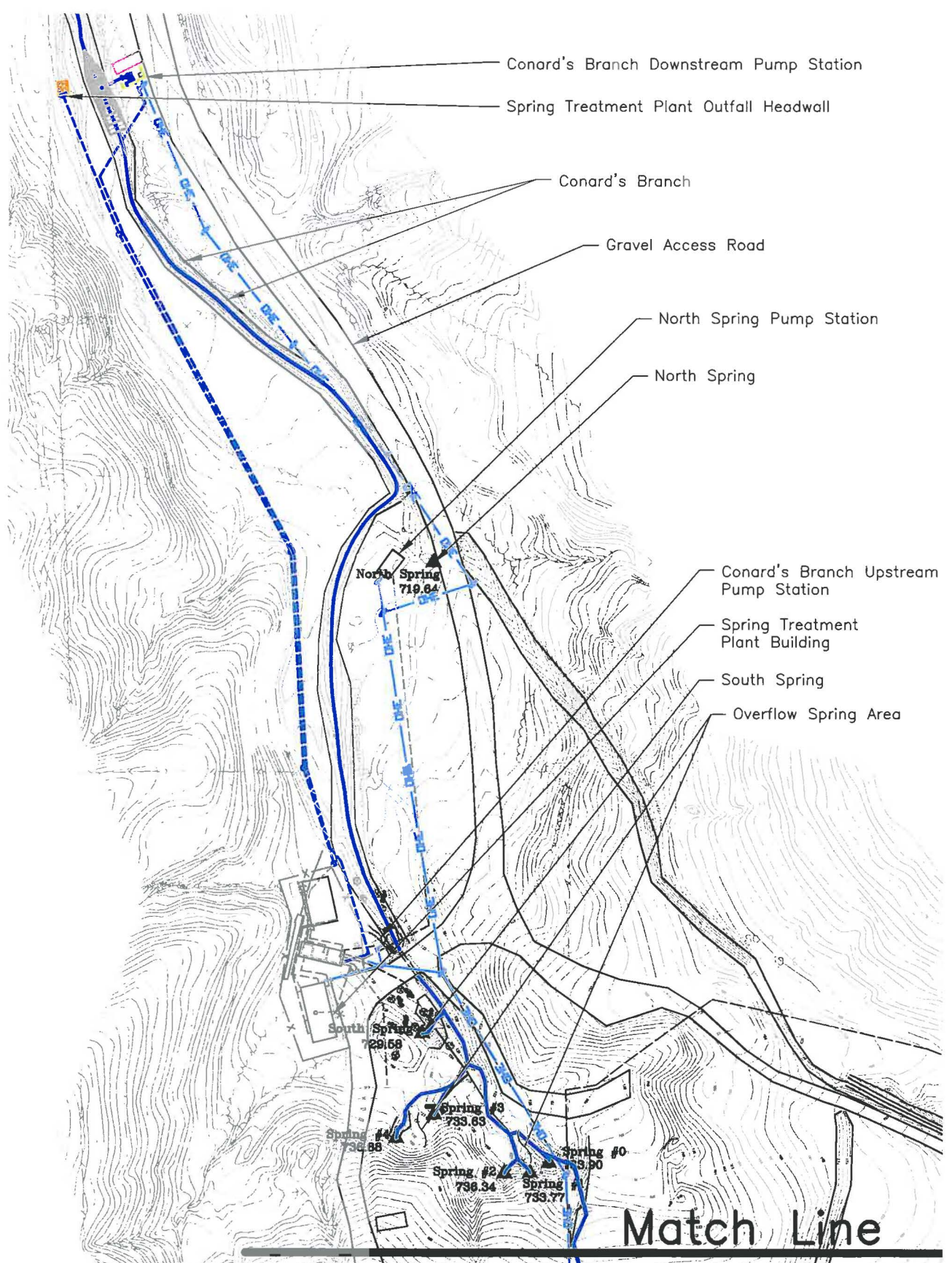
③ Revisions

No.	Date	Revision	By
1	11/92	As Built	DRD
2	5/02	As Built	JBP
3	2/12	2012 Updates	RLR

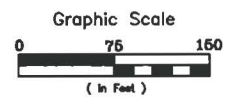
CBS Corporation

G-1 (2 OF 2)
 INDEX TO DRAWINGS
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR	Date: 3/26/12	Scale: NTS
------------------	------------------	---------------

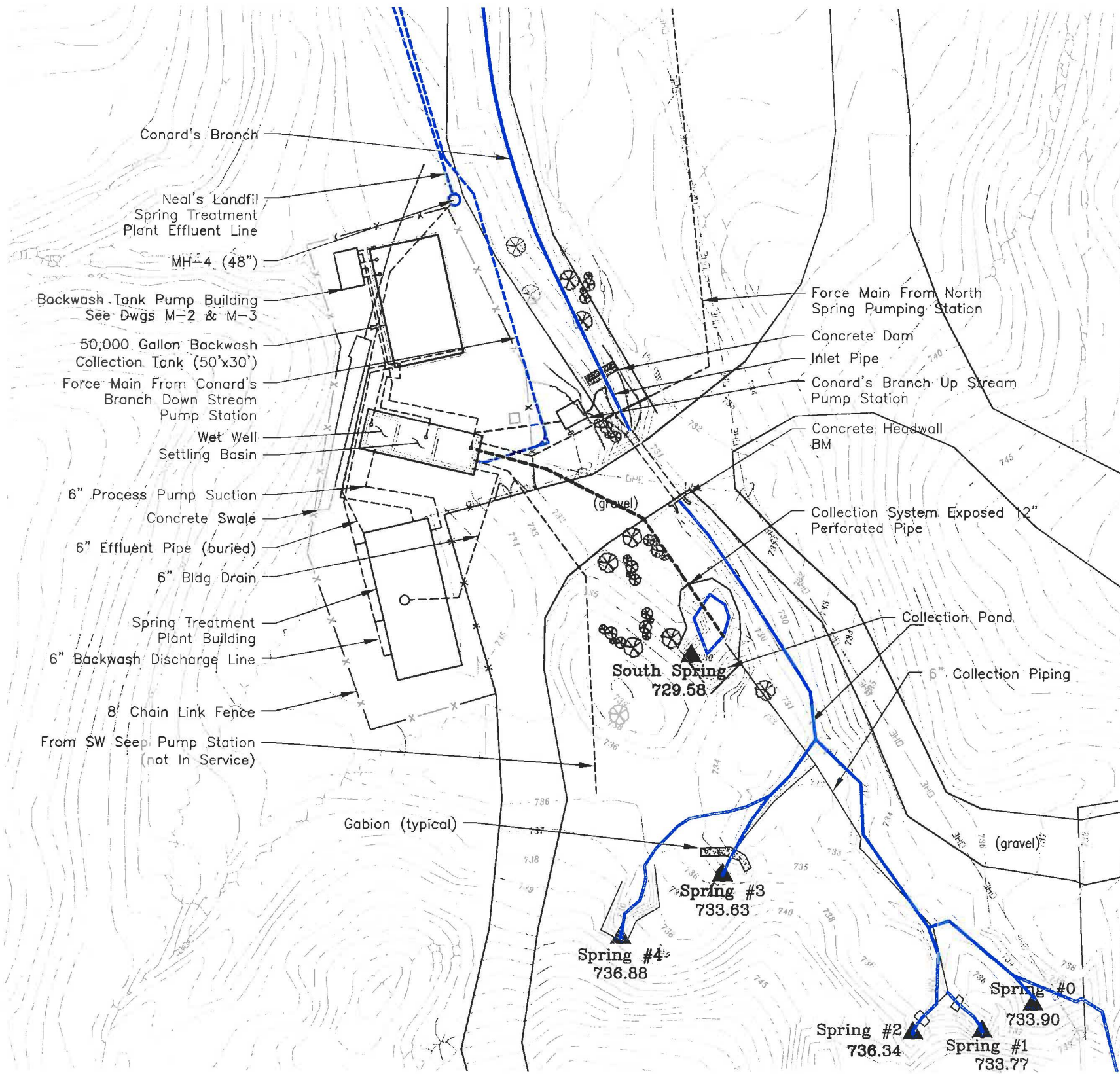


30500.50 CBS - ML - (SPRING TREATMENT FACILITY) 03 - C-1A - Revised.dwg Sheet (C-1A)

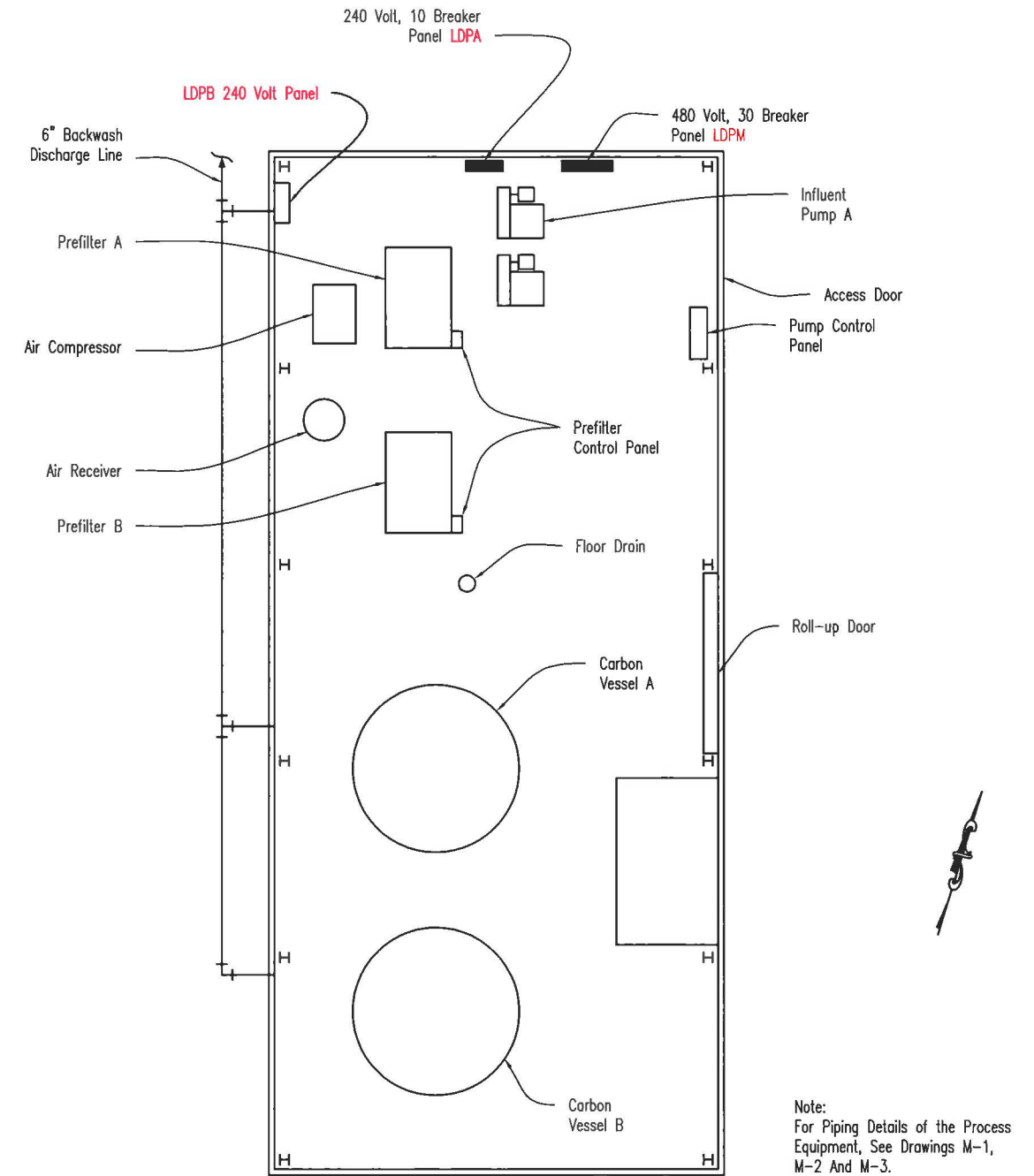


No.	Date	Revision	By

CBS Corporation
 C-1A
 Neal's Landfill Site Plan
 Neal's Landfill
 Spring Treatment Facility
 Drawn By: RLR Date: 3/26/12 Scale: 1" = 160'



TREATMENT FACILITY SITE PLAN



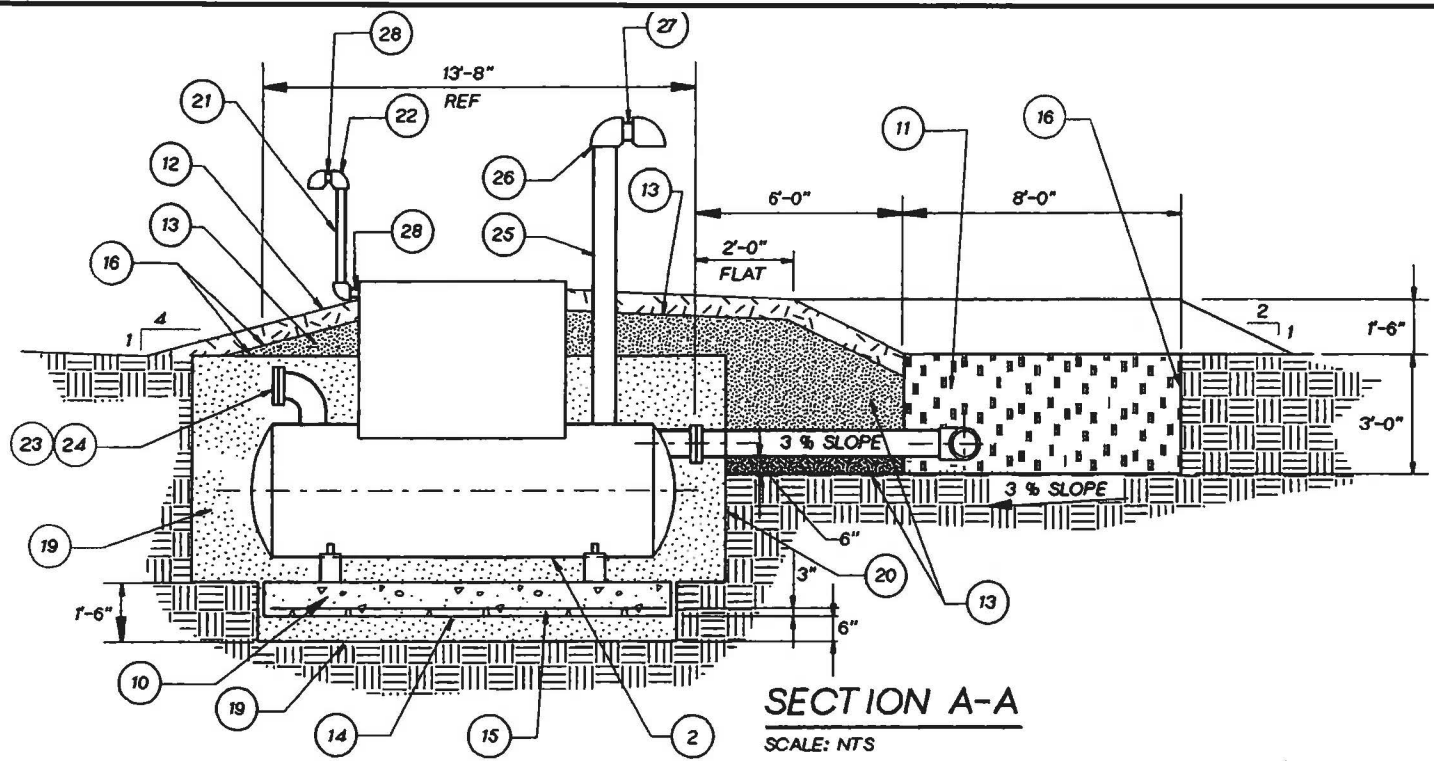
Note:
 For Piping Details of the Process
 Equipment, See Drawings M-1,
 M-2 And M-3.

TREATMENT FACILITY EQUIPMENT LAYOUT

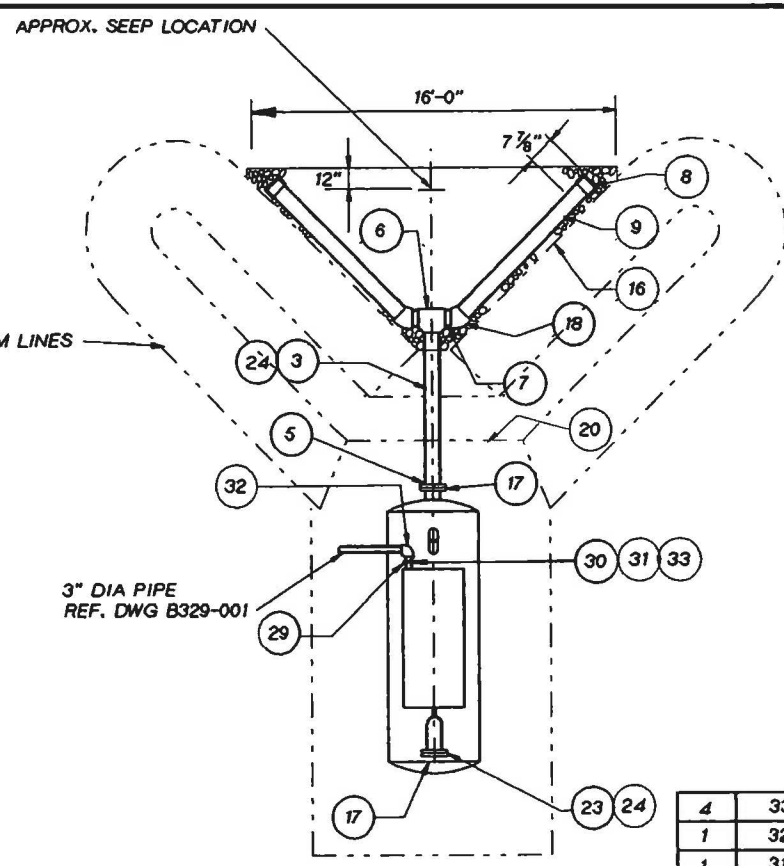
30500.29 CBS - ML - (SPRING TREATMENT FACILITY) 04 - C-1B - Revised.dwg Sheet (C-1B)



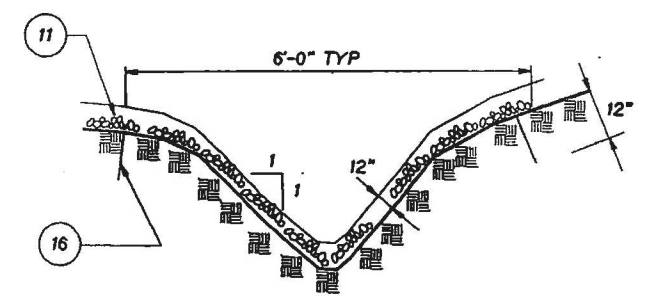
No.	Date	Revision	By	CBS Corporation			
1	11/97	As Built	DRD	C-1B Treatment Facility Site Plan and Equipment Layout Neal's Landfill Spring Treatment Facility			
2	5/02	As Built	JBP				
3	2/12	2012 Updates	RLR				
Drawn By:			RLR	Date:	3/26/12	Scale:	NTS



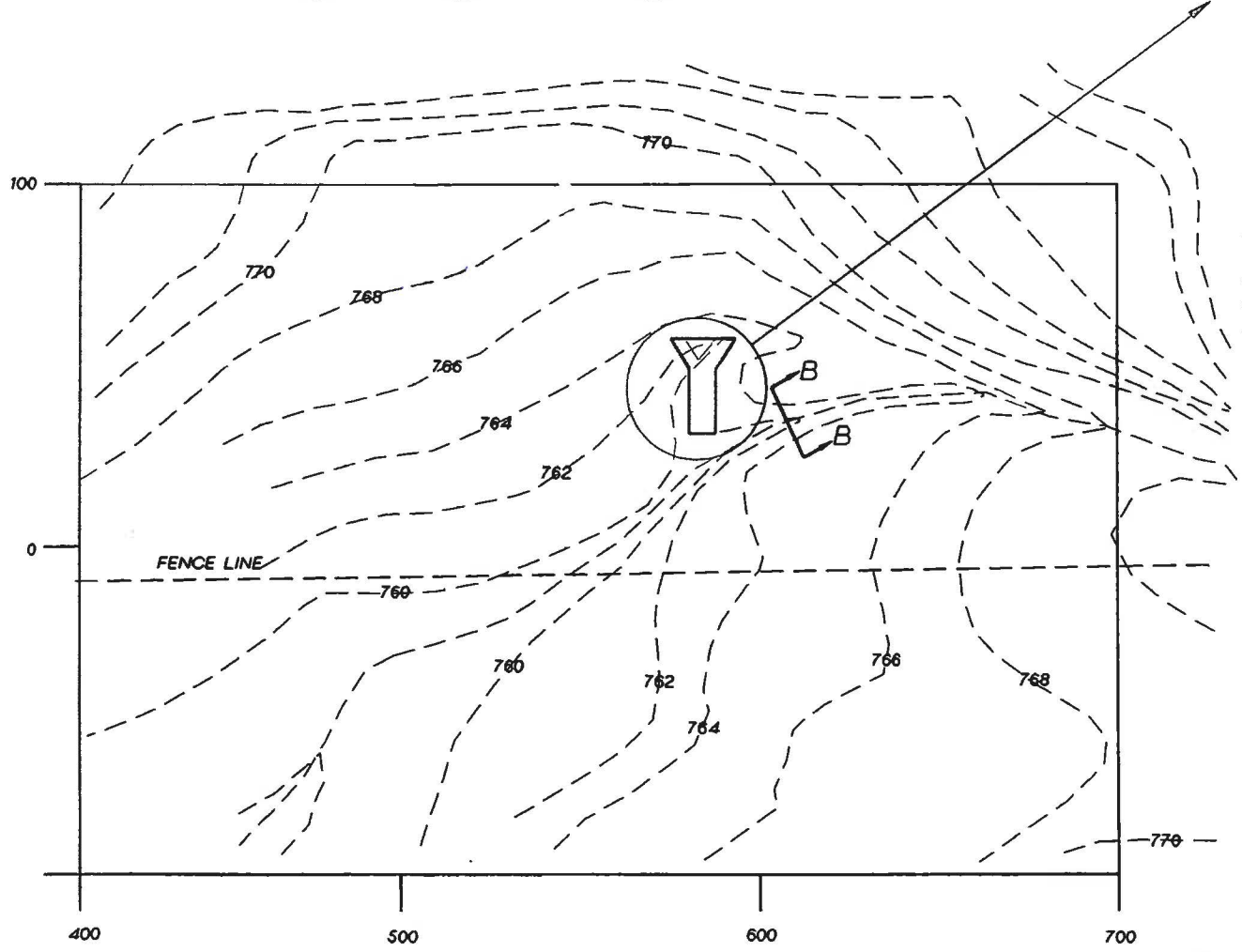
SECTION A-A
SCALE: NTS



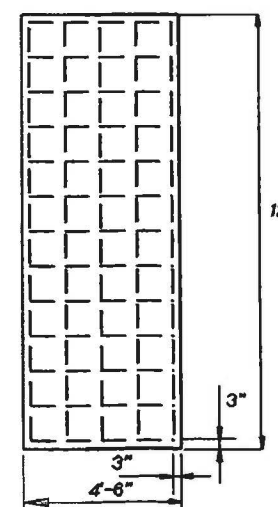
3" DIA PIPE
REF. DWG B329-001



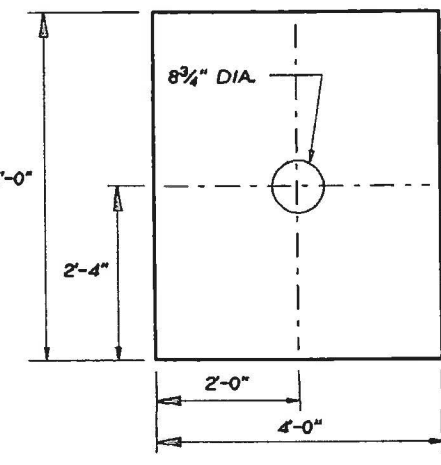
SECTION B-B
SCALE: NTS



- NOTES:**
- ▲ THE TANK IS TO BE INSTALLED AND BACKFILLED WITH ITEM 19 IN STRICT ACCORDANCE WITH THE TANK MANUFACTURER INSTRUCTIONS.
 - ▲ ITEM 13 IS TO BE COMPACTED TO 95% MAXIMUM DENSITY.
 - ▲ REF. SECTION 903 OF INDIANA DEPT. OF HIGHWAYS STANDARD SPECIFICATIONS, 1985.
 - ▲ ALL SOCKET PIPE FITTINGS ARE TO BE JOINED TOGETHER USING PVC CEMENT.
 - ▲ COMPACTED ITEM 19 PER TANK MANUFACTURER'S INSTRUCTIONS.
 - ▲ EXTENT OF SECTION B-B TO BE DETERMINED IN THE FIELD BY THE WESTINGHOUSE ENGINEER.



DETAIL ITEM 14
SCALE: NTS



DETAIL ITEM 20
SCALE: NTS

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/VENDOR
4	33		BOLTS, HEX HD 1/4" DIA, 3/4" LG W/1 HEX NUT EA	STAINLESS STEEL
1	32		ELBOW, 90°, 3" NSP, SCH 40	PVC
1	31		GASKET, 1/2" THK FF 3"	NEOPRENE
1	30		FLANGE, 3" 150 LB	PVC
1	29		PIPE, 3" NSP, SCH 40, 6" LG	PVC
2	28		PIPE, 2" NSP, SCH 40, 4" LG	PVC
1	27		PIPE, 6" NSP, SCH 40, 7" LG	
2	26		ELBOW, 90°, 6" NSP, SCH 40	
1	25		ELBOW, 90°, 6" NSP, SCH 40	PVC
2	24		GASKET 1/2" THK FF 8"	NEOPRENE
1	23		BLIND FLANGE, 8" 150 LB	PVC
3	22		ELBOW 90°, 2" NSP, SCH 40	PVC
1	21		PIPE, 2" NSP, SCH 40, 3" LG	PVC
1	20		PLATE, 1/4" THICK	PVC
AR	19		SAND, NO 15 FINE AGGREGATE	
2	18		ELBOW, 8" NSP, 45°, 150 LBS	PVC
16	17		BOLTS, HEX HD 3/4" DIA, 3 1/2" LG W/1 HEX NUT EA	STAINLESS STEEL
AR	16	1127	TREVIRA	POLYESTER / HOECHST
AR	15		REINFORCEMENT, NO 5, 12" O.C. E.W.	GRADE 40
AR	14		CONCRETE, 3000 PSI 28 DAY	
AR	13		CLAY BACKFILL	
AR	12		STONE, NO 2 COARSE AGGREGATE	
AR	11		STONE, 4" - 6"	
4	10	WW3350	ANCHOR, CONC EXP, 3/8" DIA x 5" LG/RED HEAD OR EO	
2	9		PIPE, 8" NPS, SCH 40, 8'-0" LG	PVC
2	8		PIPE CAP, 8" NPS, SCH 40	PVC
2	7		PIPE, 8" NPS, SCH 40, 6" LG	PVC
1	6		TEE, 8" NPS, 150 LB, SOCKET	PVC
1	5		FLG, 8" NPS, 150 LB	PVC
1	3		PIPE, 8" NPS, 7'-2" LG, SCH 40	PVC
1	2		SOUTHWEST SEEP PUMPING STA.	FIBERGLASS/PPS
1	1	8329-004-1	SOUTHWEST SEEP SITE PLAN AND PUMPING STATION	

BILL OF MATERIALS

SUPERSIDES DWG NO. B329-004



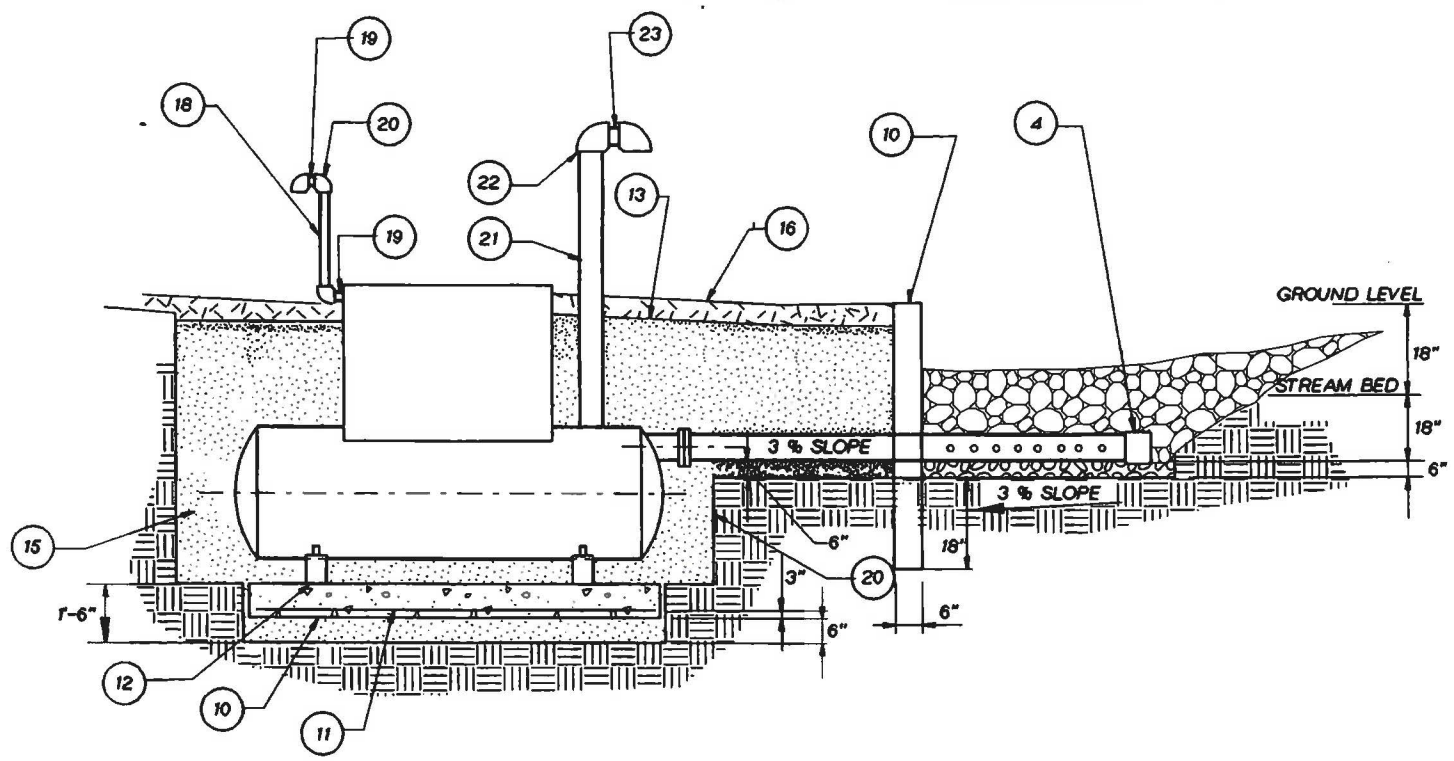
Note: The South West Seep Pump Station is no longer in service.

No.	Date	Revision	By

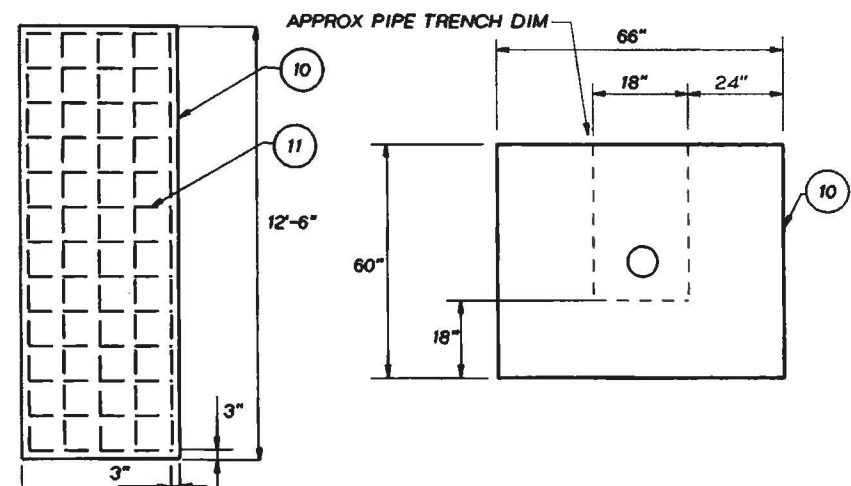
CBS Corporation
 C-2
 Southwest Seep Site Plan
 and Pump Station
 Neal's Landfill
 Spring Treatment Facility
 Drawn By: RLR Date: 3/26/12 Scale: 1" = 160'

REVISIONS				
LTR	DESCRIPTION	R/LSE	APPD	DATE
0	ENG RLSE EWF-86-174			
1	REV'D PER ECN 95-208			
2	SEE ECN-86-060			
3	SEE ECN-0035,04			

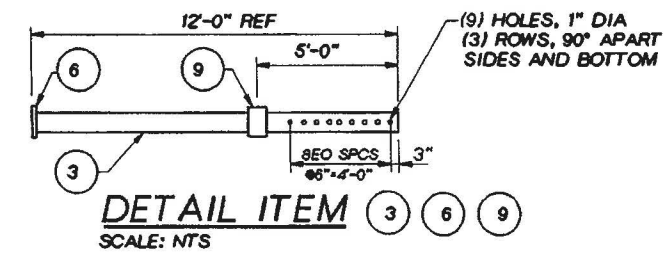
- NOTES:**
- ▲ THE TANK IS TO BE INSTALLED AND BACKFILLED WITH ITEM 15 IN STRICT ACCORDANCE WITH THE TANK MANUFACTURER INSTRUCTIONS.
 - ▲ REF. SECTION 903 OF INDIANA DEPT. OF HIGHWAYS STANDARD SPECIFICATIONS, 1985.
 - ▲ ALL SOCKET PIPE FITTINGS ARE TO BE JOINED TOGETHER USING PVC CEMENT.



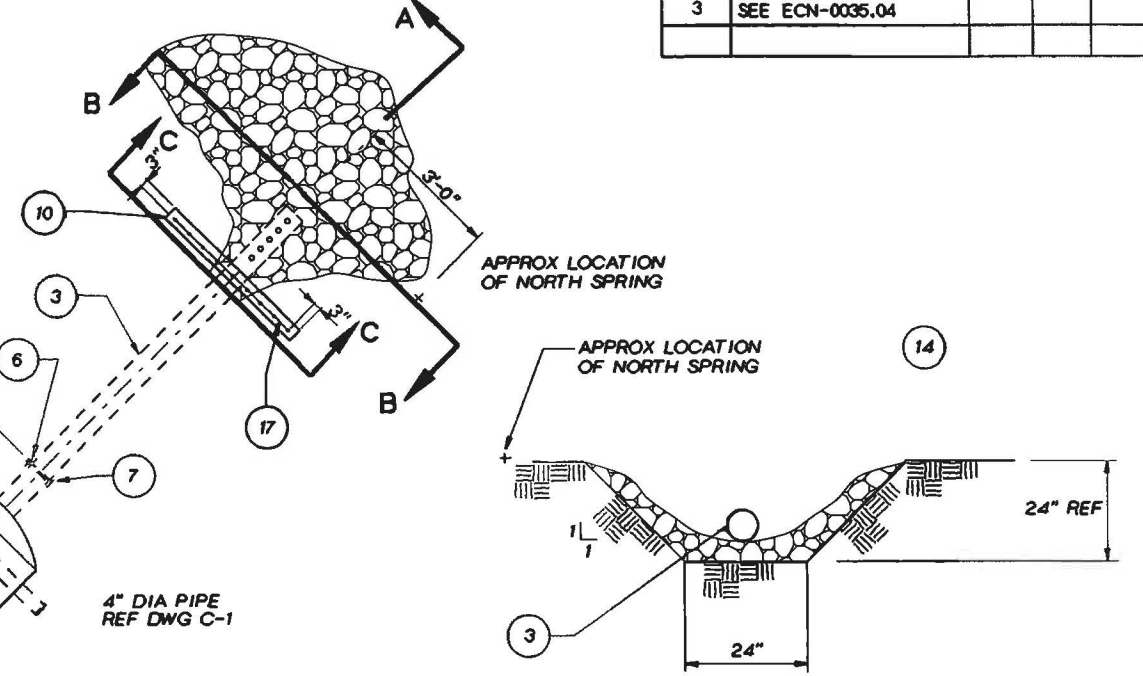
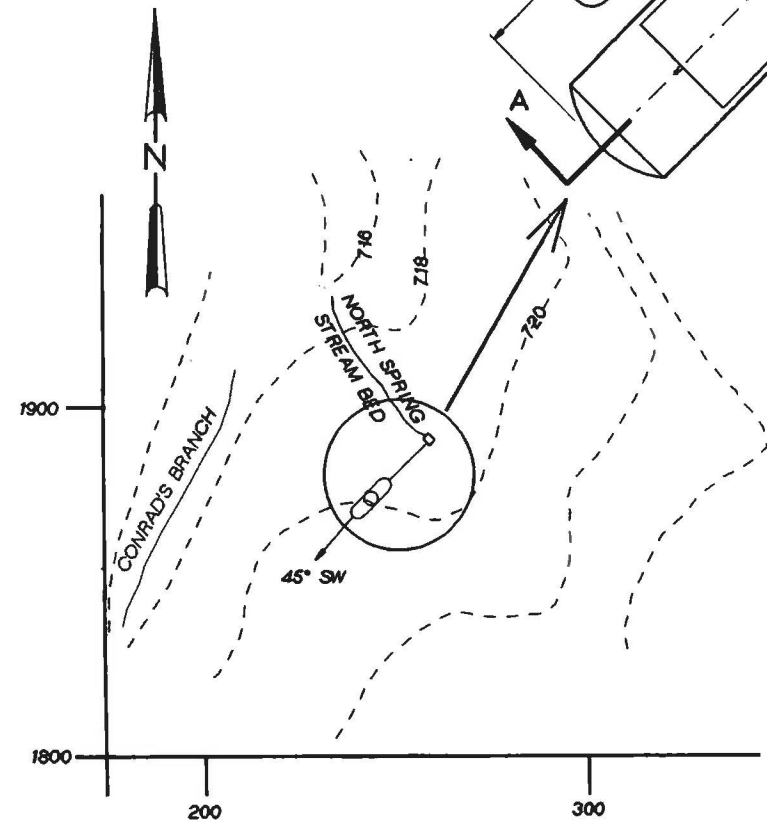
SECTION A-A
SCALE: NTS



DETAIL ITEM 10 11
SCALE: NTS



DETAIL ITEM 3 6 9
SCALE: NTS



SECTION B-B
SCALE: NTS

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/VENDOR
8	28		BOLTS, HEX HD 3/4" DIA, 3/4" LG W/1 HEX NUT EA	STAINLESS STEEL
1	27		GASKET, 1/4" THK FF 4"	NEOPRENE
1	26		FLANGE, 4" 150 LB	PVC
1	25		PIPE, 4" NSP, SCH40, 12" LG	PVC
1	24		ELBOW, 90°, 4" NSP, SCH 40	PVC
1	23		PIPE, 6" NSP, SCH40, 7" LG	PVC
2	22		ELBOW, 90°, 6" NSP, SCH 40	PVC
1	21		PIPE, 6" NSP, SCH40, 8'-0" LG	PVC
3	20		ELBOW 90°, 2" NSP, SCH 40	PVC
2	19		PIPE, 2" NSP, SCH 40, 4" LG	PVC
1	18		PIPE, 2" NSP, SCH40, 3'-0" LG	PVC
1	17		REINFORCEMENT 6"x6"x6 GA WIRE	A-185 STL
AR	16		STONE, NO 5 COARSE AGGREGATE	
AR	15		SAND, NO 15 FINE AGGREGATE	
AR	13	1127	TREVIRA	POLYESTER / HOECHST
4	12	WW3350	ANCHOR, CONC EXP, 3/8" DIA x5" LG/RED HEAD OR EO	
AR	11		REINFORCEMENT, NO 5, 12" O.C. E.W.	GRADE 40
AR	10		CONCRETE, 3000 PSI 28 DAY	
1	9		COUPLING, 8" NSP, SCH40, 6" LG SOCKET	PVC
8	7		BOLTS, HEX HD 3/4" DIA, 3/4" LG W/1 HEX NUT EA	STAINLESS STEEL
1	6		FLG, 8" NPS, 150LB, SOCKET	PVC
1	4		PIPE CAP 8" NSP, SCH 40, SOCKET	PVC
1	3		PIPE, 8" NPS, SCH 40, 12'-0" LG	PVC
1	2		NORTH SPRING PUMPING STA.	FIBERGLASS/PPS
1	1	8329-006-1	NORTH SPRING SITE PLAN	

BILL OF MATERIALS

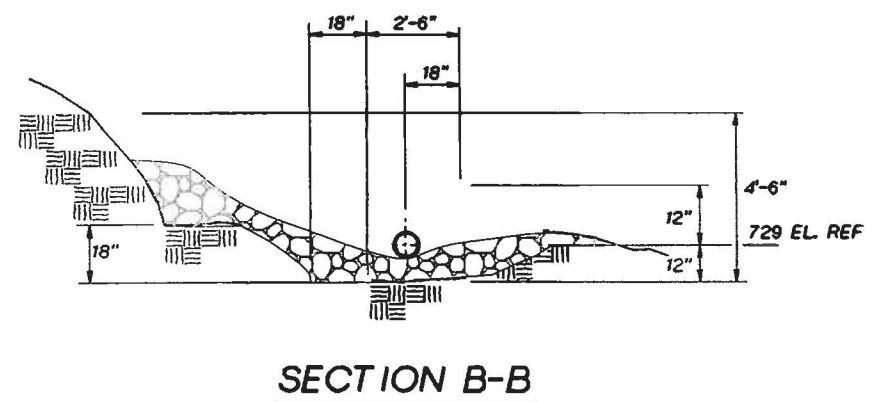
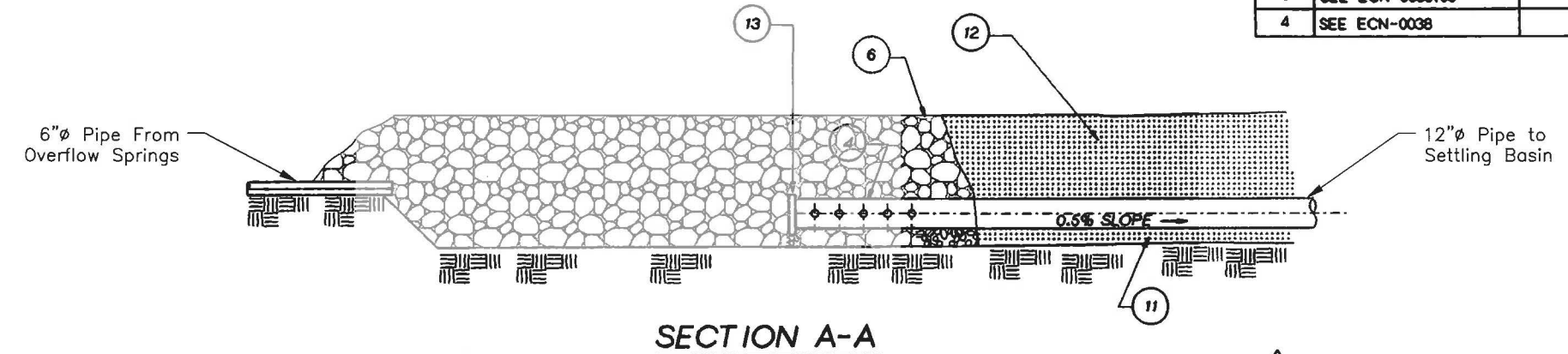
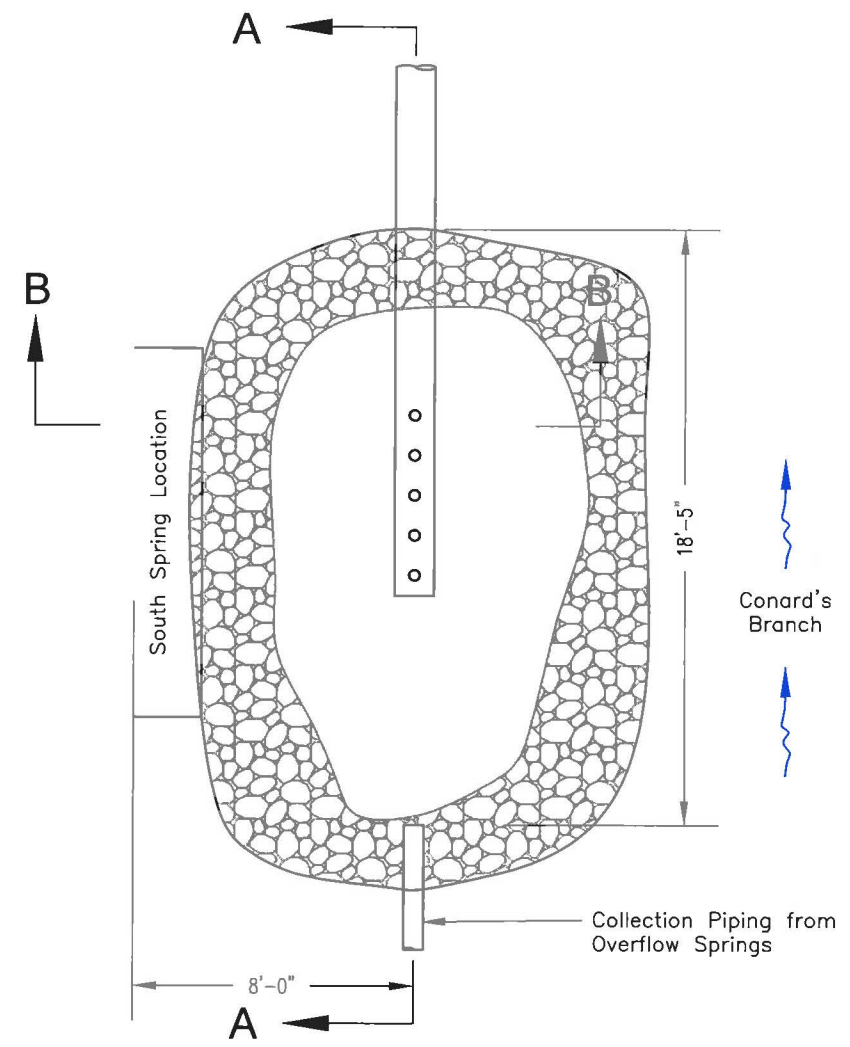
30500.59 CBS - NL - (SPRING TREATMENT FACILITY) 06 - C-5 - Revised.dwg Sheet (C-5)



No.	Date	Revision	By
1	2/12	2012 Updates	RLR

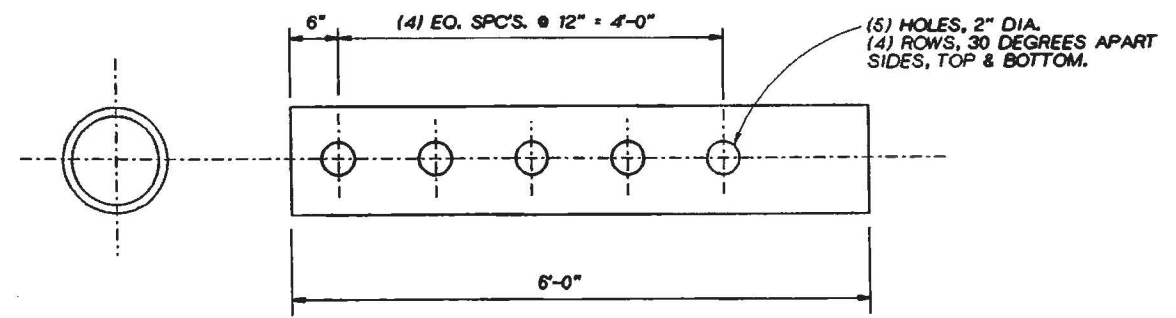
CBS Corporation
 C-5
 North Spring Site Plan
 and Pump Station
 Neal's Landfill
 Spring Treatment Facility
 Drawn By: RLR Date: 3/26/12 Scale: NTS

REVISIONS				
LTR	DESCRIPTION	RLSE	APPD	DATE
0	ENG RLSE EWF-85-174			
1	SEE ECN-86-059			
2	SEE ECN-86-083			
3	SEE ECN-0035.05			
4	SEE ECN-0038			



NOTES:
 1. REF. SECTION 903 OF INDIANA DEPT. OF HIGHWAY STANDARD SPECIFICATIONS.
 2. LOCATION AND SIZE OF THE SPRING COLLECTION SUMP TO BE DETERMINED IN THE FIELD BY THE WESTINGHOUSE ENGINEER.

South Spring Collection Pond



ITEM 4 DETAIL
 SCALE: 1"=1'-0"

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/VENDOR
1	13		PIPE CAP, 12" SOCKET	PVC
AR	12		FILL	
AR	11		AGGREGATE, NO. 15 FINE	
AR	6	1127	TREVIRA	POLYESTER/HOECHST
1	4		PIPE, 12" SCH. 40	PVC
	3			
	2			
1	B329-008-1		SPRING COLLECTION SUMP	
QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/VENDOR

BILL OF MATERIALS

SUPERSEDES DWG NO B329-008

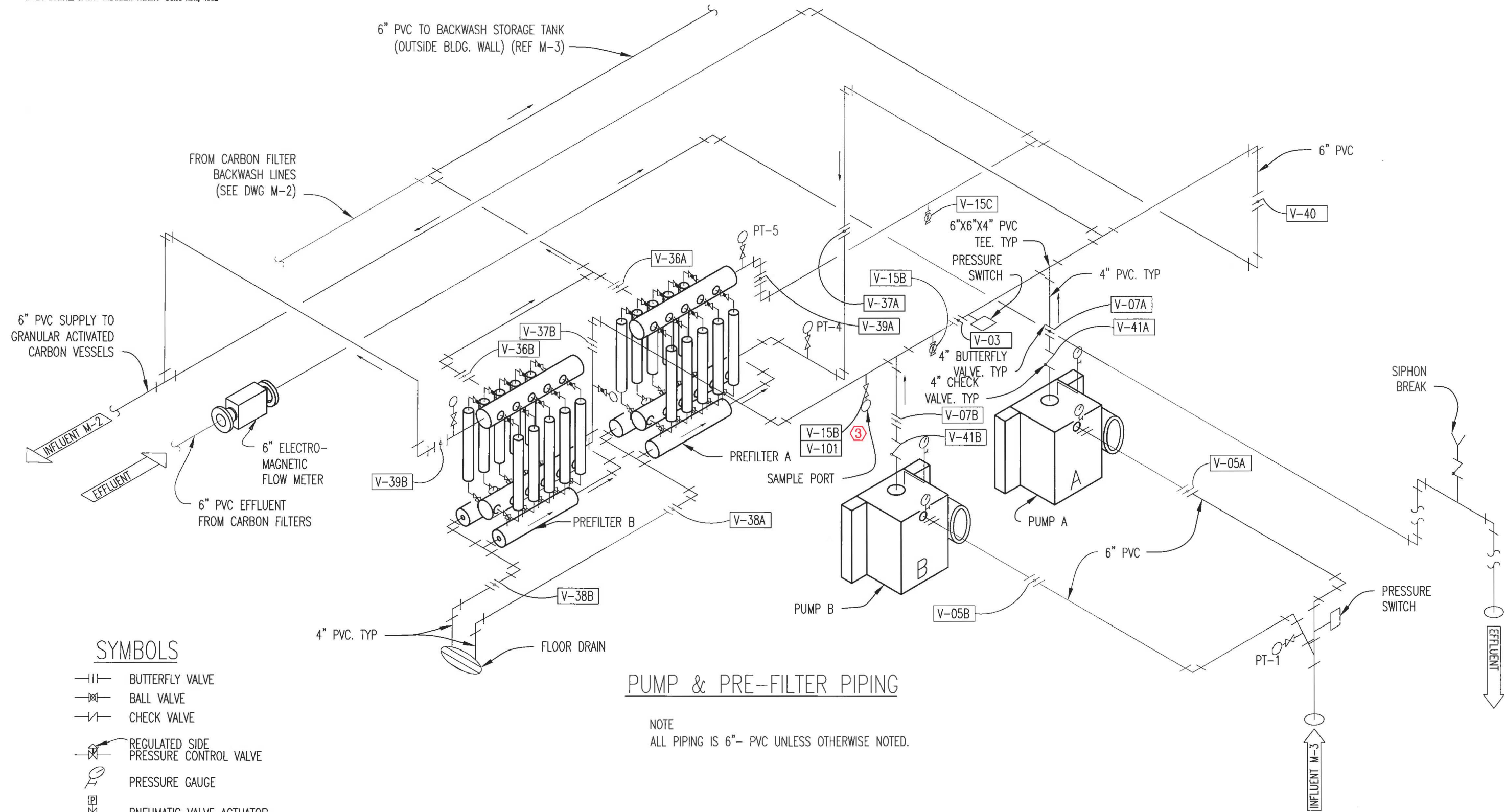


No.	Date	Revision	By
3	2/12	2012 Updates	RLR

CBS Corporation

C-6
 South Spring Collection System
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR	Date: 3/26/12	Scale: NTS
------------------	------------------	---------------



SYMBOLS

- ||— BUTTERFLY VALVE
- X— BALL VALVE
- |/— CHECK VALVE
- |/— REGULATED SIDE PRESSURE CONTROL VALVE
- PRESSURE GAUGE
- PNEUMATIC VALVE ACTUATOR

PUMP & PRE-FILTER PIPING

NOTE
 ALL PIPING IS 6" PVC UNLESS OTHERWISE NOTED.



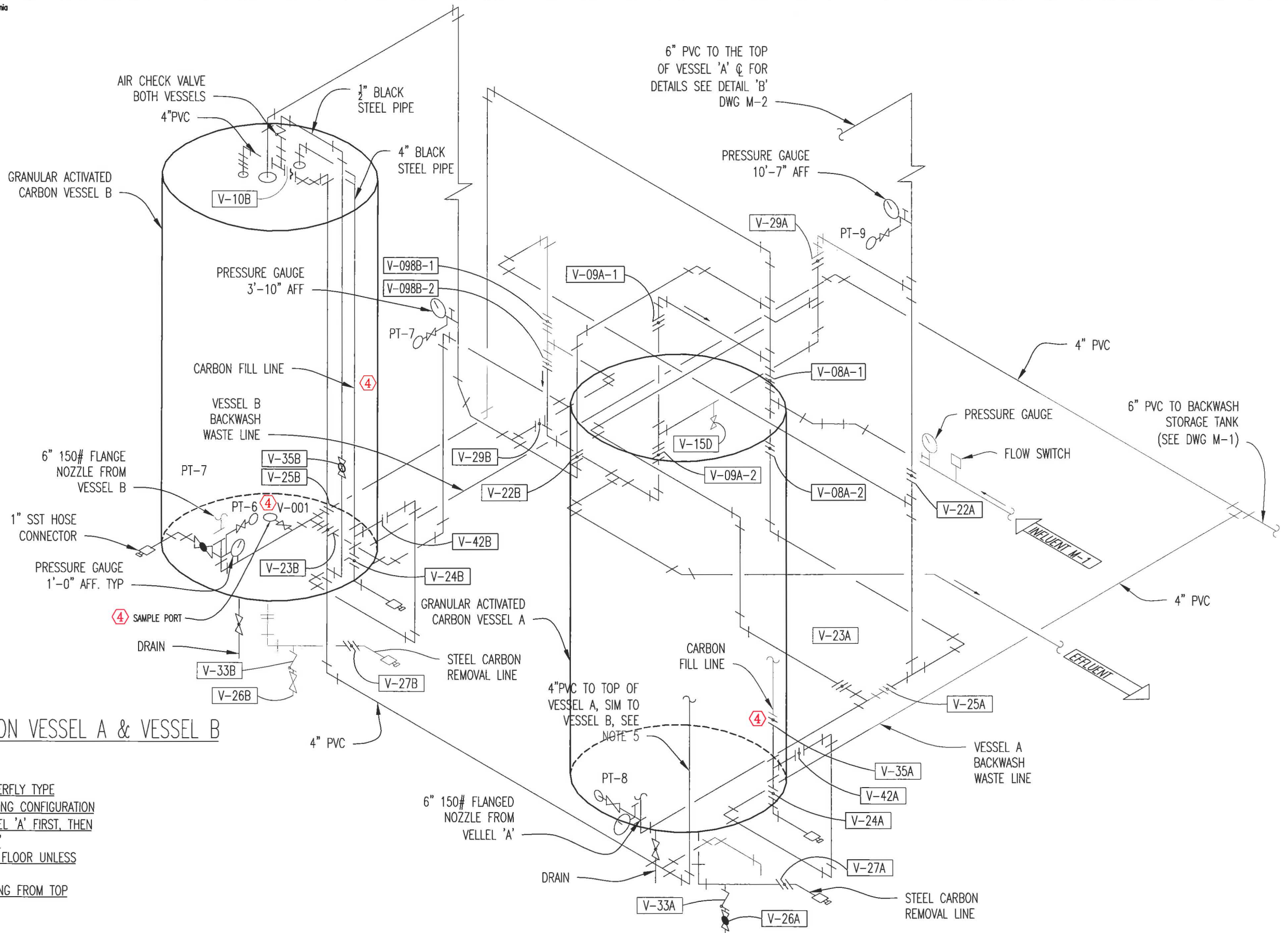
③ Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	5/02	As Built	JBP
3	2/12	2012 Updates	RLR

CBS Corporation

M-1
 Pump and Pre-Filter
 Piping Isometric
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR	Date: 3/28/12	Scale: NTS
------------------	------------------	---------------



SYMBOLS

- |—|— SHUT OFF VALVE
- |—|— BUTTERFLY VALVE
- |—|— CHECK VALVE
- |—|— RUPTURE DISC
- |—|— PRESSURE GAUGE
- V-23A VALVE TAG
- QUICK CONNECT
- AFF ABOVE FISHED FLOOR
- SST STAINLESS STEEL

PIPING BETWEEN CARBON VESSEL A & VESSEL B

NOTE

1. ALL VALVES - MANUAL BUTTERFLY TYPE
2. SHOWN OPEN / CLOSE VALVING CONFIGURATION FOR DOWN FLOW THRU VESSEL 'A' FIRST, THEN DOWN FLOW THRU VESSEL 'B'
3. ALL PIPE C ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. (AFF)
4. SEE VESSEL B FOR SIM PIPING FROM TOP OF VESSEL A.

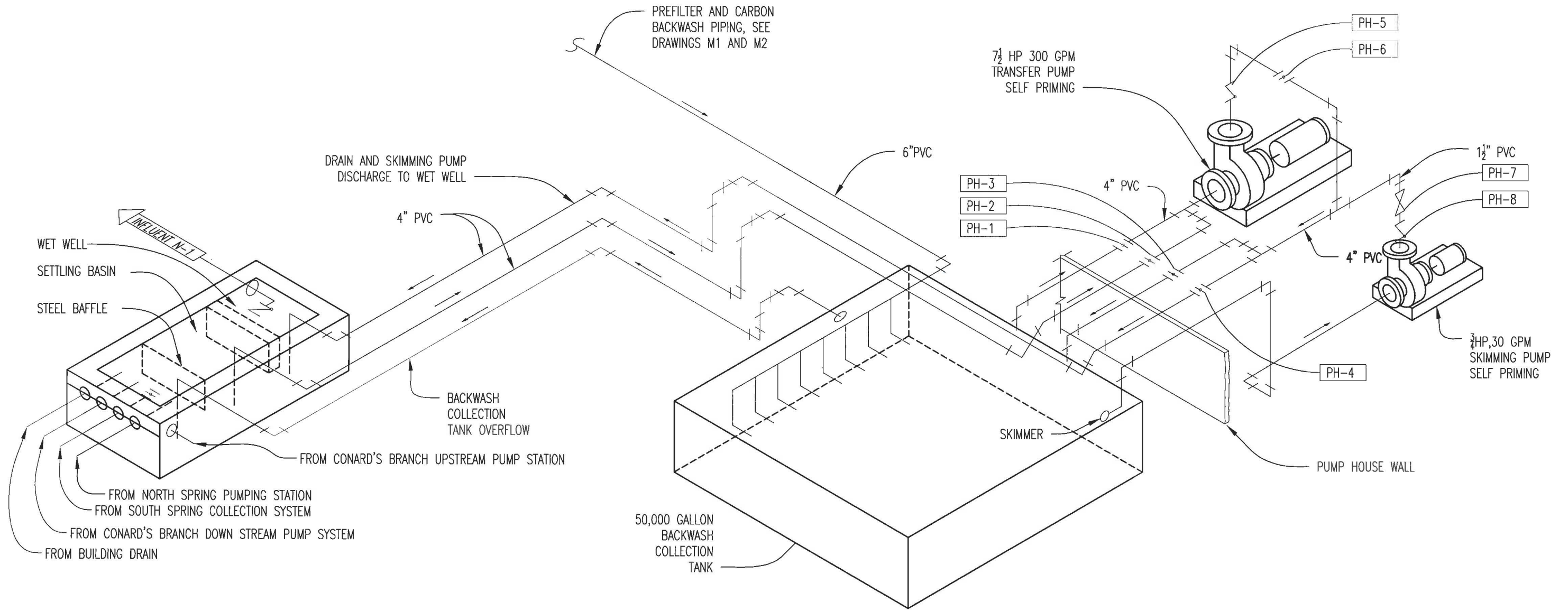


④ Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	5/02	As Built	JBP
3	1/09	Valve numbering correction (V-10B)	RLR
4	2/12	2012 Updates	RLR

CBS Corporation
 M-2
 Carbon Vessels A & B
 Piping Isometric
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR Date: 3/26/12 Scale: NTS



SYMBOLS

- X— SHUT OFF VALVE
- ||— BUTTERFLY VALVE
- /— CHECK VALVE
- PH-7 VALVE TAG

BACKWASH COLLECTION TANK AND PIPING



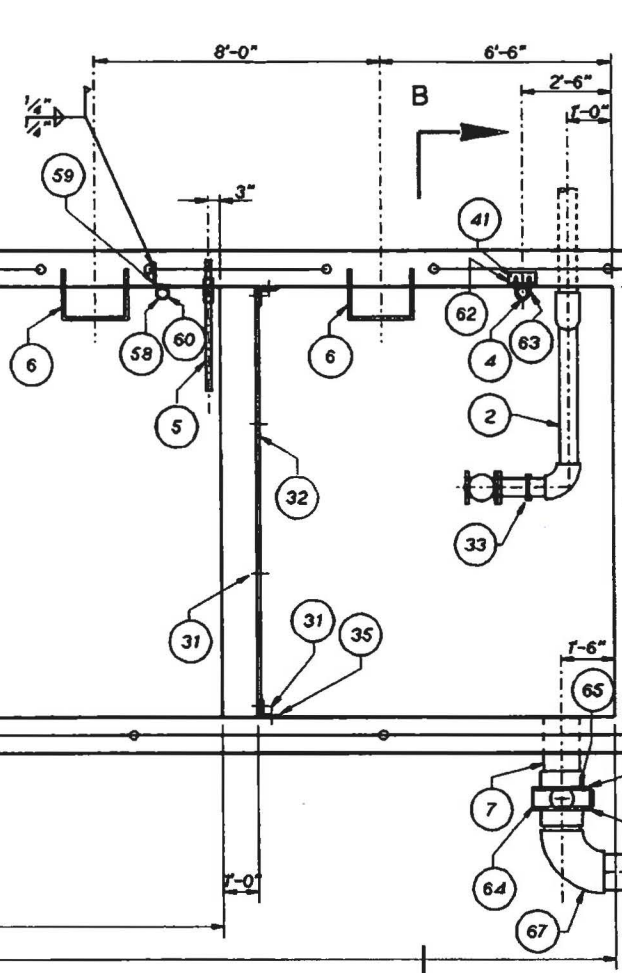
No.	Date	Revision	By	CBS Corporation		
1	11/97	As Built	DRD	M-3 Backwash Collection Tank and Piping Isometric Neal's Landfill Spring Treatment Facility		
2	5/02	As Built	JBP			
				Drawn By:	Date:	Scale:
				RLR	3/26/12	NTS

PIPE, 6" DIA DRAIN
REF DWG C-3

PIPE, 3" DIA
REF DWG C-1

PIPE, 12" DIA
REF DWG C-3

PIPE, 4" DIA REF DWG



PLAN VIEW

NOTES:
REF SECTION 903 INDIANA DEPT OF HIGHWAYS STANDARD SPECIFICATION 1985.
ITEM 59 TO BE FIELD DRILLED TO MATCH ITEM 60.

REVISIONS				
LTR	DESCRIPTION	RLSE	APPD	DATE
0	ENG RLSE EWF-85-174			
1	SEE ECN-86-072			
2	SEE ECN-86-158			
3	SEE ECN-0035.06			
4	SEE ECN-0036.01			
5	SEE ECN-0038			

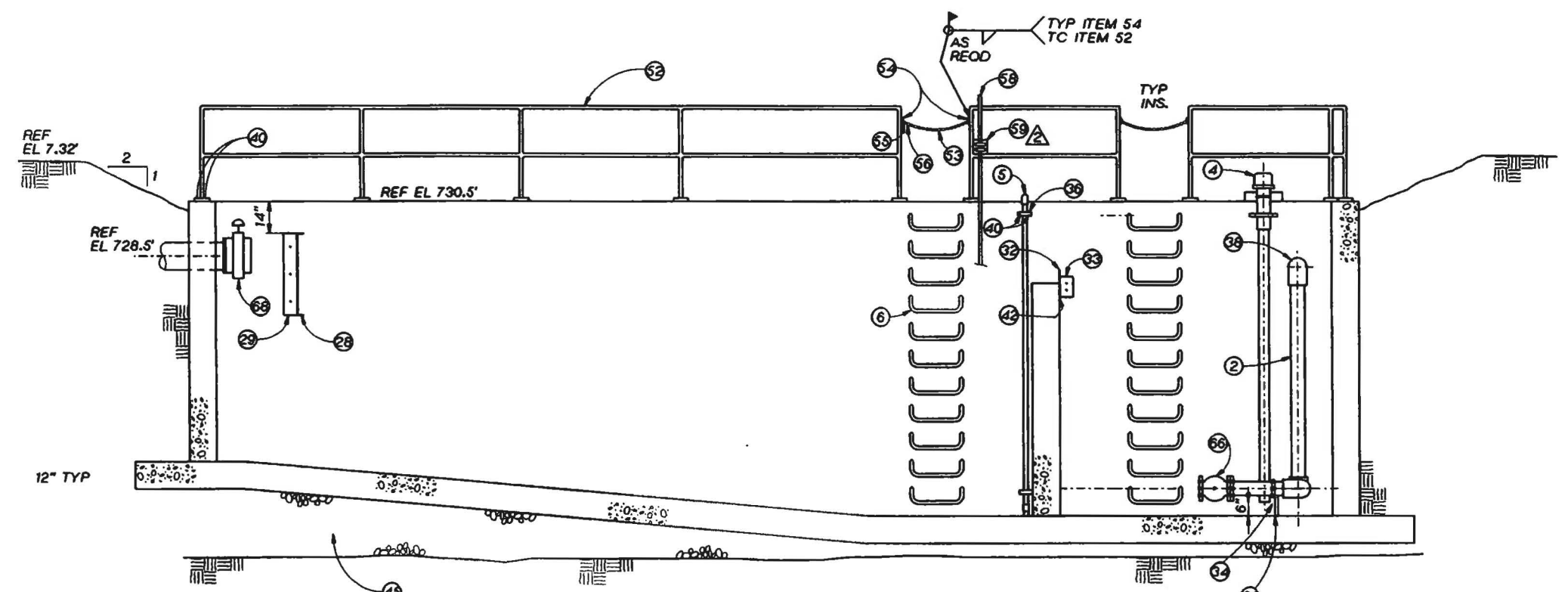
QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/VENDOR	
		68	BUTTERFLY VALVE, 12"		
		67	ELBOW 90°, 12" SOCKET SCH 40	PVC	
		66	6300A CHECK VALVE, 6"W/125# FLANGES	CAST IRON W/ PVC BRONZE TRIM	
		12	65 BOLT/HEX NO 5/8" DIA/3" LG W/1/2" NUT	ZINC PLT STL	
		1	64 TYPE 75 BUTTERFLY VALVE, 12" X 1/2" STEEL EXT	PVC/JASAMI	
		1	63 3C43T61 U-BOLT 1/2" X 1/2" X 1/2" PIPE SIZE	ZINC PLT STL/MCMaster-CARR	
		1	62 ANGLE 8" X 4" X 1/4" THK 8" LG	ASTM A36	
		1	61 BOLT/HEX NO 1/2" DIA/1/2" LG W/1/2" NUT	STN STEEL	
		2	60 MOUNTING CLAMPS	A-304 STN STL/MARKLAND	
		1	59 ANGLE 8" X 6" X 1/4" THK, 6" LG	ASTM A36	
		1	58 MODEL 600 SLUDGE DEPTH ELEMENT	/ MARKLAND	
			57		
		2	56 3578T14 LINK CONNECTION, 3/8" DIA	GALV STL/MCMaster-CARR	
		2	55 3903T16 SWIVEL SNAP, 1/2"	GALV STL	
		2	54 3568T14 LINK, DELONG, 1/2" DIA	STEEL	
		2	53 3392T32 CHAIN, 1/2" DIA	GALV STL/MCMaster-CARR	
		1	52 GUARD RAIL, 1 1/2" SCH 40	STEEL	
		1	51 FLANGE 8" SOOCHET, 150 LBS	PVC	
		1	50 PIPE, 6" SCH 40	PVC	
			49		
		1	48 ELBOW 90° A SOCKET SCH 40	PVC	
		1	47 PIPE, 4" SCH 40	PVC	
			46		
		AR	45 STONE, NO 8, COARSE AGGREGATE		
		AR	44 CONCRETE, 3500 PSI, 7 DAY		
			43		
		1	42 GASKET, 12"-0" L X 6" W X 1/8" THK, 40 DUR	NEOPRENE	
		2	41 ANCHOR, 1/2" DIA	/REDHEAD	
		78	40 ANCHOR, 1/2" DIA	/REDHEAD	
		2	39 PIPE CLAMP, 3" PIPE SIZE	STEEL / MCMaster-CARR	
		1	38 PIPE, 8" SCH 80, 12" LG	PVC	
		1	37 PIPE CLAMP, 4" PIPE SIZE	STEEL / MCMaster-CARR	
		2	36 PIPE CLAMP, 1 1/2" PIPE SIZE	STEEL / MCMaster-CARR	
		2	35 PLATE, 1/8" THK		
		1	34 PLATE, 1/8" THK	ASTM A-304 STN STL	
		1	33 U-BOLT 3/4" DIA TO FIT 6" DIA PIPE W/1/2" NUTS	/MCMaster-CARR	
		1	32 PLATE, 3/8" THK	ASTM A-304 STN STL	
		36	31 ANCHOR, 3/8" DIA	/REDHEAD	
		6	30 BOLT/HEX NO 1/2" DIA/1/2" LG W/1/2" NUT	ZINC PLATED STL	
		2	29 PLATE, 3/8" THK	ASTM A-304 STN STL	
		1	28 PLATE, 3/8" THK	ASTM A-304 STN STL	
			27		
		8	26 BOLT/HEX NO 1/2" DIA/3" LG W/1/2" NUT	ZINC PLATED STL	
		1	25 PIPE, 4" SCH 40	PVC	
			24		
		1	23 PIPE, 12" SCH 40	PVC	
			22		
		1	21 PIPE, 3" SCH 40	PVC	
			20		
			19		
			18	ADAPTOR CAP, 1 1/2" DIA	BRASS / OPW
			17	ADAPTOR, 1 1/2" DIA MALE	BRASS / OPW
			16	ELBOW 90° 1 1/2" SOCKET SCH 40	PVC
			15	PIPE NIPPLE 1 1/2" SCH 40, 3" LG	PVC
			14	PIPE, 1 1/2" SCH 40	PVC
			13		
			12	PIPE, 6" SCH 40	PVC
			11	PIPE, 6" SCH 40	PVC
			10	ELBOW 90° B SOCKET SCH 40	PVC
			9		
			8		
			7	PIPE, 12" SCH 40, 24" LG	PVC
			6	REBAR, NO 8	GR 40
			5	B329-009-5 DRAIN LINE ASSEMBLY	
			4	B329-009-4 ELECTRODE ASSEMBLY	B/W CONTROLS
			3		
			2	B329-001-2 INTAKE LINE ASSEMBLY	
			1	B329-009-1 SETTLING TANK	

SEE DWGS M-5 & M-6 FOR
DETAILS & SECTIONS
SUPERSEDES DWG NO B329-009

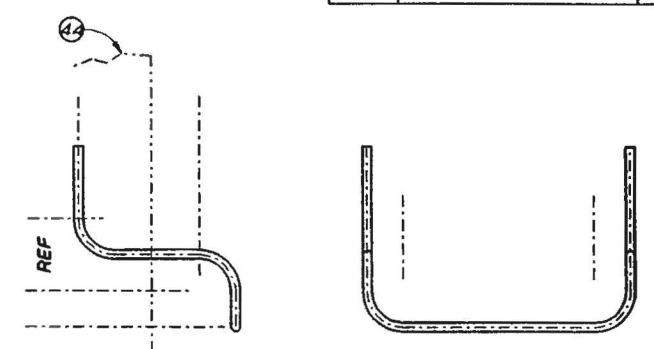


No.	Date	Revision	By	CBS Corporation		
				M-4 Settling Basin Neal's Landfill Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	3/28/12	NTS

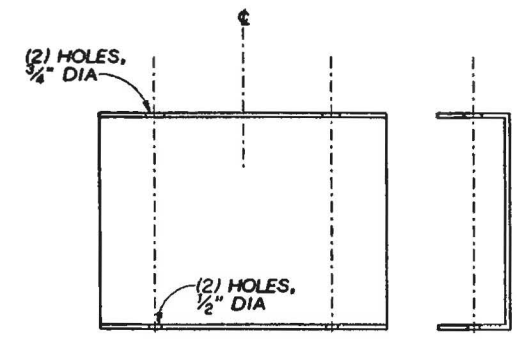
REVISIONS				
LTR	DESCRIPTION	RLSE	APPD	DATE
SEE DWG M-4				



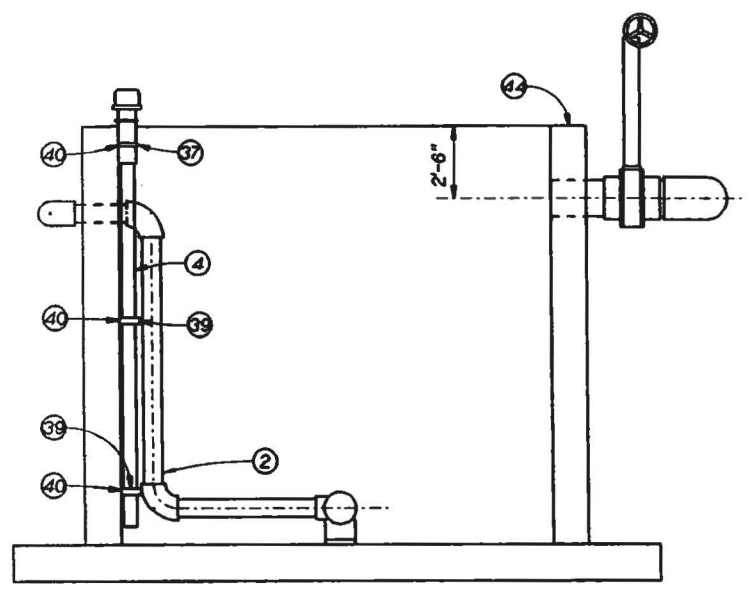
SECTION A-A
3/8" = 1'-0"



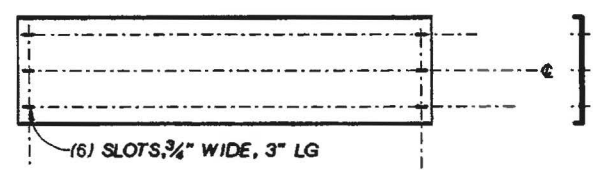
ITEM 6 DETAIL
NTS



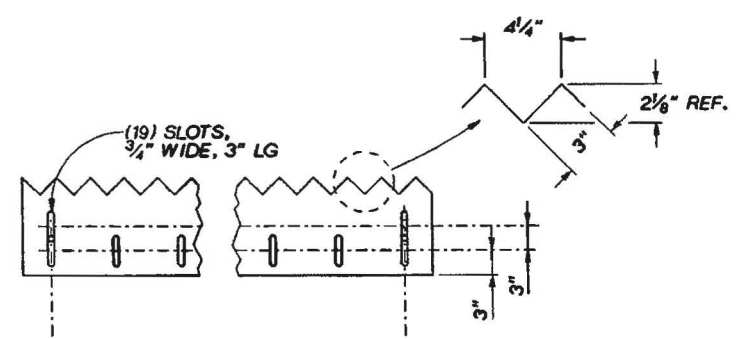
ITEM 34 DETAIL
1/4" = 1"



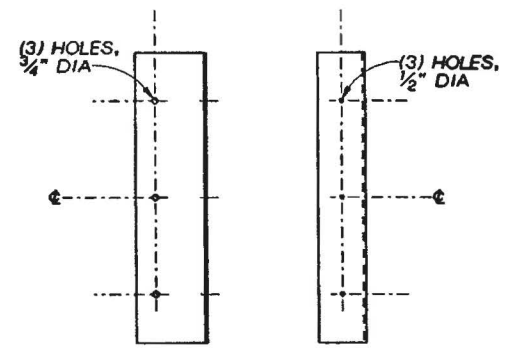
SECTION B-B
3/8" = 1'-0"



ITEM 28 DETAIL
NTS



ITEM 29 DETAIL
NTS



ITEM 35 DETAIL
1/4" = 1"

ITEM 32 DETAIL
1" = 1'-0"

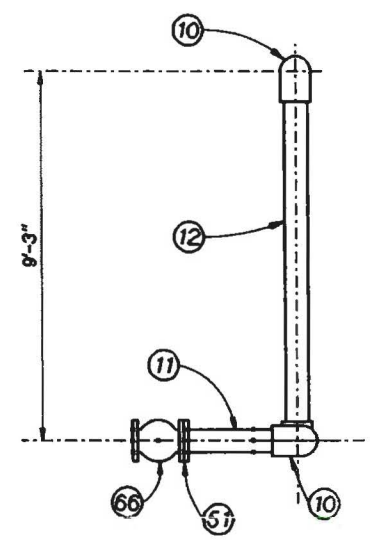
NOTE:
ITEM 52 NOT SHOWN
FOR CLARITY.

REF. DWG M-4
SUPERSEDES DWG NO B329-009

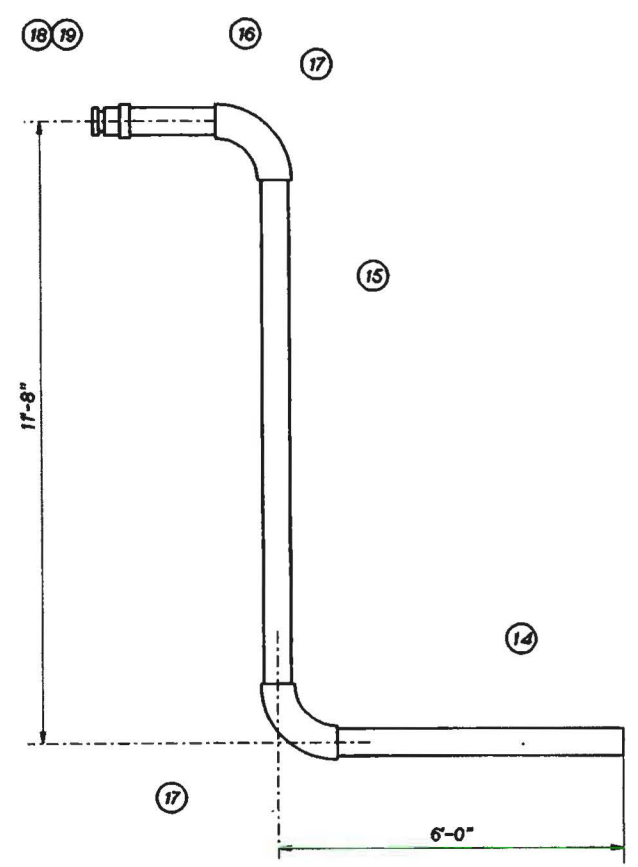


No.	Date	Revision	By	CBS Corporation
				M-5 Settling Basin Neal's Landfill Spring Treatment Facility
Drawn By:		Date:	Scale:	
RLR		3/28/12	NTS	

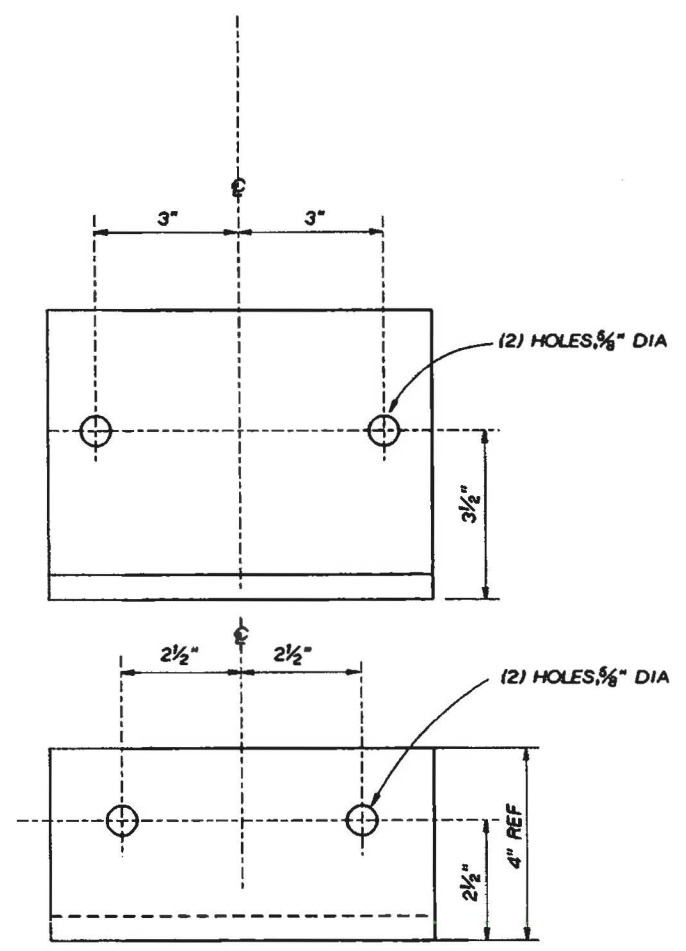
REVISIONS				
LTR	DESCRIPTION	R/LS	APPD	DATE
	SEE DWG M-4			



ITEM DETAIL 2



ITEM DETAIL 5

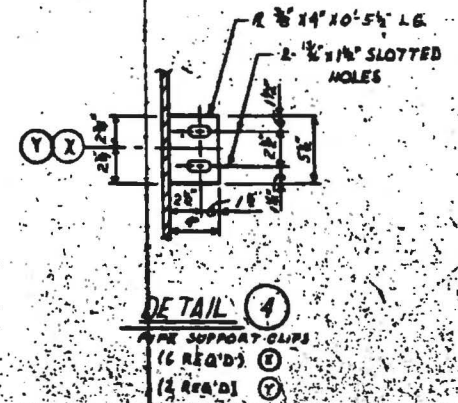
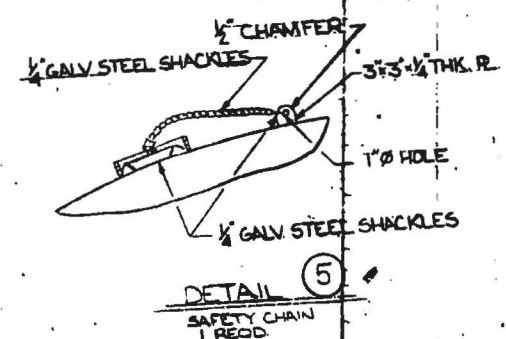
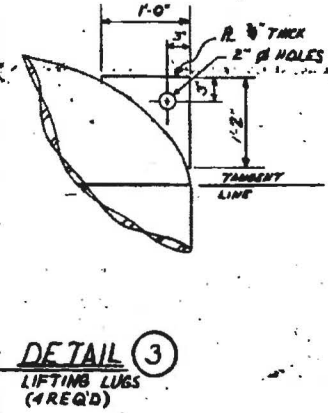
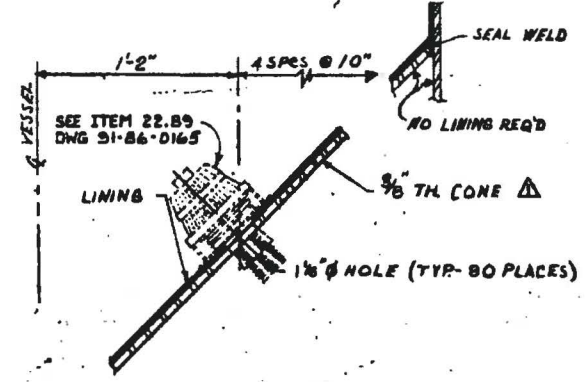
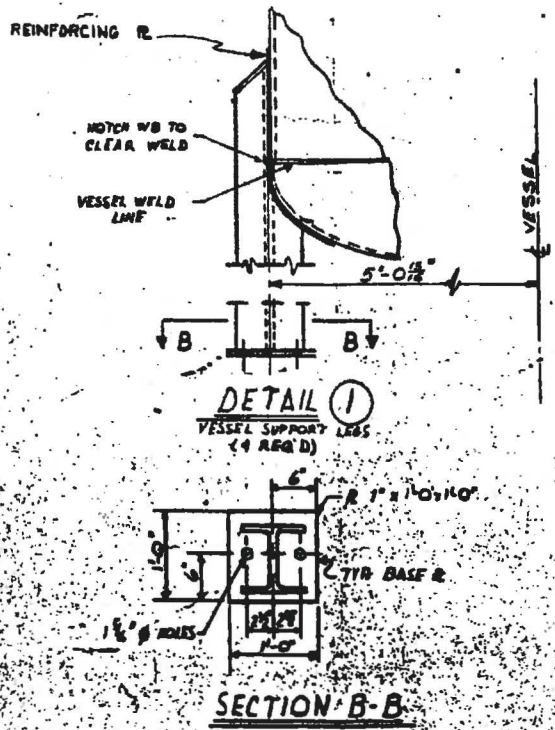
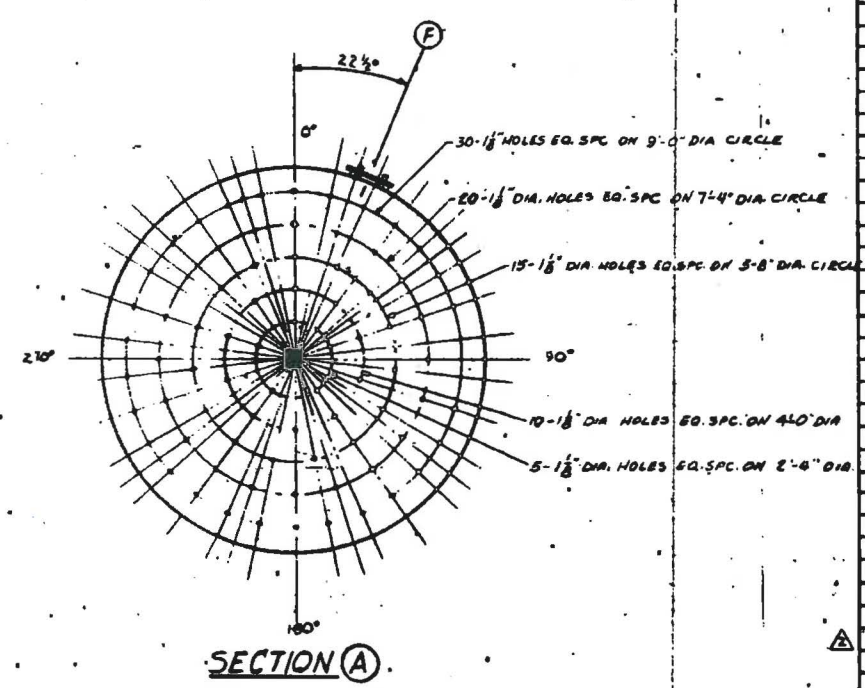
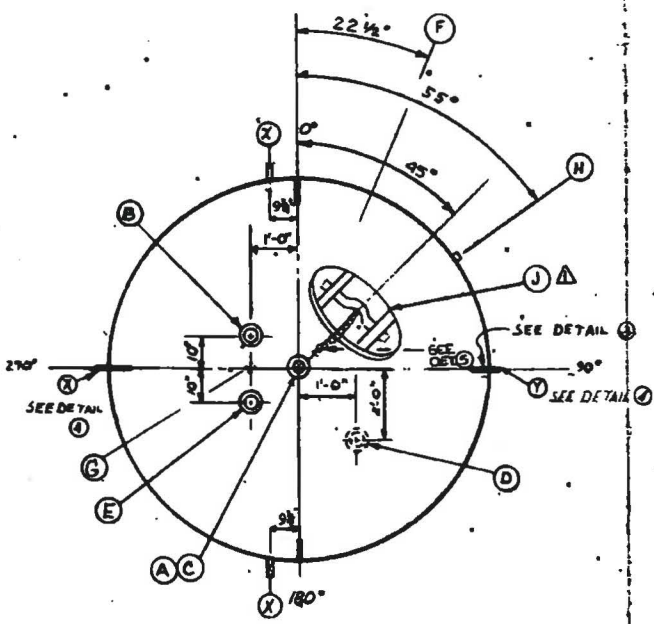
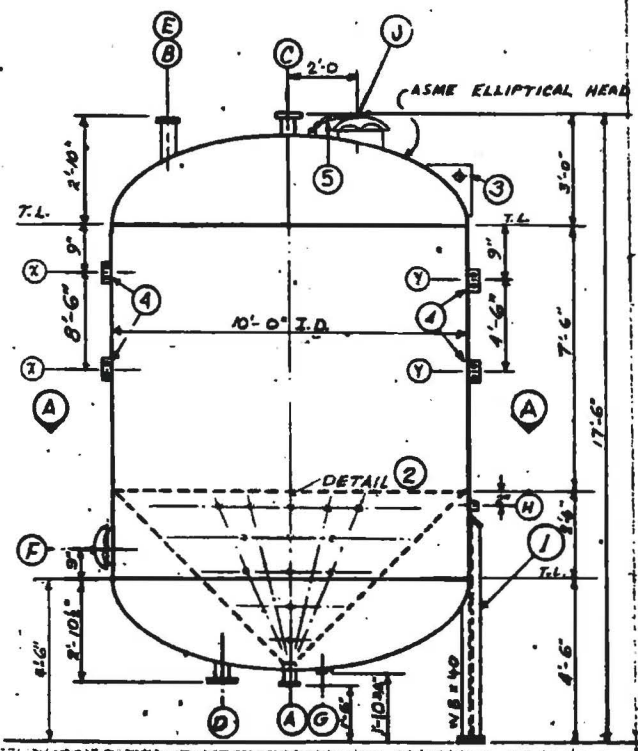


ITEM DETAIL 62

SEE REF. DWG M-4
SUPERSEDES DWG NO B329-009



No.	Date	Revision	By	CBS Corporation		
				M-6 Settling Basin Neal's Landfill Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	3/28/12	NTS



ITEM NO.	V-1 / V-2	NO. REQD.	EA. (TOTAL)
REFERENCE	VESSEL SPECIFICATION 7209A-VS1		
DESIGN CONDITIONS	SHELL 7.5 PSIG 150 °F		
OPERATING CONDITIONS	SHELL 60 PSIG 60 °F		
MATERIALS	SHELL, HEADS A57M A-516 GR70		
LINING	PLASITE 7156 HAE - 18 MIL MAX 10 MIL MIN		
GASKETS	1/8\"/>		
BOLTING	A 307B		
SUPPORTS	A 36'		
CORROSION ALLOWANCE	- NONE		
THICKNESS - MINIMUM TO BE	SHELL - PER CODE REQUIREMENTS		
HEADS - PER CODE REQUIREMENTS	CONSTRUCTION - FUSION WELDED		
CODE	ASME SECT VIII, DIVISION I		
STRESS RELIEF	PER CODE RADIOGRAPH SPOT		
TESTING	HYDROSTATIC PER CODE		
INSPECTION	BY CALCON & CODE AGENCY		
STAMPING	- A.S.M.E		
NAME PLATE	CALCON (MOUNTING BRACKET BY MFR)		
PAINT	CLEAN ALL EXPOSED CARBON STEEL SURFACES		
APPLY ONE SHOP COAT OF PRIMER & FINISH COAT	PER (9009) RS 15 9209A		
OPERATING CAPACITY	7833	GAL % FILL	100
FULL CAPACITY	7833	GAL PROD. SP GR.	1.2
ESTIMATED WEIGHT	EMPTY 9600 LB / FULL H ₂ O 74300 LB		
OPERATING	87,400	LB / FULL PRODUCT	87400 LB
INSULATION SUPPORTS	NOT REQ'D		
SEISMIC LOADING	- ZONE 4 (I=1.0)		
WIND LOADING	- 70 MPH DESIGN (12 PSF)		

MARK	REQ'D	SIZE	DRAWING	FACING	DESCRIPTION
J	1	14\"/>			
M	1	3/4\"/>			
G	1	1 1/2\"/>			
F	2	2\"/>			
E	1	4\"/>			
D	1	6\"/>			
C	1	6\"/>			
B	1	4\"/>			
A	1	4\"/>			

NOZZLE SCHEDULE

- NOTES:**
- ALL INTERIOR WELDS / EDGES TO BE GROUND SMOOTH
 - ALL NOZZLES MUST BE FLUSH ON INSIDE OF SHELL, U.O.M.
 - DETAIL 2, SECTION A - SHOP INSTALLED

NO.	REVISION	BY	DATE	REV
Δ	CHANGED PRINT SPEC RS 9 TO RS 15	RF	8-19-88	
Δ	CH'NO MAINWAY & CONE TH.	WE	7-14-88	
D	ISSUED FOR CONSTRUCTION	ELB	5-2-88	
C	ISSUED FOR INFORMATION			
B	ISSUED FOR BID	ELB	12-2-85	
A	ISSUED FOR APPROVAL	ELB	12-6-85	

CALCON

CALCON CARBON CORPORATION

P. O. BOX 717 PITTSBURGH, PA. 15220-0717

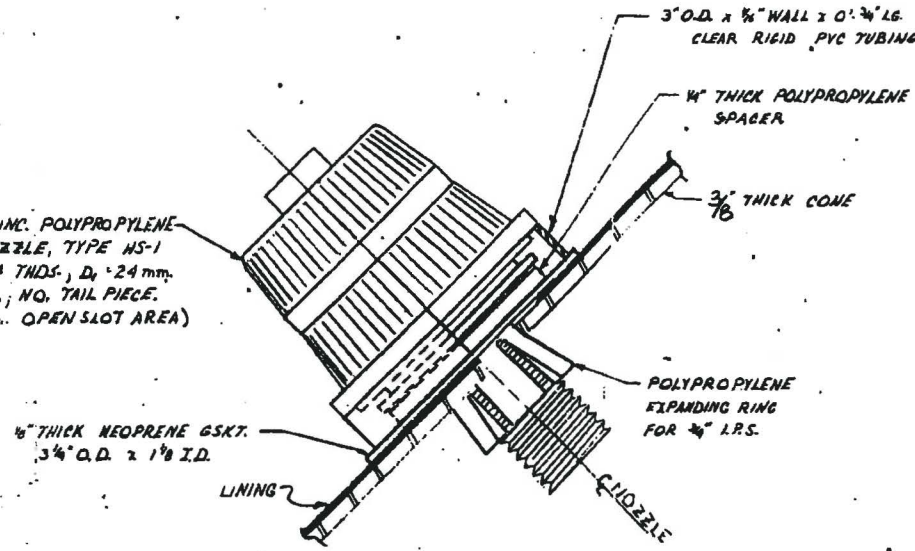
THIS DRAWING AND DESIGN IS THE PROPERTY OF CALCON CARBON CORPORATION AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR PART, NOR EMPLOYED FOR ANY PURPOSE OTHER THAN SPECIFICALLY PROVIDED BY WRITING BY CALCON CARBON CORPORATION. THIS DRAWING LOANED SUBJECT TO RETURN ON DEMAND.



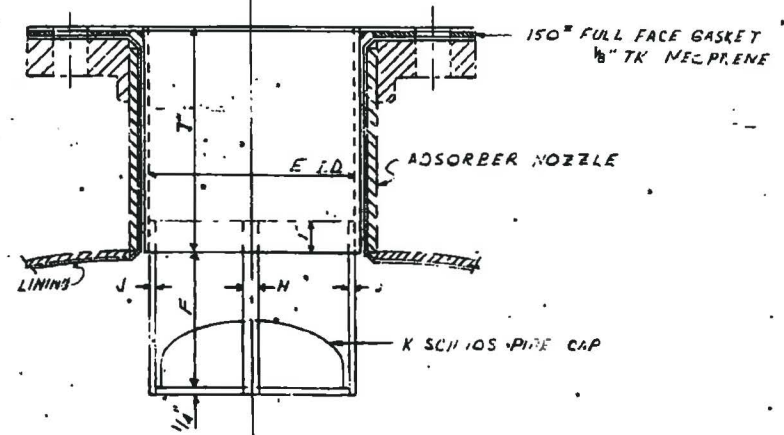
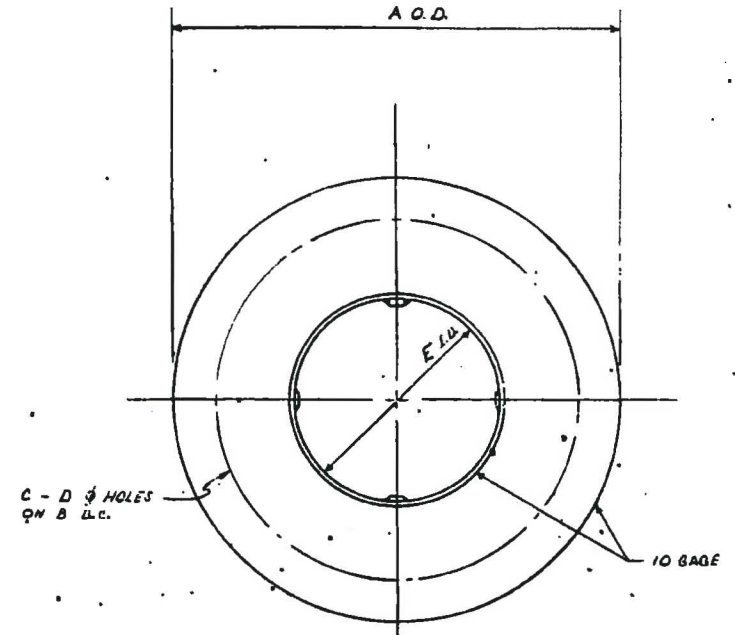
No.	Date	Revision	By

CBS Corporation
 91-86-0153
 Calgon Model 10 Absorber System
 Neal's Landfill
 Spring Treatment Facility
 Drawn By: RLR Date: 3/28/12 Scale: NTS

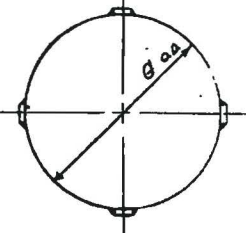
ORTHOS INC. POLYPROPYLENE
FILTER NOZZLE, TYPE NS-1
WITH M 24 THDS., D₁ = 24 mm,
L₁ = 50 mm, NO. TAIL PIECE.
(D. 48 sq. in. OPEN SLOT AREA)



ITEM NO. 22.89
(FULL SIZE)



	2"	3"	4"	6"	8"	10"	12"
A	2"	7/8"	9"	11"	13/8"	16"	19"
B	1 1/4"	6"	7 1/2"	9 1/2"	11 1/2"	14 1/4"	17"
C	1"	4"	8"	8"	8"	12"	12"
D	3/4"	3/4"	3/4"	3/8"	3/8"	1"	1"
E	1 1/4"	2 1/2"	3 3/4"	5 1/4"	7 1/4"	9 1/2"	11 1/4"
F	2"	2 1/2"	2 1/2"	3 1/2"	4 1/2"	5"	6"
G				5"	6 3/8"	8 1/4"	10 3/4"
H	1/2"	1 1/2"	2 1/4"	3 1/4"	1"	1"	1"
J	10 1/2"	10 1/2"	10 1/2"	10 1/2"	3 1/2"	4"	4"
K				4"	6"	8"	10"



ITEM NO 30.19
(NO. SCALE)

NOTE
ALL MATERIAL TO BE
316 S.S. - U.G.N

NOTE:
DEFLECTOR 30.19 INSTALLED AS SHOWN
IN ADSORBER INFLUENT NOZZLE. DEFLECTOR
INSTALLED IN INVERTED POSITION IN EFFLUENT
NOZZLE FOR BACKWASHABLE ADSORBERS ONLY.

CERTIFIED PRINT

NOV 13 1988

NO.	REVISION	BY	DATE	FLI
0	ISSUED FOR CONSTRUCTION			
C	ISSUED FOR INFORMATION		FF 9.5.88	
B	ISSUED FOR BID			
A	ISSUED FOR APPROVAL		FF 7.11.86	



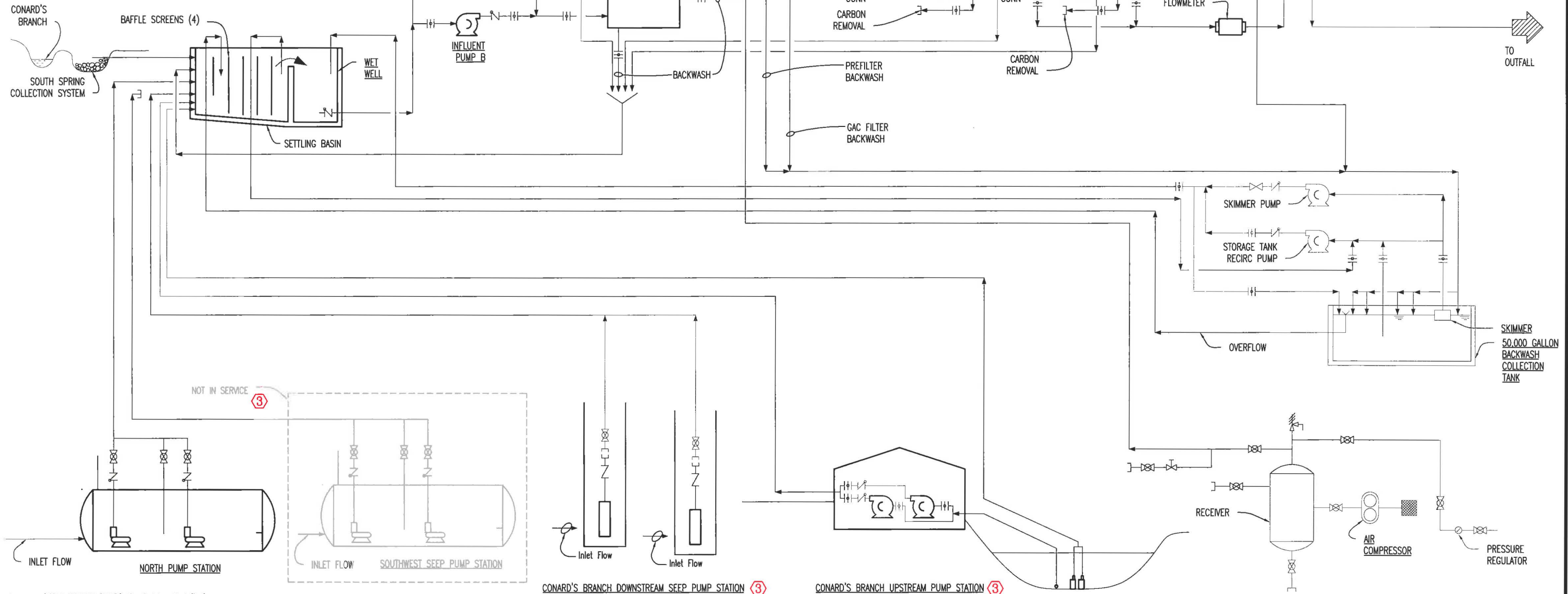
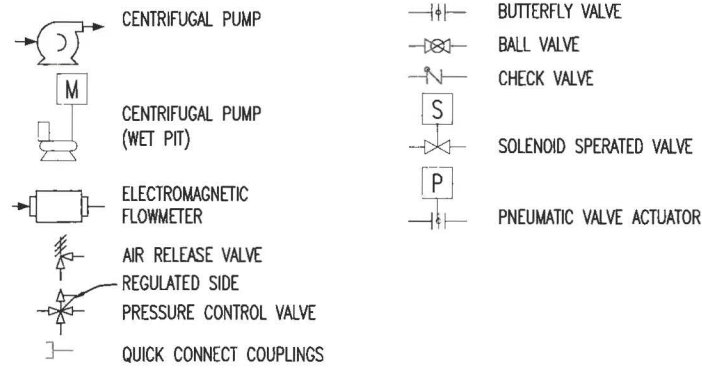
CALCON CARBON CORPORATION
P. O. BOX 717 PITTSBURGH, PA. 15230-0717

THIS DRAWING AND DESIGN IS THE PROPERTY OF CALCON CARBON CORPORATION AND IS NOT TO BE REPRODUCED IN WHOLE OR PART, NOR EMPLOYED FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY CALCON CARBON CORPORATION. THIS DRAWING LOANED SUBJECT TO RETURN ON DEMAND.



No.	Date	Revision	By	CBS Corporation
				91-86-0165 Calgon Model 10 Absorber Details Neal's Landfill Spring Treatment Facility
				Drawn By: RLR Date: 3/28/12 Scale: NTS

SYMBOLS



30500.50 CBS - ML - (SPRING TREATMENT FACILITY) 16 - P-1.dwg Sheet (P-1)



③ Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	5/02	As Built	JBP
3	2/12	2012 Updates	RLR

CBS Corporation		
P-1 Process Flow Diagram Neal's Landfill Spring Treatment Facility		
Drawn By:	Date:	Scale:
RLR	3/26/12	NTS

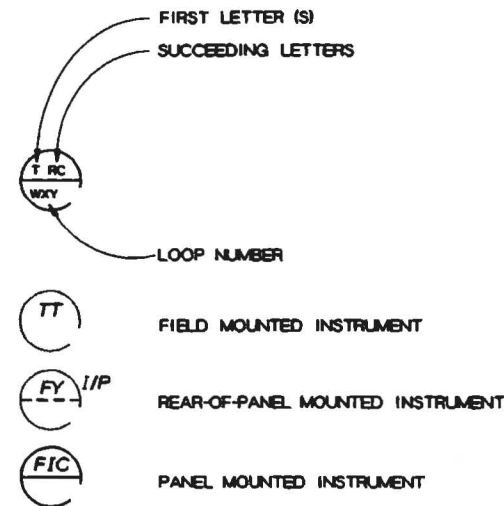
INSTRUMENT SOCIETY OF AMERICA TABLE

LETTER	FIRST LETTER (S)		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (+)		ALARM		
B	BURNER FLAME		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+)
C	CONDUCTIVITY			CONTROL	
D	DENSITY (S.G)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	GAUGE		GLASS	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION				MIDDLE
N	USERS CHOICE (+)		USERS CHOICE (+)	USERS CHOICE (+)	USERS CHOICE (+)
O	USERS CHOICE (+)		ORIFICE		
P	PRESSURE (OR VACUUM)		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT(+)	INTEGRATE	INTEGRATE		
R			RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (+)		MULTIFUNCTION (+)	MULTIFUNCTION (+)	MULTIFUNCTION (+)
V	VISCOSITY			VALVE OR DAMPER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED (+)		UNCLASSIFIED (+)	UNCLASSIFIED (+)	UNCLASSIFIED (+)
Y	USERS CHOICE (+)			RELAY OR COMPUTE (+)	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

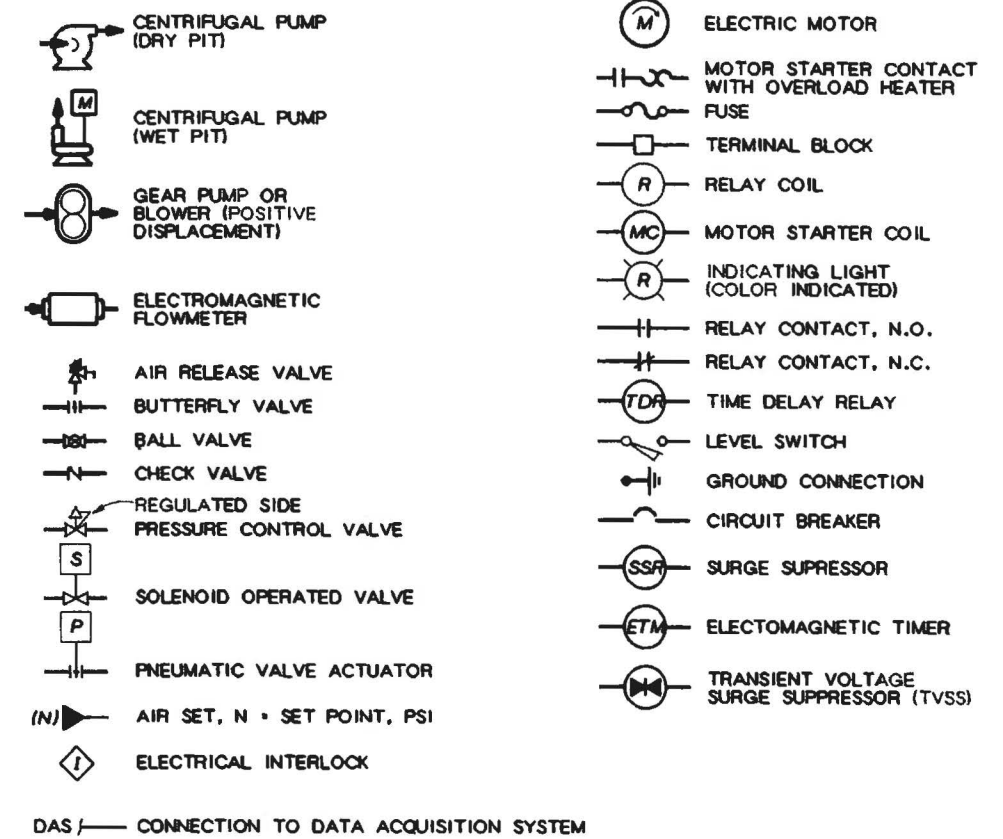
(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

INSTRUMENT IDENTIFICATION

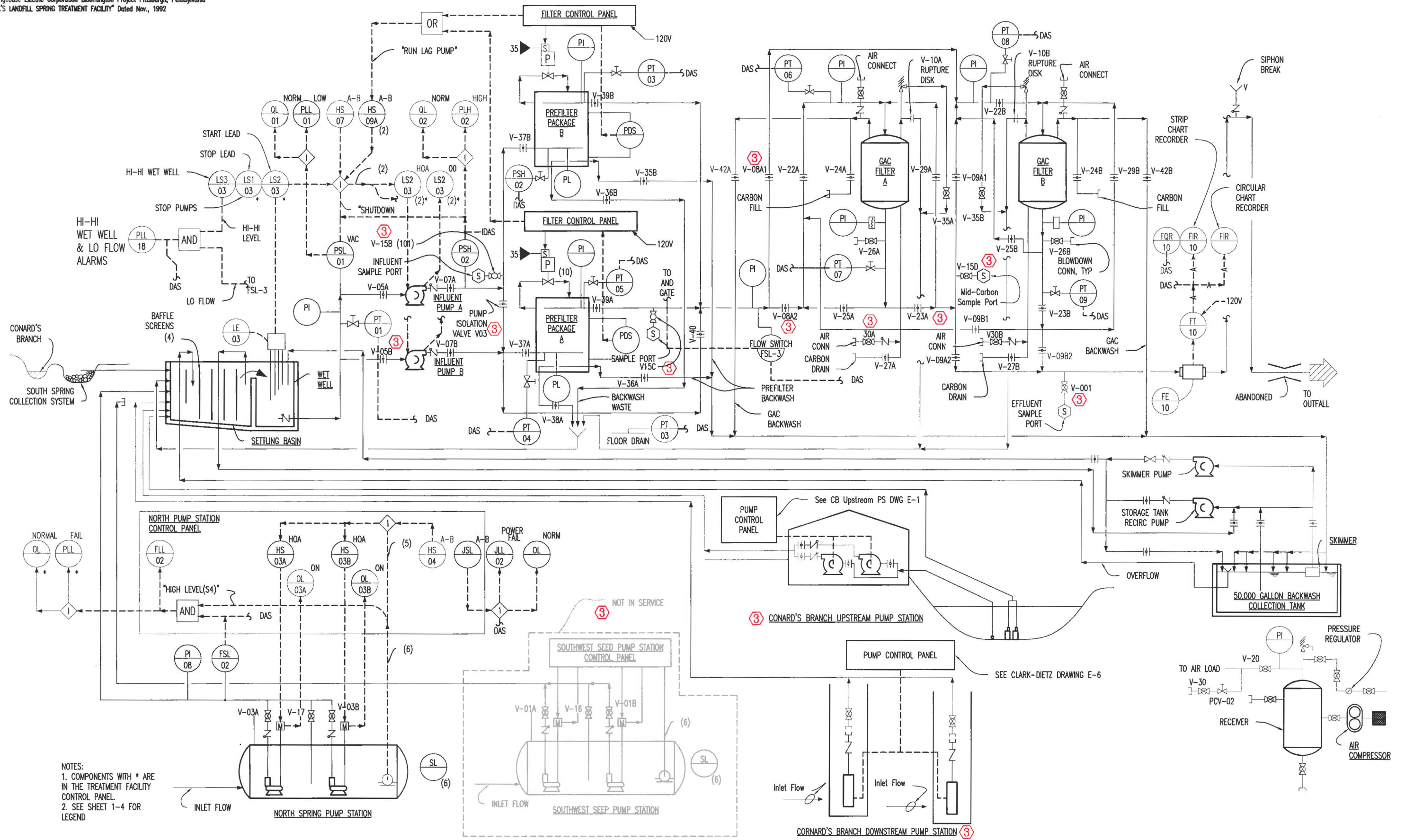
EXAMPLE SYMBOLS



SYMBOLS



No.	Date	Revision	By	CBS Corporation		
				I-1 Legend and Misc. Details Neal's Landfill Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	3/28/12	NTS



NOTES:
 1. COMPONENTS WITH * ARE IN THE TREATMENT FACILITY CONTROL PANEL.
 2. SEE SHEET 1-4 FOR LEGEND

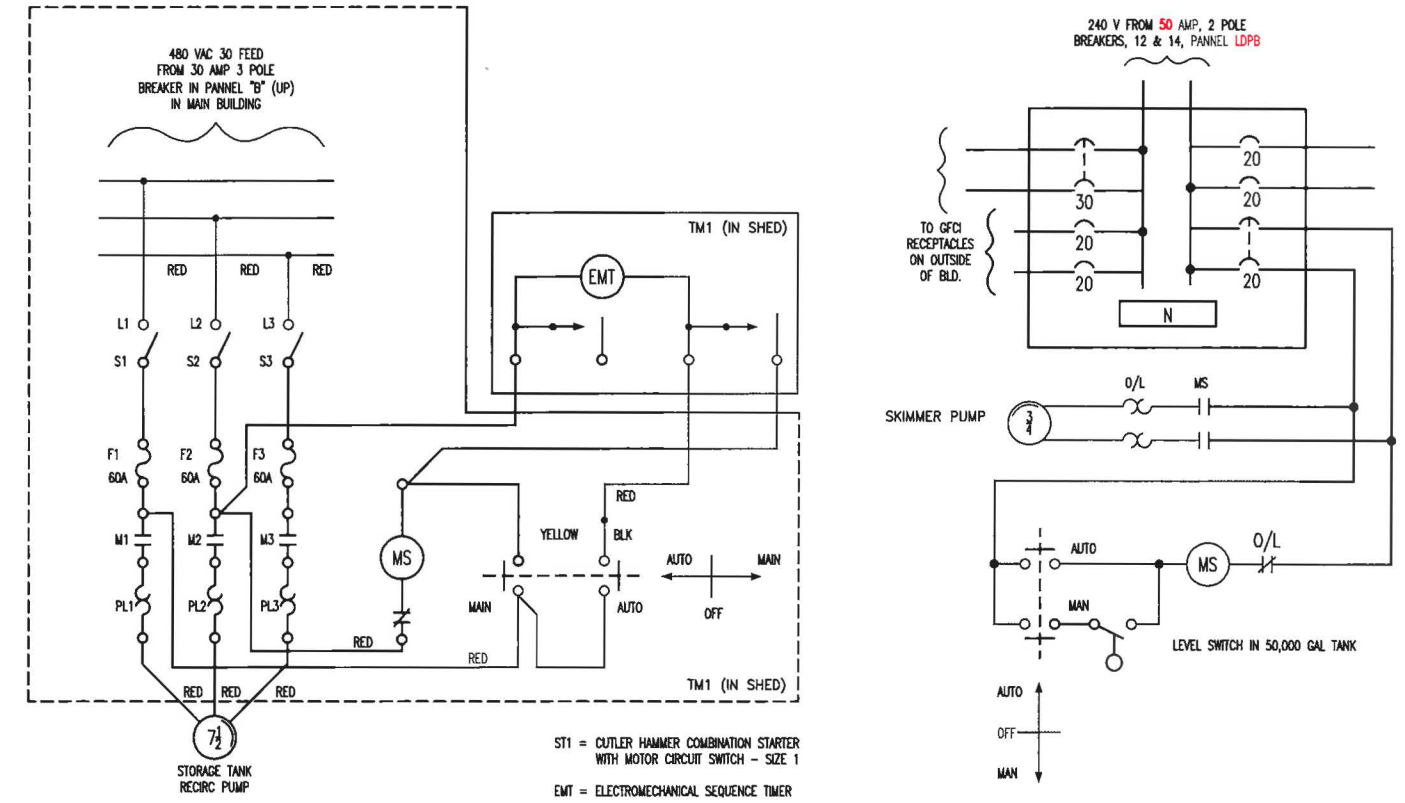
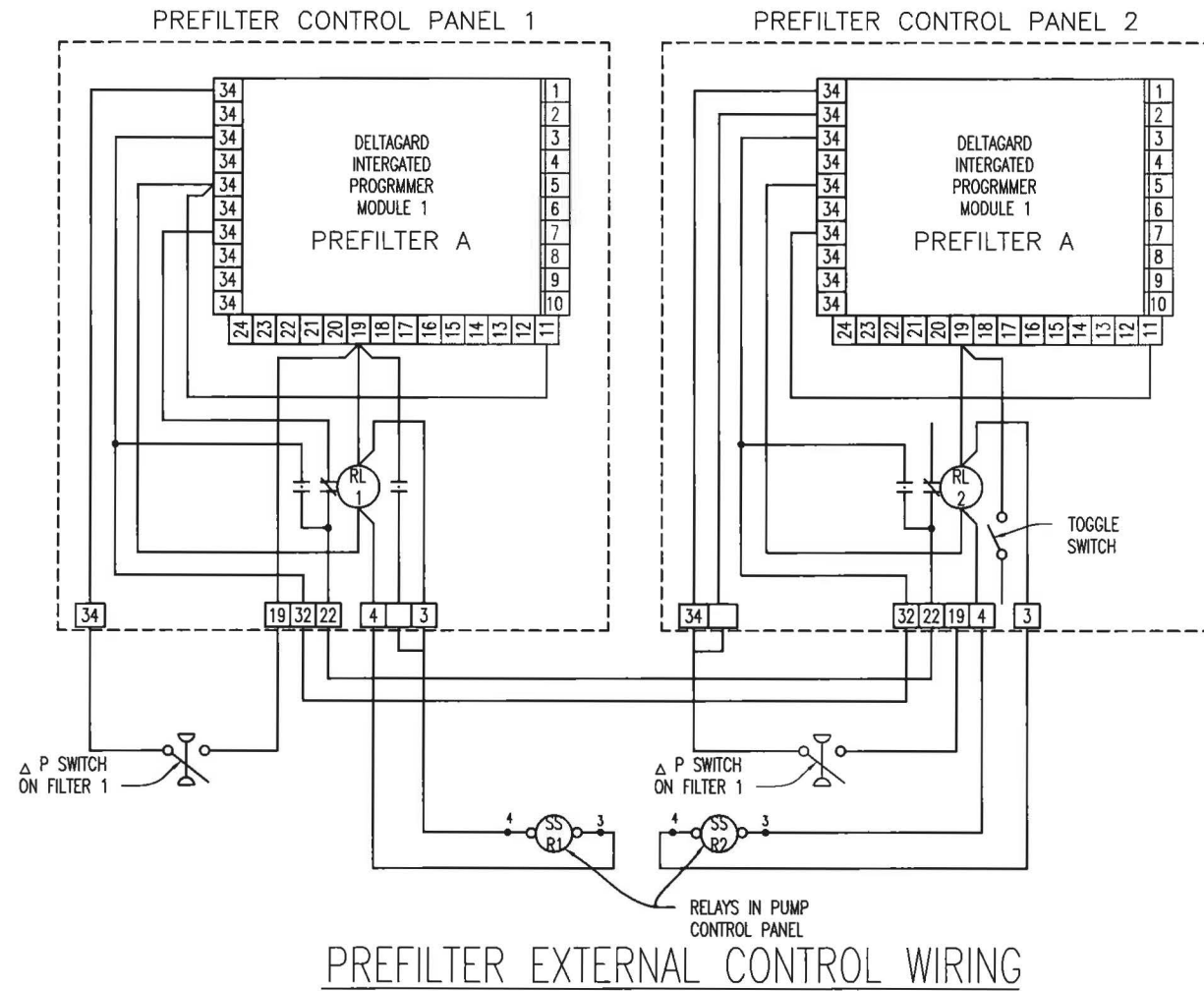


③ Revisions

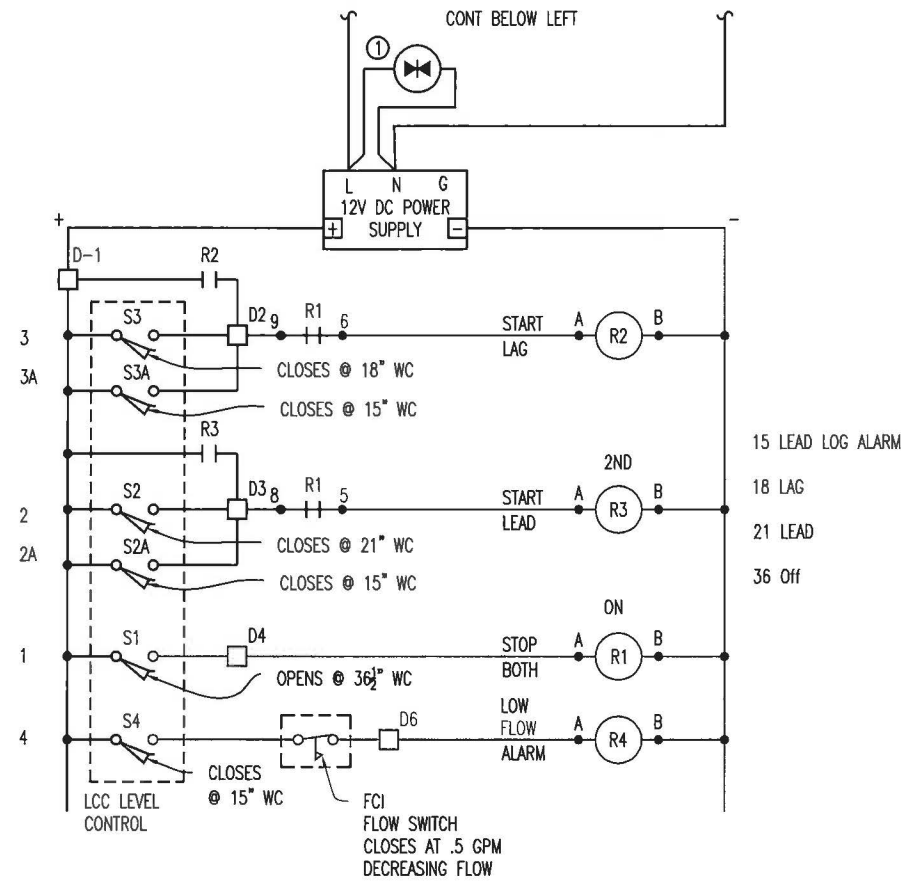
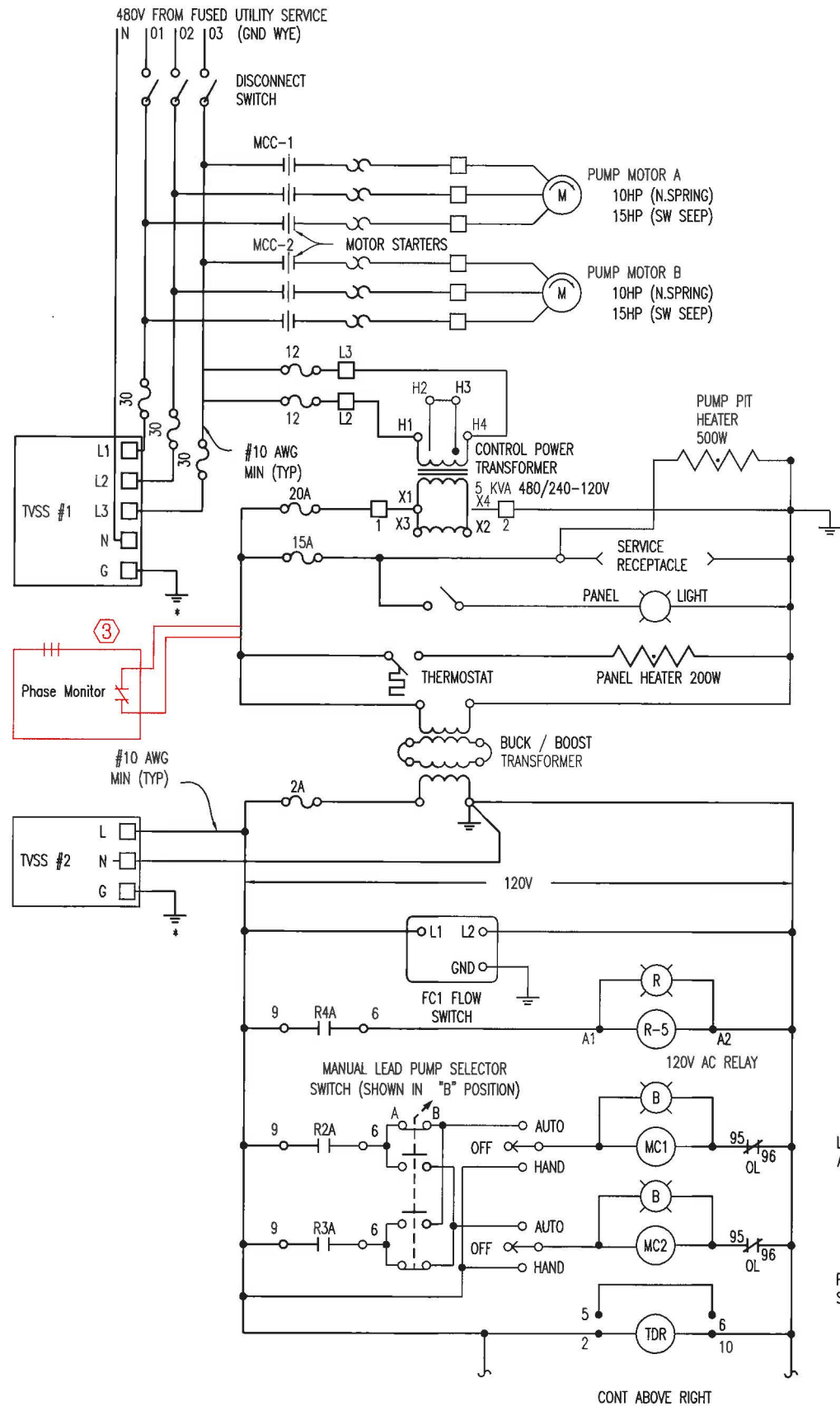
No.	Date	Revision	By
1	11/97	As Built	DRD
2	5/02	As Built	JBP
3	2/12	2012 Updates	RLR

CBS Corporation
 I-2
 Process and Instrumentation
 Diagram
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR Date: 3/28/12 Scale: NTS



No.	Date	Revision	By	CBS Corporation
1	11/97	As Built	DRD	
2	5/02	As Built	JBP	
				I-3 Miscellaneous Control Diagrams Neal's Landfill Spring Treatment Facility
Drawn By:		Date:	Scale:	
RLR		04/28/02	NTS	

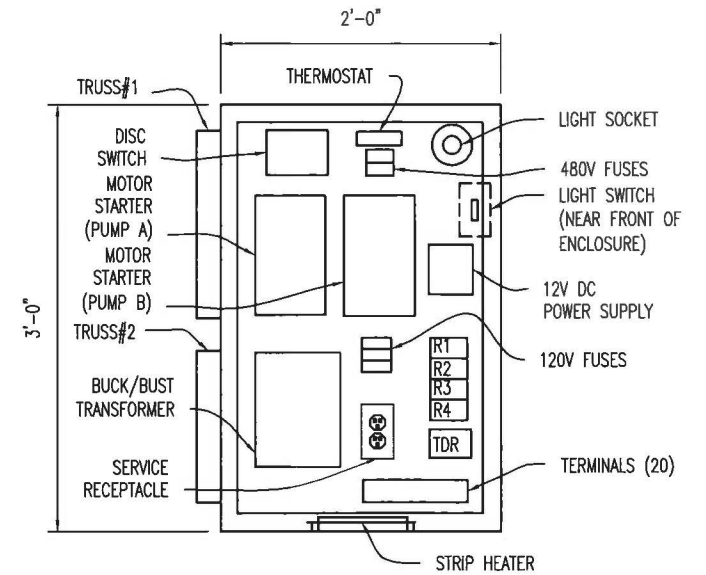
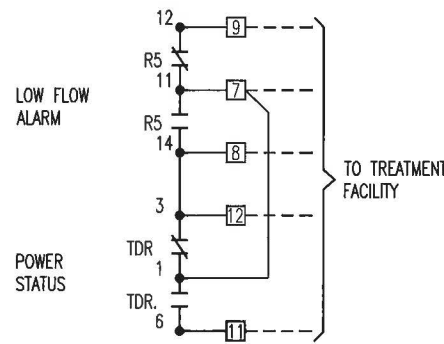


TVSS #1= LEVITON, INC.
 MODEL # 57277-M3
 NOMINAL LINE VOLTS: 227
 MAX CONT LINE VOLTS: 320

TVSS #2= LEVITON, INC.
 MODEL # 52120-M1
 NOMINAL LINE VOLTS: 120
 MAX CONT LINE VOLTS: 150

* = #10 AWG MIN WIRE SIZE TO GROUND ROD

① = METAL OXIDE VARISTOR P/N V130LA20A OR EQUIV.



PUMP CONTROL PANEL
 1 1/2" - 1' - 0" (2 PANELS REQD)

NEW PUMP CONTROL PANELS MATERIAL LIST			
QTY	ITEM	MANUFACTURE	CATALOG NO.
2	ENCLOSURE 24X36	HOFFMAN	A36H2408SSLP
2	BACKPAN	HOFFMAN	A36P24
2	TRANSFORMER 480/240-120, 5KVA	-	-
2	DISCONNECT SWITCH, 60 AMP	ALLEN-BRADLEY	1494R-N60
4	MOTOR STARTER	ALLEN-BRADLEY	509-CAD
12	OVERLOAD HEATERS	ALLEN-BRADLEY	(6)W-54 (6)W-58
2	POWER SUPPLY, 12VDC	SOLA	82-12-218-2 (NEWARK#62F1215)
8	CONTROL RELAY, 12VDC	ALLEN-BRADLEY	HB33Z12
8	RELAY SOCKET	ALLEN-BRADLEY	700-HN12T
2	THERMOSTAT	-	-
2	STRIP HEATER, 200W, 120VAC	-	-
2	DUPLEX RECEPTACLE	-	-
2	SWITCH, SPST (FOR PNL LIGHT)	-	-
2	LIGHT BASE	-	-
40	TERMINAL BLOCKS	ALLEN-BRADLEY	1492-H1BL
2	TERMINAL MOUNTING STRIP	ALLEN-BRADLEY	1492-N1
4	TERMINAL END PLATES	ALLEN-BRADLEY	1492-N16
4	SELECTOR SWITCH, 3 POS (HOA)	ALLEN-BRADLEY	800H-JR2A
2	SELECTOR SWITCH, 2 POS (A-B)	ALLEN-BRADLEY	800H-HR2A
2	INDICATING LIGHT	ALLEN-BRADLEY	800H-PR16R (RED)
4	INDICATING LIGHT	ALLEN-BRADLEY	800H-PR16R (BLUE)
4	SURGE SUPPRESSOR	ALLEN-BRADLEY	199-FSMA1
2	FLOW SWITCH	FCI	1264-4-1"-2"U-SLH-5181
2	TIME DELAY RELAY	ALLEN-BRADLEY	700-HT22BA1
2	TIME DELAY RELAY SOCKET	ALLEN-BRADLEY	700-HN126
2	CONTROL RELAY, 120VAC	ALLEN-BRADLEY	700-HF32A1
2	*PLUG JACK CONNECTOR SET	ALLEN-BRADLEY	700-HN116 (SOCKET)
2	PLUG	AMPHENOL	MS3106A-14S-06P
2	RECEPTACLE	AMPHENOL	MS3106A-A4S-06S
4	CABLE CLAMP	AMPHENOL	97-3057-1007
2	RUBBER BUSHING	AMPHENOL	9779-513-8
2	RUBBER BUSHING	AMPHENOL	9779-513-6
2	RUBBER BUSHING	AMPHENOL	9779-513-10

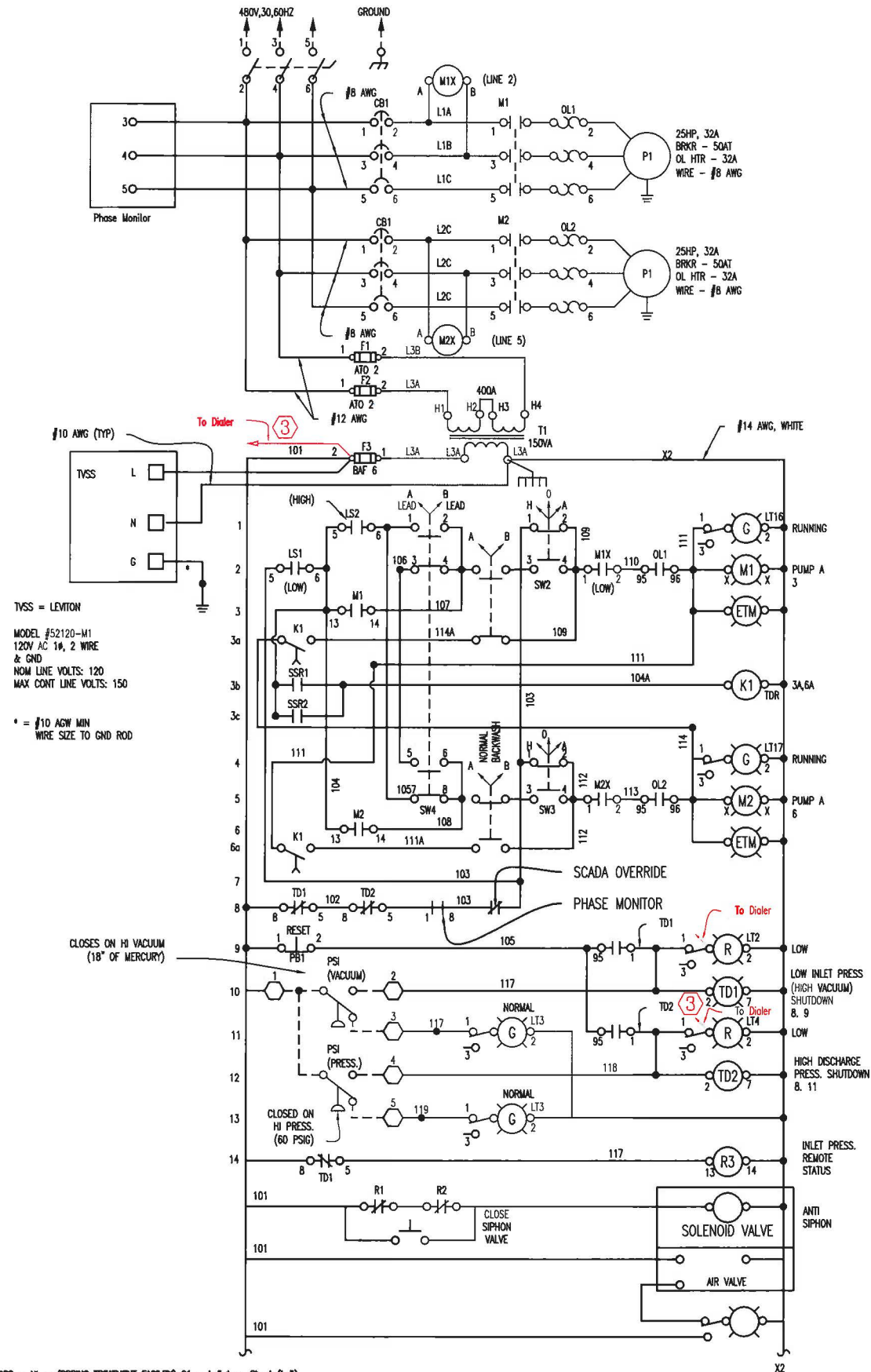
* FROM NEWARK ELECTRIC CATALOG 109, PAGE 572



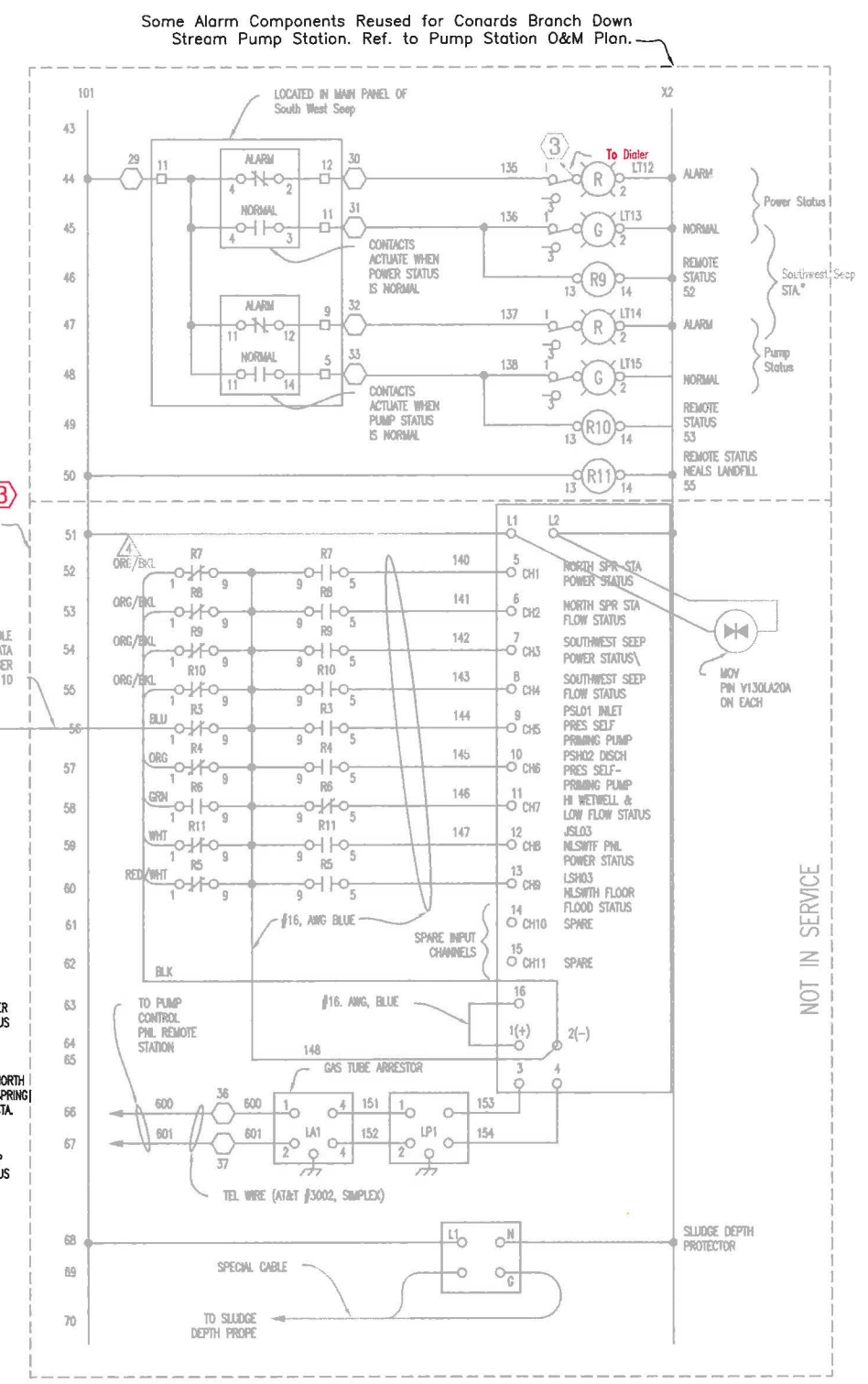
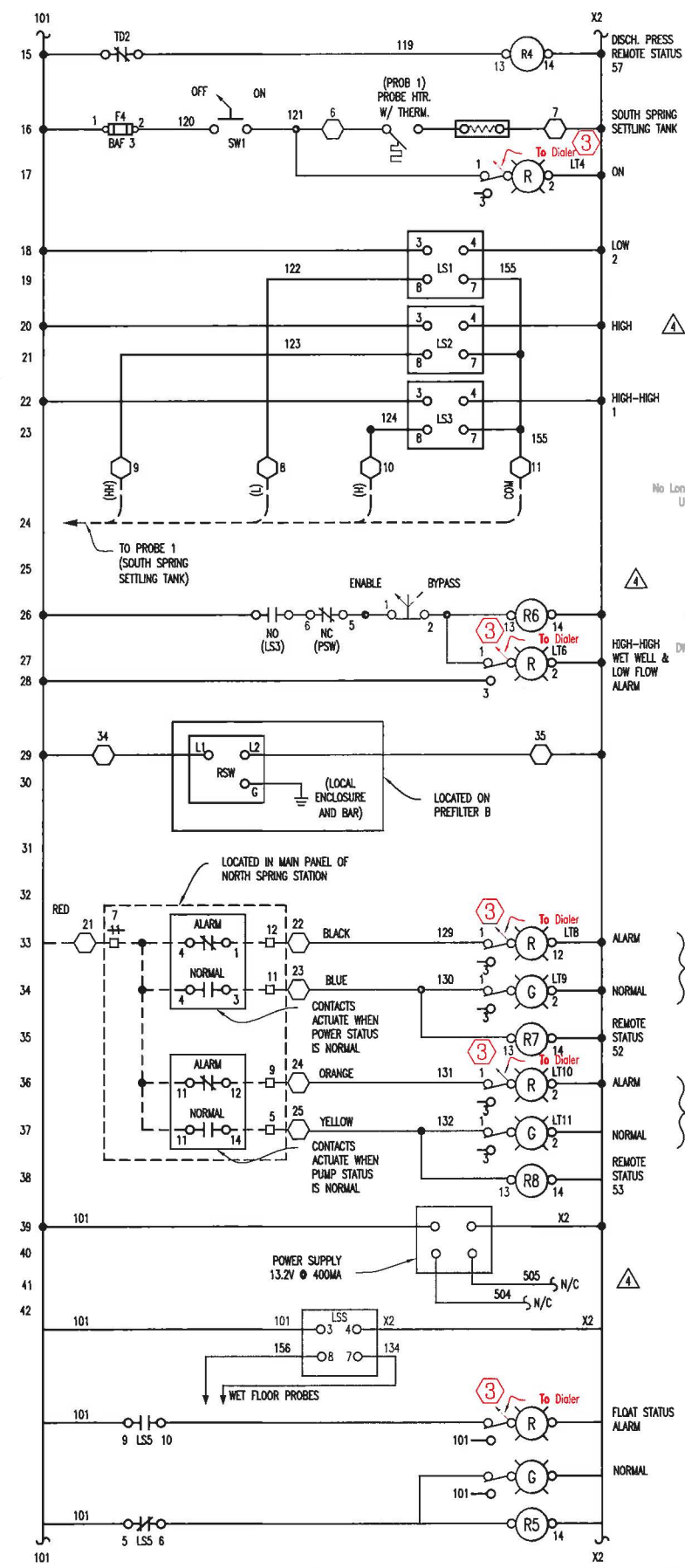
③ Revisions

No.	Date	Revision	By	CBS Corporation 1-4 North Spring Pump Station Control Diagram Neal's Landfill Spring Treatment Facility
1	11/97	As Built	DRD	
2	5/02	As Built	JBP	
3	2/12	2012 Updates	RLR	
Drawn By:			RLR	Date: 3/28/12
Scale:			NTS	

Source: Westinghouse Electric Corporation Bloomington Project Pittsburgh, Pennsylvania
 "NEAL'S LANDFILL SPRING TREATMENT FACILITY" Dated Nov., 1992



TVSS = LEVITON
 MODEL #52120-M1
 120V AC 1A, 2 WIRE
 & GND
 NOM LINE VOLTS: 120
 MAX CONT LINE VOLTS: 150
 * = #10 AGW MIN
 WIRE SIZE TO GND ROD



LEGEND
 ○ TERMINAL BLOCK IN CONTROL PANEL
 — FACTORY WIRING
 - - - FIELD WIRING

NOTE
 ALL WIRING IS TO BE #14 AWG, MTW RED
 UNLESS OTHERWISE INDICATED

30000.00 CBS - NL - (SPRING TREATMENT FACILITY) 21 - I-5.dwg Sheet (1-5)

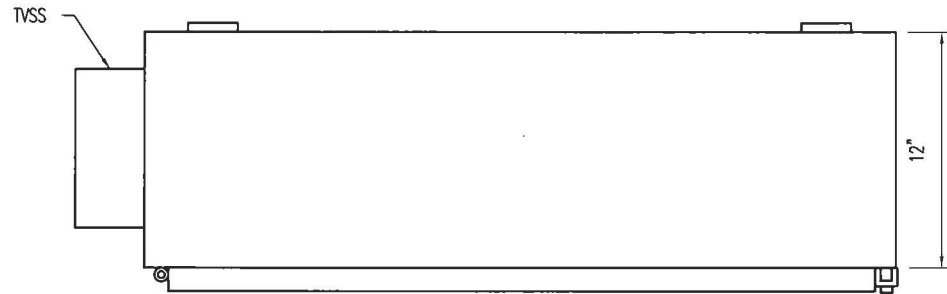


Revisions

No.	Date	Revision	By
1	11/97	As Built	DRB
2	5/02	As Built	JBP
3	2/12	2012 Updates	RLR

CBS Corporation
 I-5
 Pump Control Panel
 Local Station, Schematic
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR Date: 3/28/12 Scale: NTS



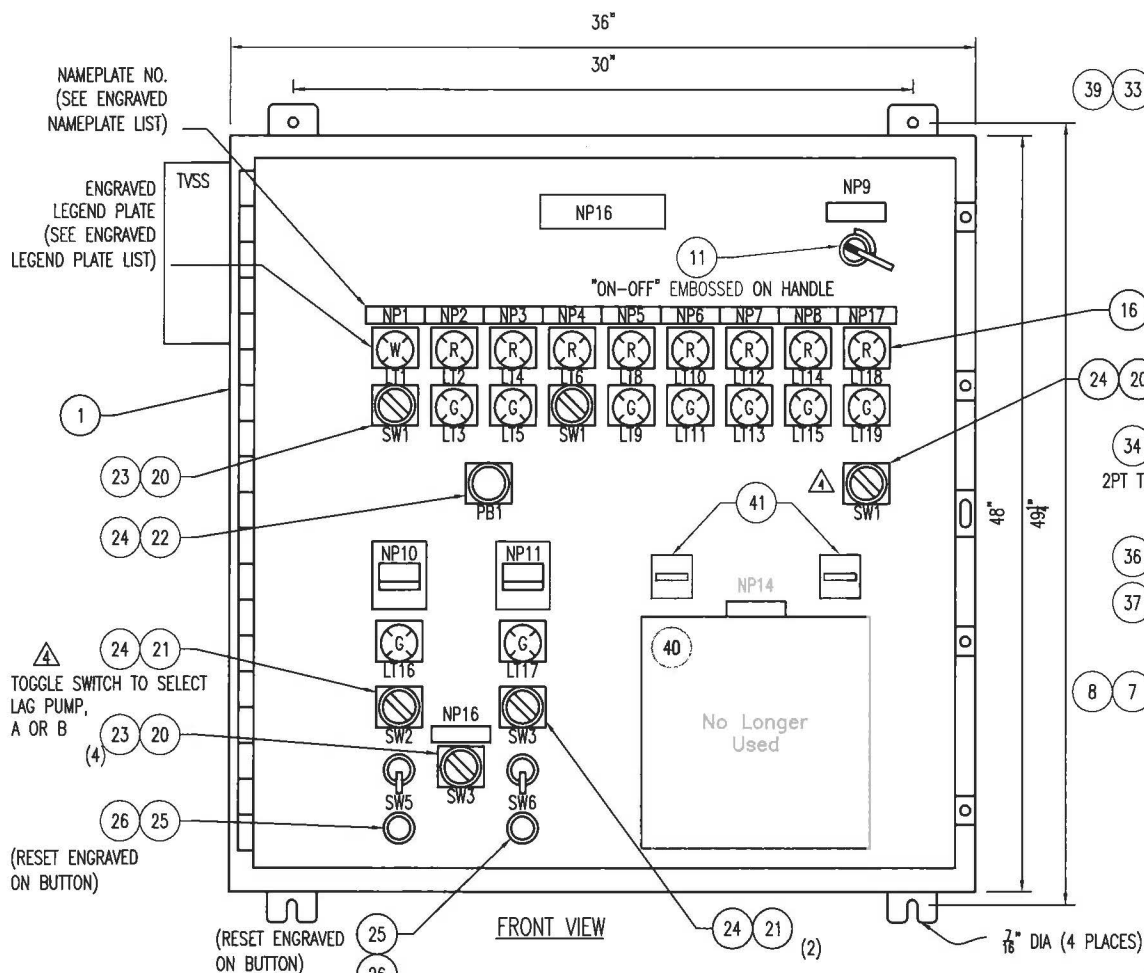
TOP VIEW

ENGRAVED NAMEPLATE LIST		
NP	QTY	ENGRAVING
1	1	PROBE HEATER
2	1	INLET PRESSURE SELF PRIMING PUMPS
3	1	DISCHARGE PRESSURE SELF PRIMING PUMPS
4	1	DISPOSAL CONTAINER
5	1	NORTH SPRING STA. POWER STATUS
6	1	NORTH SPRING STA. PUMP STATUS
7	1	SOUTHWEST SEEP STA. POWER STATUS
8	1	CONARD'S BRANCH DOWNSTREAM STA. ALARM STATUS
9	1	MAIN DISCONNECT
10	2	PUMP A
11	2	PUMP B
12	1	FLOW RECORDER
13	1	FLOW ACCUMULATOR
14	1	SLUDGE DEPTH
15	1	LEAD PUMP
16	1	-WARNING- HIGH VOLTAGE DISCONNECT ALL POWER BEFORE OPENING THE DOOR
17	1	FLOOR STATUS

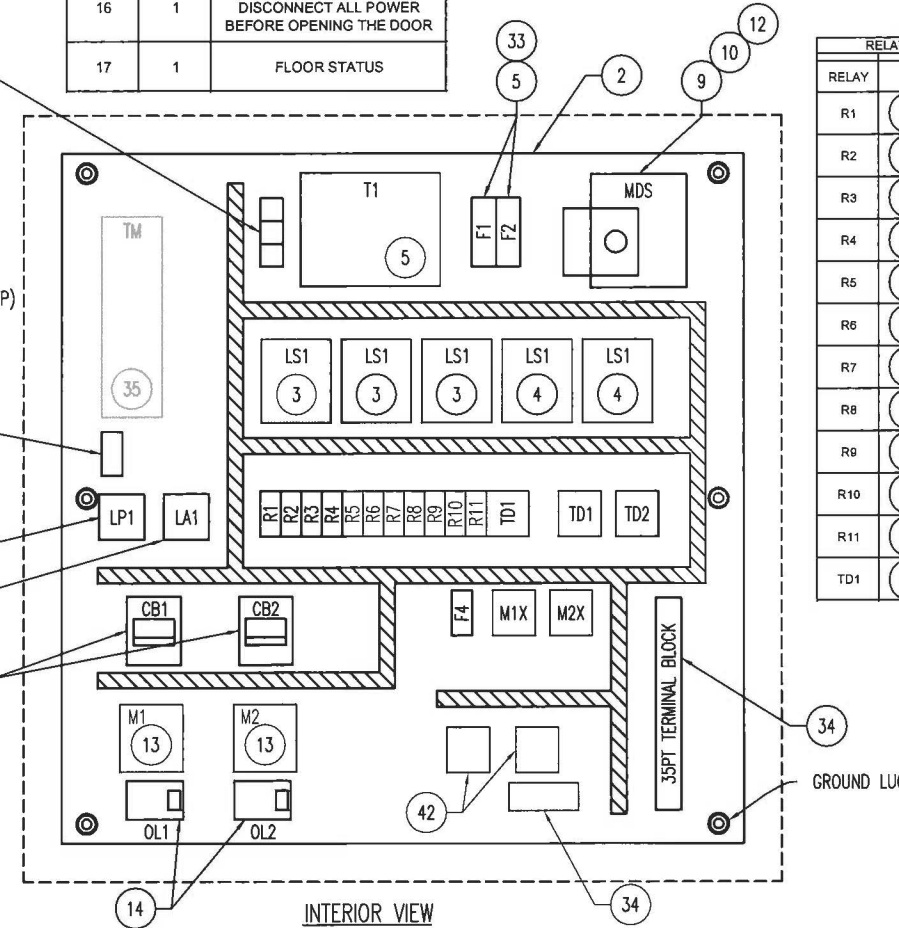
ENGRAVED LEGEND PLATE LIST			
COMP. NO.	LP	QTY	ENGRAVING
LT1, LT16, LT17	1	3	ON
LT2	2	1	LOW
LT4, LT8	3	2	HIGH
LT8, LT10, LT12, LT14, LT18	4	5	ALARM
LT3, LT5, LT7, LT9, LT11, LT13, LT15, LT19	5	8	NORMAL
SW1	6	1	OFF ON
PB1	7	1	RESET
SW2, SW3	8	2	OFF HAND AUTO
SW4	9	1	A B LEAD LEAD

LEGEND:

1 BILL OF MATERIALS ITEM NUMBER



FRONT VIEW



INTERIOR VIEW

RELAY CHART	
RELAY	BM NO.
R1	30 31
R2	30 31
R3	28 29
R4	28 29
R5	28 29
R6	28 29
R7	28 29
R8	28 29
R9	28 29
R10	28 29
R11	28 29
TD1	27 32

QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL/ VENDER
2	42		SOLID STATE RELAY, SSR1-SSR-2	
2	41		ELAPSED TIME METER	
1	40	C00	SLUDGE DEPTH METER	MARFKLAND
1	39	BAF 6	FUSE, 6AMP	BUSS
1	38	BAF3	FUSE, 3AMP	BUSS
1	37	OGT A11	GAS TUBE ARRESTOR	CEI
1	36	O-LP1	LINE PROTECTOR	CEI
1	35	OX1	TRANSMITTER, 11 POINT, 12V AC, TYPE OET-1130 FRAME W/PWR SUPPLY 115V AC INPUT	SUPPLY
42	34	725	TERMINAL BLOCK, 600VOLT	BUCHANAN
4	33	30310	FUSE BLOCK, 30 AMP	TAYLOR
1	32	SR2P-06	RELAY SOCKET, OCTAL TYPE IDEC	IDEC
2	31	SH2B-05	RELAY SOCKET, BLADE TYPE DPDT	IDEC
2	30	RH2B-U-120VAC	RELAY, DPDT, 120V AC COIL	IDEC
9	29	SH1B-05	RELAY SOCKET, BLADE TYPE SPST	IDEC
9	28	RH1B-U-120VAC	RELAY, SPST, 120V AC COIL	IDEC
1	27	TK-006000-461	TIME DELAY RELAY, TDOE, 120V AC, 6-500SEC.	NCC
2	26	H33SAL1-C	WATER TIGHT BOOT	GOULD
2	25	H36RS-11-AR21-15	RESET OPERATOR	GOULD
5	24	PB1B	CONTACT BLOCK, 1 N.C.	WESTINGHOUSE
5	23	PB1A	CONTACT BLOCK, 1 N.O.	WESTINGHOUSE
1	22	PB1AAH	PUSHBUTTON, BLACK-CAP	WESTINGHOUSE
2	21	PB1JAH1A	SELECTOR SWITCH, 3-POSITION	WESTINGHOUSE
2	20	PB1JAH2A	SELECTOR SWITCH, 2-POSITION	WESTINGHOUSE
1	19	PB1VPG	LENS, WHITE	WESTINGHOUSE
8	18	PB1VPR	LENS, GREEN	WESTINGHOUSE
8	17	PB1VPR	LENS, RED	WESTINGHOUSE
17	16	P81GTOT1	PUSH-TO-TEST PILOT LIGHT, 120V AC	WESTINGHOUSE
2	15	8501-CO 480VAC	POWER RELAY, SPST, 480V AC	WESTINGHOUSE
2	14	K27D40	OVERLOAD RELAY, 25-40 AMP	WESTINGHOUSE
2	13	DSL31A	CONTACTOR, 3-PHASE, 65-AMP, 120V AC COIL	WESTINGHOUSE
1	12	47A4416G16	HANDLE SHAFT	WESTINGHOUSE
1	11	504C323G01	OPERATING HANDLE	WESTINGHOUSE
1	10	4987D14G02	OPERATING MECHANISM	WESTINGHOUSE
1	9	DS36U	DISCONNECT SWITCH, 3-POLE, 600V AC, 100 AMP	WESTINGHOUSE
2	8	EHB3050	CIRCUIT BREAKER, 3-POLE, 600V AC, 50 AMP	WESTINGHOUSE
2	7	CMCU150FB	HANDLE MECH. LOCKOUT TYPE	WESTINGHOUSE
2	6	ATO 2	FUSE, 32 AMP	GOULD SHAWMUT
1	5	AT-1-81216	TRANSFORMER, 750V AC	ACME
2	4	1500-D-L1 S7-OC-X	INDUCTION RELAY, 120V AC, OPEN CHASSIS, 1 N.O. & 1 N.C. CONTACT	B/W
3	3	15-A-L1 S7-OC-X	INDUCTION RELAY, 120V AC, OPEN CHASSIS, 1 N.O. CONTACT	B/W
1	2	A-48P36	MOUNTING PANEL 45"H x 36"W	HOFFMAN
1	1	A-48H36DFL	ENCLOSURE, NEMA 4, 48"H x 36"W x 12"D PAINTED ASA GRAY	HOFFMAN

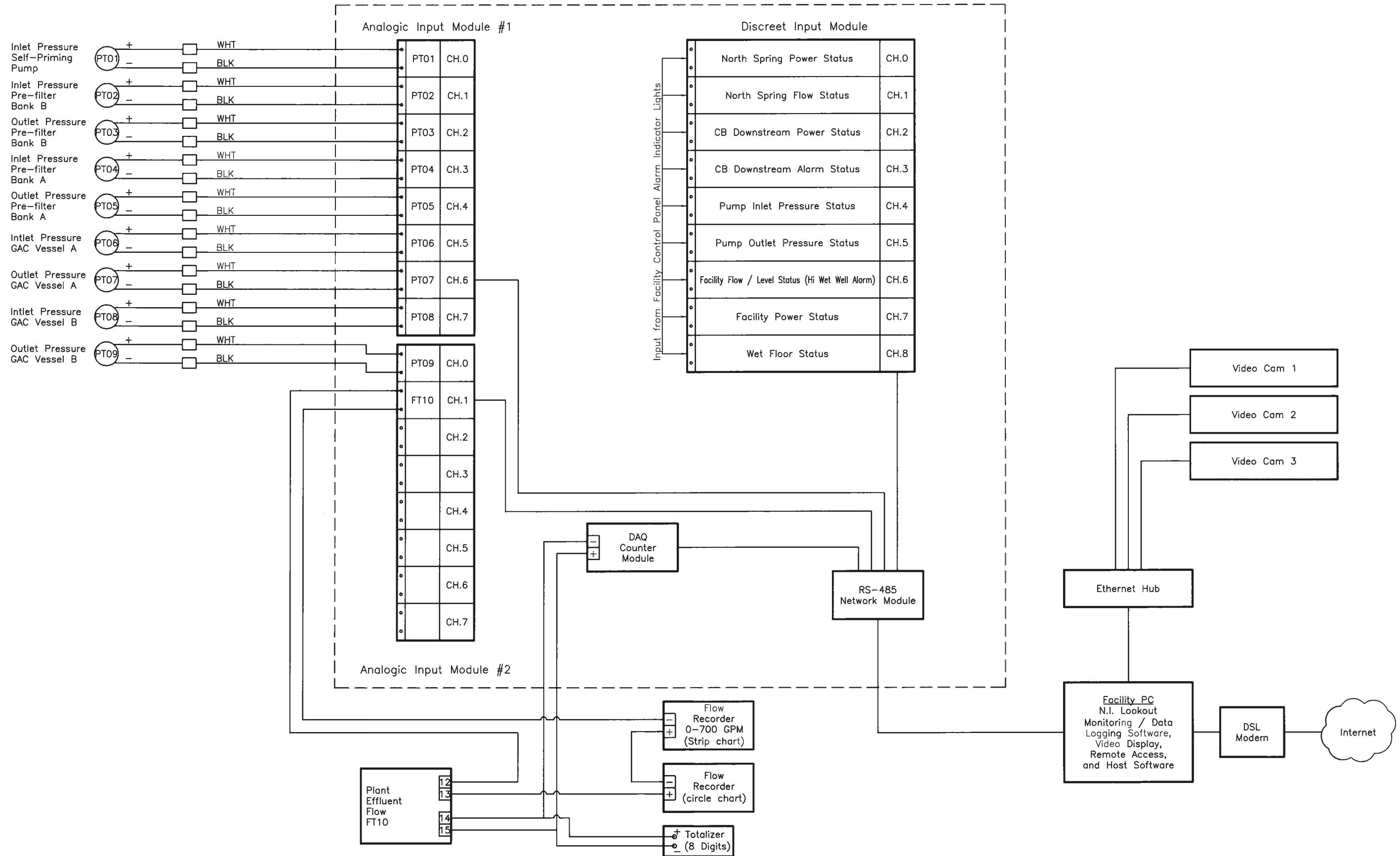
BILL OF MATERIALS



Revisions

No.	Date	Revision	By	CBS Corporation		
1	11/97	As Built	DRD	I-7		
2	5/02	As Built	JBP	Pump Control Panel, Local Station		
3	2/12	2012 Updates	RLR	General Arrangement		
				Neal's Landfill		
				Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	3/28/12	NTS

National Instrument Fieldpoint I/O Hardware Components



30600.00 CBS - NL - (SPRING TREATMENT FACILITY) 23 - I-10.dwg Sheet (1-10)



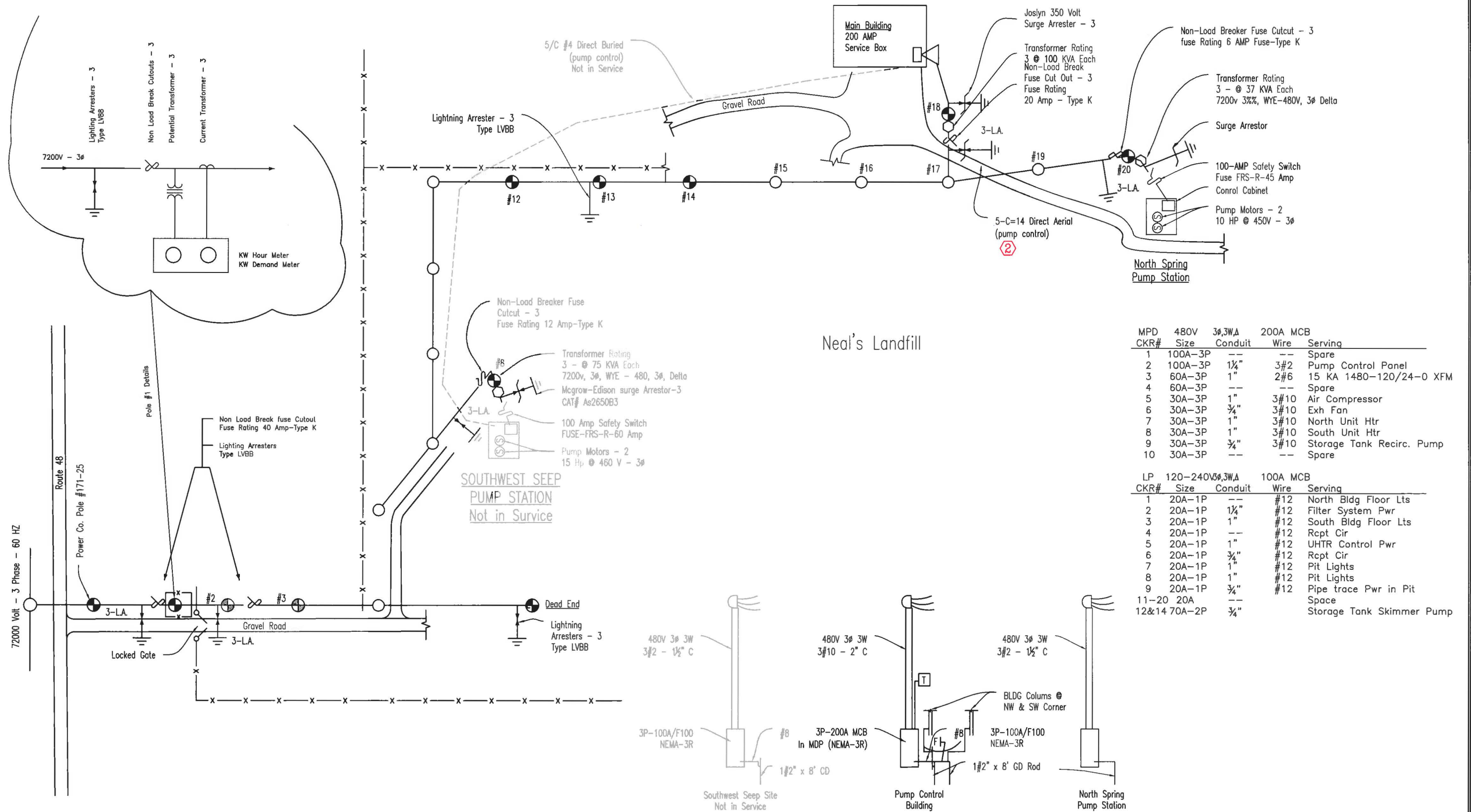
② Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	2/12	2012 Updates	RLR

CBS Corporation

I-10
 Data Acquisition System
 Neal's Landfill
 Spring Treatment Facility

Drawn By: RLR Date: 3/26/12 Scale: NTS



MPD CKR#	480V Size	3Ø,3WΔ Conduit	200A MCB Wire	100A MCB Wire	Serving
1	100A-3P	---	---	---	Spare
2	100A-3P	1 1/4"	3#2	---	Pump Control Panel
3	60A-3P	1"	2#6	---	15 KA 1480-120/24-0 XFM
4	60A-3P	---	---	---	Spare
5	30A-3P	1"	3#10	---	Air Compressor
6	30A-3P	3/4"	3#10	---	Exh Fan
7	30A-3P	1"	3#10	---	North Unit Htr
8	30A-3P	1"	3#10	---	South Unit Htr
9	30A-3P	3/4"	3#10	---	Storage Tank Recirc. Pump
10	30A-3P	---	---	---	Spare

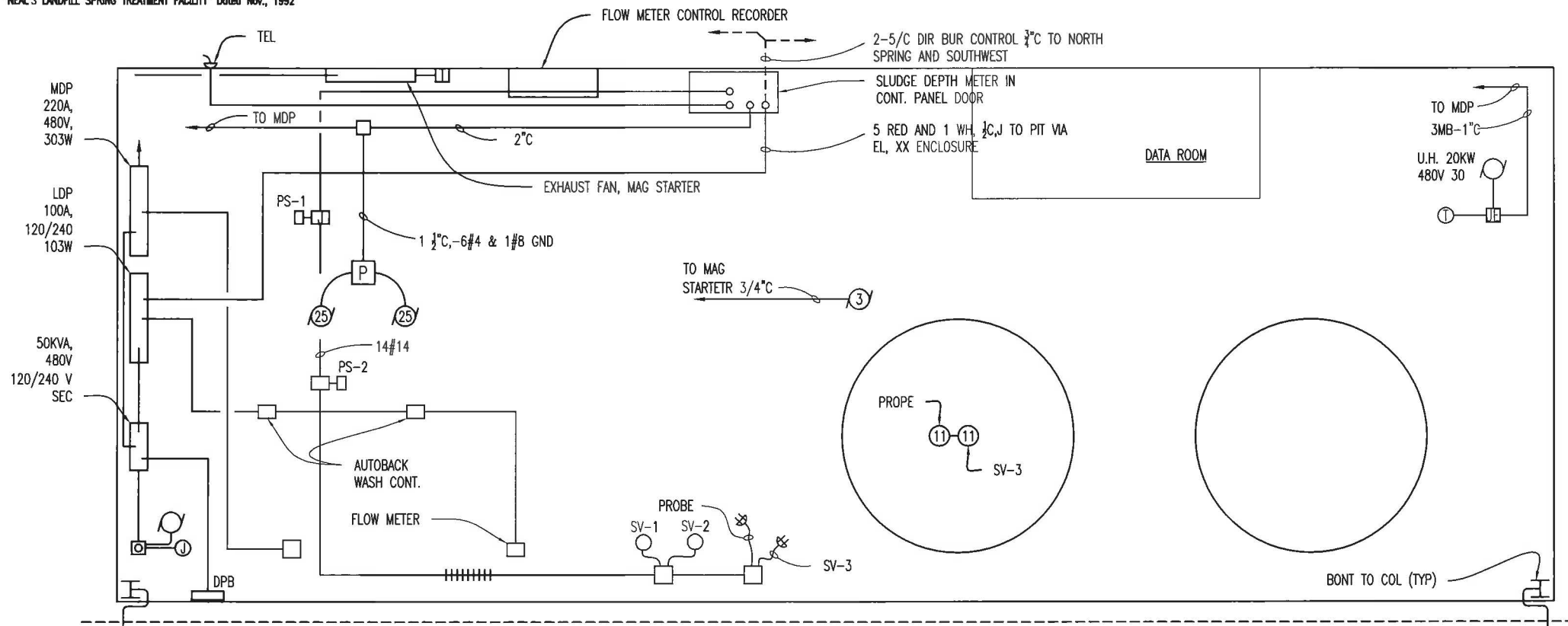
LP CKR#	120-240V Size	3Ø,3WΔ Conduit	100A MCB Wire	Serving
1	20A-1P	---	#12	North Bldg Floor Lts
2	20A-1P	1 1/4"	#12	Filter System Pwr
3	20A-1P	1"	#12	South Bldg Floor Lts
4	20A-1P	---	#12	Rcpt Cir
5	20A-1P	1"	#12	UHTR Control Pwr
6	20A-1P	3/4"	#12	Rcpt Cir
7	20A-1P	1"	#12	Pit Lights
8	20A-1P	1"	#12	Pit Lights
9	20A-1P	3/4"	#12	Pipe trace Pwr in Pit
11-20	20A	---	---	Space
12&14	70A-2P	3/4"	---	Storage Tank Skimmer Pump



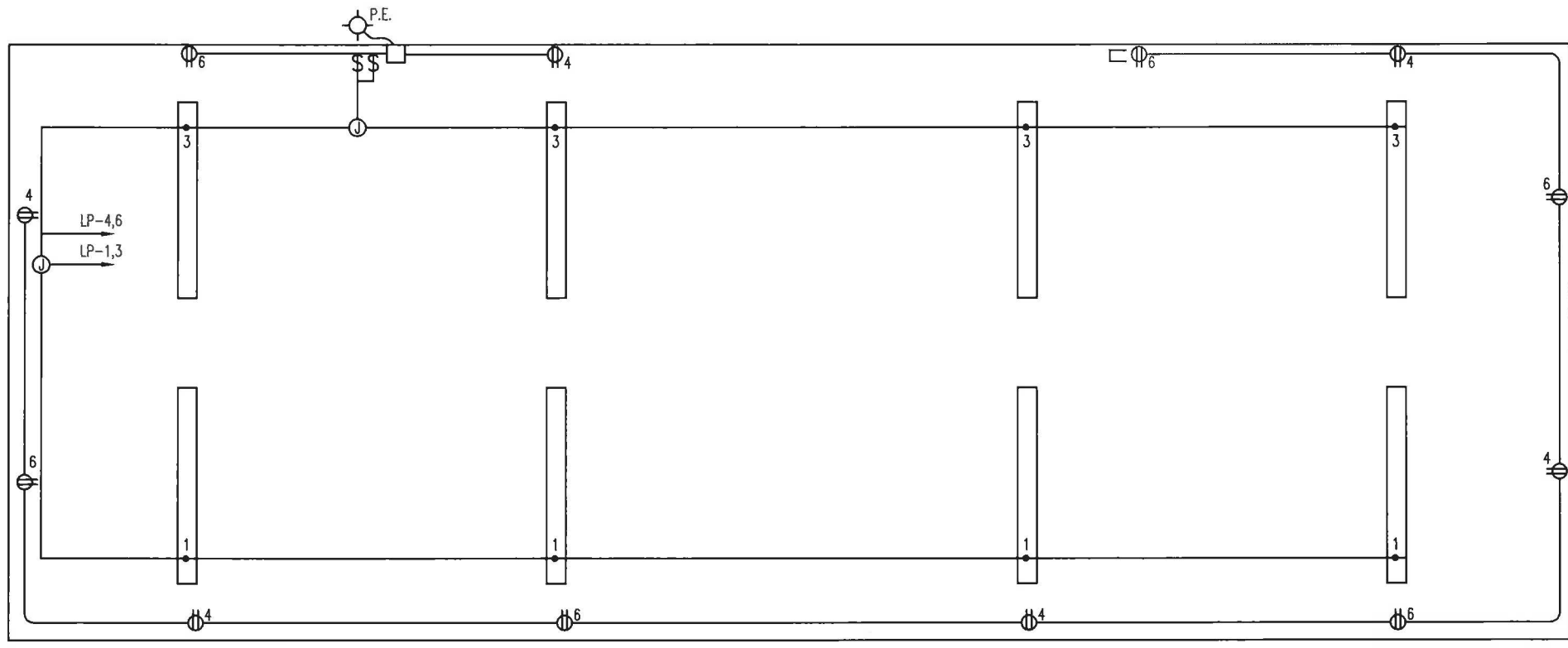
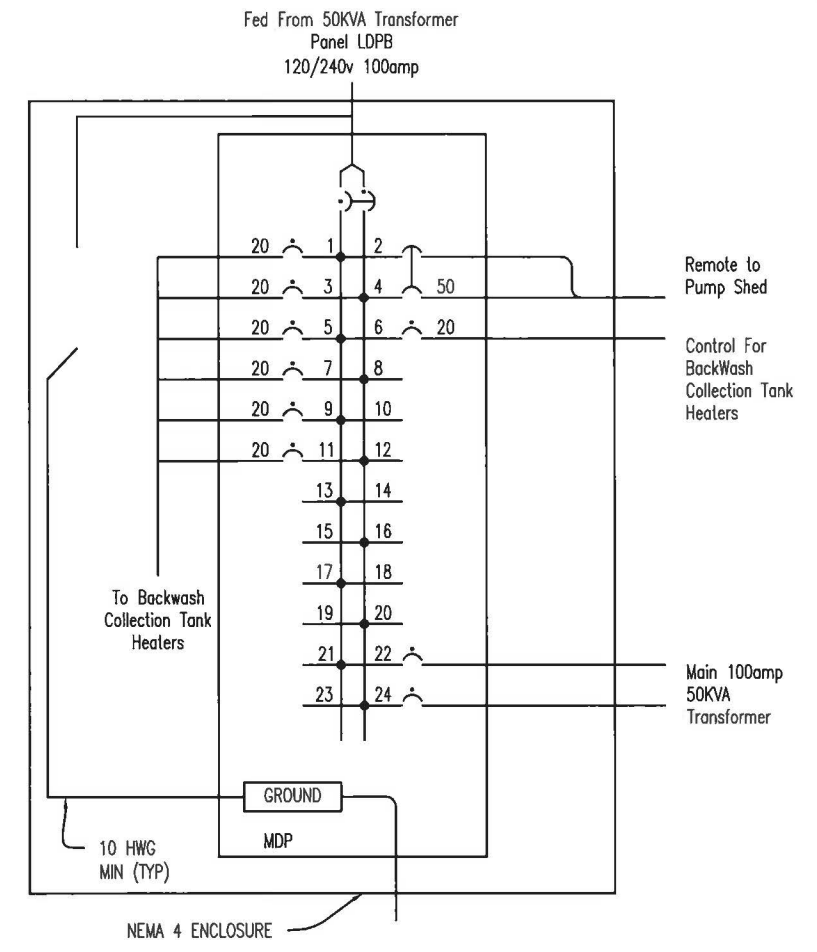
Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	2/12	2012 Updates	RLR

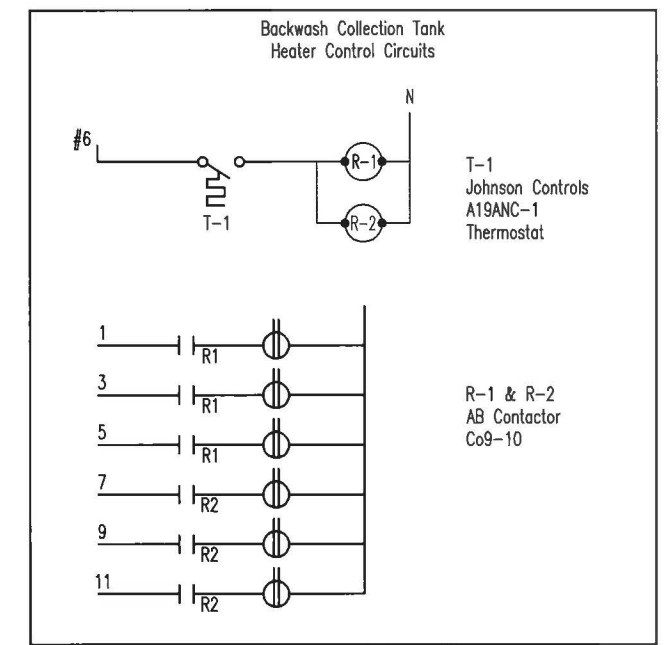
CBS Corporation		
E-1 Site Plan, Electrical Neal's Landfill Spring Treatment Facility		
Drawn By: RLR	Date: 3/26/12	Scale: NTS



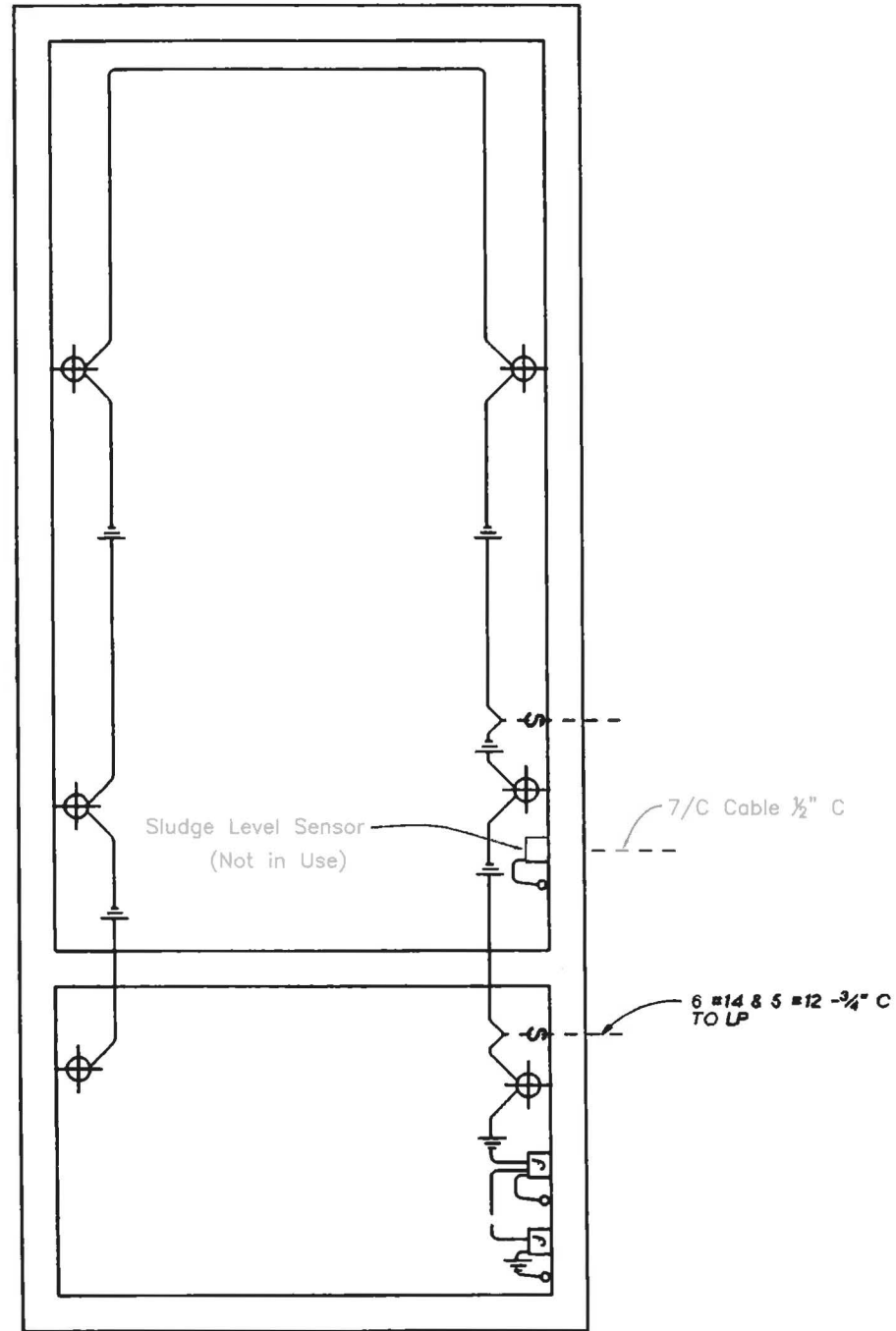
POWER PLAN



LIGHTING AND RECEPTACLE PLAN



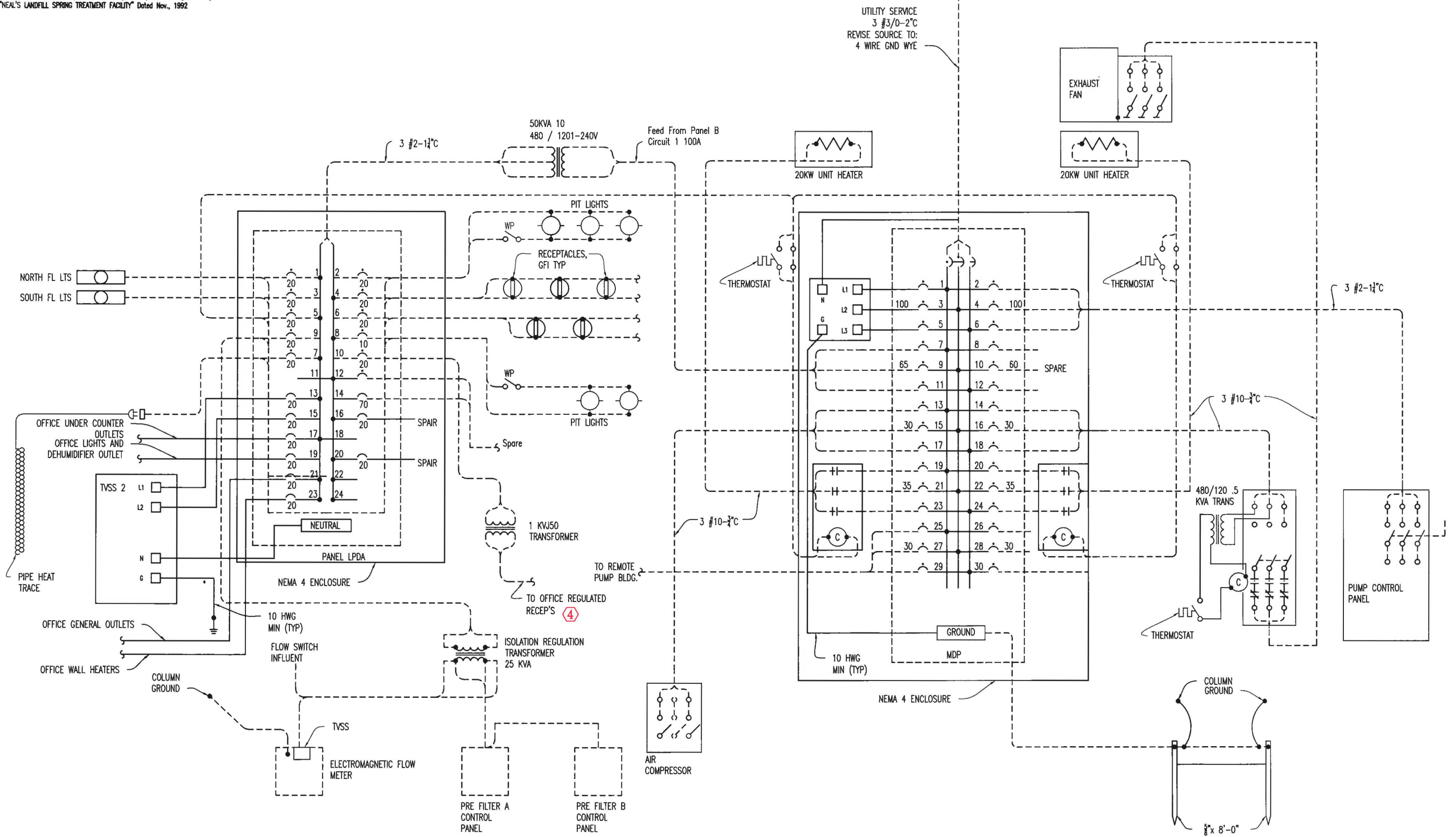
No.	Date	Revision	By	CBS Corporation		
1	11/97	As Built	DRD	E-2 Lighting and Power for Control Bldg. Neal's Landfill Spring Treatment Facility		
2	5/02	As Built	JBP			
3	1/09	Installation of 50KVA Transformer	RLR			
				Drawn By:	Date:	Scale:
				RLR	3/26/12	NTS



Settling Basin Lighting Plan



No.	Date	Revision	By	CBS Corporation		
1	11/97	As Built	DRD	E-3 Lighting for Settling Basin Neal's Landfill Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	3/26/12	NTS



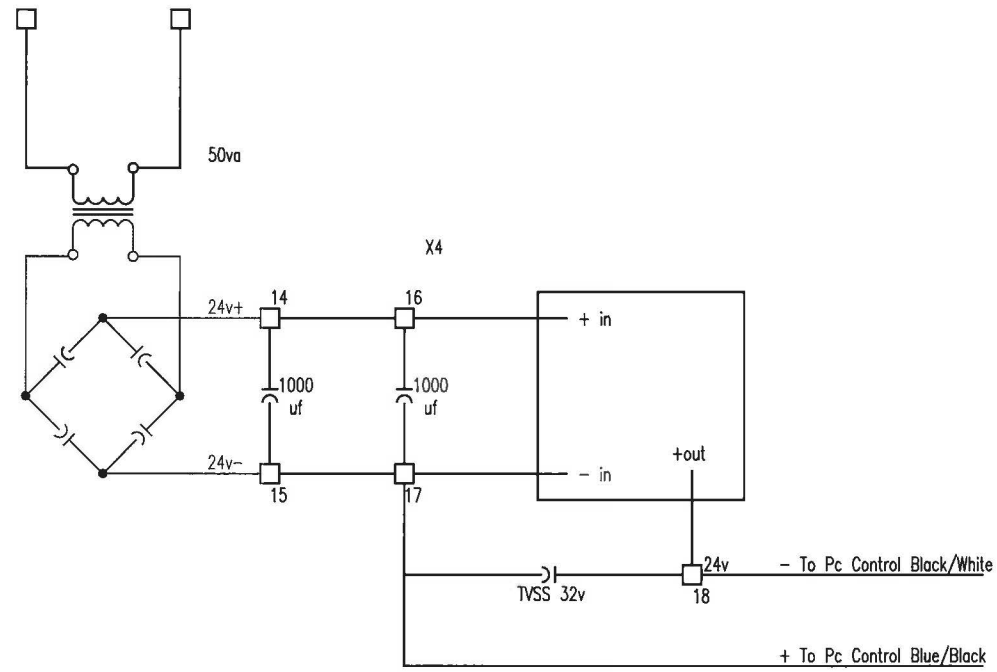
30500.00 CBS - M - (SPRING TREATMENT FACILITY) 27 - E-4.dwg Sheet (E-4)



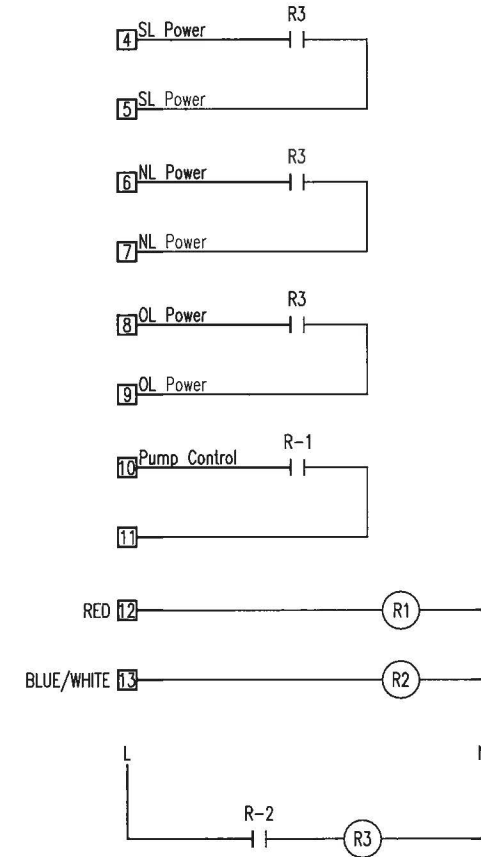
④ Revisions

No.	Date	Revision	By
1	11/97	As Built	DRD
2	5/02	As Built	JBP
3	1/09	Installation of 50KVA Transformer	RLR
4	2/12	2012 Updates	RLR

CBS Corporation
 E-4
 Treatment Facility
 Distribution Power Diagram
 Neal's Landfill
 Spring Treatment Facility
 Drawn By: RLR Date: 01/19/09 Scale: NTS



Power Supply



Override Controls

SCADA Control Circuits



No.	Date	Revision	By	CBS Corporation		
				E-5 SCADA Control Circuits Neal's Landfill Spring Treatment Facility		
				Drawn By:	Date:	Scale:
				RLR	04/28/02	NTS

CBS
 PITTSBURGH, PENNSYLVANIA
 BLOOMINGTON PROJECT

CONARD'S BRANCH UPSTREAM PUMP STATION

CONARD'S BRANCH UPSTREAM PUMP STATION

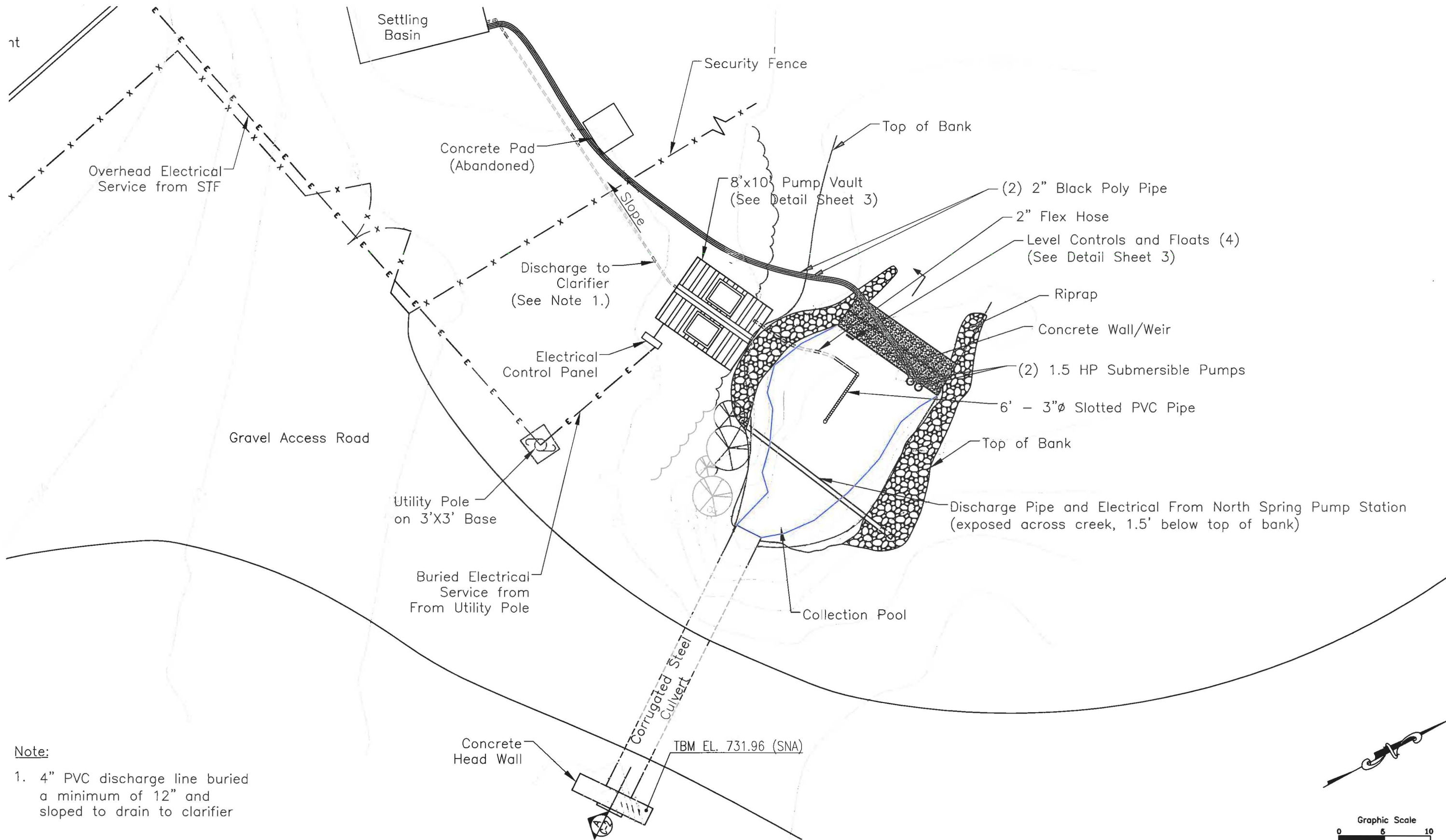
Drawing No. Title	
G-1	COVER
C-1	PUMP STATION PLAN
C-2	SECTION VIEW
C-3	PLAN AND ELEVATION
E-1	PUMP STATION, ELECTRICAL

30500.50 CBS - NL - (Conard Branch Upstream Pump Station) - 1 - G-1.dwg Sheet (G-1)

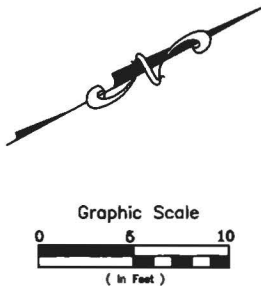


No.	Date	Revision	By
1	2/12	As-built	RLR

CBS Corporation		
G-1 COVER Conard Branch Upstream Pump Station		
Drawn By: RLR	Date: 2/21/12	Scale: NTS



Note:
 1. 4" PVC discharge line buried a minimum of 12" and sloped to drain to clarifier



30500.59 CBS - NL - (Conard Branch Upstream Pump Station) - 2 - C-1 - UPSTREAM SEEP PUMP STATION PLAN.dwg



LEGEND

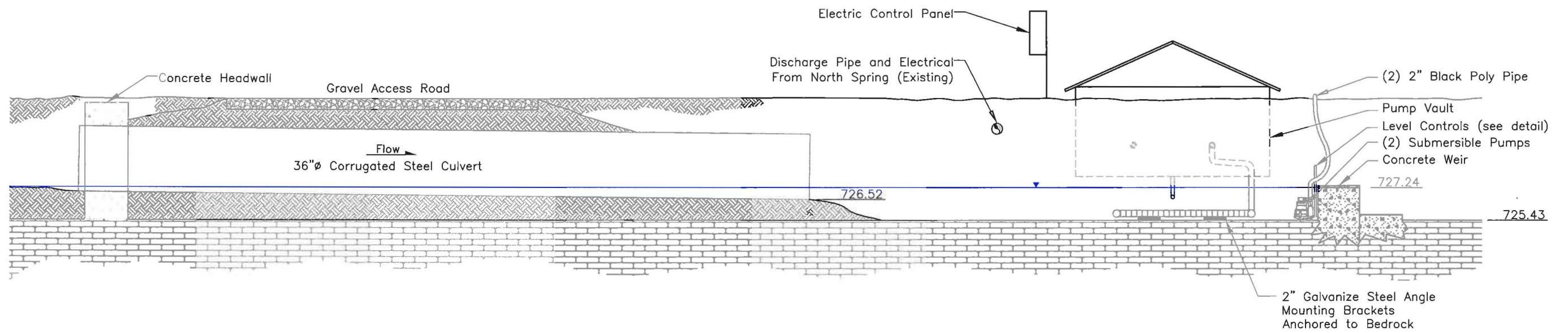
— X —	Fence Line		Tree/ Brush Line		Section Location
— D —	Discharge Line		Trees		
— E —	Electrical Line				

No.	Date	Revision	By
1	2/12	As-built	RLR

CBS Corporation

**C-1
 Pump Station Plan
 Conard Branch Upstream
 Pump Station**

Drawn By: RLR Date: 2/29/12 Scale: 1"=10'

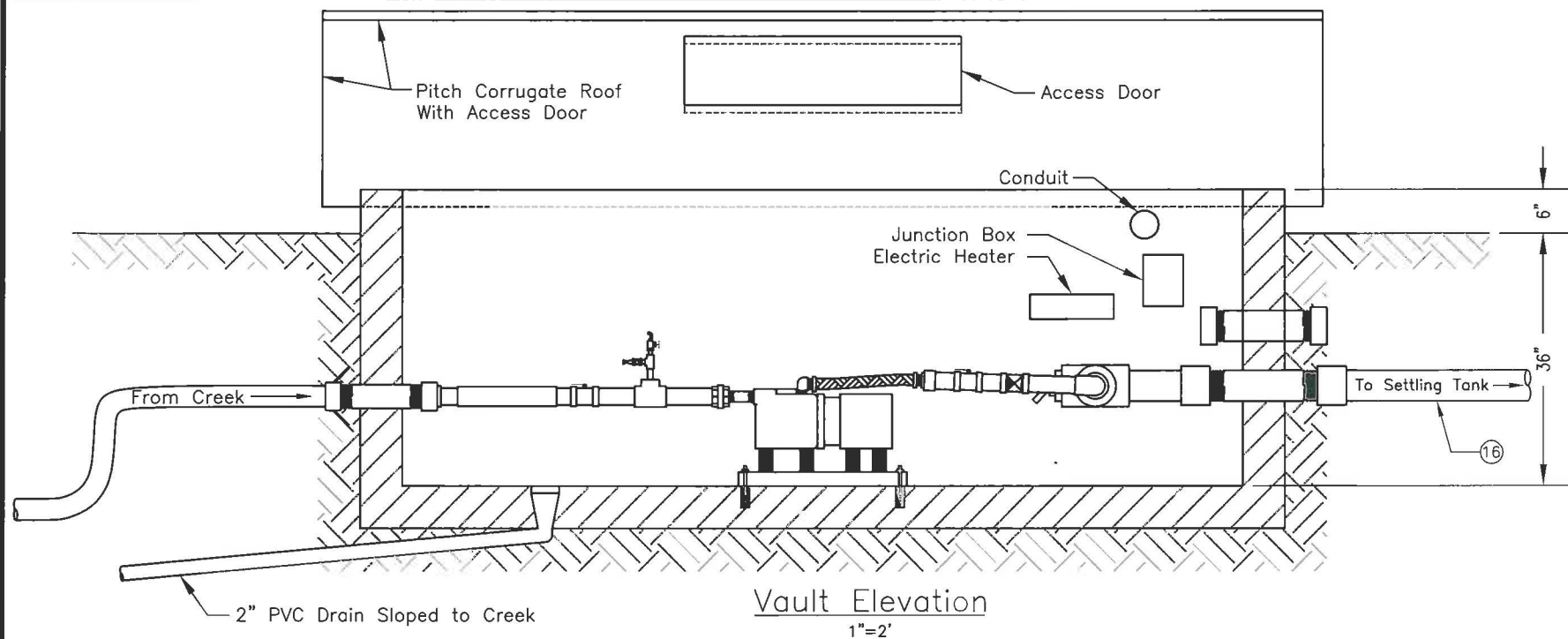


Section A-A'
1" = 5'

30500.59 CBS - NL - (Conard Branch Upstream Pump Station) - 3 - C-2 - UPSTREAM SEEP SECTION VIEW.dwg

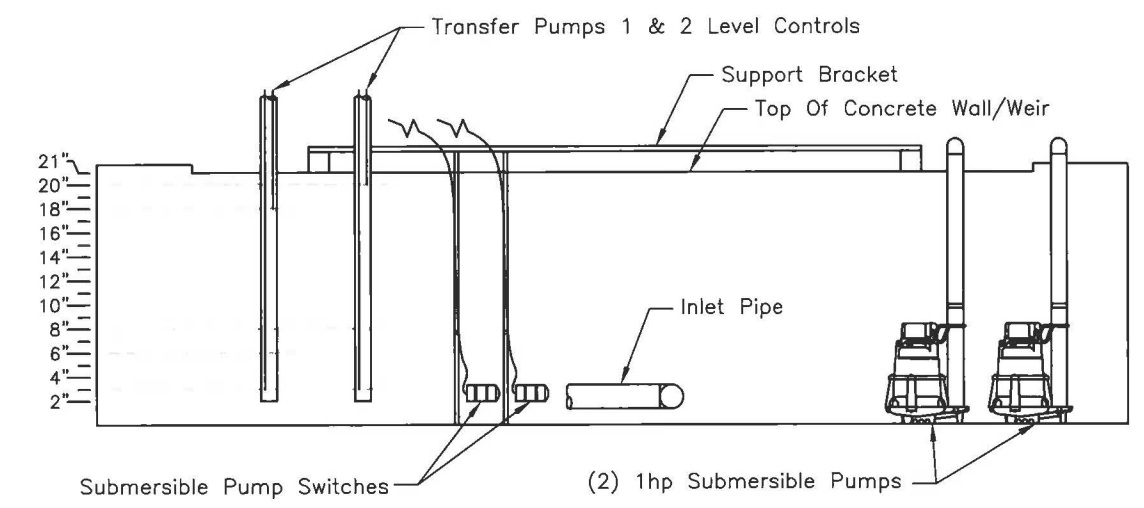
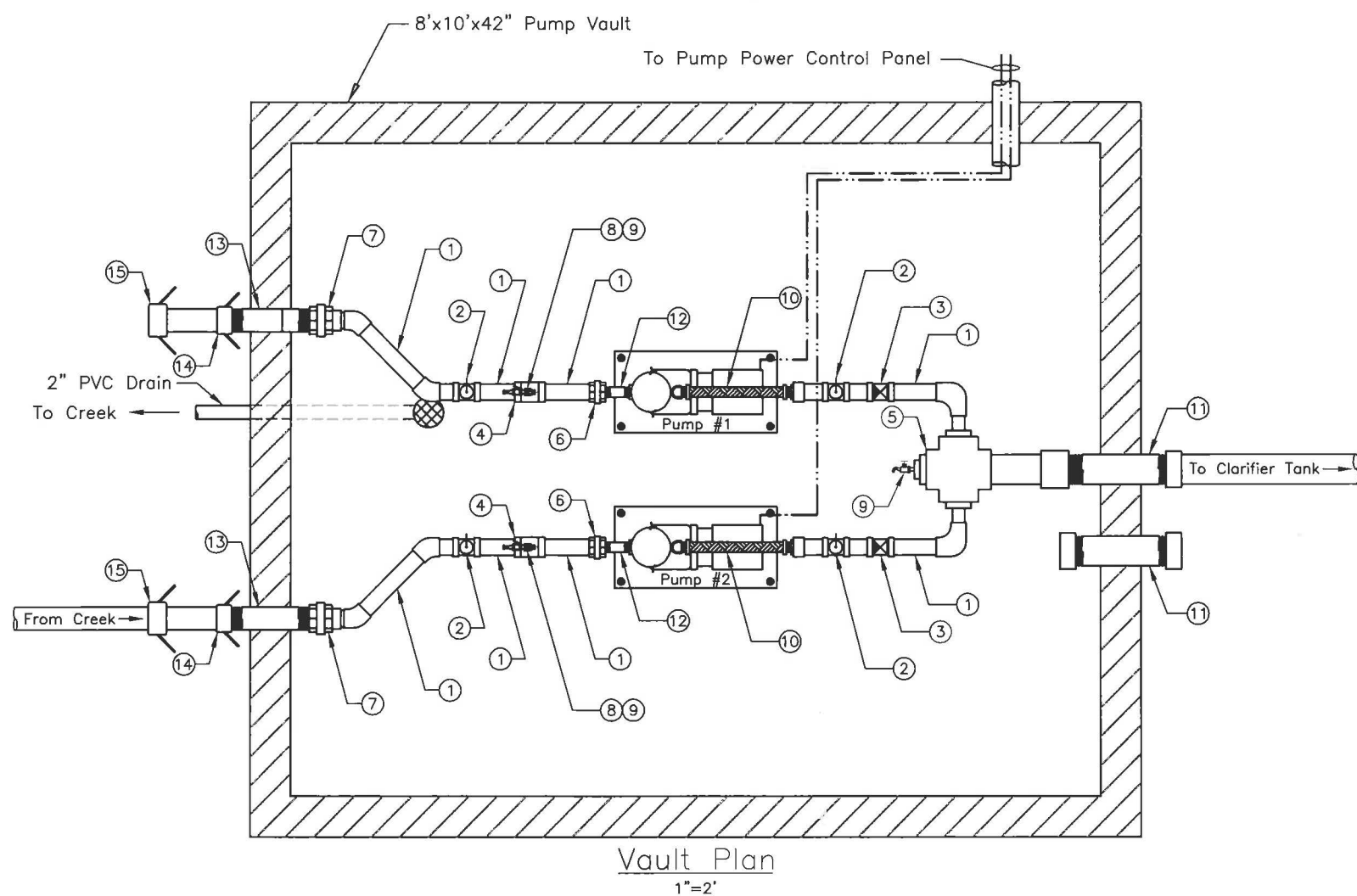


No.	Date	Revision	By	CBS Corporation			
1	2/12	As-built	RLR	C-2 SECTION VIEW Conard Branch Upstream Pump Station			
Drawn By:			RLR	Date:	10/2/02	Scale:	1"=5'



Pipe and Valve Schedule

1	2" PVC Pipe
2	2" PVC Ball Valve
3	2" Brass Check Valve
4	2" PVC Tee
5	4" PVC Tee
6	3" PVC Union to 1.5"
7	3" PVC Union
8	1/2" Brass Air Fitting
9	3/4" Brass Drain
10	1.5" Stainless Steel Braided Flex Hose
11	4" Galvanize Pipe
12	1.5" Galvanize Pipe
13	3" Galvanize Pipe
14	3" Female Camlock
15	3" to 2" Camlock
16	4" SCH 40 PVC



30500.59 CBS - NL - (Conard Branch Upstream Pump Station) - 4 - C-3 - UPSTREAM SEEP PLAN AND ELEVATION.dwg



Note:
1. Concrete Pump Vault Slab and Perimeter walls Poured in place to depth of 42-inches.

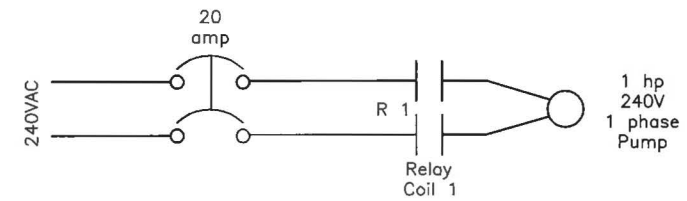
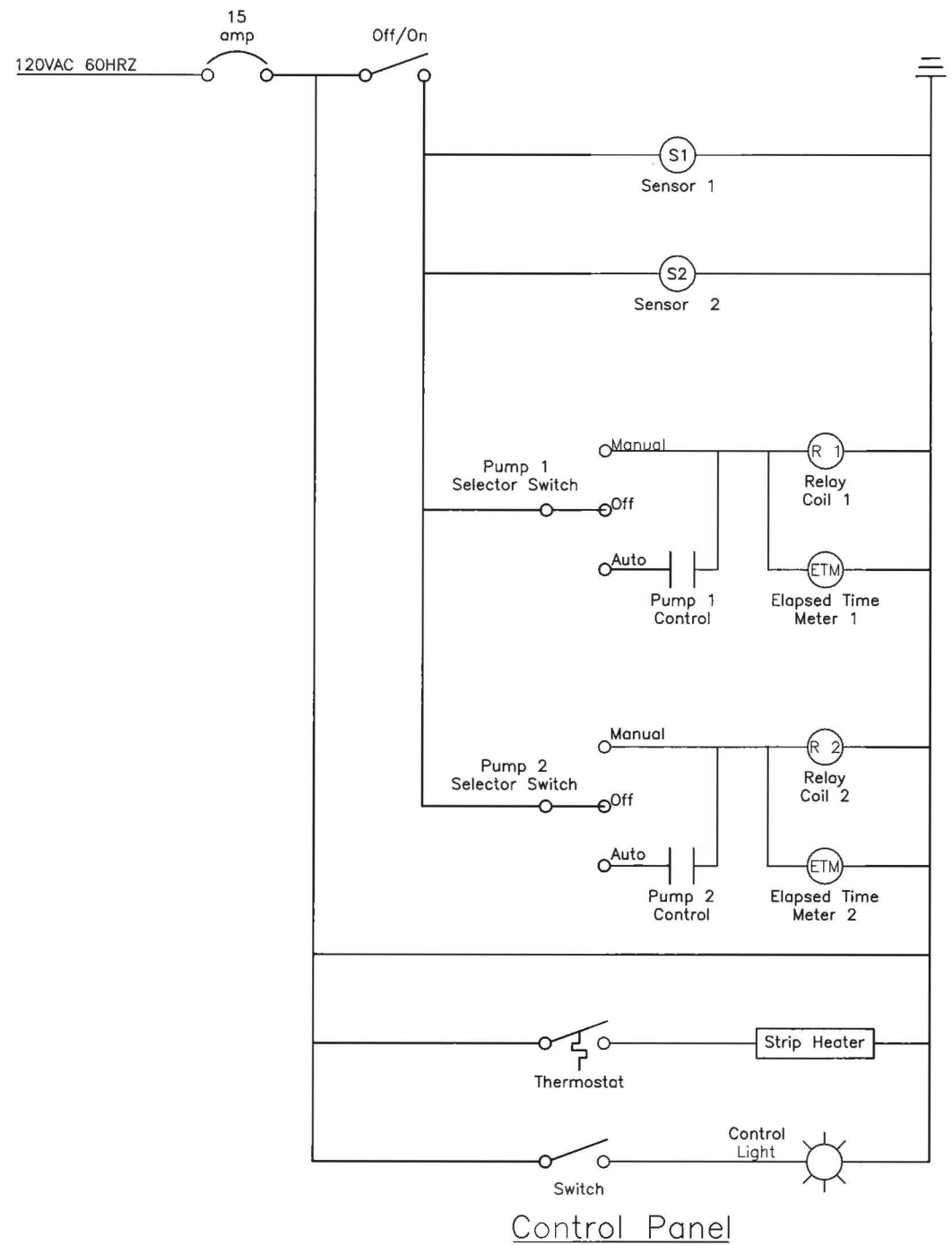
LEGEND

No.	Date	Revision	By
1	2/12	As-built	RLR

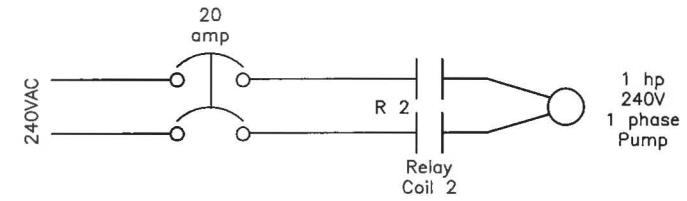
CBS Corporation

C-3
PLAN AND ELEVATION
Conard Branch Upstream
Pump Station

Drawn By: RLR	Date: 10/25/11	Scale: AS SHOWN
------------------	-------------------	--------------------



Pump 1 Control



Pump 2 Control



Note:
 1. Concrete Pump Vault Slab and Perimeter walls Poured in place to depth of 42-inches.

LEGEND

No.	Date	Revision	By
1	2/12	As-built	RLR

CBS Corporation

E-1
 PUMP STATION, ELECTRICAL
 Conard Branch Upstream
 Pump Station

Drawn By: RLR Date: 10/2/02 Scale: AS SHOWN

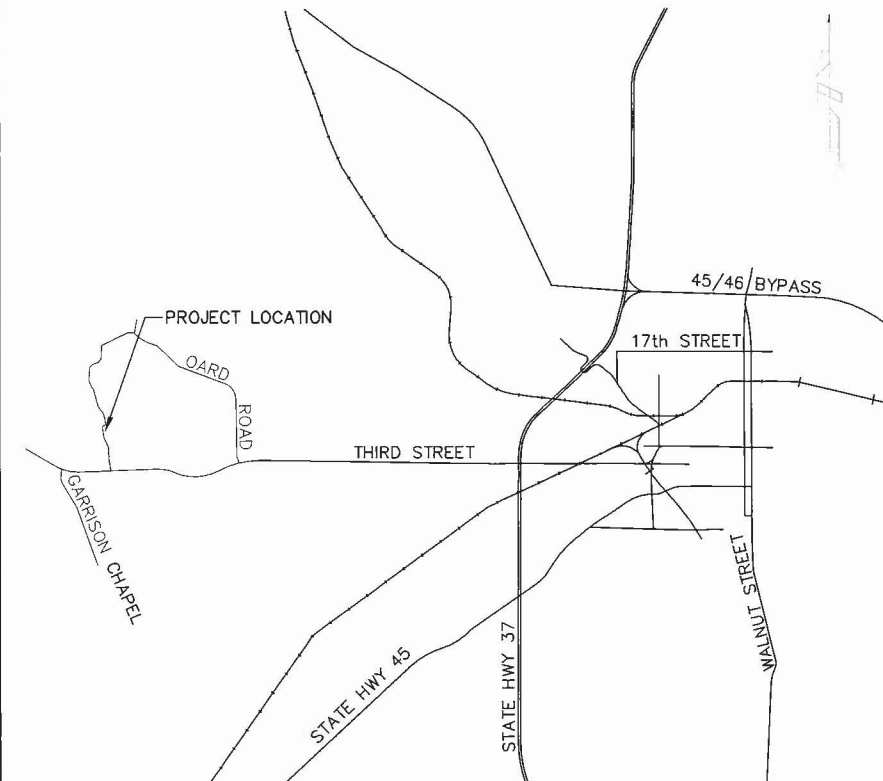
NEAL'S LANDFILL SPRING TREATMENT FACILITY BLOOMINGTON, INDIANA NEAL'S LANDFILL IMPROVEMENTS 2011

**JUNE 2011
 REVISED AUGUST 2011**



GENERAL LOCATION MAP

DRAWING INDEX	
DRAWING NUMBER	DRAWING TITLE
G-1	COVER DRAWING
G-2	GENERAL NOTES AND OVERALL SITE MAP
G-3	SOIL BORING LOGS
G-4	SOIL BORING LOGS
PR-1	DESIGN CRITERIA AND CONSTRUCTION SEQUENCE
PR-2	PROCESS FLOW DIAGRAM
PR-3	PLAN AND PROFILE FORCEMAIN
PR-4	PLAN AND PROFILE FORCEMAIN
PR-5	PLAN AND PROFILE EFFLUENT DISCHARGE LINE
PR-6	PLAN AND PROFILE EFFLUENT DISCHARGE LINE
PR-7	DOWNSTREAM SEEP PUMP STATION SITE PLAN
PR-8	PUMP STATION GRADING PLAN
PR-9	DOWNSTREAM SEEP PUMP STATION SECTION AND DETAILS
PR-9A	SCOUR POOL PLAN
PR-10	DETAILS
PR-11	DETAILS
PR-12	PUMP STATION DETAILS
PR-13	CLARIFIER PLAN AND SECTION
E-1	ELECTRICAL GENERAL NOTES AND SYMBOLS
E-2	ELECTRICAL SITE PLAN
E-3	ELECTRICAL PLANS
E-4	ELECTRICAL PLAN
E-5	ELECTRICAL DETAILS
E-6	PUMP STATION ELECTRICAL PLAN AND DETAILS



PROJECT LOCATION MAP

RECORD DRAWING



125 WEST CHURCH STREET
 CHAMPAIGN, IL 61820
 PHONE : 217.373.8900
 FAX : 217.373.8923



EXPIRES JULY 31, 2012
 SIGNATURE: *Terrence K. Boyer*
 DATE: 6/20/11

PROJECT TITLE
 NEAL'S LANDFILL
 SPRING TREATMENT FACILITY
 BLOOMINGTON, INDIANA
 NEAL'S LANDFILL
 IMPROVEMENTS 2011

DESIGNED BY: A.W.B.
 DRAWN BY: O.L.S.
 CHECKED BY:
 DATE CHECKED:
 NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION

DRAWING TITLE
COVER DRAWING

PROJECT No.
C0850040

DRAWING No.
G-1

DRAWING 1 OF 24 DRAWINGS

CONTACT INFORMATION

(SEE SPECIFICATIONS FOR ADDITIONAL CONTACTS)

OWNER
CBS CORPORATION
RUSS CEPKO
11 STANWIX STREET
PITTSBURGH PA, 15222
PHONE (412) 642-2569
Russ.Cepko@cbs.com

PLANT OPERATOR
PSARA TECHNOLOGIES, INC.
STEVE WADE
ICS PLANT OPERATOR
ILLINOIS CENTRAL SPRINGS
1550 WEST THIRD STREET
BLOOMINGTON, IN 47404
efsbloomington@sbcglobal.net

ENVIRONMENTAL CONSULTANT

PSARA TECHNOLOGIES, INC.
PAT KNEIP
PRINCIPAL ENGINEER
202 WEST VERNAL PIKE
BLOOMINGTON, IN 47404
PHONE (218) 335-0424
mchessling@psara.com

CITY OF BLOOMINGTON UTILITIES

CITY OF BLOOMINGTON UTILITIES
BYRON REINHOLD, JR.
SENIOR PROJECT COORDINATOR
CITY OF BLOOMINGTON, UTILITIES DEPARTMENT
600 EAST MILLER DRIVE
BLOOMINGTON, IN 47401
PHONE (812) 349-3624
reinhold@bloomington.in.gov

ENGINEER

CLARK DIETZ, INC.
125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE (217) 373-8900
TERRY BOYER
DESIGN ENGINEER
PHONE (217) 373-8938
terrence.boyer@clarkdietz.com



Know what's below.
Call before you dig.

BENCHMARK

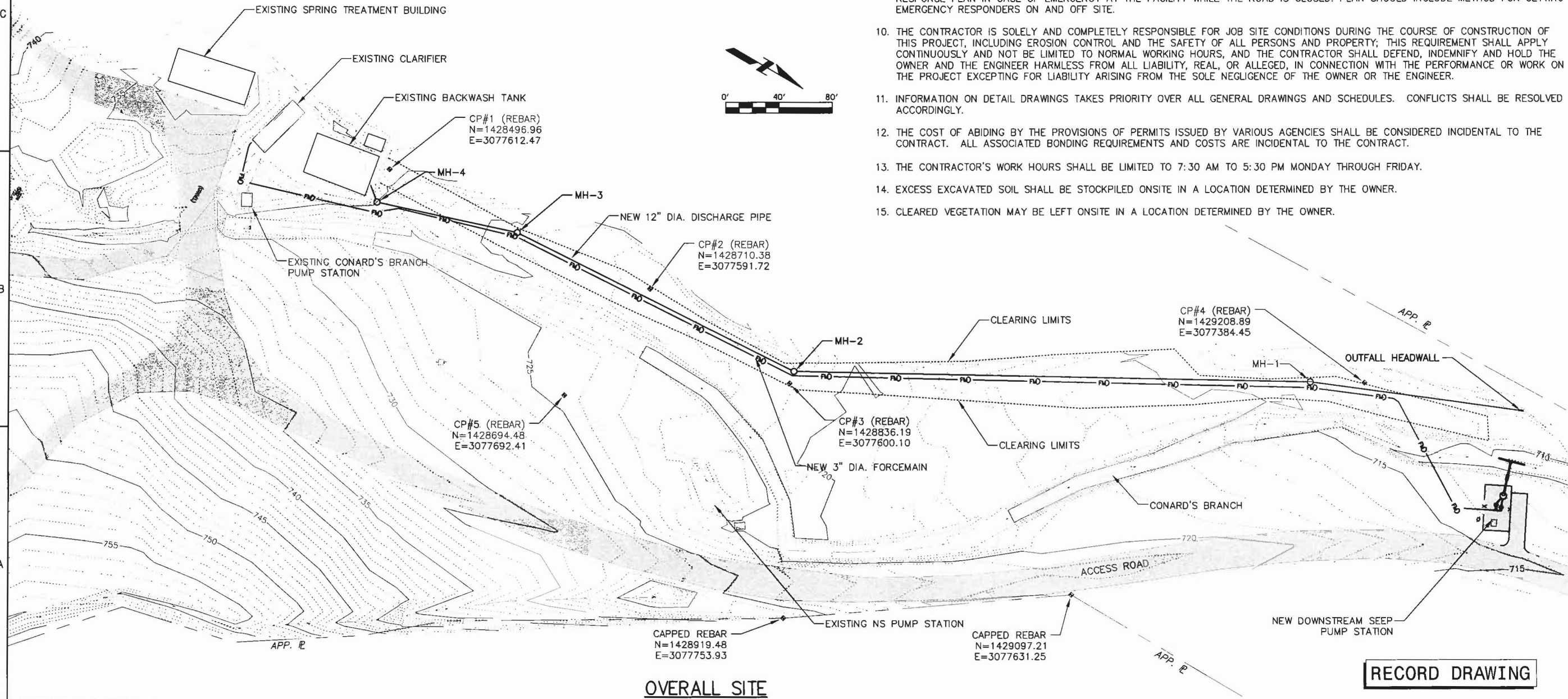
BM #1 PK NAIL IN EAST WINGWALL
ELEVATION 731.99

LEGEND

- ⊕ SOIL BORING
- TREE
- ⚡ CONTROL POINT
- MANHOLE
- ⊖ POWER POLE
- FENCE
- 700 --- MINOR CONTOUR
- 700 — MAJOR CONTOUR
- FM — FORCE MAIN

GENERAL NOTES

1. NOT ALL OF THE GAS, POWER, TELEPHONE LINES, OR PLANT PIPING WHETHER ABOVE OR BELOW GROUND, HAVE BEEN SHOWN ON THE DRAWINGS. THE CONTRACTOR MUST REALIZE THAT THE ACTUAL LOCATIONS OF THE UTILITIES SHOWN ON THE DRAWINGS MAY BE DIFFERENT FROM THE LOCATIONS INDICATED.
2. THE LOCATIONS OF THE EXISTING YARD PIPING, SUCH AS RAW SEWAGE LINES, DRAIN LINES, NON-POTABLE WATER LINES, ETC., AS SHOWN ON THE DRAWINGS, HAVE BEEN DETERMINED FROM 1999 AS-BUILT PLANS FOR THE EXISTING FACILITIES PREPARED BY THE US EPA AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR MUST ASSUME RESPONSIBILITY FOR ALL PIPING AND MUST REALIZE THAT THE ACTUAL LOCATIONS MAY BE DIFFERENT FROM THOSE INDICATED ON THE DRAWINGS.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE THE EXISTING TREATMENT FACILITY, ALL EXISTING PROCESS PIPING, AND ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY PIPING WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH THE PERMISSION OF THE OWNER.
4. BEFORE WORKING WITH OR AROUND EXISTING UTILITIES, THE APPLICABLE UTILITY COMPANY SHALL BE CONTACTED BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL PRESERVE AND PROTECT PROPERTY MARKERS, SECTION CORNERS, SURVEY MARKS AND CITY BENCH MARKS, SUCH AS STONES, PIPES, OR OTHER MONUMENTS ENCOUNTERED. IF THE CONTRACTOR MUST RELOCATE THE PROPERTY MARKERS OR MONUMENTS, THEIR LOCATION SHALL BE REFERENCED BY A REGISTERED LAND SURVEYOR AND THE OWNER NOTIFIED BEFORE MOVING. ALL PROPERTY MARKERS AND MONUMENTS RELOCATED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE AREA AND NO EXTRA COMPENSATION CONNECTED WITH OVERHEAD UTILITIES WILL BE ALLOWED.
7. THE CONTRACTOR IS RESPONSIBLE FOR DUST AND MUD CONTROL.
8. ROADWAY SURFACING AND BASE MATERIALS, OR ANY OTHER PROPERTY REMOVED OR DAMAGED, SHALL BE REPLACED OR REPAIRED AS PROVIDED FOR IN THE SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION TRAFFIC CONTROL. THE CONTRACTOR SHALL PROVIDE AN EMERGENCY RESPONSE PLAN IN CASE OF EMERGENCY AT THE FACILITY WHILE THE ROAD IS CLOSED. PLAN SHOULD INCLUDE METHOD FOR GETTING EMERGENCY RESPONDERS ON AND OFF SITE.
10. THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING EROSION CONTROL AND THE SAFETY OF ALL PERSONS AND PROPERTY; THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ALL LIABILITY, REAL, OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OR WORK ON THE PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
11. INFORMATION ON DETAIL DRAWINGS TAKES PRIORITY OVER ALL GENERAL DRAWINGS AND SCHEDULES. CONFLICTS SHALL BE RESOLVED ACCORDINGLY.
12. THE COST OF ABIDING BY THE PROVISIONS OF PERMITS ISSUED BY VARIOUS AGENCIES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ALL ASSOCIATED BONDING REQUIREMENTS AND COSTS ARE INCIDENTAL TO THE CONTRACT.
13. THE CONTRACTOR'S WORK HOURS SHALL BE LIMITED TO 7:30 AM TO 5:30 PM MONDAY THROUGH FRIDAY.
14. EXCESS EXCAVATED SOIL SHALL BE STOCKPILED ONSITE IN A LOCATION DETERMINED BY THE OWNER.
15. CLEARED VEGETATION MAY BE LEFT ONSITE IN A LOCATION DETERMINED BY THE OWNER.

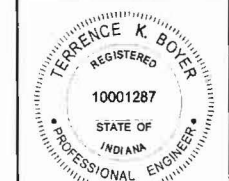


OVERALL SITE

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012
TERRENCE K. BOYER
REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA
10001287
6/25/11
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION
------	----------

DRAWING TITLE
**GENERAL NOTES AND
OVERALL SITE MAP**

PROJECT No.
C0850040

DRAWING No.
G-2

DRAWING 2 OF 24 DRAWINGS

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-1
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 50/4", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-2
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 50/2", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-3
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 3-SS, 50/1", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-4
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 3-SS, 50/2", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-5
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 3-SS, 50/4", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-6
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 3-SS, 50/2", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

MEET Midwest Engineering and Testing, Inc.
Boring: B-7
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG

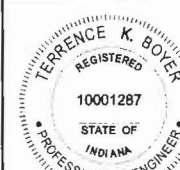
MEET Midwest Engineering and Testing, Inc.
Boring: B-8
Project No.: 1-13023
Date of Boring: May 17, 2011
Field Representative: Zach W. Kosen

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation, FT, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Includes soil types like 1-AU, 2-SS, 50/3", and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

SIGNATURE

DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

Table with columns: DATE, REVISION. Includes dates 06/2011, 08/2011, 01/2012 and revision numbers 1, 2, 3.

DATE REVISION

DRAWING TITLE
SOIL BORING LOGS

PROJECT No.
C0850040

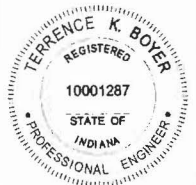
DRAWING No.
G-3

DRAWING 3 OF 24 DRAWINGS

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

Terence K. Boyer
SIGNATURE
6/25/11
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY: _____
DATE CHECKED: _____

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

DATE REVISION

DRAWING TITLE

SOIL BORING LOGS

PROJECT No.
C0850040

DRAWING No.
G-4

DRAWING 4 OF 24 DRAWINGS

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-9, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 714.0 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-10, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 713.0 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-11, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 725.8 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, 4-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-12, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 718.2 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, 4-SS, 5-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-13, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 717.7 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, 4-SS, 5-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

SOIL BORING LOG
IBET Midwest Engineering and Testing, Inc.
Project Name: Lift Station and Effluent Discharge Line
Location: CBS Corporation, Bloomington, Indiana
Boring: B-14, 1-13023, May 17, 2011, Zach Wilcoxen
Field Representative:

Table with columns: VISUAL SOIL CLASSIFICATION, Ground Surface Elevation: 714.7 ft, SAMPLE NO., N, Qp, Qc, MC, Dd, REMARKS. Rows include 1-AU, 2-SS, 3-SS, 4-SS, and BEDROCK.

Lines of Demarcation represent an approximate boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes, such as fill-to-natural soil zone transitions.

NOTES:
1. THE ROCK LOCATION SHOWN ON THE PROFILE DRAWINGS IS BASED ON THE LIMITED SOIL BORING INFORMATION PROVIDED. ACTUAL ROCK LOCATIONS MAY VARY FROM THE LOCATION SHOWN.

RECORD DRAWING

D
C
B
A

DESIGN CRITERIA

DRAINAGE FLOWS

NO DRAINAGE FLOW IN EFFLUENT DISCHARGE PIPE

TREATMENT CAPACITIES

NEAL'S LANDFILL SPRING TREATMENT FACILITY CAPACITY 450 GPM

EXISTING GRAVITY FLOW EFFLUENT DISCHARGE PIPE

MATERIAL	PVC
DIAMETER	12-INCH
MANNING'S N	0.016
SLOPE (MIN.)	0.005 FT/FT
PIPE CAPACITY	1,470 GPM

NEW GRAVITY FLOW EFFLUENT DISCHARGE PIPE

MATERIAL	N-12 HP
DIAMETER	12-INCH
MANNING'S N	0.012
SLOPE (MIN.)	0.0022 FT/FT
PIPE CAPACITY	886 GPM

CONSTRUCTION SEQUENCE NOTES:

- REFER TO THE AGREEMENT IN THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- THE OWNER REQUIRES ADHERENCE TO THE FOLLOWING INTERNAL MILESTONES IN THE STIPULATED TIME AS PART OF THE WORK. FAILURE BY THE CONTRACTOR TO COMPLETE MILESTONES WITHIN THE STIPULATED TIME WILL RESULT IN THE CONTRACTOR PAYING THE OWNER LIQUIDATED DAMAGES OF \$1,000 PER CALENDAR DAY, INCLUDING SUNDAYS AND HOLIDAYS, THAT THE WORK SHALL REMAIN UNCOMPLETED UNLESS THE CONTRACT TIME IS EXTENDED BY THE OWNER.

CONSTRUCTION SEQUENCE

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER.

ENGINEER WILL RETURN SUBMITTALS TO CONTRACTOR

CONTRACTOR SHALL, IN THE FOLLOWING ORDER:

- COMPLETE THE NEW 12" EFFLUENT DISCHARGE LINE, 3" FORCEMAIN, INSTALLATION OF PIPE HEADWALL AND RIPRAP, AND PIPE TESTING
- COMPLETE THE NEW DOWNSTREAM SEEP PUMP STATION
- COMPLETE AND PASS ALL REMAINING TESTING.
- COMPLETE ALL ROADWAY & SEEDED AREA RESTORATION.

CONTRACTOR SHALL ACHIEVE SUBSTANTIAL COMPLETION

CONTRACTOR SHALL ACHIEVE FINAL COMPLETION

STIPULATED TIME

WITHIN 8 DAYS AFTER ISSUANCE OF A NOTICE TO PROCEED

SUBMITTAL RETURN IS ANTICIPATED WITHIN 5 DAYS OF SUBMITTAL RECEIPT

WITHIN 32 CALENDAR DAYS OF APPROVED SHOP DRAWINGS

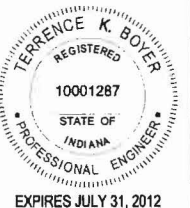
WITHIN 45 CALENDAR DAYS OF APPROVED SHOP DRAWINGS

WITHIN 57 CALENDAR DAYS OF THE ISSUANCE OF THE NOTICE TO PROCEED

WITHIN 82 CALENDAR DAYS OF THE ISSUANCE OF THE NOTICE TO PROCEED



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



Terrence K. Boyer
SIGNATURE
6/29/11
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION
------	----------

DRAWING TITLE
DESIGN CRITERIA AND
CONSTRUCTION SEQUENCE

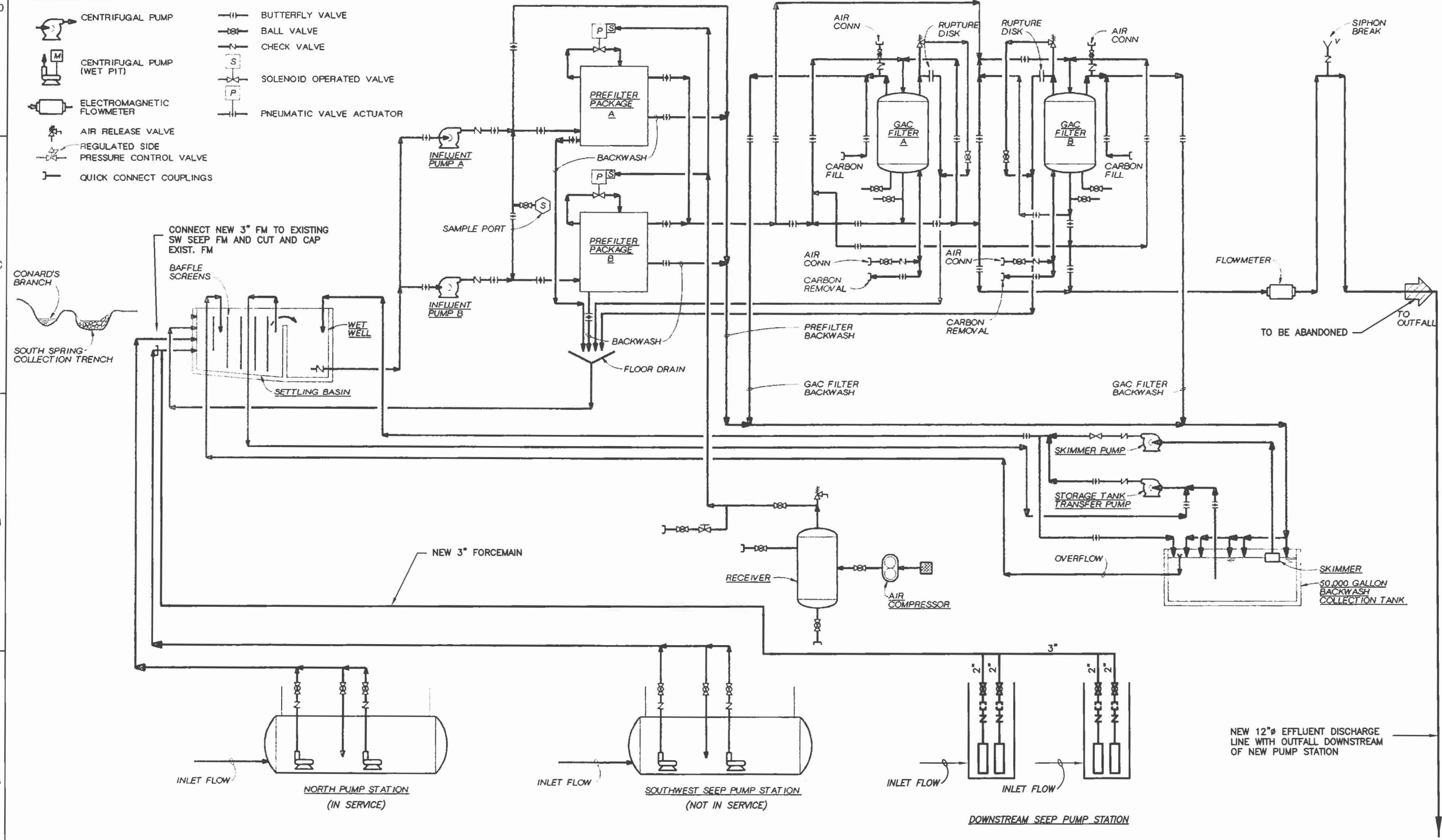
PROJECT No.
C0850040

DRAWING No.
PR-1

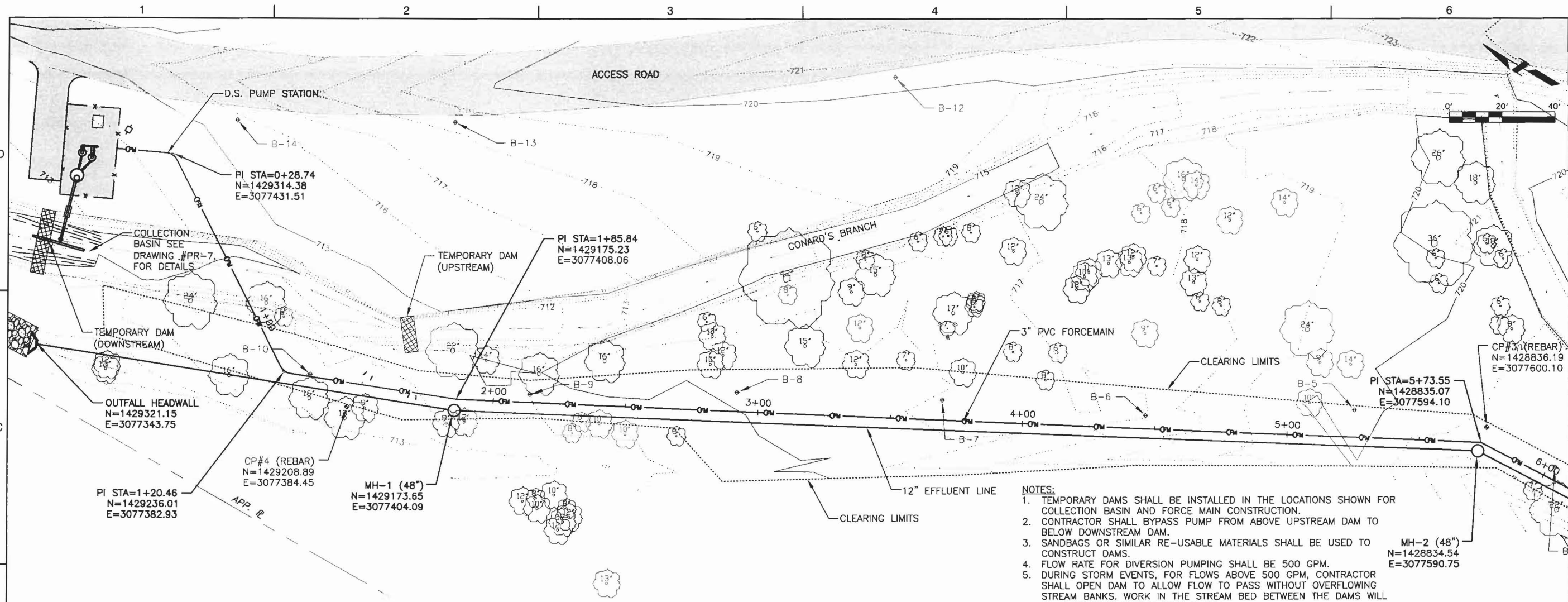
RECORD DRAWING

SYMBOLS

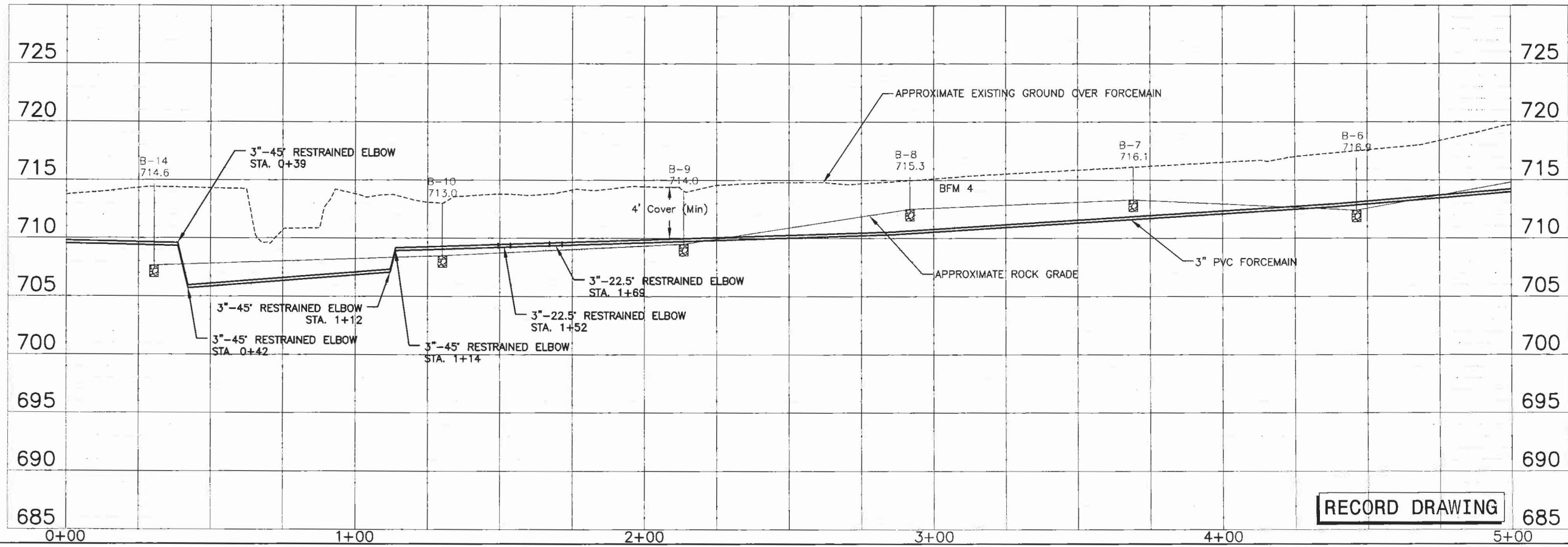
- CENTRIFUGAL PUMP
- CENTRIFUGAL PUMP (WET PIT)
- ELECTROMAGNETIC FLOWMETER
- AIR RELEASE VALVE
- REGULATED SIDE PRESSURE CONTROL VALVE
- QUICK CONNECT COUPLINGS
- BUTTERFLY VALVE
- BALL VALVE
- CHECK VALVE
- SOLENOID OPERATED VALVE
- PNEUMATIC VALVE ACTUATOR



RECORD DRAWING



- NOTES:**
- TEMPORARY DAMS SHALL BE INSTALLED IN THE LOCATIONS SHOWN FOR COLLECTION BASIN AND FORCE MAIN CONSTRUCTION.
 - CONTRACTOR SHALL BYPASS PUMP FROM ABOVE UPSTREAM DAM TO BELOW DOWNSTREAM DAM.
 - SANDBAGS OR SIMILAR RE-USABLE MATERIALS SHALL BE USED TO CONSTRUCT DAMS.
 - FLOW RATE FOR DIVERSION PUMPING SHALL BE 500 GPM.
 - DURING STORM EVENTS, FOR FLOWS ABOVE 500 GPM, CONTRACTOR SHALL OPEN DAM TO ALLOW FLOW TO PASS WITHOUT OVERFLOWING STREAM BANKS. WORK IN THE STREAM BED BETWEEN THE DAMS WILL BE SUSPENDED DURING HIGH FLOWS.



RECORD DRAWING

Clark Dietz
ENGINEERS

125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923

TERENCE K. BOYER
REGISTERED
10001287
STATE OF
INDIANA
PROFESSIONAL ENGINEER
EXPIRES JULY 31, 2012

SIGNATURE
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

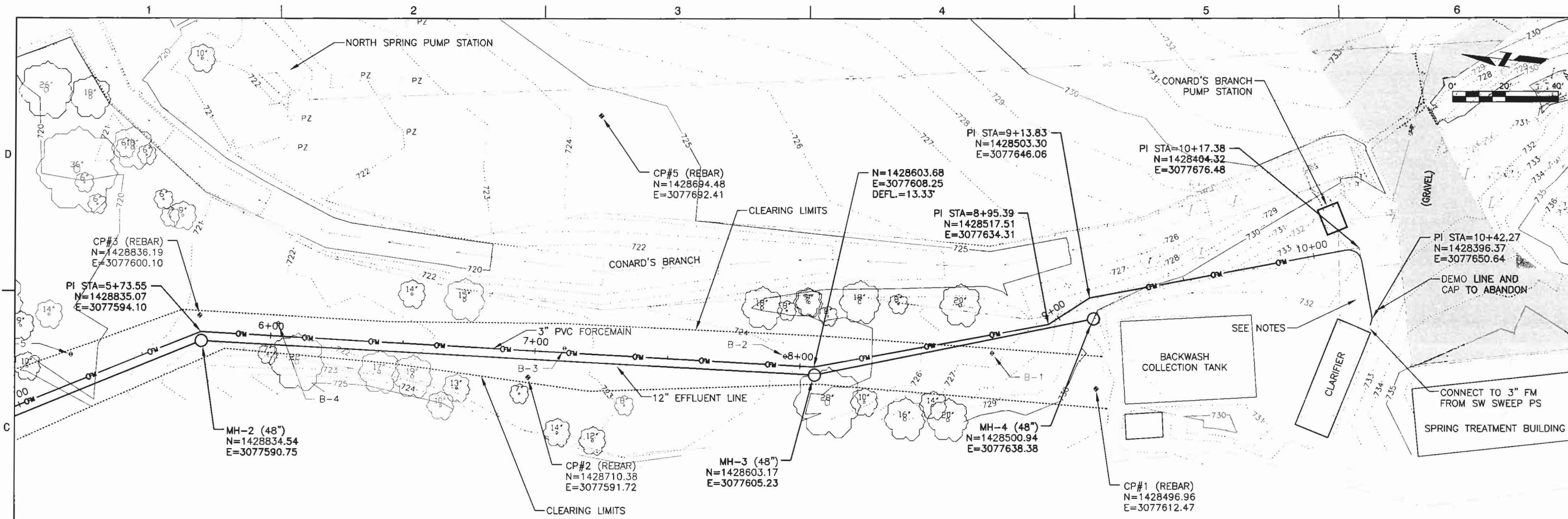
DATE	REVISION

DRAWING TITLE
**PLAN AND PROFILE
FORCEMAIN**

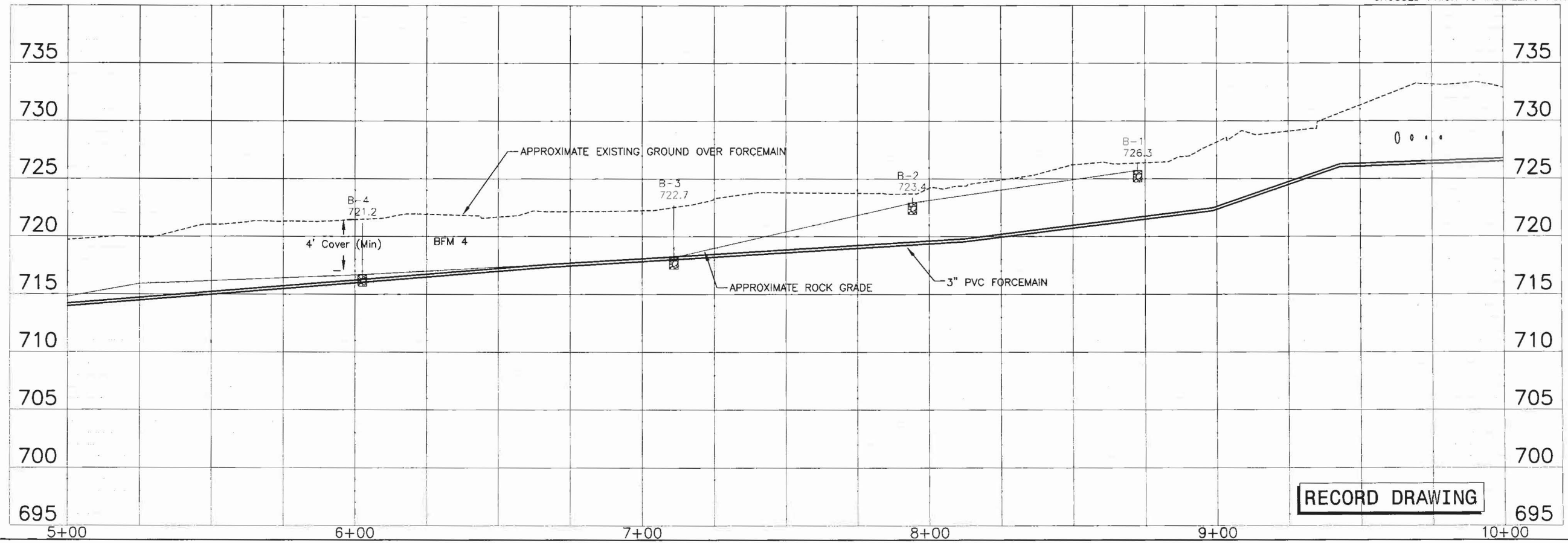
PROJECT No.
C0850040

DRAWING No.
PR-3

DRAWING 7 OF 24 DRAWINGS



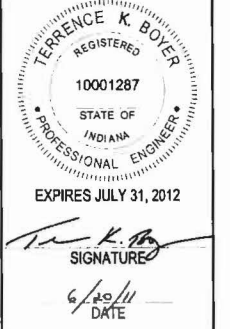
- NOTES:**
- FORCEMAIN WILL CROSS MULTIPLE PIPE LINES NEAR CLARIFIER. SEE DWG. PR-13 FOR CLARIFIER PIPING DETAILS.
 - CONTRACTOR SHALL POTHOLE ALL LINES CROSSED PRIOR TO INSTALLING FORCEMAIN.



RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

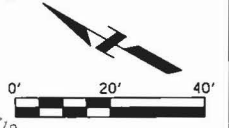
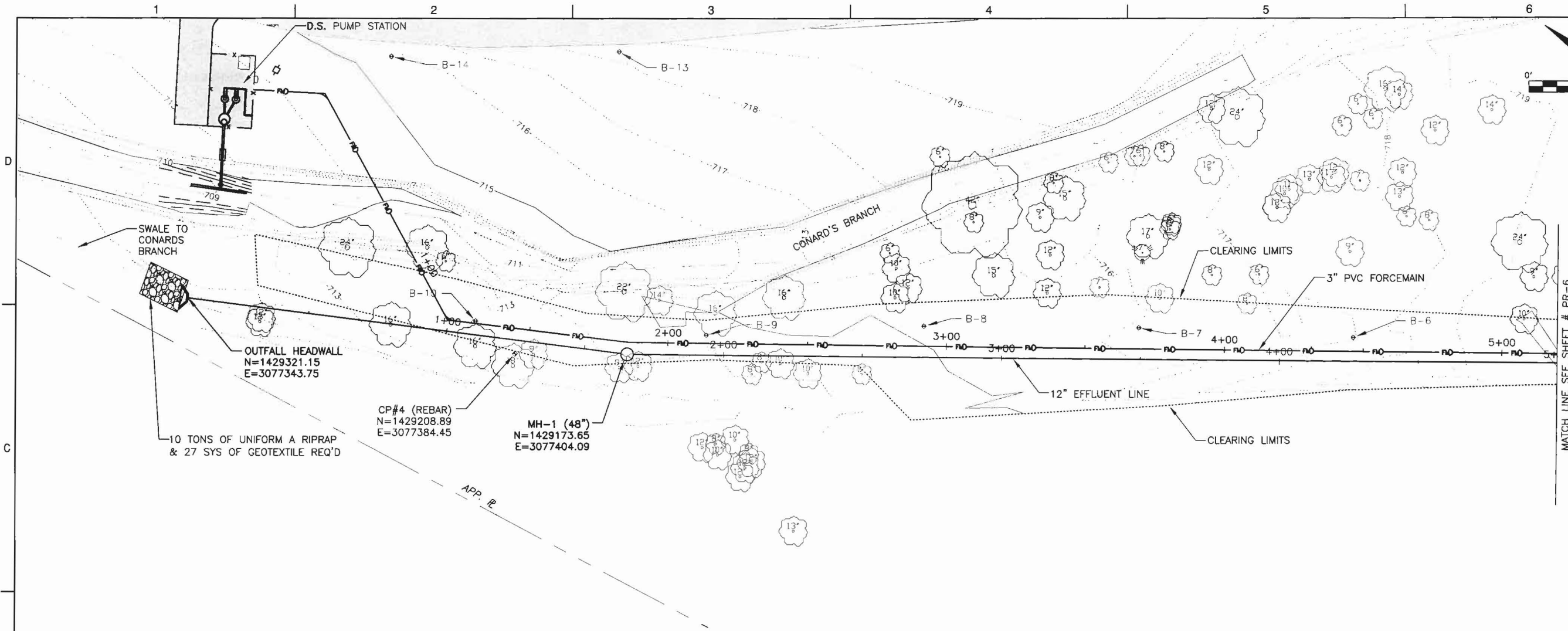
DATE	REVISION
06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DRAWING TITLE
**PLAN AND PROFILE
FORCEMAIN**

PROJECT No.
C0850040

DRAWING No.
PR-4

DRAWING 8 OF 24 DRAWINGS



Clark Dietz
ENGINEERS

125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923

TERENCE K. BOYER
REGISTERED
10001287
STATE OF INDIANA
PROFESSIONAL ENGINEER
EXPIRES JULY 31, 2012
SIGNATURE
6/20/11
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

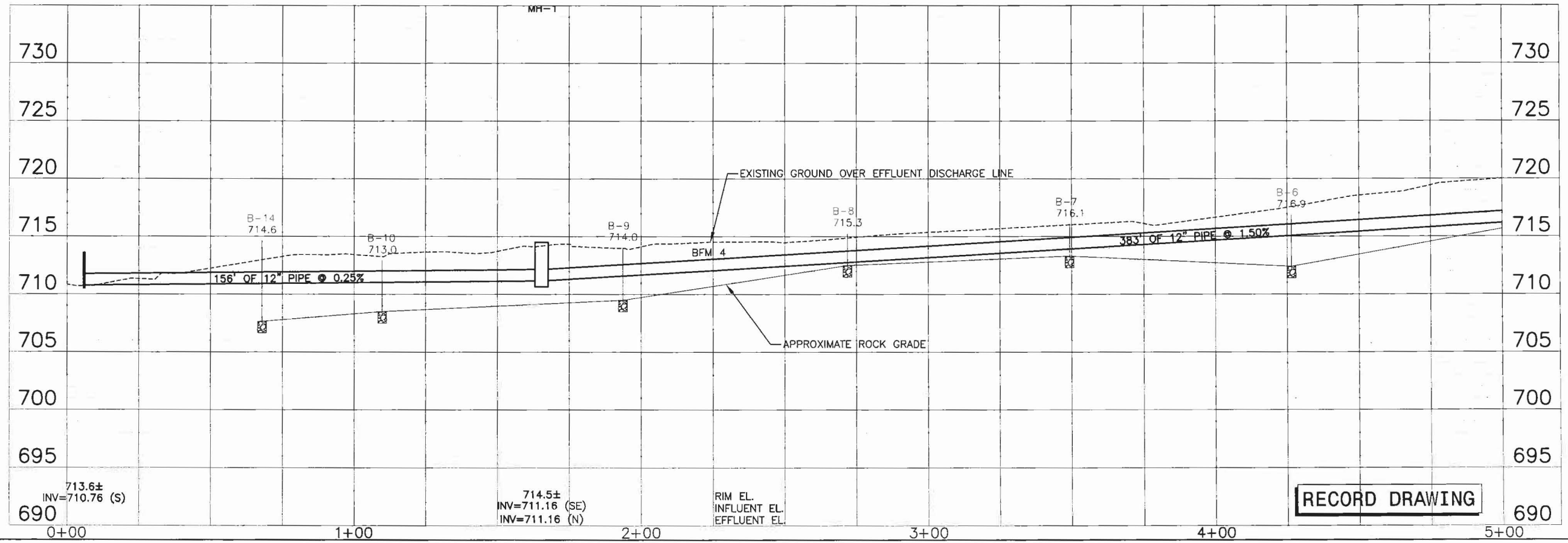
DATE REVISION

DRAWING TITLE
**PLAN AND PROFILE
EFFLUENT DISCHARGE LINE**

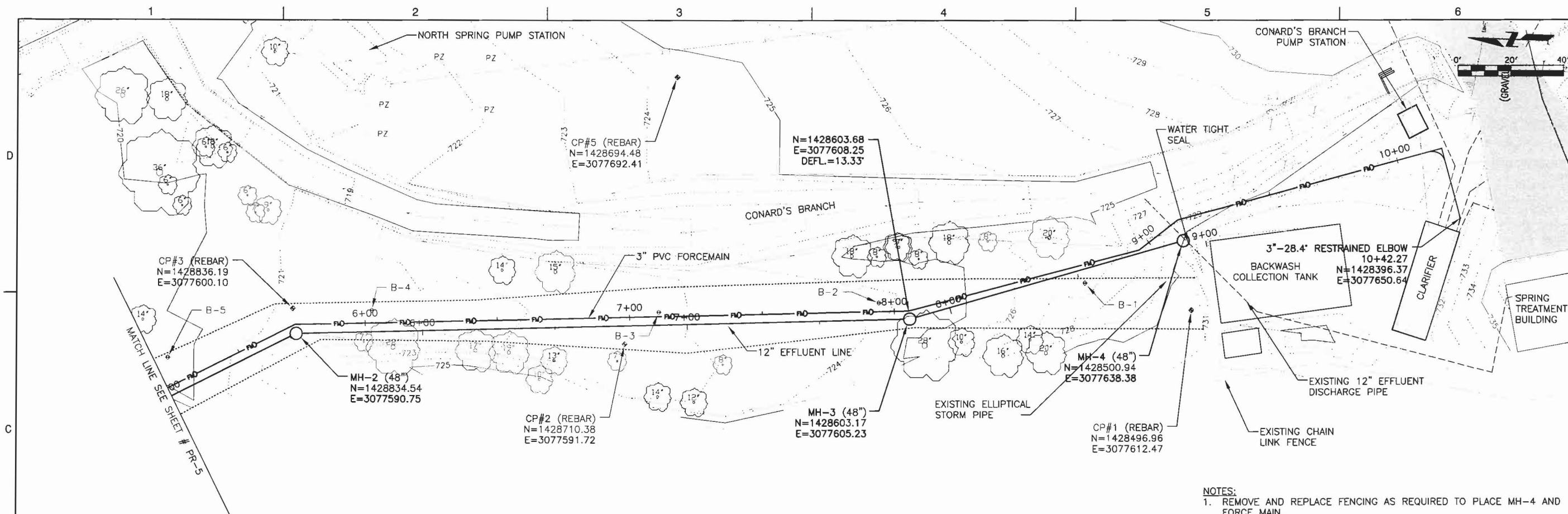
PROJECT No.
C0850040

DRAWING No.
PR-5

DRAWING 9 OF 24 DRAWINGS



RECORD DRAWING



Clark Dietz
ENGINEERS
125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923

TERENCE K. BOYER
REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA
10001287
EXPIRES JULY 31, 2012
TERENCE K. BOYER
SIGNATURE
6/30/11
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

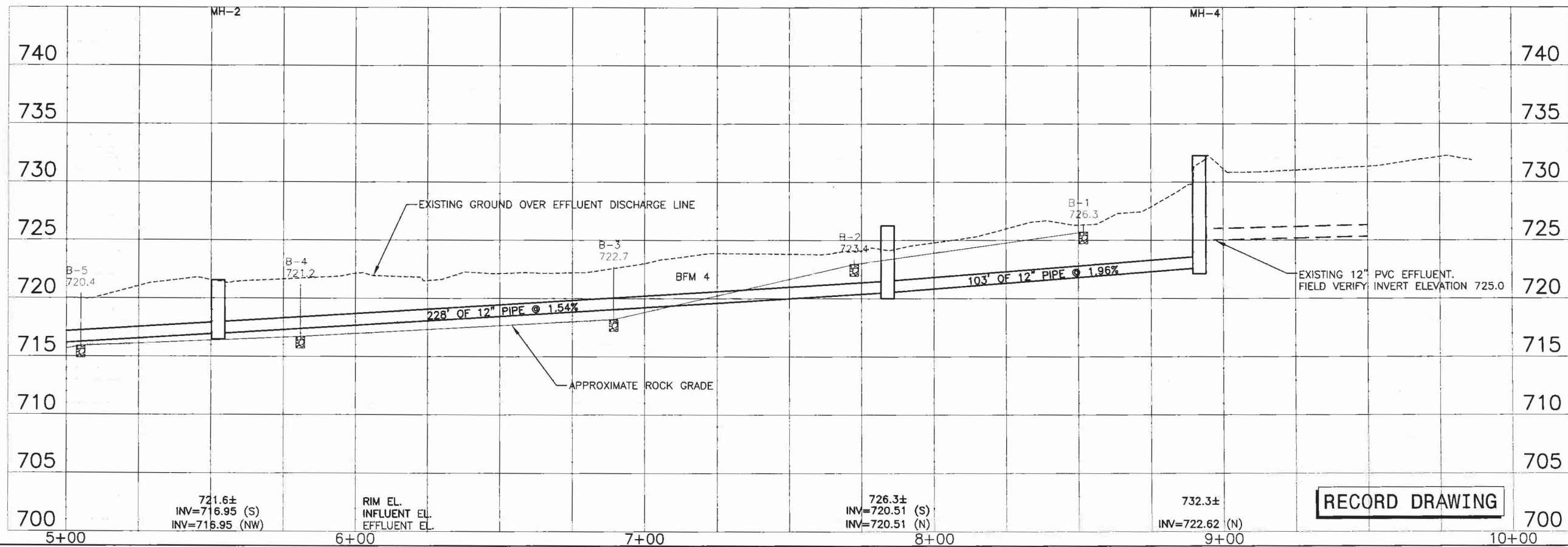
NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

DATE	REVISION
08/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

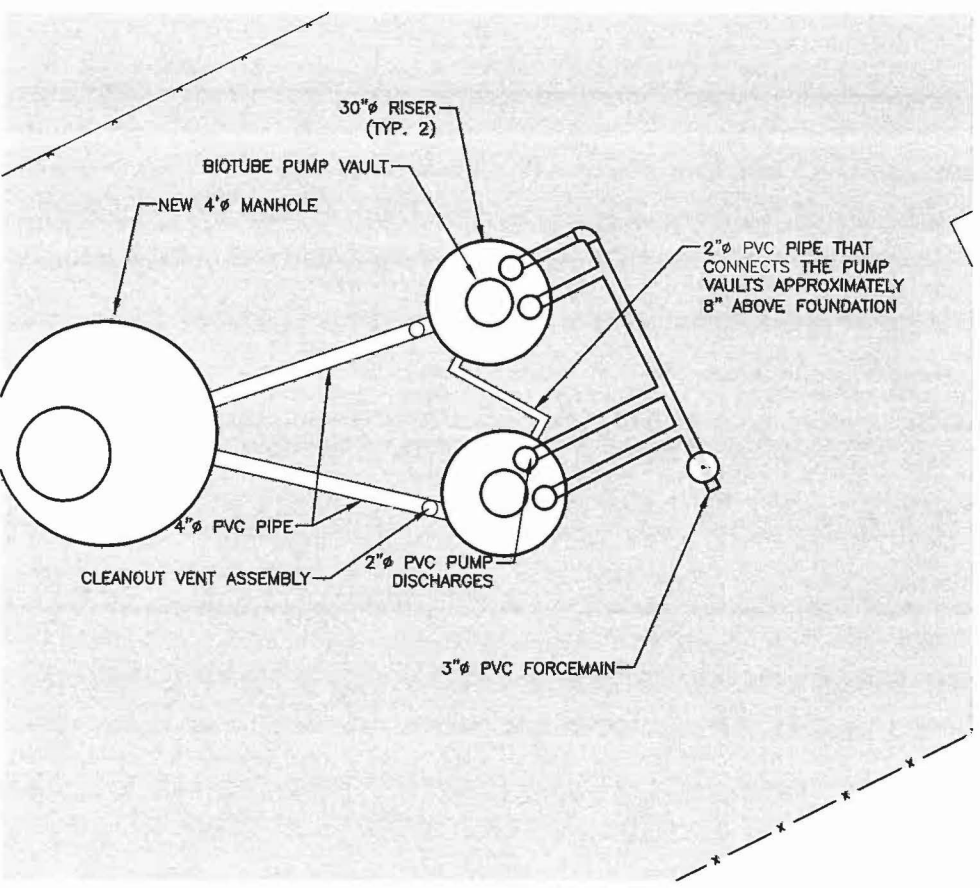
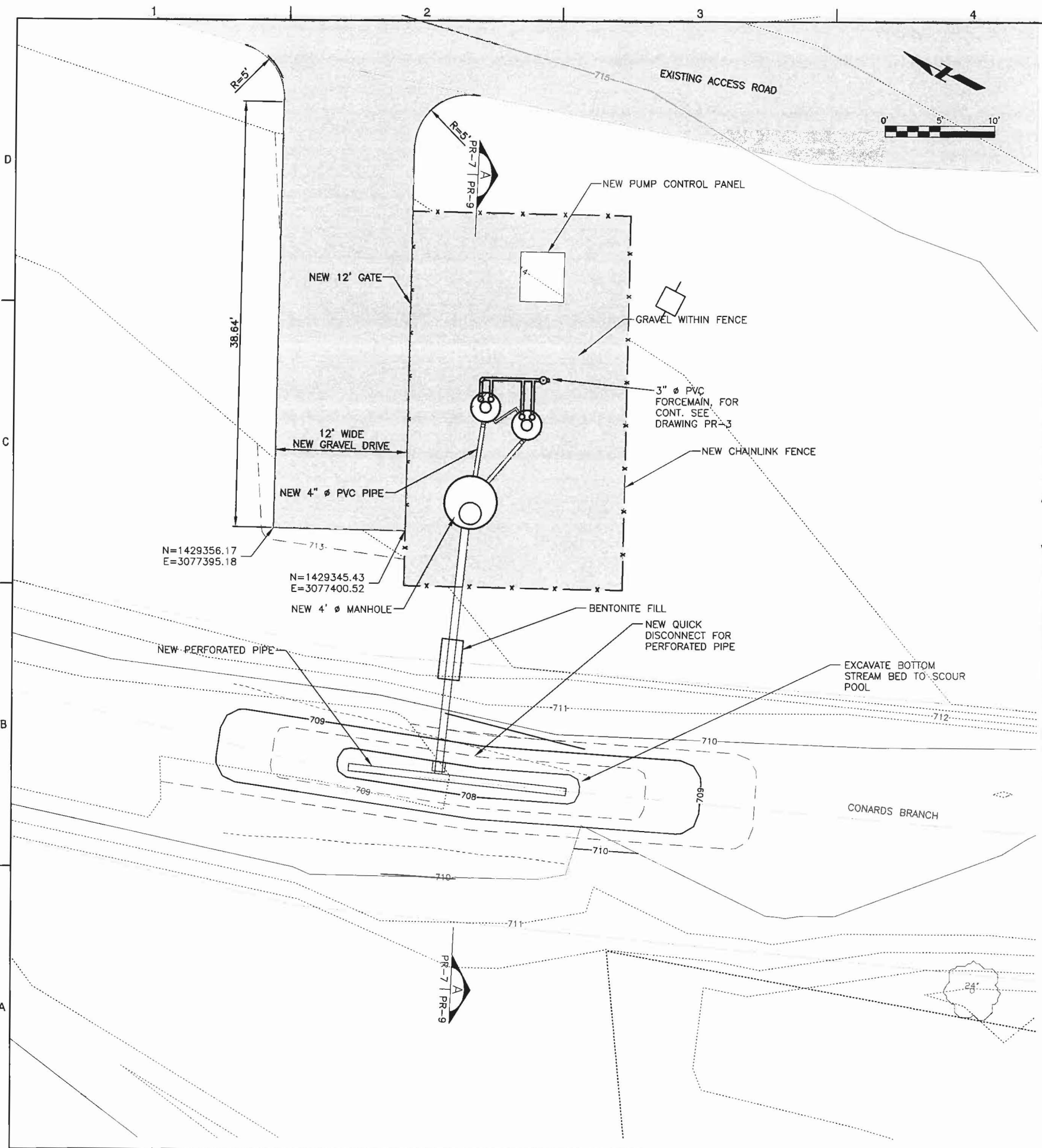
DRAWING TITLE
**PLAN AND PROFILE
EFFLUENT DISCHARGE LINE**

PROJECT No.
C0850040
DRAWING No.
PR-6
DRAWING 10 OF 24 DRAWINGS

- NOTES:**
1. REMOVE AND REPLACE FENCING AS REQUIRED TO PLACE MH-4 AND FORCE MAIN.
 2. CONTRACTOR SHALL CONSTRUCT MH-4 AROUND EXISTING EFFLUENT PIPE AND KEEP EXISTING PIPE IN SERVICE. CONTRACTOR SHALL VERIFY PIPE LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
 3. AFTER PIPE TESTING IS COMPLETE, CONTRACTOR SHALL REMOVE EXISTING PIPE FROM MH-4 AND PROVIDE WATERTIGHT SEAL.



RECORD DRAWING



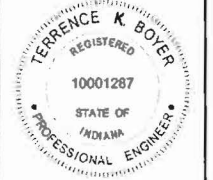
PLAN VIEW
SCALE: 1"=2'

- NOTES:**
- GRAVEL IN PUMP STATION SHALL CONSIST OF 12" OF COMPACTED #8 CRUSHED STONE.
 - LIFT STATION MODIFIED POST-BIDDING.

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

Terrence K. Boyer
SIGNATURE

6/20/11
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

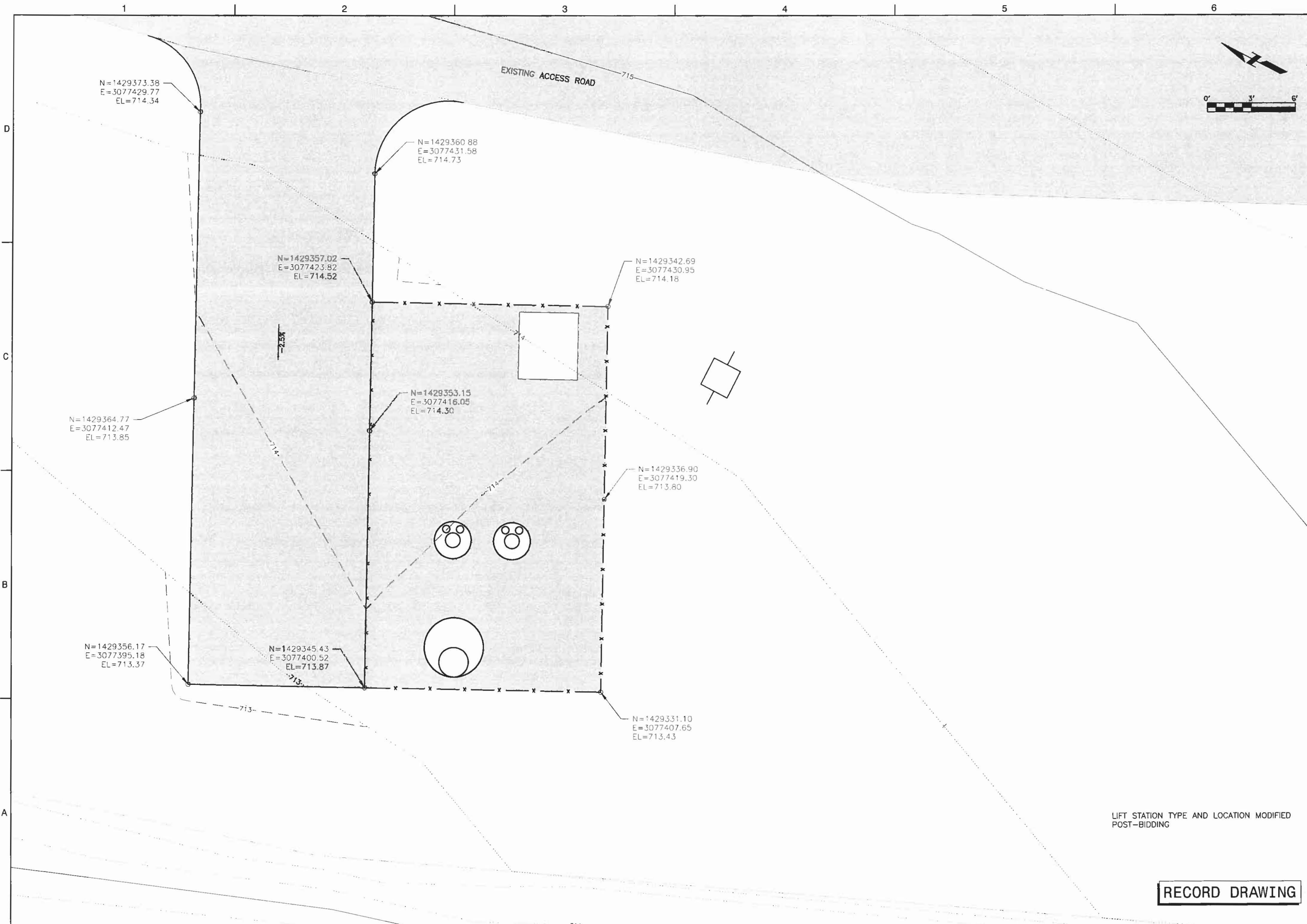
DESIGNED BY:	A.W.B.
DRAWN BY:	O.L.S.
CHECKED BY:	
DATE CHECKED:	
NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.	
06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING
DATE	REVISION

DRAWING TITLE
**DOWNSTREAM SEEP PUMP
STATION SITE PLAN**

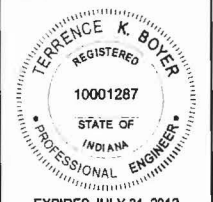
PROJECT No.
C0850040

DRAWING No.
PR-7

DRAWING 11 OF 24 DRAWINGS



125 WEST CHURCH STREET
 CHAMPAIGN, IL 61820
 PHONE : 217.373.8900
 FAX : 217.373.8923



Terence K. Boyer
 SIGNATURE
 6/30/11
 DATE

PROJECT TITLE
**NEAL'S LANDFILL
 SPRING TREATMENT FACILITY
 BLOOMINGTON, INDIANA
 NEAL'S LANDFILL
 IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
 DRAWN BY: O.L.S.
 CHECKED BY: _____
 DATE CHECKED: _____

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION

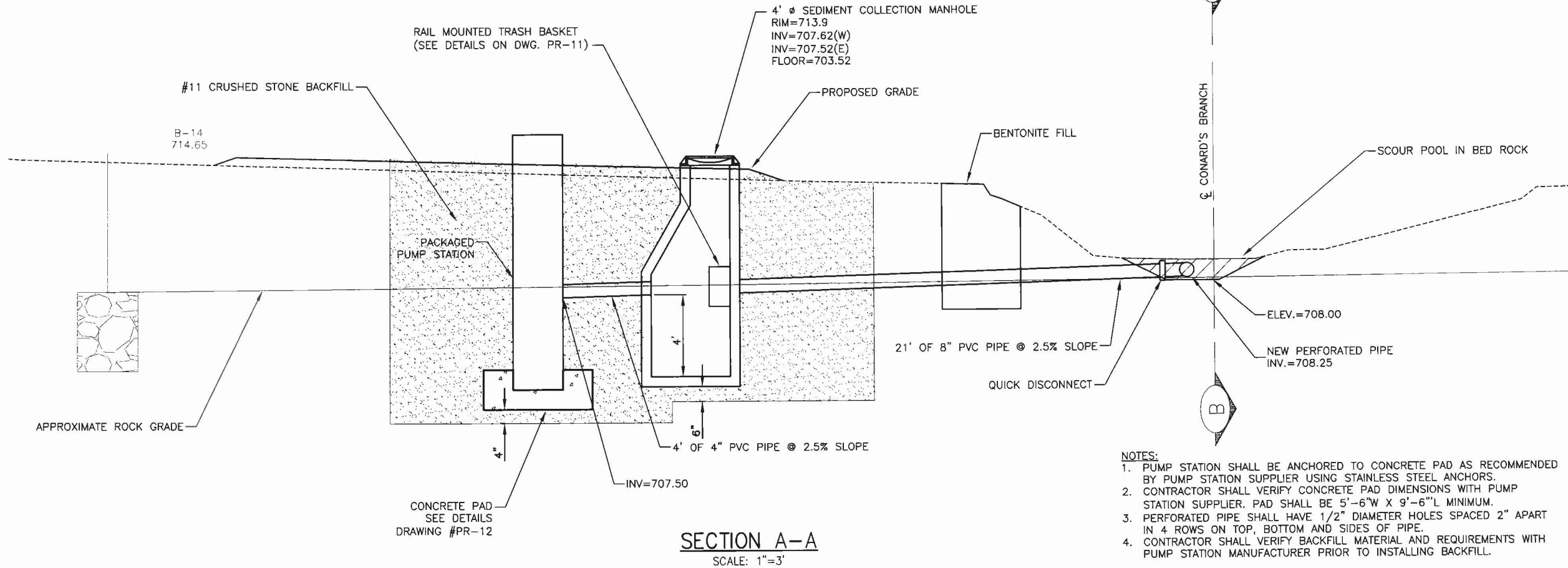
DRAWING TITLE
**PUMP STATION
 GRADING PLAN**

PROJECT No.
C0850040

DRAWING No.
PR-8

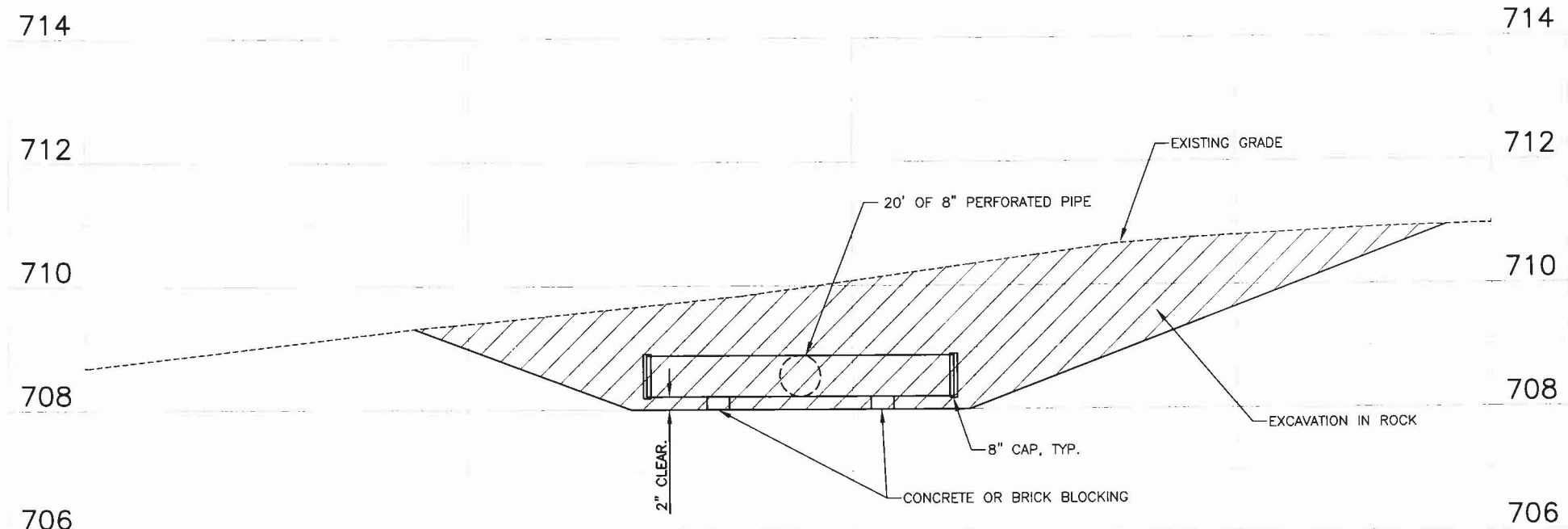
DRAWING 12 OF 24 DRAWINGS

RECORD DRAWING



SECTION A-A
SCALE: 1"=3'

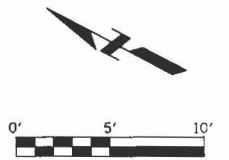
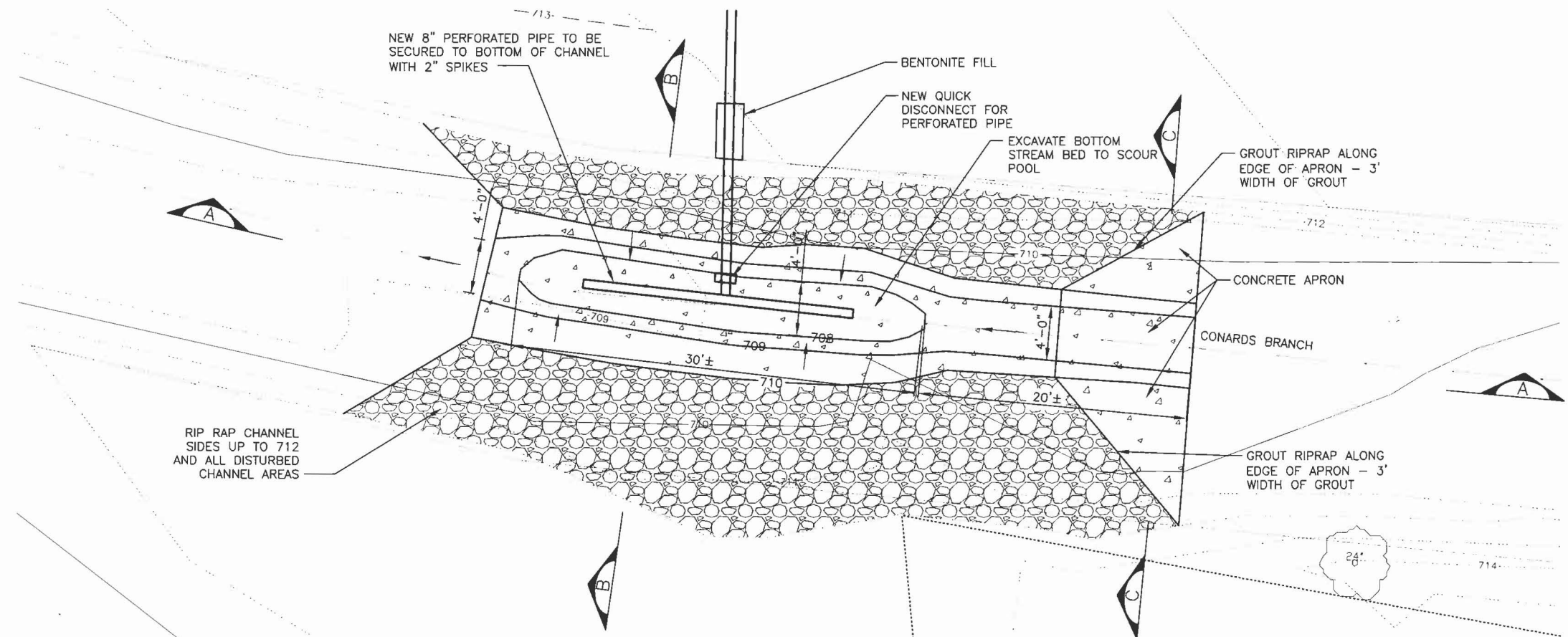
- NOTES:**
1. PUMP STATION SHALL BE ANCHORED TO CONCRETE PAD AS RECOMMENDED BY PUMP STATION SUPPLIER USING STAINLESS STEEL ANCHORS.
 2. CONTRACTOR SHALL VERIFY CONCRETE PAD DIMENSIONS WITH PUMP STATION SUPPLIER. PAD SHALL BE 5'-6"W X 9'-6"L MINIMUM.
 3. PERFORATED PIPE SHALL HAVE 1/2" DIAMETER HOLES SPACED 2" APART IN 4 ROWS ON TOP, BOTTOM AND SIDES OF PIPE.
 4. CONTRACTOR SHALL VERIFY BACKFILL MATERIAL AND REQUIREMENTS WITH PUMP STATION MANUFACTURER PRIOR TO INSTALLING BACKFILL.



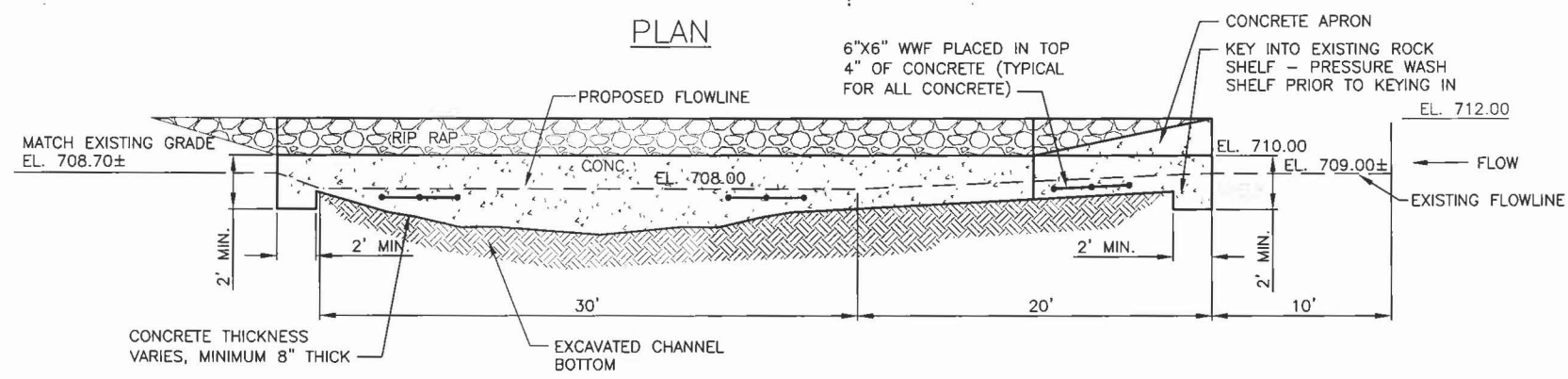
SECTION B-B
SCALE: 1"=5' Horz
1"=2' Vert

RECORD DRAWING

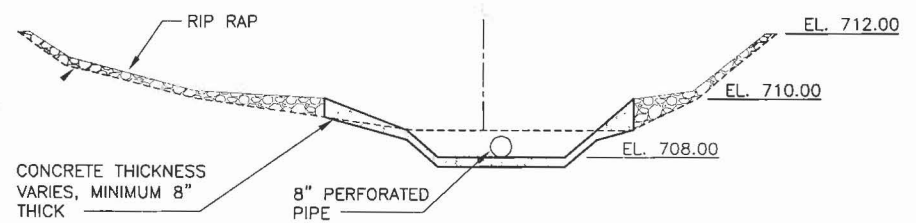
1 2 3 4 5 6



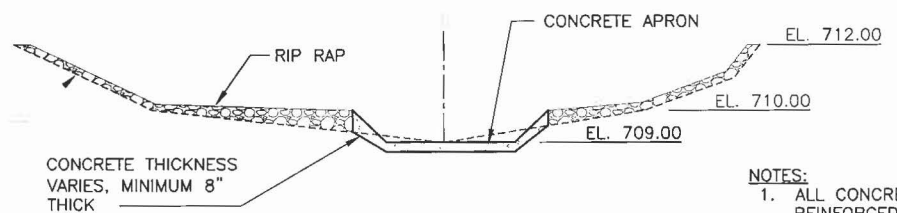
PLAN



SECTION A



SECTION B
0' 3' 9'



SECTION C
0' 3' 9'

- NOTES:
1. ALL CONCRETE SHALL BE CLASS A FIBER REINFORCED CONCRETE.
 2. PRESSURE WASH EXCAVATED SURFACE UNDER CONCRETE.
 3. PRESSURE WASH SHELF MIN. TEN (10) FEET UPSTREAM OF THE APRON DOWN TO COMPETENT ROCK.
 4. GROUT SEAL THE SHELF TO THE LEADING EDGE OF THE APRON.
 5. GROUT RIPRAP AT THE ENTRANCE.
 6. EXTEND CONCRETE DOWNSTREAM TO FILL THE EXCAVATED PIT TO THE EXISTING STREAM BOTTOM ELEVATION.

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923

REGISTERED PROFESSIONAL ENGINEER
TERENCE K. BOYER
10001287
STATE OF INDIANA
EXPIRES JULY 31, 2012
SIGNATURE
6/20/11
DATE

PROJECT TITLE
NEAL'S LANDFILL
NEAL'S LANDFILL
NEAL'S LANDFILL
IMPROVEMENTS 2011
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

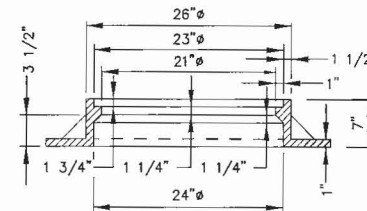
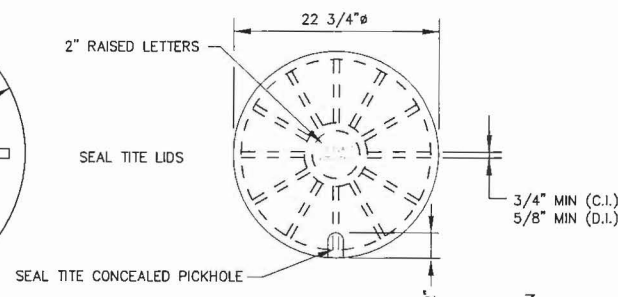
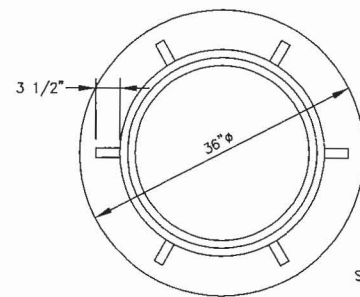
08/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION

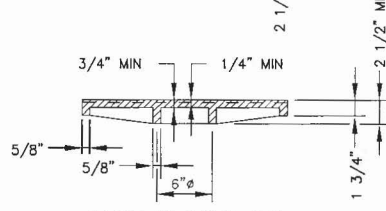
DRAWING TITLE
SCOUR POOL
PLAN AND SECTIONS

PROJECT No.
C0850040

DRAWING No.
PR-9A



CAST FRAME

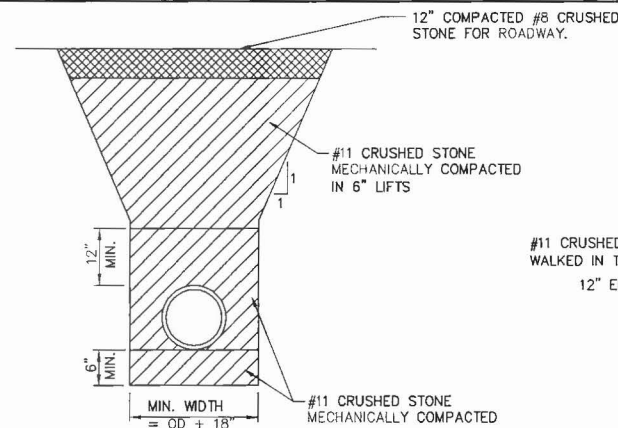


CAST CLOSED LID
(SEAL TITE CONCEALED PICKHOLE)

- NOTES:**
1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
 2. ALL FRAMES AND COVERS SHALL HAVE MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES. PICK HOLES SHALL NOT CREATE OPENINGS IN THE COVER.
 3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.
 4. DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN #1022-HD GASKETED COVER

MANHOLE FRAME AND COVER

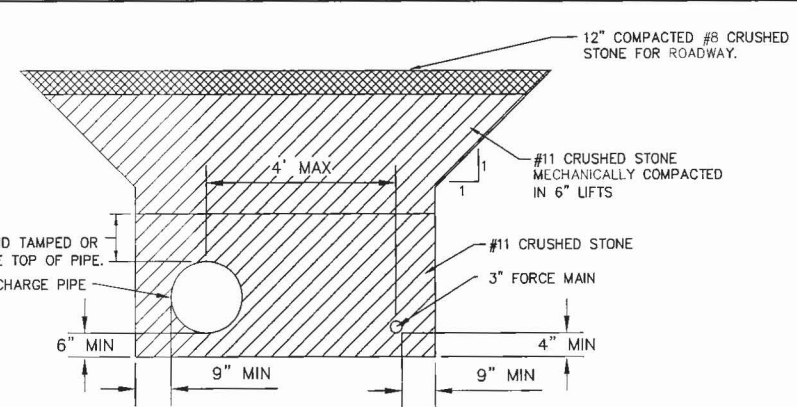
SCALE: NONE



BFM#4 TRENCH SECTION

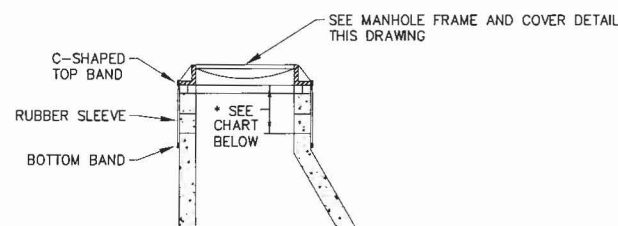
FOR TRENCHES LOCATED WITHIN 5' EDGE OF PAVEMENT
SCALE: NONE

NOTE:
OWNER HAS APPROXIMATELY 814 TONS OF SAND AND GRAVEL STOCK PILED ON-SITE. CONTRACTOR MAY USE THIS MATERIAL AS PIPE BEDDING. CONTRACTOR SHALL SCREEN OUT MATERIALS LARGER THAN 1" PRIOR TO USE.



BFM#4 SAME TRENCH SECTION

FOR TRENCHES LOCATED MORE THAN 5' OUTSIDE EDGE OF PAVEMENT
SCALE: NONE

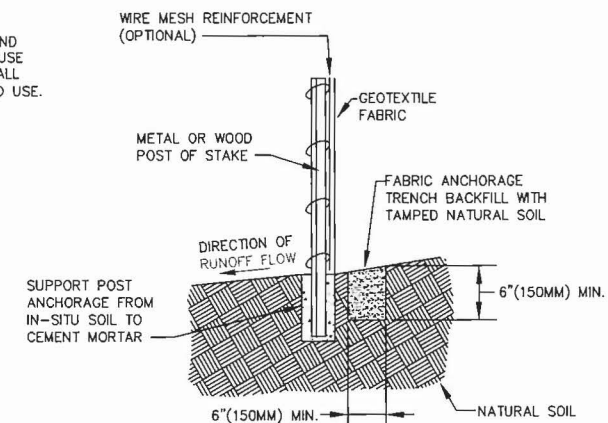


* TO SPAN CHIMNEY HEIGHTS OF:
0" TO 3" - NARROW (7") SLEEVE
OVER 3" TO 7" - STANDARD (11") SLEEVE
OVER 7" TO 12" - WIDE (16") SLEEVE

- NOTES:**
1. EXTERNAL CHIMNEY SEALS SHALL BE INSTALLED ON ALL MANHOLES
 2. EXTERNAL CHIMNEY SEALS SHALL BE THE "SURSEAL" AS MANUFACTURED BY MAR MAC CONSTRUCTION PRODUCTS CO., INC. OR PRE-APPROVED EQUAL.

EXTERNAL MANHOLE CHIMNEY SEAL

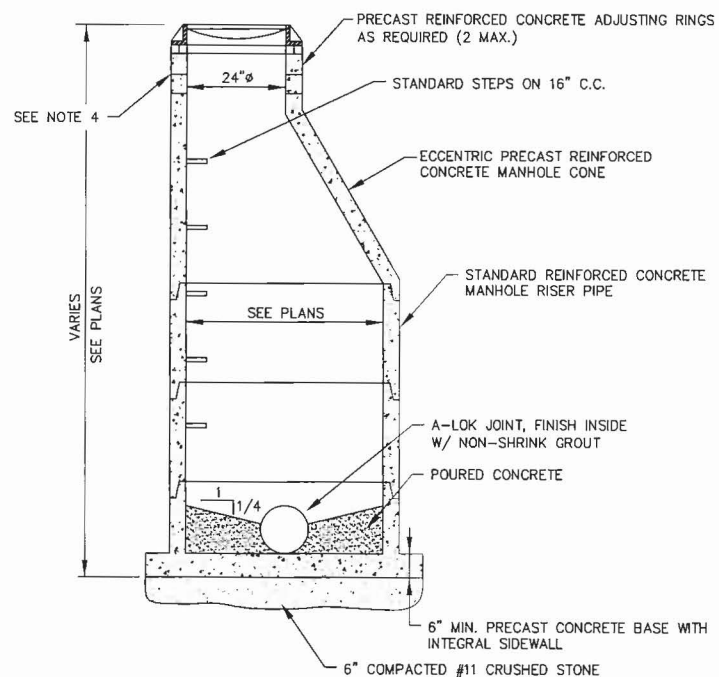
SCALE: NONE



NOTE:
DEPENDING UPON THE CONFIGURATION, ATTACH FABRIC TO WIRE MESH WITH HOG RINGS, STEEL POST WITH TIE WIRES, WOOD POST WITH NAILS

TYPICAL SILT FENCE CONSTRUCTION

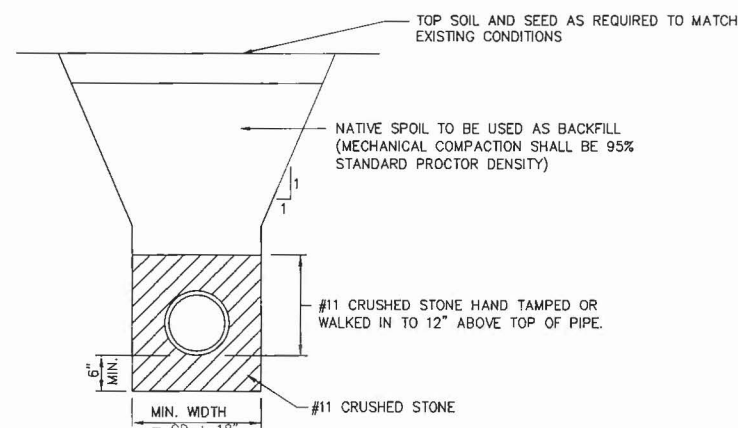
SCALE: NONE



- NOTES:**
1. THE JOINTS BETWEEN SECTIONS SHALL CONFORM TO A.S.T.M. C-443.
 2. "DRESS-UP" INTERIOR JOINTS WITH HYDRAULIC CEMENT. APPLY A CONTINUOUS LAYER OF NON-HARDENING, PREFORMED BUTYL MASTIC MATERIAL E-Z STICK OR EQUAL APPROVED BY THE OWNER TO EACH JOINT TO PREVENT INFLOW.
 3. EXTERIOR JOINTS TO BE WRAPPED WITH "MAC" WRAP OR SIMILAR PRODUCT MEETING ASTM C-877, TYPE II
 4. PROVIDE SURSEAL EXTERNAL MANHOLE CHIMNEY SEAL OR SIMILAR PRODUCT, SEE DETAIL THIS DRAWING.

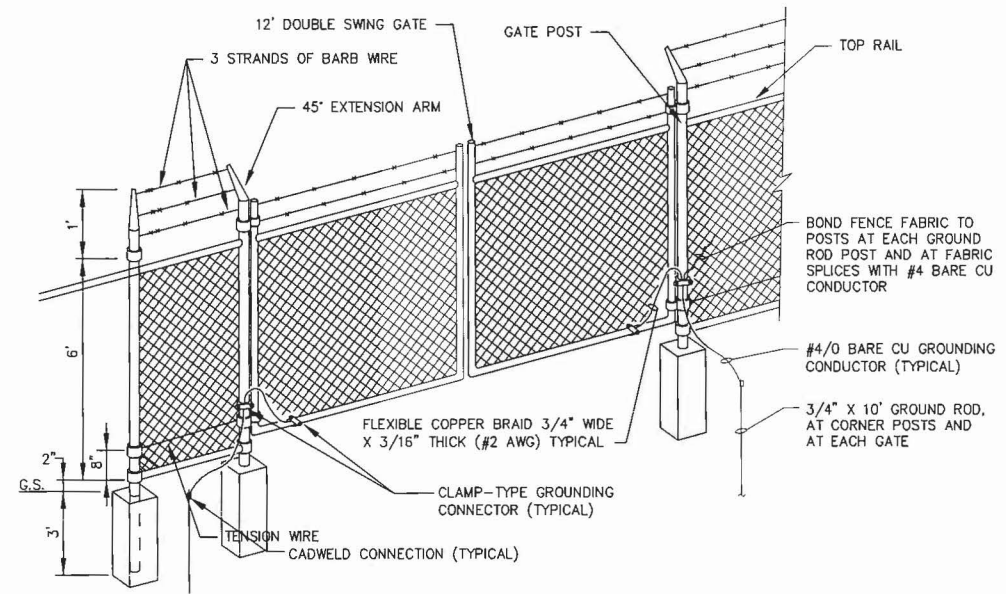
TYPICAL MANHOLE

SCALE: NONE



BFM#2 TRENCH SECTION

FOR TRENCHES LOCATED MORE THAN 5' OUTSIDE EDGE OF PAVEMENT
SCALE: NONE



- NOTES:**
1. BRACE CORNER POST IN BOTH DIRECTIONS ALONG FENCE LINE.
 2. BRACE GATE POST IN BOTH DIRECTIONS FROM GATE.
 3. ALL FENCE POST MINIMUM LENGTH 9'.

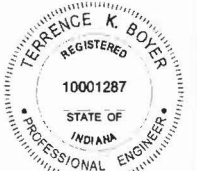
FENCE DETAIL

SCALE: NONE

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

SIGNATURE

6/20/11
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: A.W.B.
DRAWN BY: O.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

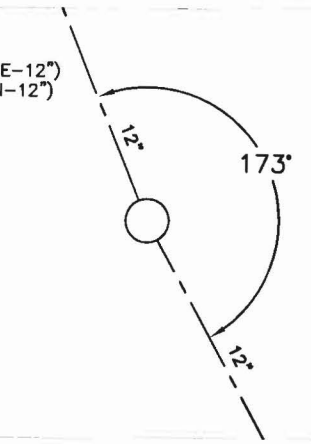
DATE	REVISION
------	----------

DRAWING TITLE
DETAILS

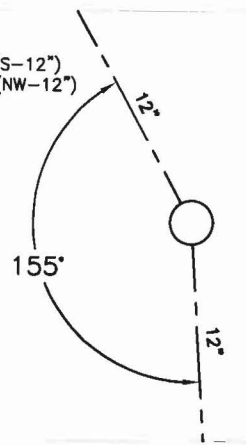
PROJECT No.
C0850040

DRAWING No.
PR-10

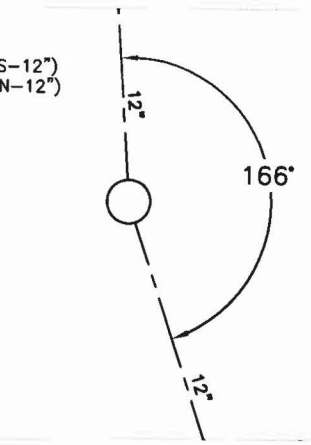
MH-1 (48"φ)
RIM=714.51
INV=711.16 (SE-12")
INV=711.16 (N-12")



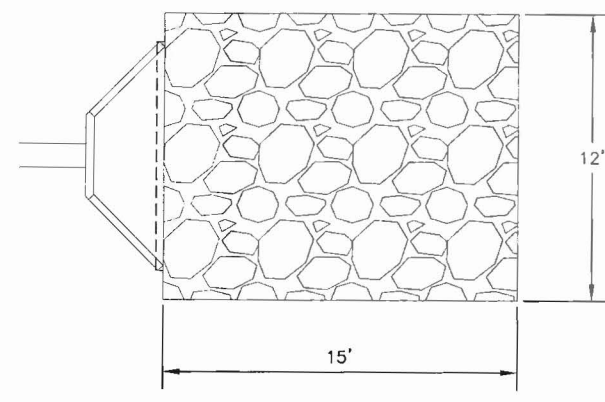
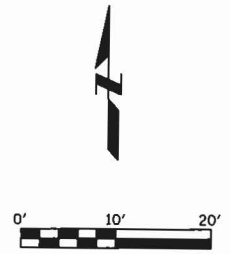
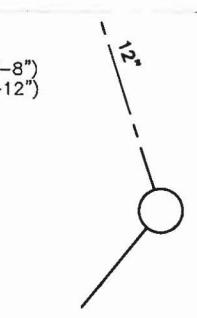
MH-2 (48"φ)
RIM=721.55
INV=716.95 (S-12")
INV=716.95 (NW-12")



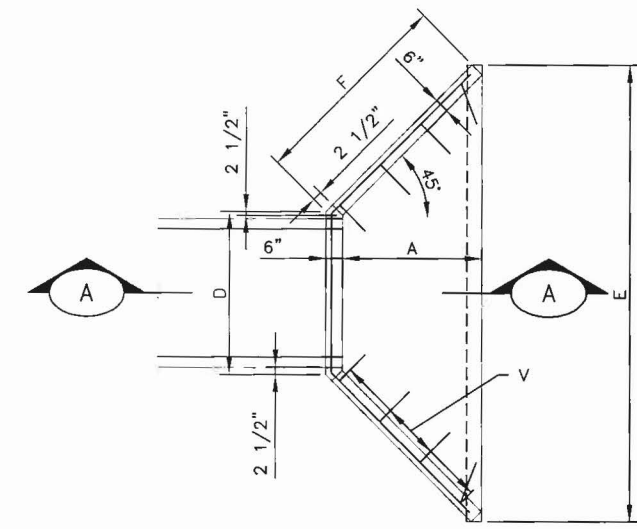
MH-3 (48"φ)
RIM=726.26
INV=720.51 (S-12")
INV=720.51 (N-12")



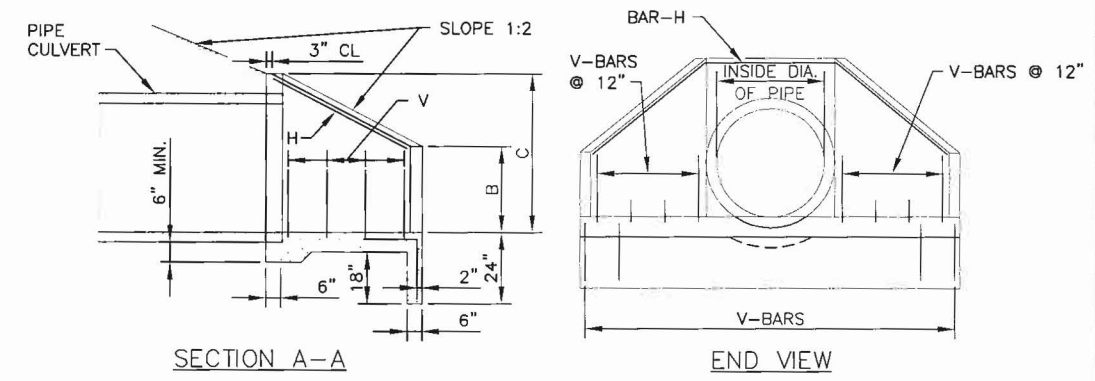
MH-4 (48"φ)
RIM=732.27
INV=725.00 (SW-8")
INV=722.62 (N-12")



HEADWALL RIPRAP DETAIL
SCALE: NONE

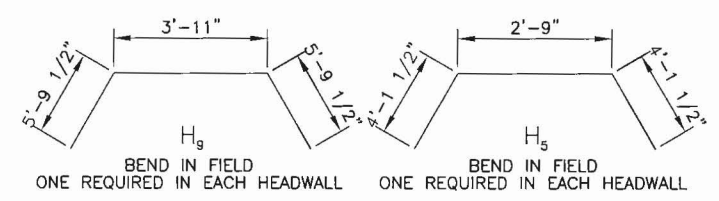


PLAN

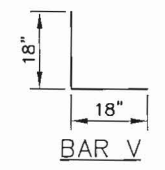


SECTION A-A

END VIEW



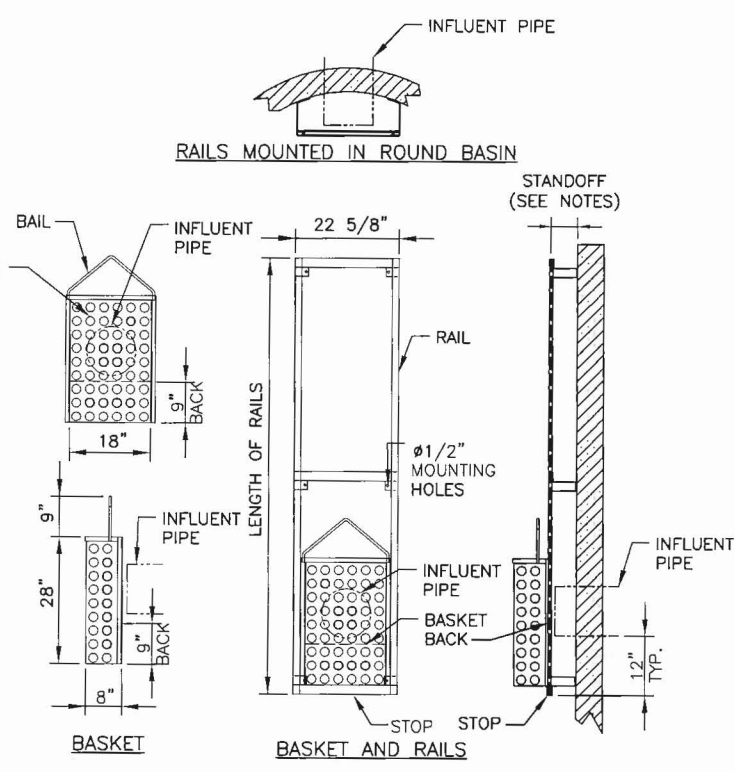
BEND IN FIELD HEADWALL
ONE REQUIRED IN EACH HEADWALL



BAR V

DIMENSIONS AND QUANTITIES

HEADWALL NO.	NOMINAL SLOPE	INSIDE OF DIA. OF PIPE	DIMENSIONS						REINFORCEMENT BARS			
			A	B	C	D	E	F	H-BARS NO.	V-BARS BAR LENGTH NO.		
1	1:2	12	2'-10"	16	2'-9"	2'-11"	8'-10"	1/2"	4'-2 1/2"	H ₆	11'-0"	28

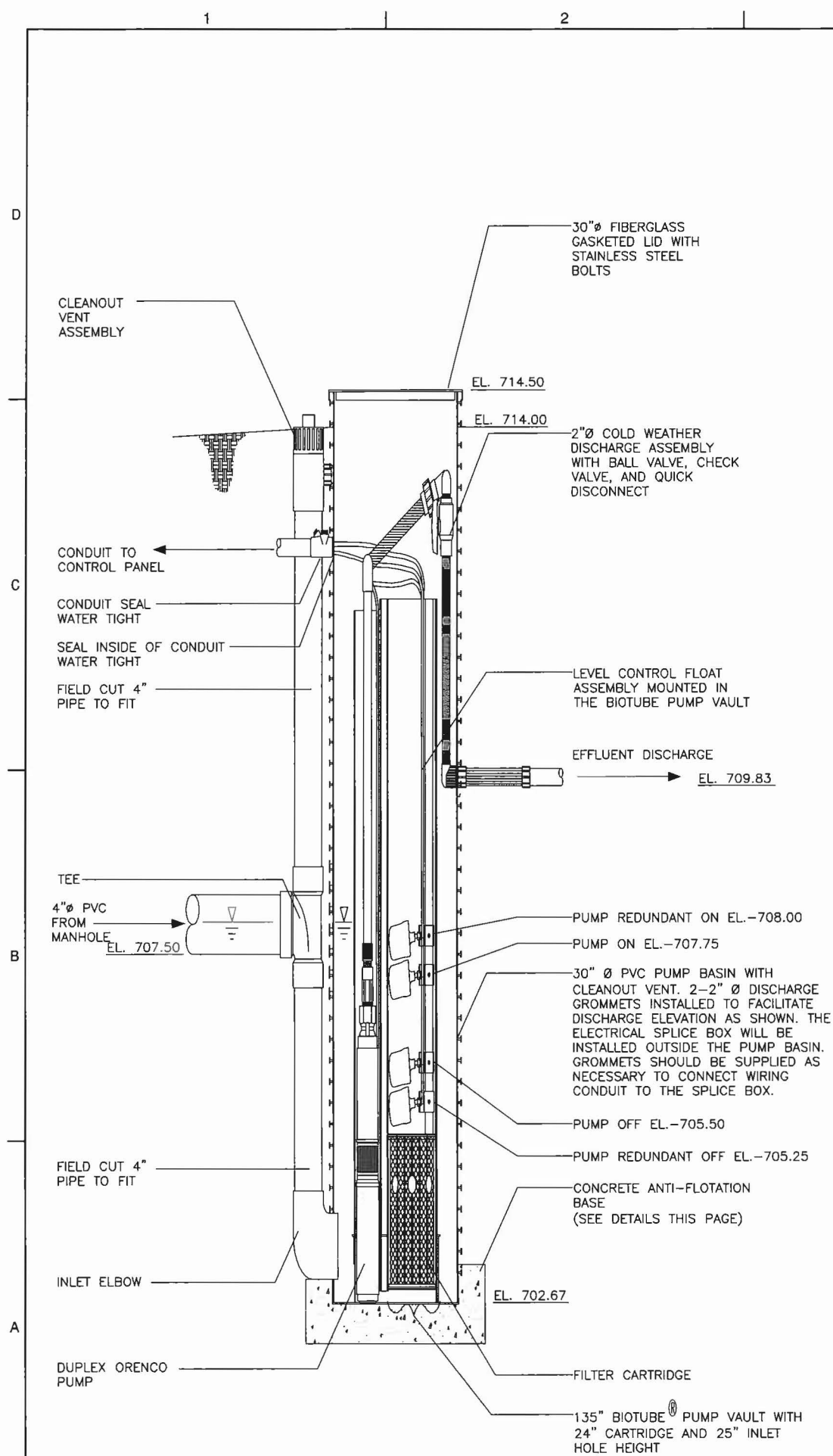


- NOTES:**
- TRASH BASKET SHALL BE ALL ALUMINUM CONSTRUCTION WITH PERFORATED SCREENING AND EXTRUDED ALUMINUM GUIDERAIL SYSTEM, SERIES B1A BY HALLIDAY PRODUCTS.
 - CONTRACTOR SHALL FIELD VERIFY AND COORDINATE THE LENGTH OF RAILS AND STANDOFF DIMENSIONS WITH THE PRECAST MANHOLE AND MANHOLE LID.
 - BASKET SHALL BE ABLE TO BE REMOVED THROUGH A STANDARD 24" DIAMETER MANHOLE LID.
 - PROVIDE STAINLESS STEEL LIFTING CABLE WITH DETACHABLE HOOK AND EYELET CLOSE TO MANHOLE LID FOR RETRIEVING BASKET.

RAIL MOUNTED TRASH BASKET DETAILS
SCALE: NONE

CONCRETE HEADWALL DETAILS
SCALE: NONE

RECORD DRAWING



PUMP BASIN WITH EFFLUENT PUMPING ASSEMBLY
SCALE: NONE

PUMP SYSTEM CONTROL PANEL

A. ENCLOSURE: NEMA 4, WITH EXTERNALLY OPERABLE DISCONNECT SWITCH. THE ENCLOSURE WILL BE INSTALLED IN AN OUTDOOR LOCATION WITH TEMPERATURES GENERALLY RANGING FROM 0°F TO 100°F.

- B. POWER COMPONENTS:
- 3P-100A TERMINAL BLOCK, INTERFACED WITH DISCONNECT SWITCH
 - INTERNAL FUSE BLOCK OR TERMINAL-BLOCK MOUNTED CIRCUIT BREAKERS TO PROTECT INDIVIDUAL COMPONENTS, 1 CONTROL TRANSFORMER, 480V PRIMARY, SECONDARY AND VARIATING AS REQUIRED, TO SERVE CONTROL SYSTEMS
 - CONTROL TRANSFORMER, 480V PRIMARY, 120V SECONDARY, 500VA TO SERVE INTERNAL GFCI RECEPTACLE AND EXTERNAL HID LUMINAIRE
 - ONE TVSS, 200KA MAXIMUM SURGE CURRENT, REPLACEABLE SURGE MODULES, 7-MODE, LEVITON #57277-M3S OR EQUAL
 - GFCI RECEPTACLE

- C. PUMPS:
- (4) 230 VAC 1P PUMPS (3/4 HP, 1.8 FLA)
 - MODEL NO. PF5007
- A. DESIGN FLOW: 50 GPM
B. DESIGN TDH: 54 FT
3. INCLUDE:
- OVER-TEMPERATURE SENSOR

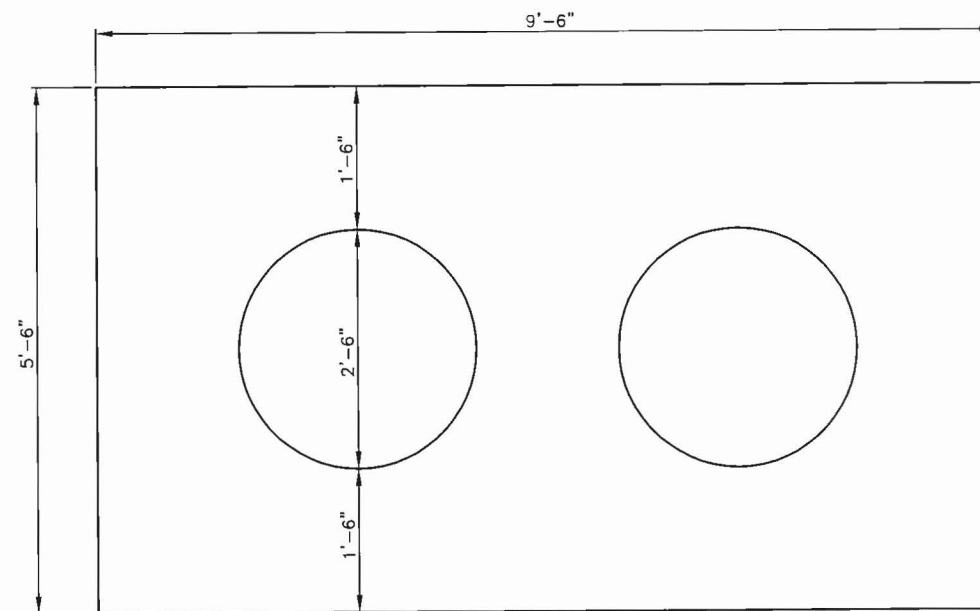
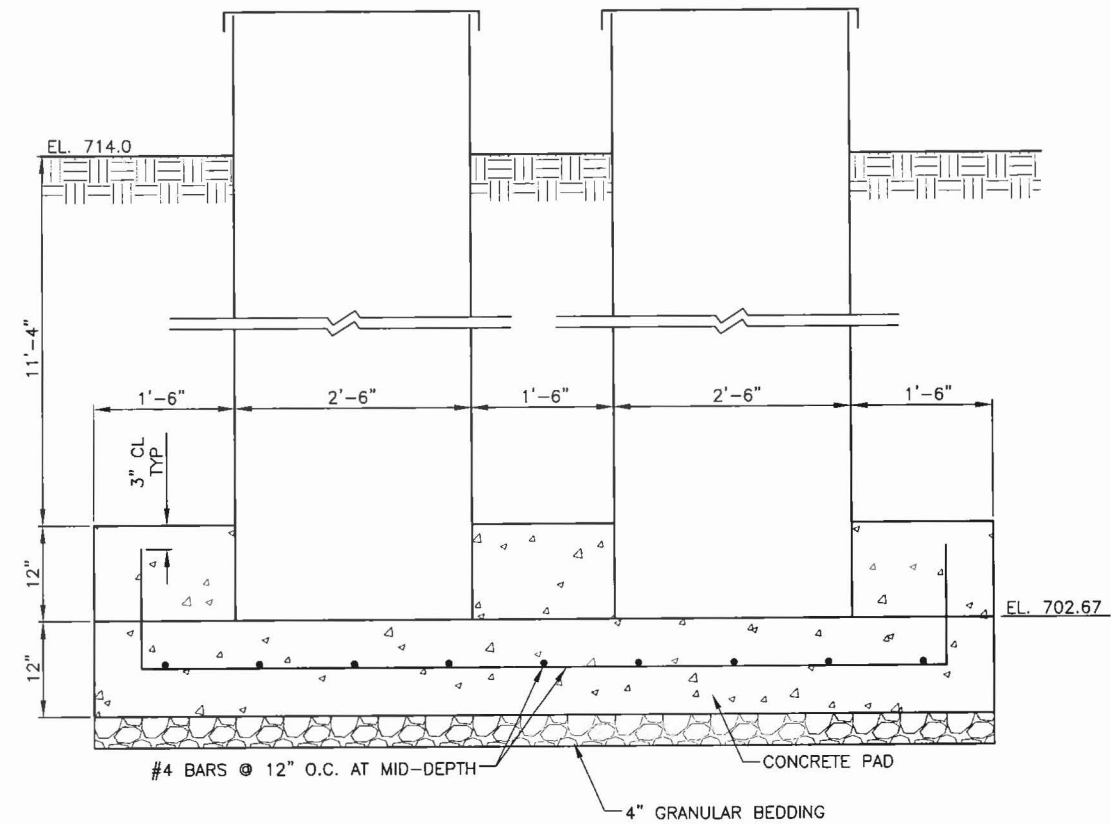
- D. PANEL:
- THE PANEL WILL CONTROL 4 PUMPS ALTERNATING AS FOLLOWS:
A. PUMP 1 AND 3 ON, PUMP 2 AND 4 OFF
B. PUMP 2 AND 4 ON, PUMP 1 AND 3 OFF
 - PUMP ON/OFF CONDITIONS WILL BE DETERMINED BY FLOAT POSITION. THE FOLLOWING FLOATS ARE REQUIRED:

- LEAD PUMPS ON
 - PUMPS OFF
 - REDUNDANT ON
 - REDUNDANT OFF
3. THE PANEL WILL INCLUDE THE FOLLOWING COMPONENTS:
- SIEMENS PROGRAMMABLE LOGIC MODULE
 - HAND-OFF-AUTO SWITCH FOR EACH PUMP
 - PUMP RUN LIGHT FOR EACH PUMP (GREEN)
 - 4 IN. PUMP FAIL ALARM LIGHT (RED); ALARM PUSH-TO-RESET
 - ALARM TEST SWITCH
 - ENCLOSURE HEATER
 - SURGE ARRESTOR
 - GFI RECEPTACLE
 - POWER LIGHT (GREEN)
 - CURRENT SENSORS
 - OVERLOAD PROTECTION: PRIMARY MOTOR CIRCUIT PROTECTORS FOR EACH CONTACTOR. PRIMARY CIRCUIT BREAKER FOR CONTROL TRANSFORMER
 - ELAPSED TIME METER
 - CYCLE COUNTER
 - OVER-TEMPERATURE LIGHT
 - ALARM CONTACTS
- PUMP FAIL (4)
 - PUMP OVER-TEMPERATURE (4)

- E. WIRING METHODS
- PROVIDE TERMINAL BLOCK WITH SUFFICIENT TERMINALS TO LAND ALL WIRING ENTERING AND LEAVING CABINET.
 - PROVIDE PANDUIT WIRE MANAGEMENT SYSTEM.

- F. TESTING
- PANEL TO BE WIRED AND TESTED PRIOR TO SHIPMENT

NOTE:
CONTRACTOR SHALL COORDINATE WITH PUMP VENDOR FOR FIELD DIMENSIONS. PROVIDE CUSTOM LENGTH OF CABLE TO CONNECT ELECTRICAL COMPONENTS TO CONTROL PANEL WITHOUT SPLICES.



PUMP BASIN FOUNDATION DETAIL
SCALE: NONE

LIFT STATION MODIFIED POST BIDDING

RECORD DRAWING

Clark Dietz
ENGINEERS

125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8800
FAX : 217.373.8923

REGISTERED
TERRENCE K. BOYER
10001287
STATE OF
INDIANA
PROFESSIONAL ENGINEER

EXPIRES JULY 31, 2012

SIGNATURE
6/20/11
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: D.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

08/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

DATE REVISION

DRAWING TITLE
PUMP STATION DETAILS

PROJECT No.

C0850040

DRAWING No.

PR-12

DRAWING 17 OF 24 DRAWINGS

REVISIONS				
LTR	DESCRIPTION	R/LS	APPD	DATE
0	ENG RLSE EWF-85-174			
1	SEE ECN-86-072			
2	SEE ECN-86-158			
3	SEE ECN-0035.06			
4	SEE ECN-0036.01			
5	SEE ECN-0038			



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY: A.W.B.
DRAWN BY: D.L.S.
CHECKED BY:
DATE CHECKED:

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

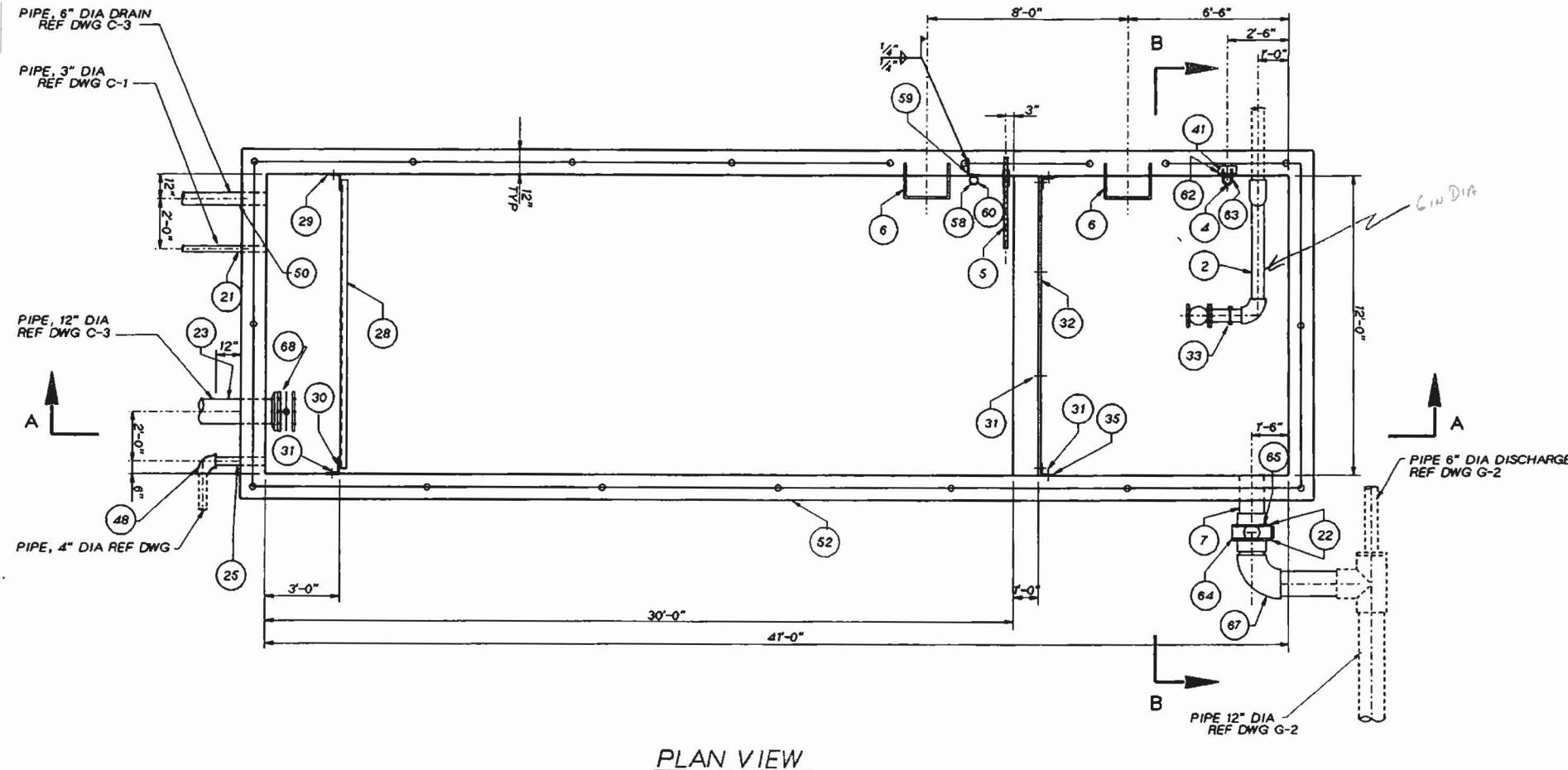
DATE REVISION

DRAWING TITLE
CLARIFIER PLAN AND SECTION

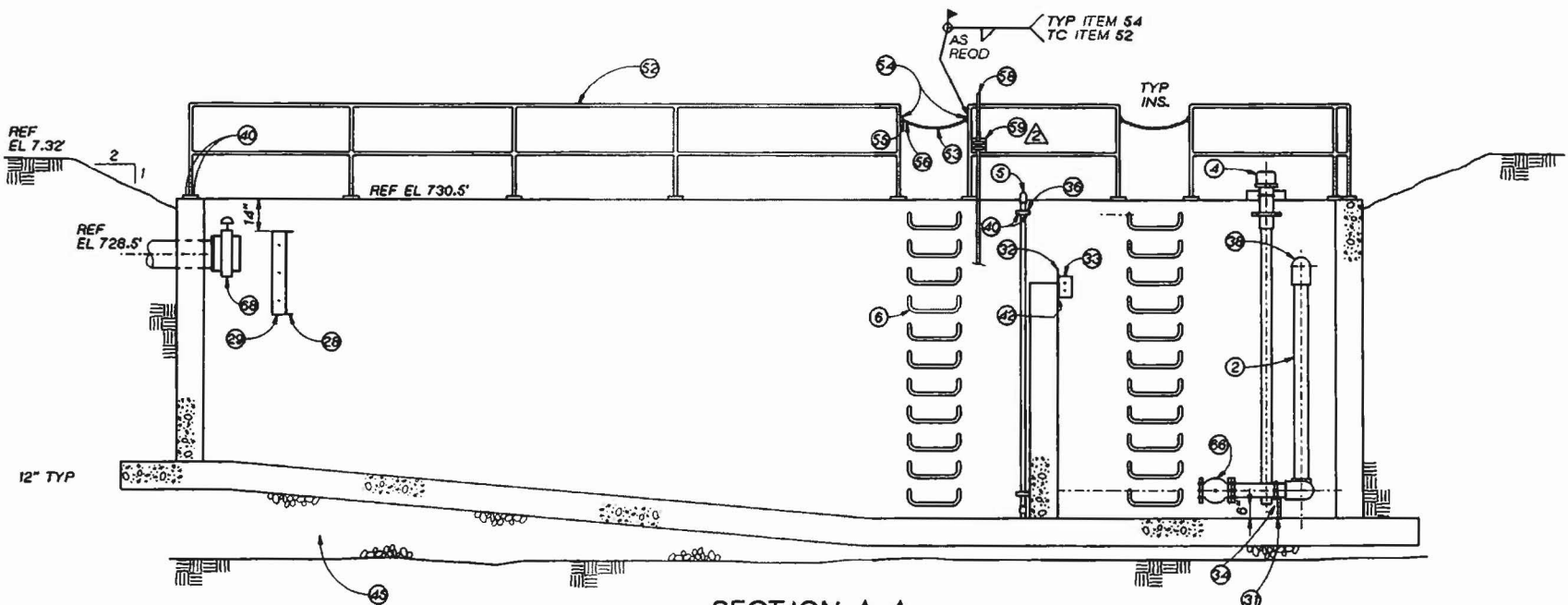
PROJECT No.
C0850040

DRAWING No.
PR-13

DRAWING 18 OF 24 DRAWINGS



PLAN VIEW



SECTION A-A

NOTE:
THIS DRAWING FOR INFORMATION ONLY. INFORMATION IS FROM 1992 WESTINGHOUSE AS-BUILT PLANS

68	BUTTERFLY VALVE, 12"			
67	ELBOW 90°, 12" SOCKET SCH 40	PVC		
66	6300A CHECK VALVE, 6"W/125# FLANGES	CAST IRON W/ PVC BRONZE TRIM		
65	BOLT HEX HD 3/8" DIA 3" LG W/1/4" THK NUT	ZINC PLT STL		
64	TYPE 75 BUTTERFLY VALVE, 12" X/48" STEM EXT	PVC/ASAHI		
63	3C43751 U-BOLT 1/2" X 1/2", 4" PIPE SIZE	ZINC PLT STL/MCMASER-CARR		
62	ANGLE 8" X 4" X 1/4" THK, 8" LG	ASTM A36		
61	BOLT HEX HD 1/2" DIA, 3" LG W/1/4" THK NUT	STN STEEL		
60	MOUNTING CLAMPS	A-304 STN STL/MARKLAND		
59	ANGLE 8" X 6" X 1/2" THK, 6" LG	ASTM A36		
58	MODEL 600 SLUDGE DEPTH ELEMENT	/ MARKLAND		
57				
56	3578T14 LINK CONNECTION 3/8" DIA	GALV STL/MCMASER-CARR		
55	3903T18 SWIVEL SNAP, 3/8"	GALV STL		
54	3588T14 LINK, DELONG, 3/8" DIA	STEEL		
53	3592T32 CHAIN, 1/4" DIA	GALV STL/MCMASER-CARR		
52	GUARD RAIL, 1 1/2" SCH 40	STEEL		
51	FLANGE 8" SOCKET, 160 LBS	PVC		
50	PIPE, 6" SCH 40	PVC		
49				
48	ELBOW 90° A SOCKET, SCH 40	PVC		
47	PIPE, 4" SCH 40	PVC		
46				
45	STONE, NO 8, COARSE AGGREGATE			
44	CONCRETE, 3500 PSI, 7 DAY			
43				
42	GASKET 12"-0" Lx8"x1/2" THK, 40 DUR	NEOPRENE		
41	ANCHOR, 1/2" DIA	/REDHEAD		
40	ANCHOR, 1/4" DIA	/REDHEAD		
39	PIPE CLAMP, 3" PIPE SIZE	STEEL / MCMASER-CARR		
38	PIPE, 8" SCH 80, 12" LG	PVC		
37	PIPE CLAMP, 4" PIPE SIZE	STEEL / MCMASER-CARR		
36	PIPE CLAMP, 1 1/2" PIPE SIZE	STEEL / MCMASER-CARR		
35	PLATE, 3/8" THK			
34	PLATE, 3/8" THK	ASTM A-304 STN STL		
33	U-BOLT 3/4" DIA TO FIT 6" DIA PIPE W/1/4" THK NUTS	/MCMASER-CARR		
32	PLATE, 3/8" THK	ASTM A-304 STN STL		
31	ANCHOR, 3/8" DIA	/REDHEAD		
30	BOLT HEX HD 1/2" DIA, 3" LG W/1/4" THK NUT	ZINC PLATED STL		
29	PLATE, 3/8" THK	ASTM A-304 STN STL		
28	PLATE, 3/8" THK	ASTM A-304 STN STL		
27				
26	BOLT HEX HD 1/2" DIA 3" LG W/1/4" THK NUT	ZINC PLATED STL		
25	PIPE, 4" SCH 40	PVC		
24				
23	PIPE, 12" SCH 40	PVC		
22				
21	PIPE, 3" SCH 40	PVC		
20				
19	ADAPTOR CAP, 1 1/2" DIA	BRASS / OPW		
18	ADAPTOR, 1 1/2" DIA MALE	BRASS / OPW		
17	ELBOW 90°, 1 1/2" SOCKET, SCH 40	PVC		
16	PIPE NIPPLE, 1 1/4" SCH 40, 3" LG	PVC		
15	PIPE, 1 1/4" SCH 40	PVC		
14	PIPE, 1 1/4" SCH 40	PVC		
13				
12	PIPE, 8" SCH 40	PVC		
11	PIPE, 6" SCH 40	PVC		
10	ELBOW 90°, 6" SOCKET, SCH 40	PVC		
9				
8				
7	PIPE, 12" SCH 40, 24" LG	PVC		
6	REBAR, NO 8	GR 40		
5	8329-008-S DRAIN LINE ASSEMBLY			
4	8329-008-T-E ELECTRODE ASSEMBLY	B/W CONTROLS		
3				
2	8329-001-2 INTAKE LINE ASSEMBLY			
1	8329-008-1 SETTLING TANK			

QTY ITEM PART NO. DESCRIPTION MATERIAL/VENDOR
BILL OF MATERIALS
RECORD DRAWING

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2008 NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL ORDINANCES.
2. CONTRACTOR SHALL FURNISH ALL MATERIALS FOR A COMPLETE AND WORKABLE SYSTEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND FOR PROVIDING ALL SUPERVISION, LABOR AND TOOLS FOR THE PROJECT.
4. ALL WORK IS TO CONFORM TO A TIME SCHEDULE TO BE ESTABLISHED BY THE OWNER.
5. CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE WITH THE OWNER AND OBTAIN THE OWNER'S APPROVAL BEFORE ANY WORK INVOLVING A SHUTDOWN IS DONE.
6. ALL MATERIALS FURNISHED BY THE CONTRACTOR ARE TO BE NEW AND APPROVED BY THE OWNER AS TO MANUFACTURER AND TYPE.
7. ALL CONDUITS SHALL BE PROVIDED WITH AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE 2008 NATIONAL ELECTRICAL CODE.
8. ALL LOCATIONS AND DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL ELECTRICAL EQUIPMENT LOCATIONS AND EQUIPMENT DIMENSIONS.
9. POWER, INSTRUMENTATION AND CONTROL WIRING SHALL BE INSTALLED IN SEPARATE CONDUITS. SHIELDED CONDUCTORS SHALL NOT BE INSTALLED IN THE SAME CONDUIT AS ANY UNSHIELDED CONDUCTORS.
10. PROVIDE ENGRAVED LAMINATED PLASTIC NAMEPLATES (WHITE WITH BLACK LETTERS) FOR THE FOLLOWING:
 - A. DISCONNECT SWITCHES
 - B. CONTROL PANEL - AS NOTED FOR EXTERIOR AND INTERIOR
11. ALL CONTROL WIRING IN CONTROL PANELS SHALL TERMINATE AT TERMINAL BLOCKS.
12. CONDUITS ENTERING EXTERIOR ENCLOSURES SHALL BE TERMINATED WITH STEEL OR IRON FITTINGS AND T&B EFCOR HUB CONNECTORS.
13. ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
14. ALL PENETRATIONS OF BUILDING STRUCTURE OR SLAB BY CONDUIT, CABLE OR OTHER EQUIPMENT SHALL BE SEALED TO PREVENT MOISTURE OR FUMES FROM ENTERING EQUIPMENT SHELTER. PROVIDE SLEEVES AND DUCT SEAL FOR EACH PENETRATION.
15. ALL CONTROL WIRING SHALL BE INSTALLED IN MINIMUM 3/4" CONDUIT.
16. LIQUID-TIGHT FLEXIBLE CONDUIT (MAXIMUM OF 24") SHALL BE USED IN CONNECTING MOTORS, SENSING ELEMENTS, INSTRUMENTS, OR ANY OTHER DEVICE WHICH TRANSMIT VIBRATION OR NOISE, REQUIRE MOVEMENT FOR ADJUSTMENT, OR REQUIRE REMOVAL FOR MAINTENANCE. MINIMUM SIZE OF FLEXIBLE CONDUIT SHALL BE 3/4".
17. JUNCTION BOXES, CABINETS, SWITCHES AND OTHER ELECTRICAL EQUIPMENT SHALL BE SOLIDLY ATTACHED PRIOR TO INSTALLATION OF CONDUIT.
18. CONDUIT, PULL BOXES, CABINETS, ETC. SHALL FORM A CONTINUOUS CONDUCTIVE GROUND SYSTEM. AT TRANSITIONS AND BREAKS, CONDUIT SHALL BE BONDED.
19. CONDUIT SHALL NOT BE FASTENED TO OTHER EQUIPMENT OR INSTALLED SO AS TO PREVENT THE READY REMOVAL OF OTHER EQUIPMENT FOR REPAIRS.
20. INSTALLATION OF CONDUITS MUST NOT INTERFERE WITH ACCESS WAYS OR LADDERS.

GENERAL NOTES

22. ONLY PULLBOXES SPECIFICALLY REQUIRED BY THE ENGINEER IN LOCATIONS SHOWN ARE IDENTIFIED. CONTRACTOR SHALL PROVIDE ALL PULLBOXES REQUIRED TO MEET APPLICABLE CODES.
23. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING EQUIPMENT THAT WILL FIT IN THE SPACE ALLOTTED.
24. GROUND RODS SHALL BE 3/4"DIA x 10'-0" LONG COPPER CLAD. CONNECTIONS TO GROUNDING CONDUCTOR SHALL BE EXOTHERMIC WELD TYPE.
25. THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE SURVEY AND ARE NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. DURING CONSTRUCTION THE CONTRACTOR SHALL USE DILIGENCE TO PROTECT ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF SAME IN ACCORDANCE WITH THE DIRECTIONS OF THE ENGINEER AND FOR ANY RESULTING CONTINGENT DAMAGES.
26. BEFORE WORKING WITH OR AROUND EXISTING UTILITIES, THE APPLICABLE UTILITY COMPANY SHALL BE CONTACTED BY THE CONTRACTOR.
27. UNDERGROUND CONDUITS SHALL BE A MINIMUM OF 24" BELOW GRADE.
28. WIRING SHALL BE IDENTIFIED BY PERMANENT WIRE MAKERS AT EACH TERMINATION AND SHALL CORRESPOND WITH THE IDENTIFICATION NUMBERS ON THE DRAWINGS.

ELECTRICAL PLAN SYMBOLS

- UG— UNDERGROUND ELECTRIC
- OHE— OVERHEAD ELECTRIC
- WOOD POLE
- EXPOSED CONDUIT WITH WIRING

ABBREVIATIONS

- A AMPERES
- AFF ABOVE FINISHED FLOOR
- ALUM ALUMINUM
- ATS AUTOMATIC TRANSFER SWITCH
- C CONDUIT
- CGD COMBUSTIBLE GAS DETECTION
- CKT CIRCUIT
- CLG CEILING
- CONC CONCRETE
- CONT CONTINUED
- DN DOWN
- E ELECTRIC
- EBJ EQUIPMENT BONDING JUMPER
- EC ELECTRICAL CONTRACTOR
- FLA FULL LOAD AMPERES
- FLUOR FLUORESCENT
- FVNR FULL VOLTAGE NON REVERSING
- G,GND GROUND
- GB GROUND BUSS
- GFI GROUND FAULT INTERRUPTER
- HP HORSEPOWER
- IN INCHES
- IPL INDIANAPOLIS POWER AND LIGHT
- KW KILOWATTS
- MCC MOTOR CONTROL CENTER
- MLO MAIN LUG ONLY
- MMS MANUAL MOTOR STARTER
- NB NEUTRAL BUSS
- OC OVERCURRENT
- OHE OVERHEAD ELECTRIC - POWER OR CONTROLS
- P POLE
- RGS RIGID GALVANIZED STEEL
- RPM REVOLUTIONS PER MINUTE
- SBJ SYSTEM BONDING JUMPER
- SWBD SWITCHBOARD
- TSP TWISTED SHIELDED PAIR
- UG UNDERGROUND
- V VOLT
- VA VOLT-AMPERE
- VFD VARIABLE FREQUENCY DRIVE
- W WATT
- WP WEATHER PROOF
- XF TRANSFORMER



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

Charles E. Craddock
SIGNATURE

June 21, 2011
DATE

PROJECT TITLE
NEAL'S LANDFILL FACILITY
SPRING TREATMENT, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: CEB
DRAWN BY: JRF
CHECKED BY: CEC
DATE CHECKED: 06/11

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

DATE REVISION

DRAWING TITLE
ELECTRICAL GENERAL NOTES
AND SYMBOLS

PROJECT No.
C0850040

DRAWING No.
E-1

DRAWING 19 OF 24 DRAWINGS

RECORD DRAWING

1 2 3 4 5 6

D
C
B
A



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012

Charles E. Craddock
SIGNATURE

June 21, 2011
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: CEB
DRAWN BY: JRF
CHECKED BY: CEC
DATE CHECKED: 06/11

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

DATE REVISION

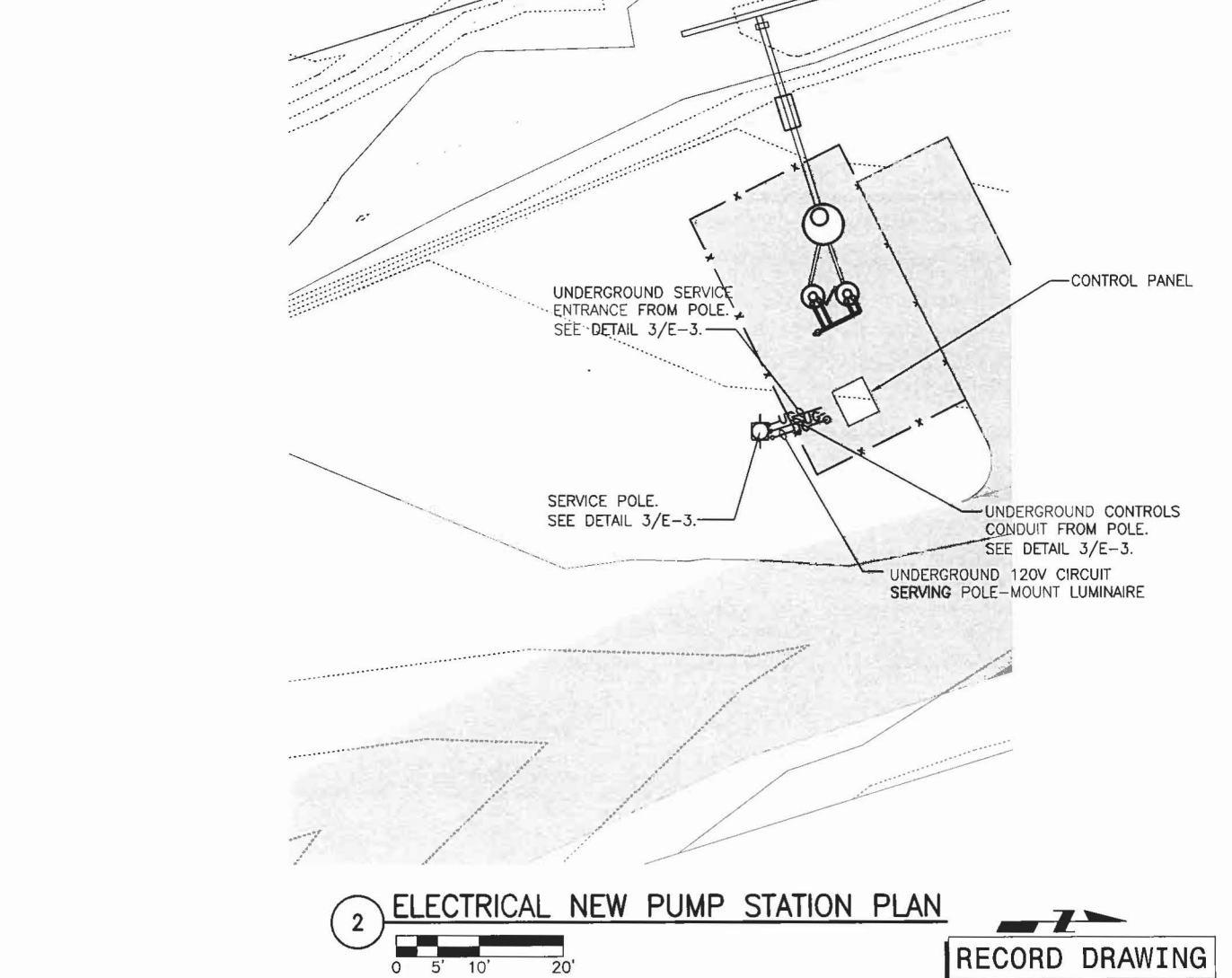
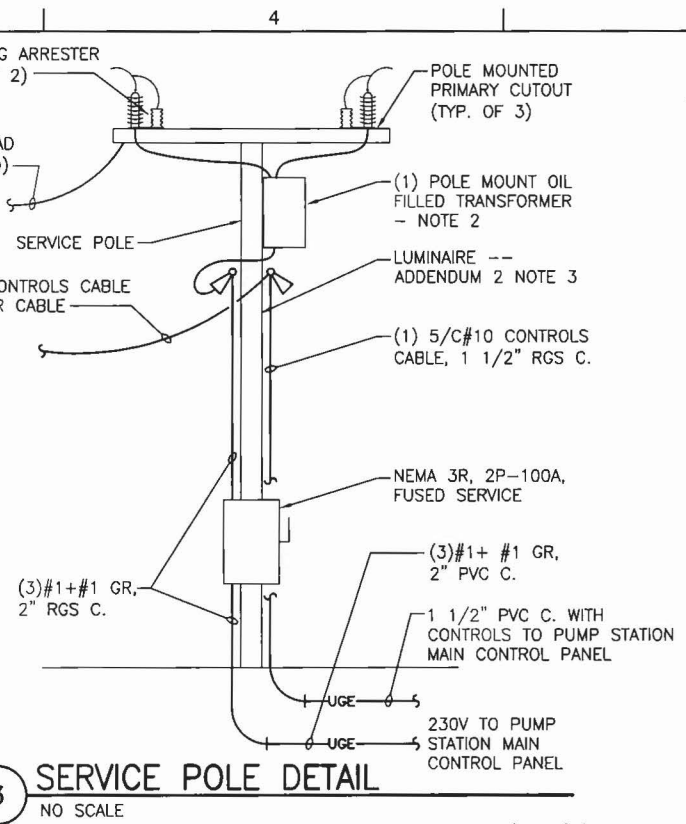
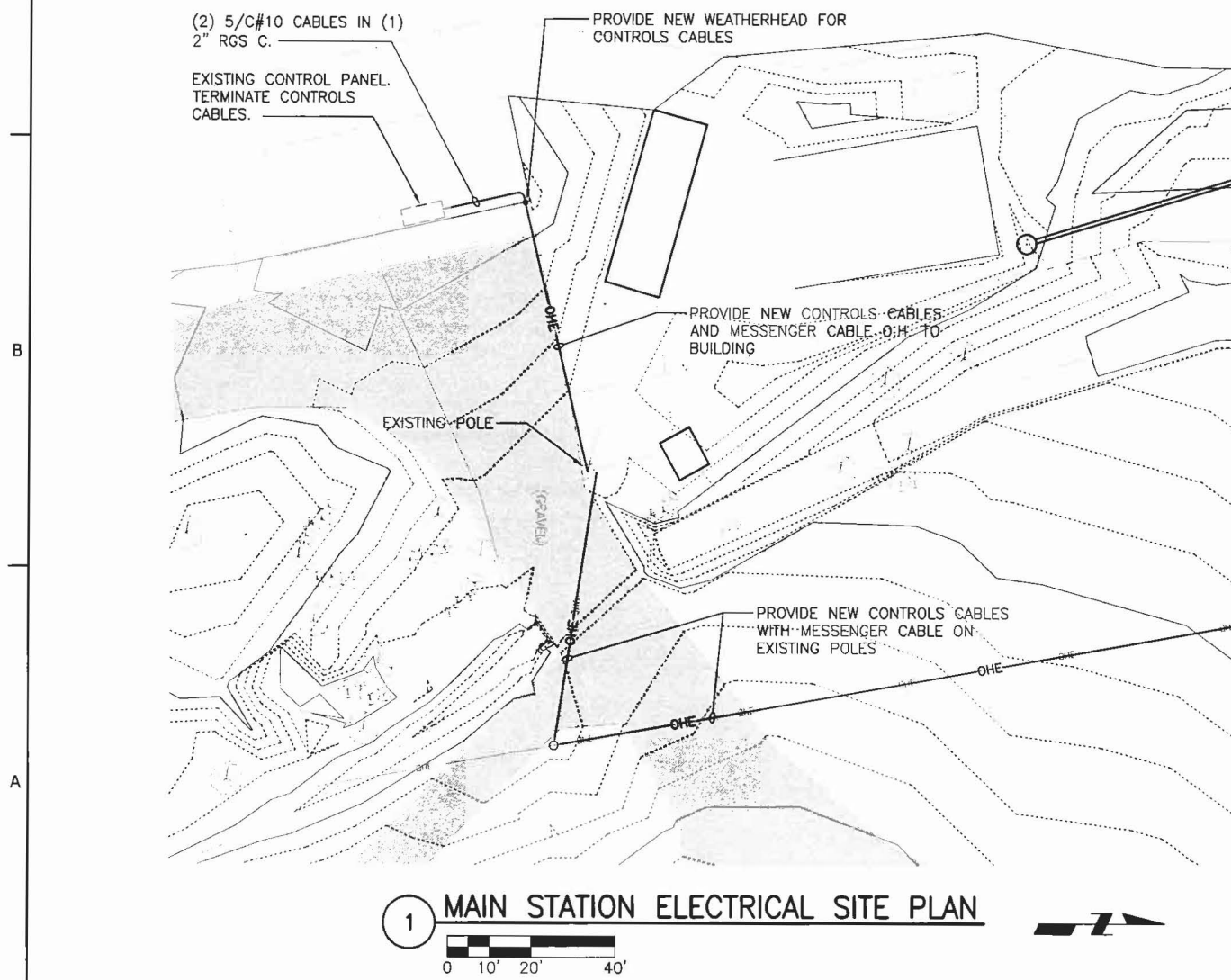
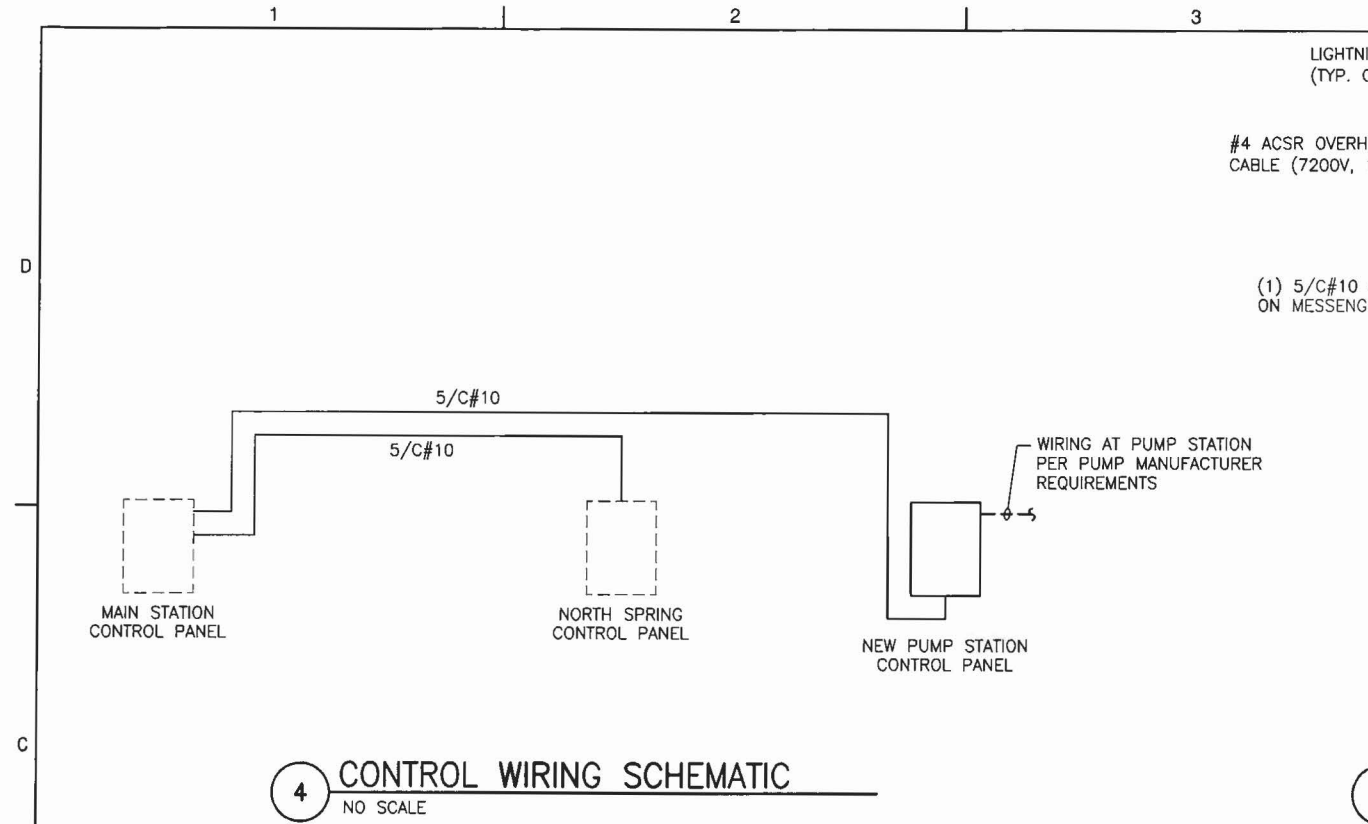
DRAWING TITLE
ELECTRICAL SITE PLAN

PROJECT No.
C0850040

DRAWING No.
E-2

DRAWING 20 OF 24 DRAWINGS

RECORD DRAWING



- NOTES**
- SEE SHEET E-1 FOR ELECTRICAL GENERAL NOTES AND SYMBOLS.
 - (1) SINGLE-PHASE, 25kVA, OIL-FILLED TRANSFORMER, CONNECTED 120/240V, 1Ø, 3W SECONDARY. GROUND CENTER-TAP @ POLE.
 - PROVIDE (1) 100W M.H. SECURITY LIGHT, WITH LAMP, 24" MOUNTING ARM, LITHONIA #TDD-100ML-120M2. EXTEND RGS CONDUIT RISER W/120V WIRING DOWN POLE AND UNDERGROUND TO CONTROL PANEL. CONNECT TO DEDICATED BREAKER IN PANEL.



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012
Charles Craddock
SIGNATURE
June 21, 2011
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY:	CEB
DRAWN BY:	JRF
CHECKED BY:	CEC
DATE CHECKED:	08/11
NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.	
06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING
DATE	REVISION

DRAWING TITLE
ELECTRICAL PLANS

PROJECT No.
C0850040

DRAWING No.
E-3

RECORD DRAWING

NOTES

1. SEE SHEET E-1 FOR ELECTRICAL GENERAL NOTES AND SYMBOLS.



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012
Charles Craddock
SIGNATURE

June 21, 2011
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: CEB
DRAWN BY: JRF
CHECKED BY: CEC
DATE CHECKED: 08/11

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011 BID SET
08/2011 FOR CONSTRUCTION
01/2012 RECORD DRAWING

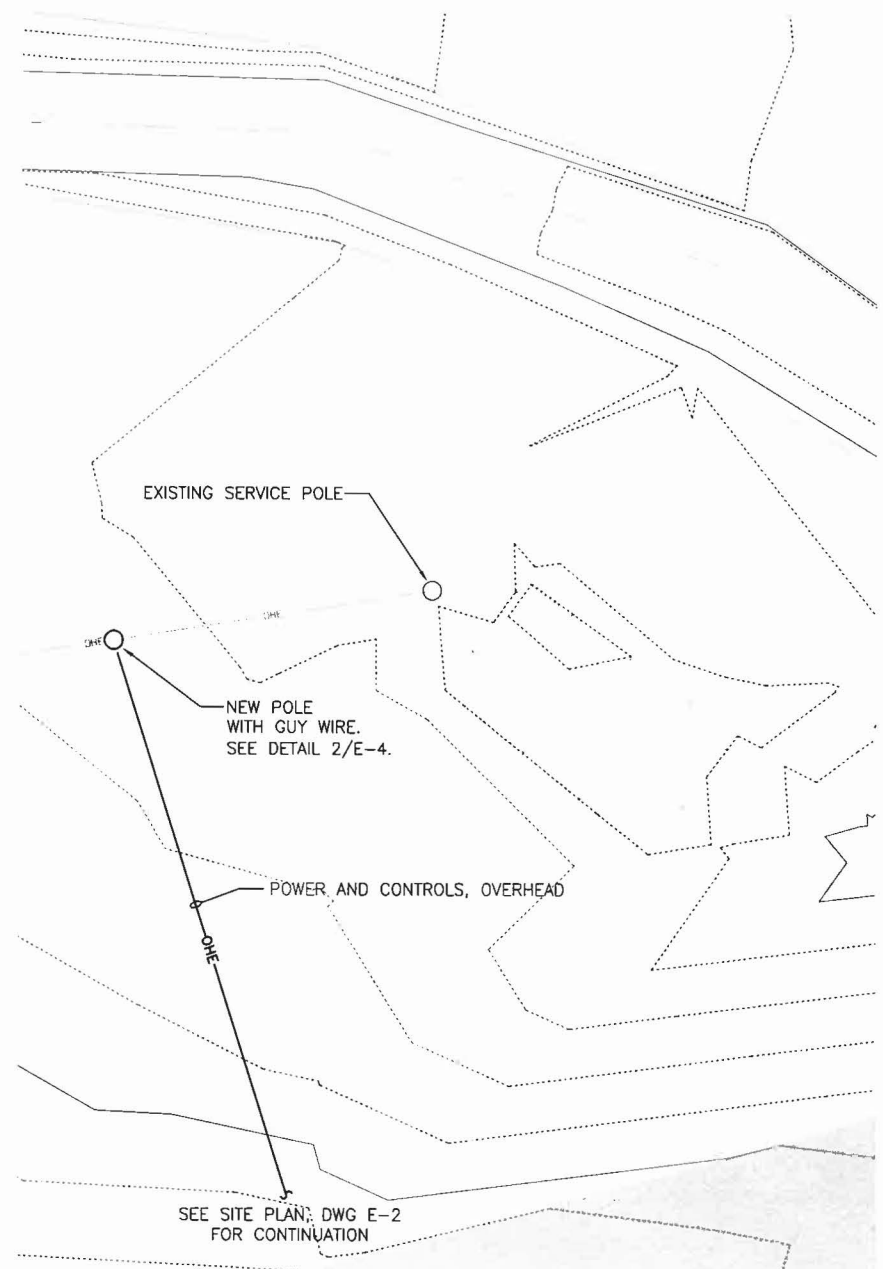
DATE REVISION

DRAWING TITLE
ELECTRICAL PLAN

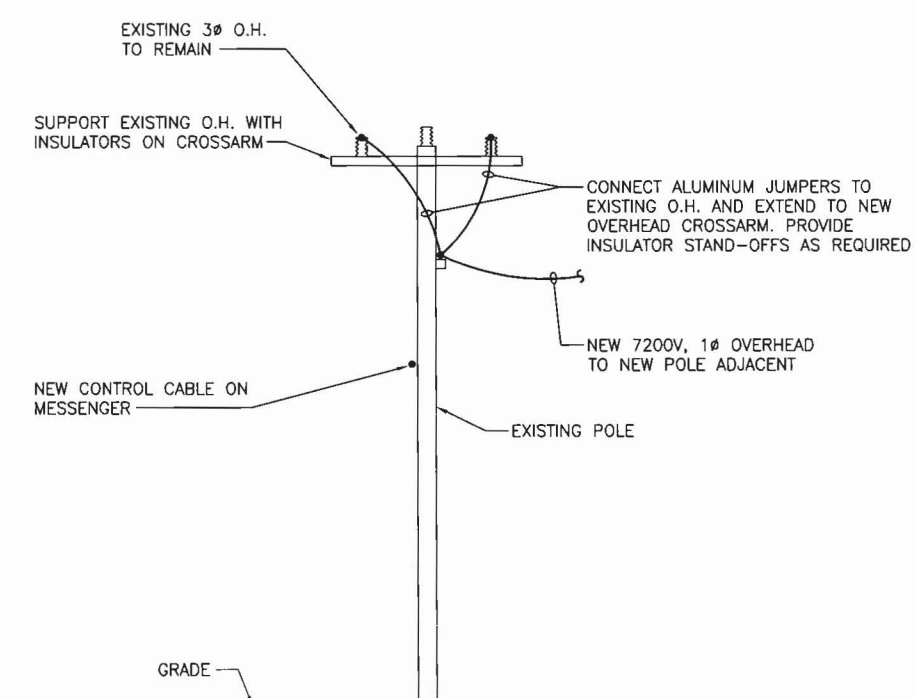
PROJECT No.
C0850040

DRAWING No.
E-4

DRAWING 22 OF 24 DRAWINGS

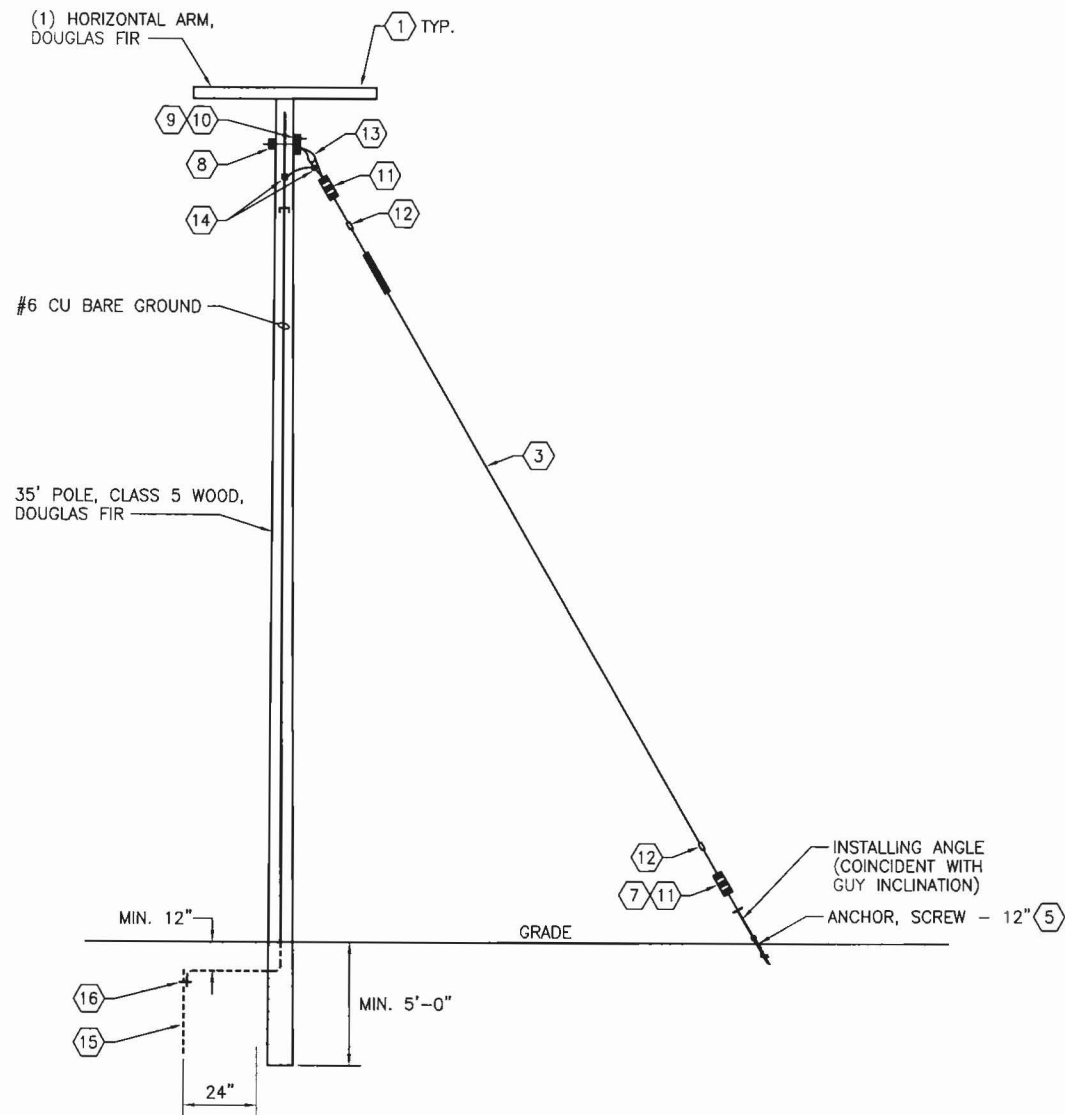
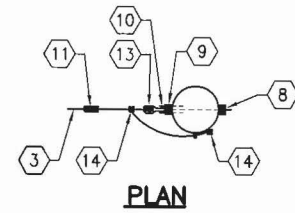


1 NORTH SPRING PUMP STATION ELECTRICAL SITE PLAN
0 5' 10' 20'



2 EXISTING POLE DETAIL
NO SCALE

RECORD DRAWING



1 NEW POLE AND GUY WIRE DETAIL
NO SCALE

NOTES

1. SEE SHEET E-1 FOR ELECTRICAL GENERAL NOTES AND SYMBOLS.

KEYNOTES

1. FURNISH AND INSTALL THREE (3) 10,000 POUND DEAD END SUSPENSION INSULATORS PER CONDUCTOR BOTH WAYS.
2. --NOT USED--
3. FURNISH AND INSTALL TWO BACK GUYS AND ANCHORS ON EACH POLE OF STRUCTURE (A). GUYS TO BE RATED 14,000 POUNDS MINIMUM. GUYS TO BE ATTACHED WITH POLE BANDS.
4. FURNISH AND INSTALL STRAIN INSULATORS IN GUYS NEAR TOP GUY ATTACHMENT PER SPECIFICATIONS.
5. FURNISH AND INSTALL 14,000 POUND POWER INSTALLED SCREW ANCHOR OR EQUAL FOR EACH GUY.
6. --NOT USED--
7. FURNISH AND INSTALL GUY GUARDS AT GROUND LINE.
8. WASHERS, CURVED.
9. PLATES, LIFT, CURVED, 7"x 2 1/2" x 5/16".
10. SCREWS, LAG.
11. CLAMPS, GUY, 3-BOLT. PROVIDE GUY GUARDS.
12. CLIPS, GUY.
13. BOLTS, ANGLE, THIMBLEYE.
14. CONNECTOR, GROUNDING.
15. COPPERWELD GROUND ROD, 3/4" x 8'-0".
16. EXOTHERMIC CONNECTION.



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012
Charles E. Craddock
SIGNATURE

June 20, 2011
DATE

PROJECT TITLE
NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011

DESIGNED BY: CEB
DRAWN BY: JRF
CHECKED BY: CEC
DATE CHECKED: 06/11

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.

06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING

DATE	REVISION

DRAWING TITLE
ELECTRICAL DETAILS

PROJECT No.
C0850040

DRAWING No.
E-5

DRAWING 23 OF 24 DRAWINGS

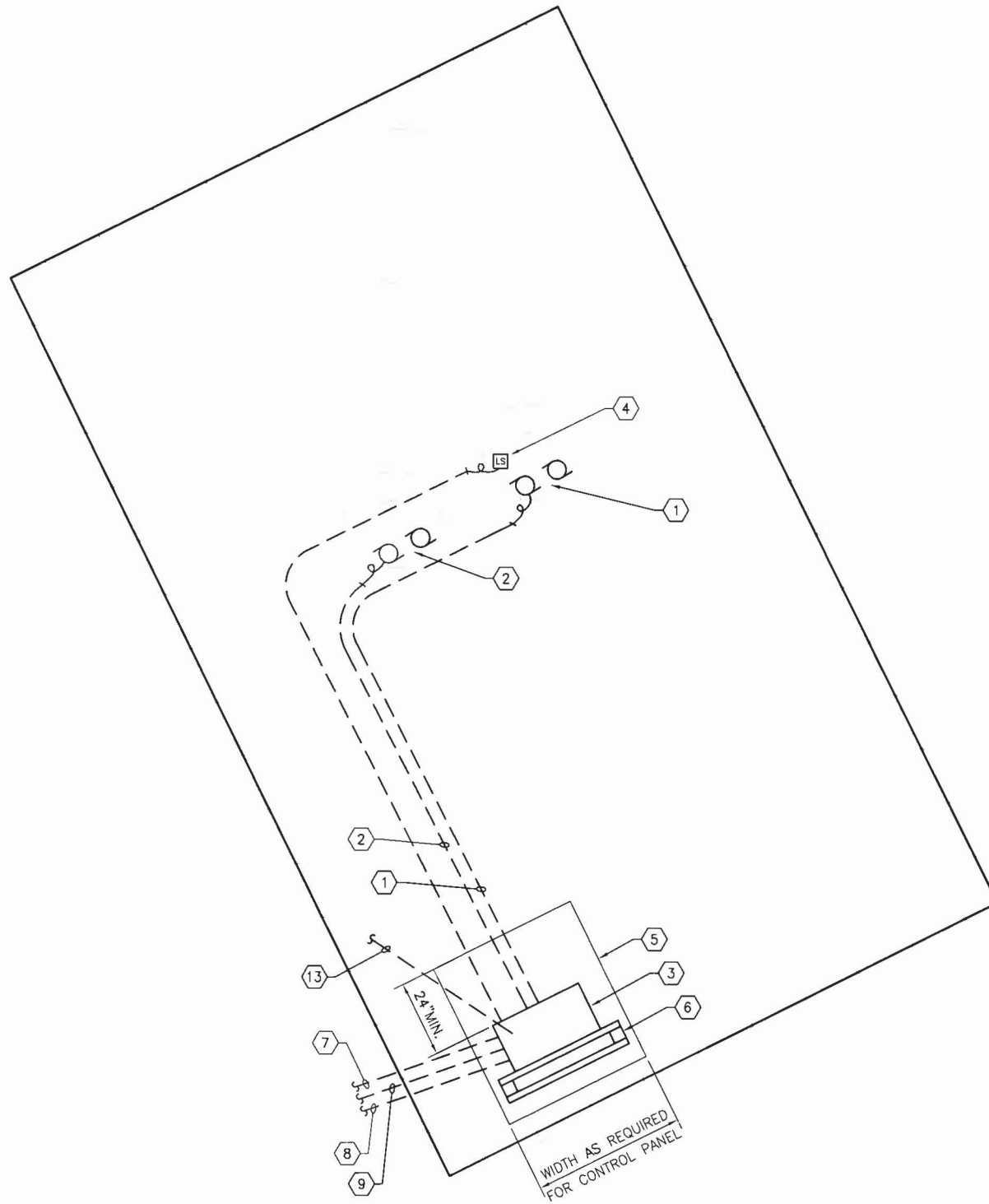
RECORD DRAWING

NOTES

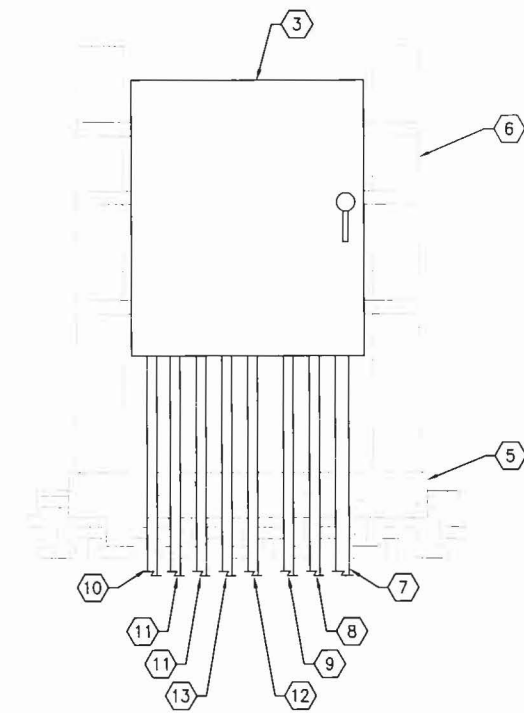
1. SEE SHEET E-1 FOR ELECTRICAL GENERAL NOTES AND SYMBOLS.
2. ALL BURIED CONDUITS SHALL BE SCHEDULE 40 PVC TYPE. ALL ABOVE GROUND AND/OR EXPOSED CONDUITS SHALL BE RGS TYPE.
3. FINAL CONNECTIONS TO EQUIPMENT SHALL BE WITH SEAL-TIGHT FLEXIBLE CONDUIT.

KEYNOTES

1. PUMPS #1 & #2 (3/4 HP, 220V, 1-PH.), SUBMERSIBLE, FURNISHED WITH 20-FT CORD. CORDS TERMINATE IN ALL-WEATHER SPLICE BOX LOCATED OUTSIDE THE PUMP VAULT. WIRING FROM SPLICE BOX TO CONTROL PANEL INSTALLED IN 1" C, TRANSITION TO RGS ABOVE GRADE, AND MAKE FINAL WIRING CONNECTIONS IN PANEL.
2. PUMPS #3 & #4 (3/4 HP, 220V, 1-PH.), SUBMERSIBLE, FURNISHED WITH 20-FT CORD. CORDS TERMINATE IN ALL-WEATHER SPLICE BOX LOCATED OUTSIDE THE PUMP VAULT. WIRING FROM SPLICE BOX TO CONTROL PANEL INSTALLED IN 1" C, TRANSITION TO RGS ABOVE GRADE, AND MAKE FINAL WIRING CONNECTIONS IN PANEL.
3. INSTALL MAIN CONTROL PANEL PER MANUFACTURER'S REQUIREMENTS. (BY CRIDER)
4. FOUR LEVEL SWITCHES, FURNISHED WITH CORDS. CORDS TERMINATE IN ALL-WEATHER SPLICE BOX LOCATED OUTSIDE THE PUMP VAULT. WIRING FROM SPLICE BOX TO CONTROL PANEL INSTALLED IN 1 1/2" C, TRANSITION TO RGS ABOVE GRADE, AND MAKE FINAL WIRING CONNECTIONS IN PANEL.
5. 6" THICK CONCRETE PAD WITH 6" WWF REINFORCING. CONCRETE PAD SHALL EXTEND A MINIMUM OF 24" IN FRONT OF CONTROL PANEL. WIDTH OF PAD SHALL EXTEND A MINIMUM OF 8" ON EITHER SIDE CONTROL PANEL. (BY CRIDER)
6. PROVIDE 6" STAINLESS STEEL TUBE AND STRUT TYPE SUPPORT STRUCTURE FOR MAIN CONTROL PANEL. ANCHOR STRUCTURE TO CONCRETE PAD WITH 1/2"-DIAM. EXPANSION ANCHORS.
7. PROVIDE (3)-#1 + (1)-#1 GR., 2" C. UNDERGROUND TO SERVICE POLE. SEE PUMP STATION PLAN ON DRAWING E-3 FOR CONTINUATION.
8. PROVIDE (1) 5/C #10 CONTROL CABLE IN 1-1/2" C. UNDERGROUND FROM SERVICE POLE TO CONTROL PANEL. TRANSITION TO RGS ABOVE GRADE, AND MAKE FINAL WIRING CONNECTIONS IN PANEL. SEE PUMP STATION PLAN ON DRAWING E-3 FOR CONTINUATION.
9. SPARE 3/4" CONDUIT
10. SPARE 1" CONDUIT
11. PROVIDE (2) 3#12, 1#12G IN 3/4" BURIED CONDUIT OR 220V POWER TO PUMP IN PUMP STATION.
12. PROVIDE 3/4" BURIED CONDUIT FOR SECURITY LIGHTING.
13. PROVIDE 3/4" BURIED CONDUIT FOR FLOW SWITCH.



1 PUMP STATION ELECTRICAL PLAN



2 MAIN CONTROL PANEL ELEVATION
NO SCALE

RECORD DRAWING



125 WEST CHURCH STREET
CHAMPAIGN, IL 61820
PHONE : 217.373.8900
FAX : 217.373.8923



EXPIRES JULY 31, 2012
Charles Craddock
SIGNATURE
June 20, 2011
DATE

PROJECT TITLE
**NEAL'S LANDFILL
SPRING TREATMENT FACILITY
BLOOMINGTON, INDIANA
NEAL'S LANDFILL
IMPROVEMENTS 2011**

DESIGNED BY:	CEB
DRAWN BY:	JRF
CHECKED BY:	CEC
DATE CHECKED:	08/11
NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.	
06/2011	BID SET
08/2011	FOR CONSTRUCTION
01/2012	RECORD DRAWING
DATE	REVISION

DRAWING TITLE
**PUMP STATION ELECTRICAL
PLAN AND DETAILS**

PROJECT No.
C0850040
DRAWING No.
E-6
DRAWING 24 OF 24 DRAWINGS