ELECTRICAL SYMBOLS AND ABBREVIATIONS

ABBREVIATIONS

LIGHTING CONTACTOR

MOTOR CONTROL CENTER

MCC

AFF	ABOVE FINISHED FLOOR		
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUGS ONLY
AT	ASTRONOMIC TIMER	MMD	METERING DEVICE
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED
С	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
СВ	CIRCUIT BREAKER	NO	NORMALLY OPEN
СР	CONTROL PANEL	NTS	NOT TO SCALE
CPT	CONTROL POWER TRANSFORMER	PB	PULLBOX
DPI	DIFFERENTIAL PRESSURE INDICATOR	PS	PRESSURE SWITCH
DPS	DIFFERENTIAL PRESSURE SWITCH	RVSS	REDUCED VOLTAGE SOLID STATE STARTER
DS	DOOR MOUNTED SWITCH(INTRUSION ALARM)	S/L	STOP/LOCKOUT
ЕНН	ELECTRICAL HANDHOLE	S.S.	STAINLESS STEEL
ЕМН	ELECTRICAL MANHOLE	SV	SOLENOID VALVE
EUH	ELECTRIC UNIT HEATER	Т	THERMOSTAT
FI	FLOW INDICATOR	TB	TERMINAL BOX
FO	FIBER OPTIC	TD	TIME DELAY RELAY
F	FLOW SWITCH	TC	TIME DELAY CLOSE
FR	FRACTIONAL HORSEPOWER	ТО	TIME DELAY OPEN
FS	FLOAT SWITCH	UPS	UNINTERRUPTIBLE POWER SUPPLY
FVNR	FULL VOLTAGE NON-REVERSING STARTER	VFD	VARIABLE FREQUENCY DRIVE
GC	GENERAL CONTRACTOR		
GFI	GROUND FAULT CIRCUIT INTERRUPTER		
HOF	HEAT-OFF-FAN SWITCH		
НОА	HAND-OFF-AUTOMATIC SWITCH		

J	JUNCTION BOX	F a/b	DISCONNECT SWITCH, 3 POLE, 3 FUSE(a INDICATES SWITCH RATING AND b INDICATES FUSE RATING, IN AMPS)
\$ _a	SWITCH(LOWER CASE LETTER INDICATES FIXTURES & EQUIPMENT TO BE SWITCHED) (REFER TO SPECIFICATION FOR RATINGS)		NON-FUSED DISCONNECT SWITCH (a INDICATES SWITCH RATING IN AMPS)
S _{3,a}	THREE-WAY SWITCH(LOWER CASE LETTER INDICATES FIXTURES AND EQUIPMENT TO BE SWITCHED)(REFER		COMBINATION MOTOR STARTER
0 3,a	TO SPECIFICATION FOR RATINGS).	ST	SINGLE PHASE MOTOR STARTING SWITCH WITH TERMINAL OVERLOAD
	DUPLEX RECEPTACLE, 2 POLE,3 WIRE,120V,20A, 18" A.F.F. UNLESS OTHERWISE NOTED		MOTOR STARTER
GFI —	GRD FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE, 2 POLE 3 WIRE, 120V,20A,18" A.F.F. UNLESS OTHERWISE NOTED	CS	CONTROL STATION
—	RECEPTACLE, SPECIFIC PURPOSE - VERIFY REQMT	LS SS	LIMIT SWITCH SELECTOR SWITCH
	AIR TERMINAL FOR LIGHTNING PROTECTION SYSTEM	MS	MOTION DETECTOR
			MOTION DETECTOR
lacktriangle	GROUND ROD WITH INSPECTION WELL	(SV) [HOA]	DEVICE(SEE ABBREVIATIONS FOR TYPE)
00	SECTION OF CONCRETE CONDUIT BANK		208Y/120V UTILITY PANEL
			480Y/277V UTILITY PANEL
一一	THERMOSTAT	UP-2	HOME RUN TO PANELBOARD LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER
•	CONTROL STATION		
<u> </u>	AC COMBINATION FULL VOLTAGE NON—REVERSING	C3	INDICATES WIRE AND CONDUIT RUN (SEE CONDUIT AND CABLE SCHEDULE)
7	STARTER WITH MAGNETIC BREAKER	——— G———	GROUND CABLE
	TRANSFORMER (SEE SINGLE LINE DIAGRAM)		CONDUIT AND WIRING RUN EXPOSED
****	TRANSFORMER-TYPE AND SIZE AS NOTED ON THE DRAWINGS AND IN SPECIFICATIONS		CONDUIT CONCEALED OR BURIED
	FUSE		CONDUIT (TURNED UP)
MMD	MICROPROCESSOR BASED METERING DEVICE (SEE SPECIFICATIONS)	— — — —	CONDUIT (TURNED DOWN)
<u> </u>		— —T — —	CONDUIT FOR TELEPHONE SYSTEM
°) a/b	CIRCUIT BREAKER (C INDICATES FRAME SIZE AND D INDICATES TRIP SIZE)	<u> </u>	LIMIT SWITCH
			FLOW SWITCH
M $\sqrt{5}$	MOTOR — INSERT DENOTES HORSE POWER		CAPPED CONDUIT (EXPOSED)
	WALL BATTERY PACK - 2 LITE FIXTURE	K	KEY INTERLOCK
$ \begin{array}{ccc} A & & b \\ R & & 3 & S & 3 \end{array} $	LIGHTING FIXTURE (UPPER CASE LETTER INDICATES TYPE, LOWER CASE LETTER INDICATES RESPECTIVE SWITCH.) SEE SPECIFICATION FOR FIXTURE SCHEDULE		
\bigotimes	EXIT LIGHT		





ITION TO THIS	ALTERATION OR S DOCUMENT IS A CTION 7209 OF THE					
	EDUCATION LAW.					
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KED BY	CAL					
BY	MN	REVISION NUMBER	DATE	MADE BY	APP'D BY	

	UNAUTHORIZED ALTERATION OR						RECORD DRAWIN	IG CERTIFICATION
	ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE						AS BUILT — CHANGES AS NOTED	
/	NEW YORK STATE EDUCATION LAW.						AS BUILT - NO CHANGES	
	IN CHARGE OFJHM						CONTRACTOR	PROJECT COORDINATOR
	CHECKED BYCAL						NAME	NAME
	MADE BYMN	REVISION	DATE	MADE	APP'D	DEVICION	SIGNATURE	SIGNATURE

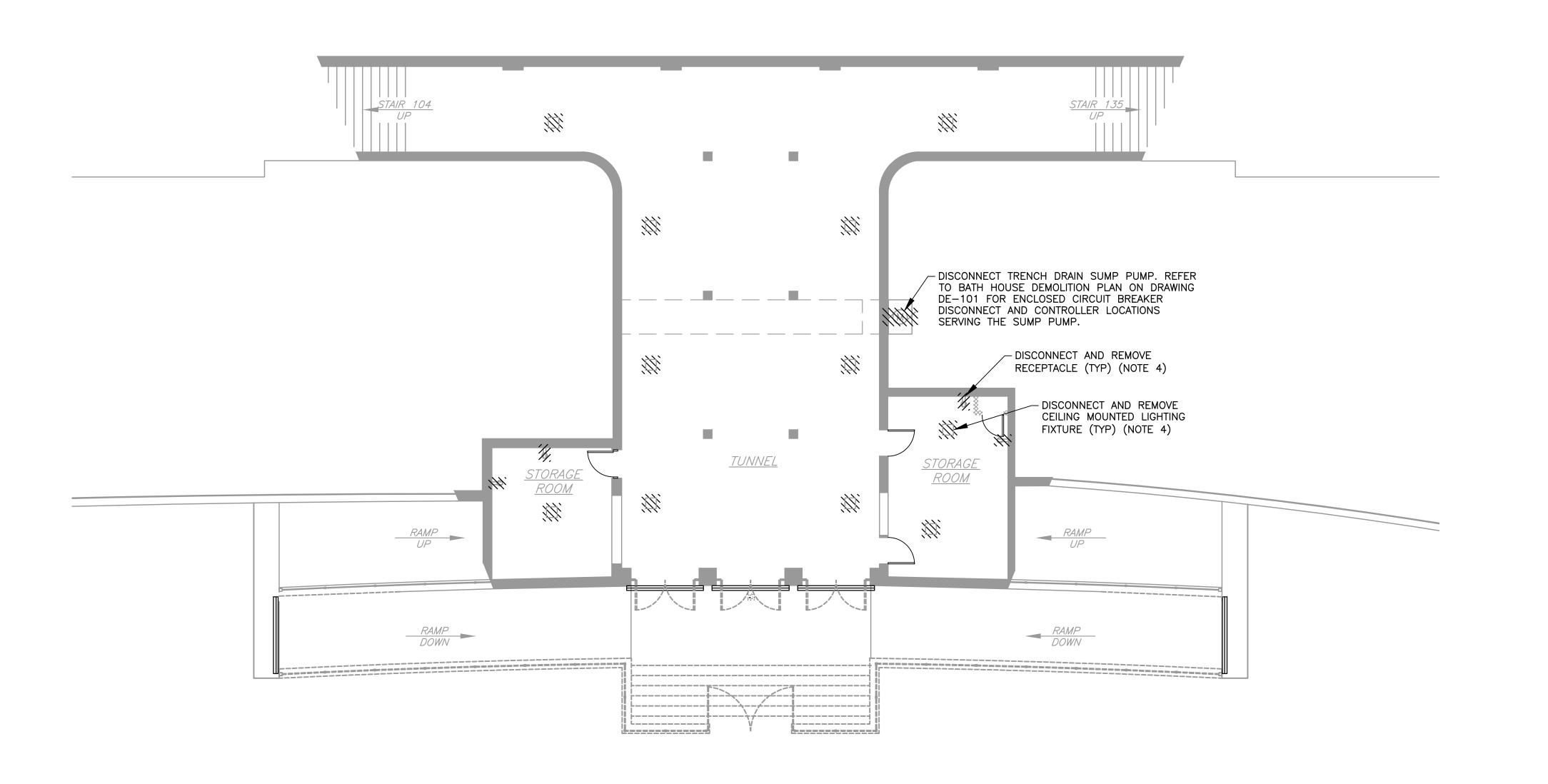
CONTRACT NUMBER WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION 20-504 E-001 DIVISION OF ENGINEERING REHABILITATION OF POOL AND BATHHOUSE

SYMBOLS AND ABBREVIATIONS

SHEET NO. 137 OF 201 SCALE: **AS NOTED**DATE: **NOVEMBER 10, 2020** PLAYLAND PARK, RYE, NEW YORK DPW FILE NO.

SHEET NUMBER

1-19-E-494



NOTES:

- 1. REFER TO DRAWING E-001 FOR SYMBOLS AND ABBREVIATIONS.
- 2. ALL CONDUIT AND WIRE RELATED TO ITEMS AND EQUIPMENT REMOVED UNDER DEMOLITION SHALL BE DISCONNECTED AND REMOVED, UNLESS OTHERWISE NOTED. DEMOLITION SHALL INCLUDE HANGERS, PIPE CLAMPS, JUNCTION BOXES, ANCHORS, SUPPORTS AND CONDUIT FITTINGS.
- 3. CABLE AND WIRE IN CONDUIT EMBEDDED IN WALLS AND FLOORS SHALL BE REMOVED AND CONDUIT PLUGGED FLUSH WITH SURFACE. CONTRACTOR SHALL REMOVE ALL SPALLED, CRACKED, OR LOOSE CONCRETE COVER OVER EXISTING EMBEDDED CONDUIT, BACK TO SOUND CONCRETE. CONTRACTOR SHALL PATCH ALL PITS, CRACKS, ETC., LEVEL WITH EXISTING SURFACES. APPLY BONDING COMPOUND PRIOR TO PLACING NON-SHRINK GROUT.
- 4. CONDUIT AND WIRE SERVING LIGHTING FIXTURES AND RECEPTACLES IN THE BEACH ACCESS TUNNEL SHALL BE DISCONNECTED AND REMOVED BACKED TO THE BEACH ACCESS TUNNEL LIGHTING PANEL 'PP1' LOCATED IN THE MEN'S BATH HOUSE. CONTRACTOR SHALL TRACE ALL CONDUIT AND WIRE TO BE DISCONNECTED AND REMOVED BACKED TO ITS POINT OF ORIGIN PRIOR TO DEMOLITION.
- 5. THE OWNER HAS THE OPTION OF KEEPING ANY EQUIPMENT DISCONNECTED UNDER DEMOLITION. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EQUIPMENT THAT THE OWNER DOES NOT WISH TO KEEP.
- 6. REFER TO DRAWING G-101 FOR TEMPORARY LIGHTING REQUIREMENTS IN TUNNEL, PROVIDE POWER TO TEMPORARY LIGHTING SYSTEM.

* === PROJECT NORTH

8 6 4 2 0

D&B Engineers ARCHITECTS, P.C. 4 WEST RED OAK LANE WHITE PLAINS, NY, 10604 (914)467-5300



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VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.							
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RECORD DRAWING CERTIFICATION AS BUILT - CHANGES AS NOTED AS BUILT - NO CHANGES PROJECT COORDINATOR CONTRACTOR

SIGNATURE

DIVISION OF ENGINEERING REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK

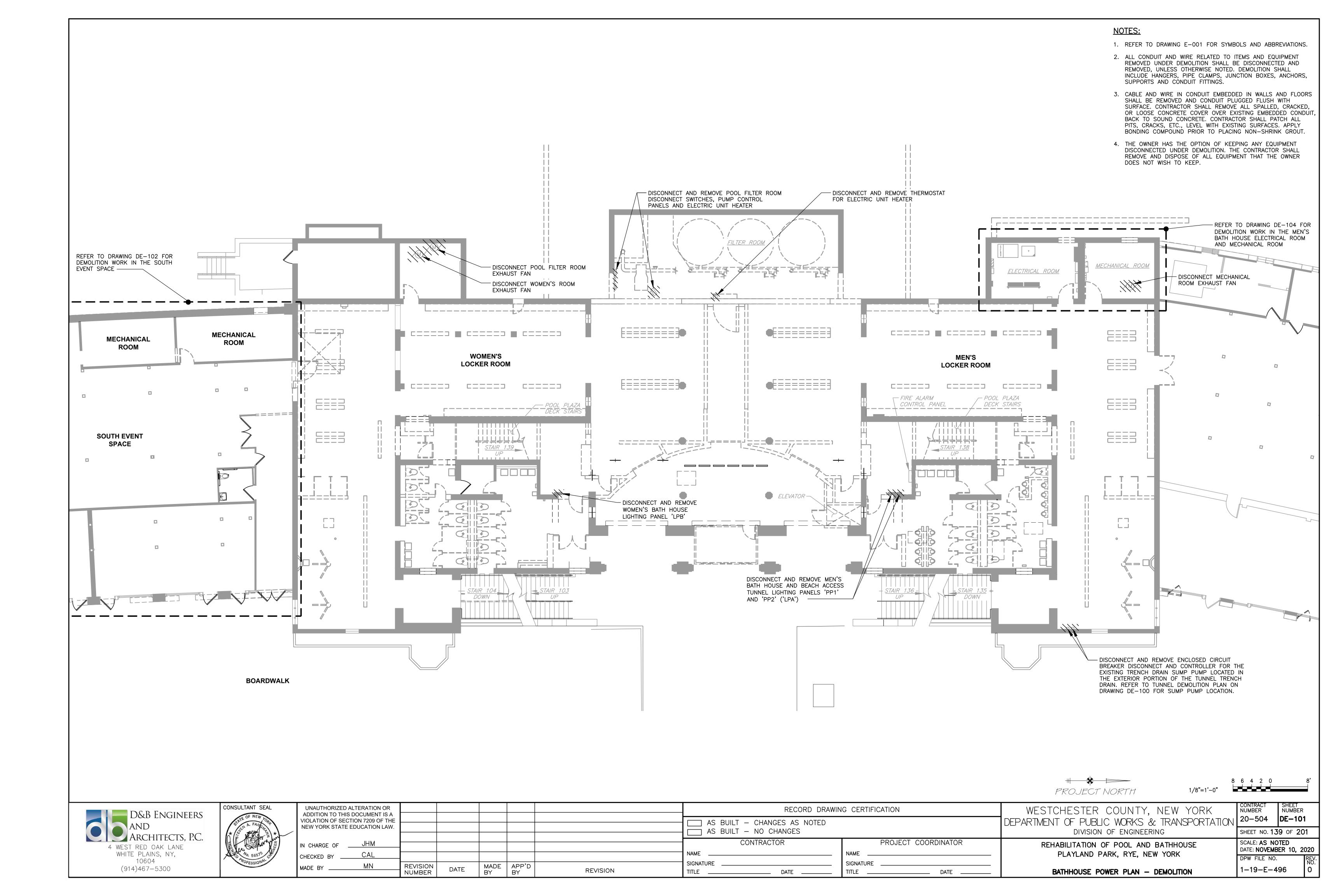
TUNNEL PLAN - DEMOLITION

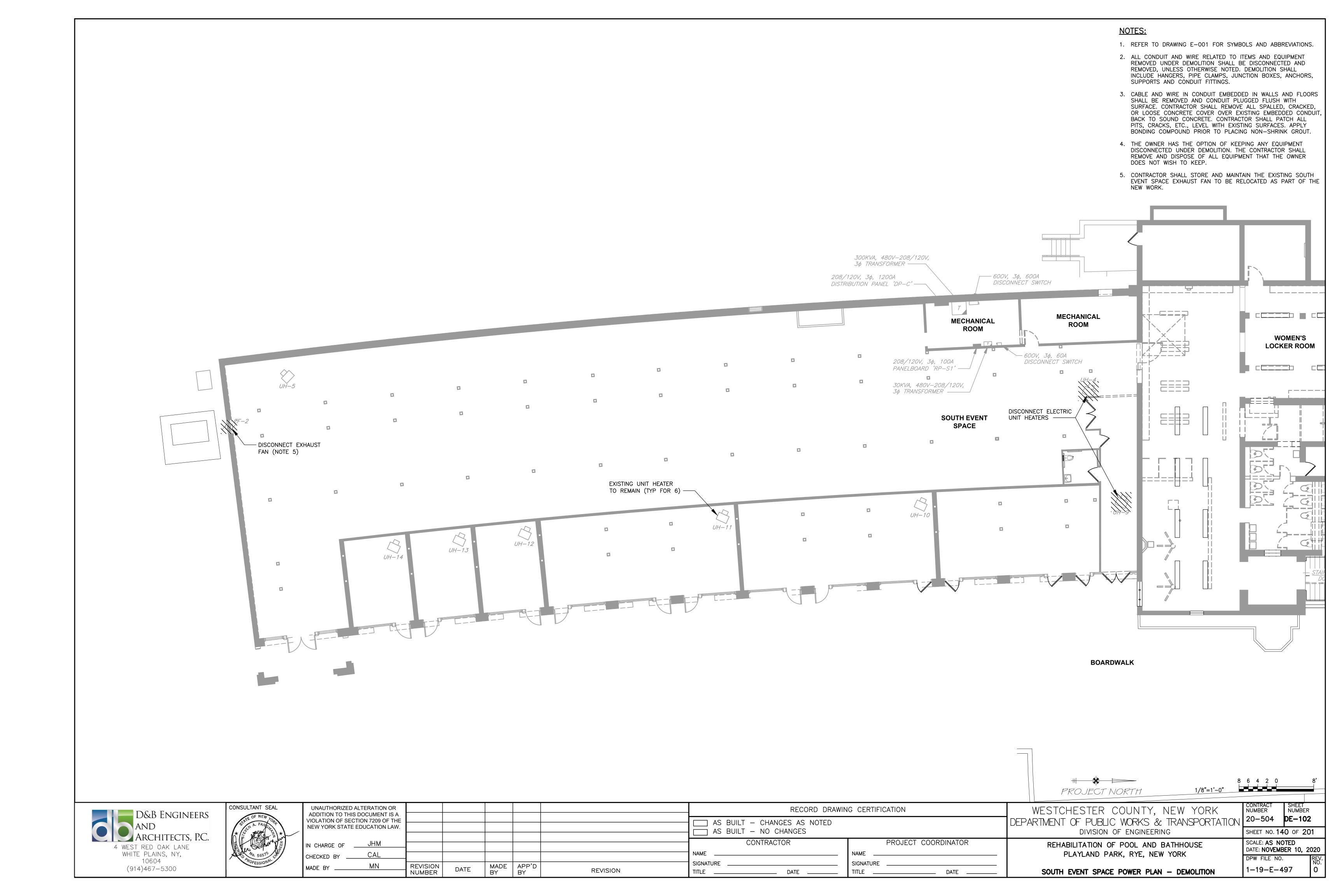
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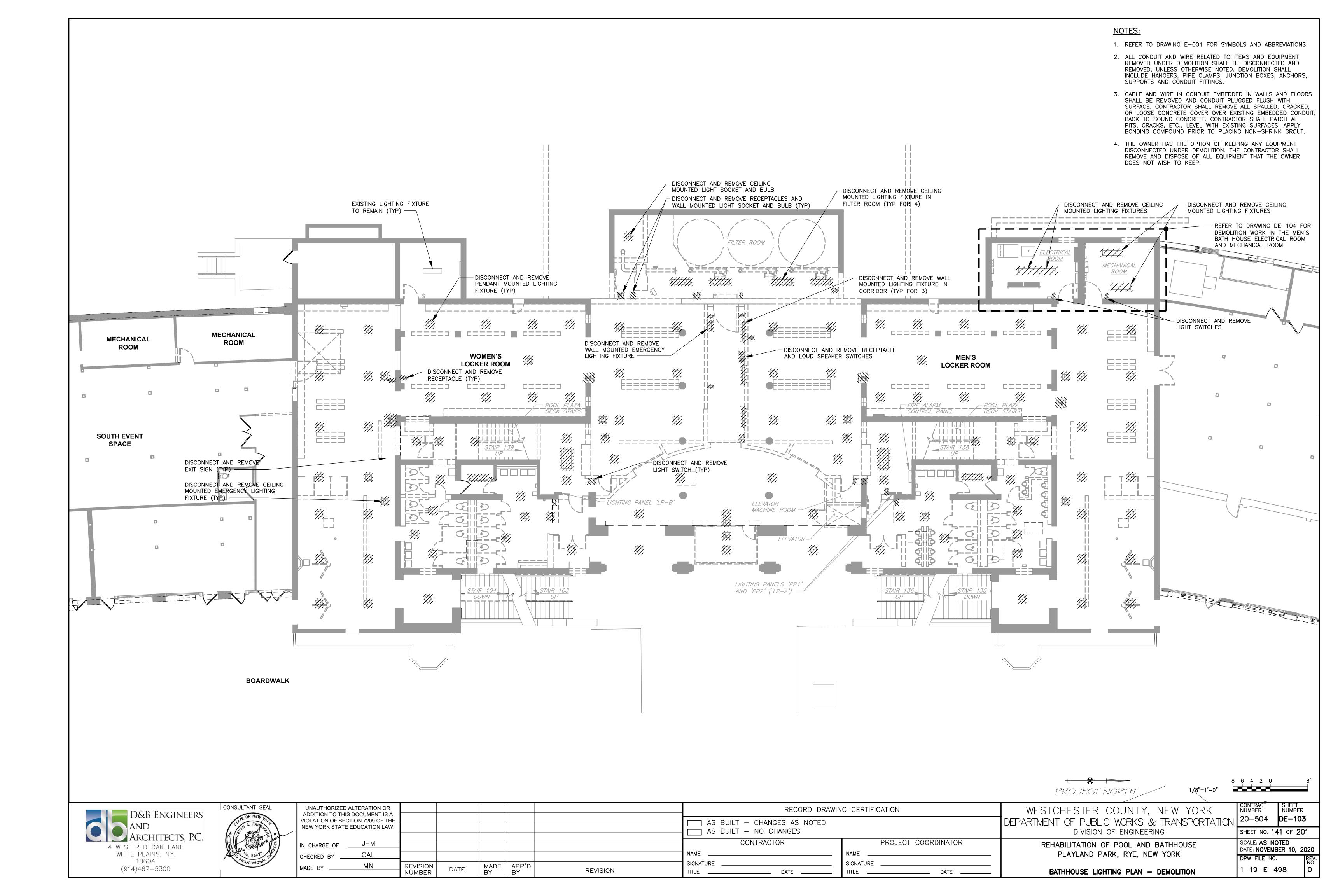
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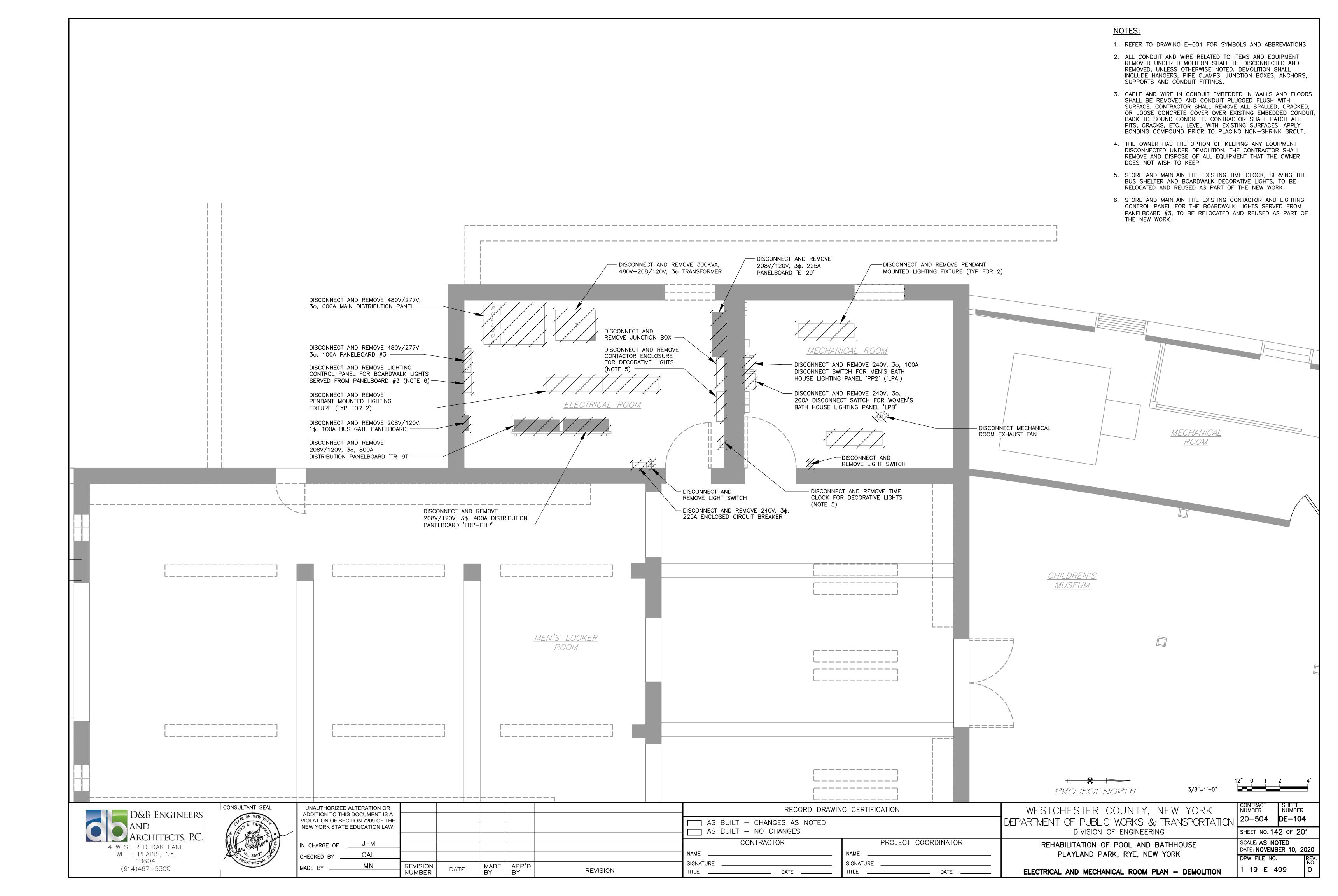
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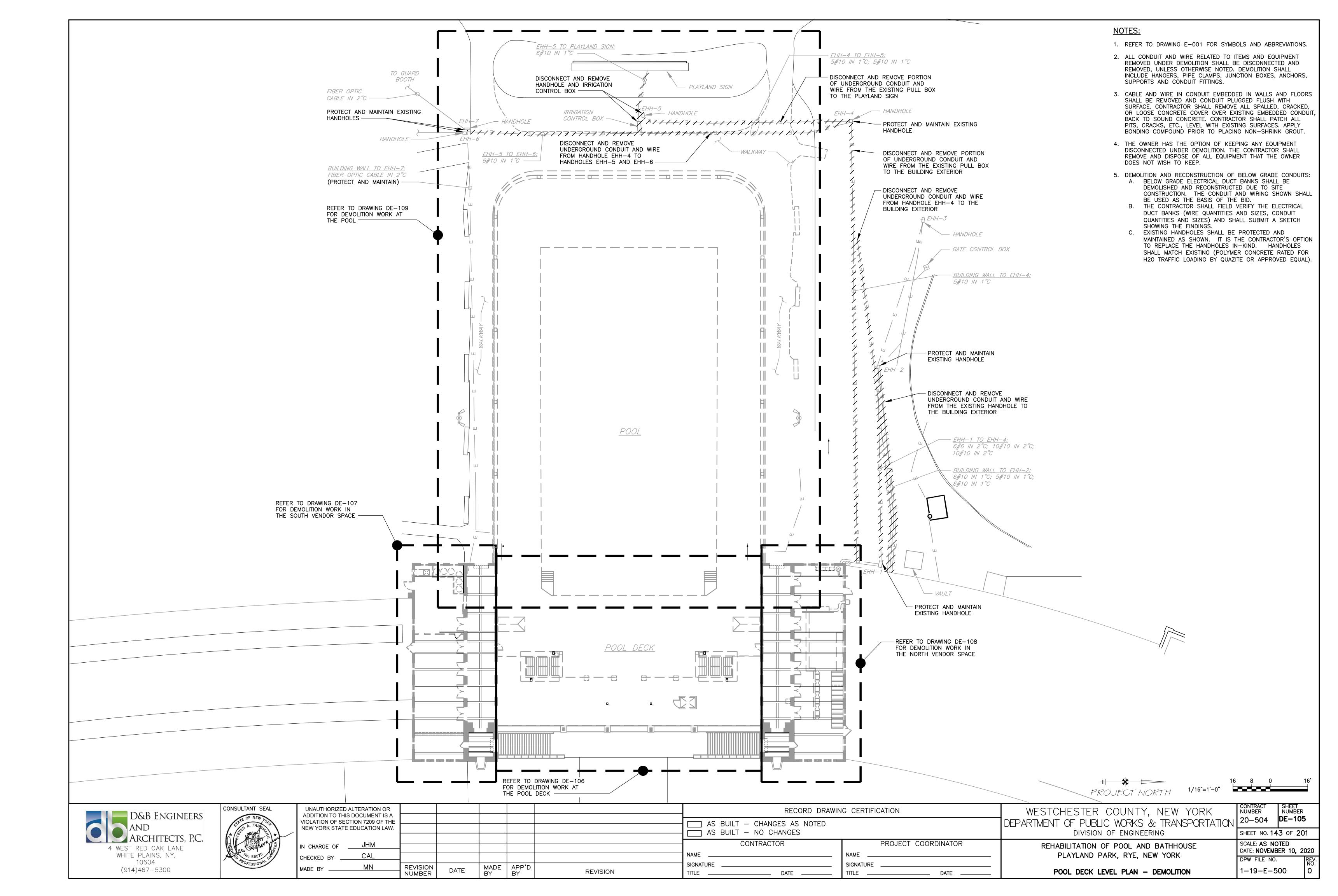
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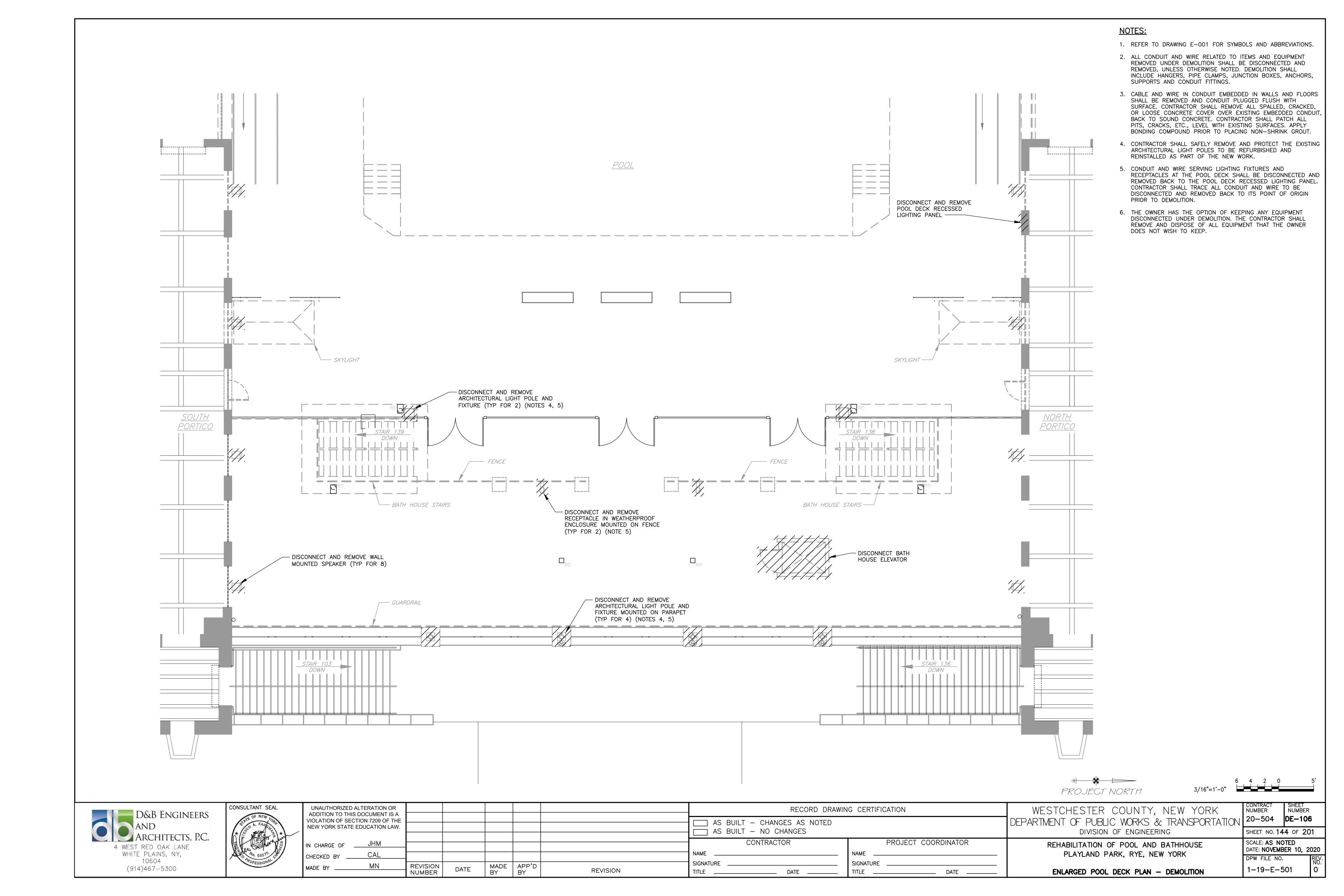


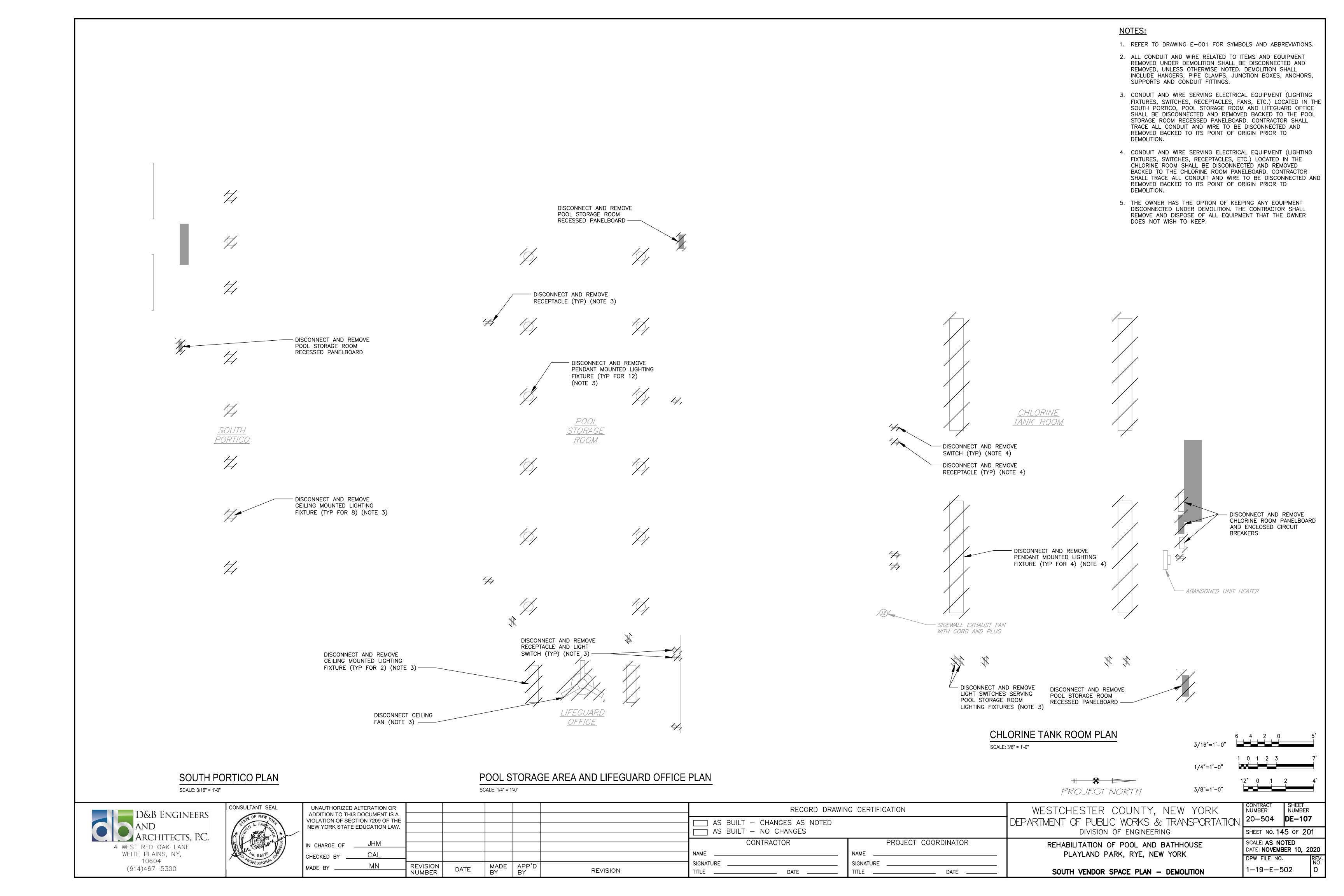


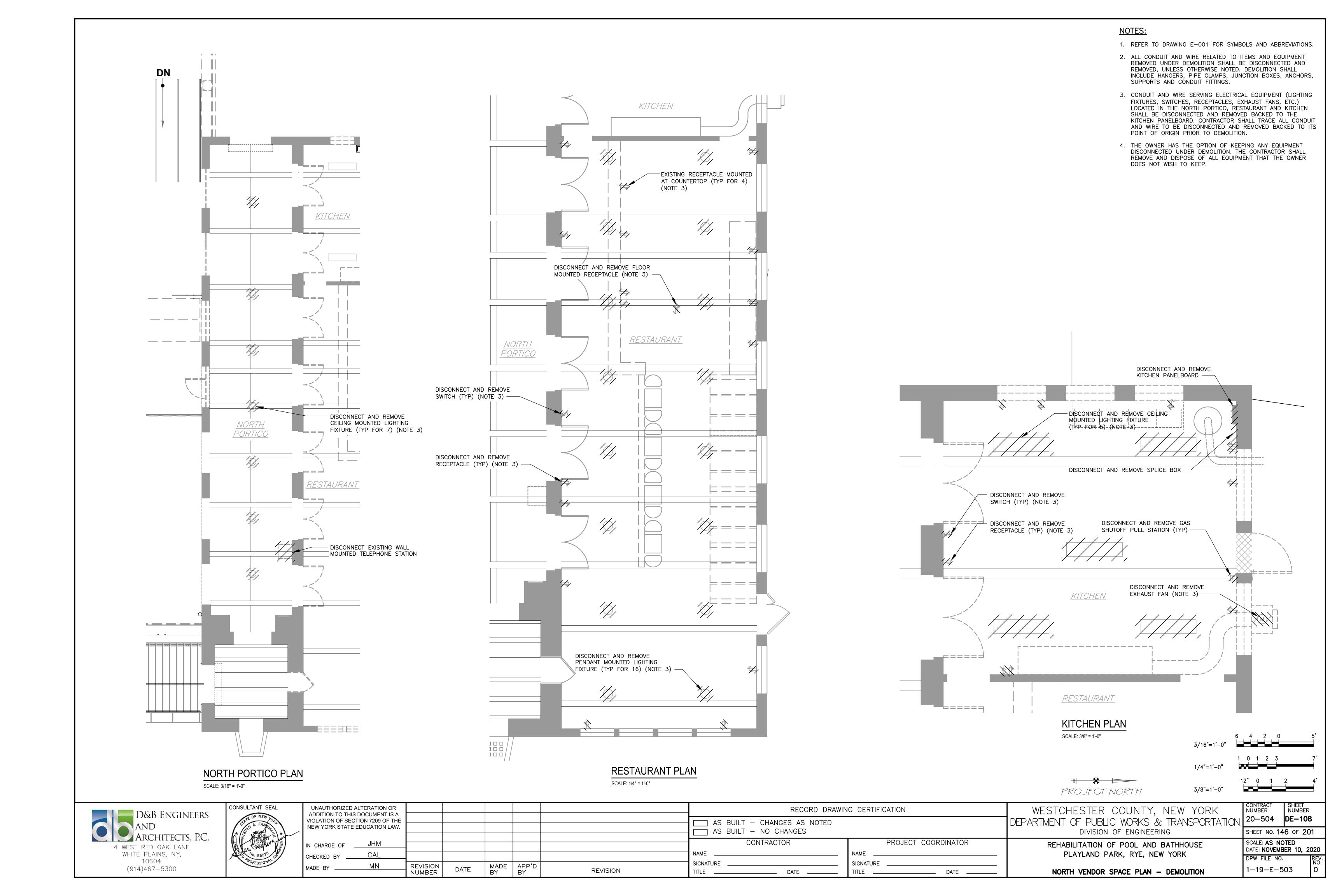


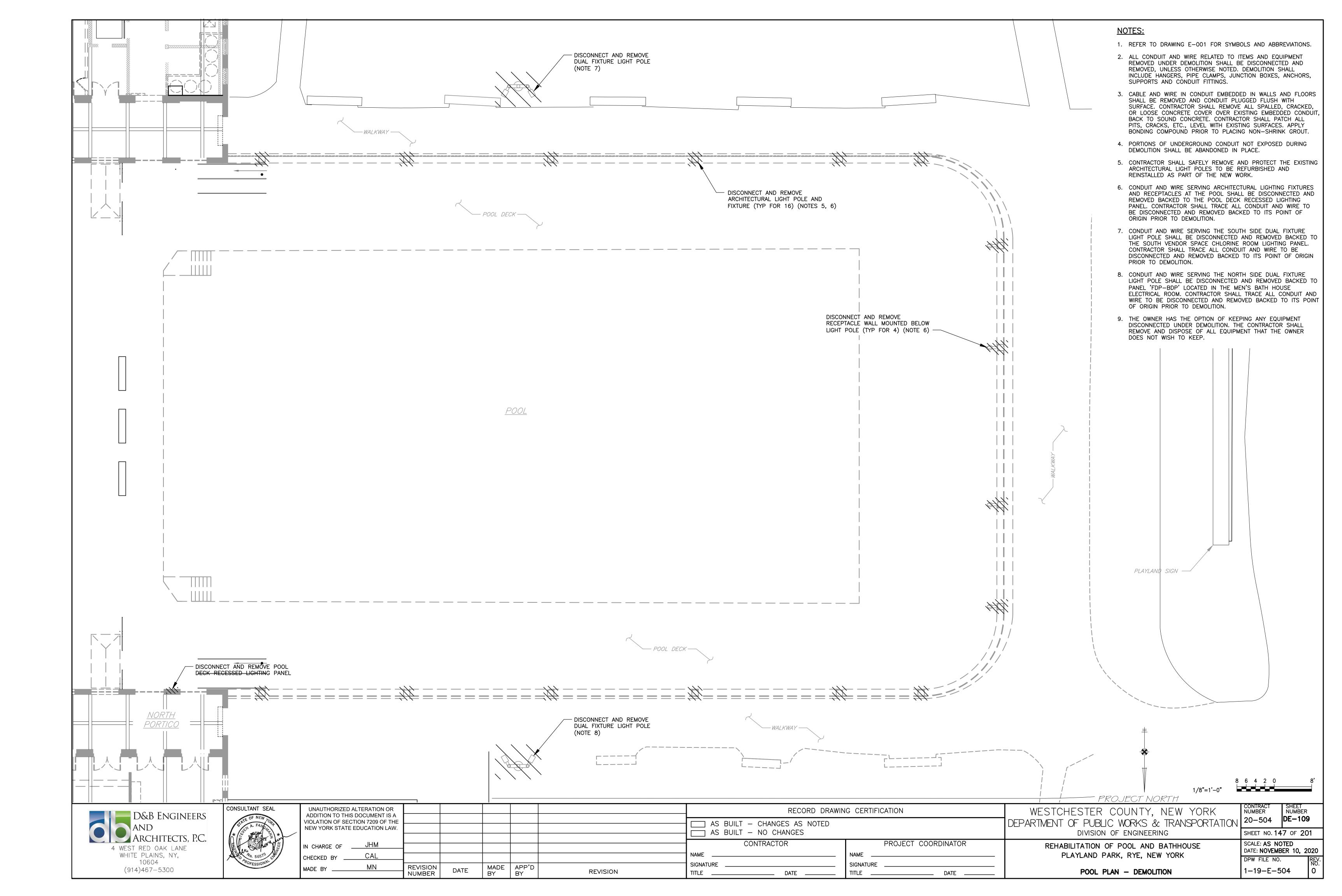




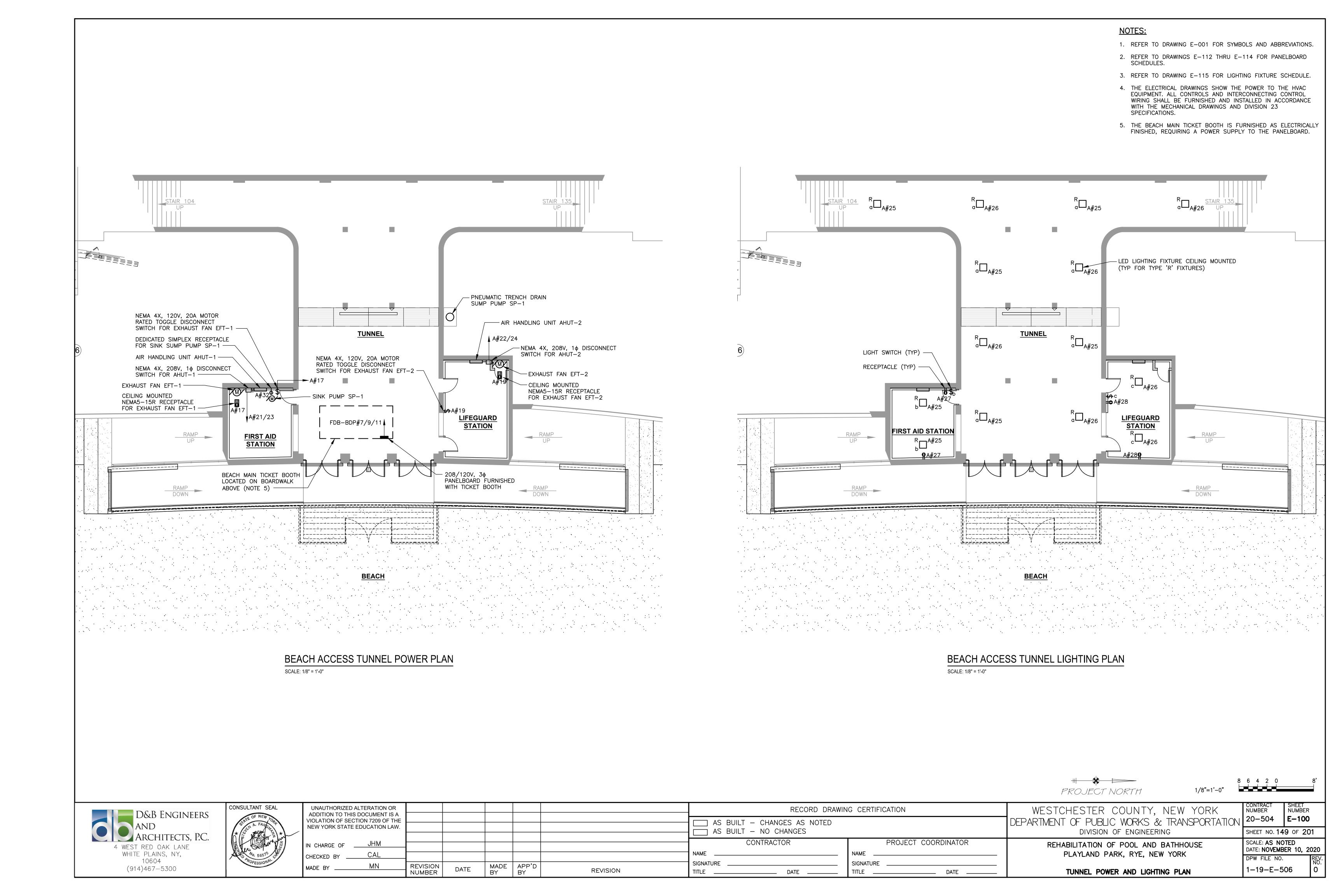


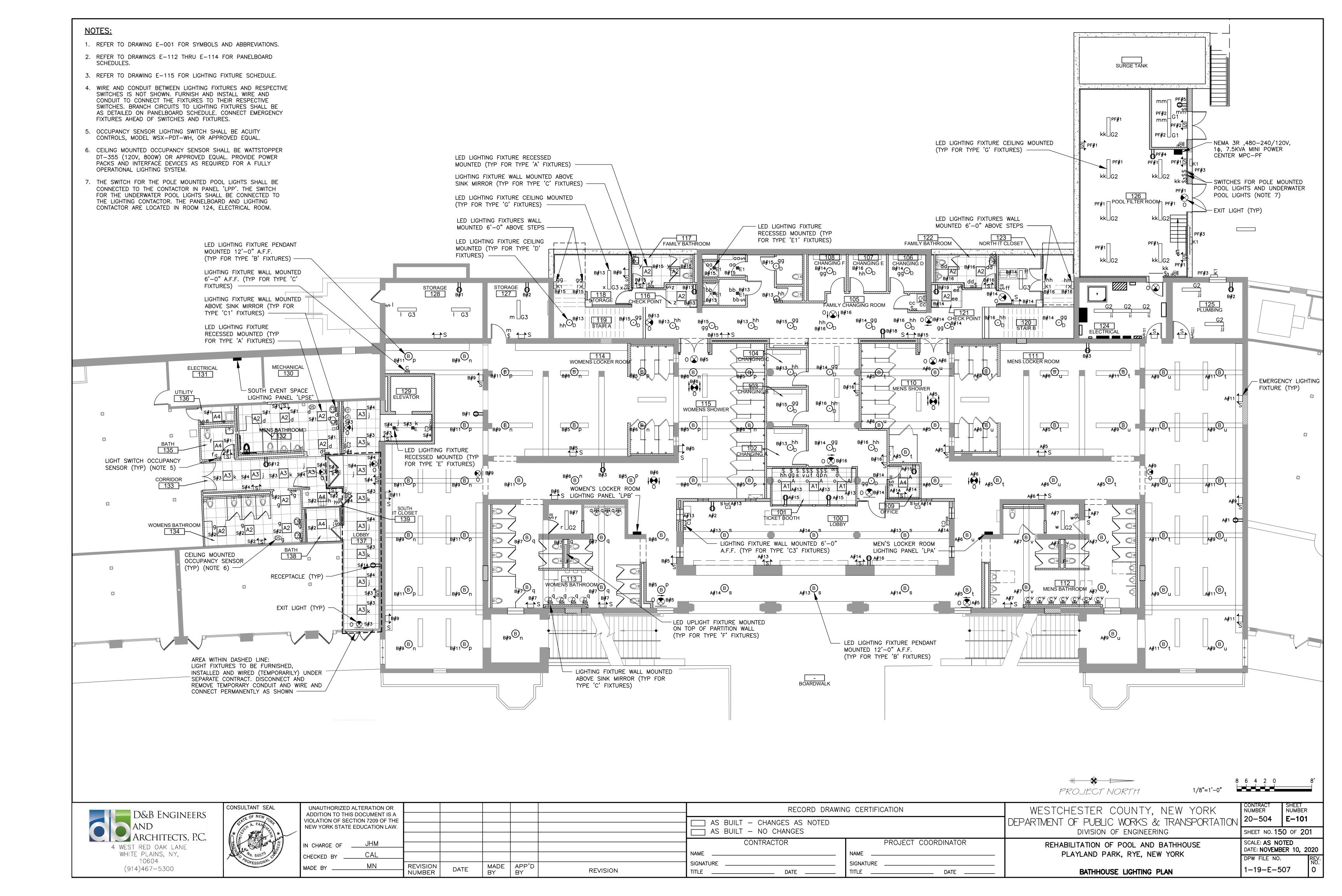


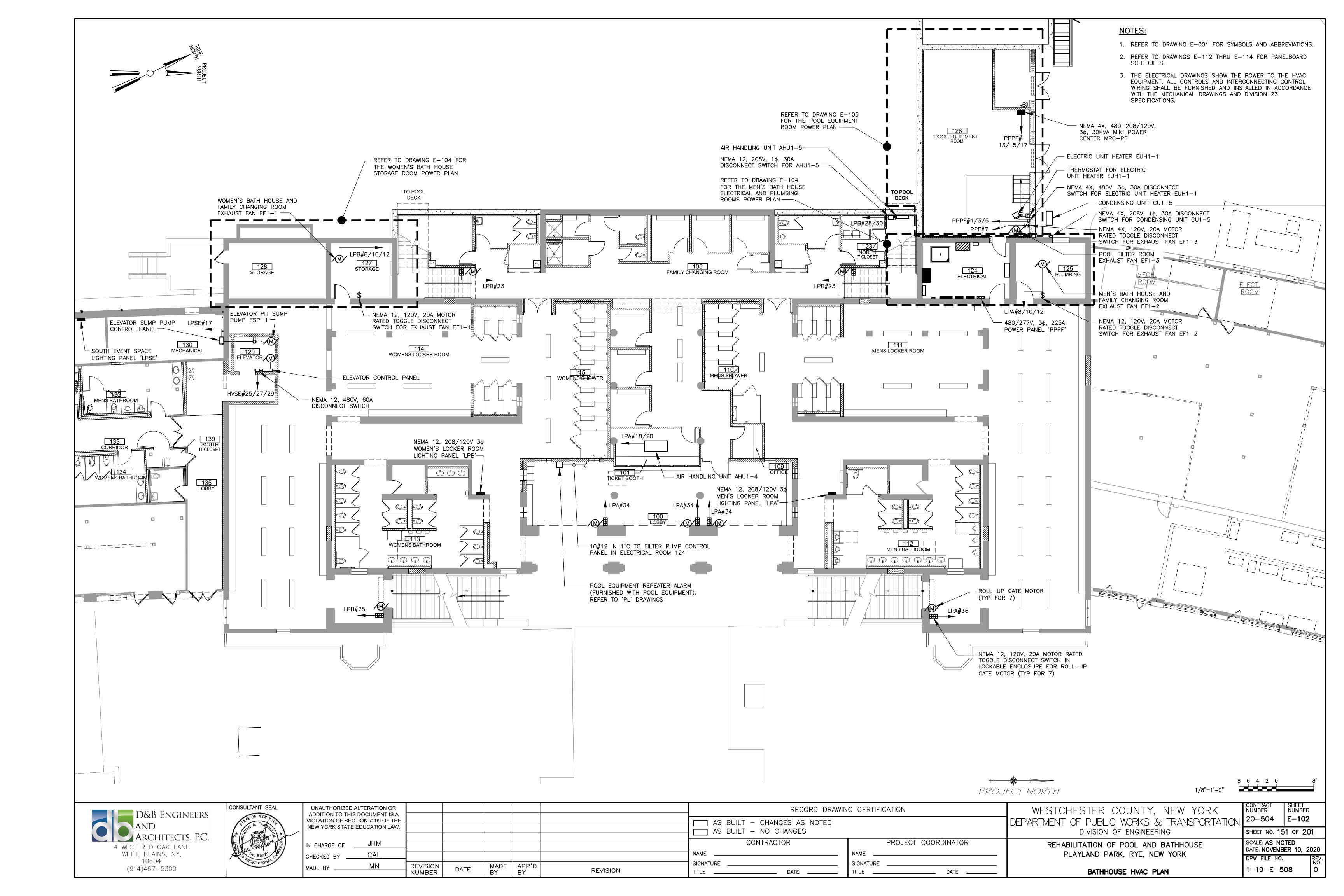


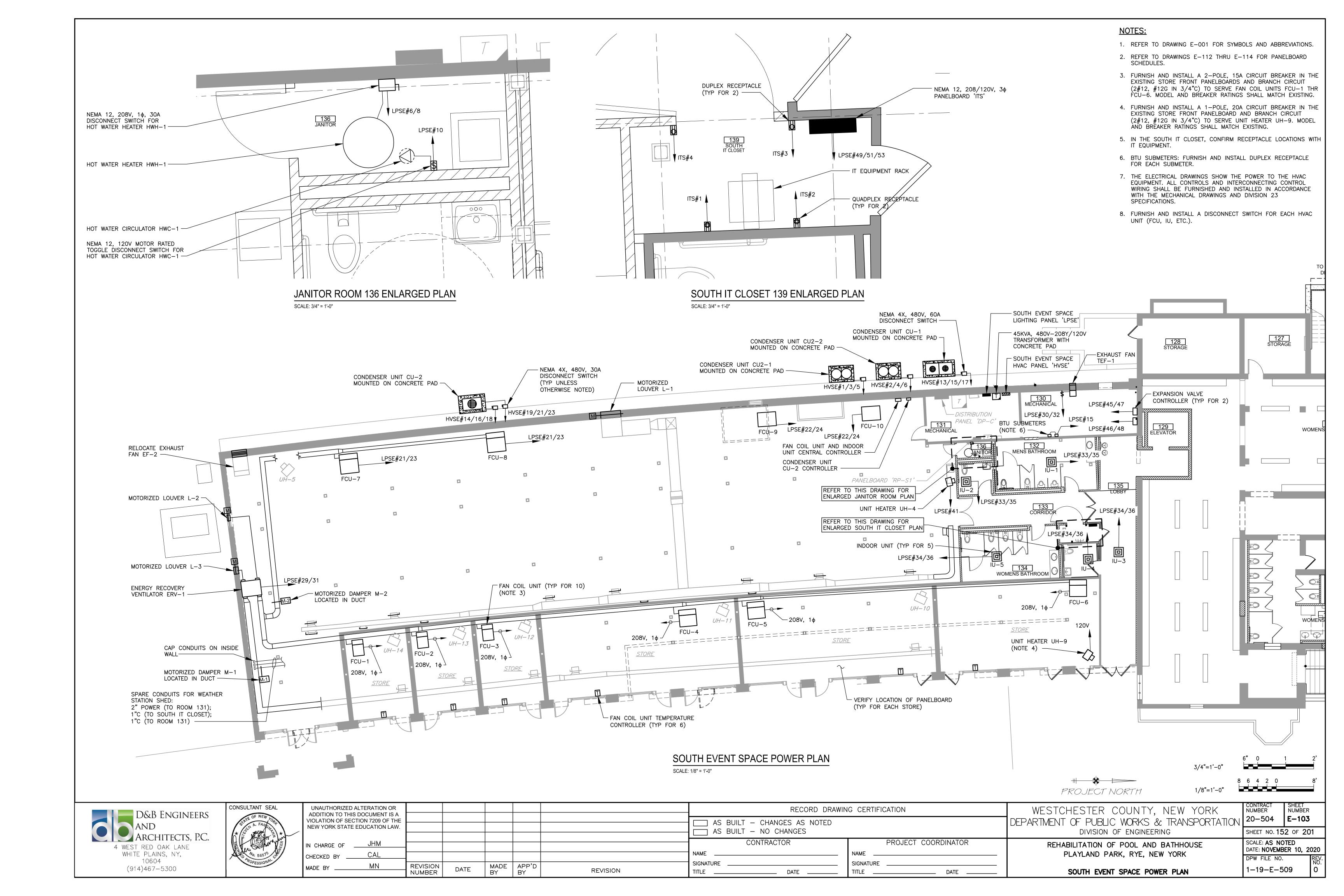


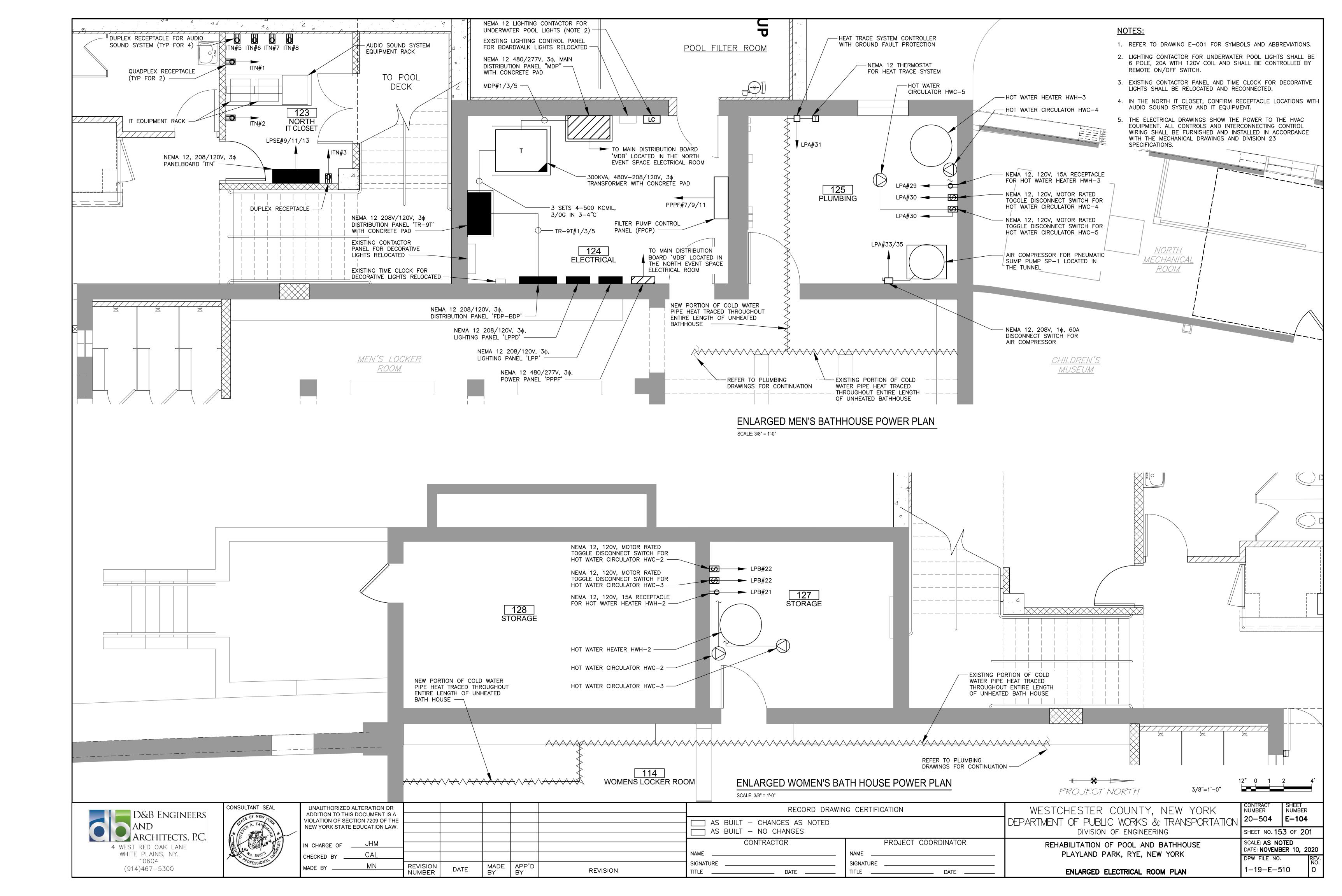
NOTES: MAIN INCOMING 1. REFER TO DRAWING E-001 FOR SYMBOLS AND ABBREVIATIONS. SERVICE — 125KW STANDBY GENERATOR 480/277V, 3φ, 3W+G IN SOUNDPROOF ENCLOSURE PANEL 'EM-GEN' 2000KVA 13.5KV-480/277V, 3¢ PADMOUNTED XFMR BATH HOUSE LEVEL POOL DECK LEVEL SOUTH EVENT SPACE NORTH VENDOR SPACE CHILDREN'S MUSEUM EMERGENCY ELECTRIC ROOM ELECTRIC ROOM MECHANICAL ROOM 131 <u>KITCHEN</u> 30KVA 480V-208/120V, 3φ XFMR PANEL LIGHTING 'EP-1' PANEL 'RP-S1' 480/277V — 600V, Зф, 60A PANEL DISCONNECT SWITCH MAIN DISTRIBUTION 'EL-1' BOARD 'MDB' 300KVA 480V-208/120V, POOL DECK 3φ XFMR DISTRIBUTION PANELBOARD PANEL PANEL 1 mm 'DP-C' ATS #1 'ER-1' 30KVA - 600V, 3φ, 600A 480V-208/120V, DISCONNECT SWITCH 3φ XFMR SOUTH VENDOR SPACE MEN'S LOCKER ROOM WOMEN'S LOCKER ROOM ELECTRIC ROOM MECHANICAL ROOM CHLORINE TANK ROOM 240V, 3¢, 200A DISCONNECT SWITCH 480V-208/120V, 3φ XFMR 240V, 3¢, 100A DISCONNECT SWITCH POOL STORAGE ROOM 240V, 3¢, 225A ENCLOSED CIRCUIT BREAKER CONTRACT NUMBER SHEET NUMBER CONSULTANT SEAL WESTCHESTER COUNTY, NEW YORK UNAUTHORIZED ALTERATION OR RECORD DRAWING CERTIFICATION D&B ENGINEERS ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 OF THE DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION 20-504 DE-110 ____ AS BUILT — CHANGES AS NOTED NEW YORK STATE EDUCATION LAW. AS BUILT - NO CHANGES DIVISION OF ENGINEERING SHEET NO. 148 OF 201 PROJECT COORDINATOR SCALE: **AS NOTED**DATE: **NOVEMBER 10, 2020** IN CHARGE OF _____JHM_ CONTRACTOR REHABILITATION OF POOL AND BATHHOUSE 4 WEST RED OAK LANE WHITE PLAINS, NY, 10604 (914)467-5300 PLAYLAND PARK, RYE, NEW YORK CHECKED BY _____CAL DPW FILE NO. SIGNATURE SIGNATURE MADE APP'D BY BY REVISION NUMBER 1-19-E-505 REVISION SINGLE LINE DIAGRAM - DEMOLITION DATE ___

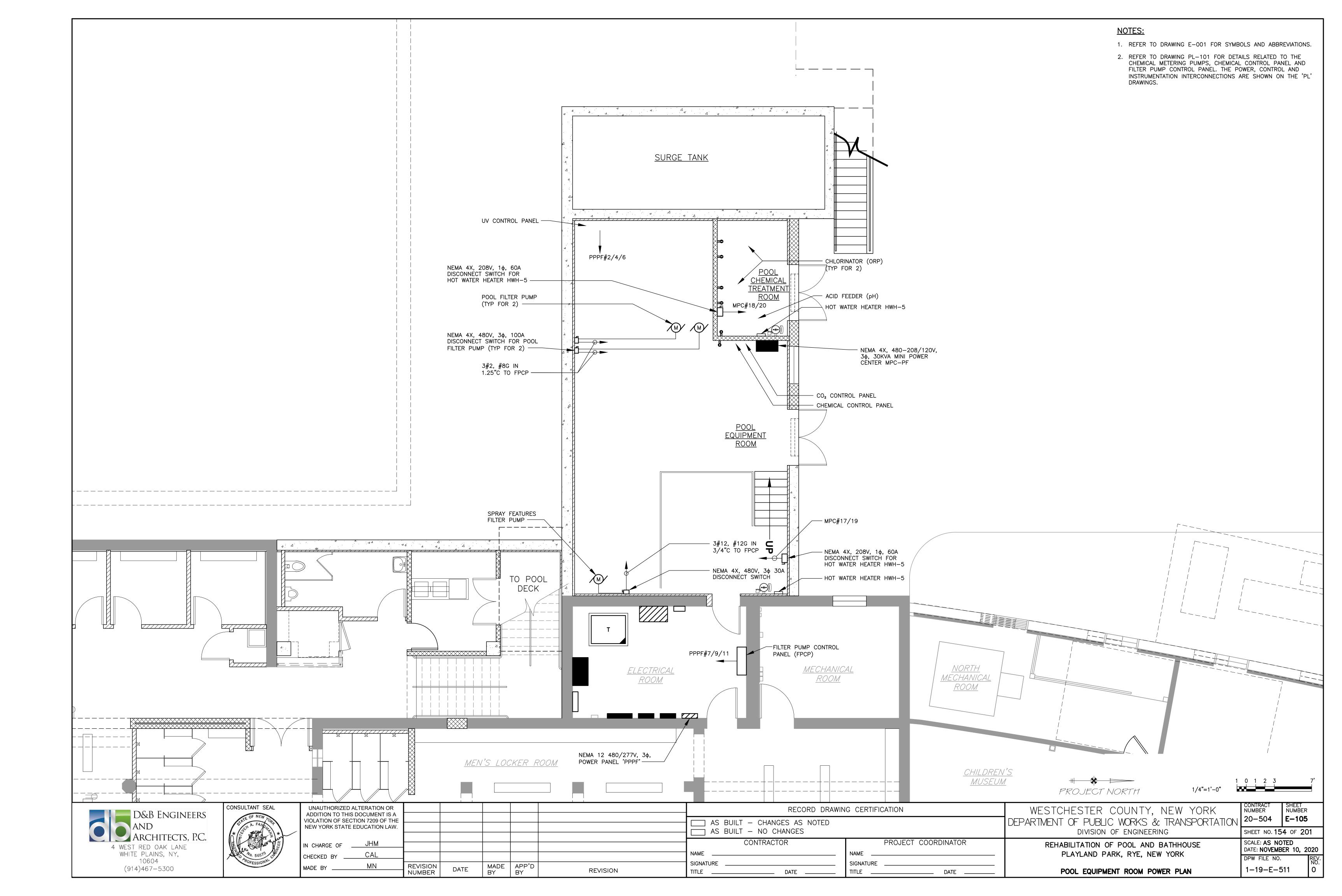


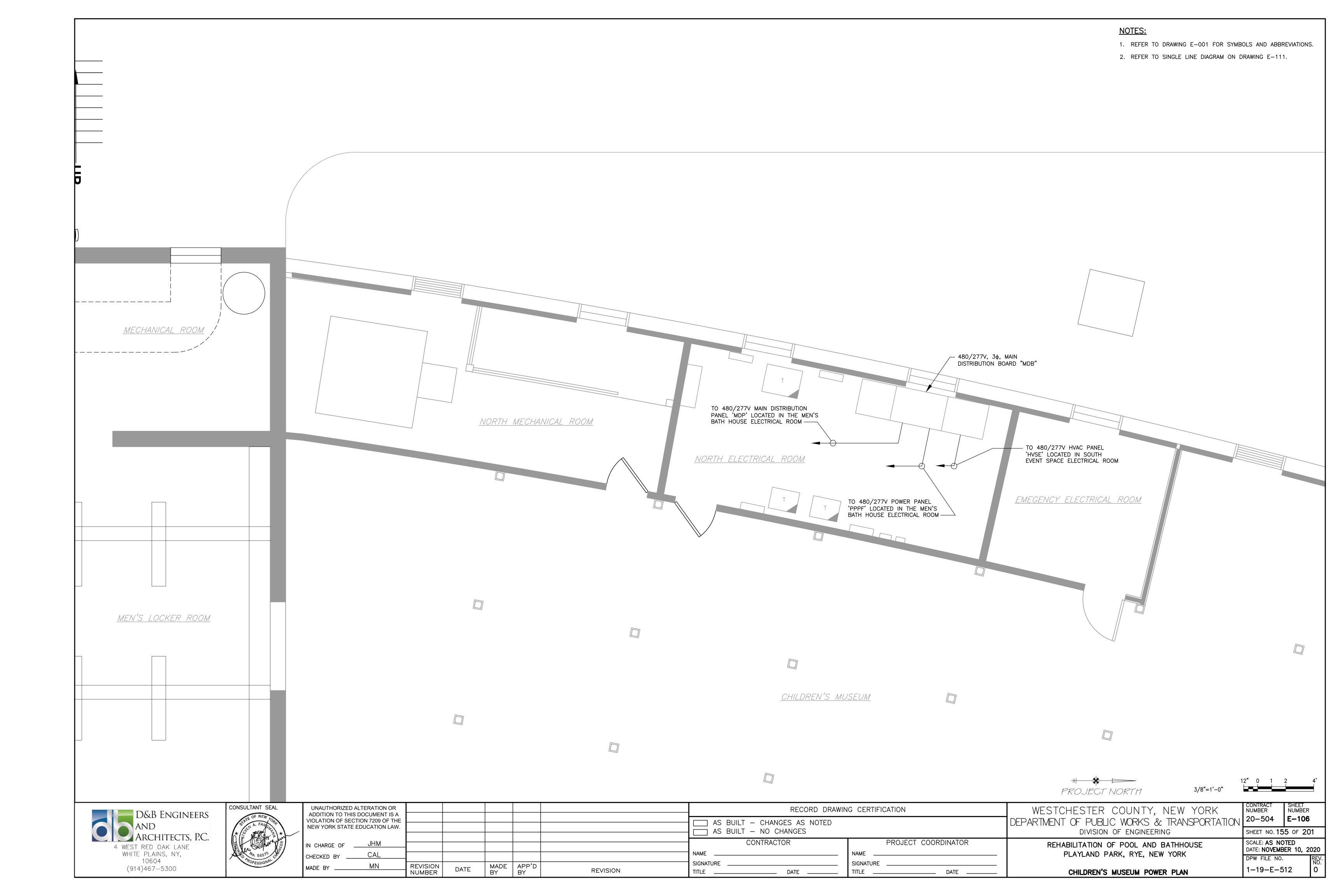


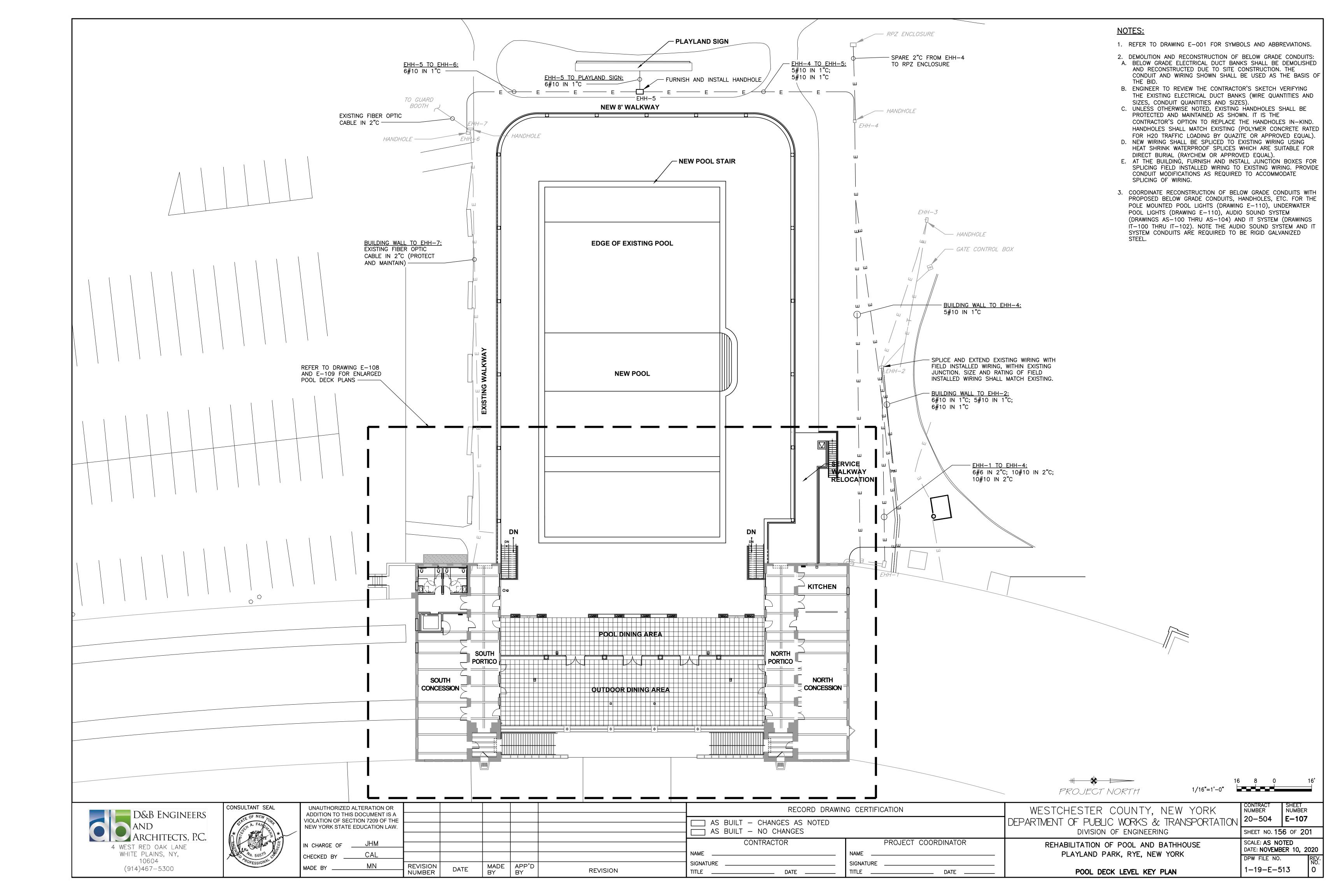


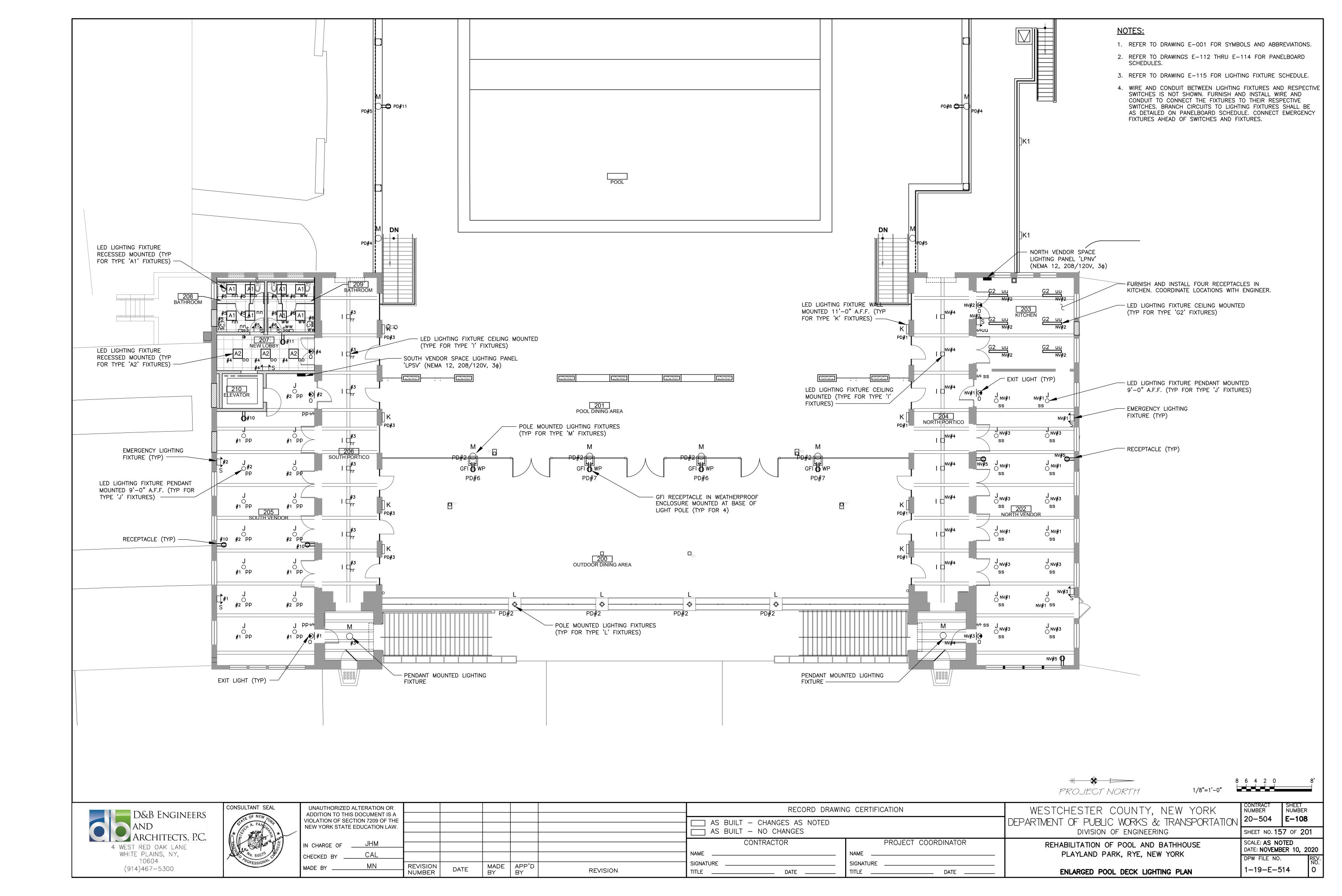


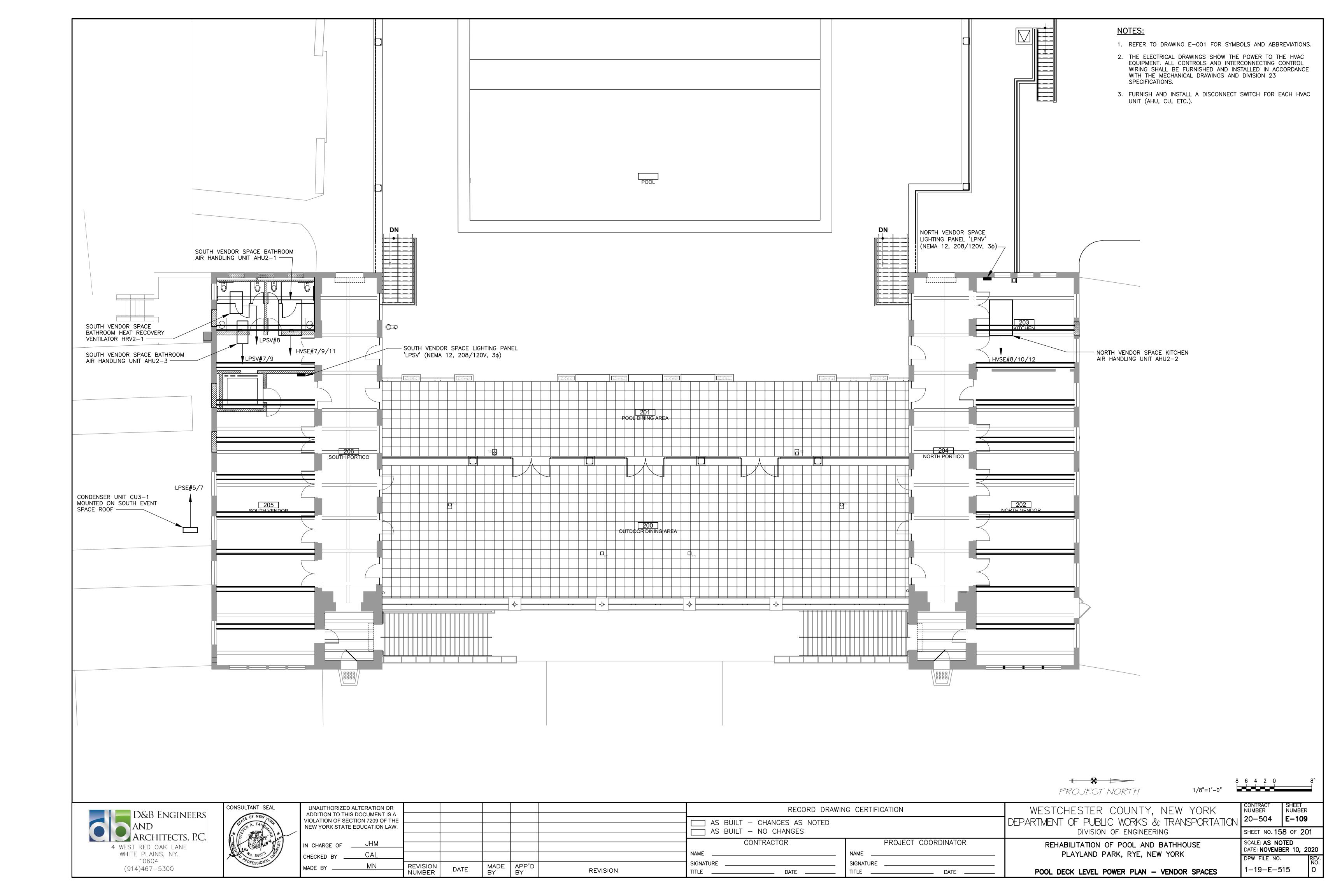


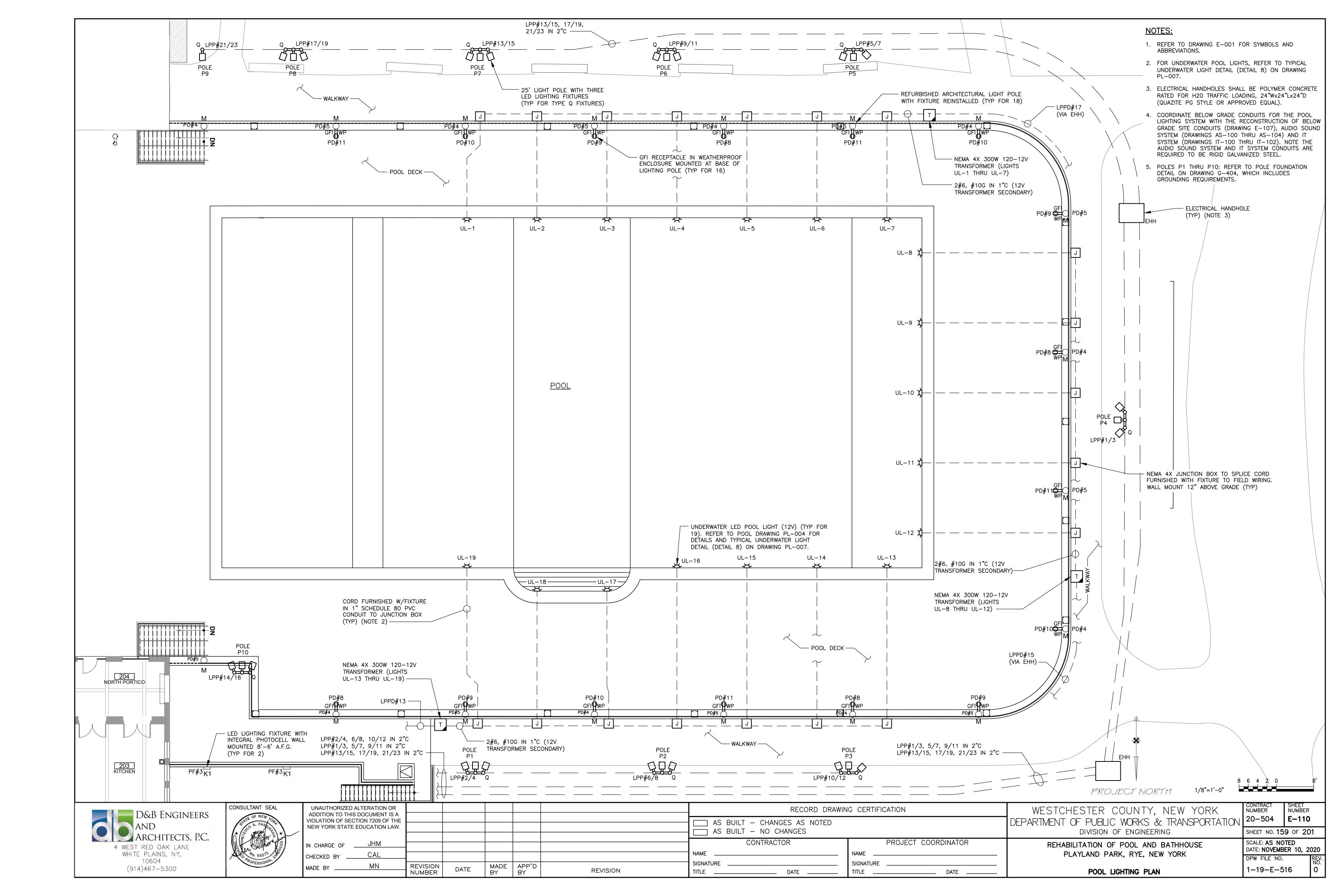


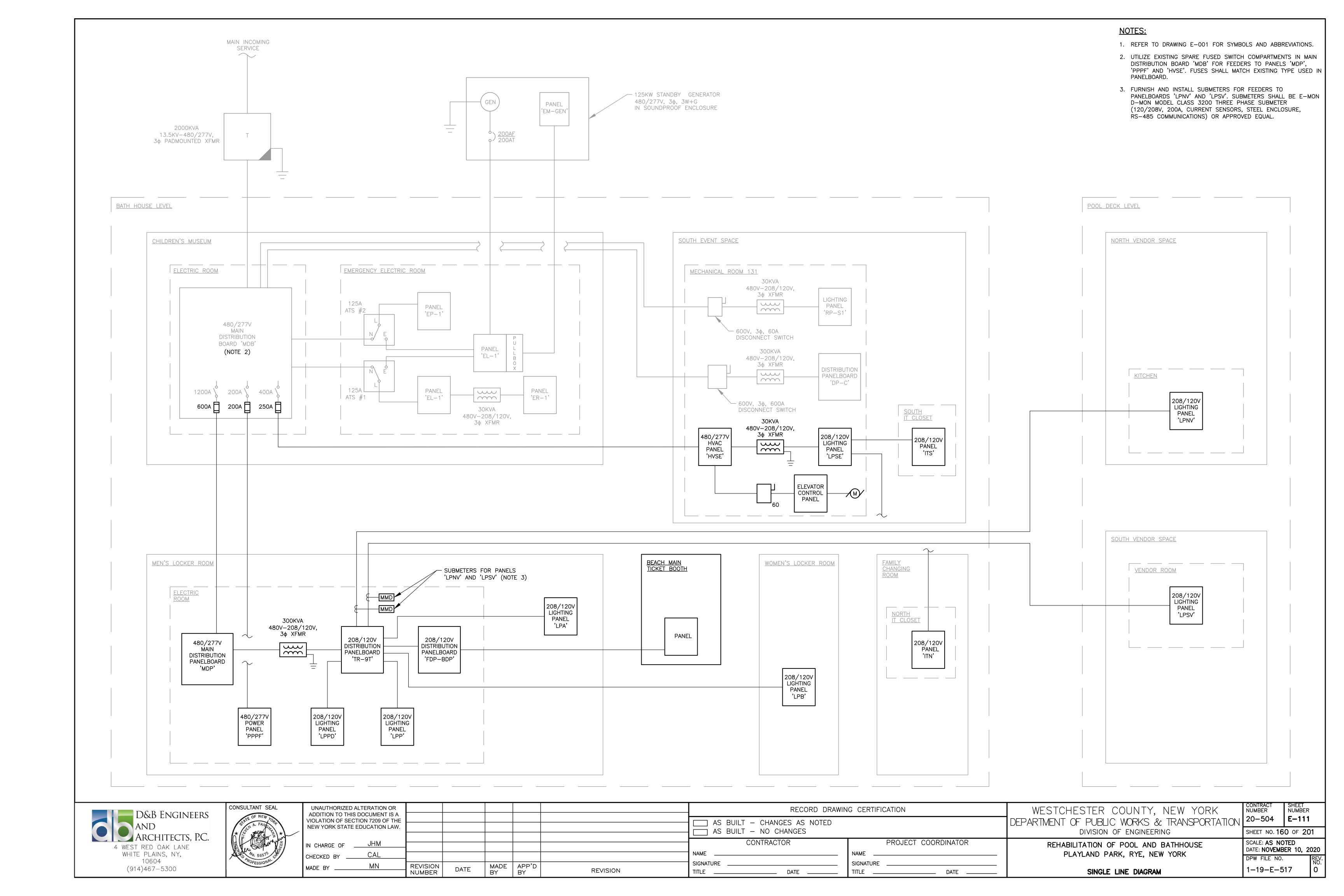












MAIN	DIS	STR	IBUTION PANELBOARD	MD	Ρ'	(ELEC. ROOM, 124)		
CKT NO.	DEV POLE	ICE TRIP	LOAD DESIGNATION		AD KVA	BRANCH CIRCUIT		
1	3	400	300 KVA TRANSFORMER		300	4-500KCMIL, #3G IN 4"C		
3	_	_	_					
5	_	_	_					
7	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
9	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
11	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
13	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
15	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
17	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
19	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
21	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
23	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
25	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
27	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
29	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
31	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
33	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
35	1	20	EXISTING LIGHTING (PANEL #3)			2#10, #10G IN 3/4"C (NOTE 2)		
37	1	20	SPARE					
39	1	20	SPARE					
41	1	20	SPARE					
2	3	20	SPARE					
4	_	_	_					
6	_	_	_					
8	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
10	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
12	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
14	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
16	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
18	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
20	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
22	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
24	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
26	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
28	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
30	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
32	1		PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
34	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
36	1	20	PANEL #3 LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
38	1	20	SPARE					
40	1	20	SPARE					
42	1	20	SPARE					
MAIN:	MAIN BUSS: 600A TYPE: BOLT-ON MOUNTING: SURFACE MAIN: 600A CB VOLTS: 480/277V AIC(SYM): 65,000 FEEDER: 2 SETS 4-350KCMIL, PHASE: 3PH, 4W+GND EST. CONN KVA: 350 #1G IN 2-3"C							
	,, , 0	2						

	LIGH	ITIN	G PANELBOARD 'LPA' (ME	N'S	LOCKER ROOM)			
CKT NO.	DEV		LOAD DESIGNATION	LO H.P.	AD KVA	BRANCH CIRCUIT			
1	1	20	MEN'S LOCKER ROOM RECEPTACLE			2#12, #12G IN 3/4"C			
3	1	20	MEN'S LOCKER ROOM RECEPTACLE		1.5	2#12, #12G IN 3/4"C			
5	1	20	MEN'S LOCKER ROOM LIGHTING		0.6	2#12, #12G IN 3/4"C			
7	1	20	MEN'S LOCKER ROOM LIGHTING		0.3	2#12, #12G IN 3/4"C			
9	1	20	MEN'S LOCKER ROOM LIGHTING		0.6	2#12, #12G IN 3/4"C			
11	1	20	MEN'S LOCKER ROOM LIGHTING		0.5	2#12, #12G IN 3/4"C			
13	1	20	LOBBY & TICKET BOOTH LIGHTING		0.3	2#12, #12G IN 3/4"C			
15	1	20	TICKET BOOTH/OFFICE RECEPTACLES		0.6	2#12, #12G IN 3/4"C			
17	1	20	FIRST AID EXHAUST FAN EFT-1	1/6		2#12, #12G IN 3/4"C			
19	1	20	LIFEGUARD OFF. EXHAUST FAN EFT-2	1/6		2#12, #12G IN 3/4"C			
21	2	20	AHUT-1: FIRST AID ROOM	– ′ – ′	0.1	2#12, #12G IN 3/4"C			
23	_	_	_			,			
25	1	20	TUNNEL & FIRST AID OFFICE LIGHTING		0.8	2#12, #12G IN 3/4"C			
27	1	20	FIRST AID OFFICE RECEPTACLES		0.4	2#12, #12G IN 3/4"C			
29	1	15	HOT WATER HEATER HWH-3		0.1	2#12, #12G IN 3/4"C			
31	1	20	HEAT TRACE: BATHHOUSE		1.2	2#12, #12G IN 3/4"C			
33	2	60	AIR COMPRESSOR: TRENCH DRAIN	5.5		3#6, #10G IN 1"C			
35	_	-	SUMP PUMP SP-1						
37	1	20	SPARE						
39	1	20	SPARE						
41	1	20	SPARE						
2	1	20	MEN'S PLUMBING ROOM RECEPTACLE		1.5	2#12, #12G IN 3/4"C			
4	1	20	LOBBY RECEPTACLE		1.5	2#12, #12G IN 3/4"C			
6	1	20	MEN'S LOCKER ROOM LIGHTING			2#12, #12G IN 3/4"C			
8	3	20	EXHAUST FAN EF1-2	1.5	0.0	3#12, #12G IN 3/4"C			
10	_	_	_			, , , , , , , , , , , , , , , , , , , ,			
12	_	_	_						
14	1	20	LOBBY & OFFICE LIGHTING		0.3	2#12, #12G IN 3/4"C			
16	1		LOBBY RECEPTACLE		1.5	2#12, #12G IN 3/4"C			
18	2	20	AHU1-4: TICKET BOOTH			2#12, #12G IN 3/4"C			
20	_	_	_			·			
22	2	20	AHUT-2: LIFEGUARD OFFICE		0.1	2#12, #12G IN 3/4"C			
24		_	_						
26	1	20	TUNNEL & LIFEGUARD STATION LTG		0.8	2#12, #12G IN 3/4"C			
28	1	20	LIFEGUARD STATION RECEPTACLES						
30	1	20	HOT WATER CIRC. HWC-4 & HWC-5	2@1/40		2#12, #12G IN 3/4"C			
32	1	20	SINK SUMP PUMP SP-1 RECEPTACLE	1/3		2#12, #12G IN 3/4"C			
34	1	20	ROLL-UP GATES: LOBBY	3@1/3		2#12, #12G IN 3/4"C			
36	1	20	ROLL-UP GATE: MEN'S LOCKER RM	1@⅓		2#12, #12G IN 3/4"C			
38	1	20	SPARE						
40	1	20	SPARE						
42	1	20	SPARE						
MAIN:	42 1 20 SPARE MAIN BUSS: 200A TYPE: BOLT-ON MOUNTING: SURFACE MAIN: 125A CB VOLTS: 208/120V AIC(SYM): 22,000 FEEDER: TR-9T#33/35/37 PHASE: 3PH, 4W+GND EST. CONN KVA: 25								

CKT NO.	DEV POLE		LOAD DESIGNATION	 AD KVA	BRANCH CIRCUIT
1	3	30	BOARDWALK PUMP		3#10, #10G IN 3/4"C (NOTE 2
3	 	_			
5	 	_	_		
7	3	100	BEACH MAIN TICKET BOOTH	11	4#1, #8G IN 1.5"C
9	_	_	_		
11	_	_	_		
13	1	20	SPARE		
15	1	20	SPARE		
17	1	20	SPARE		
19	1	20	SPARE		
21	1	20	SPARE		
23	1	20	SPARE		
25	1	20	SPARE		
27	1 1	20	SPARE		
29	1		SPARE		
31	1		SPARE		
33	1	20	SPARE		
35	1	20	SPARE		
37	1	20	SPARE		
39	1	20	SPARE		
41	1	20	SPARE		
2	1	20	MEN'S LOCKER ROOM, ELECT. & MECH RM. LIGHTS		2#10, #10G IN 3/4°C
4	1	20	MEN'S LOCKER ROOM, ELECT. & MECH RM. LIGHTS		2#10, #10G IN 3/4"C
6	1	20	MEN'S LOCKER ROOM, ELECT. & MECH RM. LIGHTS		2#10, #10G IN 3/4"C
8	1	20	SPARE		
10	1 1		SPARE		
12	1	20	SPARE		
14	1	20	SPARE		
16	1	20	SPARE		
18	1	20	SPARE		
20	1	20	SPARE		
22	1	20	SPARE		
24	1	20	SPARE		
26	1	20	SPARE		
28	1	20	SPARE		
30	1	20	SPARE		
32	1	20	SPARE		
34	1	20	SPARE		
36	1	20	SPARE		
38	1	20	SPARE		
40	1	20	SPARE		
42	1	20	SPARE		
MAIN B	USS	225A	TYPE: BOLT-ON		MOUNTING: SURFACE
MAIN:	225A		VOLTS: 208/120V		AIC(SYM): 42,000
	: TR-				EST. CONN KVA:

LI	GHTI	NG	PANELBOARD 'LPB' (W	/OM	EN'	S LOCKER ROOM)
CKT NO.	DEV POLE		LOAD DESIGNATION	LO H.P.	AD KVA	BRANCH CIRCUIT
1	1	20	WOMEN'S LOCKER ROOM RECEPTACLE		1.5	2#12, #12G IN 3/4"C
3	1	20	WOMEN'S LOCKER ROOM RECEPTACLE		1.5	2#12, #12G IN 3/4"C
5	1	20	WOMEN'S LOCKER ROOM LIGHTING		0.5	2#12, #12G IN 3/4"C
7	1	20	WOMEN'S LOCKER ROOM LIGHTING		0.3	
9		20	WOMEN'S LOCKER ROOM LIGHTING		0.5	2#12, #12G IN 3/4"C
11	1	20	WOMEN'S LOCKER ROOM LIGHTING		0.6	
13	1	20	FAMILY CHANGING AREA LIGHTING		0.0	2#12, #12G IN 3/4"C
15		20	FAMILY CHANGING AREA LIGHTING			2#12, #12G IN 3/4"C
17		20	CHECKPOINT 116 RECEPTACLE		.2	2#12, #12G IN 3/4"C
19	1	20	CHECKPOINT 121 RECEPTACLE		.2	2#12, #12G IN 3/4"C
21	1	15	HOT WATER HEATER HWH-2		0.1	
23	1	20	ROLL-UP GATES: CHANGING ROOM	2@1/3		2#12, #12G IN 3/4"C
25	1	20	ROLL-UP GATES. CHANGING ROOM ROLL-UP GATE: WOMEN'S LOCKER RM			2#12, #12G IN 3/4°C
27		20	SPARE	1 9/3		2 _π + 2, π + 20 + 11
29	1 1	20	SPARE			
31	1	20	SPARE			
33	1	20	SPARE			
35	1	20		<u> </u>		
			SPARE			
37	1	20	SPARE			
39		20	SPARE			
41	l	20	SPARE			
2	1	20	WOMEN'S STORAGE ROOM RECPT.		1.5	2#12, #12G IN 3/4"C
4	1	20	WOMEN'S STORAGE ROOM RECPT.			2#12, #12G IN 3/4"C
6	1	20	WOMEN'S LOCKER ROOM LIGHTING		0.5	2#12, #12G IN 3/4"C
8	3	20	EXHAUST FAN EF1-1	1.5		3#12, #12G IN 3/4"C
10	_	_	1			
12	_	_	1			
14	1	20	FAMILY CHANGING AREA LIGHTING			2#12, #12G IN 3/4"C
16	1	20	FAMILY CHANGING AREA LIGHTING			2#12, #12G IN 3/4"C
18	1	20	FAMILY CHANGING AREA RECEPTACLE		1.5	2#12, #12G IN 3/4"C
20	1	20	SPARE			
22	1	20		2@1/40		2#12, #12G IN 3/4"C
24	1	20	CU1-5		1.9	2#12, #12G IN 3/4"C
26	1	20	_			
28	1	15	AHU1-5		0.1	2#12, #12G IN 3/4"C
30	1	20	_			
32	1	20	SPARE			
34	1	20	SPARE			
36	1	20	SPARE			
38	1	20	SPARE			
40	1	20	SPARE			
42	1	20	SPARE			
	100A (СВ	TYPE: BOLT-ON VOLTS: 208/120V PHASE: 3PH, 4W+GND			MOUNTING: SURFACE AIC(SYM): 22,000 EST. CONN KVA: 16

NOTES:

- 1. REFER TO DRAWING E-001 FOR SYMBOLS AND ABBREVIATIONS.
- EXISTING BRANCH CIRCUITS SHALL BE EXTENDED TO CONNECT TO NEW PANELBOARDS. VERIFY LOCATIONS OF EXISTING LOADS AND EXISTING WIRING.

DIS	TRIE	BUTI	ON PANELBOARD 'TR-9	9T'	(El	EC. ROOM, 124)		
CKT NO.	DEV POLE		LOAD DESIGNATION		AD KVA	BRANCH CIRCUIT		
1	3	225	PANELBOARD "FDP-BDP"			4-4/0, #6G IN 2.5"C		
3	_	-	_					
5	_	-	- DECORATIVE 101/TO			(11077 0)		
7 9	3	100	DECORATIVE LIGHTS			(NOTE 2)		
11	_		_					
13	3	100	SOUTH VENDOR SPACE PANEL "LPSV"		6	4#1, #8G IN 1.5"C		
15	_	_	-			141, 400 111 110 0		
17	_	_	_					
19	3	60	BUS SHELTER CANOPY LIGHTS			(NOTE 2)		
21			-					
23 25	1	_ 20	BUS GATE PANEL LOAD			2#10 #100 IN 7/4"C (NOTE 2)		
27	1	20	BUS GATE PANEL LOAD			2#10, #10G IN 3/4"C (NOTE 2) 2#10, #10G IN 3/4"C (NOTE 2)		
29	1	20	BUS GATE PANEL LOAD			2#10, #10G IN 3/4°C (NOTE 2)		
31	1	15	BUS GATE PANEL LOAD			2#10, #10G IN 3/4"C (NOTE 2) 2#10, #10G IN 3/4"C (NOTE 2)		
33	3	125			25	4#1/0, #6G IN 2"C		
35	_	_	_					
37	_		-					
39	1	20	SPARE					
41 43	1	20 20	SPARE SPARE					
45	1	20	SPARE					
47	1	20	SPARE					
49	1	20	SPARE					
51	1	20	SPARE					
53	1	20	SPARE					
2	3	100	POOL DECK PANELBOARD "LPPD"		6	4#1, #8G IN 1.5"C		
4	_	_	_					
6	_				_			
8	3	150	NORTH VENDOR SPACE PANEL "LPNV"		2	4-2/0, #6G IN 2"C		
10 12	_		_					
14	3	100	CHILDRENS MUSEUM CNTRCTR TRAILER			NOTE 2		
16	_	_	-			11012 2		
18	_	_	-					
20	3	100	DECORATIVE LIGHTS			NOTE 2		
22	_		_					
24	1	-	PUS CATE DANEL LOAD			2#10 #100 IN 3/4"0 (NOTE 2)		
26 28	1	20 20	BUS GATE PANEL LOAD BUS GATE PANEL LOAD			2#10, #10G IN 3/4"C (NOTE 2)		
30	1	30	BUS GATE PANEL LOAD			2#10, #10G IN 3/4"C (NOTE 2) 2#10, #10G IN 3/4"C (NOTE 2) 4-2/0, #6G IN 2"C		
32	3	150			26	4-2/0, #6G IN 2"C		
34	_	_				. "		
36	_	-	_					
38	3	100	WOMEN'S LOCKER ROOM PANEL 'LPB'		16	4#1, #8G IN 1.5"C		
40	_	_	 -					
42 44	1	_ 20	- SPARE					
46	1	20	SPARE					
48	1	20	SPARE					
50	1	20	SPARE					
52	1	20	SPARE					
54	1	20	SPARE					
MAIN:	MAIN BUSS: 1 20 SPARE MAIN BUSS: 1 200 SPARE MAIN: 1 000A CB VOLTS: 208/120V MOUNTING: SURFACE MAIN: 1 000A CB VOLTS: 208/120V AIC(SYM): 42,000 FEEDER: 3 SETS 4-500 KCMIL, PHASE: 3PH, 4W+GND EST. CONN KVA: 300 3/0G IN 3-4"C							

D&B ENGINEERS AND ARCHITECTS, P.C.
4 WEST RED OAK LANE WHITE PLAINS, NY, 10604 (914)467-5300



UNAUTHORIZED ALTERATION OR				RECORD DRAWIN	IG CERTIFICATION	
ADDITION TO THIS DOCUMENT IS A /IOLATION OF SECTION 7209 OF THE			AS BUILT — CHANGES AS NOTED			
NEW YORK STATE EDUCATION LAW.			AS BUILT - NO CHANGES			
11.13.4				CONTRACTOR	PROJECT COORDINATOR	+
N CHARGE OF						
CHECKED BYCAL				NAME	NAME	

REVISION

WESTCHESTER COUNTY, NEW YORK
EPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIVISION OF ENGINEERING

CONTRACT SHEET NUMBER
20-504

E-112

SHEET NO. 161 OF 201

DIVISION OF ENGINEERING

REHABILITATION OF POOL AND BATHHOUSE
PLAYLAND PARK, RYE, NEW YORK

PANELBOARD SCHEDULES I

SHEET NO. 161 OF 201

SCALE: AS NOTED

DATE: NOVEMBER 10, 2020

DPW FILE NO. REV. NO.

1-19-E-518 0

LIC	HTI	NG	PANELBOARD 'LPNV' (NO	RTH	VENDOR SPACE)
CKT NO.	DEV POLE		LOAD DESIGNATION	LOAD H.P. KVA		BRANCH CIRCUIT
1	1	20	NORTH VENDOR SPACE LIGHTING		0.2	2#12, #12G IN 3/4"C
3	1	20	NORTH VENDOR SPACE LIGHTING		0.2	2#12, #12G IN 3/4"C 2#12, #12G IN 3/4"C
5	1	20	NORTH VENDOR SPACE RECEPTACLES		0.6	2#12, #12G IN 3/4"C
7	1	20	SPARE			
9	1	20	SPARE			
11	1	20	SPARE			
13	1	20	SPARE			
15	1	20	SPARE			
17	1	20	SPARE			
19	_	_	SPACE			
21	_	_	SPACE			
23	_	_	SPACE			
25	_	_	SPACE			
27	_	_	SPACE			
29	_	_	SPACE			
31						
33						
35				<u> </u>		
37				1	$\overline{}$	
39						
41						
2	1	20	KITCHEN LIGHTING		0.3	2#12, #12G IN 3/4"C
4	1	20	PORTICO LIGHTING		0.3	2#12, #12G IN 3/4"C
6	1	20	SPARE		+ ***	
8	1	20	SPARE			
10	1	20	SPARE			
12	1	20	SPARE			
14	1	20	SPARE			
16	1	20	SPARE		1	
18	1	20	SPARE			
20			SPACE		1	
22	_	_	SPACE			
24	_	_	SPACE			
26	_	_	SPACE			
28	_	_	SPACE			
30	_	_	SPACE			
32						
34						
36						
38				+	+	
40						
42						
MAIN BU MAIN: FEEDER:	150A (CB	TYPE: BOLT-ON VOLTS: 208/120V /10/12 PHASE: 3PH, 4W+GNE)		MOUNTING: SURFACE AIC(SYM): 22,000 EST. CONN KVA: 2

NOTE: CIRCUIT BREAKERS AND BRANCH CIRCUITS TO VENDOR FURNISHED EQUIPMENT BY OTHERS

				201		\/\tau\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
			PANELBOARD 'LPSV' (VENDOR SPACE)
CKT NO.	DEV POLE	ICE TRIP	LOAD DESIGNATION		AD KVA	BRANCH CIRCUIT
1	1	20	SOUTH VENDOR SPACE LIGHTING		0.2	2#12, #12G IN 3/4"C
3	1	20	PORTICO LIGHTING		0.3	2#12, #12G IN 3/4"C 2#12, #12G IN 3/4"C
5	1	20	BATHROOM LIGHTING		0.1	2#12, #12G IN 3/4"C
7	2	20	AIR HANDLING UNIT AHU2-3	1.0		2#12, #12G IN 3/4"C
9	_	-	_			
11	1	20	HALLWAY RECEPTACLE		1.5	2#12, #12G IN 3/4"C
13	1	20	SPARE			
15	1	20	SPARE			
17	1	20	SPARE			
19	1	20	SPARE			
21	_	_	SPACE			
23	_	_	SPACE			
25	_	_	SPACE			
27	_	_	SPACE			
29		_	SPACE			
31						
33						
35						
37 39						
41						
2	1	20	SOUTH VENDOR SPACE LIGHTING		0.2	
4	1	20	LOBBY LIGHTING		0.1	2#12, #12G IN 3/4"C
6	1	20	BATHROOM LIGHTING		0.1	
8 1	1	20	HEAT RECOVERY VENTILATOR HRV2-1			2#12, #12G IN 3/4"C
10	1	20	SOUTH VENDOR SPACE RECEPTACLES		0.6	2#12, #12G IN 3/4"C
12	1	20	SPARE			
14	1	20	SPARE			
16 18	1	20 20	SPARE SPARE			
20	1	20	SPARE			
22			SPACE			
24			SPACE			
26		_	SPACE			
28			SPACE			
30			SPACE			
32						
34						
36						
38						
40						
42						
MAIN BU MAIN: FEEDER:	100A (CB	TYPE: BOLT-ON VOLTS: 208/120V B/15/17 PHASE: 3PH, 4W+GND			MOUNTING: SURFACE AIC(SYM): 22,000 EST. CONN KVA: 6

NOTE: BRANCH CIRCUITS TO VENDOR FURNISHED EQUIPMENT BY OTHERS

CKT NO.	DEV	ICE	HTING PANELBOARD 'LP LOAD DESIGNATION	LOAD	Ì	BRANCH CIRCUIT	
NO.	POLE						
<u>1</u>	1 1		DINING AREA WALL PACK LTS (NORTH)		.4	2#10, #10G IN 3/4"C	
3	1 1		DINING AREA POLE & PARAPET LTS			2#10, #10G IN 3/4"C	
5	1 1		POOL DECK POLE LIGHTS		.3	2#10, #10G IN 3/4"C	
7	1 1		DINING AREA RECEPTACLES		.4	2#10, #10G IN 3/4"C	
9	1		POOL DECK RECEPTACLES		.8	2#10, #10G IN 3/4"C	
11	1		POOL DECK RECEPTACLES			2#10, #10G IN 3/4"C	h
13	1 1		UNDERWATER POOL LIGHTS		.3	2#10, #10G	COMMON 1"C
15	1		UNDERWATER POOL LIGHTS		.3	2#10, #10G	→ VIA LIGHTING
17	1 1		UNDERWATER POOL LIGHTS		.3	2#10, #10G	CONTACTOR
19	1 1	20	CONTACTOR LC-UNDERWATER LIGHTS	0	.1	2#12, #12G IN 3/4"C	
21	1 1	20	SPARE				
23	1 1		SPARE				
25	1		SPARE				
27	1 1		SPARE				
29		20	SPARE				
31							
33					┙		
35					\Box		
37					\rightarrow		
39							
41							
2	1	20	DINING AREA WALL PACK LTS (SOUTH)	0.	.4	2#10, #10G IN 3/4"C	
4	1	20	POOL DECK POLE LIGHTS	0.	.3	2#10, #10G IN 3/4"C	
6	1	20	DINING AREA RECEPTACLES	0.	.4	2#10, #10G IN 3/4"C	
8	1	20	POOL DECK RECEPTACLES		.8	2#10, #10G IN 3/4"C	
10	1	20	POOL DECK RECEPTACLES	0.	.8	2#10, #10G IN 3/4"C	
12	1	20	SPARE				
14	1		SPARE				
16	1	20	SPARE				
18	1	20	SPARE				
20	1	20	SPARE				
22	_	_	SPACE				
24	_	_	SPACE				
26	_		SPACE				
28	_		SPACE				
30	 	_	SPACE				
32							
34							
36							
38					$ \bot $		
40							
42							
MAIN D	1100. 1		TYPE: BOLT-ON			MOUNTING: SURFACE	
MAIN B			TYPE: BOLT-ON VOLTS: 208/120V			MOUNTING: SURFACE AIC(SYM): 22,000	
MAIN:	TUUA (D	VOLIS: 2087120V			AH 7 - YRA 19 // (1(1))	ā.

CKT NO.	DEV POLE	ICE TRIP	LOAD DESIGNATION		AD KVA	BRANCH CIRCUIT
1	3	20	ELECTRIC UNIT HEATER EUH1-1	-	7.5	3#12, #12G IN 3/4"C
3	-	_	_		7.0	
5	_	-	_			
7	3	150	FILTER PUMP CONTROL PANEL	45		3-1/0, #6G IN 2"C
9 11	_	_	<u>–</u>			
13	3	- 50	MINI POWER CENTER MPC-PF		30	3#6, #10G IN 3/4"C
15	-	_	-		30	3#0; #100 HV 3/ 1 0
17	_	-	_			
19						
21						
23 25						
25 27						
29						
31						
33						
35						
37						
39 41						
	7		LLA/ CONTROL DANIEL		F 0	7//10 //100 IN 7/4"0
2	3	20 _	U/V CONTROL PANEL		5.0	3#12, #12G IN 3/4"C
6						
8	3	20	SPARE			
10	_	1	-			
12			_			
14	3	20	SPARE			
16 18	<u>-</u>		<u>–</u> =			
20						
22						
24						
26						
28 30						
32						
34						
36						
38						
40						
42						
MAIN B MAIN: FEEDER	200A	CB	TYPE: BOLT-ON VOLTS: 480V 6G IN 2.5"C PHASE: 3PH, 4W+GND			MOUNTING: SURFACE AIC(SYM): 65,000 EST. CONN KVA: 65

CKT NO.	DEV	ICE	NG PANELBOARD 'LPP' LOAD DESIGNATION	$\overline{}$	AD	BRANCH CIRCUIT	1
1	2	20	POOL FLOOD LIGHTS - POLE P4		2.8	2#6, #10G	+
3	_	_	-]
5	2	20	POOL FLOOD LIGHTS - POLE P5		2.8	2#6, #10G	- СОММОР
7 9	2	_ 	POOL FLOOD LIGHTS - POLE P6		2.8	2#6, #10G	-
11	_		-		2.0	2 70, 7100	1)
13	2	20	POOL FLOOD LIGHTS - POLE P7		2.8	2#6, #10G	\bowtie
15	_	_	_]
17	2	20	POOL FLOOD LIGHTS - POLE P8		2.8	2#6, #10G	
19 21	2	_ 20	POOL FLOOD LIGHTS - POLE P9		0.9	2#6, #10G	-
23	_		- LOOP FIGHTS - FOLE F9		0.5	<u>Σπο, πτου</u>	1]
25	1	20	SPARE				T
27	1		SPARE				
29	1	20	SPARE				
31							
33 35							-
35 37							-
39							_
41							
2	2	20	POOL FLOOD LIGHTS - POLE P1		2.8	2#8, #10G	†
4	-	_	-				1
6	2	20	POOL FLOOD LIGHTS - POLE P2		2.8	2#8, #10G	COMMON
8			_				
10 12	2	20	POOL FLOOD LIGHTS - POLE P3	-	2.8	2#8, #10G	4]
14	2	_ 20	POOL FLOOD LIGHTS - POLE P10		2.8	2#8, #10G IN 1"C	\vdash
16	_		-		2.0	2#0, #100 IN 1 C	1
18	1	20	SPARE				1
20	1		SPARE				
22	1		SPARE				
24	1 1		SPARE				4
26	1 1		SPARE				4
28 30	1 1		SPARE SPARE				-
32	 		J. AIVE				1
34							1
36							
38							
	1]
40 42	+						

SIGNATURE

NOTE: LIGHTING PANELBOARD 'LPP' SHALL BE FURNISHED WITH INTEGRAL CONTACTOR (NOTE 2)

REVISION

MINI	P0'	WER	CENTER PANEL MPC-PF (POOL FILT. RM.)
CKT NO.	DE\ POLE	/ICE	LOAD DESIGNATION LOAD BRANCH CIRCUIT
1	1	20	POOL FILTER ROOM LIGHTING 0.4 2#12, #12G IN 3/4"C
3	1		EXTERIOR LIGHTING 0.1 2#12, #12G IN 3/4"C
5	1		CHEM TREATMENT RM REC 0.2 2 12 12, #12G IN 3/4"C
7	1	20	EXHAUST FAN EF1-3 $ 0.25 $ 2#12, #12G IN 3/4"C
9	1	20	SPARE
11	1	20	SPARE
13	1	20	SPARE
15	1	20	SPARE
17	2		HOT WATER HEATER HWH-5 8.32 2#4, #10G IN 3/4"C
19	_	_	(POOL FILTER ROOM)
21	2	60	SPARE
23	_	_	
2	1	20	CHEM TREATMENT RM LTS 0.1 2#12, #12G IN 3/4"C
4	1	20	POOL FILTER ROOM REC 0.2 2#12, #12G IN 3/4"C
6	1	40	TABLET CHLORINATOR (ORP) 1.5 2#8, #10G IN 3/4"C
8	1	40	TABLET CHLORINATOR (ORP) 1.5 2#8, #10G IN 3/4"C
10	1	40	ACID FEEDER (PH) 1.5 2#8, #10G IN 3/4"C
12	1	20	SPARE
14	1	20	SPARE
16	1	20	SPARE
18	2		HOT WATER HEATER HWH-5 8.32 2#4, #10G IN 3/4"C
20	_		(CHEMICAL TREATMENT RM)
22	2	60	SPARE
24	_	_	
MAIN B PRIM. I SEC. M FEEDER	MAIN: AIN:	100A	TYPE: BOLT-ON MOUNTING: SURFACE XMFR: 30KVA AIC(SYM): 18,000 /15/17 PANEL PHASE: 3PH, 3W+GND EST. CON. KVA: 22.79

NOTES:

- 1. REFER TO DRAWING E-001 FOR SYMBOLS AND ABBREVIATIONS.
- 2. MAIN CONTACTOR IN PANEL 'LPP' SHALL BE MECHANICALLY HELD WITH FUSED 120V COIL AND SHALL BE CONTROLLED BY REMOTE ON/OFF SWITCH.





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UNAUTHORIZED ALTERATION OR			
DDITION TO THIS DOCUMENT IS A OLATION OF SECTION 7209 OF THE			
EW YORK STATE EDUCATION LAW.			
W 15.4			
CHARGE OFJHM			

MADE APP'D BY BY

REVISION NUMBER

WESTCHESTER COUNTY, NEW YORK RECORD DRAWING CERTIFICATION DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION 20-504 E-113 AS BUILT - CHANGES AS NOTED AS BUILT - NO CHANGES DIVISION OF ENGINEERING CONTRACTOR PROJECT COORDINATOR

SIGNATURE

SHEET NO. 162 OF 201 SCALE: **AS NOTED** DATE: NOVEMBER 10, 2020 DPW FILE NO.

1-19-E-519

SHEET NUMBER

CONTRACT NUMBER

REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK

PANELBOARD SCHEDULES II

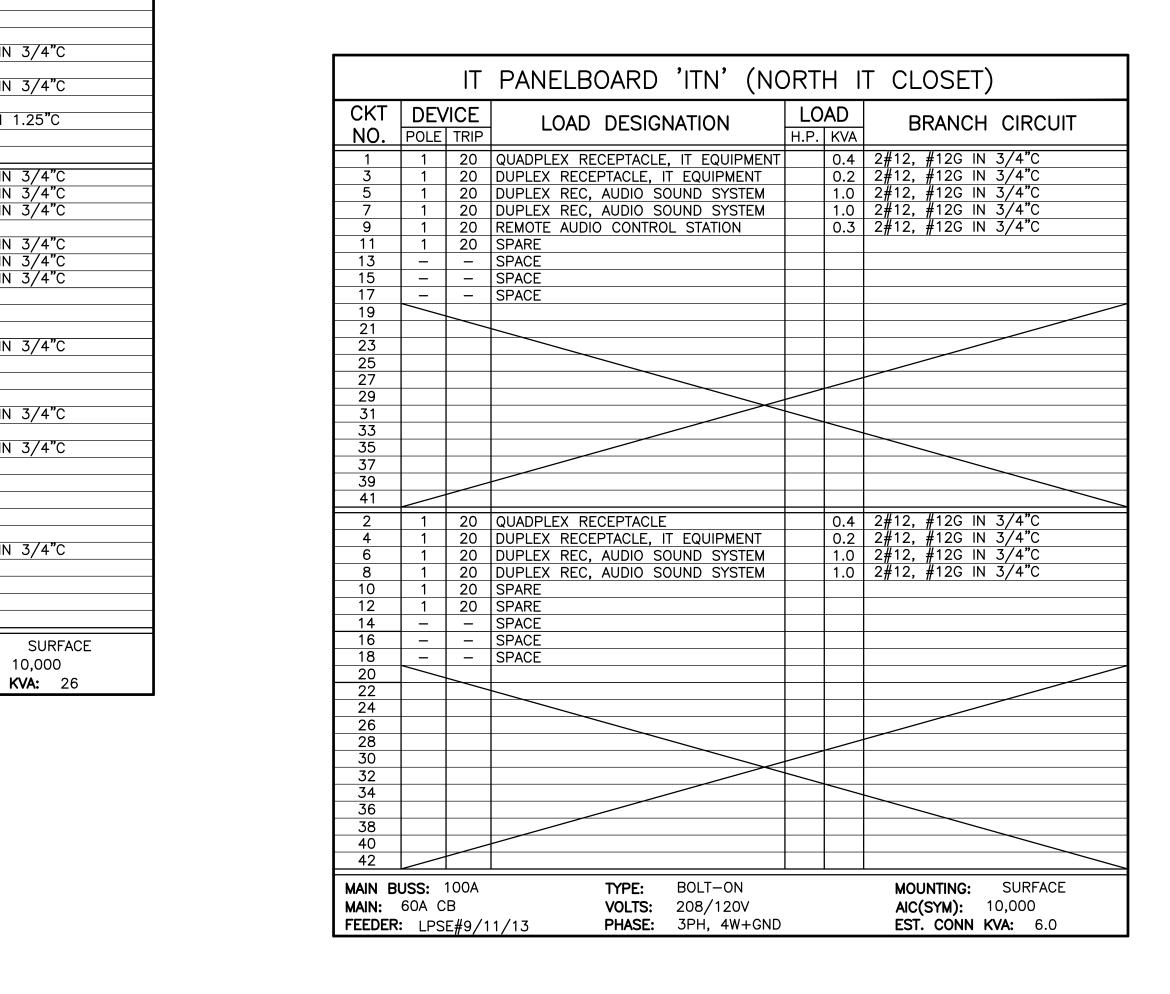
HVAC CKT	DEV		LBOARD 'HVSE' (SOUTH	1	VEN AD	·
NO.	POLE		LOAD DESIGNATION		KVA	BRANCH CIRCUIT
1	3	30	CONDENSER UNIT CU2-1		12.0	3#10, #10G IN 3/4"C
3	_	_	_			
5						7 1/40 1/400 101 7 /470
9	3	15	AIR HANDLING UNIT AHU2-1		5.1	3#12, #12G IN 3/4"C
11	 -	_				
13	3	40	CONDENSER UNIT CU-1		19.6	3#8, #10G IN 3/4"C
15	_	-	_			<i>u</i> · <i>u</i>
17	_	_	_			
19	3	20	CONDENSER UNIT CU-2, COMP NO. 1		9.5	3#12, #12G IN 3/4"C
21 23	_		-			
25	3		ELEVATOR	20		3#4, #8G IN 1.25"C
27	_	_	_			
29	_	_	_			
31	3	20	SPARE			
33	_		_			
35 37	3	40	- SPARE			
39	_	40	SPARE			
41	_	_	_			
2	3	30	CONDENSER UNIT CU2-2		12 0	3#10, #10G IN 3/4"C
4	_	_	_		12.0	
6	_	_	_			
8	3	15	AIR HANDLING UNIT AHU2-2		5.1	3#12, #12G IN 3/4"C
10	_		<u> </u>			
12 14	3	20	CONDENSER UNIT CU-2, COMP NO. 2		0.5	3#12, #12G IN 3/4°C
16	_		-		9.5	σ _π τ2, _π τ2ο πι σ/ τ σ
18	_	_	_			
20	3	70	XFMR-PANEL 'LPSE'		45	3#4, #8G IN 1.25"C
22	_	_	_			
24	3	15	- CDADE			
26 28	<u> </u>	15	SPARE			
30	_	_	_			
32	3	30	SPARE			
34	-	_	_			
36	_					_
38	3	70	SPARE			
40 42	<u> </u>		_			
MAIN B	250A	CB	TYPE: BOLT-ON VOLTS: 480/277V MIL, #4G IN 2.5"C PHASE: 3PH, 4W+		1	MOUNTING: SURFACE AIC(SYM): 65,000 EST. CONN KVA: 138

L	LIGHTING PANELBOARD 'LPSE' (SOUTH EVENT SPACE)							
CKT NO.	DEV POLE		LOAD DESIGNATION	LO H.P.	AD KVA	BRANCH CIRCUIT		
1	1	20	SO. E.S. BATHROOMS & UTILITY RM		0.2	2#12, #12G IN 3/4"C		
3 5 7	1	20	SO. E.S. CORRIDOR			2#12, #12G IN 3/4°C		
5	2	30	CONDENSER UNIT CU3-1		3.3	2#10, #10G IN 3/4"C		
9	3	-	— PANELBOARD 'ITN'		6.0	4#4, #10G IN 1.25"C		
11	<u> </u>	_	-		0.0	τη τ, η του πι τ.20 σ		
13	_	_	_					
15	1	20	BTU SUBMETERS		0.3	2#12, #12G IN 3/4"C		
17	1	30	ELEVATOR SUMP PUMP CONTROL PNL	1.0		2#10, #10G IN 3/4"C		
19 21	1 2	20 15	SPARE		2.1	2#12, #12G IN 3/4"C		
23	_		FAN COIL UNITS FCU-7, FCU-8		2.1	2#12, #12G IN 3/4 C		
25	2	15	SPARE					
27	_	_	_					
29	2	15	ENERGY RECOVERY VENTILATOR ERV-1		1.2	2#12, #12G IN 3/4"C		
31			-		0.5-	0 40 400 4 7 /4"0		
33 35	2	15	INDOOR UNITS IU-1, IU-2		0.09	2#12, #12G IN 3/4"C		
35 37	2	_ 15	— SPARE					
39		-	OI AI\L					
41	1	20	UNIT HEATER UH-4	1/12		2#12, #12G IN 3/4"C		
43	1	20	SPARE					
45	2	15	AHU1-4 EXPANSION CONTROLLER		0.01	2#12, #12G IN 3/4"C		
47	–	-	- PANEL BOARD 'ITO'		7.0	4#4 #100 IN 1.25°0		
49 51	3	60 -	PANELBOARD 'ITS'		3.0	4#4, #10G IN 1.25"C		
53	_							
2	1	20	SO. E.S. BATHROOMS & STORAGE RM		0.2	2#12, #12G IN 3/4"C		
4	1		SO. E.S. CORRIDOR		0.2	2#12, #12G IN 3/4"C		
6	2	30	HOT WATER HEATER HWH-1		5.0	2#10, #10G IN 3/4"C		
8	_	_	_					
10	1	20	HOT WATER CIRCULATOR HWC-1	1/40		2#12, #12G IN 3/4"C		
12	1	20	SO. E.S. RECEPTACLES		1.5 1.5	2#12, #12G IN 3/4"C 2#12, #12G IN 3/4"C		
14 16	1	20 20	SO. E.S. RECEPTACLES SPARE		1.5	2#12, #12G IN 3/4 C		
18	1	20	SPARE					
20	1	20	SPARE					
22	2	15	FAN COIL UNITS FCU-9, FCU-10		1.4	2#12, #12G IN 3/4"C		
24	_	_						
26 28	2	15	SPARE					
30	2	_ 15	 EXHAUST FAN TEF-1	0.1		2#12, #12G IN 3/4"C		
32		_	_	5.				
34	2	15	INDOOR UNITS IU-3, IU-4, IU-5		0.14	2#12, #12G IN 3/4"C		
36	_	_	_					
38	2	15	SPARE					
40 42	-	_ 15	- CDARE					
42	2	15 -	SPARE					
46	2	15	AHU2-3 EXPANSION CONTROLLER		0.01	2#12, #12G IN 3/4"C		
48	_			<u> </u>				
50	2	15	SPARE					
52		-						
54	1	20	SPARE					
MAIN BU MAIN: FEEDER:	150A	CB	TYPE: BOLT-ON VOLTS: 208/120V 6G IN 2"C PHASE: 3PH, 4W+GND			MOUNTING: SURFACE AIC(SYM): 10,000 EST. CONN KVA: 26		

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CKT NO.		/ICE	LOAD DESIGNATION		AD KVA	BRANCH CIRCUIT
1	1	20	QUADPLEX RECEPTACLE, IT EQUIPMENT		0.4	2#12. #12G IN 3/4"C
3	 i	20	DUPLEX RECEPTACLE, IT EQUIPMENT		1.0	2#12, #12G IN 3/4°C 2#12, #12G IN 3/4°C
5	1	20	SPARE			, , , , , , , , , , , , , , , , , , , ,
7	1	20	SPARE			
9	1	20	SPARE			
11	1	20	SPARE			
13	_	_	SPACE			
15	_	_	SPACE			
17	_	_	SPACE			
19						
21						
23						
25						
27				<u> </u>		
29						
31						
33						
35						
37						
39						
41						
2	1	20	QUADPLEX RECEPTACLE, IT EQUIPMENT		0.4	2#12, #12G IN 3/4°C 2#12, #12G IN 3/4°C
4	1	20	DUPLEX RECEPTACLE, IT EQUIPMENT		1.0	2#12, #12G IN 3/4"C
6	1	20	SPARE			
8	1	20	SPARE			
10	1	20	SPARE			
12	1	20	SPARE			
14	-	_	SPACE			
16	-	-	SPACE			
18	_	-	SPACE			
20 22	\vdash					
24						
26						
28						
28 30						
32				\vdash		
34				\vdash		
36						
38						
40						
42						
		1001	TARE DOLT ON	•	•	ALGUNITALG CUREAGE
MAIN B	USS:	TUUA	TYPE: BOLT-ON			MOUNTING: SURFACE





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WESTCHESTER COUNTY, NEW YORK RECORD DRAWING CERTIFICATION DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION 20-504 BUILT - CHANGES AS NOTED BUILT - NO CHANGES DIVISION OF ENGINEERING CONTRACTOR PROJECT COORDINATOR

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DATE ____

REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK

PANELBOARD SCHEDULES III

SHEET NO. 163 OF 201 SCALE: **AS NOTED** DATE: NOVEMBER 10, 2020 DPW FILE NO. 1-19-E-520

SHEET NUMBER

E-114

CONTRACT NUMBER

PANELBOARD IS SHOWN AS 54 CIRCUIT. TWO SEPARATE PANELBOARDS WITH SUBFEED IS ACCEPTABLE.

SHEET NUMBER

20-504 **E-115**

SHEET NO. 164 OF 201

SCALE: AS NOTED
DATE: NOVEMBER 10, 2020

DPW FILE NO.

LIGHTING FIXTURE SCHEDULE

1-19-E-521

Туре	General Description	Lamps	Mfgr. & Cat. No.
A1	Recessed mounted 2'x2' LED fixture, cold-rolled steel housing, high efficiency, dimming driver, 120/277V, DLC Listed.	LED (4000K, 2044 lumens at 16 Watts)	Eaton Metalux 22CZ2-20HE-S-UNV- L840-CD1-U, or approved equal.
A2	Recessed mounted 2'x2' LED fixture, cold-rolled steel housing, high efficiency, dimming driver, 120/277V, DLC Listed.	LED (4000K, 2416 lumens at 19.2 Watts)	Eaton Metalux 22CZ2-24HE-S-UNV- L840-CD1-U, or approved equal.
A3	Recessed mounted 2'x2' LED fixture, cold-rolled steel housing, high efficiency, dimming driver, 120/277V, DLC Listed.	LED (4000K, 2942 lumens at 22.2 Watts)	Eaton Metalux 22CZ2-29HE-S-UNV- L840-CD1-U, or approved equal.
A4	Recessed mounted 2'x2' LED fixture, cold-rolled steel housing, high efficiency, dimming driver, 120/277V, DLC Listed.	LED (4000K, 3930 lumens at 30.3 Watts)	Eaton Metalux 22CZ2-39HE-S-UNV- L840-CD1-U, or approved equal.
В	High efficient LED high bay fixture with acrylic drop lens, aluminum housing, weather-tight, 120-277V, DLC Listed.	LED (4000K, 9000 lumens at 63 Watts)	Lithonia Lighting JCBL-9000LM-ACFR- ACRCON-MVOLT- GZ10-40K-80CRI-PM- **, or approved equal.
B1	Pendant fixture for Lobby and Portico Tower	LED	Maxim Lighting 25109FTPN Hi polished nickel pendant light fixture, or approved equal.
С	Locker room bathroom wall sconce. Fitter sconce, E26 socket, polished nickel finish, UL Listed Damp. South Event Space toilet fixture	60 Watts LED	Rejuvenation A9901, or approved equal. Pacific City Single
C1	above sink		Sconce by Rejuvenation model Mission Wall Sconce #A1476, or approved equal.
C2	South Event Space Corridor and Bathhouse Lobby wall mounted wall sconce, 120V	LED (3000K, 25 Watts)	Skyscraper outdoor LED wall sconce by Modern Forms, MFMP122290, 18" option, or approved equal.
C3	South Event Space Corridor and Bathhouse Lobby wall mounted wall sconce, 120V	LED (3000K, 25 Watts)	Skyscraper outdoor LED wall sconce by Modern Forms, MFMP122290, 18" option, or approved equal.
C4	Wall mounted LED fixture, die cast aluminum, wet location, high efficiency, 120-277V, DLC Listed.	LED (4000K, 10,500 lumens at 78 Watts)	LSI Industries TLWP-LED-11L-UNV- DIM-40-**, or approved equal.
D	Semi-flush mount, bulb 3, faux alabaster glass, satin nickel finish.	60 Watts	Millennium 5035SN, or approved equal.
E	Recessed square high hat downlights, galvanized steel plaster frame, standard dimming driver, 120-277V.	LED (4000K, 1000 lumens) at 11 Watts	Eaton LDSQ4BCP-10-D010- 90-40-SQ-0-H, or approved equal.
E1	Square surface mounted downlight, polycarbonate gasketed frame, integral 120V flicker-free dimming driver, UL and Wet Location Listed.	LED (3500K, 740 lumens at 10 Watts)	Eaton SMD6S-6-935-WH- DM, or approved equal.

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D&B ENGINEERS	
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ARCHITECTS, P.C.	ſď.
4 WEST RED OAK LANE	
WHITE PLAINS, NY, 10604	A
(914)467-5300	
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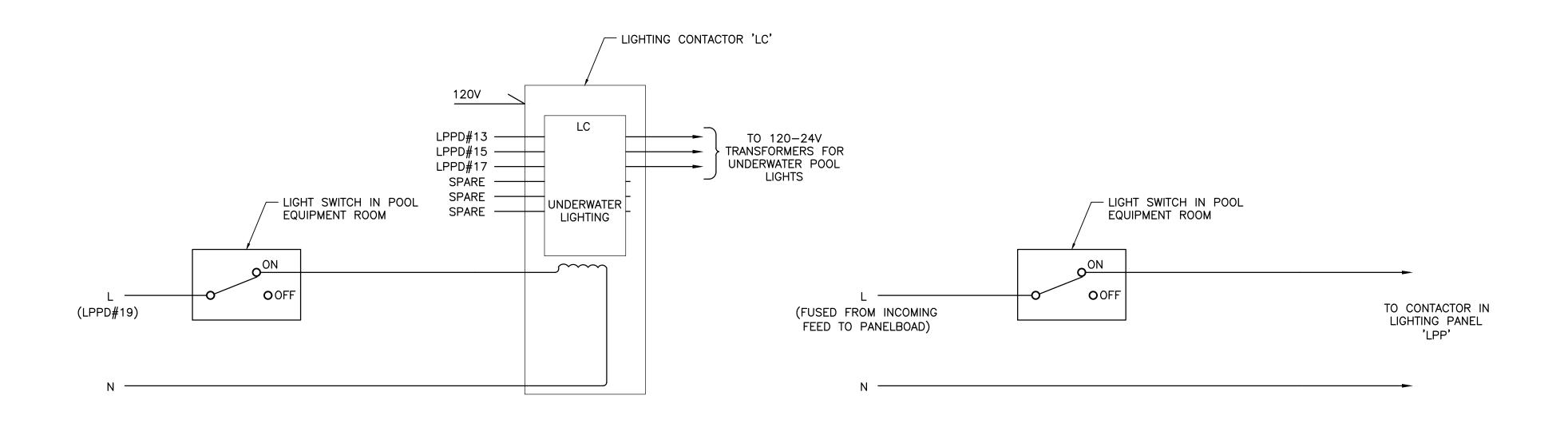
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		CONTRACTOR NAME	PROJECT COORDINATOR NAME	REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK

Type	General Description	Lamps	Mfgr. & Cat. No.
F	Enclosed and gasketed LED fixture, fiberglass, NEMA 4X rated, high efficiency, 120-277V.	LED (4000K, 10,000 lumens at 62 Watts)	Lithonia Lighting FEM-L48-10000LM- IMAFL-WD-MVOLT-
	Enclosed and gasketed LED fixture,	LED (4000K, 6000	40K-80CRI-STSL, or approved equal. Lithonia Lighting
G1	fiberglass, NEMA 4X rated, high efficiency, 120-277V.	lumens at 38 Watts)	FEM-L48-6000LM- IMAFL-WD-MVOLT- 40K-80CRI-STSL, or approved equal.
G2	Enclosed and gasketed LED fixture, fiberglass, NEMA 4X rated, high efficiency, 120-277V.	LED (4000K, 8000 lumens at 50 Watts)	Lithonia Lighting FEM-L48-8000LM- IMAFL-WD-MVOLT- 40K-80CRI-STSL, or approved equal.
G3	Enclosed and gasketed LED fixture, fiberglass, NEMA 4X rated, high efficiency, 120-277V.	LED (4000K, 10,000 lumens at 62 Watts)	Lithonia Lighting FEM-L48-10000LM- IMAFL-WD-MVOLT- 40K-80CRI-STSL, or approved equal.
Н	4'x4" direct light cove, aluminum alloy 6063 frame, baked polyester finish.	24 Watts (TBD)	Armstrong Axiom AXDLC44, or approved equal.
I	Surface mounted fixture at Porticos, 120V	LED (4000K, 40.5 Watts)	Rab Vanled 40N, Bronze, or approved equal.
J	Pendant fixture for South Vendor Space	LED	Angled white glass vintage industrial pendant by Olde Brick Lighting model School House Glass Globe, or approved equal.
K	Wall mounted LED fixture, die cast aluminum, wet location, high efficiency, 120-277V, DLC Listed.	LED (4000K, 10,500 lumens at 78 Watts)	LSI Industries TLWP-LED-11L-UNV- DIM-40-**, or approved
K1	Small surface mounted utility fixture flood pack	LED (23 Watts)	Global Industrial 500908, or approved equal.
L	Parapet wall post, cast aluminum finial and roof, UL Listed.	LED (3000K, 3300 lumens at 32 Watts)	Crenshaw Lighting 21354-PEC1, or approved equal.
M	Pool perimeter fence post, high outdoor hanging lantern.	LED (3000K, 3300 lumens at 32 Watts)	Crenshaw Lighting 21354-PEC, or approved equal.
O	LED Exit Sign, emergency battery pack, damp location, 120V.	LED	Big Beam EXKL-2-R-W-W-U, or approved equal.
Q	High output LED flood fixture, cast aluminum, weather-tight, sign optic distribution, corrosion resistant, 1000mA driver, 120-277V, DLC Listed. Pole: 25 foot, round tapered steel, 100 MPH wind load rating	LED (4000K, 25722 lumens at 831 Watts)	Cree Lighting FLD-EHO-SN-HV-24- E-UL-XX-1000-40K Pole: Lithonia RTS257-0F**, or approved equal
R	High output LED canopy fixture, cast aluminum, weather-tight, Type 5M distribution, corrosion resistant, 350mA driver, 120-277V, DLC Listed.	100 LEDs (4000K, 12,975 lumens at 110 Watts)	Cree Lighting CAN-EDG-5M-DM-10- E-UL-**-350-40K, or approved equal.
S	Emergency LED light unit with battery pack, NEMA 12/4X enclosure, 120V.	(2) 5 Watts	Big Beam LS2SE6S8, or approved equal.

^{**} Fixture Color By Owner

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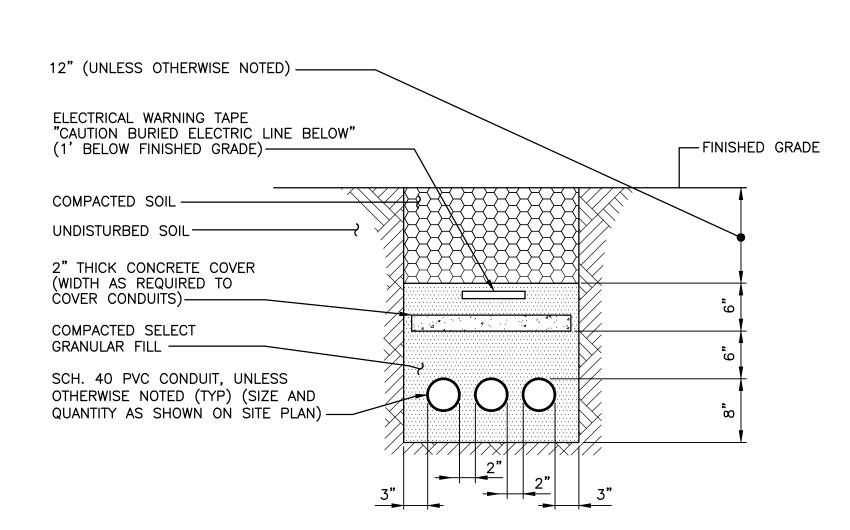
UNDERWATER LIGHTING

NOTE: CIRCUIT NUMBERS FOR LIGHTING CONTACTOR 'LC-1'

REFER TO ADMINISTRATION BUILDING PANELBOARD 'P1'.

POLE MOUNTED LIGHTING

POOL LIGHTING CONTROL WIRING DIAGRAMS



TYPICAL UNDERGROUND CONDUIT TRENCH DETAIL

(USE FOR ALL UNDERGROUND CONDUITS THAT ARE NOT BENEATH THE CONCRETE POOL DECK) N.T.S.

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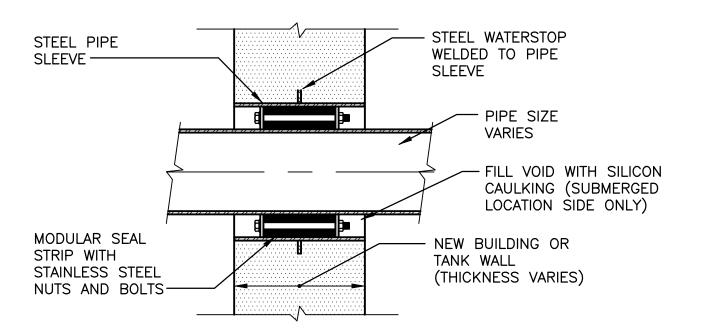
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DATE

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NOTE:

 INSTRUMENTATION CABLE (SHIELDED CABLE) SHALL BE INSTALLED IN RIGID GALVANIZED STEEL CONDUIT. THIS INCLUDES CABLES FOR THE IT SYSTEM AND AUDIO SOUND SYSTEM.



NOTES:
1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.
2. WALLS 12" OR LARGER IN THICKNESS SHALL REQUIRE

2 MODULAR SEAL STRIPS.

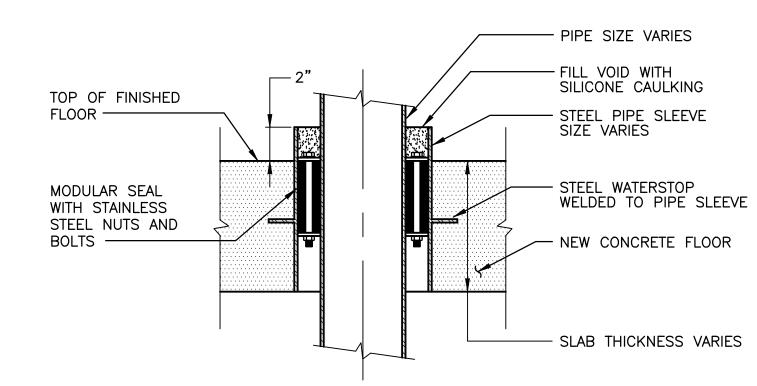
TYPICAL CONDUIT PENETRATION THRU NEW WALL (BELOW GRADE)

(USE FOR ALL NEW WALL PENETRATIONS)
N.T.S.

SIGNATURE

DATE __

DATE __



NOTES:

1. MODULAR SEAL STRIP SHALL BE PLACED SO THAT BOLTS CAN BE ADJUSTED DURING NORMAL OPERATION.

2. FLOORS 12" OR LARGER IN THICKNESS SHALL REQUIRE 2 MODULAR SEAL STRIPS.

TYPICAL CONDUIT PENETRATION THRU NEW FLOOR

(USE FOR ALL NEW FLOOR PENETRATIONS)
N.T.S.

D&B ENGINEERS AND ARCHITECTS, P.C.	
4 WEST RED OAK LANE WHITE PLAINS, NY, 10604 (914)467-5300	

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REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK
DEPARTIVIENT OF PUBLIC WORKS & TRANSPORTATION DIVISION OF ENGINEERING
WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS & TRANSPORTATIO
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MISCELLANEOUS DETAILS

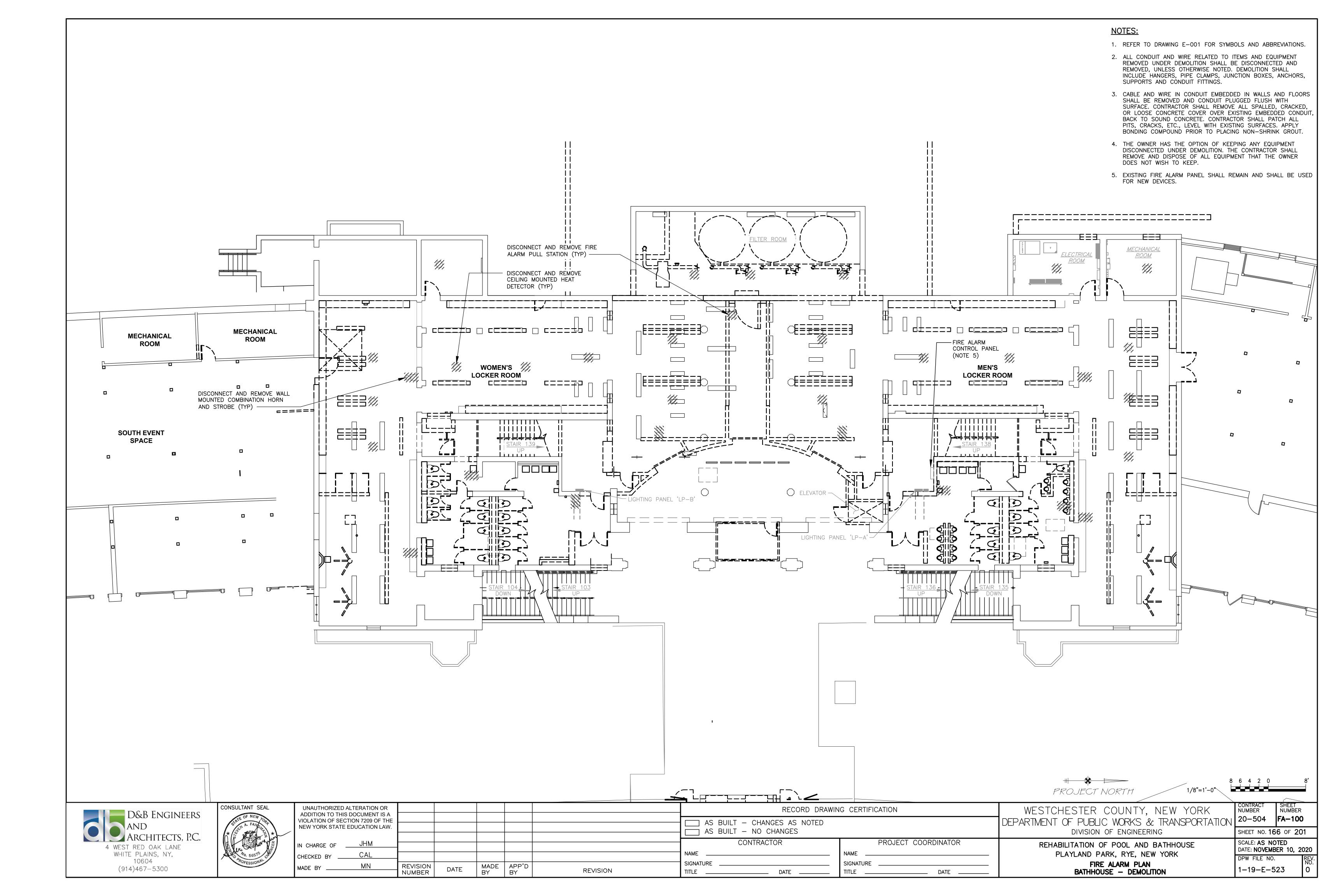
CONTRACT NUMBER
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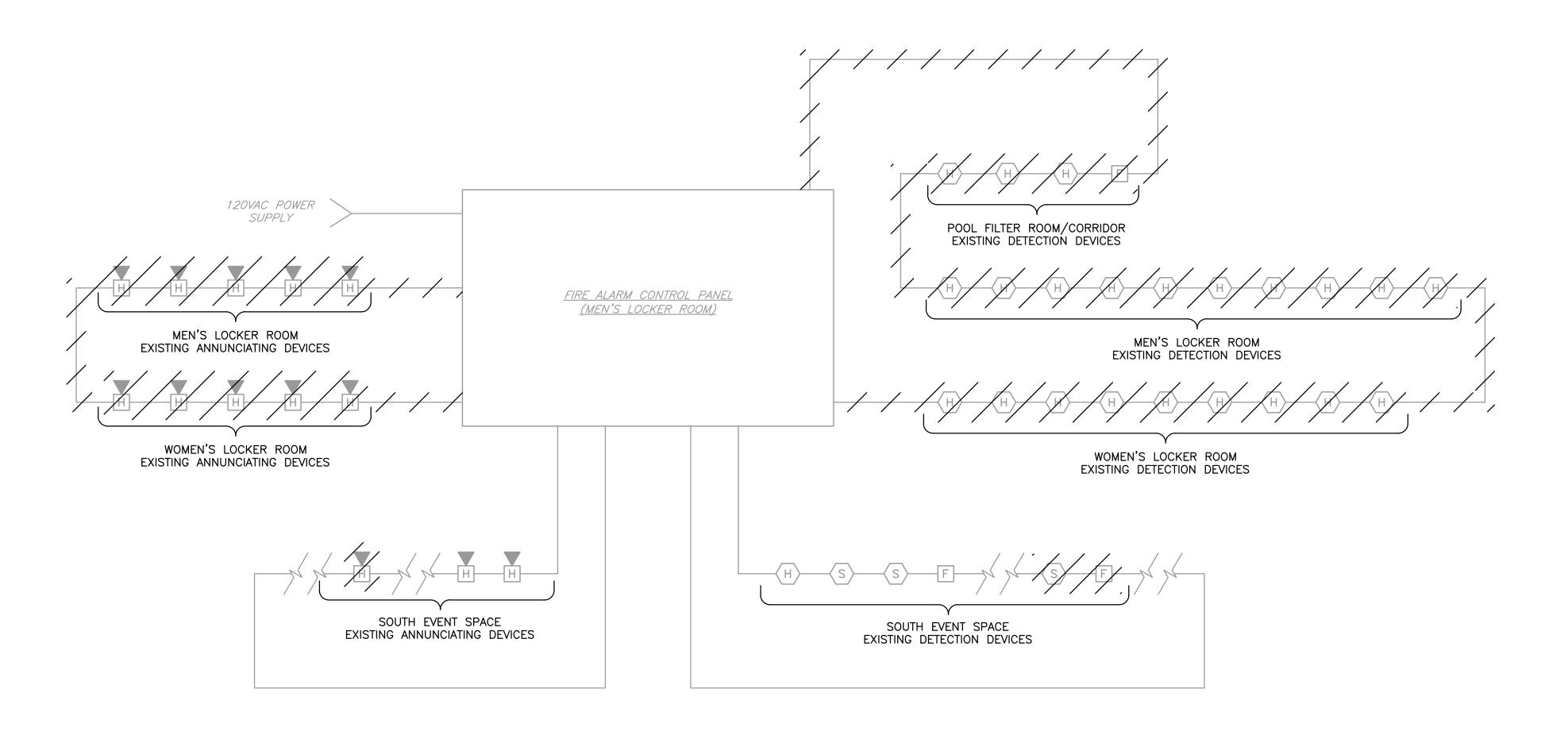
SHEET NO. 165 OF 201

SCALE: AS NOTED
DATE: NOVEMBER 10, 2020

DPW FILE NO. REV.

1-19-E-522





RISER DIAGRAM

NOTES:

COORDINATE DEVICE QUANTITIES AND LOCATIONS WITH PLAN DRAWINGS.

LEGEND:

COMBINATION HORN/STROBE

SMOKE DETECTOR

HEAT DETECTOR

PULL STATION

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WHITE PLAINS, NY, 10604
(914)467-5300

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WESTCHESTER COUNTY, NEW YORK DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION 20-504 FA-101 DIVISION OF ENGINEERING REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK FIRE ALARM RISER DIAGRAM — DEMOLITION

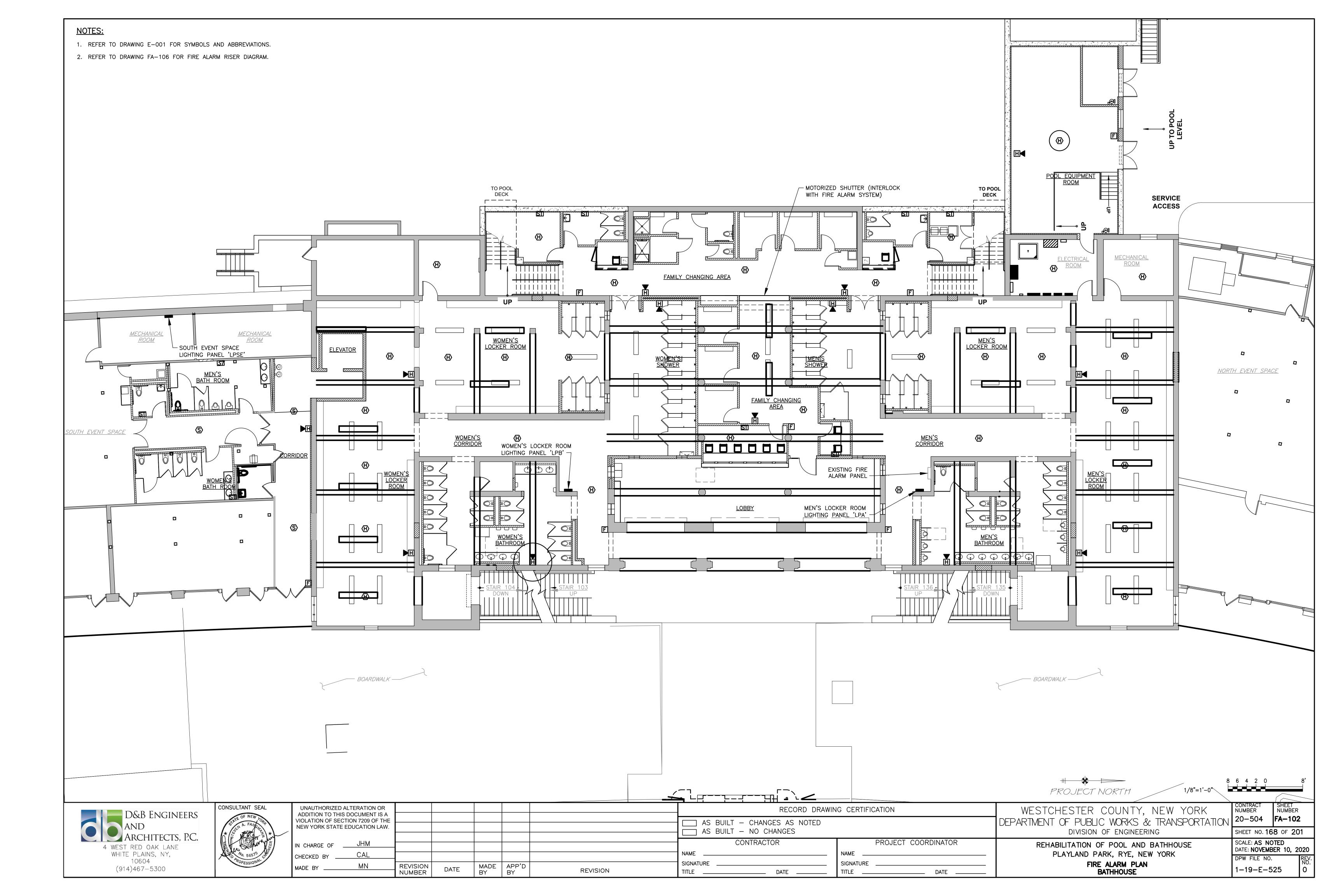
PROJECT COORDINATOR

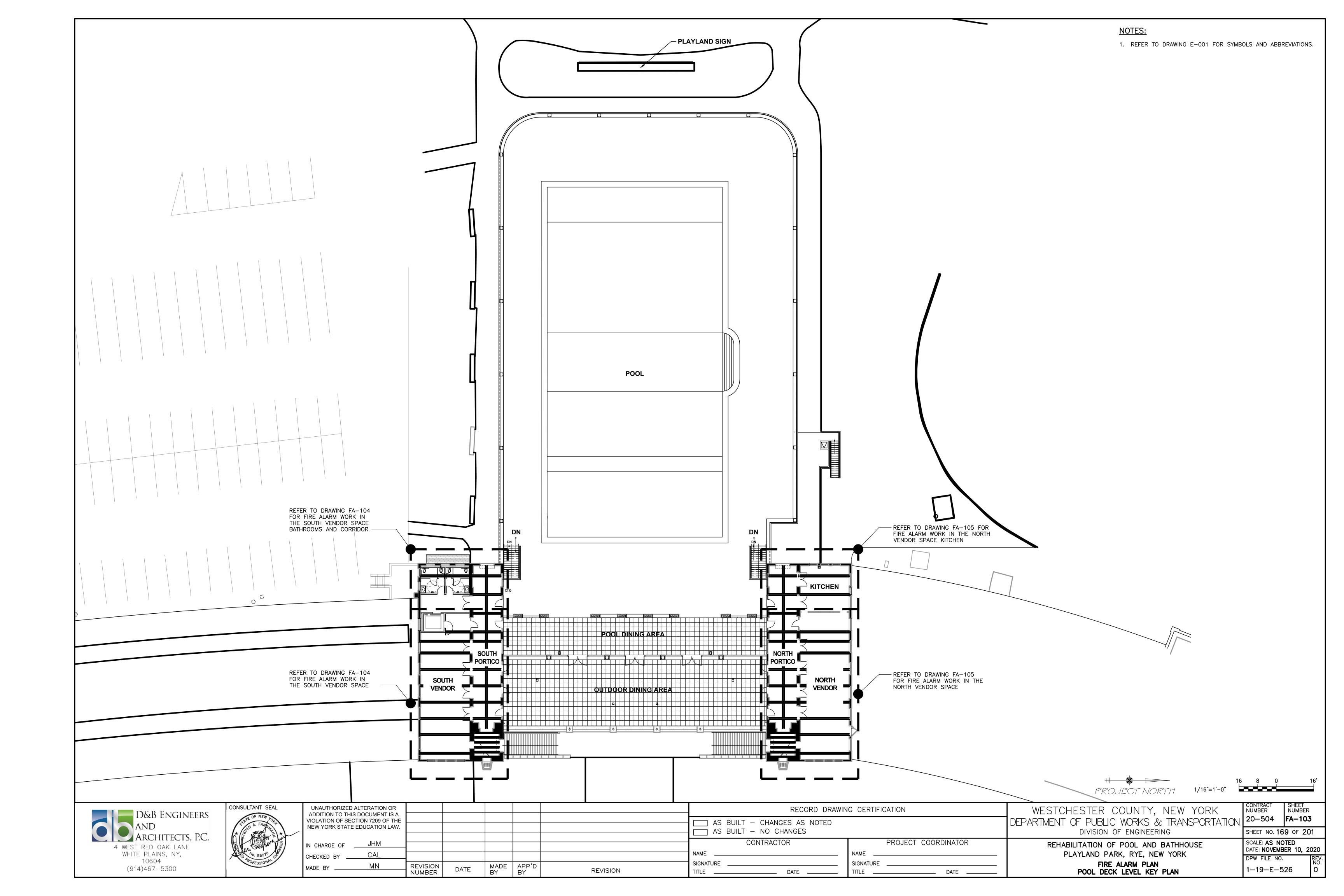
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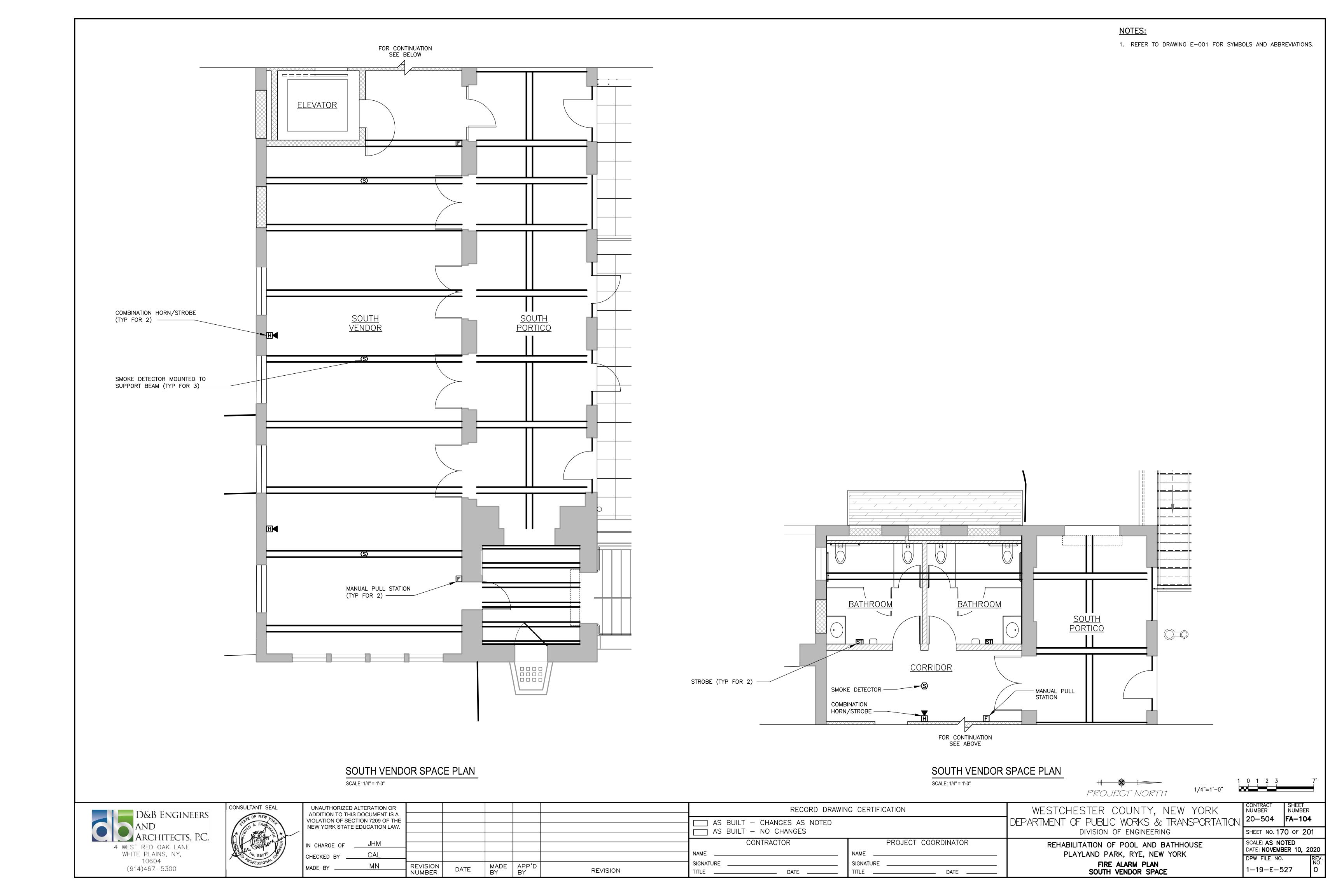
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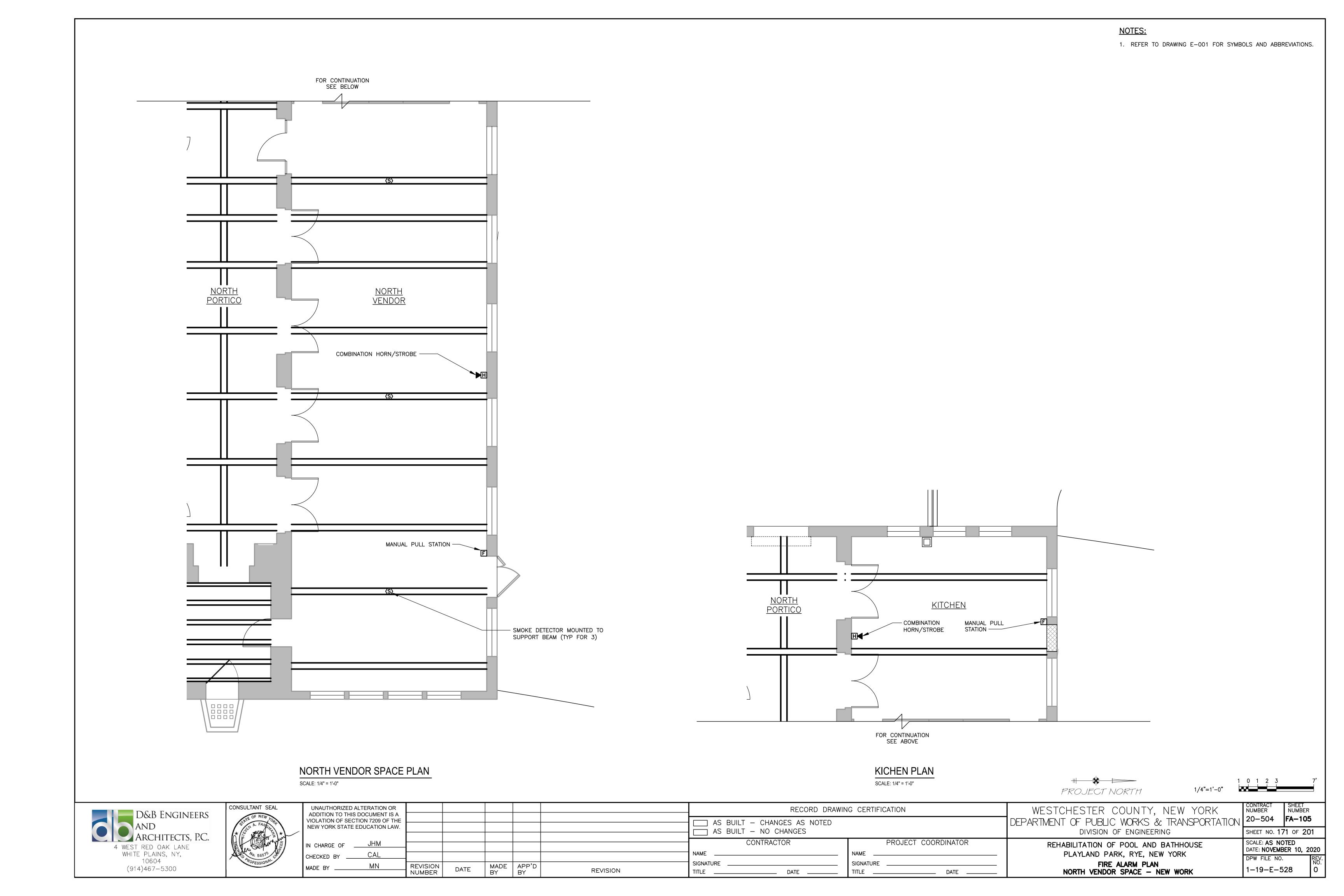
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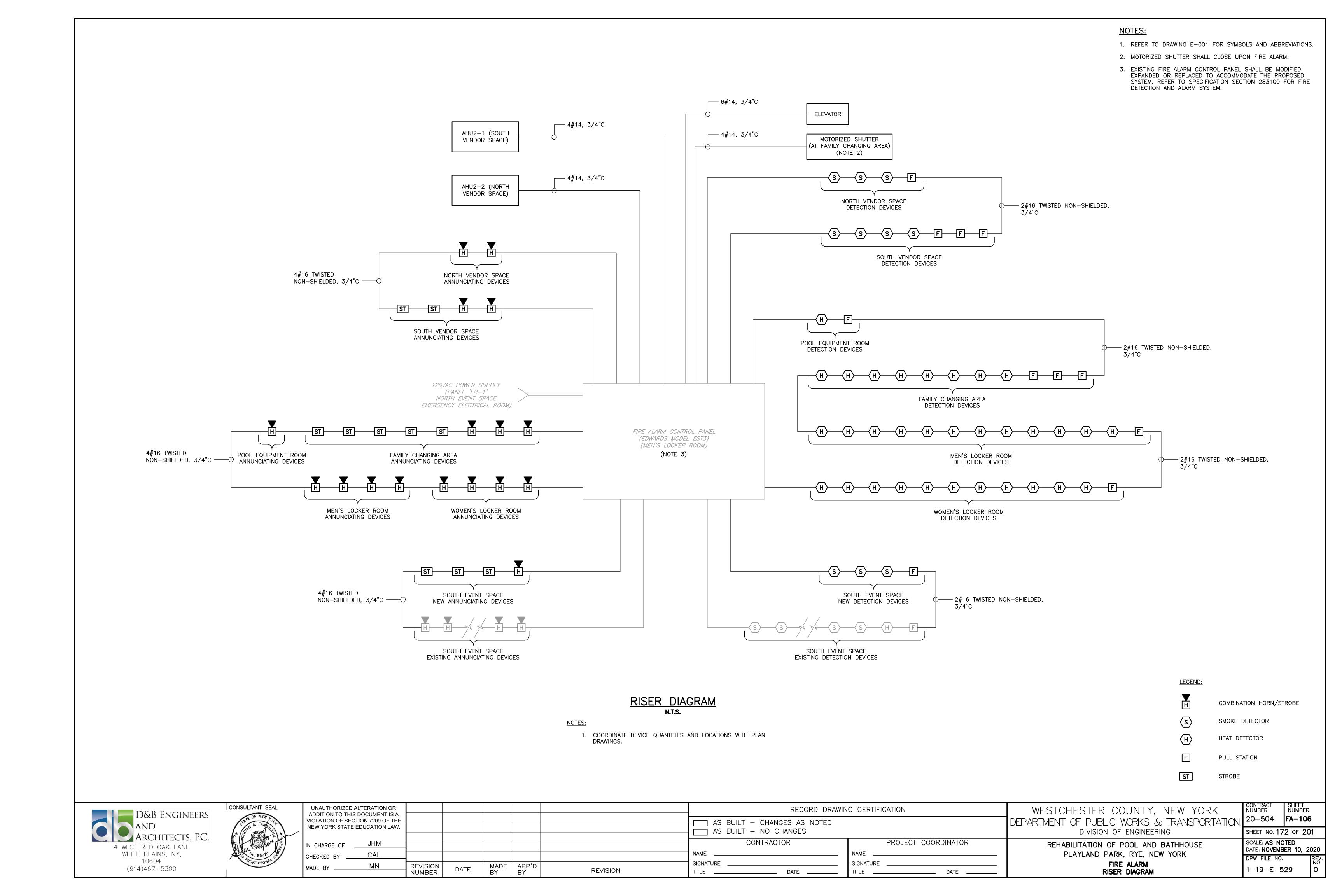
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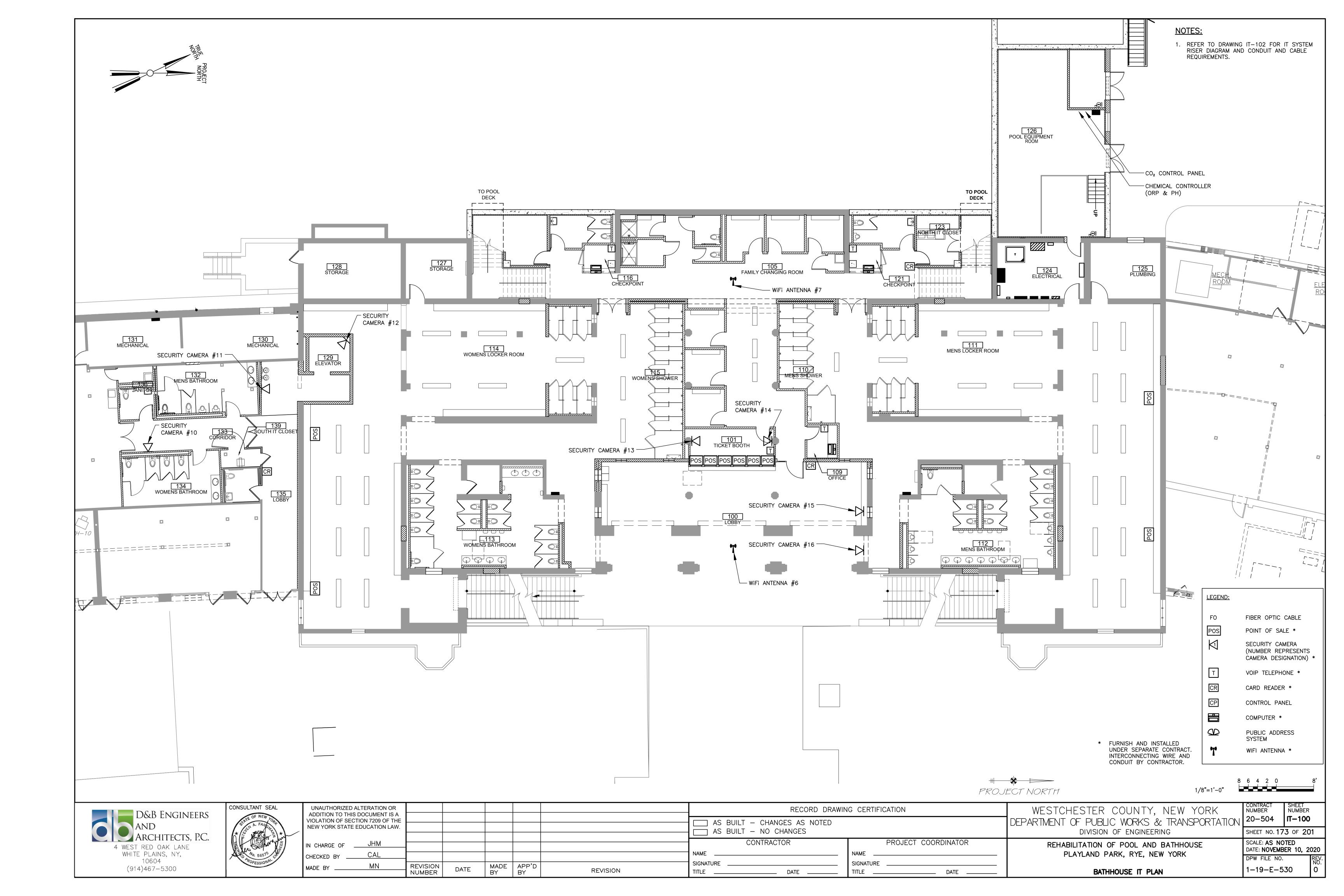


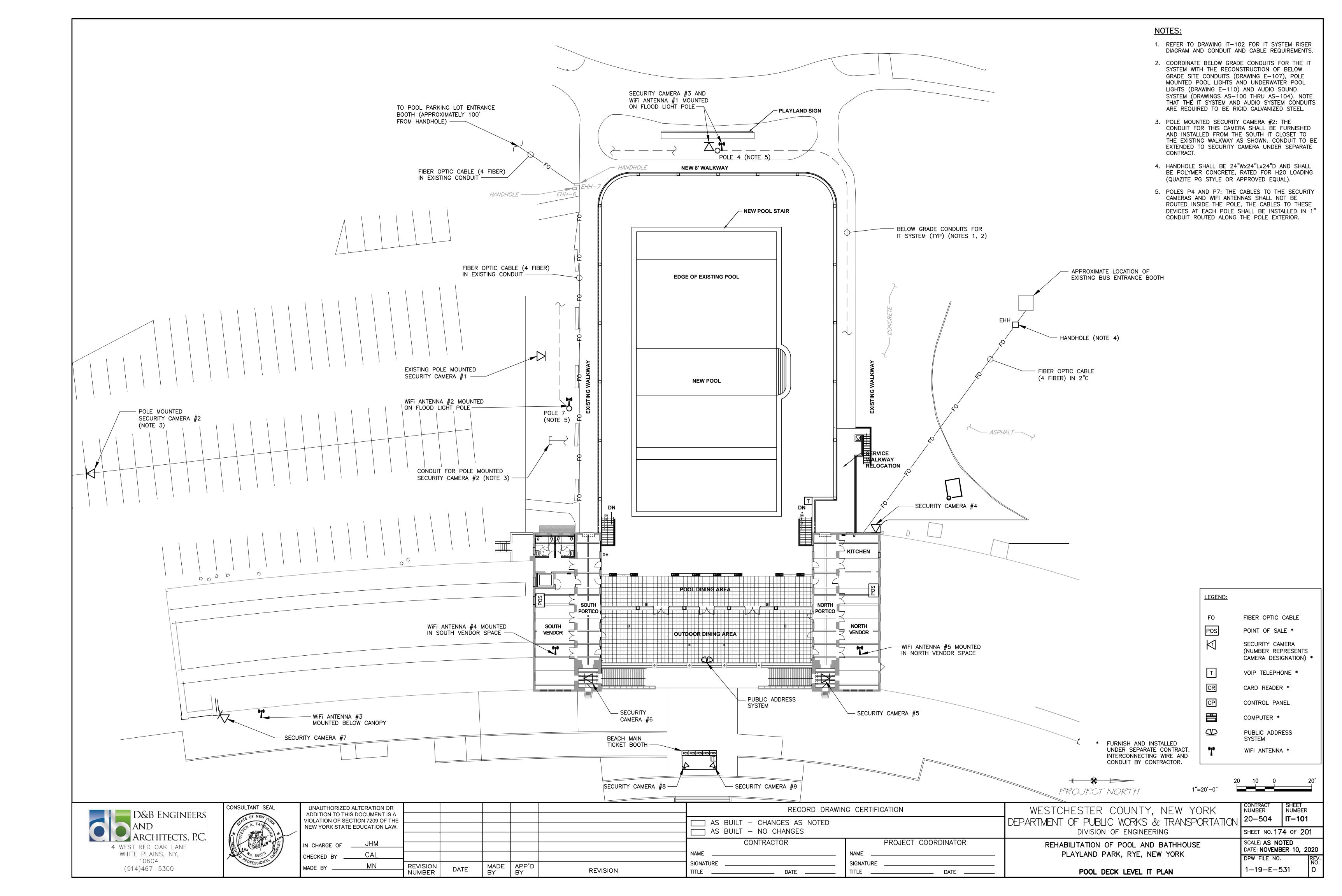


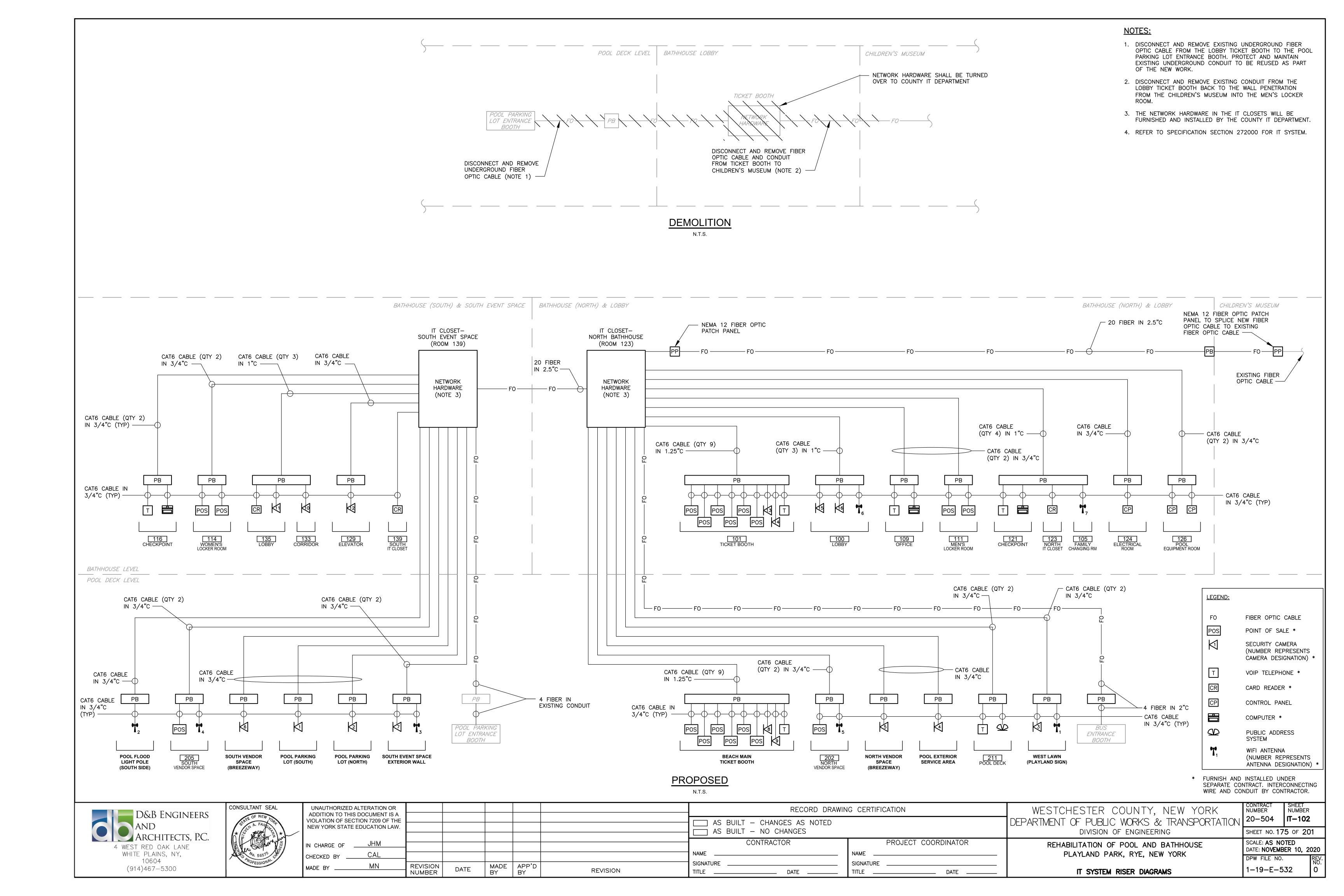


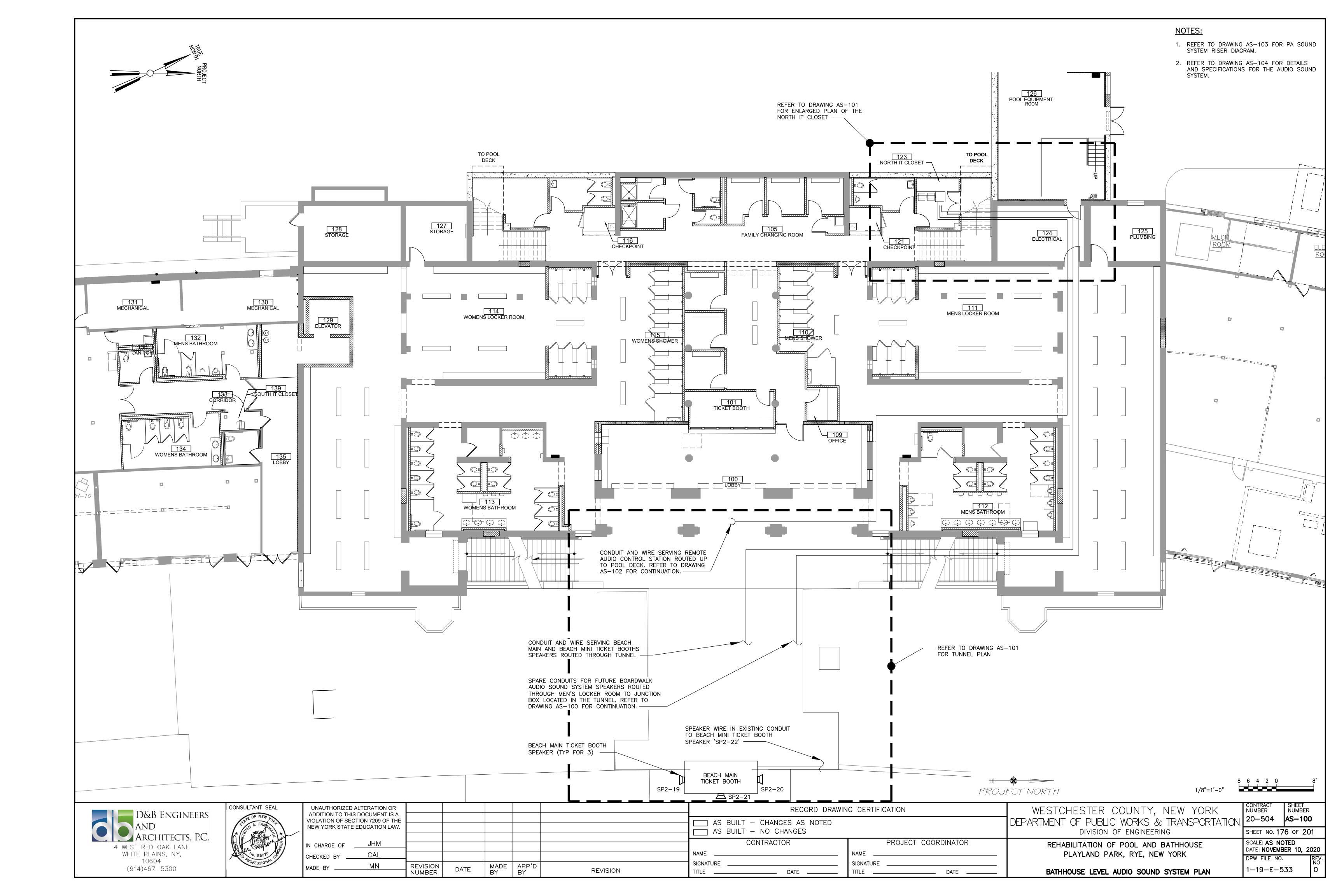


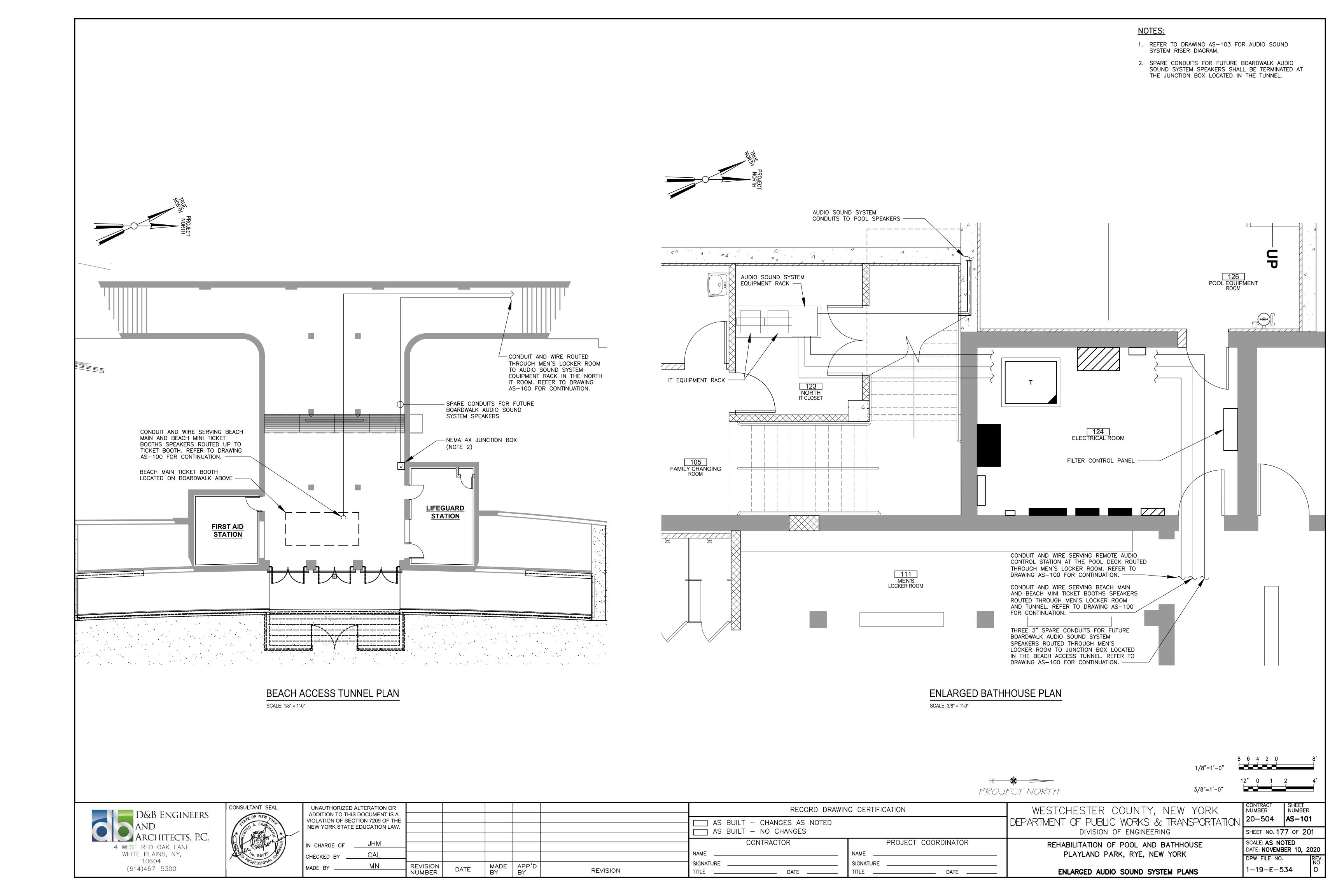


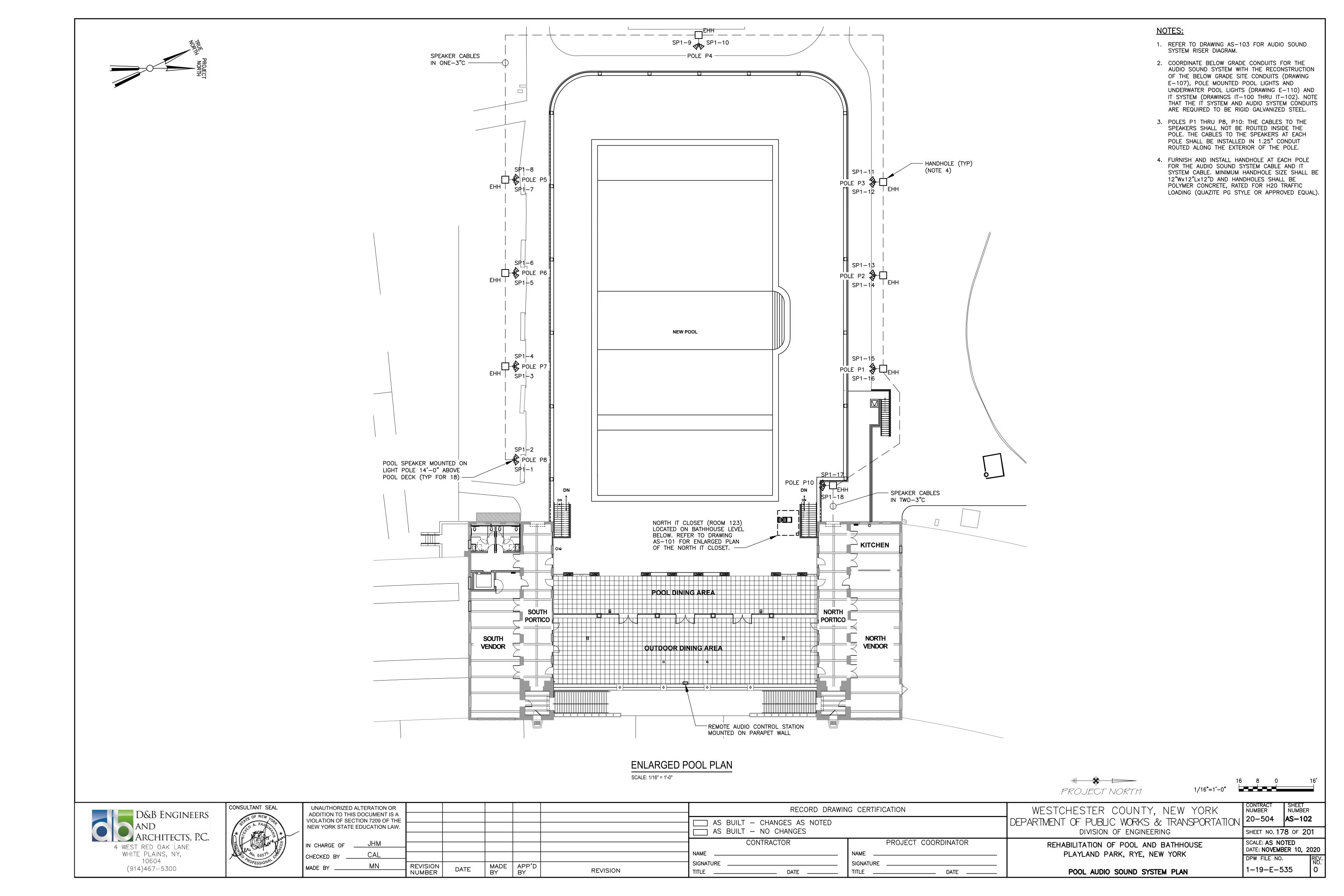


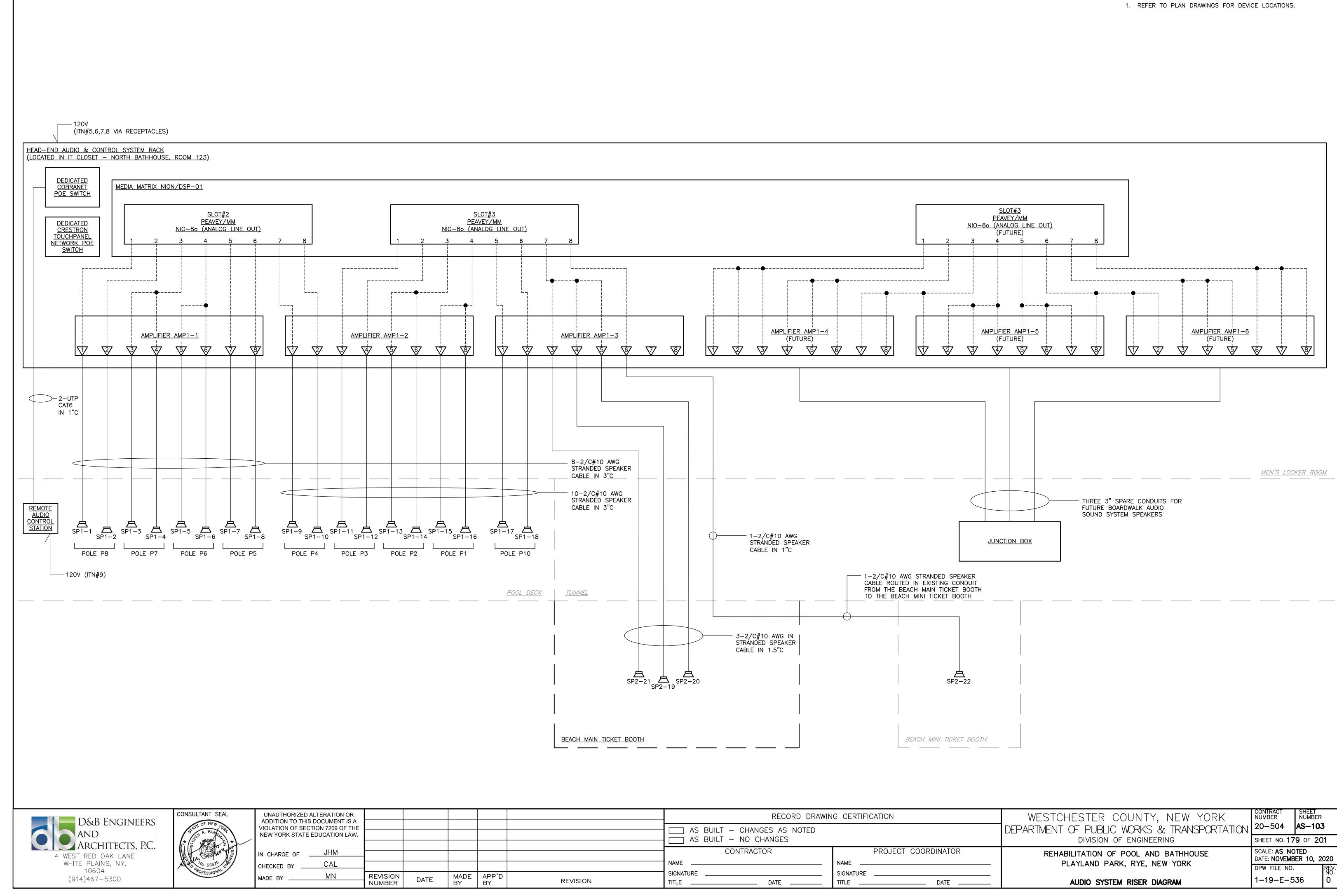












AUDIO SYSTEM SCOPE OF WORK

- . THE AUDIO AND CONTROL SYSTEM (ACS) SUBCONTRACTOR SHALL BE RESPONSIBLE
- A. THE ROUTING & DISTRIBUTION OF ELECTRICAL POWER WITHIN THE AUDIO RACK. B. SUPPLY OF ACCESSORIES AND ALL EQUIPMENT ITEMS NEEDED TO CREATE A COMPLETE AUDIO SYSTEM EVEN IF NOT SPECIFICALLY MENTIONED HEREIN OR ON THE DRAWINGS, WITHOUT CLAIM FOR ADDITIONAL PAYMENT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO RIGGING, FLY & AFFIXING HARDWARE, JACKS, PLUGS & ALL MISC ELECTRONIC HARDWARE, SOFTWARE, LOW VOLTAGE CABLE
- INFRASTRUCTURE, NETWORK GEAR, ETC.
- C. TERMINATION OF ALL ACS LOW VOLTAGE CABLES.

D. INSTALLING ALL ACS EQUIPMENT & INFRASTRUCTURE.

- E. CREATION OF A PRIVATE DEDICATED LAN FOR COBRANET DATA TRANSPORT. F. CREATION OF A PRIVATE DEDICATED LAN FOR CRESTRON CONTROL SYSTEMS.
- G. CUSTOM PROGRAMMING OF ACS INCLUDING GUI SCREENS.
- H. CUSTOM PAINTING OF ALL SPEAKERS & HARDWARE TO MATCH LIGHT POLES & FENCING, COLOR TO BE DETERMINED BY ENGINEER

- A. A COMPREHENSIVE EQUIPMENT SUBMISSIONS LIST DETAILING ALL EQUIPMENT & THEIR QUANTITIES, INCLUDING ANY I/O CARDS, I/O ELECTRONICS, WALL PLATES, D/A & A/D CONVERTERS, BALUNS, DISTRIBUTION ELECTRONICS, CONTROLLERS, &
- B. ALL CUT SHEETS FOR ALL EQUIPMENT MUST BE SUBMITTED WITH BID. C. DETAILED BLOCK DIAGRAMS FOR AUDIO & CONTROL SYSTEMS SHOWING ALL EQUIPMENT AND SIGNAL FLOW & THE RELATIONSHIPS BETWEEN EQUIPMENT WITHIN EACH SYSTEM, AS WELL AS RELATIONSHIP AND INTERACTION OF SYSTEMS TO EACH
- D. CERTIFICATES SHOWING TRAINING DIRECTLY FROM MANUFACTURER OF DSP PROCESSING & CONTROL SYSTEM. COMPLETED TRAINING CERTIFICATES SHALL BE PROVIDED FOR
- . MEDIA MATRIX (DSP)
- 2. CRESTRON (CONTROL SYSTEM)
- E. CERTIFICATES SHALL BE AWARDED TO ACS SUBCONTRACTOR'S PROJECT MANAGEMENT, SUCH AS COMPANY OWNER; PROJECT MANAGER OR CHIEF

AUDIO SYSTEM DESCRIPTION

- . THE AUDIO SYSTEM SHALL BE A WEATHER RESISTANT OUTDOOR SYSTEM PROVIDING HIGH QUALITY FULL RANGE SOUND EXCLUSIVELY FOR COVERAGE OF THE POOL DECKAREA & BEACH MAIN TICKET BOOTH AREA, SPEAKERS & CONTROL FOLLIPMENT SHALL BE PERMANENTLY INSTALLED OUTSIDE FOR ALL YEAR EXPOSURE TO THE ELEMENTS. SYSTEM SOURCES SHALL INCLUDE OWNER FURNISHED (OFE) BACKGROUND & FOREGROUND MUSIC; LIVE, REAL-TIME SPEECH VIA WIRELESS MIC SYSTEM OR WIRED MIC: WIRED PLUG-IN INTERFACE OF OUTSIDE ELECTRONICS VIA SYSTEM INPUTS; PRE-RECORDED VOICE ANNOUNCEMENTS VIA DIGITAL ANNOUNCER/SCHEDULER; & PLAYBACK OF ANY OTHER ANALOG PROGRAM MATERIAL FROM OTHER OFE EQUIPMENT VIA SYSTEM INPUTS.
- . THE CONTROL SYSTEM SHALL FACILITATE SYSTEM OPERATION THAT IS SIMPLE. INTUITIVE & USER FRIENDLY FOR NON-TECHNICAL USERS, FROM PREPROGRAMMED TOUCH VIDEO PANELS (TVP) FEATURING CUSTOM CONTRACTOR PROVIDED GUI GRAPHICS. TVP & INPUT & OUTPUT PANEL (I/O) SHALL BE CONVENIENTLY LOCATED IN A WEATHER RESISTANT NEMA BOX CONTROL STATION (CS) AS SHOWN. I/O SHALL BE DIGITAL & USE COBRANET PROTOCOL TO FACILITATE INPUT FROM OUTSIDE SOURCES. I/O PANEL SHALL PROVIDE LINE LEVEL OUTPUT FOR OUTSIDE SOUND SYSTEMS (OUTSIDE SYSTEMS ARE NOT WITHIN THE SCOPE OF THIS SPECIFICATION).
- 3. THE AUDIO SYSTEM SHALL BE COMPRISED OF THREE ZONES. ZONE 1 (Z1) POOL AREA, ZONE 2 (Z2) BEACH MAIN TICKET BOOTH AREA, ZONE 3 (Z3) FUTURE BEACH BOARDWALK AREA. ALL ZONES SHALL BE USABLE INDEPENDENTLY AS VIRTUAL INDEPENDENT SYSTEMS, OR COMBINABLE WITH EACH OTHER AS ONE SINGLE SYSTEM. ALL COMBINATION CONFIGURATIONS SHALL BE STORED AS QUICK ACCESS PRESETS THAT ARE RECALLABLE LOCALLY VIA THE CS TVP. WITH OTHER KEY FUNCTIONS THAT SHALL INCLUDE VOLUME, MUTE & SOURCE SELECTION ALSO ADDRESSABLE VIA THE CS TVP. THERE SHALL BE AN ADDITIONAL TVP & I/O AT THE HEAD END AUDIO RACK. ALL TVP & I/O SHALL BE 100% DIGITAL USING CAT6 CABLE. ALL CONTROL SYSTEM FUNCTIONS SHALL BE CUSTOM PROGRAMMED BY CONTRACTOR TO MEET DESIRED USER FUNCTIONALITY
- 4. ALL SPEAKERS SHALL BE HIGH QUALITY OUTDOOR IP56 RATED. THE SPEAKERS SHALL BE TWO-WAY STYLE FEATURING A WOOFER & A MID/HIGH FREQUENCY COMPRESSION DRIVER & HORN IN A COAXIAL DESIGN. Z-1 SPEAKERS SHALL BE MOUNTED ON DESIGNATED LIGHTING POLLS AS SHOWN. Z-2 SPEAKERS SHALL BE MOUNTED ON TICKET **BOOTH STRUCTURE. SPEAKER TYPE & DESIGNATION:**
- A. POOL AREA: TYPE SP1 B. BEACH MAIN TICKET BOOTH. TYPE SP2
- . HIGH END DIGITAL SIGNAL PROCESSOR (DSP) WITH ANALOG & COBRANET DIGITAL INPUT & OUTPUT (I/O) PROTOCOL SHALL PROVIDE ALL CENTRAL SYSTEM AUDIO SOURCE SELECTION & VOLUME LEVEL; GENERAL SYSTEM PROCESSING; PROCESSING OF INDIVIDUAL I/O SIGNAL INCLUDING MATRIX ROUTING FUNCTIONS: INPUT & OUTPUT EQ; DELAY; COMPRESSION & LIMITING; MASTER VOLUME LEVEL; GENERAL MIXER FUNCTIONS ETC. ALL DSP FUNCTIONS SHALL BE CUSTOM PROGRAMMED TO MEET DESIRED USER FUNCTIONALITY. ONCE PROGRAMMED, DSP FUNCTION SHALL BE CONTROLLED BY CS TVP'S.
- 6. OUTDOOR CS WEATHER RATED NEMA BOX SHALL HOUSE SYSTEM CONTROL ACCESS & SHALL INCLUDE ONE TVP & ONE I/O PANEL. QUICK ACCESS CONTROL FUNCTIONS SHALL BE VIA CRESTRON CONTROL SYSTEM TVP'S & OPTIONAL WIRELESS DEVICES.
- . THE AUDIO HEAD END RACK SHALL HOUSE ALL AMPLIFIERS. DIGITAL SIGNAL PROCESSING, CONTROL PROCESSOR, TVP, DIGITAL & ANALOG I/O, & MISC EQUIPMENT PER DRAWINGS. IT SHALL BE LOCATED IN THE NORTH IT CLOSET, ROOM 123.
- 8. SPEAKER POLE MOUNT: CANTILEVER ARM POLE MOUNT SYSTEM; THE POLE MOUNT SHALL BE SECURED TO THE POLE WITH A 3/16" RIGGING RATED STAINLESS CHAIN IN HIGH PRESSURE UV RATED RUBBER HOSE: POLE MOUNTING SYSTEM SHALL BE DESIGNED TO BE ATTACHED TO POLES AS SMALL AS 4" IN DIAMETER; THE CHAIN TENSION SHALL BE ADJUSTABLE USING THE CHAIN CROSS BOLT CARRIER; THE POLE MOUNT BODY SHALL BE ISOLATED FROM THE POLE VIA HIGH PRESSURE UV RATED RUBBER HOSE: THE POLE MOUNT SHALL HAVE UPPER AND LOWER MOUNTING POSITIONS THAT SHALL ACCEPT ½ INCH MOUNTING HARDWARE; THE WLL SHALL BE 120 LBS. STATIC LOAD; THE POLE MOUNT SHALL BE 13 2/3" (347.1 MM) LONG, 6 1/2" (165.1 MM) HIGH, AND 3" (76.2 MM) WIDE: THE POLE MOUNT SHALL WEIGH 9.9 LBS (4.5KG). PROVIDE POLAR FOCUS PM2-10 WITH POLAR FOCUS MOUNTING HARDWARE OR

AUDIO SYSTEM MATERIALS

- I. SPEAKER SP1: ALL WEATHER HIGH OUTPUT SPEAKERS WITH 200 WATT LONG TERM POWER HANDLING & 70.7 VOLT TRANSFORMER LINE CAPABILITY WITH TAPS OF 70V-200W. 100W. 50W. 25W 100V: 200W. 100W. 50W & 117 DB/200W TAP. SPEAKERS SHALI MEET OR EXCEED ENVIRONMENTAL: IP56 PER IEC529, WITH A MINIMUM 5° DOWNWARD AIMING ANGLE, EXCEEDS MIL SPEC 810 FOR HUMIDITY, SALT SPRAY, TEMPERATURE & UV. AND ASTM G85 FOR SALT SPRAY (168 HRS).: COVERAGE PATTERN OF 120 X 120 DEGREES; FREQUENCY RANGE (-10 DB)1: 80 HZ - 20 KHZ & FREQUENCY RESPONSE (±3 DB)1: 100 HZ - 20 KHZ; 8" WOOFER KEVLAR-REINFORCED CONE WITH WEATHER TREATMENT, 50 MM (2 IN) VOICE COIL; 25 MM (1 IN) DIAPHRAGM AND VOICE COIL DIAMETER, HIGH TEMPERATURE POLYMER DIAPHRAGM, PATENTED DESIGN, FLUID-COOLING FOR MID & HIGH FREQUENCIES; CROSSOVER NETWORK: 1.8 KHZ, 3RD ORDER (18 DB/OCT) HIGH-PASS PLUS CONJUGATE TO HF, 2ND ORDER LOW-PASS TO LF; ENCLOSURE SHALL BE ABS WITH GLASS ENCLOSURE; GRILLE SHALL BE CORROSION-RESISTANT ZINC-RICH EXTRA-THICK POWDER COATED STEEL GRILLE 3-LAYER ASSEMBLY WITH FOAM AND WOVEN POLY MESH BACKING: CE-COMPLIANT COVERED BARRIER STRIP TERMINALS, BARRIER TERMINALS ACCEPT UP TO 8 MM OUTSIDE 4 MM INSIDE OPEN-LUG (#6 OR #8) PLUS BARE WIRE UP TO 2.5 MM2 (12 AWG) WIRE OR SPADE LUGS, TERMINAL COMPARTMENT COVER EQUIPPED WITH GLAND NUT THAT FORMS WATER-TIGHT SEAL WITH ROUND JACKETED CABLES WITH OUTSIDE DIAMETERS BETWEEN 4.0 MM (0.16") AND 9.0 MM (0.36"); TWO M10 (FINE-THREAD) POINTS FOR INCLUDED U-BRACKET. M6 SECONDARY SAFETY ATTACHMENT POINT ON BACK PANEL. OVERALL DIMENSIONS 300 X 300 X305 MM (11.8 X 11.8 X 12.0), CABINET; NET WEIGHT: 9.8 KG (21.5 LB). 11.6 KG (25.5 LB) WITH U-BRACKET: INCLUDED ACCESSORIES: U-BRACKET, MATCHES LOUDSPEAKER COLOR (GRAY OR BLACK), ZINC-RICH EXTRA THICK POWDER COATED, STEEL. ALL SPEAKERS & MOUNTING HARDWARE SHALL BE CUSTOM PAINTED GREEN BY CONTRACTOR TO MATCH LIGHT POLES & FENCING. PAINT MUST BE NEAT WITH NO DRIPS. HOLES IN SPEAKER GRILLE MUST NOT BE BLOCKED OR CLOSED OR REDUCED IN SIZE. SPEAKER GRILLS MUST BE REMOVED FOR PAINTING & RE-INSTALLED ON SPEAKERS WHEN PAINT HAS FULLY DRIED.PROVIDE JBL AWC82 OR APPROVED EQUAL
- 2. SPEAKER SP2: ALL WEATHER HIGH OUTPUT SPEAKERS WITH 250 WATT LONG TERM POWER HANDLING & 70.7 VOLT TRANSFORMER LINE CAPABILITY WITH TAPS OF 70V:

- 200W, 100W, 50W, 25W 100V: 200W, 100W, 50W & 117 DB/200W TAP. SPEAKERS SHALL MEET OR EXCEED IP56 WEATHER RESISTANCE RATING; COVERAGE PATTERN OF 90 X 90 DEGREES: FREQUENCY RANGE (-10 DB)1: 55 HZ - 20 KHZ & FREQUENCY RESPONSE (±3 DB)1: 80 HZ - 20 KHZ; 12" WOOFER KEVLAR-REINFORCED CONE WITH WEATHER FREATMENT. 75 MM (3 IN) VOICE COIL: 25 MM (1 IN) DIAPHRAGM AND VOICE COIL DIAMETER, HIGH TEMPERATURE POLYMER DIAPHRAGM, PATENTED DESIGN, FLUID-COOLING FOR MID & HIGH FREQUENCIES: CROSSOVER NETWORK: 1.5 KHZ, 3RD ORDER (18 DB/OCT) HIGH-PASS PLUS CONJUGATE TO HF, 2ND ORDER LOW-PASS TO LF; ENCLOSURE SHALL BE ABS WITH GLASS ENCLOSURE HEAVILY BRACED; GRILLE SHALL BE CORROSION-RESISTANT ZINC-RICH EXTRA-THICK POWDER COATED STEEL GRILLE, 3-LAYER WITH FOAM AND WOVEN POLY MESH BACKING: CE-COMPLIANT COVERED BARRIER STRIP TERMINALS. BARRIER TERMINALS ACCEPT UP TO 8 MM OUTSIDE 4 MM INSIDE OPEN-LUG (#6 OR #8) PLUS BARE WIRE UP TO 2.5 MM2 (12 AWG) WIRE OR SPADE LUGS. TERMINAL COMPARTMENT COVER EQUIPPED WITH GLAND NUT THAT FORMS WATER-TIGHT SEAL WITH ROUND JACKETED CABLES WITH OUTSIDE DIAMETERS BETWEEN 4.0 MM (0.16") AND 9.0 MM (0.36"); TWO M10 (FINE-THREAD) POINTS FOR INCLUDED U-BRACKET. M6 SECONDARY SAFETY ATTACHMENT POINT ON BACK PANEL OVERALL DIMENSIONS 402 X 402 X 445 MM (15.8 X 15.8 X 17.5), CABINET; 15.9 KG (35.0 LB) 18.9 KG (41.5 LB) WITH U-BRACKET: INCLUDED ACCESSORIES: U-BRACKET MATCHES LOUDSPEAKER COLOR (GRAY OR BLACK), ZINC-RICH EXTRA THICK POWDER COATED, STEEL. ALL SPEAKERS & MOUNTING HARDWARE SHALL BE CUSTOM PAINTED GREEN BY CONTRACTOR TO MATCH LIGHT POLES & FENCING. PAINT MUST BE NEAT WITH NO DRIPS. HOLES IN SPEAKER GRILLE MUST NOT BE BLOCKED OR CLOSED OR REDUCED IN SIZE. SPEAKER GRILLS MUST BE REMOVED FOR PAINTING & RE-INSTALLED ON SPEAKERS WHEN PAINT HAS FULLY DRIED.PROVIDE JBL AWC129 OR APPROVED
- AUDIO AMPLIFIER TYPE 1: 8 CHANNEL AMPLIFIER WITH DIRECT DRIVE "CONSTANT VOLTAGE" CAPABILITIES ON A CHANNEL BY CHANNEL BASIS FOR 70VRMS OR 100VRMS AMPLIFICATION; EIGHT CHANNEL UNITS FEATURING 70.7 VOLT, 8, 4 OR 2 OHM OUTPUT. EACH CHANNEL SHALL PROVIDE 300 WATTS RMS AT 4, 8 OHMS 70.7V OR 100V PER CHANNELS: DAMPING FACTOR (20HZ TO 100HZ) > 1000: LOAD IMPEDANCE BRIDGE MONO 4Ω - 16Ω ; 140VRMS AND 200VRMS; INPUT IMPEDANCE (NOMINAL BALANCED, UNBALANCED) 10KΩ, 5KΩ; FREQUENCY RESPONSE (8Ω, 20HZ - 20KHZ) ±0.25DB; TOTAL HARMONIC DISTORTION (AT FULL RATED POWER, 20HZ - 20KHZ) 0.35%; 2U RACK SPACE FORM FACTOR: WEIGHT: 23.5LBS (10.66KG): 2 RU: AMPLIFIERS SHALL BE RATED TO RUN CONTINUOUSLY UNDER COMMERCIAL CONDITIONS; PROVIDE CROWN DCI 2 8/300 OR 3. DIGITAL SIGNAL PROCESSING (DSP): FLOATING-POINT DSP ENGINE: MANY AUDIO
- ALGORITHMS: SCALABLE I/O ARCHITECTURE WITH FOUR NIO SERIES CARD BAYS: LOW-LATENCY AUDIO PERFORMANCE; INTEGRATED, MODULAR DANTE I/O; NETWORK-CENTRIC ARCHITECTURE: SUPPORTS CENTRALIZED, DISTRIBUTED OR HYBRID PROCESSING INFRASTRUCTURE: INTEGRATED SERIAL SUPPORT: FRONT PANEL INTERFACE WITH INTUITIVE USER INPUT CONTROLS: ROBUST EMBEDDED LINUX SYSTEM PROCESSOR/CONTROLLER; INTEGRATED FLASH-BASED STORAGE; WINDOWS-BASED CONFIGURATION AND CONTROL CLIENT; FULL SUPPORT FOR SNMP NETWORK MANAGEMENT TOOLS: UNIVERSAL INDUSTRIAL-GRADE POWER SUPPLY: SOFTWARE SUPPORT FOR LARGE-SCALE MULTI-NODE SYSTEMS: ADVANCED DSP COMPILER; CONFIGURABLE GPIO WITH OPTIONAL DIN RAIL EURO BREAKOUT PANEL; TRANSPARENT CONTROL GROUPING ACROSS PHYSICAL NIONS AND BETWEEN INDEPENDENT SYSTEMS; SUPPORTS REDUNDANT, SELF-HEALING CONFIGURATIONS; STAND-ALONE, MULTIPLE, AND/OR DISTRIBUTED OPERATION: 32X32 DANTE TRANSPORT INCLUDED: ROBUST AIR HANDLING: FRONT PANEL AUDIO AND STATUS MONITORING; INTUITIVE USER INPUT; VISUAL COMMUNICATIONS STATUS. PROVIDE MEDIA MATRIX NION N3 NO SUBSTITUTIONS PERMITTED
- 4. ANALOG OUTPUT CARD: 8 CHANNEL LINE LEVEL OUTPUT DEVICE FOR USE IN NION DSP FRAMES; MODULAR ANALOG AUDIO INPUT CARD AND ANALOG TO DIGITAL CONVERTER; 24-BIT A/D; 48 OR 96KHZ AUDIO SAMPLING RATE SUPPORTED; HIGH RELIABILITY DIN CONNECTOR TO BACKPLANE. USING SLIDE RAIL FOR ALIGNMENT: MINI-EURO CONNECTORS FOR EASY OUTPUT CONNECTION; PROVIDE MEDIA MATRIX NIO 80 II. NO SUBSTITUTIONS PERMITTED.
- 5. ANALOG INPUT CARD: 8 CHANNEL LINE LEVEL INPUT DEVICE FOR USE IN NION DSP FRAMES MODULAR ANALOG AUDIO INPUT CARD AND ANALOG TO DIGITAL CONVERTER: EIGHT LINE LEVEL INPUT AUDIO CHANNELS; 48 OR 96KHZ AUDIO SAMPLING RATE SUPPORTED: HIGH RELIABILITY DIN CONNECTOR TO BACKPLANE. USING SLIDE RAIL FOR ALIGNMENT; MINI-EURO CONNECTORS FOR EASY INPUT CONNECTION; PROVIDE MEDIA MATRIX NIO 81. NO SUBSTITUTIONS PERMITTED.
- 6. DIGITAL INPUT PANNELS: 2-GANG NEMA MOUNT COBRANET® INTERFACE PANEL WITH ONE FEMALE XLR AND ONE MINI-JACK INPUT & ONE MALE XLR AND ONE MINI-JACK OUTPUT; THE COBRANET AUDIO IS TRANSMITTED ACROSS THE LOCAL AREA SWITCHED NETWORK USING STANDARD ETHERNET CABLE: THE INPUT SIDE OF THE FRONT PANEL FEATURES AN XLR CONNECTOR WITH 12V PHANTOM POWER. THUS ACCOMMODATING BOTH DYNAMIC AND CONDENSER MICROPHONES: FOR THE INPUTS. THE STEREO MINI-JACK HAS THE LEFT AND RIGHT CHANNELS SUMMED TOGETHER AND PLACED ON THE FIRST COBRANET SUBCHANNEL WHILE THE XLR IS PLACED ON THE SECOND COBRANET SUBCHANNEL OF THE TRANSMITTING BUNDLE; PROVIDE MEDIA MATRIX N-WALL 1.1. NO SUBSTITUTIONS PERMITTED.
- 7. ANALOG INPUT PANNEL: DUAL XLR FEMALE PANEL JACKS MOUNTED TO A SINGLE RECTANGULAR METAL PANEL: MOUNTABLE IN STANDARD SINGLE GANG ELECTRICAL BOX; BRUSHED ALUMINUM.
- PROVIDE SWITCHCRAFT K3FS OR APPROVED EQUAL. 8. WIRELESS MICROPHONE: PORTABLE ANALOG UHF WIRELESS HAND HELD
- MICROPHONE SYSTEM SHALL PROVIDE WIRELESS MIC FUNCTIONALITY; HAND HELD TRANSMITTER WITH SM58 ELEMENT; TWO AA BATTERIES WITH 14 HOUR LIFE; 123 RF CHANNELS: 24 MHZ RE BANDWIDTH: RE CHANNEL AUTO SCANNING: 300' LINE OF SIGHT OPERATING DISTANCE; DYNAMIC RANGE OF 100DBA; RACK MOUNT OR TABLE TOP OPERATION: ONE AUDIO CHANNEL: ONE XLR BALANCED 3 PIN & ONE $rac{1}{4}$ " UNBALANCED FEMALE I/O; 1 BACKLIGHT LCD DISPLAY; FREQUENCY RANGE OR 50HZ TO 15 KHZ; 35.2 OZ WEIGHT: WITH 1 - WA371 SWIVEL ADAPTER: 1 - PS24 POWER SUPPLY: 1 - 31B1856 THREAD ADAPTER; PROVIDE SHURE BLX24/SM58 OR APPROVED EQUAL
- 9. HAND HELD MICROPHONE: DYNAMIC HAND HELD MIC; FREQUENCY RESPONSE 50 TO 15.000 HZ: CARDIOID POLAR PATTERN: SENSITIVITY (AT 1.000 HZ OPEN CIRCUIT VOLTAGE) -54.5 DBV/PA (1.85 MV) 1 PA = 94 DB SPL; IMPEDANCE RATED IMPEDANCE IS 150 Ω (300 Ω ACTUAL) FOR CONNECTION TO MICROPHONE INPUTS RATED LOW IMPEDANCE; POLARITY POSITIVE PRESSURE ON DIAPHRAGM PRODUCES POSITIVE VOLTAGE ON PIN 2 WITH RESPECT TO PIN 3; CONNECTOR THREE-PIN PROFESSIONAL AUDIO CONNECTOR (MALE XLR TYPE); WEIGHT NET: 298 G; DIMENSIONS 162 MM L X 51 MM W PROVIDE SHURE SM58 WITH MIC CABLE & CLIP
- 10. MESSAGE REPEATER/SCHEDULER: DIGITAL MESSAGE REPEATER: INSTANT PLAYBACK OF AUDIO VIA FRONT PANEL CONTROL AND SCREEN. OR SCHEDULE SOUNDS FOR AUTOMATIC UNATTENDED PLAYBACK VIA CALENDAR & CLOCK FUNCTION; REMOTELY MANAGED VIA INTERNET / LAN CONNECTION: UPLOAD OR DELETE AUDIO FILES, EDIT SCHEDULE, TRIGGER SOUND PLAYBACK OR RECORDING, MAKE KNOB ASSIGNMENTS AND MORE USING STANDARD WEB BROWSER: WEB INTERFACE PASSWORD PROTECTED; 16 GB STORAGE, OVER 200 HOURS OF AUDIO; SOUNDS CAN BE REPEATED AND LOOPED AS PART OF A SCHEDULE. IT SHALL BE TECHNOMAD SCHEDULON 4.0 WITH OPTIONAL EUROBLOCK SCREW TERMINAL (BALANCED) OR APPROVED EQUAL
- 11.NETWORK EQUIPMENT: PROVIDE SWITCHES, ROUTERS & ALL MISC.NETWORK GEAR AS NEEDED TO FACILITATE NETWORK COMMUNICATION WITHIN & TO ALL ACS, COBRANET SYSTEMS & TO THE BUILDING'S LAN & WLAN & ANY & ALL ELEMENTS OF THE ACS SYSTEM WHERE NECESSARY. PROVIDE NETGEAR, LINKSYS, CISCO OR APPROVED
- 12.CONTROL PROCESSOR: THE CONTROL PROCESSOR SHALL BE AN ENTERPRISE-CLASS CONTROL SYSTEM: 3-SERIES® CONTROL ENGINE -
- SUBSTANTIALLY FASTER AND MORE POWERFUL THAN OTHER CONTROL SYSTEMS: EXCLUSIVE MODULAR PROGRAMMING ARCHITECTURE; ONBOARD 512MB RAM & 4GB FLASH MEMORY; EXPANDABLE STORAGE UP TO 1TB; REAR PANEL MEMORY CARD SLOT; HIGH-SPEED USB 2.0 HOST PORT; INDUSTRY-STANDARD ETHERNET AND CRESNET® WIRED COMMUNICATIONS; XPANEL WITH SMART GRAPHICS™ COMPUTER AND WEB BASED CONTROL; IPHONE®, IPAD®, AND ANDROID™ CONTROL APP SUPPORT; 1-SPACE RACK-MOUNTABLE.PROVIDE CRESTRON CP3, NO SUBSTITUTIONS PERMITTED
- 13. VIDEO TOUCH CONTROL PANEL: ULTRA CLEAN, MODERN APPEARANCE; THIN PROFILE AND SMALL FOOTPRINT; 7" WIDESCREEN ACTIVE-MATRIX COLOR DISPLAY; 1024 X 600 WSVGA DISPLAY RESOLUTION: CAPACITIVE TOUCH SCREEN TECHNOLOGY: MULTI-TOUCH CAPABLE: SMART GRAPHICS® PERFORMANCE: BACKLIT SOFT-TOUCH CAPACITIVE BUTTONS; ANY/ALL BUTTON HIDE FEATURE; AUTO-BRIGHTNESS CONTROL; VOICE RECOGNITION CAPABILITY; H.264 OR MJPEG STREAMING VIDEO DISPLAY: BUILT-IN 5 MP H.264 IP CAMERA: BUILT-IN MICROPHONE AND SPEAKERS: RAVA® SIP INTERCOM AND PHONE: TECHNOLOGY: NATIVE SONOS® APP: CRESTRON FUSION® ROOM SCHEDULING; BUILT-IN PINPOINT™ BEACON; CUSTOMIZABLE AUDIO FEEDBACK; BUILT-IN WEB BROWSING; ON-SCREEN MULTI-LANGUAGE KEYBOARD; CUSTOMIZABLE SCREENSAVER; SINGLE-WIRE ETHERNET CONNECTIVITY; POE OR POE+ NETWORK POWERED: US UK OR FUROPEAN FLECTRICAL WALL BOX MOUNTING: LECTERN MOUNT OVER A RECTANGULAR CUTOUT: RETROFIT AND MASONRY MOUNTING OPTIONS AVAILABLE; TABLETOP AND SWIVEL MOUNT OPTIONS AVAILABLE; AVAILABLE IN SMOOTH BLACK OR WHITE FINISH; PROVIDE CRESTRON TSW760 WITH ALL NECESSARY ACCESSORIES. NO SUBSTITUTIONS PERMITTED.
- 14.RACKS: EQUIPMENT RACKS SHALL BE FLOOR STANDING, WELDED CONSTRUCTION STEEL, BLACK; 81.25" HEIGHT; 44 RACK SPACES (RU) OF 1.75" EACH; COLOR BLACK; PROVIDE WORK LIGHT IN EACH RACK; MOUNT RACK ON RUBBER MAT; IN SUFFICIENT OUANTITY TO ACCOMMODATE ALL RACK EQUIPMENT WITH 20% ADDITIONAL UNUSED RACK SPACE FOR FUTURE USE; PROVIDE MIDDLE ATLANTIC ERK-4425-AV OR APPROVED EQUAL

- 15.POWER CONDITIONERS: PROVIDE POWER CONDITIONING UNITS & UPS UNITS TO ALL NON-AMPLIFIER ELECTRONICS AT ALL LOCATIONS FOR ACS.
- 16. SPEAKER CABLE: ALL SPEAKER WIRE SHALL BE 10AWG STRANDED IN FOIL SHIELD; 100% COPPER: OXYGEN FREE: WITH OVERALL PROTECTIVE JACKET. USE PLENUM CABLE WHERE REQUIRED BY CODE. PROVIDE BELDEN, CANARE, WEST PENN OR
- 17.NETWORK CABLE: ALL NETWORK CABLE SHALL BE HIGH BANDWIDTH CAT6; SOLID CONDUCTORS; UNSHIELDED TWISTED PAIR IN OVERALL JACKET; USE PLENUM CABLE WHERE REQUIRED BY CODE; PROVIDE BELDEN, CANARE, WEST PENN OR APPROVED
- 18.NETWORK CABLE CONNECTORS: ALL NETWORK CONNECTORS SHALL BE RJ45 CRIMP CONNECTORS WITH BOOT; USE SHIELDED CONNECTORS WHEN NECESSARY.

AUDIO SYSTEM WIRING

- 1. ACS SUBCONTRACTOR SHALL GUARD AGAINST ELECTROMAGNETIC AND ELECTROSTATIC HUM. NO LOW Z (NON-AMPLIFIED) ANALOG WIRING SHALL BE PERMITTED OUTSIDE OF ADJACENT RACKS. ALL WIRING THROUGHOUT BUILDING LINKING SUB SYSTEMS OR PROVIDING PROGRAM MATERIAL SHALL BE DIGITAL VIA CAT6 CABLING.
- 2. LOW Z CABLING & SPEAKER CABLING SHALL BE RUN AT A MINIMUM OF 12" FROM ELECTRICAL POWER CABLES & CONDUITS; IF IT IS UNAVOIDABLE FOR LOW Z CABLING TO CROSS ELECTRICAL POWER CABLES. THEY SHALL CROSS AT 90 DEGREES: LOW Z CABLING SHALL NEVER BE RUN PARALLEL TO ELECTRICAL POWER CABLES AT LESS THAN A 12" DISTANCE AT ANY POINT. LOW Z CABLES SHALL NEVER BE IN CONDUIT WITH ELECTRICAL CABLES.
- 3. CABLES OF DIFFERENT SIGNALS OR DIFFERENT LEVELS SHALL BE SEPARATED, ORGANIZED AND ROUTED TO RESTRICT CHANNEL CROSSTALK OR FEEDBACK OSCILLATION IN RACK(S), KEEP WIRING SEPARATED INTO GROUPS FOR MICROPHONE LEVEL CIRCUITS, LINE LEVEL CIRCUITS, LOUDSPEAKER CIRCUITS, AND POWER
- 4. CONNECT CABLE TO ACTIVE COMPONENTS USING APPROPRIATE MFG APPROVED CONNECTORS. FOR SCREW TERMINAL CONNECTIONS, USE SPADE LUGS OF APPROPRIATE SIZE. MAKE CONNECTIONS TO SPEAKER TRANSFORMERS WITH PROPERLY SIZED CLOSED END CONNECTORS CRIMPED WITH FACTORY APPROVED RATCHET TYPE TOOL. WIRE NUT OR "SCOTCHLOCK" CONNECTORS ARE NOT ACCEPTABLE. DO NOT WRAP AUDIO CABLE SPLICES OR CONNECTIONS WITH ADHESIVE
- WIRING SHALL BE IN STRICT ADHERENCE TO "STANDARD BROADCAST PRACTICES," AS EXCERPTED FROM "RECOMMENDED WIRING PRACTICES" SOUND SYSTEM ENGINEERING, (2ND EDITION), D. DAVIS, AND PERFORMED IN ACCORDANCE WITH STANDARD PROFESSIONAL PRACTICE
- RUN VERTICAL WIRING NEATLY IN BUNDLES FIXED TO THE INSIDE OF RACK USING APPROPRIATE WIRE MANAGEMENT HARDWARE. HORIZONTAL WIRING IN RACK SHALL BE NEATLY FIXED IN MANAGEABLE BUNDLES WITH CABLE LENGTHS CUT TO EXACT LENGTH BUT STILL ALLOW FOR SERVICE AND TESTING PROVIDE HORIZONTAL SUPPORT BARS IF CABLE BUNDLES SAG. NEATLY BUNDLE EXCESS AC POWER CABLE FROM RACK MOUNTED EQUIPMENT WITH PLASTIC CABLE TIES. RACK WIRING TO BE BUNDLED WITH PLASTIC CABLE TIES OR LACING TWINE. ELECTRICAL TAPE AND ADHESIVE BACKED CABLE TIE ANCHORS ARE NOT ACCEPTABLE.
- 7. LOUDSPEAKERS SHALL BE WIRED ELECTRICALLY IN PHASE, USING THE SAME WIRE COLOR CODE FOR SPEAKER WIRING THROUGHOUT.
- 8. WIRING AND CONNECTIONS SHALL BE COMPLETELY VISIBLE AND LABELED IN RACK. 9. ALL COPPER NETWORK CABLE RUNS SHALL BE TESTED FOR CONTINUITY: CAT6 SHALL BE TESTED & CERTIFIED FOR CONTINUITY & BANDWIDTH. THEY SHALL MEET TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) OR INTERNATIONAL
- ORGANIZATION FOR STANDARDIZATION (ISO) STANDARDS. USING A CERTIFICATION TESTING TOOL, WHICH SHALL PROVIDE "PASS" OR "FAIL" INFORMATION. THIS SHALL INCLUDE TESTING FOR WIREMAP, PROPAGATION DELAY, DELAY SKEW, CABLE LENGTH, INSERTION LOSS (IL), RETURN LOSS (RL), NEAR-END CROSSTALK (NEXT), POWER SUM NEXT (PSNEXT), EQUAL-LEVEL FAR-END CROSSTALK (ELFEXT), POWER SUM ELFEXT (PSELFEXT), ATTENUATION-TO-CROSSTALK RATIO (ACR), POWER SUM ACR (PSACR) & DC LOOP RESISTANCE; NOT ALL MEASUREMENTS MAY BE REQUIRED FOR VARIOUS APPLICATIONS: ALL MEASUREMENTS SHALL BE ENTERED INTO A CABLING LOG WITH THE DATE THE MEASUREMENT WAS RECORDED, CABLE ID NUMBER, & THE RESULTS INCLUDING MAXIMUM BANDWIDTH ACHIEVED, FOR EACH CABLE TESTED. NO CAT6 CABLE RUN SHALL EXCEED 100M IN LENGTH.
- 10. ALL FIBER OPTIC CABLES SHALL BE TESTED & SHALL MEET TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) OR INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO) STANDARDS USING THE INSERTION LOSS METHOD OR THE REFERENCE METHOD, ALL MEASUREMENTS SHALL BE ENTERED INTO A CABLING LOG WITH THE DATE THE MEASUREMENT WAS RECORDED. CABLE ID NUMBER. & THE RESULTS INCLUDING MAXIMUM BANDWIDTH ACHIEVED, FOR EACH CABLE TESTED.
- 11. ALL SPEAKER WIRE SHALL BE 10AWG; 100% COPPER; WRAPPED IN 100% FOIL SHIFLDS: STRANDED: OXYGEN FREE: WITH OVERALL PROTECTIVE PVC JACKET. USE PLENUM CABLE WHERE REQUIRED BY CODE. ALL SPEAKER CABLES SHALL BE TESTED FOR CONTINUITY; ALL MEASUREMENTS SHALL BE ENTERED INTO A CABLING LOG WITH THE DATE THE MEASUREMENT WAS RECORDED, CABLE ID NUMBER, & THE RESULTS INCLUDING MAXIMUM BANDWIDTH ACHIEVED. FOR EACH CABLE TESTED.
- 12. ACS SUBCONTRACTOR SHALL PREPARE FULLY LOADED EQUIPMENT RACK(S) AND FULLY WIRE AND TEST IN CONTRACTOR'S SHOP BEFORE DELIVERY TO JOB SITE. IF FIELD CONDITIONS PREVENT PRIOR ASSEMBLY OF RACKS NOTIFY CONSULTANT IN WRITING THAT RACKS WILL BE FABRICATED ON SITE AND THE REASONS FOR THE
- A. RACKS LOCATED ON CONCRETE FLOORS IN EQUIPMENT ROOMS OR NON-FINISHED SPACE SHALL BE MOUNTED ON RUBBER MATS. B. PROVIDE IN-RACK VENTILATION AS NECESSARY TO PREVENT OVERHEATING OF ACS
- EQUIPMENT; OVERALL ROOM HVAC PROVIDED BY OTHERS. C. VIEWING RACK FROM THE REAR, LOCATE AC POWER, DIGITAL CONTROL, DC CONTROL, AND SPEAKER WIRING ON THE LEFT; MICROPHONE, LINE LEVEL AUDIO, AND VIDEO WIRING ON THE RIGHT. PANELS OR EQUIPMENT MOUNTED ON THE REAR RACK RAILS SHALL NOT BLOCK ACCESS TO ANY FRONT MOUNTED COMPONENTS.
- D. ANALOG WIRING SHALL BE PERMITTED WITHIN RACK(S) & BETWEEN ADJACENT 13 ANY LOW VOLTAGE WIRING INSTALLED FOR THE AUDIO SYSTEM SHALL BE

PROPERLY LABELED. A COMPLETE LIST OF CABLE NUMBERS SHALL BE LOGICALLY,

LEGIBLY AND PERMANENTLY LABELED FOR EASY IDENTIFICATION. AC POWER AND GROUNDING

1. ACS SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION OF POWER AND GROUND WIRING TO RACKS.

2. BY OTHERS: INSTALL 3-CONDUCTOR, ISOLATED GROUND, 120 VAC OUTLETS; 20

- AMPERE STRAIGHT BLADE RRECEPTACLES 2-POLE, 3-WIRE GROUNDING IN RACK WITH PLACEMENT & QUANTITIES AS SHOWN IN DRAWINGS. ALL ELECTRICAL OUTLETS SHALL BE 100% ISOLATED FROM METAL RACK USING RUBBER OR OTHER NON-CONDUCTIVE MATERIAL & HARDWARE; ALL ELECTRICAL POWER FOR AUDIO HEAD-END RACK & ALL ASSOCIATED AUDIO DEVICES SHALL BE SAME PHASE & FROM AN ISOLATION TRANSFORMER ENSURING POWER THAT IS FREE OF DISTURBANCES SUCH AS HUM & NOISE ASSOCIATED WITH MOTORS, COMPRESSORS & OTHER DEVICES THAT CAN INDUCE NOISE ONTO THE POWER FEED.
- TO WHICH AC CIRCUIT IS FEEDING IT AND PROVIDE THE SAME INFORMATION IN THE CIRCUIT BREAKER PANEL.

PROVIDE A MINIMUM OF TWO SPARE OUTLETS IN EACH RACK, LABEL EACH OUTLET AS

INSTRUCTIONS & PROGRAMMING

- NION PROGRAMMING: CUSTOM DSP SCHEMATIC LEVEL DEVELOPMENT & USER INTERFACE DEVELOPMENT SHALL BE INCLUDED BY MEDIA MATRIX CERTIFIED PROGRAMMER(S) WITH AT LEAST 5 YEARS NION PROGRAMMING EXPERIENCE. ONSITE DEPLOYMENT PROGRAMMING DURING ACS SYSTEM COMMISSIONING SHALL BE INCLUDED AS IS REASONABLY NECESSARY.
- 2. CRESTRON PROGRAMMING; CUSTOM CONTROL PROGRAMMING DEVELOPMENT & USER INTERFACE DEVELOPMENT SHALL BE INCLUDED BY CRESTRON CERTIFIED PROGRAMMER(S) WITH AT LEAST 5 YEARS CRESTRON PROGRAMMING EXPERIENCE: ONSITE DEPLOYMENT PROGRAMMING DURING THE ACS SYSTEMS COMMISSIONING SHALL BE INCLUDED AS IS REASONABLY NECESSARY
- 3 DEPLOYMENT: THE ACS SUBCONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO SUCCESSFULLY DEPLOY THE SYSTEMS IN ACCORDANCE WITH THIS SPECIFICATION & ALL SYSTEM DRAWINGS & ANY SUBSEQUENT CHANGES THAT MAY BE ORDERED.
- 4. INSTRUCTION MANUAL: A CUSTOM SYSTEM INSTRUCTION MANUAL SHALL BE CREATED DETAILING BASIC SYSTEM THEORY & STEP BY STEP OPERATION. IT SHALL BE INCLUDED WITH ALL RELEVANT MANUFACTURER'S SPECIFICATIONS. IT SHALL INCLUDE SCREEN SHOTS OF GUI SCREENS & DIAGRAMS AS NECESSARY.

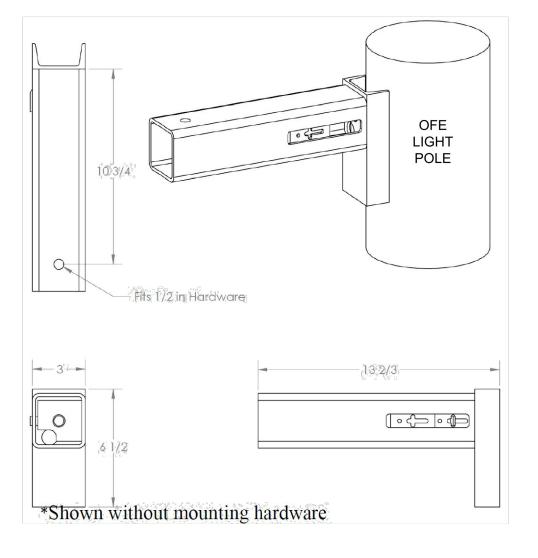
5. TRAINING: UP TO FOUR (4) HOURS OF INSTRUCTION TO OWNER'S DESIGNATED

- TECHNICAL PERSONNEL ON THE USE AND OPERATION OF ACS SYSTEMS. SCHEDULED AS ONE SESSION, BY AN INSTRUCTOR(S) FULLY KNOWLEDGEABLE AND QUALIFIED IN SYSTEMS OPERATION. THE SYSTEM REFERENCE MANUALS SHOULD BE COMPLETE AND ON SITE AT THE TIME OF THIS INSTRUCTION. THIS TRAINING SESSION MAY BE VIDEO RECORDED BY THE OWNER.
- 6. ASSISTANCE: THE CHIEF ENGINEER, HEAD TECHNICIAN OR PROJECT MANAGER FOR THE PROJECT INSTALLATION, KNOWLEDGEABLE IN ALL AREAS OF SYSTEM FUNCTION &
- OPERATION SHALL BE PRESENT AT THE FIRST USE OF THE SYSTEMS & SHALL BE PREPARED TO ASSIST OWNER'S STAFF AS NEEDED, INSURING CORRECT SYSTEM USAGE, & TO FINE TUNE EQ & VOLUME SETTINGS AS NECESSARY.

3' - 0" clearance at rack front & rear for technician access **RACK TOP** PLAN — 21.97" (W) -RACK FRONT ERK-4425-AV

Allow a minimum of

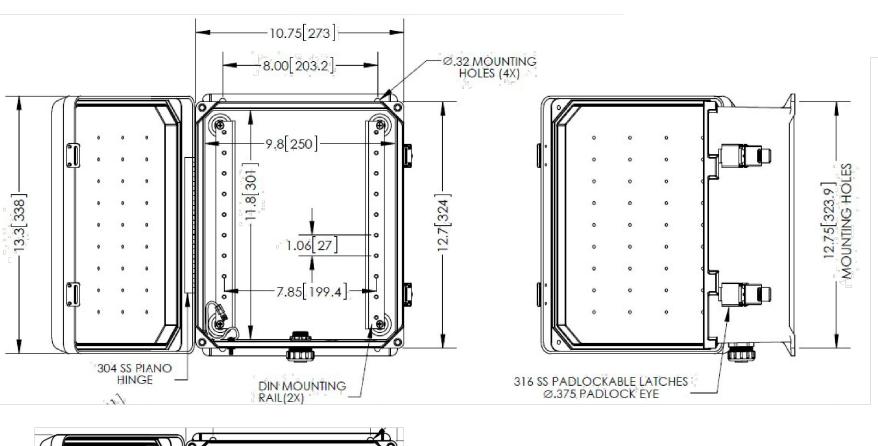
Polar Focus PM2-10-Z Pole Mount System



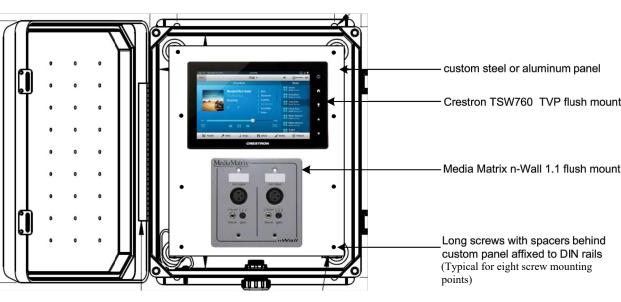


44 RU audio head-end equipment rack VENT PANEL 2RU VENT PANEL 2RU VENT PANEL 2RU VENT PANEL 2RU Switch Crestron Switch CobraNet NION N3 DSP-01 BLANK PANEL 2RU RACK 81.25" LEFT • 🔯 🔯 • IO3: IO1-1 BLANK PANEL 2RU VENT PANEL 1RU AMP2 VENT PANEL 1RU AMP3 VENT-PANEL 1RUV VENT PANEL 1RU ADD/ALT#1 AMP5 VENT PANEL 1RU AMP6











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RECORD DRAWING CERTIFICATION AS BUILT - CHANGES AS NOTED AS BUILT - NO CHANGES PROJECT COORDINATOR NAME SIGNATURE DATE DATE

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION DIVISION OF ENGINEERING REHABILITATION OF POOL AND BATHHOUSE PLAYLAND PARK, RYE, NEW YORK

AUDIO SYSTEMS NOTES AND DETAILS

WESTCHESTER COUNTY, NEW YORK

20-504 AS-104 SHEET NO. 180 OF 201 SCALE: AS NOTED DATE: NOVEMBER 10, 2020 DPW FILE NO. I-19-E-537

NUMBER

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