ADDENDUM No. 02
September 12, 2016

AW Stanley Park and Aquatic Facility Improvements

New Britain, Connecticut
City of New Britain Bid Number 3896

The following changes and/or clarifications are hereby made to the Contract Documents dated August 22, 2016 for the above captioned project.

GENERAL INFORMATION

None

PROJECT MANUAL and SPECIFICATIONS

1) **Section 061216 "Structural Insulating Panels"**
   a) Modify Article 2.2 to eliminate pine cladding from SIPs Panel, as follows: (note: refer this Addendum, Item 3 for pine cladding information.)

2.2 STRUCTURAL INSULATED PANELS

A. Murus Polyurethane Structural Insulated Panel (SIP) with Polyurethane Core: A stress skin panel manufactured using the proprietary manufacturing method of Uniform Dispersion Molding (UDM) complying with the following:

1. Panel Type: MURUS CLAD-2100PUR Structural Insulated Panel, OSB/PUR Foam Core/OSB.

2) **Section 062023 "Finish Carpentry"**
   a) Add: 2.5 – Pine Cladding, as follows:

2.5 PINE CLADDING

1. Provide kiln-dried lumber complying with DOC PS 20.
2. Species and Grade: 2 Common or better pine.
3. Pattern: Beaded ceiling, tongue and groove, actual face width (coverage) and thickness of 3-1/8 by 3/8 inch.
4. Install with weatherproof construction adhesive and blind-nailing, in accordance with the manufacturer's written instructions.

3) **Section 116833 – Athletic Field Equipment**

a) Add: 2.3 WALK-BEHIND MOWER, as follows:
   i) Provide Toro, Commercial Turfmaster Model 22200 Mower.
      (1) Provide with Kawasaki FJ180V KAI 179cc Commercial Motor
      (2) 1 gallon fuel capacity
      (3) Recoil Starter
      (4) Cast aluminum frame with 13 gauge steel deck
      (5) 1 ½" – 5" cutting height, in ½" increments, with 30-inch cut
      (6) Variable Speed up to 4.1 mph
      (7) 2 ½ Bushell bag capacity
      (8) Variable Speed Rear Wheel Drive

DRAWINGS

4) **C2.2**

a) Add: Three rows of 4" diameter perforated underdrain piping below basketball courts, pipe shall have minimum 1% slope and inverts at southern end shall be 2.5' (min.) below proposed grade; see underdrain detail on Sheet C4.1. Transition to solid pipe under lawn areas; see storm drainage pipe detail on Sheet C4.1. Connect to new storm system to the north of the basketball courts at the lawn inlet, revise outlet invert of 12" HDPE from lawn inlet to be at same elevation as underdrain invert, revise downstream invert of 12" HDPE to maintain 1% min slope.

b) Change: The 8" CPET with an invert of 176.50 at the northeast corner of the pool to be modified to a 6" with an upstream invert of 178.0 parallel to a 4" with an upstream invert of 176.75, both with a downstream invert into the manhole at el. 174.59.

5) **L-Drawings, including L-1.21, L-1.22and Detail 3 / L-5.03**

a) Delete: All reference to Timber Guiderail

b) Add: At all locations where Timber Guiderail is called out, replace with Corten Steel Flex-rail, as follows:

1. Conform to Form 817 Section 9.10, Article 9.10.02 and the CTDOT Standard Sheet for Metal Beam Rail (Type R-B 350) Guiderail, HW-910_02, revised as follows:
2. All steel posts, back-up rails, splice plates and structural tees which are to be used as "Weathering Steel" shall meet the requirements of ASTM A588 and the fabricator shall notify the manufacturer that it is "Weathering Steel" (structural steel for use in bare, unpainted applications) and that the steel shall not be marked with paint or steel die stamped, but identification shall be stenciled with permanent ink. The dimensions of each component shall conform to the standard sheet and ASTM A6. All steel posts shall be hot-dipped galvanized after fabrication in accordance with ASTM A123 for the portion of the post which will be buried. A single ¾" diameter hole may be drilled 2" from the top of each post, in the center of the web, to facilitate the galvanizing process on the bottom of all posts. Any back-up rails, splice plates or structural tees that will come into contact with the ground shall be hot-dipped galvanized after fabrication in accordance with ASTM A123.
3. Rail elements and terminal elements shall conform to AASHTO M180, Type IV, made of corrosion resistant steel, conforming to ASTM A606, Type 4.
4. End anchorages to be a rounded W-Beam End Sections.

6) **A 6.1**
   a) The following changes shall be made to Drawing 6/A6.1:
      i) Eliminate reference to 'LCC'. All metal to be as specified in Division 7.
      ii) Pine cladding to be field installed to underside of SIPs, as opposed to factory applied to the SIPs. Cladding to be provided at all soffits, and at all roof deck areas except between A - B and 1-4.

7) **Drawing A7.1**
   a) Delete: All reference to painted (PTD) steel and railings. All steel and railings to be hot-dipped galvanized as specified in 055213, 2.7B. (Only exterior railings shall require the Colorgalv specified in 2.7D).

8) **Drawing E-3, Electrical Legends, Notes, Details and Schedules**
   a) Delete Drawing E-3, dated 8/22/16.
   b) Add Drawing E-3, R1, dated 9/12/16.

9) **Drawing E-4, Fire Alarm Specification and Riser**
   a) Add: Drawing E-4, dated 9/12/16, in its entirety.

10) **Drawing S-1, Site Utility Plan**
   a) Delete Drawing SU-1, dated 8/22/16.
   b) Add Drawing SU-1, R1, dated 9/12/16.

SUBSTITUTION REQUESTS

None

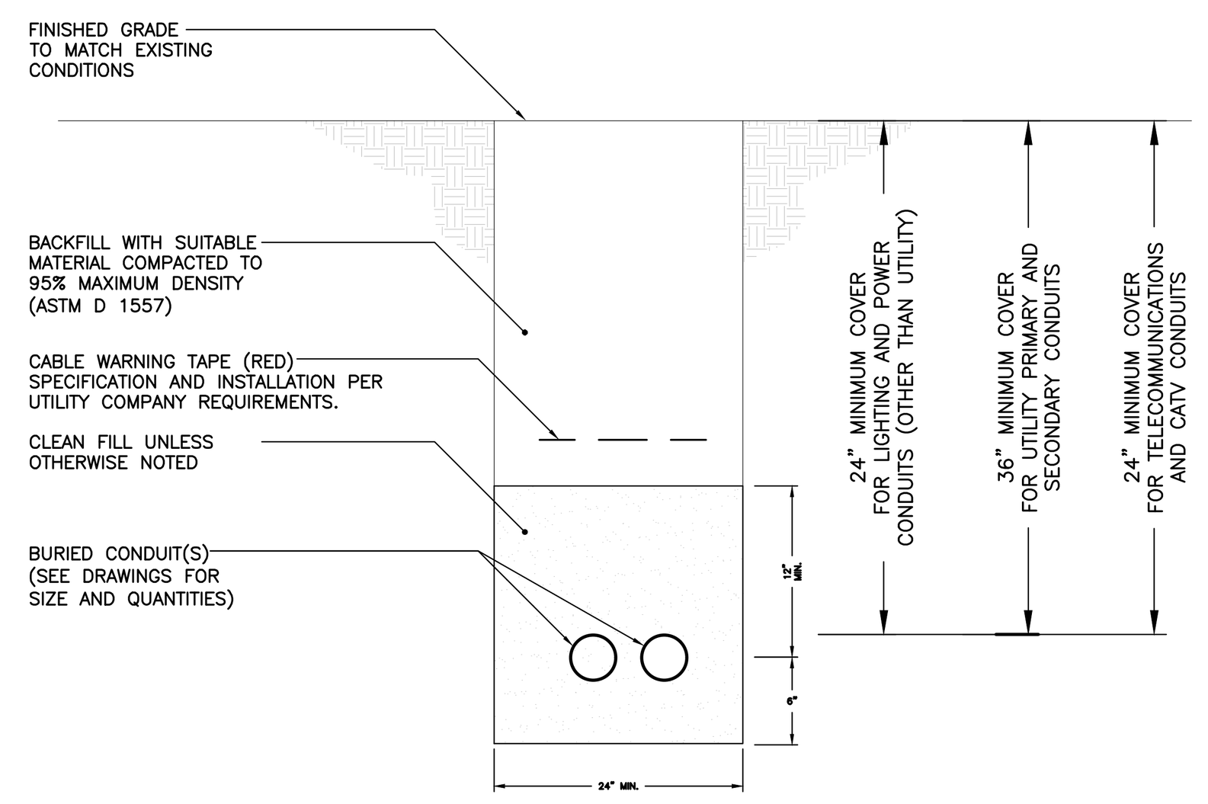
QUESTIONS FROM BIDDERS (Not addressed above)

None

ATTACHMENTS

1. Drawing E-3, Revision 1, dated 9/12/16
2. Drawing E-4, dated 9/12/16
3. Drawing SU-1, Revision 1, dated 9/12/16
4. ASK-A9.3-01 and ASK-A9.3-02, dated 9/12/16.

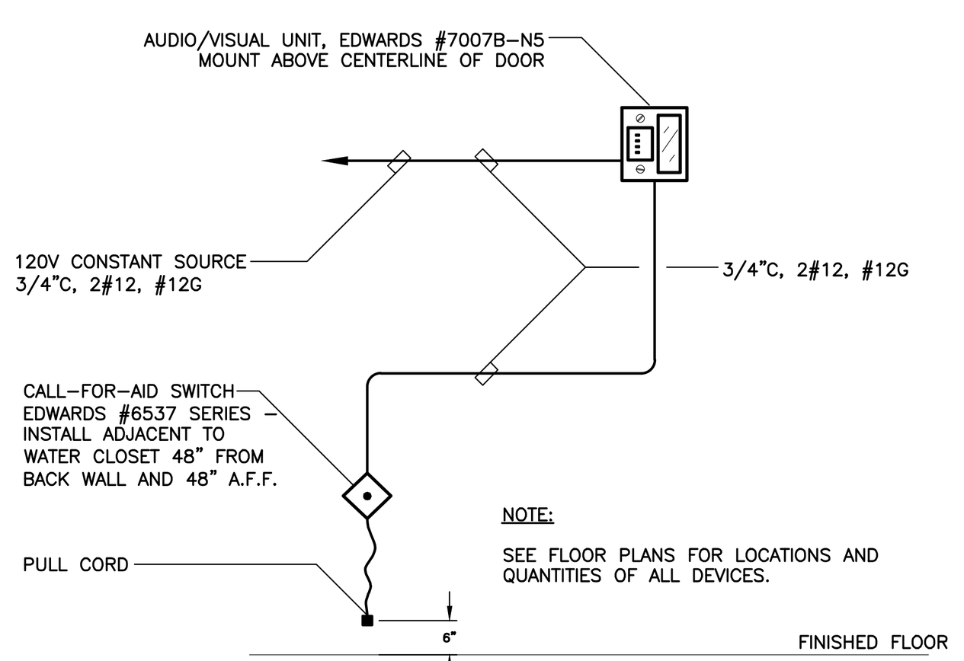
END OF ADDENDUM



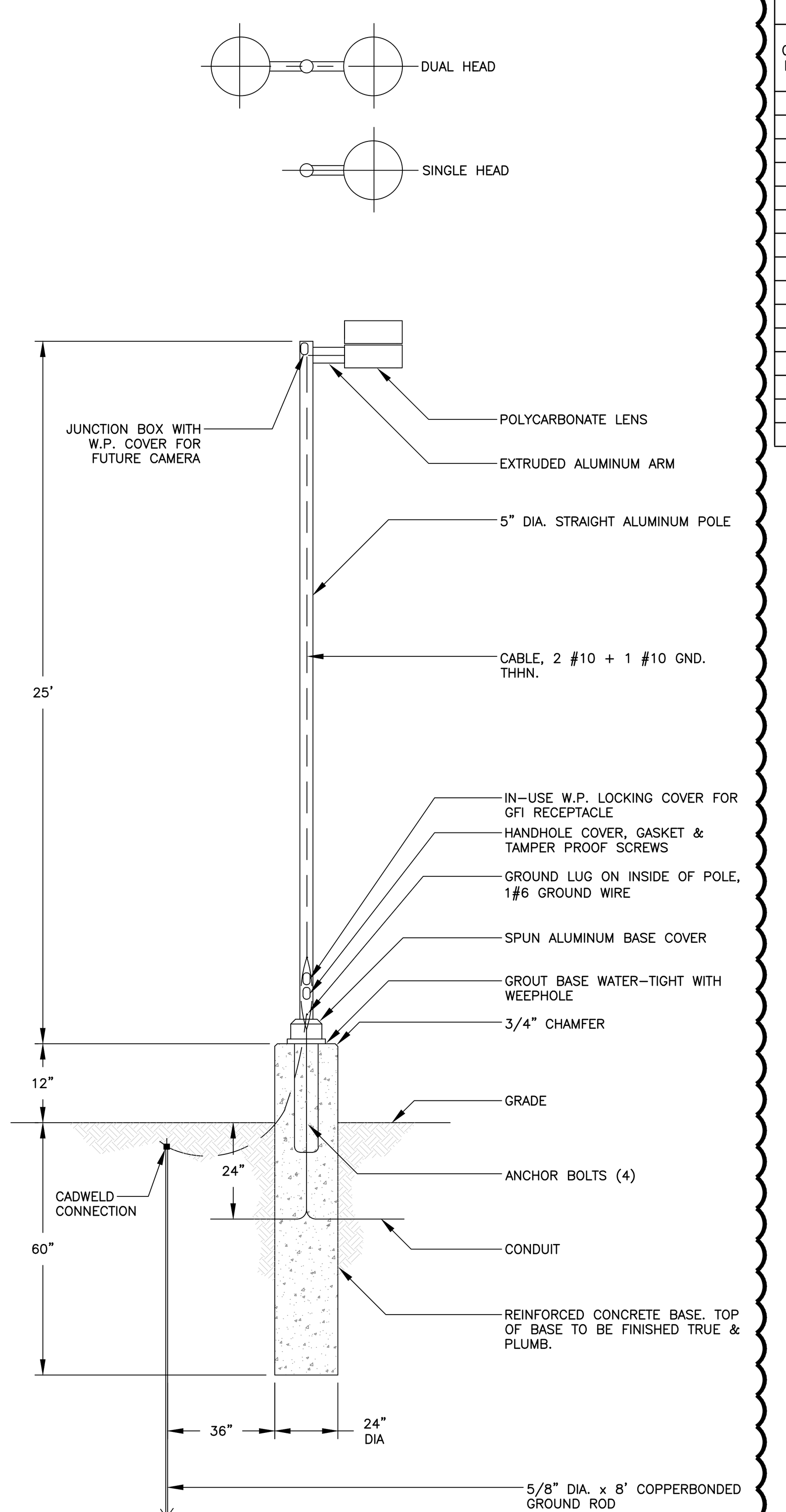
NOTES

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.
3. ENCASE PRIMARY UTILITY CONDUITS, SECONDARY CONDUITS, TELEPHONE SERVICE CONDUITS, AND CATV SERVICE CONDUITS. WITH MINIMUM OF 2" CONCRETE ENTIRE LENGTH OF CONDUIT(S).
4. PROVIDE SEPARATION OF CONDUITS OF DIFFERENT SYSTEMS (I.E., ELECTRIC, CATV & TELEPHONE) PER UTILITY COMPANY REQUIREMENTS. COORDINATE ROUTING OF CONDUITS WITH OTHER TRADES TO MAINTAIN REQUIRED SEPARATION WITH GAS, WATER, ETC. SERVICES.
5. TRENCH SHALL MEET UTILITY COMPANY REQUIREMENTS.

TYPICAL ELECTRICAL TRENCH DETAIL
SCALE: N.T.S.



TYPICAL CALL-FOR-AID WIRING DETAIL
N.T.S.



FIXTURE TYPE 'SL' DETAIL
SCALE: N.T.S.

1

MBP (MAINT BLDG PANEL)

RATING: 208Y/120V ø 3 , 4W
MAIN BUS: ☒ CU ☐ AL 400A MAIN BUS
MAIN DEVICE: M.L.O. WITH FEED THRU LUGS
INTERRUPTING RATING: 10K A.I.C.
LOCATION: MAINTENANCE BUILDING
MOUNTING: ☐ FLUSH ☒ SURFACE
TRIM: ☒ SINGLE DOOR ☐ DOOR-IN-DOOR

CKT. NO.	CKT. BKR. TRIP AMPS	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A	B	C	KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR. POLES	TRIP AMPS	CKT. NO.
1	100	3	PUMP "P-1"	1 1/4"C, 3#3, #8G	9.0				3.7	3/4"C, 3#8, #10G	PUMP "P-2"	3	40	2
3	–	–	–	–	9.0				3.7	–	–	–	–	4
5	–	–	–	–	9.0				3.7	–	–	–	–	6
7	20	3	PUMP "P-3"	3/4"C, 3#12, #12G	0.8				0.6	3/4"C, 2#12, #12G	ELEC ACTUATOR	1	20	8
9	–	–	–	–	0.8				0.9	3/4"C, 2#12, #12G	STORAGE RM RECEPTACLE	1	20	10
11	–	–	–	–	0.8				0.5	3/4"C, 2#12, #12G	STORAGE RM RECEPTACLE	1	20	12
13	20	1	FILTER RM RECEPTACLE	3/4"C, 2#12, #12G	0.5				0.7	3/4"C, 2#12, #12G	FILTER RM RECEPTACLE	1	20	14
15	20	1	POOL FILTER EQ	3/4"C, 2#12, #12G	0.4				0.4	3/4"C, 2#12, #12G	POOL EQ RECEPTACLE	1	20	16
17	20	1	CHEMICAL BOOSTER PUMP	3/4"C, 2#12, #12G	0.8				0.2	3/4"C, 2#12, #12G	EXTERIOR LIGHTING	1	20	18
19	20	1	CHLORINE GAS SENSOR	3/4"C, 2#12, #12G	0.2				0.8	3/4"C, 2#12, #12G	FILTER RM LIGHTS	1	20	20
21	20	1	SITE LIGHTING	3/4"C, 2#12, #12G	1.3				0.0	3/4"C, 2#12, #12G	EF-4/MOTORIZED LOUVERS	2	20	22
23	20	1	MISC MECH EQ	3/4"C, 2#12, #12G	0.8				0.0	–	–	–	–	24
25	20	1	MISC MECH EQ	3/4"C, 2#12, #12G	0.8				7.6	1 1/4"C, 3#3, #8G	BATHHOUSE PANEL "P1"	3	100	26
27	30	3	EUH-1	3/4"C, 3#10, #10G	1.7				6.4	–	–	–	–	28
29	–	–	–	–	1.7				6.2	–	–	–	–	30
31	–	–	–	–	1.7				0.0	3/4"C, 2#12, #12G	SITE LIGHTING	1	20	32
33	20	1	SITE LIGHTING	3/4"C, 2#12, #12G	0.0				1.5	3/4"C, 2#12, #12G	SITE LIGHTING (ALT)	1	20	34
35	20	1	SITE LIGHTING (ALT)	3/4"C, 2#12, #12G	1.5				1.0	3/4"C, 2#12, #12G	SITE LIGHTING	1	20	36
37	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	38
39	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	40
41	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	42
				TOTALS PER PHASE		26.4	26.1	26.2						
				GRAND TOTAL	78.7									

P1

RATING: 208Y/120V ø 3 , 4W
MAIN BUS: ☒ CU ☐ AL 200A MAIN BUS
MAIN DEVICE: M.L.O. WITH FEED THRU LUGS
INTERRUPTING RATING: 10K A.I.C.
LOCATION: MAIN POOL EQ ROOM
MOUNTING: ☐ FLUSH ☒ SURFACE
TRIM: ☒ SINGLE DOOR ☐ DOOR-IN-DOOR

CKT. NO.	CKT. BKR. TRIP AMPS	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A	B	C	KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR. POLES	TRIP AMPS	CKT. NO.
1	50	3	CONCESSION PANEL "CP"	3/4"C, 3#8, #10G	1.2				0.8	3/4"C, 2#12, #12G	TELEPHONE EQ	1	20	2
3	–	–	–	–	0.8				0.0	–	SPARE	1	20	4
5	–	–	–	–	0.9				0.0	–	SPARE	1	20	6
7	20	1	EXTERIOR RECEPTACLE	3/4"C, 2#12, #12G	1.6				0.2	3/4"C, 2#12, #12G	TOILET RM RECEPTACLE	1	20	8
9	20	1	TOILET RM RECEPTACLE	3/4"C, 2#12, #12G	0.2				0.4	3/4"C, 2#12, #12G	FLUSH VALVE	1	20	10
11	20	1	MEN'S LOCKER RECEPT.	3/4"C, 2#12, #12G	0.9				0.2	3/4"C, 2#12, #12G	FLUSH VALVE	1	20	12
13	20	1	TOILET RM RECEPTACLE	3/4"C, 2#12, #12G	0.2				0.2	3/4"C, 2#12, #12G	TOILET RM RECEPTACLE	1	20	14
15	20	1	LOBBY DESK RECEPTACLE	3/4"C, 2#12, #12G	0.5				0.7	3/4"C, 2#12, #12G	LOBBY RECEPTACLE	1	20	16
17	20	1	WOMEN'S LOCKER RECEPT.	3/4"C, 2#12, #12G	0.9				0.5	3/4"C, 2#12, #12G	FLUSH VALVE	1	20	18
19	20	1	WOMEN'S RM RECEPT.	3/4"C, 2#12, #12G	0.2				0.2	3/4"C, 2#12, #12G	MEN'S RM RECEPTACLE	1	20	20
21	30	1	EWH-3	3/4"C, 2#10, #10G	2.0				0.8	3/4"C, 2#12, #12G	MISC MECH EQ	1	20	22
23	30	1	EWH-2	3/4"C, 2#10, #10G	2.0				0.8	3/4"C, 2#12, #12G	MISC MECH EQ	1	20	24
25	30	1	EWH-1	3/4"C, 2#10, #10G	2.0				0.9	3/4"C, 2#12, #12G	LIFE GUARD/TOILET LIGHTS	1	20	26
27	20	1	MEN'S LOCKER RM LIGHTS	3/4"C, 2#12, #12G	0.5				1.0	3/4"C, 2#12, #12G	WOMEN'S LOCKER LIGHTS	1	20	28
29	20	1	EXTERIOR LIGHTING	3/4"C, 2#12, #12G	0.2				0.9	3/4"C, 2#12, #12G	SITE LIGHTING	1	20	30
31	20	2	EF-1, EF-2 & EF-3	3/4"C, 2#12, #12G	1.0				0.0	3/4"C, 2#12, #12G	SITE LIGHTING	1	20	32
33	–	–	–	–	1.0				0.0	–	SPARE	1	20	34
35	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	36
37	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	38
39	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	40
41	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	42
				TOTALS PER PHASE		8.5	7.9	7.3						
				GRAND TOTAL	23.7									

CP (CONCESSION PANEL)

RATING: 208Y/120V ø 3 , 4W
MAIN BUS: ☒ CU ☐ AL 100A MAIN BUS
MAIN DEVICE: 50AMP SHUNT TRIP MAIN CIRCUIT BREAKER (CONNECT TO EPO)
INTERRUPTING RATING: 10K A.I.C.
LOCATION: CONCESSION STAND
MOUNTING: ☐ FLUSH ☒ SURFACE
TRIM: ☒ SINGLE DOOR ☐ DOOR-IN-DOOR

CKT. NO.	CKT. BKR. TRIP AMPS	POLES	DESCRIPTION	WIRE & CONDUIT	KVA	A	B	C	KVA	WIRE & CONDUIT	DESCRIPTION	CKT. BKR. POLES	TRIP AMPS	CKT. NO.
1	20	1	RECEPTACLE	3/4"C, 2#12, #12G	0.4				0.4	3/4"C, 2#12, #12G	RECEPTACLE	1	20	2
3	20	1	RECEPTACLE	3/4"C, 2#12, #12G	0.4				0.4	3/4"C, 2#12, #12G	RECEPTACLE	1	20	4
5	20	1	RECEPTACLE	3/4"C, 2#12, #12G	0.4				0.5	3/4"C, 2#12, #12G	RECEPTACLE	1	20	6
7	20	1	LIGHTING	3/4"C, 2#12, #12G	0.4				0.0	–	SPARE	1	20	8
9	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	10
11	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	12
13	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	14
15	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	16
17	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	18
19	20	1	SPARE	–	0.0				0.0		SPARE	1	20	20
21	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	22
23	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	24
25	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	26
27	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	28
29	20	1	SPARE	–	0.0				0.0	–	SPARE	1	20	30
				TOTALS PER PHASE		1.2	0.8	0.9						
				GRAND TOTAL	2.9									

ELECTRICAL RISER NOTES

1 (1) 400 AMP 208Y/120V, 3 PHASE, 4 WIRE, 65 KAIC NEMA 3R FULLY RATED AND SERVICE ENTRANCE RATED MAIN DISCONNECT SWITCH WITH (3) 400 AMP DUAL ELEMENT TIME DELAY FUSES. BUS SHALL BE FULLY RATED WITH 100% NEUTRAL. PROVIDE UTILITY CO. APPROVED CT CAB. COORDINATE REQUIREMENTS WITH UTILITY CO. PRIOR TO INSTALLATION. 1

(2) NEW UTILITY METER. TIE TO CT CAB AS RQD.

(3) 4" RIGID CONDUIT, 4#500KCMIL UOUNDERGROUND FEEDER, COORDINATE ROUTING WITH UTILITY COMPANY PRIOR TO INSTALLATION

(4) 4"C, 4#500KCMIL, #1/0G

(5) 1"C, #1/0 GROUNDING ELECTRODE CONDUCTOR. CONNECT TO DOMESTIC WATER SERVICES WITH APPROVED GROUNDING CLAMP.PROVIDE CONTINUOUS GROUND PATH ON BOTH SIDES OF METER.

(6) 1"C, #1/0 GROUNDING ELECTRODE CONDUCTOR. PROVIDE LUG AND CONNECT TO BUILDING STEEL BY LISTED EXOTHERMIC WELD.

(7) 1"C, #1/0 GROUNDING ELECTRODE TO GROUNDING TRIAD. CONNECT TO GROUNDING TRIAD WITH LISTED EXOTHERMIC WELD.

(8) 5/8" DIAMETER x 8'-0" LONG COPPER CLAD GROUND RODS(TYPICAL OF 3). CONNECT GROUND RODS WITH #4 BARE COPPER CONDUCTOR BY LISTED EXOTHERMIC WELD. MINIMUM DISTANCE BETWEEN GROUND RODS IS 10'-0".

(9) POOL EQUIPMENT SHALL BE BONDED AND GROUNDED IN COMPLIANCE WITH NFPA 70 ARTICLE 680 AND 250

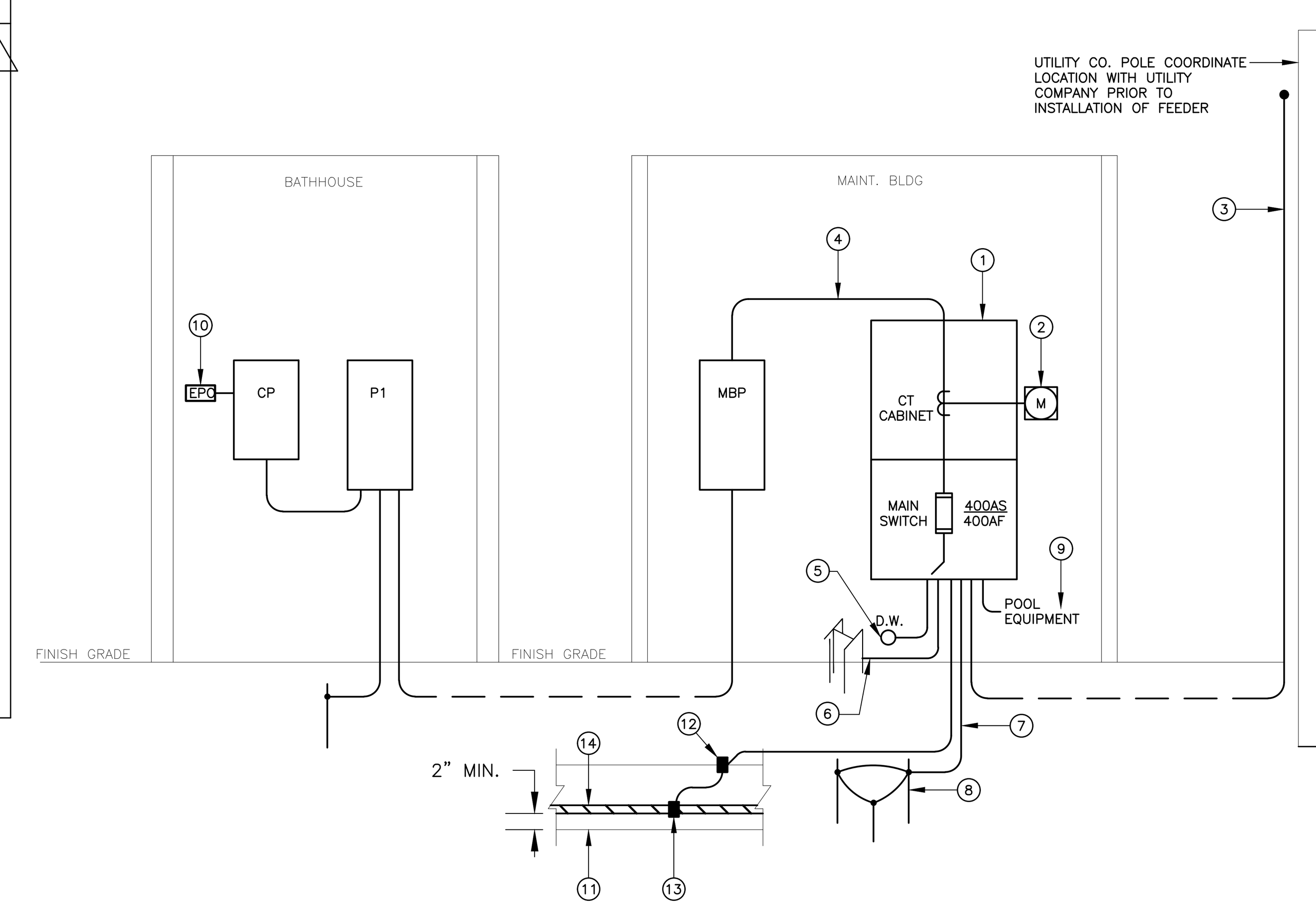
(10) EMERGENCY POWER OFF "EPO" TO BE INTERCONNECT WITH PANEL'S SHUNT TRIP MAIN C/B

(11) FOUNDATION IN DIRECT CONTACT WITH EARTH

(12) NON-METALLIC PROTECTIVE SLEEVE

(13) CONNECTION LISTED FOR THIS PURPOSE.

(14) REBAR NOT LESS THAN 1/2" DIA. AT LEAST 20' LONG REBAR SHALL BE PERMITTED TO BE BONDED TOGETHER BY THE USUAL STEEL TIE WIRES OR OTHER EFFECTIVE MEANS.



ELECTRICAL RISER DIAGRAM
N.T.S.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
S	SINGLE POLE TOGGLE SWITCH
S_3	THREE WAY TOGGLE SWITCH
S_F	FAN SWITCH
S_O	OCCUPANCY SENSOR SWITCH
S_{TT}	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION
	PUSHBUTTON
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER
	DOUBLE DUPLEX RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER
	HOOD CONNECTION
	OUTLET TO SUIT EQUIPMENT (CONTRACTOR TO VERIFY)
	208Y/120V PANEL
	REVENUE METER
	CONDUIT AND WIRE
	CONDUIT AND WIRE, SWITCHED
1,LP	HOMERUN TO PANELBOARD, NUMBERS/LETTERS INDICATE CIRCUIT AND PANELBOARD TERMINATION UNLESS OTHERWISE INDICATED.
J	JUNCTION BOX
	MOTOR
	SAFETY DISCONNECT SWITCH
	FUSIBLE SAFETY DISCONNECT SWITCH
	COMBINATION TELECOMMUNICATION/DATA OUTLET. PROVIDE METALLIC MOUNTING PLATE BRACKET OR BACK BOX SIZE AND DEPTH AS REQUIRED TO CONFORM TO MANUFACTURERS RECOMMENDED BEND RADIUS AND WARRANTY REQUIREMENTS. REFER TO OWNERS I.T. DRAWINGS AND SPECIFICATION FOR REQUIREMENTS AND PROVIDE CONDUIT FROM OUTLET LOCATION TO ACCESSIBLE LOCATION ABOVE CEILING CAVITY. TERMINATE BOTH ENDS OF CONDUIT WITH CONNECTOR AND INSULATING BUSHING. REFER TO CHART BELOW FOR CONDUIT CAPACITY: CABLE: 5e 6 6A[1] 6A[2] 6A[3] CONDUIT 3/4": 6 5 1 3 3 CONDUIT 1": 11 8 4 4 5 CONDUIT 1-1/4": 19 14 6 8 9 CONDUIT 1-1/2": 25 19 9 11 12 NOTES: (1) 1ST GENERATION (AVERAGE OUTSIDE DIA. .330) (2) 2ND GENERATION (AVERAGE OUTSIDE DIA. .300) (3) 3RD GENERATION "SHIELDED" (AVERAGE OUTSIDE DIA. .290)
TV	CABLE T.V. OUTLET WITH COAXIAL CABLE BACK TO CATV SERVICE LOCATION.
OS	OCCUPANCY SENSOR
SP	FLUSH CEILING SPEAKER
TC C	TIME CLOCK SWITCH AND CONTACT
	CALL-FOR-AID PULL STATION
	CALL-FOR-AID AUDIO/VISUAL UNIT
	PUSHPLATE
	BELL
EPO	EMERGENCY POWER OFF
	MOTOR STARTER
M	MOTORIZED DAMPER

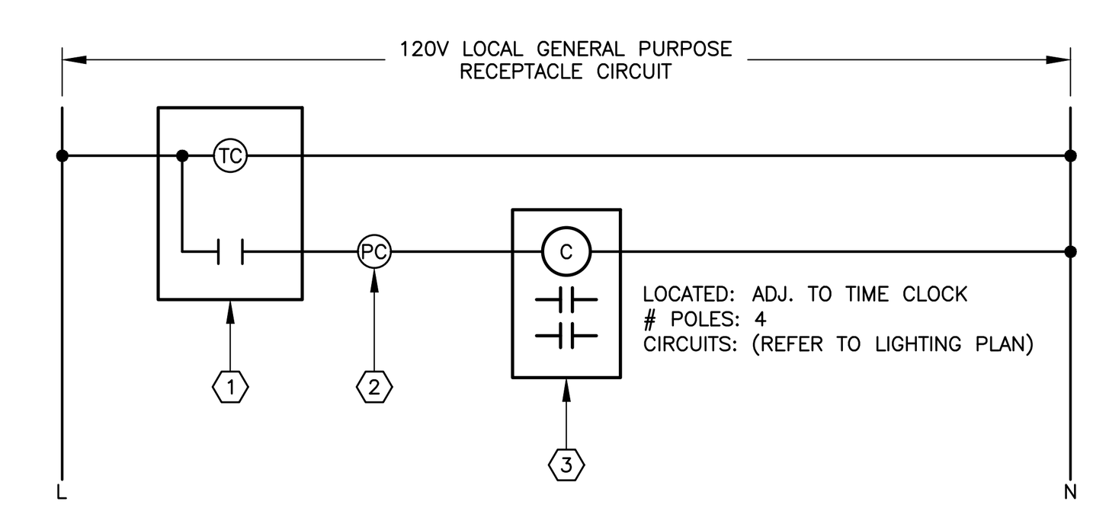
GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR A COMPLETE, FULLY OPERABLE INSTALLATION. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST APPROVED ISSUE OF THE NFPA 70, NATIONAL ELECTRIC CODE (NEC) AND APPLICABLE LOCAL CODES.
2. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID TO ASCERTAIN FIELD CONDITIONS AS THEY EXIST AND JUDGE THEIR EFFECT ON THE ELECTRICAL WORK TO BE DONE. NO ALLOWANCE WILL BE MADE FOR FAILURE TO VISIT THE JOB SITE AND MAKE THIS DETERMINATION.
3. THE DRAWINGS SHOW THE GENERAL LAYOUT AND SOME OF THE DETAIL, BUT THEY DO NOT SHOW EVERY FITTING, BEND, ... ETC. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SUCH MATERIALS TO MAKE A COMPLETE INSTALLATION.
4. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, AIA DOCUMENT 201, LATEST EDITION.
6. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
7. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
8. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL IN COMPLETE WORKING ORDER.
9. THE SCOPE OF WORK IS AS SHOWN ON THE PLANS AND DETAILED IN THE SPECIFICATIONS.
10. ALL THE WIRE SIZES ARE BASED ON COPPER, ALUMINUM IS NOT TO BE USED.
11. ALL WIRING METHODS ARE TO BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES. ALL WIRING IS TO BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL WIRING IS TO BE CONCEALED.
12. PROVIDE INDEPENDENT SEISMIC SUPPORT OF ALL ELECTRICAL EQUIPMENT PER IBC CODE.
13. ELECTRICAL CONTRACTOR SHALL SECURE ALL PERMITS AND PAY FOR ALL REQUIRED FEES, INCLUDING ALL UTILITY FEES.
14. ELECTRICAL CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
15. ELECTRICAL CONTRACTOR SHALL PROVIDE PROOF OF LIABILITY AND PROPERTY INSURANCE TO THE OWNER, ALL DEDUCTIBLES SHALL BE PAID FOR BY THE ELECTRICAL CONTRACTOR IN THE EVENT OF A CLAIM.
16. PERSONNEL SAFETY IS OF PRIME IMPORTANCE. NO HAZARDOUS CONDITION MUST BE ALLOWED. EVERY CARE MUST BE TAKEN TO PROTECT CONSTRUCTION AND OTHER PERSONNEL. CLEANUP IS TO BE DONE ON A DAILY BASIS. ELECTRICAL CONTRACTOR TO REMOVE AND DISPOSE OF REFUSE FROM SITE.
17. ELECTRICAL CONTRACTOR TO VERIFY LIGHTING FIXTURE MOUNTING REQUIREMENTS FOR VARIOUS CEILING TYPES AND ORDER APPROPRIATE HARDWARE.
18. COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL MECHANICAL PLANS AND PLUMBING PLANS, MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
19. ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL MECHANICAL CONTRACTOR AND PLUMBING CONTRACTOR FOR ITEMS SUPPLIED BY OTHER DIVISIONS BUT INSTALLED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT FOR ELECTRICAL WORK.
20. ELECTRICAL CONTRACTOR TO VERIFY ALL EQUIPMENT POWER NEEDS WITH THE ACTUAL SHOP DRAWINGS FOR THE EQUIPMENT TO BE USED, PRIOR TO STARTING ANY ELECTRICAL WORK.
21. ALL BALLASTS AND DRIVERS TO BE HPF AND HAVE THE LOWEST POSSIBLE ENERGY CONSUMPTION FOR THE SPECIFIED LAMP.
22. ALL ELECTRICAL PENETRATIONS TO BE FIREPROOFED TO MAINTAIN INTEGRITY OF FIRE WALLS/FLOORS/CEILINGS.
23. PROVIDE LAMICOID NAMEPLATES FOR ALL ELECTRICAL DISTRIBUTION AND DISCONNECT EQUIPMENT.
24. SHARED NEUTRALS ARE NOT TO BE USED. PROVIDE SEPARATE NEUTRALS FOR ALL NEW CIRCUITS.
25. PRIOR TO SUBMISSION OF BIDS GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIAL OR APPARATUS THAT IS INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAS BEEN OMITTED. CONTRACTOR AFFIRMS THAT ABSENT SUCH NOTICE, ALL SYSTEMS WILL FUNCTION SATISFACTORILY WITHOUT ADDITIONAL EXTRA COMPENSATION.
26. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT. THE PART NUMBER AND DESCRIPTION WILL BE THE COMPLETE SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
27. FOR ALL ROOFTOP OR GRADE LEVEL HVAC EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL SUPPLY A GFCI WP, 20A RECEPTACLE FOR EQUIPMENT SERVICING. ALL DISCONNECT SWITCHES ARE TO BE HEAVY DUTY, FUSED, WEATHER PROOF (WP) DEVICES.
28. RISER DIAGRAMS ARE PROVIDED TO SHOW DIAGRAMMATIC GENERAL WIRING REQUIREMENTS. WIRING IS TO BE PROVIDED FOR THE PARTICULAR VENDOR/SYSTEM APPROVED FOR THE PROJECT. ALL WIRING IS TO BE CONCEALED.
29. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
30. EMERGENCY SERVICES SHALL BE RUN IN SEPARATE RACEWAYS FROM ALL OTHER SYSTEMS.
31. PROVIDE DRAG LINES IN ALL EMPTY RACEWAYS.
32. CIRCUIT NUMBERS ARE INDICATED FOR INTENT ONLY. THE ELECTRICAL CONTRACTOR SHALL ADJUST ACCORDINGLY IN THE FIELD, TO BALANCE CIRCUITS EVENLY ON ALL PHASES.
33. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES AND OUTLETS.
34. CONTRACTOR TO PROVIDE ALL COORDINATION FOR UTILITY SERVICES FOR THE PROJECT. THIS INCLUDES POWER UTILITY, TELEPHONE COMPANY AND CABLE TV OPERATOR.
35. CONTRACTOR TO PROVIDE ALL TEMPORARY POWER FOR THE PROJECT. PROVIDE ALL UTILITY COMPANY COORDINATION FOR ALL SERVICES.
36. FOR ALL BOXES WITH DATA COMMUNICATIONS SERVICES PROVIDE EMPTY CONDUIT(S) WITH DRAG LINE TO HUNG CEILING OR OTHER ACCESSIBLE SPACE. REFER TO ELECTRICAL LEGEND FOR CONDUIT SIZE.
37. ELECTRICAL CONTRACTOR SHALL PAY ANY ADDITIONAL COST FOR THE UTILITY WORK ASSOCIATED WITH THE PROJECT.
38. PROVIDE TYPED DIRECTORY FOR ALL PANEL BOARDS.
39. MINIMUM CONDUCTOR SIZE FOR A FULLY LOADED 20A CIRCUIT, UNLESS OTHERWISE NOTED, SHALL BE #12 FOR ALL BRANCH CIRCUIT RUNS UP TO THE FIRST OUTLET; OVER 60 FEET, #10; OVER 105 FEET, #8; INCREASE CONDUIT SIZE TO SUIT.
40. ELECTRICAL CONTRACTOR TO VERIFY LOADS, SETTINGS, OVERCURRENT PROTECTION... ETC TO INSURE COMPATIBILITY OF EQUIPMENT.
41. DISCONNECT SWITCHES AND CIRCUIT BREAKER USED AS SWITCHES SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE "NEC" SECTION 404.8. ALL DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE LOCATED SO THAT THEY MAY BE OPERATED FROM A READILY ACCESSIBLE PLACE. THEY SHALL BE INSTALLED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS NOT MORE THAN 6'-7" ABOVE THE FLOOR OR WORKING PLATFORM
42. ALL DISCONNECT SWITCHES AND CIRCUIT BREAKER SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE "NEC" SECTION 110.26 TABLE 110.26(A)(1).
43. IN ADDITION TO THE REQUIREMENTS SHOWN FOR LOW VOLTAGE EQUIPMENT AND RACEWAYS, THE ELECTRICIAN SHALL CARRY AN ALLOWANCE FOR FINAL COORDINATION AND INSTALLATION OF ALL RACEWAYS AND SLEEVES REQUIRED TO FACILITATE THE LOW VOLTAGE CONSULTANT WORK.

EQUIPMENT SCHEDULE

TAG	MODEL NO.	DESCRIPTION	NOTES
1	TORK DZS200A OR EQUIVALENT INTERMATIC OR SQUARE D	DIGITAL PROGRAMMABLE TIME CLOCK 24HR, 7DAY 365DAY, SEASONAL SCHEDULING, 99 ON/OFF POINTS, PERMANENT SCHEDULE RETENTION ON POWER LOSS, POWER OUTAGE BACKUP, AUTOMATIC LEAP YEAR AND DAYLIGHT SAVINGS TIME ADJ., MECHANICALLY HELD CONTACTS, MULTI VOLTAGE INPUT.	1, 2
2	TORK 2100 SERIES OR EQUIVALENT INTERMATIC OR SQUARE D	PHOTOCELL 1800W, 15A, -40 DEG. TO 140 DEG., SOLID STATE SPST, DRY CONTACT, LIGHT LEVEL RANGE 1.5 TO 10fc W/ADJUSTMENT. TIME DELAY 15 SEC. MINIMUM	3
3	ASCO 917 SERIES WITH 2 WIRE CONTROL OPTION OR EQUIVALENT GE OR SQUARED	CONTACTOR ELECTRICALLY OPERATED, MECHANICALLY HELD, 20A LIGHTING CONTACTOR. CONTROL VOLTAGE AS LISTED, FROM LOCAL GENERAL PURPOSE RECEPTACLE CIRCUIT.	4

NOTES:
1. TIMECLOCK SHALL BE PROGRAMMED TO TURN SITE LIGHTING ON AT DUSK (VIA PHOTOCELL) AND OFF AT 10 P.M. DAILY AS PER TOWN ZONING REQUIREMENTS.
2. LOCATE TIME CLOCK ADJACENT TO ELECTRICAL PANEL.
3. PHOTOCELL TO BE LOCATED ON NORTHERN EXPOSURE.
4. SEE CONTACTOR DIAGRAM FOR VOLTAGE AND NUMBER OF POLES.



CONTACTOR DIAGRAM
N.T.S.

ABBREVIATIONS

A	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CLG	MOUNTED IN CEILING
CKT	CIRCUIT
DW	DISHWASHER
DWG	DRAWING
ELEC	ELECTRICAL
EM	EMERGENCY POWER CIRCUIT
ER	EXISTING TO REMAIN
FL	FLOOR
G	GROUND FAULT CIRCUIT INTERUPTER
JB	JUNCTION BOX
LTG	LIGHTING
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OD	OUTDOOR
P	POLE
ø	PHASE
R	REFRIGERATOR
RE	RELOCATED EXISTING
RR	TO BE REMOVED AND RELOCATED
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHERPROOF

LIGHTING SPECIFICATIONS

LIGHTING FIXTURE TYPE A
MANUFACTURER .... KENALL (MILLENIUM STRETCH)
CATALOG NO. .... MLHABS B48/M48E48F_PP16735K
FIXTURE DESCRIPTION .... 4' LED STRIP
VOLTAGE 120
LAMP & DESIGNATION LED-3500K (67W)
BALLAST .... STANDARD DRIVER
MOUNTING .... SURFACE (6 POINT MOUNTING REQUIRED)
HOUSING .... ALUMINUM
LENS/LOUVER .... HIGH IMPACT POLYCARBONATE
REMARKS .... FIXTURE SHALL BE "PEACE OF MIND GUARANTEE" RATED OR EQUAL. FINISH BY ARCHITECT

LIGHTING FIXTURE TYPE B
MANUFACTURER .... KENALL (MILLENIUM FINITE)
CATALOG NO. .... FN1527_24L40K8DV-LEL
FIXTURE DESCRIPTION .... WALL PACK (FULL CUT-OFF)
VOLTAGE 120
LAMP & DESIGNATION LED-4000K (24W)
BALLAST .... STANDARD DRIVER
MOUNTING .... WALL MOUNT (4 POINT MOUNTING REQUIRED)
HOUSING .... ALUMINUM/POLYCARBONATE
LENS/LOUVER .... CLEAR POLYCARBONATE
REMARKS .... FIXTURE SHALL BE "PEACE OF MIND GUARANTEE" RATED OR EQUAL. FINISH BY ARCHITECT

LIGHTING FIXTURE TYPE C
MANUFACTURER .... KENALL (MILLENIUM EDGE)
CATALOG NO. .... MR13FFLPP_25L35K
FIXTURE DESCRIPTION .... 13" FLAT LOW PROFILE FIXTURE
VOLTAGE 120
LAMP & DESIGNATION LED-3500K (29W)
BALLAST .... STANDARD DRIVER
MOUNTING .... SURFACE MOUNT
HOUSING .... ALUMINUM
LENS/LOUVER .... PEARLESCENT POLYCARBONATE
REMARKS .... FIXTURE SHALL BE "PEACE OF MIND GUARANTEE" RATED OR EQUAL. FINISH BY ARCHITECT

LIGHTING FIXTURE TYPE D
MANUFACTURER .... KENALL (MILLENIUM DOWNLIGHT)
CATALOG NO. HADL6VL213L35KDVSCC2FWG-9500
FIXTURE DESCRIPTION .... 6" RECESSED DOWN LIGHT
VOLTAGE 120
LAMP & DESIGNATION LED-3500 (16W)
BALLAST .... STANDARD DRIVER
MOUNTING .... RECESSED
HOUSING .... ALUMINUM
LENS/LOUVER .... .125 CLEAR POLYCARBONATE
REMARKS .... FIXTURE SHALL BE "PEACE OF MIND GUARANTEE" RATED OR EQUAL. FINISH BY ARCHITECT

LIGHTING FIXTURE TYPE E
MANUFACTURER .... COOPER LIGHTING (SURE-LITES)
CATALOG NO. UEL1WHSD
FIXTURE DESCRIPTION .... TWIN HEAD EM LIGHT
VOLTAGE 120/12
LAMP & DESIGNATION MR16-12W
BALLAST .... –
MOUNTING .... SURFACE
HOUSING .... ALUMINUM
LENS/LOUVER .... GLASS CLEAR POLYCARBONATE
REMARKS .... BATTERY SEALED NICKEL CADMIUM

LIGHTING FIXTURE TYPE X
MANUFACTURER .... COOPER LIGHTING – PC3
CATALOG NO. PC3RU
FIXTURE DESCRIPTION .... EXIT SIGN W/EM TWIN HEADS
VOLTAGE 120
LAMP & DESIGNATION .... LED
BALLAST .... –
MOUNTING .... UNIVERSAL
HOUSING .... POLYCARBONATE
LENS/LOUVER .... –
REMARKS .... PROVIDE WITH SEALED LEAD CALCIUM BATTERY

LIGHTING FIXTURE TYPE SL1
MANUFACTURER .... KENALL-TOPDEK
CATALOG NO. TPD23-3TP-MW-300L 40K
FIXTURE DESCRIPTION .... SITE LIGHT (SINGLE HEAD)
VOLTAGE 120
LAMP & DESIGNATION .... LED 40K (324W)
BALLAST .... STANDARD DRIVER
MOUNTING .... 25 FT POLE
HOUSING .... ALUMINUM
LENS/LOUVER .... TEXTURED CLEAR POLYCARBONATE
REMARKS .... –

LIGHTING FIXTURE TYPE SL2
MANUFACTURER .... KENALL-TOPDEK
CATALOG NO. TPD23-3TP-MW-300L 40K
FIXTURE DESCRIPTION .... SITE LIGHT (DUAL HEAD)
VOLTAGE 120
LAMP & DESIGNATION .... LED 40K (648W)
BALLAST .... STANDARD DRIVER
MOUNTING .... 25 FT POLE
HOUSING .... ALUMINUM
LENS/LOUVER .... TEXTURED CLEAR POLYCARBONATE
REMARKS .... –

LIGHTING FIXTURE TYPE SL3
MANUFACTURER .... KENALL-TOPDEK
CATALOG NO. TPD23-5STP-MW-300L 40K
FIXTURE DESCRIPTION .... SITE LIGHT
VOLTAGE 120
LAMP & DESIGNATION .... LED 40K (324W)
BALLAST .... STANDARD DRIVER
MOUNTING .... WALL
HOUSING .... ALUMINUM
LENS/LOUVER .... TEXTURED CLEAR POLYCARBONATE
REMARKS .... –

LIGHTING FIXTURE TYPE SLW 1
MANUFACTURER .... KENALL-TOPDEK
CATALOG NO. TPD23-3TP-MW-100L 40KDV
FIXTURE DESCRIPTION .... SITE LIGHT
VOLTAGE 120
LAMP & DESIGNATION .... LED 40K (324W) 1
BALLAST .... STANDARD DRIVER
MOUNTING .... WALL MOUNTED
HOUSING .... ALUMINUM
LENS/LOUVER .... TEXTURED CLEAR POLYCARBONATE
REMARKS .... –

1

LIGHTING FIXTURE TYPE BB(ALT)
MANUFACTURER .... GARDCO
CATALOG NO. PFAS-276L-1A-NW-G1-4
FIXTURE DESCRIPTION .... SITE LIGHT (SINGLE HEAD)
VOLTAGE 120
LAMP & DESIGNATION .... LED (942W)
BALLAST .... STANDARD DRIVER
MOUNTING .... 25 FT POLE
HOUSING .... ALUMINUM
LENS/LOUVER .... POLYCARBONATE
REMARKS .... –

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DATE: 09.12.2016
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ISSUED FOR:
BIDDING & CONSTRUCTION
REVISIONS:
1 ADDENDUM #2 09/12/16

E-3

ELECTRICAL LEGENDS, NOTES DETAILS & SCHEDULES

FIRE ALARM SPECIFICATIONS

FIRE ALARM SYSTEM

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

A. THE ENTIRE SYSTEM SHALL BE INSTALLED WITH AESTHETICS IN MIND. ALL CONTROL PANELS AND REMOTE ANNUNCIATORS INSTALLED IN PUBLIC SPACES SHALL BE SEMI–FLUSH MOUNTED WITH NO EXPOSED CONDUIT OR CABLE TRAYS.

1.02 SCOPE

A. THE WORK COVERED BY THIS SECTION OF THE SPECIFICATION SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND SERVICES TO EXPAND AND SUPPLEMENT THE NEW FIRE ALARM SYSTEM FURNISH AND INSTALL A COMPLETE FIRE ALARM SYSTEM OF THE ADDRESSABLE, NON–CODED TYPE. IT SHALL BE COMPLETE WITH ALL NECESSARY HARDWARE TO EXPAND UPON THE NEW SYSTEM AND REPROGRAM TO THE PARAMETERS HEREIN IT SHALL BE COMPLETE WITH ALL NECESSARY HARDWARE, SOFTWARE AND MEMORY SPECIFICALLY TAILORED FOR THIS INSTALLATION. IT SHALL BE POSSIBLE TO PERMANENTLY MODIFY THE SOFTWARE ON SITE BY USING A PLUG–IN PROGRAMMER.

1.04 PRODUCTS

A. ALL PRODUCTS USED SHALL BE OF A SINGLE MANUFACTURER. SUBMISSION OF NOTIFICATION APPLIANCES, AUXILIARY RELAYS, OR DOCUMENTATION FROM OTHER THAN A SINGLE MANUFACTURER SHALL NOT BE ACCEPTABLE AND WILL BE GROUNDS FOR IMMEDIATE DISAPPROVAL WITHOUT COMMENT.

2.01 FIRE ALARM SYSTEM SEQUENCE OF OPERATION

A. THE SYSTEM SHALL IDENTIFY ANY OFF NORMAL CONDITION AND LOG EACH CONDITION INTO THE SYSTEM DATABASE AS AN EVENT.

1. THE SYSTEM SHALL DISPLAY THE FIRST EVENT OF THE HIGHEST PRIORITY BY TYPE. (ALARM, SUPERVISORY, TROUBLE, AND MONITOR)
2. THE SYSTEM SHALL HAVE A LABELED COLOR CODED INDICATOR FOR EACH TYPE OF EVENT.
3. FOR EACH EVENT, THE DISPLAY SHALL INCLUDE THE CURRENT TIME, THE TOTAL NUMBER OF EVENTS, THE TYPE OF EVENT, THE TIME THE EVENT OCCURRED AND UP TO A 40 CHARACTER CUSTOM USER DESCRIPTION.
4. NEW ALARM, SUPERVISORY, OR TROUBLE EVENTS SHALL SOUND A SILENCING AUDIBLE SIGNAL AT THE CONTROL PANEL.

B. OPERATION OF ANY ALARM INITIATING DEVICE SHALL AUTOMATICALLY:

1. UPDATE THE CONTROL/DISPLAY AS DESCRIBED ABOVE (B.1.)
2. SOUND ALL AUDIBLE APPLIANCES (IN A PRE–RECORDED VOICE MESSAGE IF APPLICABLE).
3. ACTIVATE ALL STROBE APPLIANCES THROUGHOUT THE FACILITY. ALL STROBE APPLIANCES THROUGHOUT THE FACILITY SHALL BE SYNCHRONIZED WHERE ANY TWO ARE IN A COMMON VIEW. VISUAL DEVICES SHALL BE NON–SILENCED UNLESS THE SYSTEM IS SUCCESSFULLY RESET.
4. OPERATE CONTROL RELAY CONTACTS TO SHUTDOWN ALL HVAC UNITS SERVING THE FLOOR OF ALARM INITIATION.
5. VISUALLY ANNUNCIATE THE INDIVIDUAL POINT OF ALARM ON ALL REMOTE ANNUNCIATOR PANELS. THE VISUAL INDICATION SHALL REMAIN ON UNTIL THE ALARM CONDITION IS RESET TO NORMAL.
6. TRANSMIT AN ALARM CONDITION, VIA THE INTEGRAL CENTRAL STATION COMMUNICATOR, TO CENTRAL STATION/LOCAL FIRE DEPARTMENT (AS REQUIRED BY THE AHJ).

C. THE ENTIRE FIRE ALARM SYSTEM WIRING SHALL BE ELECTRICALLY SUPERVISED TO AUTOMATICALLY DETECT AND REPORT TROUBLE CONDITIONS TO THE FIRE ALARM CONTROL PANEL. ANY OPENS, GROUNDS OR DISARRANGEMENT OF SYSTEM WIRING AND SHORTS ACROSS ALARM SIGNALING WIRING SHALL AUTOMATICALLY:

1. UPDATE THE CONTROL/DISPLAY AS DESCRIBED ABOVE (B.1.)
2. TRANSMIT A TROUBLE CONDITION, VIA THE INTEGRAL CENTRAL STATION COMMUNICATOR, TO CENTRAL STATION/LOCAL FIRE DEPARTMENT (AS REQUIRED BY THE AHJ).
3. VISUALLY AND AUDIBLY ANNUNCIATE A GENERAL TROUBLE CONDITION, ON THE REMOTE ANNUNCIATOR PANELS. THE VISUAL INDICATION SHALL REMAIN ON UNTIL THE TROUBLE CONDITION IS REPAIRED.

2.02 COMPONENTS

E. INTELLIGENT DEVICES–GENERAL

EACH REMOTE DEVICE SHALL HAVE A MICROPROCESSOR WITH NON–VOLATILE MEMORY TO SUPPORT ITS FUNCTIONALITY AND SERVICEABILITY. EACH DEVICE SHALL BE CAPABLE OF ELECTRONIC ADDRESSING, EITHER AUTOMATICALLY OR APPLICATION PROGRAMMED ASSIGNED, TO SUPPORT PHYSICAL/ELECTRICAL MAPPING AND SUPERVISION BY LOCATION. SETTING A DEVICE'S ADDRESS BY PHYSICAL MEANS SHALL NOT BE NECESSARY.

F. INTELLIGENT DETECTORS–GENERAL

THE SYSTEM INTELLIGENT DETECTORS SHALL BE CAPABLE OF FULL DIGITAL COMMUNICATIONS USING BOTH BROADCAST AND POLLING PROTOCOL. EACH DETECTOR SHALL HAVE AN INTEGRAL MICROPROCESSOR CAPABLE OF MAKING ALARM DECISIONS BASED ON FIRE PARAMETER INFORMATION STORED IN THE DETECTOR HEAD. EACH SMOKE DETECTOR SHALL BE CAPABLE OF TRANSMITTING PRE–ALARM AND ALARM SIGNALS IN ADDITION TO THE NORMAL, TROUBLE AND NEED CLEANING INFORMATION. EACH DETECTOR MICROPROCESSOR SHALL CONTINUALLY MONITOR THE ENVIRONMENTAL IMPACT OF TEMPERATURE, HUMIDITY, OTHER CONTAMINATES AS WELL AS DETECTOR AGING.

G. MISCELLANEOUS DEVICES: FIXED TEMPERATURE/RATE OF RISE HEAT DETECTOR, PHOTOELECTRIC SMOKE DETECTOR, STANDARD DETECTOR MOUNTING BASES, DUCT DETECTOR HOUSING, MONITOR MODULE, WATER FLOW/TAMPER MODULE, MANUAL PULL STATION.

M. NOTIFICATION APPLIANCES–GENERAL

ALL APPLIANCES SHALL BE UL LISTED FOR FIRE PROTECTIVE SERVICE.

ALL STROBE APPLIANCES OR COMBINATION APPLIANCES WITH STROBES SHALL BE CAPABLE OF PROVIDING THE "EQUIVALENT FACILITATION" WHICH IS ALLOWED UNDER THE AMERICANS WITH DISABILITIES ACT ACCESSIBLY GUIDELINES (ADA(AG)), AND SHALL BE UL 1971, AND ULC S526 LISTED.

Q. STROBES: STROBES SHALL PROVIDE SYNCHRONIZED FLASH OUTPUTS. STROBE OUTPUT SHALL BE FIELD SELECTABLE AS INDICATED ON THE DRAWINGS IN ONE OF THE FOLLOWING INTENSITY LEVELS; 15CD, 30CD, 75CD OR 110CD.

R. SPEAKERS AND SPEAKER STROBES: SPEAKERS SHALL PROVIDE POWER TAPS AT 1/4W, 1/2W, 1W, AND 2W. SPEAKERS SHALL PROVIDE UL CONFIRMED 90 DBA SOUND OUTPUT AT 2W. SPEAKERS WITH A STROBE, THE OUTPUT SHALL BE FIELD SELECTABLE AS INDICATED ON THE DRAWINGS IN ONE OF THE FOLLOWING INTENSITY LEVELS; 15CD, 30CD, 75CD OR 110CD.

PART III – EXECUTION

3.01 INSTALLATION

A. THE ENTIRE SYSTEM SHALL BE INSTALLED IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH APPROVED MANUFACTURER'S WIRING DIAGRAM. THE CONTRACTOR SHALL FURNISH ALL CONDUIT, WIRING, OUTLET BOXES, JUNCTION BOXES, CABINETS AND SIMILAR DEVICES NECESSARY FOR THE COMPLETE INSTALLATION. ALL WIRING SHALL BE OF THE TYPE RECOMMENDED BY THE MANUFACTURER, APPROVED BY THE LOCAL FIRE DEPARTMENT AND SPECIFIED WITH IN.

B. END OF LINE RESISTORS SHALL BE FURNISHED AS REQUIRED FOR MOUNTING AS DIRECTED BY THE MANUFACTURER. DEVICES CONTAINING END–OF–LINE RESISTORS SHALL BE APPROPRIATELY LABELED. DEVICES SHOULD BE LABELED SO REMOVAL OF THE DEVICE IS NOT REQUIRED TO IDENTIFY THE EOL DEVICE.

C. ALL MANUAL PULL STATIONS SHALL BE MOUNTED 48 INCHES ABOVE THE FINISHED FLOOR, AS MEASURED TO THE HANDLE.

D. ALL AUDIO/VISUAL DEVICES SHALL BE MOUNTED 80–96 INCHES ABOVE THE FINISHED FLOOR, AS MEASURED ON CENTER. ALL AUDIOVISUAL DEVICES SHALL HAVE LEXAN COVERS IN ALL AREAS.

E. NO AREA SMOKE DETECTORS SHALL BE MOUNTED WITHIN 36 INCHES OF ANY HVAC SUPPLY, RETURN AIR REGISTER OR LIGHTING FIXTURE.

F. NO AREA SMOKE OR HEAT DETECTOR SHALL BE MOUNTED WITHIN 12 INCHES OF ANY WALL.

G. ALL MECHANICAL ROOMS, BOILER ROOMS, GYMNASIUMS, WIRING CLOSETS, CUSTODIAN ROOMS, ATTIC SPACES, ETC. OR AREAS WITH NO HUNG CEILINGS SHALL BE PIPED WITH 3\4" CONDUIT.

H. ALL ADDRESSABLE MODULES SHALL BE MOUNTED WITHIN 36 INCHES OF THE MONITORED OR CONTROLLED POINT OF TERMINATION. THIS SHALL INCLUDE, BUT IS NOT NECESSARILY LIMITED TO, FAN SHUTDOWN, ELEVATOR RECALL, SHUNT TRIP, SPRINKLER STATUS POINTS, OR DOOR RELEASE. LABEL ALL ADDRESSABLE MODULES AS TO THEIR FUNCTION.

I. ALL JUNCTION BOX COVERS SHALL BE PAINTED FEDERAL SAFETY RED AND LABELED FIRE ALARM SYSTEM ONLY IN BLACK LETTERS.

J. FIRE ALARM SYSTEM WIRING SHALL NOT CO–MINGLE WITH ANY OTHER SYSTEM WIRING IN THE FACILITY.

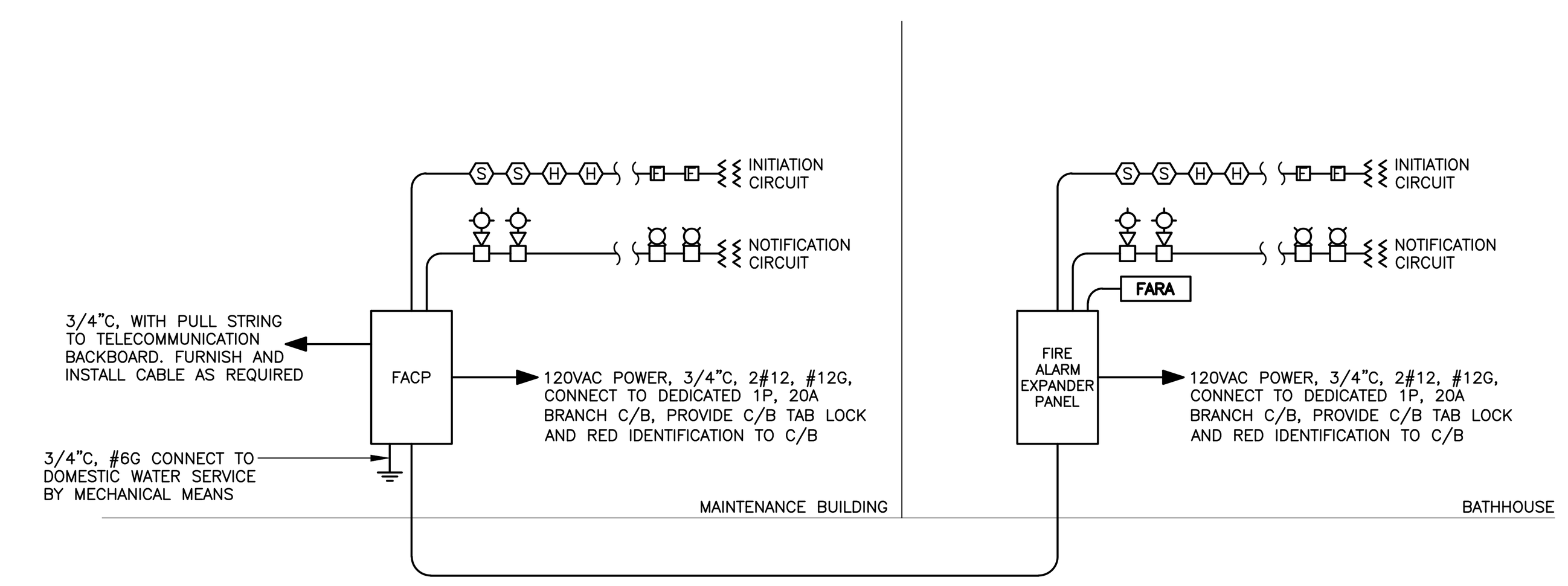
K. AUXILIARY RELAYS SHALL BE APPROPRIATELY LABELED TO INDICATE "FIRE ALARM SYSTEM" AND THEIR SPECIFIC FUNCTION (I.E. FAN S–1 SHUTDOWN).

L. ALL FIRE ALARM WIRING SHALL BE CONTINUOUS AND UNSPLICED. TERMINATIONS SHALL ONLY OCCUR AT FIRE ALARM DEVICES OR CONTROL PANEL ENCLOSURES UNDER TERMINAL SCREWS. ALL OTHER SPLICING METHODS ARE SPECIFICALLY DISALLOWED. (I.E. PLASTIC WIRENUTS)

M. ALL FIRE ALARM WIRING SHALL BE INSTALLED USING A DEDICATED SYSTEM OF SUPPORTS (I.E. BRIDLE RINGS). FIRE ALARM WIRING SHALL NOT BE BUNDLED OR STRAPPED TO EXISTING CONDUIT, PIPE OR WIRE IN THE FACILITY.

N. TEMPORAL HORN STROBES, G1RF–HOV SERIES
THE HORN/STROBE SHALL PROVIDE AN AUDIBLE OUTPUT OF 84DBA AT 10 FT. STROBES SHALL PROVIDE SYNCHRONIZED FLASH OUTPUTS. THE STROBE OUTPUT SHALL BE 75CD OR AS INDICATED ON THE DRAWINGS. THE HORN SHALL HAVE A SELECTABLE STEADY OR SYNCHRONIZED TEMPORAL OUTPUT.

O. REMOTE RELAYS, MULTI–VOLTAGE CONTROL RELAYS, MR–100 SERIES
PROVIDE REMOTE CONTROL RELAYS CONNECTED TO SUPERVISED ANCILLARY CIRCUITS FOR CONTROL OF FANS, DAMPERS, DOOR RELEASES, ETC. RELAY CONTACT RATINGS SHALL BE SPDT AND RATED FOR 10 AMPERES AT 115 VAC. A SINGLE RELAY MAY BE ENERGIZED FROM A VOLTAGE SOURCE OF 24 VDC, 24 VAC, 115 VAC, OR 230 VAC. A RED LED SHALL INDICATE THE RELAY IS ENERGIZED. A METAL ENCLOSURE SHALL BE PROVIDED.



NOTES

1. REFER TO FLOOR PLANS FOR EXACT LOCATIONS AND QUANTITIES OF ALL DEVICES.
2. COORDINATE EXACT LOCATION OF FARA WITH FIRE MARSHAL.
3. PROVIDE A MINIMUM OF 2 NOTIFICATION CIRCUITS. CIRCUIT EVERY OTHER DEVICE TO A SEPARATE CIRCUIT.
4. LOCATE REMOTE TEST SWITCH IN CLEARLY ACCESSIBLE LOCATION.

TYPICAL FIRE ALARM RISER DIAGRAM

SCALE: NTS

FIRE ALARM RISER LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR PANEL
S	FIRE ALARM SMOKE DETECTOR
S D / RT	FIRE ALARM DUCT SMOKE DETECTOR WITH REMOTE TEST SWITCH
H	FIRE ALARM THERMAL DETECTOR
F	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM HORN/STROBE UNIT
	FIRE ALARM STROBE ONLY UNIT
CO	FIRE ALARM CARBON MONOXIDE DETECTOR

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33 N PLAINS INDUSTRIAL RD
WALLINGFORD, CT 06492
TEL: 203.467.4370
WEB: WWW.IESLLC.BIZ

A.W. STANLEY PARK
PARK and AQUATIC FACILITY
IMPROVEMENTS

2100 STANLEY STREET
NEW BRITAIN, CT 06053

DATE: 09.12.2016
PROJECT NO:
DRAWN: DB
CHECKED: JAP
ISSUED FOR:
BIDDING & CONSTRUCTION
REVISIONS:
1 ADDENDUM #2 09/12/16

E-4

FIRE ALARM SPECIFICATION AND RISER

WARNING: UNDERGROUND UTILITIES

THE CONTRACTOR IS TO BE FULLY RESPONSIBLE FOR CONTACTING THE LOCAL POWER, TELEPHONE, CABLE TELEVISION, GAS, WATER, AND SEWER COMPANIES AND ANY OTHER UTILITY COMPANIES WITHIN THE AREA PRIOR TO PROCEEDING WITH ANY EXCAVATION. BY LAW, THE CONTRACTOR IS REQUIRED TO CALL BEFORE DOING ANY EXCAVATION, DIGGING HOLES, OR DRIVING POSTS REGARDLESS OF WHETHER IT IS WITHIN THE STREET LINE OR ON PRIVATE PROPERTY. CONTRACTOR CAN OBTAIN INFORMATION REGARDING THE EXISTENCE AND LOCATION OF ANY UNDERGROUND FACILITIES BY CALLING: 1-800-922-4455 A MINIMUM OF (2) TWO FULL WORKING DAYS BEFORE ANY EXCAVATION.

CALL TWO FULL WORKING DAYS IN ADVANCE

CALL BEFORE YOU DIG
1-800-922-4455
TOLL FREE STATEWIDE

UTILITY CONTACTS

WATER SERVICE:

NEW BRITAIN WATER DEPARTMENT
1000 SHUTTLE MEADOW AVENUE
NEW BRITAIN CT 06051

860-826-3536

SEWER:
NEW BRITAIN SEWER DIVISION
27 WEST MAIN STREET
NEW BRITAIN CT 06051

860-826-3350

NATURAL GAS SERVICE:
CONNECT NATURAL GAS COMPANY
77 HARTLAND STREET
EAST HARTFORD CT 06108

CONTACT:
GEORGE SFIRIDIS (GSFIRIDIS@CTGCORP.COM)
860-272-3201

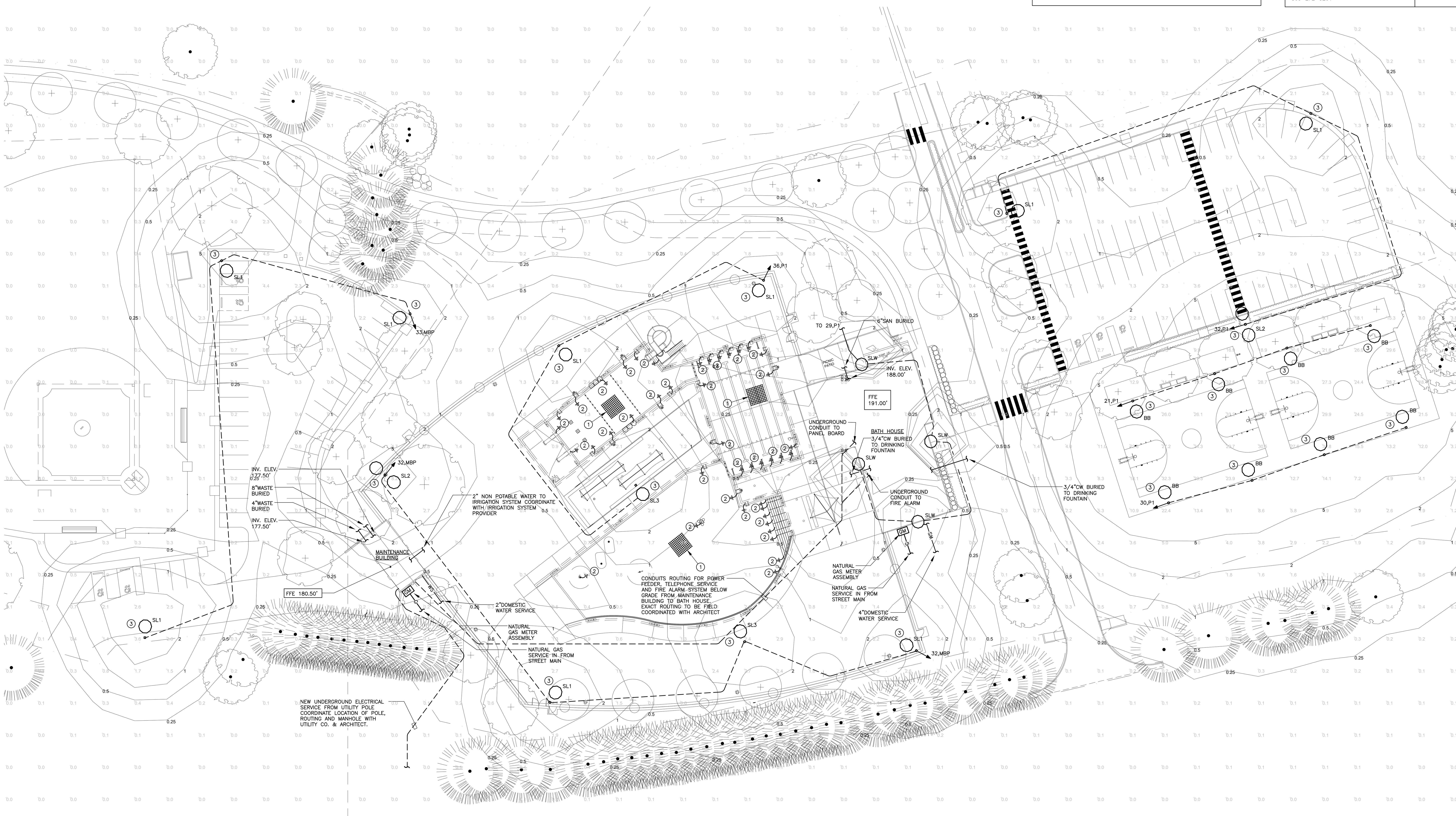
ELECTRICAL SERVICE:

EVERSOURCE
CHESHIRE OFFICE
705 WEST JOHNSON AVE.
CHESHIRE, CT 06410

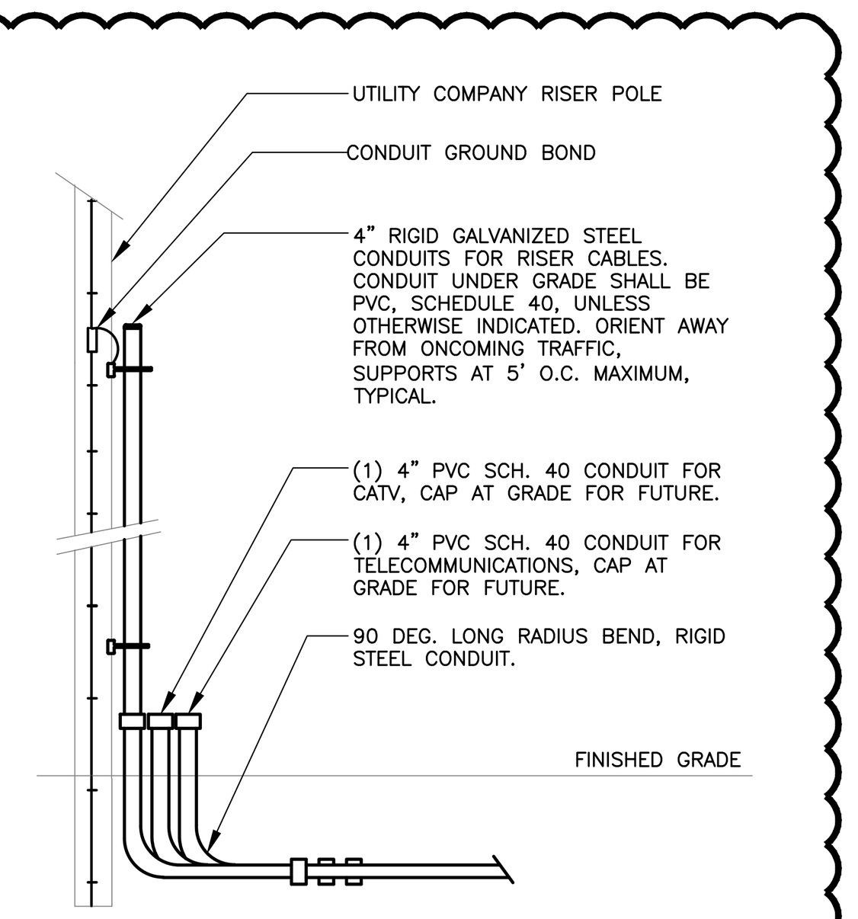
CONTACT:
ERIC CHARETTE

203-271-4812

1



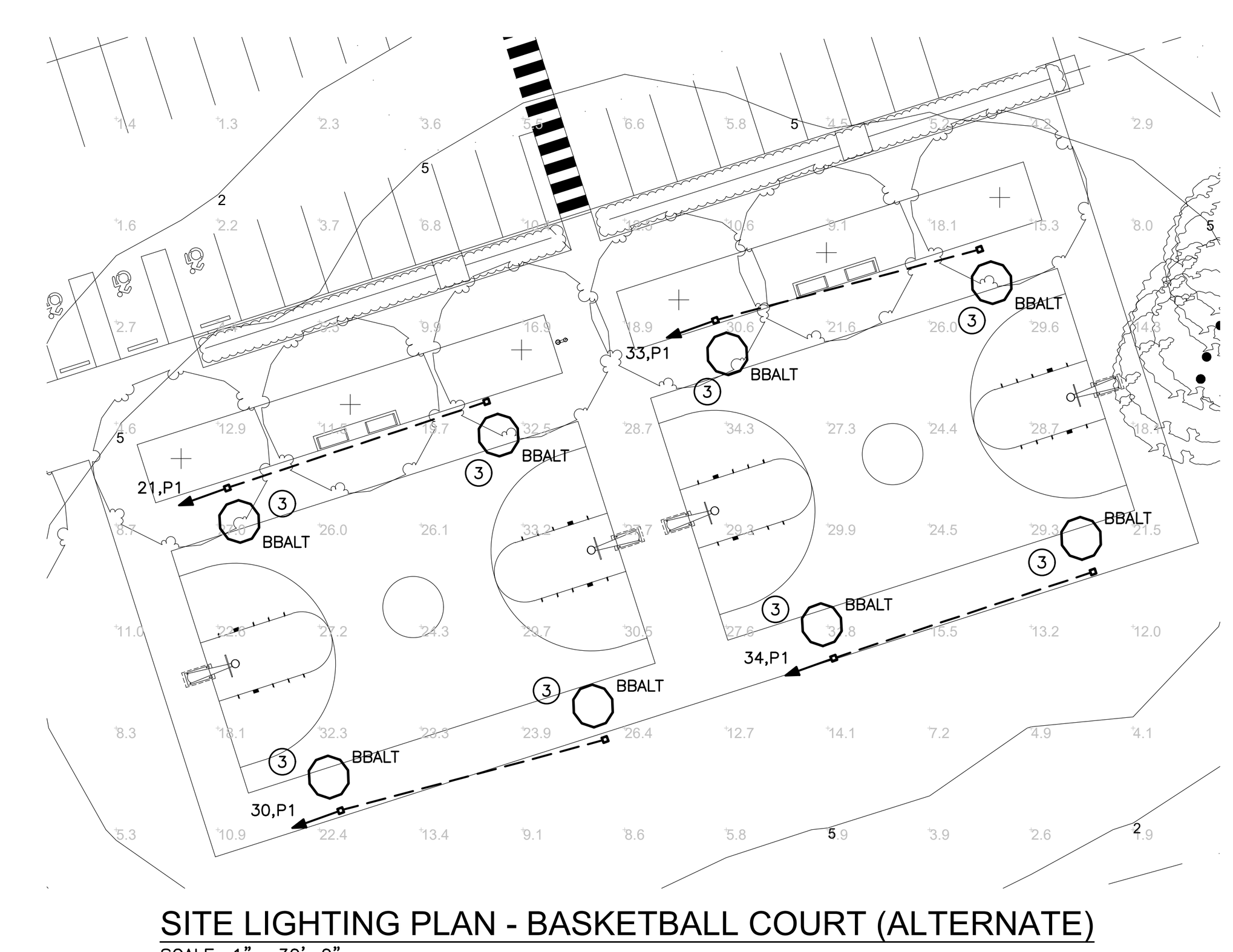
SITE UTILITY PLAN
SCALE: 1" = 30'-0"



SERVICE POLE RISER DETAIL
SCALE: NTS

VERIFY ALL SERVICE REQUIREMENTS AND DETAILS WITH UTILITY COMPANIES

1



SITE LIGHTING PLAN - BASKETBALL COURT (ALTERNATE)
SCALE: 1" = 30'-0"

PROJECT NOTES

1. TYPICAL CONCRETE SLAB REINFORCEMENT, REFER TO STRUCTURAL DRAWINGS FOR DETAILS, SLAB STEEL REINFORCEMENT SHALL BE CONTINUOUS. STRUCTURAL STEEL SHALL BE BONDED IN ACCORDANCE TO THE PRACTICES INDICATED IN NFPA 70 SECTION 680.26 B 1.
2. #8 AWG SOLID COPPER BONDING CONDUCTOR TIED TO POOL REINFORCING STEEL IN WALL OF POOL VIA EXOTHERMIC WELDING OR OTHER CODE APPROVED METHOD.
3. PROVIDE RECEPTACLE OUTLET TO BOTTOM OF ALL SITE LIGHTING POLE AND EXTEND POWER UP TO THE TOP OF POLE FOR SECURITY CAMERA. COORDINATE WIRELESS DATA REQUIREMENT WITH SECURITY CAMERA PRIOR TO INSTALLATION.

1

TLB ARCHITECTURE, LLC.
92 West Main Street
Chester, Connecticut 06412
860 526 9448 fax 860 526 9020

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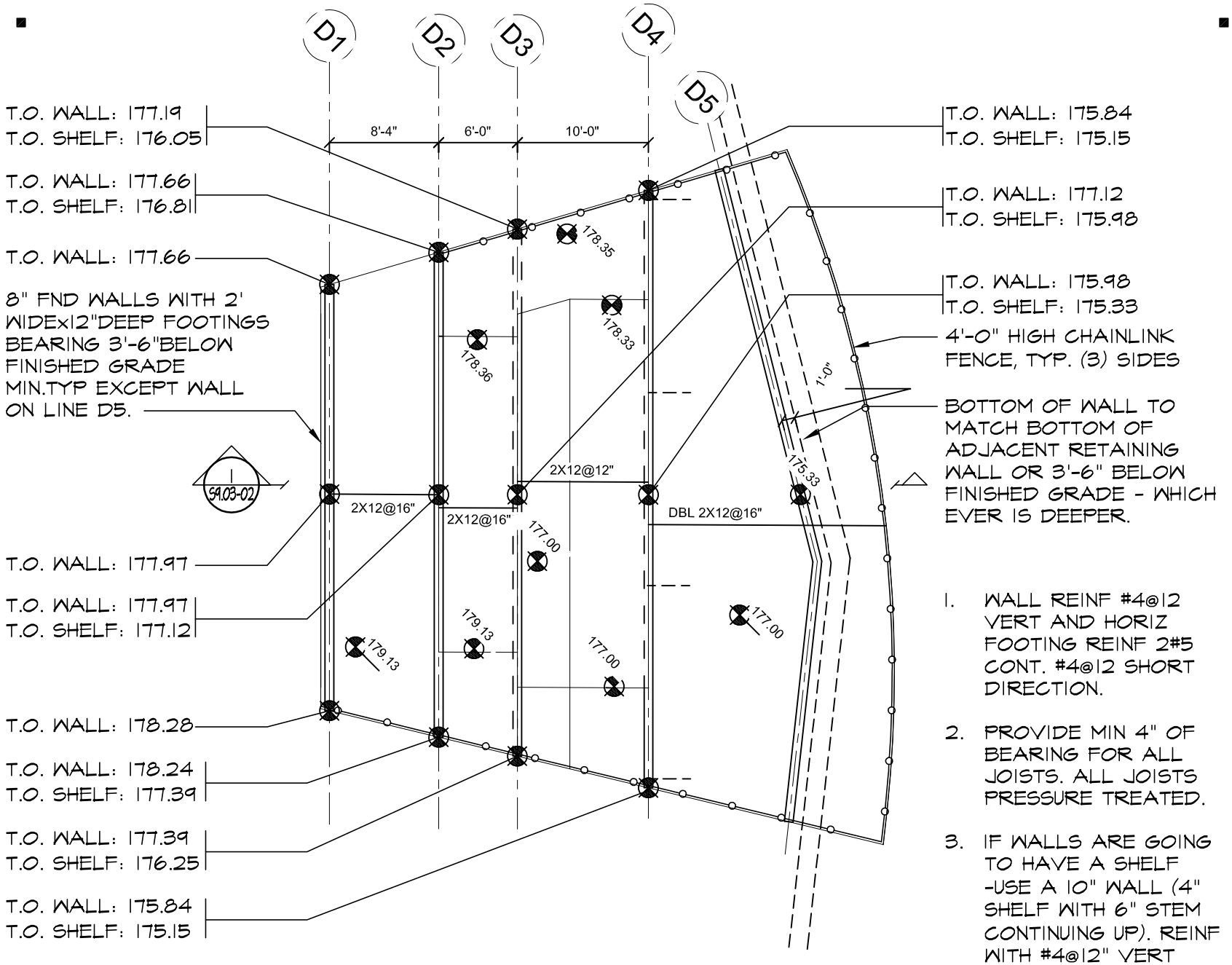
SU-1

SITE UTILITY PLAN



1. WALL REINF #4@12 VERT AND HORIZ FOOTING REINF 2#5 CONT. #4@12 SHORT DIRECTION.
2. PROVIDE MIN 4" OF BEARING FOR ALL JOISTS. ALL JOISTS PRESSURE TREATED.
3. IF WALLS ARE GOING TO HAVE A SHELF -USE A 10" WALL (4" SHELF WITH 6" STEM CONTINUING UP). REINF WITH #4@12" VERT AND @4@16 HORIZ EACH FACE.

1 OVERLOOK DECK-PLAN

SCALE: 3/32" = 1'-0"

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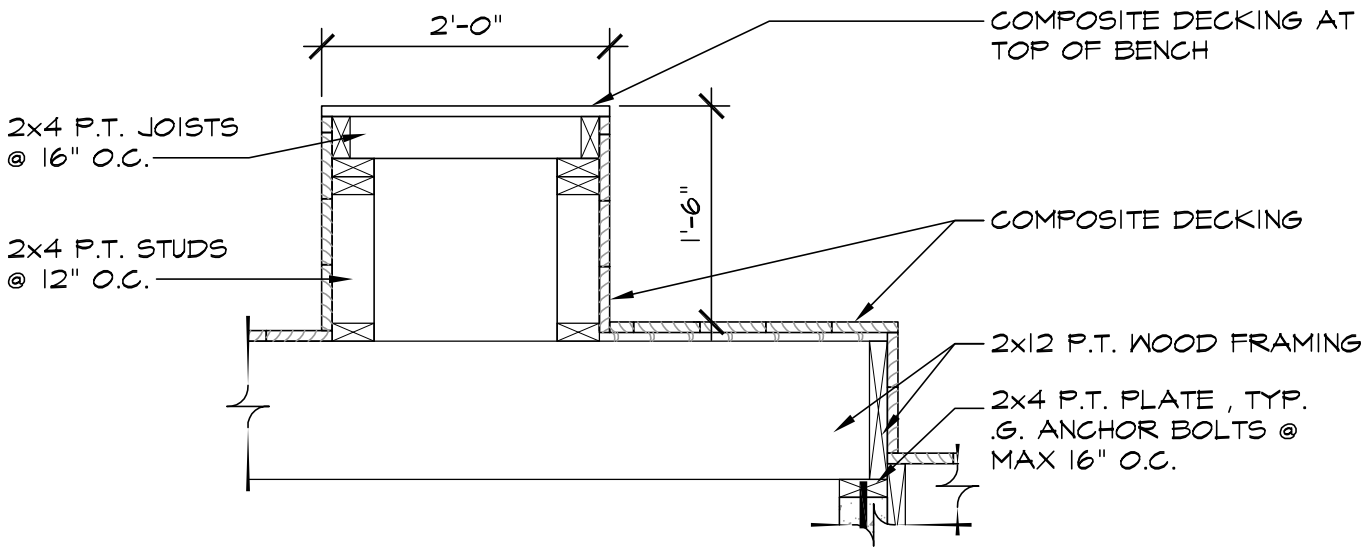
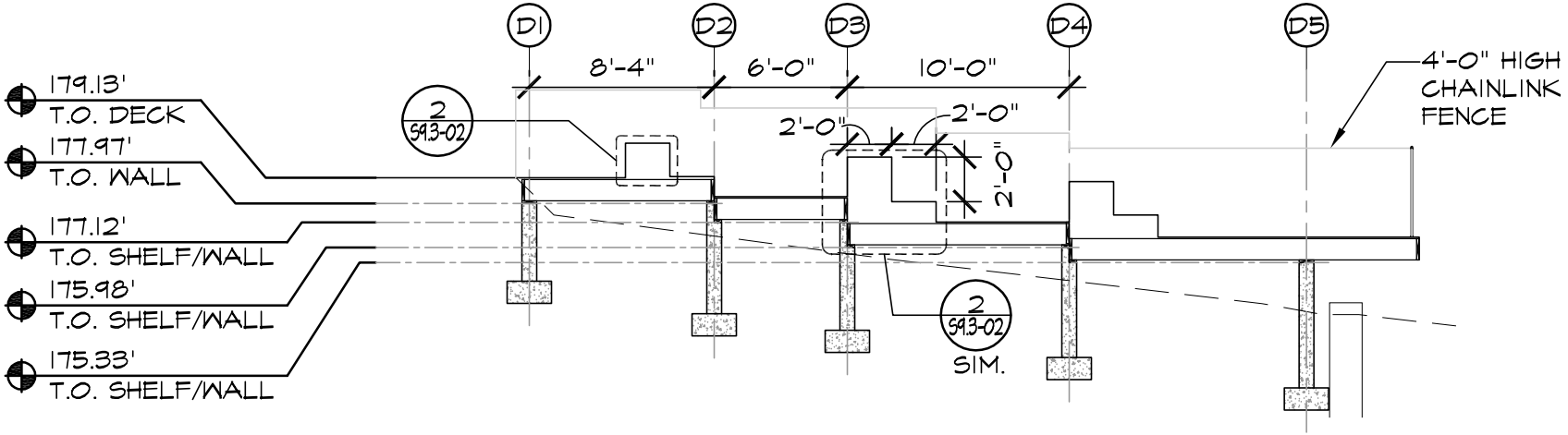
ADDITIONAL INFO
ASK

A9.3-01
OVERLOOK DECK PLAN



2 BENCH SECTION DETAIL

SCALE: 3/4" = 1'-0"



1 OVERLOOK DECK-SECTION

SCALE: 1/8" = 1'-0"

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ASK

A9.3-02

OVERLOOK DECK SECTION