ADDENDUM NO. THREE
to
Contract Documents for

ATHLETIC IMPROVEMENTS FOR BRUNSWICK COUNTY SCHOOLS (WBHS FIELDHOUSE)

Project No.: 1716 File: B-8.2

6131 Falls of Neuse, Suite 204
Raleigh, North Carolina 27609

Date: **March 18, 2020**

Boomerang Design

NOTICE TO BIDDERS:

This addendum is issued pursuant to the General Conditions of the Contract for Construction, and is hereby made a part of the Contract Documents.

The addendum serves to clarify, revise, and supersede information in the Project Manual, the Drawings and Addenda (if any), which have previously been issued. It should be bound in the Project Manual for the project.

Bidders shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

Clarifications:

All roof drains and three ice machine condensate lines tie into the 12" HDPE system. The contractor is responsible for the layout of all connection points per the notes on the grading and drainage plan.

The Cat6A cabling is not shielded cabling

TC – (Time Clock) controls the exterior light circuit on Sheet E101

ITEMS PERTAINING TO THE PROJECT MANUAL:

SECTION 07 90 00 – JOINT PROTECTION

1.1.A.4 – Add the following:

c. Control and expansion joints in cast-in-place concrete

3.6. – Delete paragraph B. "At Direct Exterior Finish System"

SECTION 09 30 00 – CERAMIC TILE

3.8.A.1 – Revise paver tile dimensions from 8 x 8 to 12 x 12

SECTION 09 65 19 – RESILIENT TILE FLOORING

3.5.A – Revise lines 1-4 as follows:

1. Products
   a. Mannington, Walkway 20 (Basis of Design)
   b. Armstrong
   c. Mohawk
2. Wear Layer Thickness: 0.020 inch (0.50 mm) min
3. Overall Thickness: 5 mm (min)
4. Size: 6 inches wide x 36 inches (min)

ITEMS PERTAINING TO THE DRAWINGS:

SHEET A601 – Room Finish Schedule

Add the following note:

11. CTF-1 used at all Ceramic Floor Finish locations, CTF-2 used at all shower floor/base locations, CTW-1 used at all shower wall locations

See attached Addendum #3 items from Progressive Design Collaborative

END OF ADDENDUM 03

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919-790-9989

ADDENDUM 03 – PLUMBING

DATE: March 9, 2020

PROJECT: West Brunswick High School
PDC Project # 17054

This Addendum, applicable to the work designed below, shall be understood to be and is a change to the bid documents and shall be part of and included in the contract for the above referenced project. All General, Supplementary and Special Conditions, etc., as originally specified or as modified below shall apply to these items.

Changes to Plumbing Specifications:

1. Specification Section 22 22 17 Domestic Water Pipe and Fittings

   Specification Section has been revised to allow the use of Copper Press Fittings in construction of the domestic water piping system.

END OF ADDENDUM 03 - PLUMBING

Attachments: Specification Section 22 11 17

NORTH CAROLINA PROFESSIONAL SEAL 027808 ENGINEER SCOTT L. ENNIS
3-9-20

SECTION 22 11 17
DOMESTIC WATER PIPE AND FITTINGS

GENERAL

1.01 PROVIDE WATER PIPING, SUPPORTS AND HANGERS AS REQUIRED FOR A COMPLETE PLUMBING SYSTEM.

A. Testing of all piping shall be made in the presence of the Engineer or a designated representative of the Owner. No piping shall be covered or put into operation before such testing has been approved.

B. The arrangement of the piping shall follow the general locations shown on the drawings, such that clearances, line drainages, etc., shall be maintained.

C. All grooved joint couplings, fittings, valves, and specialties shall be the products of a single manufacturer. Grooving tools shall be of the same manufacturer as the grooved components.

D. All castings used for coupling housings, fittings, valve bodies, etc., shall be date stamped for quality assurance and traceability.

E. All wetted components of system shall comply with United States Safe Drinking Water Act (Sec.1417) amended 1-4-2011.

1.02 B. PRODUCT

A. Water piping above grade shall be Type "L" hard drawn copper. Water piping below grade shall be Type "K" soft drawn. Pipe shall conform to ASTM B-88 Specification.

B. Water piping fittings shall be sweat type wrought copper conforming to ANSI-B16.22 Specification.

C. Use 95-5 solder (95% tin - 5% antimony) on all water piping joints smaller than 2". Use silver solder on piping 2" or larger.

D. Grooved end fittings shall be cast bronze conforming to ANSI-B16.18 or wrought copper conforming to ANSI-B16.22. Manufactured to copper-tube dimensions. (Flaring tube or fitting ends to accommodate alternate sized couplings is not permitted

E. Grooved joint couplings shall consist of two ductile iron housing segments cast with offsetting angle-pattern bolt pads for rigidity, grade EHP gasket, and ASTM A449 plated steel bolts and nuts. Installation-Ready, for direct stab installation without field disassembly. Manufactured to copper-tube dimensions. (Flaring tube or fitting ends to accommodate alternate sized couplings is not permitted.) Victaulic Series 607.

1. Hot and cold water piping shall be supported with auto-grip “Insul-Speed” hangers, or equal by B-line (Ruff In) or Hold Rite, maximum seven feet on centers, and at each change in direction.

F. ***Copper Domestic Water Piping may be installed using Copper Press Fitting System, employing the specific manufacturer's fittings, tools, actuator, jaws, and/or rings, employed by licensed qualified installers trained by the specific manufacturer, and installed per the NC Plumbing Code and Manufacturer's Installation Instructions, and provided with the warranty offered by the manufacturer, as offered by the following manufacturers:***

1. ***Viega - Viega ProPress***
2. ***Nibco - Nibco Press Fittings***
3. ***Apollo/Elkhart - Appolo XPress***
4. ***Victaulic - Victaulic PressFit***

G. ***Copper Press Fittings shall conform to ASME B16.18, ASME B16.22 or ASME B16.26, and performance criteria of IAPMO PS 117.***

H. ***All fittings in contact with drinking water shall be listed by a third party agency to NSF 61.***

I. ***Press connections: Copper and copper alloy press connections shall be made in accordance with the manufacturer’s installation instructions. The tubing shall be fully inserted into the fitting and the tubing marked at the shoulder of the fitting. The fitting alignment shall be checked against the mark on the tubing to assure the tubing is fully engaged (inserted) in the fitting. The joints shall be pressed using the tool approved by the manufacturer.***

1.03 C. EXECUTION

A. Copper tubing which is out of round will not be acceptable.

B. No notching or mitering of copper tubing will be permitted.

C. Joints in Type “K” copper tubing will not be permitted underfloor.

D. In pipe chases, the Contractor shall provide for suspension of all piping from the structure. Do not allow piping to rub against masonry when expanding and contracting.

E. Close and protect open ends of piping until final connections are made. Such closing shall be made with fittings which cannot be easily removed. Caps or plugs shall be made with fittings which cannot be easily removed. Caps or plugs shall be required at all times during construction so that no pipes are left open at the end of any day's work, even though continuation is expected the next day.

F. Copper pipe ends shall be reamed, sanded and deburred before soldering. Non-corrosive flux shall be used.

G. Any leaky joints shall be remade with new materials. Caulking to make joints tight is absolutely prohibited.

H. Grooved joints shall be installed in accordance with the manufacturer’s latest published installation instructions. The gaskets shall be suitable for the intended service, and shall be molded and produced by the coupling manufacturer. The coupling manufacturer’s factory-trained representative shall provide on-site training for the contractor’s field personnel in the proper use of grooving tools and installation of grooved joint products. The representative shall periodically visit the job site to ensure best practices in grooved joint installations are being followed. (A distributor’s representative is not considered qualified to conduct the training.)

I. Sleeves shall be provided wherever pipes pass through walls, floors, and ceilings. Sleeves shall be Schedule 40, black steel, 1/2 inch in diameter larger than the pipe or insulation on the pipe. Sleeves through walls and ceilings shall be flush. Sleeves through floors shall extend one inch above finished floor. Sleeves installed in exterior walls shall be caulked and made water-tight.

J. Pipe joint compound shall be LACO, Hercules, Oatey, or Rector Seal.

K. All water piping shall be hydrostatically tested at 150 PSIG for a period of one hour.

L. All piping and equipment installed under this Contract shall be tested in the presence of the Engineer and the proper Plumbing Inspector, and proved tight for the periods stated above, or longer if required by the Inspector.

M. The test shall be administered in sections if deemed advisable.

N. No plumbing system or part thereof shall be covered or concealed until after it has been tested and approved.

O. If such work has been covered or concealed before testing, it shall be exposed for testing.

P. Sterilizing and Flushing:

1. All water piping shall be sterilized with chlorine, 50 milligrams per liter, and held for a 24 hour period, after which the system shall be flushed prior to being put into service.
2. During the flushing of the system, all flush valves shall be thoroughly flushed out to insure the removal of sediment, pipe dope, etc., from water lines and flush valves, removing such working parts of the flush valves as may be deemed necessary. The system shall be drained and flushed sufficiently to provide chlorine residue of 0.2 ppm or less.
3. After flushing of the system has been completed, the Contractor shall have water samples taken and delivered to an independent laboratory for testing to show that the water is suitable for drinking. Copies of the laboratory report shall be provided to the Owner and the Engineer. If the State Construction Office is involved, provide form “Water Test Report for Use”.

END OF SECTION 22 11 17

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NORTH CAROLINA PROFESSIONAL SEAL 027928 ENGINEER SCOTT L. ENNIS
3-9-20

ADDENDUM 03 – MECHANICAL

DATE: March 9, 2020

PROJECT: West Brunswick High School
PDC Project # 17054

This Addendum, applicable to the work designed below, shall be understood to be and is a change to the bid documents and shall be part of and included in the contract for the above referenced project. All General, Supplementary and Special Conditions, etc., as originally specified or as modified below shall apply to these items.

Changes to Mechanical Specifications:
Specification 23 74 13 Packaged Outdoor Central-Station Air-Handling Units

- Modify Paragraph 3.01 to be the following:
  - APPROVED MANUFACTURERS
    - AAON
    - MODINE
    - REZNOR
    - TRANE (HORIZON UNIT)
    - DIAKIN (REBEL UNIT)
    - VALENT

Changes to Mechanical Drawings:
Drawing M701

- Rooftop Unit Schedule
  - Modify General Note J to read: EQUIVALENTS BY VALENT, MODINE, REZNOR, TRANE (HORIZON UNIT), DIAKIN (REBEL UNIT).

END OF ADDENDUM 03 - MECHANICAL

Attachments: N/A

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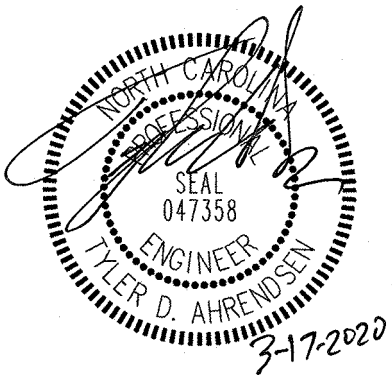


ADDENDUM 03 – ELECTRICAL

DATE: March 18, 2020

PROJECT: West Brunswick High School
PDC Project # 17054

This Addendum, applicable to the work designed below, shall be understood to be and is a change to the bid documents and shall be part of and included in the contract for the above referenced project. All General, Supplementary and Special Conditions, etc., as originally specified or as modified below shall apply to these items.

Electrical responses to Bidder questions:

1. Please confirm the fiber cable and speaker wiring from existing building to new field house is to be included by the electrical contractor.
The cabling contract falls under the electrical contract. EC is responsible for all cabling whether self-performed or by utilizing a sub that specializes in this type of wiring-see plans and specs.

2. Specifications seem to read that the security cameras are to be included, however detail 7 on sheet E0O2 has notes that cameras and camera cabling are provided and installed by owner security contractor "Sonitrol" Please clarify.
Disregard detail reference to Sonitrol this should have been edited out of the detail. Cameras are to be included in bid.

3. For Coordination/clarification to bidding electrical contractors, please clarify what (if anything) the owner will be providing/installing ys ridding electrical contractor in regards to Tale/data, intercom, security, IT, etc.
Not aware of any owner supplied equipment other than what is stated in note 11 on sheet E501.

4. Section 260533.13 Part 2 Note C3 states; PVC conduit is allowable above grade in masonry walls or concrete Note D8 says all PVC indoors must transition to Galv. RMC below grade. Note F2 states no PVC stub ups at all in the walls. The Question is, can we run the pvc in the masonry walls above grade?
Spec section referenced does not use the word "masonry", it states concrete wall. Note D8 is addressing feeder conduits that are entering a building from below grade, they are to transition to GRC 3 feet horizontally before turning up into and through the slab. Do not use PVC conduit in the walls.

5. Over the gypsum ceilings, there is no spec for using MC or any flex from light to light. Without access above ceiling the light termination drawing is not within code. Can we; (1). Mount a 4x4 box to the ceiling height and mate the light ta it? Or, (2) run MC light to light in a daisy chain?
In hard ceilings without access panels, you may use FMC as long as it is strapped, secured, and installed per NEC article 348 unless prohibited elsewhere in the NEC. The NEC requires JB's to be accessible. You may also run conduit between fixtures instead of FMC. MC Cable is not allowed.

6. Will Tele/Data need to be Cat6A shielded cabling? Please advise. No shield

7. Sheet E101, rooms 003 & 004 do not have exit lights over the doors? Will those be needed? No Will those rooms require fire pull stations as well? No Please advise.

8. Sheet E101, next to panel A2 in the electrical room are two boxes drawn and marked [TC] and [LC]. Please clarify what these are. If [TC] is for time clock and [LC] is for lighting contractor, please advise on what the lighting contractor will be preforming, amount of lights, types of lights, outputs on relays, etc. LC is not needed-TC controls circuit A1-1-the exterior lights.

9. We have been unable to locate fire alarm pull stations or emergency lights in the womens and mens bathrooms. Please advise on quantity and location if they need to be added. Pull stations are not required in the bathrooms. There are two emergency lights, Type E1 in each bathroom-see lighting plan.

Changes to Electrical Drawings:

Drawing E101

- Deleted two emergency fixtures from Outdoor Storage 002.

Drawing E201

- Added receptacle in Electrical Room 001.

Drawing E401

- Panel Schedule changes.

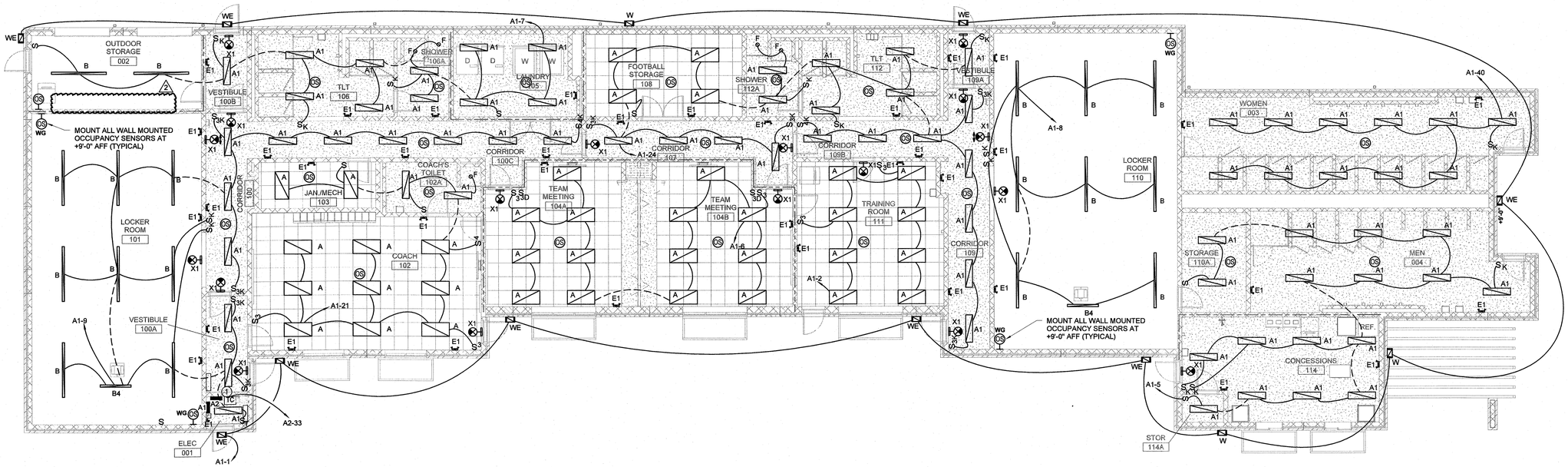
Attachments: Revised Electrical plans sheets E101, E201, and E401.

END OF ADDENDUM 03 - ELECTRICAL

LIFE SAFETY SYMBOL LEGEND	
— — —	1-HR RATED
— — —	2-HR RATED

KEYNOTES:

1. PROVIDE DIGITAL ASTRONOMOICAL WITH HOLIDAY AND WEEKEND PROGRAMMING. TIME CLOCK FOR AUTOMATIC LIGHTING SHUTOFF. COORDINATE SCHEDULE PROGRAMMING WITH OWNER.



1 WBHS STADIUM FIELDHOUSE - LIGHTING

0 4' 8' 16'

1/8" = 1'-0"

N

boomerang DESIGN
rethink, repurpose, results

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BRUNSWICK COUNTY SCHOOLS — A Community of Learners

ATHLETIC IMPROVEMENTS FOR BRUNSWICK COUNTY SCHOOLS

PROJECT TITLE

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ENGINEER
TIMOTHY D. AHRENDSEN
3-17-2020

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REVISIONS

NO.	DATE	DESCRIPTION
2	3/16/20	Review Comments

BID
PROJECT PHASE

1716
BOOMERANG DESIGN PROJECT NUMBER

2-24-2020
DRAWING RELEASE DATE

WBHS - STADIUM FIELDHOUSE LIGHTING PLAN

SHEET TITLE

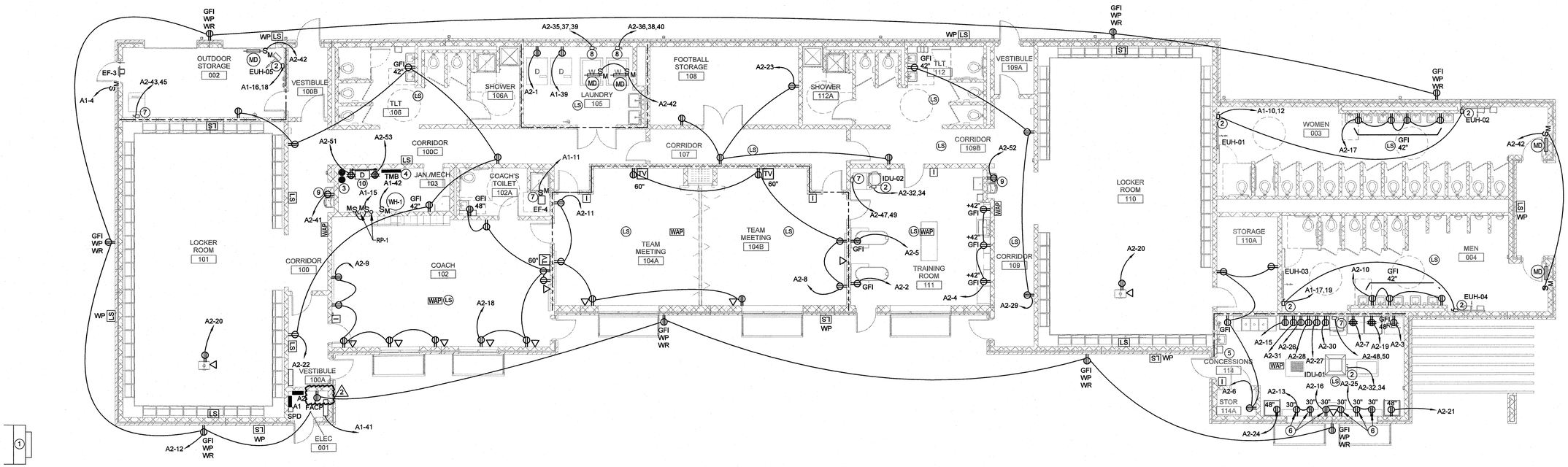
E101

SHEET

LIFE SAFETY SYMBOL LEGEND	
— — —	1-HR RATED
— – —	2-HR RATED

KEYNOTES:

1. UTILITY TRANSFORMER PROVIDED BY UTILITY. COORDINATE LOCATION AND CONNECTION OF TRANSFORMER WITH UTILITY PRIOR TO EXCAVATION OF FEEDER. SEE SITE PLAN ON DRAWING E501.
2. DISCONNECTING MEANS PROVIDED BY MECHANICAL. COORDINATE CONNECTION WITH MECHANICAL PRIOR TO INSTALLATION.
3. PROVIDE (2)-2" UNDERGROUND CONDUITS FROM EXISTING SCHOOL BUILDING TO FIELD HOUSE FOR TELECOM (APPROXIMATELY 450 FT). PROVIDE NYLON PULL STRING. COORDINATE STUB-UPS IN FIELD HOUSE WITH OWNER PRIOR TO INSTALLATION. PROVIDE 3/4" FIRE-RETARDANT PLYWOOD ON WALL FOR DATA EQUIPMENT INSTALLATION.
4. PROVIDE TELECOM GROUND BAR.
5. ALL RECEPTACLES IN CONCESSIONS AREA ARE TO BE GFI PROTECTED.
6. COORDINATE WITH GENERAL CONTRACTOR TO INSTALL RECEPTACLES IN TABLE FURNITURE.
7. PROVIDE 250 VOLT, 30 AMP, 1ϕ, DISCONNECT SWITCH. FUSE PER MANUFACTURER'S RECOMMENDATIONS.
8. PROVIDE 250 VOLT, 30 AMP, 3ϕ, DISCONNECT SWITCH. FUSE PER MANUFACTURER'S RECOMMENDATIONS.
9. COORDINATE OUTLET LOCATION FOR WATER COOLER WITH PLUMBING CONTRACTOR SO CORD DOES NOT SHOW.
10. COORDINATE SIZE OF DATA RACK WITH OWNER.



WBHS STADIUM FIELDHOUSE - POWER

boomerang DESIGN
rethink, repurpose, results

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BRUNSWICK COUNTY SCHOOLS — A Community of Learners

ATHLETIC IMPROVEMENTS FOR BRUNSWICK COUNTY SCHOOLS

PROJECT TITLE

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 047358 ENGINEER TYLER D. AHRENDSEN 3-17-2020

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REVISIONS

NO.	DATE	DESCRIPTION
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BID
PROJECT PHASE

1716
BOOMERANG DESIGN PROJECT NUMBER

2-24-2020
DRAWING RELEASE DATE

WBHS - STADIUM FIELDHOUSE POWER PLAN
SHEET TITLE

E201
SHEET

LUMINAIRE SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	EQUALS	DESCRIPTION	MOUNTING	VOLTAGE	WATTAGE (W)	LAMP	REMARKS
A	COLUMBIA	LJT24-40-ML-G-FS-A19-E-U	PHILLIPS, WILLIAMS, LITHONIA	24"x48" RECESSED LED LUMINAIRE, COLD ROLLED STEEL HOUSING, POST FABRICATED COATED WHITE POLYESTER, 0-10V DIMMING	RECESSED (GRID)	120	38	4000K LED, 4,792 LUMENS	ALL INDOOR LIGHT FIXTURES SHALL BE RATED FOR 2.5KA SURGE PROTECTION MINIMUM
A1	NEW STAR	VIC 4 W L3 40 1C RWC UN WH	COLUMBIA, PHILLIPS, LITHONIA	10.5" x 49.8" MOUNTED MARINE GRADE EXTRUDED ALUMINUM, WHITE POLYESTER POWDER FINISH, GASKETED, WET LOCATION	RECESSED (FLANGE)	120	50	4000K LED, 5,100 LUMENS	ALL INDOOR LIGHT FIXTURES SHALL BE RATED FOR 2.5KA SURGE PROTECTION MINIMUM
B	COLUMBIA	RLW8-40-ML-FA-W-E-U	PHILLIPS, WILLIAMS, LITHONIA	MADE FROM CODE-GAUGE STEEL, DECORATIVE INJECTION MOLDED ABS MATERIAL ENDCAPS, ROUND FROSTED ACRYLIC LENS, DAMP LOCATION	SUSPENDED (9'-6" AFF)	120	68	4000K LED, 8,604 LUMENS	ALL INDOOR LIGHT FIXTURES SHALL BE RATED FOR 2.5KA SURGE PROTECTION MINIMUM
B4	COLUMBIA	RLW8-40-ML-FA-W-E-U	PHILLIPS, WILLIAMS, LITHONIA	MADE FROM CODE-GAUGE STEEL, DECORATIVE INJECTION MOLDED ABS MATERIAL ENDCAPS, ROUND FROSTED ACRYLIC LENS, DAMP LOCATION	SUSPENDED (9'-6" AFF)	120	34	4000K LED, 4,302 LUMENS	
E1	HE WILLIAMS	EMER/CP/ADJ/LED-WHT-D120	EMERGI-LITE, DUAL-LITE, EXITRONIX	INJECTION MOLDED, ENGINEERING GRADE, FLAME RETARDANT, HIGH-IMPACT RESISTANT, THERMOPLASTIC, WALL OR CEILING MOUNT, UL LISTED 924, DAMP LOCATION, MAINTENANCE FREE NICAD BATTERY, BUILT-IN TEST SWITCH	WALL (8'-0" AFF)	120	4	LED	ALL INDOOR LIGHT FIXTURES SHALL BE RATED FOR 2.5KA SURGE PROTECTION MINIMUM
F	GOTHAM	EVO-35/25-6-DFRAMF-120-GZ10	PRESCOLITE, LITHONIA	6" ROUND LED SHOWER LIGHT, WET LOCATION LISTED	RECESSED (FLANGE)	120	19	LED	ALL INDOOR LIGHT FIXTURES SHALL BE RATED FOR 2.5KA SURGE PROTECTION MINIMUM
W	HUBBELL	SG2-50-4K7-FT-DB	EMERGI-LITE, DUAL-LITE, LITHONIA	ARCHITECTURAL LED WALL PACK, DIE-CAST ALUMINUM HOUSING, FULLY GASKETED, IP65 RATED WITH VANDAL RESISTANT LENS. CONFIRM COLOR WITH ARCHITECT.	WALL (9'-0" AFG)	120	51	4000K LED, 3,174 LUMENS	ALL OUTDOOR LIGHT FIXTURES ARE TO BE RATED FOR 10KA SURGE PROTECTION MINIMUM.
WE	HUBBELL	SG2-50-4K7-FT-DB	EMERGI-LITE, DUAL-LITE, LITHONIA	SAME AS TYPE W BUT WITH EMERGENCY BATTERY	WALL (9'-0" AFG)	120	51	4000K LED, 3,174 LUMENS	ALL OUTDOOR LIGHT FIXTURES ARE TO BE RATED FOR 10KA SURGE PROTECTION MINIMUM.
X1	LITHONIA	EDGR-X-R-EL-WM	EMERGI-LITE, DUAL-LITE, EXITRONIX	EDGE-LIT EXIT SIGN, EMERGENCY OPERATION, RED LETTERING, NUMBER OF FACES AS SHOWN ON PLAN	WALL (8'-0" AFF)	120	4	RED LED	WALLPACK SHALL BE FED FROM LOCAL LIGHTING CIRCUIT (UPSTREAM OF LOCAL SWITCH AND LIGHTING CONTACTOR PANEL)

PANELBOARD: A1

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 35,000

MCB: 600 A
VOLTS: 120/208 Wye
PHASE: 3
WIRES: 4

AMPS: 600 A
FED FROM: UTILITY TXFRMR

PANEL NOTES:
PROVIDE DOOR WITH LOCK AND HINGED TRIM
PROVIDE COPPER GROUND AND NEUTRAL BUS

CKT	LOAD DESCRIPTION	WIRE SIZE	Poles	TRIP AMPS	A		B		C		TRIP AMPS	Poles	WIRE SIZE	LOAD DESCRIPTION	CKT
1	LTG - EXTERIOR	2#10, 1#10G, 3/4"C	1	20 A	0.61	0.30					20 A	1	2#12, 1#12G, 3/4"C	LTG - TRAINING 111	2
3	REC - ROOF	2#12, 1#12G, 3/4"C	1	20 A			0.54	1.13			20 A	1	2#12, 1#12G, 3/4"C	EF-3	4
5	LTG - 004, 110A, 114, 114A	2#12, 1#12G, 3/4"C	1	20 A					0.85	0.53	20 A	1	2#12, 1#12G, 3/4"C	LIGHTING - 104A, 104B	6
7	LTG - 002, 100B, 105, 106,...	2#10, 1#10G, 3/4"C	1	20 A	0.72	0.58					20 A	1	2#12, 1#12G, 3/4"C	LIGHTING - 110	8
9	LIGHTING	2#10, 1#10G, 3/4"C	1	20 A			1.18	0.80			20 A	2	2#12, 1#12G, 3/4"C	UH-1, 2	10
11	EF-4	2#12, 1#12G, 3/4"C	1	15 A					0.01	0.80					12
13	EF-1	2#10, 1#10G, 3/4"C	1	20 A	1.13	0.67					20 A	1	2#10, 1#10G, 3/4"C	EF-2	14
15	RP-1	2#12, 1#12G, 3/4"C	1	20 A			0.03	1.36			20 A	2	2#12, 1#12G, 3/4"C	UH-5	16
17	UH-3, 4	2#12, 1#12G, 3/4"C	2	20 A					0.80	1.36					18
19					0.80	2.08					30 A	2	2#10, 1#10G, 3/4"C	ODU-1	20
21	LTG - 102, 102A, 103	2#12, 1#12G, 3/4"C	1	20 A			0.53	2.08							22
23									15.49	1.13	20 A	1	2#12, 1#12G, 3/4"C	LTG - 105B, 107, 108, 109A...	24
25	A2	SEE RISER	3	225 A	16.75	0.00					20 A	1	--	SPARE	26
27							14.70	8.26							28
29									4.80	8.28	90 A	3	3#3, 1#8G, 1"	RTU-2	30
31	RTU-1	3#6, 1#10G, 1"C	3	60 A	4.80	8.28									32
33							4.80	4.80							34
35									1.52	4.80	60 A	3	3#6, 1#10G, 1"	RTU-3	36
37	ODU-2	2#12, 1#12G, 3/4"C	2	20 A	1.52	4.80									38
39	DRYER - 105 (NOTE 2)	2#12, 1#12G, 3/4"C	1	15 A			0.35	0.55			20 A	1	2#12, 1#12G, 3/4"C	LLTG - 003	40
41	FACP (NOTE 1)	2#12, 1#12G, 3/4"C	1	20 A					0.50	0.02	20 A	1	2#12, 1#12G, 3/4"C	WH-1	42
43	SPARE	--	1	20 A	0.00	0.00									44
45	SPARE	--	1	20 A			0.00	0.00			20 A	3	4#6, 1#10G, 1"C	SPD	46
47	SPARE	--	1	20 A					0.00	0.00					48
49	SPARE	--	1	20 A	0.00	0.00					--	--	--	SPACE	50
51	SPARE	--	1	20 A			0.00	0.00			--	--	--	SPACE	52
53	SPARE	--	1	20 A					0.00	0.00	--	--	--	SPACE	54
		TOTAL LOAD:			43.04 kVA		41.12 kVA		40.89 kVA						

NOTES:
1. PROVIDE RED BREAKER LOCK.
2. PROVIDE GFCI BREAKER.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	3579 VA	100.00%	3579 VA		
Other	360 VA	100.00%	360 VA	**Total Connected Load:**	124.57 kVA
Power	14458 VA	100.00%	14458 VA	**Total Connected Amps:**	346 A
HVAC	66754 VA	100.00%	66754 VA	**Total Estimated Demand:**	115.11 kVA
Lighting	7001 VA	125.00%	8752 VA	**Total Esttimated Demand Amps:**	319.52 A
Receptacle	32418 VA	65.42%	21209 VA		

PANELBOARD: A2

LOCATION:
MOUNTING: Surface
ENCL NEMA: Type 1
MIN AIC: 22,000

MCB:
VOLTS: 120/208 Wye
PHASE: 3
WIRES: 4

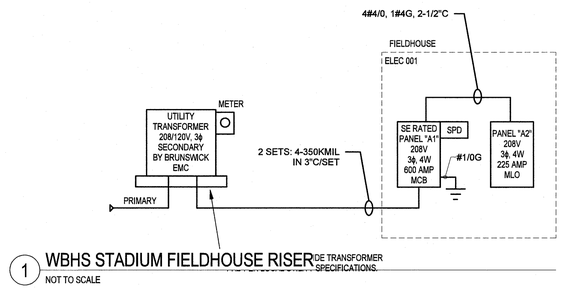
AMPS: 225 A
FED FROM: A1

PANEL NOTES:
PROVIDE DOOR WITH LOCK AND HINGED TRIM
PROVIDE COPPER GROUND AND NEUTRAL BUS

CKT	LOAD DESCRIPTION	WIRE SIZE	Poles	TRIP AMPS	A		B		C		TRIP AMPS	Poles	WIRE SIZE	LOAD DESCRIPTION	CKT
1	DRYER - 105	2#12, 1#12G, 3/4"C	1	15 A	0.35	0.71					20 A	1			
3	REFRIGERATOR - 114 (NOT...	2#12, 1#12G, 3/4"C	1	20 A			0.96	0.54			20 A	1	2#12, 1#12G, 3/4"C	TRAINING TUB -111	2
5	TRAINING TUB - 111	2#12, 1#12G, 3/4"C	1	20 A					0.71	0.72	20 A	1	2#12, 1#12G, 3/4"C	REC - 111	4
7	SMALL WARMER - 114 (NOTE...	2#12, 1#12G, 3/4"C	1	20 A	0.90	0.72					20 A	1	2#12, 1#12G, 3/4"C	REC - 110A, 114, 114B	6
9	REC - 102	2#12, 1#12G, 3/4"C	1	20 A			0.90	0.54			20 A	1	2#12, 1#12G, 3/4"C	REC - 104A, 104b	8
11	REC - 104A, 104B	2#12, 1#12G, 3/4"C	1	20 A					0.72	1.62	20 A	1	2#12, 1#12G, 3/4"C	REC - 004	10
13	REC - 114	2#12, 1#12G, 3/4"C	1	20 A	0.36	0.00					20 A	1	--	REC - EXTERIOR	12
15	REC - 114	2#12, 1#12G, 3/4"C	1	20 A			1.80	1.20			20 A	1	2#12, 1#12G, 3/4"C	SPARE	14
17	REC - 003	2#12, 1#12G, 3/4"C	1	20 A					0.72	1.08	20 A	1	2#12, 1#12G, 3/4"C	REC - 114	16
19	TALL WARMER - 114 (NOTE 1)	2#12, 1#12G, 3/4"C	1	20 A	1.62	0.36					20 A	1	2#12, 1#12G, 3/4"C	REC - 102	18
21	REFRIG - 114 (NOTE 3)	2#12, 1#12G, 3/4"C	1	20 A			0.96	1.08			20 A	1	2#10, 1#10G, 3/4"C	OH PROJS - 101, 110 (NOTE 1)	20
23	REC - 107, 108, 109B (NOTE 1)	2#12, 1#12G, 3/4"C	1	20 A					0.72	0.65	20 A	1	2#12, 1#12G, 3/4"C	REC - 002, 100, 100A (NOTE 1)	22
25	REC - 114	2#12, 1#12G, 3/4"C	1	20 A	0.36	1.80					20 A	1	2#12, 1#12G, 3/4"C	REFRIG - 114 (NOTE 1)	24
27	REC - 114	2#12, 1#12G, 3/4"C	1	20 A			1.80	1.80			20 A	1	2#12, 1#12G, 3/4"C	REC - 114	26
29	REC - 109, 112	2#12, 1#12G, 3/4"C	1	20 A					0.54	1.80	20 A	1	2#12, 1#12G, 3/4"C	REC - 114	28
31	REC - 114	2#12, 1#12G, 3/4"C	1	20 A	1.80	0.00					15 A	2	3 #10, 1 #10G, 3/4"C	IDU-1, IDU-2	30
33	TIME CLOCK	2#12, 1#12G, 3/4"C	1	20 A			0.36	0.00							32
35									0.72	0.72					34
37	WASHER - 105	3#12, 1#12G, 3/4"C	3	15 A	0.72	0.72					15 A	3	3#12, 1#12G, 3/4"C	WASHER - 105	36
39							0.72	0.72							38
41	EWC (NOTE 1)	2#12, 1#12G, 3/4"C	1	20 A					0.48	0.60	15 A	1	2#10, 1#10G, 3/4"C	MOTORIZED DAMPERS	40
43	ICE MACHINE - 002	3#12, 1#12G, 3/4"C	2	20 A	1.27	1.26					60 A	2	3#4, 1#8G, 1 1/4"C	TEMP BOARD	42
45							1.27	1.26							44
47	ICE MACHINE - 111	3#12, 1#12G, 3/4"C	2	20 A					1.27	1.27	20 A	2	3#12, 1#12G, 3/4"C	ICE MACHINE - 114	46
49					1.27	1.27									48
51	RECEPTACLE - 103	3#12, 1#12G, 3/4"C	1	20 A			0.36	0.48			20 A	1	2#12, 1#12G, 3/4"C	EWC (NOTE 1)	50
53	RECEPTACLE - 103	3#12, 1#12G, 3/4"C	1	20 A					0.36	0.00	20 A	1	--	SPARE	52
		TOTAL LOAD:			15.49 kVA		16.75 kVA		14.70 kVA						54

NOTES:
1. PROVIDE GROUND FAULT PROTECTED BREAKER.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	600 VA	100.00%	600 VA		
Other	360 VA	100.00%	360 VA	**Total Connected Load:**	46.95 kVA
Power	14458 VA	100.00%	14458 VA	**Total Connected Amps:**	130 A
Receptacle	31528 VA	65.86%	20764 VA	**Total Estimated Demand:**	36.18 kVA
				Total Esttimated Demand Amps:	100.43 A



1 WBHS STADIUM FIELDHOUSE RISER
NOT TO SCALE

IDE TRANSFORMER SPECIFICATIONS.

boomerang DESIGN
rethink, repurpose, results

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BRUNSWICK COUNTY SCHOOLS — A Community of Learners

ATHLETIC IMPROVEMENTS FOR BRUNSWICK COUNTY SCHOOLS

PROJECT TITLE

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REVISIONS

NO.	DATE	DESCRIPTION
2	9/14/20	Review Comments

BID
PROJECT PHASE

1716
BOOMERANG DESIGN PROJECT NUMBER

2-24-2020
DRAWING RELEASE DATE

ELECTRICAL SCHEDULES AND RISERS
SHEET TITLE

E401
SHEET