Kimley»Horn

May 7, 2021

ADDENDUM NO. 3

Fourteen (14) Pages Total

Greenville Outdoor Aquatic Facility

To: All Plan Holders of Record

From: City of Greenville, NC Parks and Recreation Department and Kimley-Horn and Associates, Inc.

Acknowledge receipt of this Addendum by inserting its number and date in the Bid Form. This Addendum forms a part of the Contract Documents and modifies, amends, deletes, and/or adds to the Drawings, Project Manual, and Technical Specifications as follows:

GENERAL

The following are general clarifications and revisions:

1. Requests for substitutions and approved equal requests are addressed in Section 01600 and 01630 of the Technical Specifications and General Conditions. In the case of any discrepancy, the General Conditions shall govern.
2. All "Substitutes" or "Approved Equal" requests must be submitted through the Contractor. No requests have been submitted through a Contractor as of this date.
3. Contractor and pool builder qualifications are addressed in the Technical Specifications Division 13 and General Conditions. In the case of any discrepancy, the General Conditions shall govern.
4. The project as designed has been submitted for review and approval by the City of Greenville Technical Review Committee (TRC). Any post bidding revisions required will be provided to the Contractor as a final permitted construction set. Any resulting pricing adjustments (adds and/or deletes) will be handled as Change Order #1. At this time, no permitting delays are expected to impact the start date of the project.
5. All electrical conduit in "Finished Areas" shall be concealed in walls, exposed conduit and surface mounted wiring device boxes are not allowed except in "Non-Finished" areas.

CIVIL PLANS AND TECHNICAL SPECIFICATIONS

The following are clarifications and revisions regarding the plan sheets:

1. SHEET C-3 EXISTING CONDITIONS AND REMOVAL ITEMS
   a. Contractor shall salvage the existing tennis court fencing and nets for the City's reuse.
2. SHEET C-7 DECK DRAINAGE PLAN
   a. See revised plan with raised invert elevations (Attached)
3. SHEET C-13 SITE DETAILS -5
   a. See Revised Dumpster Detail (Attached)

ARCHITECTURAL PLANS AND TECHNICAL SPECIFICATIONS

The following are general clarifications and revisions:

1. Plans:
    a. Revise the 2 x 6 fascia board in Detail 1, 2, 3, 5, 6, 7, 8 to 2 x 8.
    b. Add section marks 7/AS4 (full height CMU and 8/AS4(window condition) to the foundation sheet AS2 on the north side of the building , starting at 12' -8" from the NW corner. This condition is similar to the south side of the pump room.
2. Specifications:
    a. 08411 - Aluminum-Framed Entrances and Storefront: Provide sill extenders by storefront manufacturer at all Aluminum windowsills.
    b. 09672 - Resinous Flooring: Eco-Crete SF Quartz DB - SF - MPE-URE-HTS100 – with custom color quartz blends to match basis of design color is acceptable to be added to the list of manufacturers.
3. Bidder Questions and Final Responses:
    a. **Question:** Sheet A601: Fixed louvers labeled as window elevations W1, W2, W3, W4, W5 with Head, Jamb and Sill details H5, J5, S5. Sheet A503, detail J5 indicates a curtain wall mullion profile which is not consistent with details H5/S5. Please clarify that these fixed louvers do not require a storefront or curtain wall perimeter system? Please clarify that all louvers are to be furnished and installed by a mechanical vender.
    Answer: Louvers do not require a perimeter system. Please see the project manual section 08911- Operable Wall Louvers for louvers noted as operable and see section 08912 - Fixed Louvers for fixed louver specifications
    b. **Question:** Sheet A601: Door D100 is labeled to receive factory finish of black anodized aluminum. Doors D101/D102: Doors are labeled to receive finish HPC-5. Door frames are labeled to receive HPC-6. Please review and clarify if all aluminum storefront doors and frames should be black anodized finish as specified or shall interior aluminum doors and frames be custom painted per door schedule.
    Answer: All aluminum storefront doors and frames should receive a black anodized finish (D100, D101, D102)
    c. **Question:** Sheet A601: Doors 101 and 102 are indicated and specified to be 2” thick Thermal door packages. Thermal doors would be not be necessary on the interior structure. Shall Doors 101/102 be 2” thermal or standard non-thermal 1- ¾”? If interior to be custom paint, please advise and provide UC code for custom paint to match.
    Answer: Standard non-thermal door basis-of-design is YKK AP America Inc.; 50D-Standard Commercial Entrances. Standard non-thermal frame basis-of-design is YKK AP America Inc.; YES 45 FS.
    d. **Question:** Section 04711; Cast-Stone Masonry – what is this specification applicable to?
    Answer: Exterior Cast Stone Countertop at Tickets–101 detailed in drawing 7A/A434 – Wall Section at Countertop.

MECHANICAL ELECTRICAL PLUMBING PLANS AND TECHNICAL SPECIFICATIONS

The following are clarifications and revisions regarding the plan sheets:

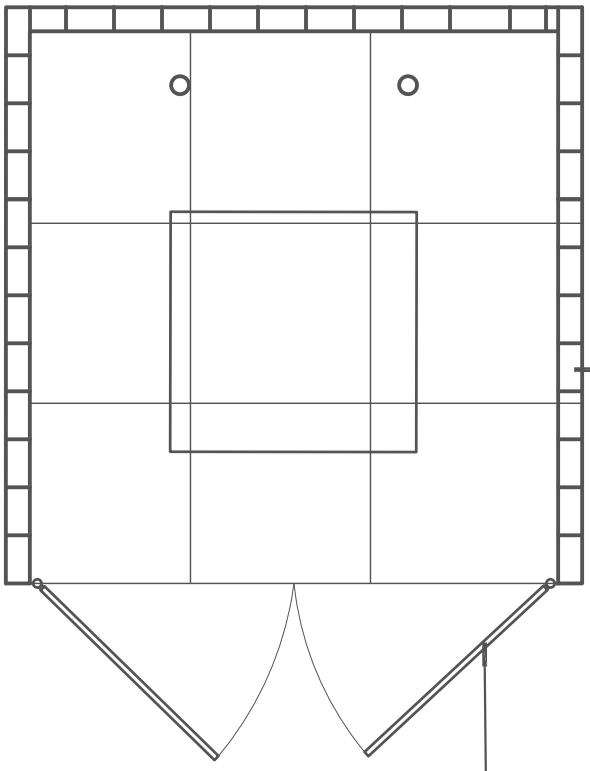
1. SHEET P-1 BATHHOUSE PLAN SANITARY PLAN
    a. See Partial Plan Revision (Attached)
2. SHEET P-3 RISER DIAGRAMS PLUMBING
    a. See Partial Plan Revision (Attached)
3. SHEET M-2 SCHEDULES MECHANICAL
    a. See Revised Plan Sheet (Attached)

SWIMMING POOL PLANS AND TECHNICAL SPECIFICATIONS

The following are general clarifications and revisions:

1. SECTION 13153 – SWIMMING POOL CEMENTITIOUS FINISH
    a. The pool contractor may use a cementitious finish in lieu of a painted finish.
    b. See Example Section 13153 (Attached)
    c. If a cementitious finish is used in lieu of a painted finish the pool contractor will coordinate and verify any pool detail revisions with the pool engineer.

END OF ADDENDUM NO. 3



DUMPSTER PER CITY DETAIL

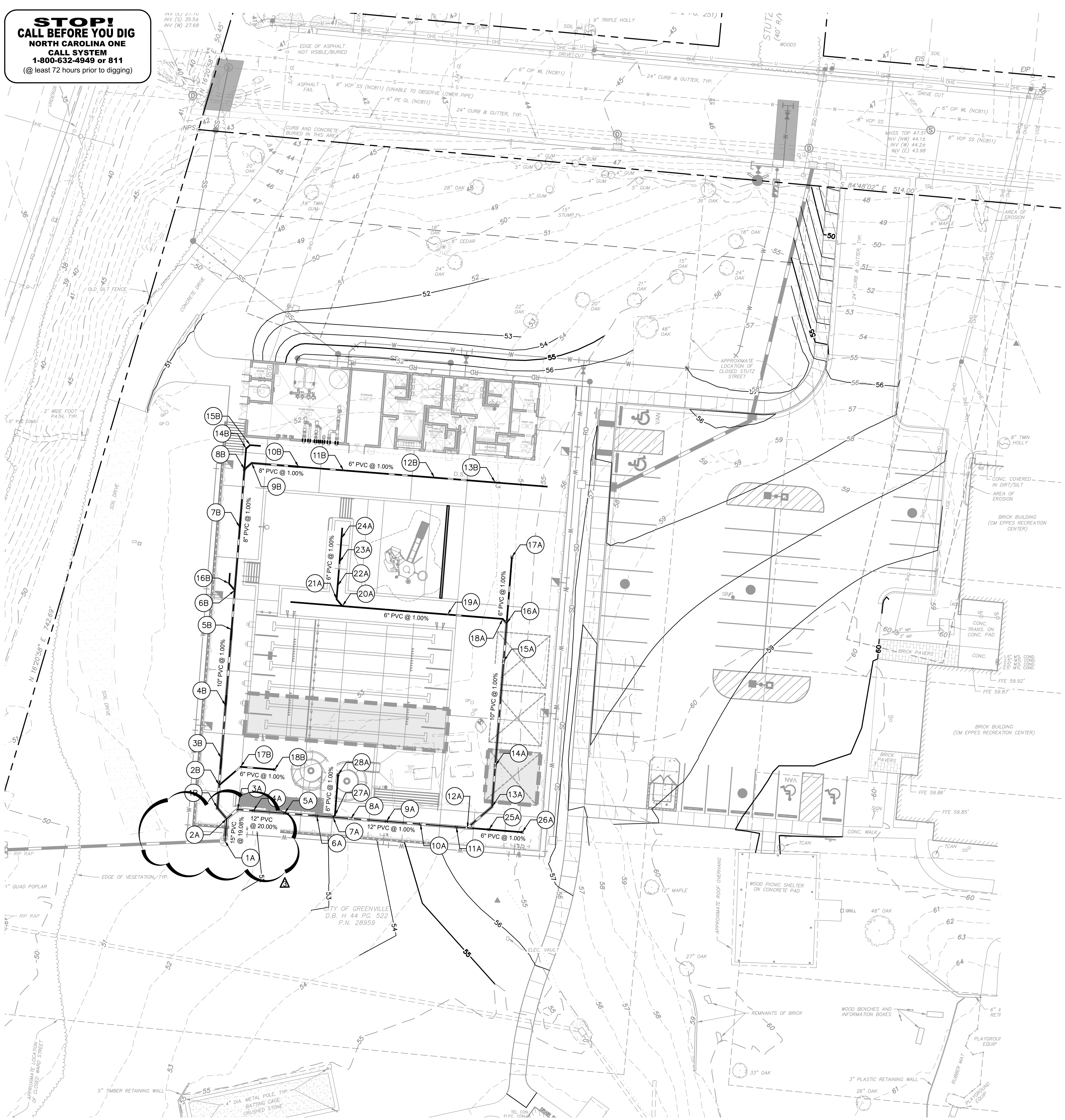
GATES TO MATCH TUBULAR STEEL FENCING SEE SHEET C-10, DET. 3 MUST HAVE SAFETY DEVICE TO PREVENT ACCIDENTAL CLOSURE PER CITY REQUIREMENTS

PROVIDE BLACK TENNIS COURT WINDSCREEN PANELS MADE TO FIT EACH GATE ATTACHED BY BLACK TIE WRAPS THROUGH REINFORCED GROMETS.

GREENVILLE OUTDOOR AQUATIC CENTER ADDENDUM 3

Kimley»Horn

TITLE:	SITE DETAILS
SCALE:	3/16"=1'-0"
PROJECT NO:	064574600
DATE:	MAY 07, 2021
SHEET:	SHEET C-13



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40
SCALE 1"=20'

DECK DRAINAGE CALLOUTS							
NO	STATION	LINE	INSTALL	TOP ELEV.	FLOW LINE	FLOW LINE	FLOW LINE
LINE A							
1A	0+00.00	A	REF. CIVIL FOR CONNECTION		15" = 45.81		
2A	0+08.44	A	15"X12"X10" DOUBLE WYE		15" = 47.42	12" = 47.55	10" = 47.62
3A	0+13.92	A	12"X12" 45° BEND		12" = 48.65		
4A	0+19.92	A	12" DECK DRAIN	56.90	12" = 49.85		
5A	0+32.96	A	12" DECK DRAIN	56.90	12" = 52.26		
6A	0+45.15	A	12" DECK DRAIN	56.90	12" = 52.38		
7A	0+51.34	A	12"X6" 45° WYE		12" = 52.44	6" = 52.69	
8A	0+58.20	A	12" DECK DRAIN	56.90	12" = 52.51		
9A	0+71.78	A	12" DECK DRAIN	56.90	12" = 52.65		
10A	0+84.78	A	12" DECK DRAIN	56.90	12" = 52.78		
11A	0+98.53	A	12" DECK DRAIN	56.90	12" = 52.91		
12A	1+02.72	A	12"X10"X6" DOUBLE WYE		12" = 52.96	10" = 53.04	6" = 53.21
13A	1+15.05	A	10"X10" 45° BEND		10" = 53.16		
14A	1+30.79	A	12" DECK DRAIN	56.70	10" = 53.32		
15A	1+70.64	A	12" DECK DRAIN	56.70	10" = 53.72		
16A	1+85.15	A	10"X6" 45° WYE		10" = 53.87	6" = 54.04	
17A	2+10.36	A	12" DECK DRAIN	56.70	6" = 54.29		
18A	0+02.24	LAT-A1	6"X6" 45° BEND		6" = 54.07		
19A	0+23.39	LAT-A1	720" TRENCH DRAIN	56.90	6" = 54.28		
20A	0+63.56	LAT-A1	6"X6" 45° WYE		6" = 54.68		
21A	0+69.98	LAT-A1	6"X6" 45° BEND		6" = 54.71		
22A	0+72.12	LAT-A1	48" TRENCH DRAIN	56.95	6" = 54.76		
23A	0+81.19	LAT-A1	48" TRENCH DRAIN	56.95	6" = 54.85		
24A	0+90.26	LAT-A1	48" TRENCH DRAIN	56.95	6" = 54.95		
25A	0+08.24	LAT-A2	12" DECK DRAIN	56.90	6" = 53.29		
26A	0+21.00	LAT-A2	12" DECK DRAIN	56.90	6" = 53.42		
27A	0+00.99	LAT-A3	6"X6" 45° BEND		6" = 52.70		
28A	0+16.56	LAT-A3	12" DECK DRAIN	56.80	6" = 52.85		
LINE B							
1B	0+05.46	B	12" DECK DRAIN	56.90	10" = 49.80		
2B	0+14.18	B	10"X6" 45° WYE		10" = 51.54	6" = 52.39	
3B	0+24.44	B	48" TRENCH DRAIN	56.85	10" = 52.33		
4B	0+44.51	B	48" TRENCH DRAIN	56.85	10" = 52.53		
5B	0+73.58	B	48" TRENCH DRAIN	56.85	10" = 52.82	8" = 52.90	
6B	0+88.62	B	8"X6" 45° WYE		8" = 53.05	6" = 53.13	
7B	1+12.63	B	48" TRENCH DRAIN	56.85	8" = 53.29		
8B	1+34.87	B	12" DECK DRAIN	56.90	8" = 53.51	6" = 53.59	
9B	1+38.54	B	8"X8" 45° BEND		8" = 53.55		
10B	1+56.43	B	48" TRENCH DRAIN	56.85	8" = 53.72	6" = 53.80	
11B	1+73.61	B	192" TRENCH DRAIN	56.85	8" = 53.97		
12B	2+08.39	B	48" TRENCH DRAIN	56.85	8" = 54.32		
13B	2+31.57	B	240" TRENCH DRAIN	56.85	8" = 54.55		
14B	0+07.93	LAT-B1	6"X6" 45° BEND		6" = 53.66		
15B	0+09.95	LAT-B1	48" TRENCH DRAIN	56.95	6" = 53.69		
16B	0+03.38	LAT-B2	48" TRENCH DRAIN	56.90	6" = 53.16		
17B	0+10.71	LAT-B3	6"X6" 45° BEND		6" = 51.80		
18B	0+23.72	LAT-B3	12" DECK DRAIN	56.80	6" = 51.93		

TOTAL STATION LAYOUT

KIMLEY-HORN WILL PROVIDE AN AUTOCAD FILE OF THIS PLAN TO THE CONTRACTOR'S SURVEYOR TO USE FOR LAYOUT, VIA TOTAL STATION.

BENCHMARK

EXISTING TOPOGRAPHIC INFORMATION PROVIDED BY RIVERS & ASSOCIATES NC LICENSE: F-0334 (252 752-4135

BENCHMARK DESCRIPTIONS:

TBM #4:

TBM LAG IN LP

ELEV= 55.34'

TBM #5:

TBM X ON TRANS BASE

ELEV= 58.61'

TBM #5047:

TBM ERRS IN PP

ELEV= 50.16'

PROJECT VERTICAL CONTROL BASED ON NCGS MONUMENT LUPTON (PID EY1808); ELEVATION 60.90 FT NAVD88

1 DECK DRAINAGE PLAN

SCALE: 1" = 20'

Kimley»Horn
421 Fayetteville Street Suite 600 Raleigh, NC 27601
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NC LICENSE #F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033841 JOHN D. KUZENSKI 5/6/2021

GREENVILLE OUTDOOR AQUATIC CENTER

PREPARED FOR

CITY OF GREENVILLE, NC

DECK DRAINAGE PLAN

ADDENDUM #3 5/7/2021

Scale:	AS SHOWN
Designed by:	MCH
Drawn by:	MKD
Checked by:	JDK
Date:	APRIL 2021
Project No.	0645574600

SHEET

C-7

PLUMBING SHEET NOTES

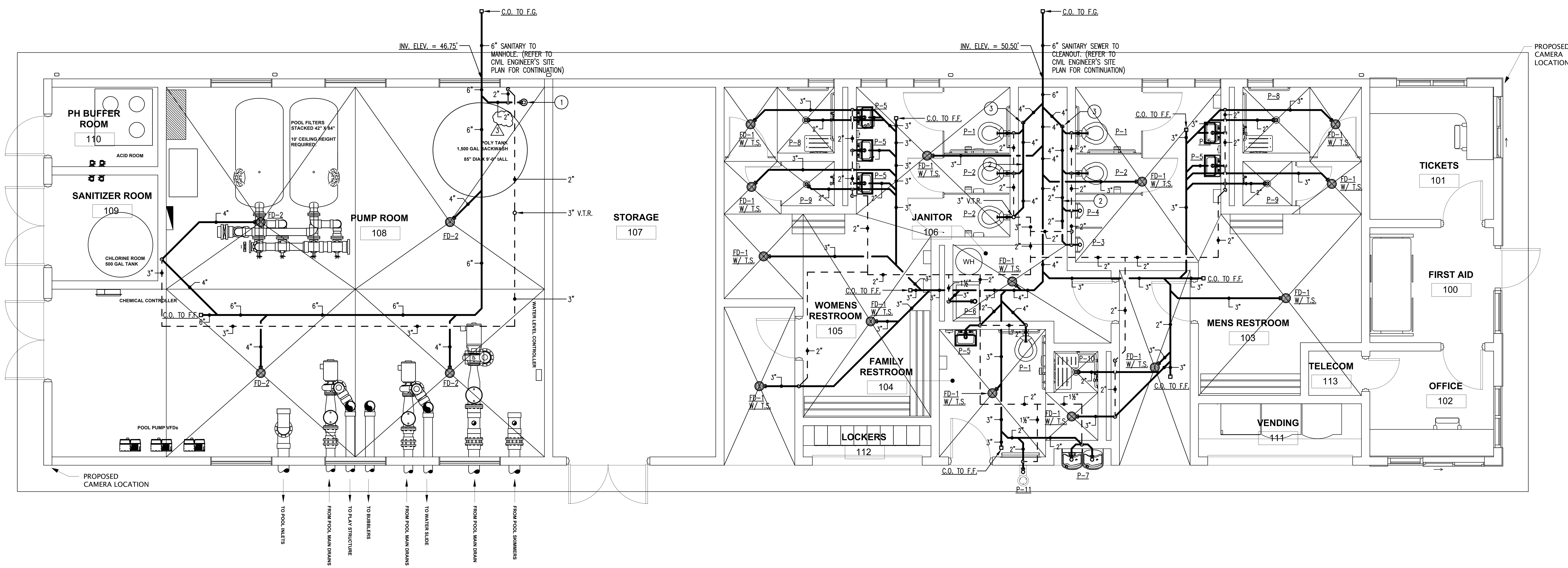
1. ALL SANITARY PIPING SHOWN ON DRAWING ARE INSTALL AT BELOW FLOOR UNLESS OTHERWISE NOTED.
2. ALL VENT PIPING SHOWN ON DRAWING ARE INSTALL AT ABOVE CEILING UNLESS OTHERWISE NOTED.
3. INSTALL BARRIER-TYPE TRAP SEAL DEVICE ON FLOOR DRAINS, CONFORMING TO ASSE 1072 AS MANUFACTURER BY JAY R. SMITH, MIFAB, PROSET OR SURESEAL.

PLUMBING WORK NOTES

(1) 2" FROM 500 GALLON RETENTION TANK TO DRAIN INDIRECTLY, TO 2" DRAIN WITH 6" HUB, OPEN SITE RECEPTOR WITH A 1" RAISED LIP JUST ABV. FINISHED FLOOR FOR POOL BACKWASH WITH 1" AIR GAP.

(2) RUN SAN. PIPE EXPOSED ON INTERIOR AS INDICATED ON PLANS.

(3) 4" SAN. DN. AND TO 6" SAN. LINE BLW. FLR.



BATH HOUSE PLAN – SANITARY – PLUMBING
SCALE: 1/4"=1'-0"

HURST ENGINEERS
308 HILLWOOD AVE.
FALLS CHURCH, VA. 22046
(703) 534-7872

Hurst Engineers Project Number: 21-04

NOTE:
THE CONSTRUCTION OF THIS PROJECT REQUIRES THE CONTRACTOR TO COORDINATE WORK SHOWN ON THIS DRAWING WITH THAT OF ALL OTHER TRADES. IN ADDITION, ALL PIPING, CONDUITS, DUCTWORK, ETC., ARE TO BE INSTALLED WITHIN THE JOISTS / GIRDERS AND TO MAINTAIN THE MINIMUM REQUIRED CLEARANCES, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ARCHITECT W/ COORDINATION DRAWING DEVELOPED BY SUB CONTRACTORS & REFLECTING ALL TRADES. CHANGES RESULTING FROM CONFLICTS WITH OTHER TRADES AND WORK. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.

3 ADDENDUM #3 5/7/2021

Scale:	AS SHOWN
Designed by:	S.P.M.
Drawn by:	S.P.M.
Checked by:	C.G.H.
Date:	APRIL 2021
Project No.	064557600

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NC LICENSE #F-0102

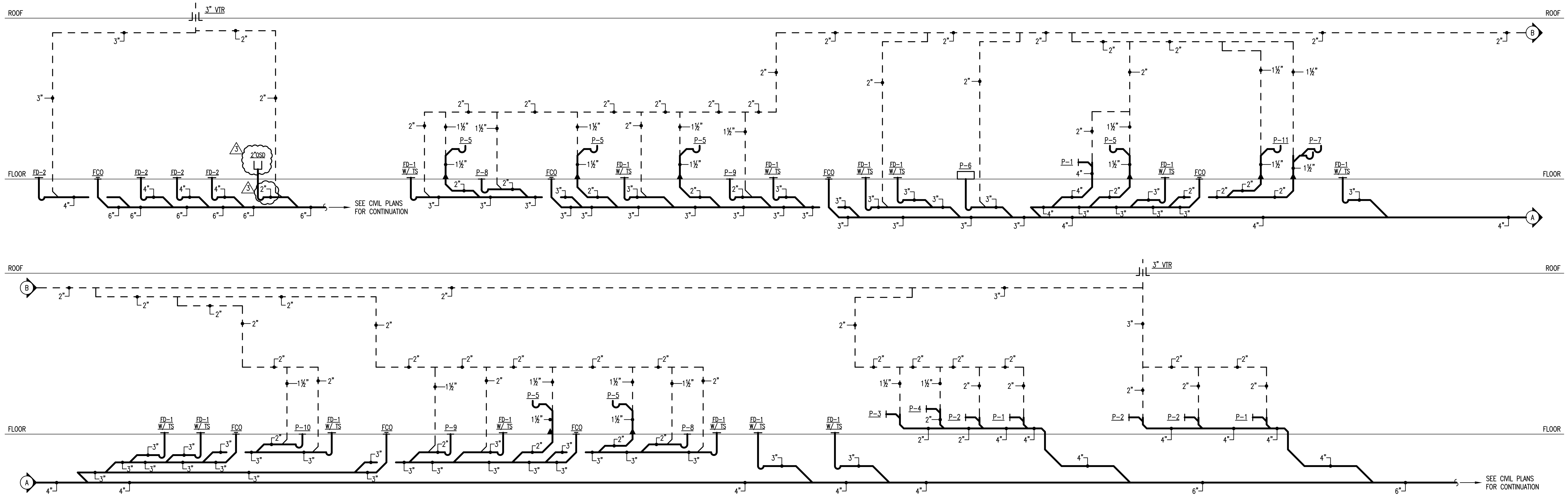
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025134 CLYDE G. HURST, III

GREENVILLE OUTDOOR AQUATIC CENTER

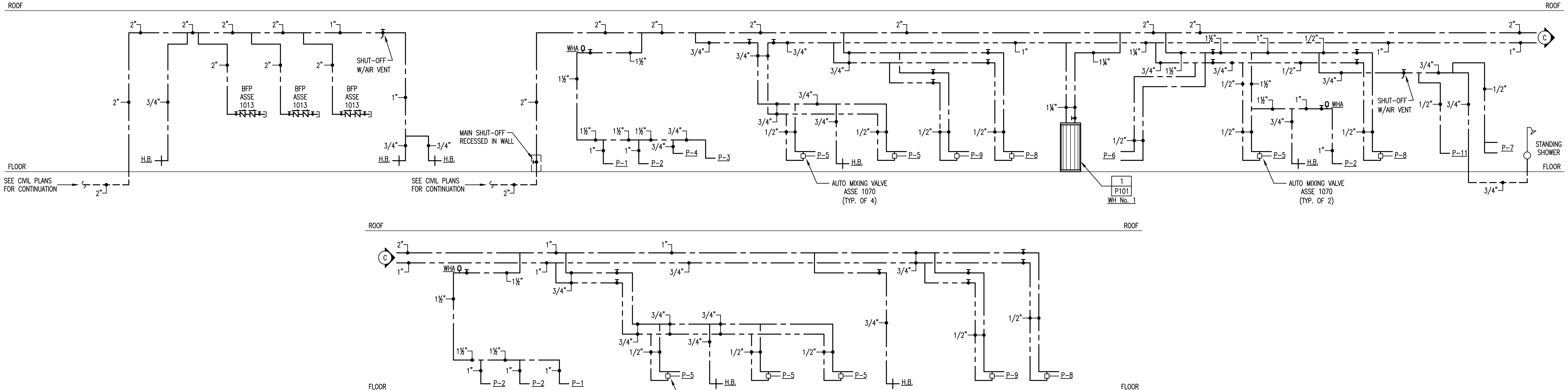
PREPARED FOR
CITY OF GREENVILLE, NC

BATH HOUSE PLAN SANITARY - PLUMBING

SHEET
P-1



1 P801 SANITARY RISER DIAGRAM
NOT TO SCALE



GENERAL NOTE:
PROVIDE SHUT-OFF VALVES AT EACH PLUMBING FIXTURE.

2 P801 WATER RISER DIAGRAM
NOT TO SCALE

HURST ENGINEERS
308 HILLWOOD AVE.
FALLS CHURCH, VA. 22046
(703) 534-7872

Hurst Engineers Project Number: 21-04

NOTE:
THE CONSTRUCTION OF THIS PROJECT REQUIRES THE CONTRACTOR TO COORDINATE WORK SHOWN ON THIS DRAWING WITH THAT OF ALL OTHER TRADES. IN ADDITION, ALL PIPING, CONDUITS, DUCTWORK, ETC., ARE TO BE INSTALLED WITHIN THE JOISTS / GIRDERS AND TO MAINTAIN THE MINIMUM REQUIRED CLEARANCES, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ARCHITECT W/ COORDINATION DRAWING DEVELOPED BY SUB CONTRACTORS & REFLECTING ALL TRADES. CHANGES RESULTING FROM CONFLICTS WITH OTHER TRADES AND WORK. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.

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NC LICENSE #F-0102

NORTH CAROLINA PROFESSIONAL SEAL 025134 ENGINEER CLYDE G. HURST III

GREENVILLE OUTDOOR AQUATIC CENTER
PREPARED FOR
CITY OF GREENVILLE, NC

RISER DIAGRAMS
PLUMBING

3 ADDENDUM # 3 5/7/2021

Scale:	AS SHOWN
Designed by:	S.P.M.
Drawn by:	S.P.M.
Checked by:	C.G.H.
Date:	APRIL 2021
Project No.	064557600

SHEET
P-3

FAN SCHEDULE

UNIT MARK	MANUFACTURER MODEL	TYPE	CFM	SP "H20	RPM	HP (WATTS)	ELECTRICAL AMPS	ELECTRICAL V	ELECTRICAL P	NOTES (Addendum 3)	SERVING
EF-1A	GREENHECK AER-E30C-E36C-400-A	PROPELLER	2,000	0.25	793	2	N/A	208	1	1,3,5,6,9,12,23,24,40	PUMP ROOM 108
EF-1B	GREENHECK AER-E30C-E36C-400-A	PROPELLER	2,000	0.25	793	2	N/A	208	1	1,3,5,6,9,12,23,24,40	PUMP ROOM 108
EF-2	GREENHECK SDPE-D-08G-1-05	PROPELLER	280	0.2	1048	1/30	N/A	120	1	1,4,11,23	STORAGE 107
EF-3	GREENHECK CSP-A1410	INLINE	1,300	0.4	1340	(579)	N/A	120	1	1,5,8,21,31	RESTROOMS 103,104,105
EF-4	GREENHECK G-070-G	PRV	120	0.25	1223	1/60	N/A	120	1	1,5,9,14	PH BUFFER ROOM 110
EF-5	GREENHECK G-070-G	PRV	120	0.25	1223	1/60	N/A	120	1	1,5,9,14	SANITIZER ROOM 109

NOTES:
1. PROVIDE WITH DISCONNECT SWITCH.
2. PROVIDE WITH WALL MOUNTED "ON-OFF" SWITCH.
3. PROVIDE WITH SPEED CONTROLLER, FAN MOUNTED UNLESS OTHERWISE SHOWN.
4. FAN SHALL BE THERMOSTATICALLY CONTROLLED BY WALL MOUNTED THERMOSTAT.
5. FAN SHALL OPERATE CONTINUOUSLY.
6. PROVIDE W/ STARTER (WEATHERPROOF AS REQUIRED).
7. PROVIDE FAN SPEED CONTROLLER MOUNTED IN WEATHERPROOF NEMA ENCLOSURE.
8. FAN TO BE PROVIDED WITH TIME CLOCK FOR OPERATION. PARAGON DIGITAL MODEL WITH 7-DAY PROGRAMMING.
9. INTERLOCK WITH MOTORIZED DAMPER.
10. FAN TO BE ON EMERGENCY GENERATOR
11. PROVIDE WITH BACKDRAFT DAMPER (ALUMINUM).
12. PROVIDE WITH MOTORIZED DAMPER.
13. PROVIDE WITH HINGED CURB.
14. PROVIDE WITH FACTORY SUPPLIED, INSULATED CURB SUITABLE FOR FAN. CURB SLOPED AS REQUIRED.
15. PROVIDE WTH FACTORY SUPPLIED, ROOF CAP DISCHARGE.
16. PROVIDE WITH FACTORY SUPPLIED, WALL DISCHARGE LOUVER.
17. ALL ALUMINUM CONSTRUCTION.
18. PROVIDE WITH STAINLESS STEEL SHAFT.
19. PROVIDE WITH EXTERNAL INLET VANE DAMPER.
20. PROVIDE WITH WALL/CEILING MOUNTING BRACKET AND SEPARATE SAFETY CHAIN.
21. PROVIDE WITH VIBRATION HANGERS.
22. PROVIDE WITH SPARE SET OF BELTS.
23. PROVIDE WITH SAFETY ENCLOSURE.
24. PROVIDE WITH BIRD SCREEN.
25. FAN CONTROLLED BY CO/NOX MONITORING SYSTEM.
26. FAN INTERLOCKED WITH KITCHEN EXHAUST HOOD CONTROL SYSTEM.
27. PROVIDE WITH DIRECT GAS FIRED HEATER WITH MODULATING GAS VALVE, AND DUCT SENSOR.
28. PROVIDE WITH FILTER RACKS AND WASHABLE FILTERS.
29. FAN SUITABLE FOR USE WITH KITCHEN GREASE HOOD.
30. PROVIDE WITH GREASE COLLECTION TROUGH AND COLLECTION BOX.
31. PROVIDE WITH FLEXIBLE DUCT CONNECTORS.
32. SEE CONTROL SEQUENCE FOR ADDITIONAL CONTROL REQUIREMENTS.
33. EXPLOSION PROOF FAN AND ALL COMPONENTS AND ACCESSORIES.
34. INTERLOCK WITH METHANE GAS REMOVAL SYSTEM CONTROL.
35. ALL CONSTRUCTION MATERIALS TO BE COMPATIBLE WITH EXPOSURE TO METHANE GAS.
36. PROVIDE WITH HI-PRO-POLYESTER COATING. COAT ENTIRE FAN AND FACTORY ATTACHED ACCESSORIES.
37. UL/CUL-705 POWER VENTILATORS.
38. CURB SEAL.
39. ALUMINUM RUB RING.
40. ALUMINUM BIRD SCREEN.
41. STAINLESS STEEL FASTENERS.
42. PROVIDE WITH FAN MOUNTED THERMOSTAT.
43. PROVIDE WITH VFD DRIVE.
44. SEE STAIRWAY PRESSURIZATION RISER FOR ADDITIONAL INFORMATION.
45. INTERLOCK WITH PRESSURE SENSING CONTROL FOR STAIRWAY PRESSURIZATION.
46. MOTORIZED DAMPER SHALL FAIL IN "OPEN" POSITION UPON POWER LOSS.
47. PROVIDE WITH ROOF MOUNTING HARDWARE.
48. FAN AND CONTROLS SUITABLE FOR WET LOCATION.
49. PROVIDE INLET PROTECTIVE SCREEN.
50. PROVIDE WITH VARI-GREEN CONSTANT PRESSURE REMOTE TRANSDUCER.
51. PROVIDE WITH VARI-GREEN EC MOTOR WITH VFD.
52. PROVIDE STARTER FOR CONTROL BY FIRE CONTROL CENTER.
53. PROVIDE WITH STARTER CONTROL FOR FIRE RM OPERATION. HAND-OFF-AUTO COORDINATE REQUIREMENTS WITH FIRE ALARM CONTRACTOR
54. INTERLOCK TO OPERATE WITH GENERATOR.

ELECTRIC HEATER SCHEDULE

UNIT MARK	MANUFACTURER MODEL NO.	MBH	ELECTRICAL DATA KW	AMPS	V	P	MOUNTING	NOTES
EUH-A	QMARK		3		277	1	CEILING HUNG	1, 2, 3, 9
EUH-B	QMARK MUH0571	17.1	5	18.1	277	1	CEILING HUNG	1, 2, 3, 9
EUH-C	QMARK MUH104	34.1	10	12.1	480	3	CEILING HUNG	1, 2, 3, 9
EUH-D	QMARK MUH154	51.2	15	18.1	480	3	CEILING HUNG	1, 2, 3, 9
EUH-E	QMARK MUH204	68.2	20	24.1	480	3	CEILING HUNG	1, 2, 3, 9
ECH-A	QMARK QCH110IF	3.4	1	8.3	120	1	CEILING	1, 3, 4, 7, 8
ECH-B	QMARK CDF-547	10.7	3	11	277	1	CEILING	1, 2, 3, 8, 11
ECH-C	QMARK CDF-557	17.1	5	18.1	277	1	CEILING	1, 2, 3, 8, 11
EWH-A	QMARK AWH4407F	6.8	2	7.2	277	1	WALL RECESSED /SURFACE	1, 3, 4, 8, 10 RECESSED OR SURFACE MOUNTED
EWH-B	QMARK AWH4407F	13.6	4	14.4	277	1	WALL RECESSED /SURFACE	1, 3, 4, 8, 10 RECESSED OR SURFACE MOUNTED

NOTES:
1. POWER DISCONNECT SWITCH.
2. PROVIDE REMOTE THERMOSTAT (WHITE COLOR).
3. HIGH TEMP CUT OFF.
4. INTEGRAL THERMOSTAT - TAMPERPROOF.
5. PROVIDE WITH STARTER.
6. 14 GAUGE SECURITY COVER.
7. SURFACE MOUNTING KIT.
8. TRIM KIT.
9. PROVIDE UNIVERSAL WALL/CEILING MOUNTING BRACKET.
10. WALL RECESSED MOUNTING.
11. CEILING RECESSED MOUNTING.
12. WALL SURFACE MOUNTING.
13. PROVIDE WITH 2-STAGE HEAT.
14. PROVIDE WITH 2-STAGE THERMOSTAT.
15. PROVIDE WITH DISPOSABLE FILTER.
16. PLENUM RATED HEATER.
17. PROVIDE WITH 24V HOLDING COIL FOR LOW VOLTAGE THERMOSTAT & REMOTE LOW VOLTAGE THERMOSTAT

AIR HANDLING UNIT (AHU) & HEAT PUMP INDOOR SECTION (HPIS) SCHEDULE

UNIT NO.	MANUFACTURER MODEL NO.	AIR QUANTITY SA CFM	AIR QUANTITY OA CFM	FAN ESP	FAN HP (WATTS)	FAN AMPS	COOLING CAPACITY TOTAL (MBH)	COOLING CAPACITY SENS (MBH)	HEATING CAPACITY REVERSE CYCLE (MBH) (LOW TEMP)	AUXILIARY HEAT KW	AUXILIARY HEAT V	AUXILIARY HEAT P	AUXILIARY HEAT AMPS	ELECTRICAL V	ELECTRICAL P	ELECTRICAL FLA	ELECTRICAL MCA	ELECTRICAL MOCP	NOTES	SERVING	MAX WT. LBS
HPIS-1A	MITSUBISHI SLZ-KF12NA	300	15	N/A	N/A	0.24	12	7.8	13	N/A	N/A	N/A	N/A	208	1	0.24	0.3	15	2, 4, 7, 9, 13, 14, 15, 23	OFFICE 102	37
HPIS-1B	MITSUBISHI SLZ-KF12NA	300	15	N/A	N/A	0.24	12	7.8	13	N/A	N/A	N/A	N/A	208	1	0.024	0.3	15	2, 4, 7, 9, 13, 14, 15, 23	FIRST AID 100	37
HPIS-1C	MITSUBISHI SLZ-KF12NA	300	15	N/A	N/A	0.24	12	7.8	13	N/A	N/A	N/A	N/A	208	1	0.24	0.3	15	2, 4, 7, 9, 13, 14, 15, 23	TICKETS 101	37

GENERAL NOTE:
IF ELECTRIC HEAT REQUIRED SEPARATE CIRCUIT, CONTRACTOR SHALL INCLUDE IN PRICE PROVISIONS FOR SEPARATE CIRCUIT. COMPLETE AND OPERATIONAL.

NOTES:
1. PROVIDE UNIT WITH ECONOMIZER.
2. PROVIDE UNIT WITH PROGRAMMABLE 7 DAY THERMOSTAT.
3. PROVIDE UNIT WITH ELECTRIC HEAT (FUSED DISCONNECT AS REQUIRED).
4. PROVIDE UNIT WITH CONDENSATE PUMP WITH HIGH WATER CUT-OFF. PIPE TO NEAREST APPROVED STORM DRAIN LOCATION.
5. WALL HUNG.
6. CEILING HUNG.
7. RECESSED CEILING GRID INSTALLATION.
8. PROVIDE SPECIAL SOUND PROOFING PACKAGE.
9. PROVIDE WITH FRESH AIR INTAKE DUCT AND POWER VENTILATOR.
10. PROVIDE CONTROL INTERFACE WITH BAS SYSTEM.
11. ELECTRIC HEAT TO BE ON SEPARATE CIRCUIT WITH FUSED DISCONNECT AS REQUIRED.
12. PROVIDE WITH GALVANIZED STEEL DRIP PAN WITH 1" DRAIN AND 1" DRIP PAN LIP. PAN TO EXTEND 4" BEYOND AHU AND REFRIGERANT COIL ON ALL SIDES. PITCH PAN TOWARD DRAIN.
13. PROVIDE WATER SENSOR WITH AHU CUT-OFF AND AUDIBLE ALARM IN DRIP PAN.
14. PROVIDE WITH DISCONNECT (FUSED AS REQUIRED).
15. REFRIGERANT - 410A.
16. PROVIDE WITH HUMIDISTAT.
17. PROVIDE WITH ADJACENT SPACE SUPPLY AIR DUCT.
18. SEE SEQUENCE OF OPERATION NOTE FOR CONTROL OF THIS UNIT.
19. PROVIDE PARTS # PAR-21MAA AND MAC-3971F-E.
20. PROVIDE WITH HOT GAS REHEAT OPTION.
21. PROVIDE WITH BC CONTROLLER.
22. PROVIDE WITH FILTER BOX.
23. PROVIDE MERV 8 FILTERS ON ALL UNITS DURING CONSTRUCTION. REPLACE ALL FILTERS WITH MERV 13 AT COMPLETION OF CONSTRUCTION.

SPLIT SYSTEM OUTDOOR SECTION (HPOS) & CONDENSING UNIT (CU) SCHEDULE

UNIT MARK	MANUFACTURER MODEL NO.	NOMINAL COOLING CAPACITY (MBH)	NOMINAL REVERSE CYCLE HEATING (MBH)	ELECTRICAL DATA NO. COMP.	COMP. RLA	COMP. LRA	NO. COND. FANS	COND. FAN FLA	V	P	FLA	MCA	MOCP	INDOOR UNIT SERVED	MAX WT. (LBS)	NOTES	SERVING	REFRIGERANT TYPE	DESIGN EER (SEER)	DESIGN COP (HSPF)	IECC EER (SEER)	IECC COP (HSPF)
HPOS-1	MITSUBISHI MXZ-4C36NA2	36	43	1	N/A	N/A	1	N/A	208	1	18	22.5	25	HPIS-1A,1B,1C	145	1, 3, 14, 16, 17, 18, 20, 25, 28, 29, 30, 31	OFFICE 102,FIRST AID 100,TICKETS 101	410A	(19.2)	(11)	(14)	(7.7)

NOTES:
1. PROVIDE WITH DISCONNECT SIZED AS PER NEC.
2. PROVIDE WITH MOTOR MASTER HEAD CONTROL.
3. PROVIDE LOW AMBIENT CONTROLLERS.
4. PROVIDE CRANKCASE HEATER.
5. PROVIDE WITH HIGH AND LOW PRESSURE SWITCHES.
6. PROVIDE WITH WINTER START CONTROL.
7. PROVIDE WITH TIME DELAY RELAY.
8. PROVIDE COMPRESSOR START ASSIST - CAPAITOR AND RELAY.
9. EVAPORATOR FREEZE THERMOSTAT.
10. PROVIDE FILTER-DRIER (BI-FLOW ON HEAT PUMP).
11. PROVIDE PHASE / VOLTAGE MONITOR.
12. PROVIDE WITH HOT GAS REHEAT.
13. PROVIDE WITH SOUND HOOD.
14. PROVIDE WITH UNIT RISER.
15. PROVIDE WITH CONDENSER COIL GUARD.
16. VARIABLE SPEED COMPRESSOR.
17. REFRIGERANT 410A.
18. PROVIDE WITH AUTO CHANGE OVER, 7 DAY PROGRAMMABLE THERMOSTAT.
19. PROVIDE WITH 120V CONVENCE OUTLET.
20. UNIT TO BE SUITABLE FOR LONG LINE APPLICATION. PROVIDE FACTORY APPROVED LONG LINE REFRIG. LINE SIZING.
21. PROVIDE WITH LIQUID LINE SOLENOID VALVE.
22. COORDINATE NEW DIGITAL CONTROLS WITH EXISTING BUILDING ENERGY MANAGEMENT SYSTEM.
23. PROVIDE WITH GAGE PANEL PACKAGE.
24. PROVIDE WITH EVAPORATOR COIL SUITABLE FOR INDOOR UNIT.
25. PROVIDE WITH WIND BAFFLE.
26. PROVIDE WITH 4 BRANCH HEADER.
27. PROVIDE WITH 8 BRANCH HEADER.
28. SUPPLYING MULTIPLE HPIS UNITS. PROVIDE WITH REFRIG. PIPING CONNECTIONS AND CONTROL.
29. PROVIDE WITH REFRIGERANT HEADER AS REQUIRED.
30. PROVIDE WITH FACTORY REPRESENTATIVE CLOSE-IN INSPECTION AND STARTUP.
31. PROVIDE WITH LOW AMBIENT WIND BAFFLES.

HURST ENGINEERS
308 HILLWOOD AVE.
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(703) 534-7872
Hurst Engineers Project Number: 21-04

NOTE:
THE CONSTRUCTION OF THIS PROJECT REQUIRES THE CONTRACTOR TO COORDINATE WORK SHOWN ON THIS DRAWING WITH THAT OF ALL OTHER TRADES. IN ADDITION, ALL PIPING, CONDUITS, DUCTWORK, ETC., ARE TO BE INSTALLED WITHIN THE JOISTS / GIRDERS AND TO MAINTAIN THE MINIMUM REQUIRED CLEARANCES, U.O.N. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ARCHITECT W/ COORDINATION DRAWING DEVELOPED BY SUB CONTRACTORS & REFLECTING ALL TRADES. CHANGES RESULTING FROM CONFLICTS WITH OTHER TRADES AND WORK. IN THE EVENT OF ANY CONFLICTS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE PROCEEDING.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025134 CLYDE G. HURST III APR 16 2021

GREENVILLE OUTDOOR AQUATIC CENTER
PREPARED FOR
CITY OF GREENVILLE, NC

SCHEDULES MECHANICAL

3 ADDENDUM # 3 5/7/2021

Scale:	AS SHOWN
Designed by:	C.G.H.
Drawn by:	R.E.L.
Checked by:	C.G.H.
Date:	APRIL 2021
Project No.	0645574600

SHEET
M-2

SECTION 13153

SWIMMING POOL CEMENTITIOUS FINISH

PART 1 - GENERAL

1.01 SUMMARY

a. Provide a conventional proprietary aggregate plaster finish to the pool structures. Provide installation of bond coat prior to application of pool finishes. A slip-resistant acrylic coating shall be applied to a 1’0” horizontal area beyond the gutter on the pool beam and at the beach apron above the zero depth entry. A ceramic tile trim shall be furnished and installed on the pool vertical tile band, contrasting nosings, tile band at zero entry grating, recessed wall steps, depth markings, wall targets, floor lane markings and all other tile installations as shown and detailed on the contract drawings and in strict accordance with these specifications.

b. Provide water analysis and pre-fill requirements.

1.02 SUBMITTALS

a. Samples

1. Prepare 12-inch square panel at the site showing color and texture for pool plaster. Finished cementitious finish work shall match the approved sample panel.

b. Certificates

1. Submit certificates attesting that the materials furnished meet the requirements specified herein.

c. Test Report

1. Submit results of domestic water analysis and calculation of amounts of chemicals required to balance pool water on initial fill of pool.

1.03 PRODUCT DELIVERY AND STORAGE

a. Deliver manufactured materials to site in manufacturers' original unbroken packages or containers bearing manufacturers' name and brand labels. Keep cementitious materials dry until ready to be used and stored off the ground, under cover and away from damp surfaces.

1.04 JOB CONDITIONS

a. Apply plaster in swimming pool only when ambient temperature is above 40 degrees F and below 90 degrees F, and protect applied plaster from rapid drying by sun or wind until curing is completed or pool is filled with water. Confirm and comply with all applicable manufacturers installation requirements.

1.05 QUALITY ASSURANCE

a. Plaster installers shall have two years experience in similar pool projects which the Owner may require written proof thereof and proper tools to install plaster.

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1.06 SURFACE PREPARATION

a. Surface Preparation

1. Surface shall be structurally sound and free of any foreign substances and debris that could reduce or impair adhesion, free of dirt, oil, grease or other foreign materials. Sound and remove all loose concrete to firm substrate. Surfaces shall be roughened by sand blasting, water jetting, shot blasting, scarifying, or grinding. Pressure-wash the entire surface. Wash with trisodium phosphate (TSP) using a stiff broom. Thoroughly wash/rinse with clean potable water. Surface defects or holes in the substrate shall be patched per manufacturer's recommendations.

2. Apply and cure bond coat per manufacturer's recommendations. After proper curing of bond coat, lightly moisten with clean potable water prior to application of cementitious finish. Ensure bond coat is free of any foreign matter prior to plastering.

PART 2 - PRODUCTS

2.01 DIAMOND BRITE

A. The CONTRACTOR shall install a slip-resistant proprietary plaster finish in the areas indicated on the drawings. Description: Diamond Brite finish shall be a blend of selected quartz aggregates and fortified white Portland cement. Color and texture shall be selected by the Architect. Confirm all installation requirements with the manufacturer.

B. Bond Coat

1. Bond Kote by SGM, Inc., or approved equal. Apply and cure bond coat per manufacturer's recommendations. After proper curing of bond coat, lightly moisten with clean potable water prior to application of cementitious finish. Ensure bond coat is free of any foreign matter prior to plastering.

C. Mixing

1. Thoroughly mix Diamond Brite to a homogeneous lump-free consistency using 1-1/2 to 2 gallons of potable water per 80 lb. bag.

D. Application

1. Diamond Brite shall be applied to a uniform thickness of 3/8" to 1/2" over the entire surface. The walls shall be scratch-coated followed by a finish coat. Material applied to the floor after the walls have been applied shall be accelerated to assure uniform setting time throughout the pool surface.

E. Coverage

1. Each 80 lb. bag shall cover approximately 25 square feet to a thickness of 3/8".

F. Proprietary plaster finish is to be applied by a licensed applicator as approved by the manufacturer.

2.02 PEBBLE SHEEN (contractor's option in lieu of Diamond Brite)

A. The CONTRACTOR shall install a slip-resistant pebble stone surface in the areas as indicated on the drawings. Description: Pebble Sheen finish shall be a blend of selected colored aggregates

and fortified white Portland cement. Color and texture shall be selected by the Architect. Finish to consist of Pebble Sheen as supplied by Pebble Technology, Inc. (480) 948-5058, or approved equal. Confirm all installation requirements with the manufacturer.

B. Surface Preparation

1. Surface shall be structurally sound and free of any foreign substances and debris that could reduce or impair adhesion, free of dirt, oil, grease or other foreign materials. Sound and remove all loose concrete to firm substrate. Surfaces shall be roughened by sand blasting, water jetting, shot blasting, scarifying, or grinding. Pressure-wash the entire surface. Wash with trisodium phosphate (TSP) using a stiff broom. Thoroughly wash/rinse with clean potable water. Surface defects or holes in the substrate shall be patched per manufacturer's recommendations. Lightly moisten walls and floors prior to application of Pebble Sheen.

C. Bond Coat

1. Scratch Kote System by Multicoat Corporation, Bond Kote by SGM, Inc., or approved equal. Apply and cure bond coat per manufacturer's recommendations. After proper curing of bond coat, lightly moisten with clean potable water prior to application of cementitious finish. Ensure bond coat is free of any foreign matter prior to plastering.

D. The cementitious finish mixture is to be pneumatically applied to the pool surface.

E. After application of Pebble Sheen material the surface is to be hand troweled for exposure of aggregate material.

F. Spray down troweled surface with water to remove excess cement and exposure of aggregate.

G. Surface is allowed a minimum of a 24 hour hardening period. Upon hardening the surface is cleansed with an approved solution as provided by the manufacturer for final exposure and luster of finish surface.

H. Surface is to be buffed so as to ensure all sharp edges are removed and final surface texture is per the manufacturer's recommendations.

I. Proprietary aggregate plaster finish is to be applied by a licensed applicator as approved by the manufacturer.

2.03 ACRYLIC CEMENT COATING

A. Primer

1. On old concrete, saturate surface with Weathermaster CMX-4 acrylic modifier as a bond aid. Apply base coat before the bond aid is completely dry. If the bond aid dries, reapply Weathermaster prior to base coat.

B. Base Coat

1. Base coat shall consist of three (3) gallons of Weathermaster CMX-4 acrylic modifier, One (1) 100#bag of Type 1 ASTM white Portland cement and One (1) 100# bag of #4 silica sand. Add water in limited quantities based on temperatures and mix to be mixed by hand in clean container

2. Apply base coat to primer while primer is still damp. (Primer is only necessary on cured concrete). Apply base coat using pattern gun, squeegee or trowel over the area to be treated to a uniform thickness of 1/16". Allow base coat to sufficiently dry.

C. Texture Coat

1. Texture coat mixture shall consist of three (3) gallons of Weathermaster CMX-4 acrylic modifier, One (1) 100#bag of Type 1 ASTM white Portland cement and One (1) 100# bag of #4 silica sand. Add water in limited quantities based on temperatures and mix by hand in clean container

2. Spray texture coating using pattern pistol over 60-70 percent of base coat. Lightly trowel moist texture in a circular motion as required to produce the approved texture. Allow surface to completely dry and sawcut all marked expansion joints if plastic joints are not used.

D. Finish:

1. Spray apply Acrylic Finish Coat color to entire application to a uniform color. When dry, remove all protective materials from adjacent surfaces. When dry, scrape surface with scrapers to remove loose cement.

E. Protection

1. Restricted access and protect acrylic deck coating during the period of installation. No traffic to be allowed on acrylic deck coating for at least 48 hours after installation.

PART 3 - EXECUTION

3.01 PREPARATION OF SURFACES AND BOND COAT

A. Clean base surfaces of projections, dust, loose particles, grease, bond breakers, and foreign matter; make sufficiently rough to provide a strong mechanical bond. Sandblast, acid etch, or waterblast to achieve appropriate profile. If acid etching, surfaces must be neutralized and powerwashed prior to proceeding. Do not apply cementitious finishes directly to the surfaces of masonry or concrete that is coated with any acidic solution compound or similar agent until compound or agent is completely removed by water blasting. Thoroughly wash entire surface with 2,000 psi high-pressure water immediately prior to application of finishes. Wet cementitious base surfaces with a fine fog water spray to produce a uniformly moist condition and check screeds, pool equipment, and accessories for correct alignment before work is started. Do not apply finish materials to base surfaces containing frost. Install temporary coverings as required to protect adjoining surfaces from staining or damage by plastering operations.

B. Prepare and clean concrete surfaces by removing oil or grease. Repair all cracks, surface damage as required prior to proceeding. Protect or mask all adjacent surfaces that are not scheduled to receive cementitious finish. If expansion or construction joints exist in the areas where cementitious finish will be applied cover plastic joints for protection (if plastic joints are used). Additionally, mark joints for saw-cutting if area will be saw-cut.

C. Apply and cure bond coat per manufacturer's recommendations. After proper curing of bond coat, lightly moisten with clean potable water prior to application of cementitious finish. Ensure bond coat is free of any foreign matter prior to plastering.

D. Contractor to thoroughly verify the site conditions prior to the application of cementitious finish. Verify concrete is free of ridges and sharp projections. Verify that all concrete surfaces that are to receive a cementitious finish have cured for a minimum of 5 days. Consideration should be given for the application of a primer for all concrete structures that is over 28 days old to improve bonding.

3.02 APPLICATION OF CEMENTITIOUS FINISH

A. General

1. Confirm all application requirements with the manufacturer. Apply finish plaster to the properly prepared substrate at the minimum thickness required by the manufacturer, but no less than 3/8 inch thickness at any location. Apply finish plaster by hand or machine. If plastering machine is used, control fluidity of plaster to have a slump not exceeding 2-1/2 inches when tested using a 2" by 4" by 6" high slump cone. Do not add additional water to the mix subsequent to determining water content to meet this slump. Perform slump test according to following procedure:

   a. Place cone on level, dry non-absorptive base plate.

   b. While holding cone firmly against base plate, fill cone with plaster taken directly from hose or nozzle of plastering machine, tamping with a metal rod during filling to release all air bubbles.

   c. Screed off plaster level with top of cone. Remove cone by lifting it straight up with a slow and smooth motion.

   d. Place cone in a vertical position adjacent to freed plaster sample suing care not to jiggle base plate.

   e. Lay straightedge across top of cone being careful not to vibrate cone; measure slump in inches from bottom edge of straightedge to the top of slumped plaster sample.

2. All mixing of materials and application procedures shall be done in accordance with the manufacturer’s recommendations and requirements. The manufacturer’s representative shall visit the site to verify field conditions, confirm materials and application requirements and ascertain that all materials and systems are so installed. Documentation shall be provided to this effect.

B. Workmanship

1. Unless otherwise required by the manufacturer, apply finish plaster in two coats by "double-back" method with second coat applied as soon as first coat is tamped and initially floated. Apply plaster with sufficient pressure to provide a good bond on bases. Work plaster to screeds at intervals of from 5 feet to 8 feet on straight surfaces. Apply smooth trowel finish without waves, cracks, trowel marks, ridges, pits, crazing, discoloration, projections, or other imperfections. Form plaster carefully around curves and angles, well up to screeds. Take special care to prevent sagging and consequent drooping of applications. Produce surfaces free of visible junction marks in finish coat where one day's work adjoins another. Finish proprietary plaster as required by the manufacturer.

2. All cementitious finishes shall be applied by a licensed applicator as approved by the manufacturer.

C. Curing

1. Curing cementitious finishes with fine fog water spray applied to finish coat as frequently as required to prevent dry-out of surface, or as directed by the manufacturer of the cementitious finish. Keep plaster damp until pool is filled. Prevent damage or staining of plaster by troweling or curing.

D. Patching, Pointing, and Cleaning Up

1. Upon completion, cut out and patch loose, cracked, damaged, or defective plaster; patches matching existing plaster in texture, color, and finish, flush with adjoining plaster. Perform pointing and patching of surfaces and plasterwork abutting or adjoining any other finish work in a neat and workmanlike manner. If 10 percent or more of the pools plaster finish is found to be defective, the plaster shall be removed and replaced complete from all surfaces. Remove plaster droppings or spattering from all surfaces. Leave plaster surfaces in clean, unblemished condition ready for pool filling. Remove protective coverings from adjoining surfaces. Remove rubbish and debris from the site.

3.03 PRE-FILL SPECIFICATION

A. Contractor shall employ a qualified water testing agency to analyze the domestic water with which the pool will be filled within 2 weeks of the plaster date, and shall employ a swimming pool experienced water chemistry consultant to determine types and quantities of chemicals required to ensure calcium-balanced water immediately upon the completion of water filling. Refer to section 13150/131100 for water filling requirements.

1. Have on hand quantities of the chemicals as determine above, plus 25% overage for follow-up treatment. These chemicals, typically including calcium chloride, bicarbonate of soda, and muriatic acid are in addition to standard bromine/chlorine products and alkalizer/pH control products required elsewhere.

B. The pool(s) shall not be plastered until directed by the Owner’s representative and the filtration system and chlorination system are complete and ready for start-up. The Contractor shall supply all chemicals required for treatment of the pool water.

C. The Contractor shall submit domestic water analysis to the Owner and/or Architect at least 2 weeks prior to filling the pool(s).

END OF SECTION 13153