

# GREENVILLE OUTDOOR AQUATIC CENTER

CONSTRUCTION DOCUMENTS

APRIL 2021

FOR



PARKS & RECREATION BOARD

DIRECTOR  
GARY FENTON

STAFF LIASON  
MONICA DANIELS

CHAIR  
NICOLE CASWELL

VICE-CHAIR  
GORDON DARRAGH

BRYAN AYNES  
MICHAEL SAAD  
CARRIE WATSON  
DARIN WHITE  
KRISTIAN WILLIAMS  
JAMES YAHNKER

**PREPARED FOR:**  
**Greenville Parks and Recreation, Greenville NC**  
200 Cedar Lane  
Greenville, North Carolina 27636  
**863-263-4667**  
(CONTACT: MARK NOTTINGHAM) EMAIL: MNOTTINGHAM@GREENVILLE.GOV

**PREPARED BY:**  
**Kimley»Horn**  
Landscape Architects, Engineers and Planners  
13455 Noid Road, Two Galleria Tower, Suite 700, Dallas Texas 75240  
Phone: (869) 594-8722 Fax: (972) 239-3620 Email: Mark.Jacobs@kimley-horn.com  
(CONTACT: MARK JACOBSON)

421 Fayetteville Street, Ste. 600 Raleigh North Carolina 27601  
Phone: (919) 653-2990 Email: John.Luczenski@kimley-horn.com  
(CONTACT: JOHN LUCZENSKI)

**CONSULTANTS:**  
**Councilman/Hunsaker and Associates**  
Aquatic Planning and Design  
10753 Sunat Office Drive, Suite 401, Saint Louis, Missouri 63124-0118  
Phone: (314) 894-1245 Fax: (314) 894-0109 Email: Cary.Dennis@chad.com  
(CONTACT: CARY DENNIS)

**Osterlund Architects, PLLC**  
Bathroom Design  
51001 Regent Street #110, Raleigh, NC  
Phone: (919) 838-3337 Email: kristen@osterlund.com  
(CONTACT: KRISTEN OSTERLUND)

**Hurst Engineers**  
Site and Pool Electrical  
205 Almond Ave., Falls Church, Virginia 22046  
Phone: (703) 534-7872 Fax: (840) 423-8439 Email: jayveti@berngel.com  
(CONTACT: JIM WEATHERS P.E. (404) 427-8487)

**The Core Group**  
Pool Structural Design  
102 Lindberg Drive, Nashville, Tennessee 37203  
Phone: (615) 854-0142 Email: core@coregroupengineering.com  
(CONTACT: TREST OGLE)

**Utility Contacts**  
Fire - Bryant Beckett  
BBEEDARD@GREENVILLE.GOV OR 252-329-4416  
Water and Sewer - Mikayla Tripp  
TRIPPMAR@GVL.GOV OR 252-551-1555  
Electric - Brian Murphy  
MURPHYB@GVL.GOV OR 252-329-2173  
Gas - Jason Cypers  
CYPERSJ@GVL.GOV OR 252-551-0313  
Drainage - Kendall Paramore  
SEDRANAGEDISTRICT@GVL.GOV OR 252-524-4000

**INDEX OF SHEETS**

NO.	DESCRIPTION
01	GENERAL NOTES
02	CONSTRUCTION METHODS
03	CONSTRUCTION METHODS
04	CONSTRUCTION METHODS
05	CONSTRUCTION METHODS
06	CONSTRUCTION METHODS
07	CONSTRUCTION METHODS
08	CONSTRUCTION METHODS
09	CONSTRUCTION METHODS
10	CONSTRUCTION METHODS
11	CONSTRUCTION METHODS
12	CONSTRUCTION METHODS
13	CONSTRUCTION METHODS
14	CONSTRUCTION METHODS
15	CONSTRUCTION METHODS
16	CONSTRUCTION METHODS
17	CONSTRUCTION METHODS
18	CONSTRUCTION METHODS
19	CONSTRUCTION METHODS
20	CONSTRUCTION METHODS
21	CONSTRUCTION METHODS
22	CONSTRUCTION METHODS
23	CONSTRUCTION METHODS
24	CONSTRUCTION METHODS
25	CONSTRUCTION METHODS
26	CONSTRUCTION METHODS
27	CONSTRUCTION METHODS
28	CONSTRUCTION METHODS
29	CONSTRUCTION METHODS
30	CONSTRUCTION METHODS
31	CONSTRUCTION METHODS
32	CONSTRUCTION METHODS
33	CONSTRUCTION METHODS
34	CONSTRUCTION METHODS
35	CONSTRUCTION METHODS
36	CONSTRUCTION METHODS
37	CONSTRUCTION METHODS
38	CONSTRUCTION METHODS
39	CONSTRUCTION METHODS
40	CONSTRUCTION METHODS
41	CONSTRUCTION METHODS
42	CONSTRUCTION METHODS
43	CONSTRUCTION METHODS
44	CONSTRUCTION METHODS
45	CONSTRUCTION METHODS
46	CONSTRUCTION METHODS
47	CONSTRUCTION METHODS
48	CONSTRUCTION METHODS
49	CONSTRUCTION METHODS
50	CONSTRUCTION METHODS
51	CONSTRUCTION METHODS
52	CONSTRUCTION METHODS
53	CONSTRUCTION METHODS
54	CONSTRUCTION METHODS
55	CONSTRUCTION METHODS
56	CONSTRUCTION METHODS
57	CONSTRUCTION METHODS
58	CONSTRUCTION METHODS
59	CONSTRUCTION METHODS
60	CONSTRUCTION METHODS
61	CONSTRUCTION METHODS
62	CONSTRUCTION METHODS
63	CONSTRUCTION METHODS
64	CONSTRUCTION METHODS
65	CONSTRUCTION METHODS
66	CONSTRUCTION METHODS
67	CONSTRUCTION METHODS
68	CONSTRUCTION METHODS
69	CONSTRUCTION METHODS
70	CONSTRUCTION METHODS
71	CONSTRUCTION METHODS
72	CONSTRUCTION METHODS
73	CONSTRUCTION METHODS
74	CONSTRUCTION METHODS
75	CONSTRUCTION METHODS
76	CONSTRUCTION METHODS
77	CONSTRUCTION METHODS
78	CONSTRUCTION METHODS
79	CONSTRUCTION METHODS
80	CONSTRUCTION METHODS
81	CONSTRUCTION METHODS
82	CONSTRUCTION METHODS
83	CONSTRUCTION METHODS
84	CONSTRUCTION METHODS
85	CONSTRUCTION METHODS
86	CONSTRUCTION METHODS
87	CONSTRUCTION METHODS
88	CONSTRUCTION METHODS
89	CONSTRUCTION METHODS
90	CONSTRUCTION METHODS
91	CONSTRUCTION METHODS
92	CONSTRUCTION METHODS
93	CONSTRUCTION METHODS
94	CONSTRUCTION METHODS
95	CONSTRUCTION METHODS
96	CONSTRUCTION METHODS
97	CONSTRUCTION METHODS
98	CONSTRUCTION METHODS
99	CONSTRUCTION METHODS
100	CONSTRUCTION METHODS

**SITE DATA**

NCF#: 487821227
PARCEL NUMBER: 28956
PHYSICAL ADDRESS: 400 NASH STREET
MUNICIPALITY: GREENVILLE
OWNER: CITY OF GREENVILLE
PG BOX: 7207
GREENVILLE NC 27635
LEGAL DESCRIPTION: RIVERDALE BLK 14V, S.A.A.
MAP/LOCAL LOT: 4678-2042-1227-000
TOWNSHIP: GREENVILLE
CENSUS TRACT: 701

**City of Greenville Site Plan Approval**

Approved	Approved in Note
<input type="checkbox"/>	<input type="checkbox"/>
Zoning	Engineering
Surveyor/Plumber	Inspection
Fire Review	GLIC Review
GLIC Submitter	GLIC Gas
NCDOT	Vegetation
Traffic Services	Notes

\*Site plan approval ONLY. Engineer/Architect/Surveyor shall be responsible for adequacy of design, errors or omissions in the plans. All plans shall meet all specifications, standards and applicable regulations.







**STOP!**  
CALL BEFORE YOU DIG  
NORTH CAROLINA ONE  
CALL SYSTEM  
1-800-333-6989 or 811  
(Call 72 hours prior to digging)

APPROXIMATELY 200 SF OF ASPHALT PAVING TO BE REMOVED

APPROXIMATELY 10 LF OF CONCRETE CURB AND GUTTER TO BE REMOVED

APPROXIMATELY 200 SF OF CONCRETE PAVING TO BE REMOVED

APPROXIMATELY 45 SF OF CONCRETE PAVING TO BE REMOVED

EXISTING LIGHT POLE TO BE REMOVED (TYP)

EXISTING DEBRIS PILE TO BE REMOVED (TYP)

APPROXIMATELY 48 LF OF FENCE TO BE REMOVED

EXISTING TENNIS COURT TO BE REMOVED

LANDSCAPE PLANTERS TO BE REMOVED (TYP)

EXISTING WOOD AND DEBRIS PILE TO BE REMOVED (TYP)

APPROXIMATELY 730 SF OF BRUSHED STONE TO BE REMOVED

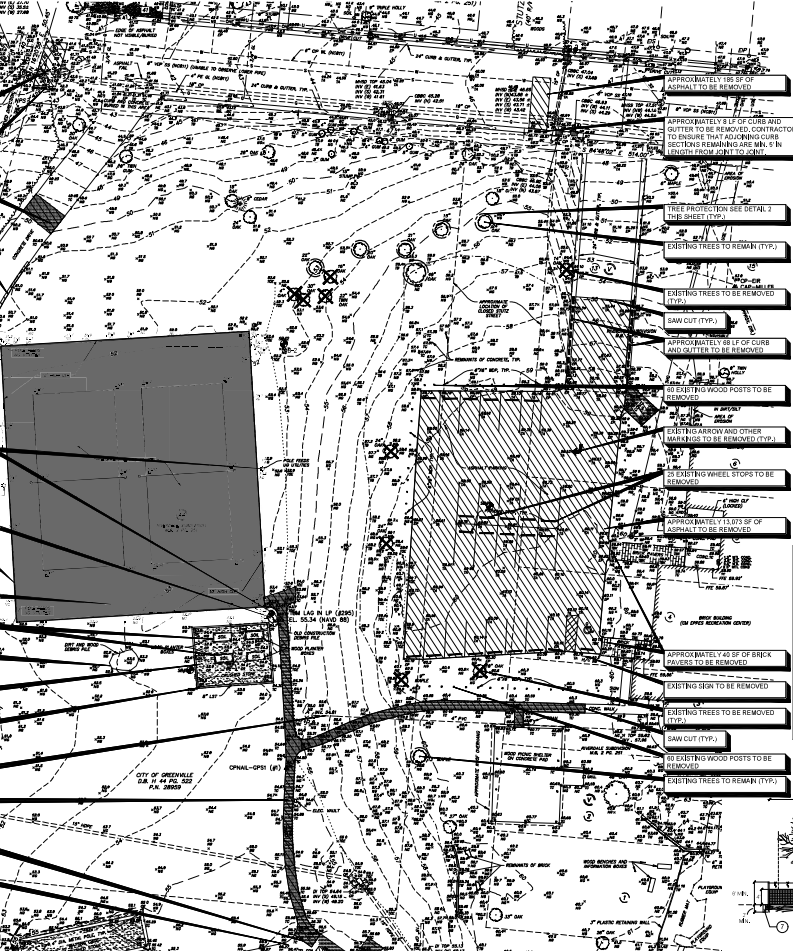
APPROXIMATELY 122 LF OF 8" LANDSCAPE TRENCH TO BE REMOVED

APPROXIMATELY 11 LF OF EXISTING PIPE TO BE REMOVED

APPROXIMATELY 307 SF OF EXISTING CONCRETE TO BE REMOVED

EXISTING TYP

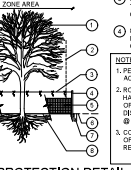
EXISTING CONCRETE TO REMAIN (TYP)



**1 REMOVAL ITEMS PLAN**  
SCALE: 1" = 30'

**LEGEND**

—	CONTOUR LINE
○	BORE LOCATION
○	EXISTING TREE TO REMAIN
○	EXISTING TREE TO BE REMOVED
○	TO BE REMOVED CONCRETE OR ASPHALT PAVING TO BE REMOVED
○	TENNIS COURT TO BE REMOVED



**REMOVAL NOTES**

- REFER TO ELECTRICAL AND FOR ANY ADDITIONAL REMOVAL ITEMS ASSOCIATED WITH PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES WITH THE CITY AND THE VARIOUS UTILITY COMPANIES. ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE PROMPTLY REPAIRED AT HIS SOLE EXPENSE TO THE OWNER. SHOULD ANY MODIFICATIONS BE REQUIRED, CONTACT THE OWNER IMMEDIATELY PRIOR TO MAKING THE CHANGE. CALL NORTH CAROLINA ONE CALL TO MARK AND LOCATE UTILITIES.
- ALL REMOVAL ITEM DEMANDS (UNLESS OTHERWISE NOTED) BECOMES THE PROPERTY OF THE CONTRACTOR AND MUST BE REMOVED FROM THE SITE.
- THE CONTRACTOR SHALL COORDINATE THE LIMITS OF REMOVAL WORK WITH THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE EXISTING PAVING, FENCING, LANDSCAPING AND SAW CUTTING AND REMOVAL OF EXISTING CURBS AND PAVING AS REQUIRED AT THE JOB.
- QUANTITIES ARE APPROXIMATE AND PROVIDED ONLY FOR REFERENCE; THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL FINAL QUANTITIES AS REQUIRED TO COMPLETE THE PROJECT AS PER THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL PROTECT EXISTING TREES NOT SHOWN FOR REMOVAL.
- CONTRACTOR WILL BE RESPONSIBLE FOR ANY UNDERGROUND UTILITY DISCOVERY AND MISCELLANEOUS SAW CUTTING AND TRIMMING AT EXISTING PAVING AND UTILITIES.

**UTILITY COMPANY CONTACTS**

NOTE: THE FOLLOWING LIST OF UTILITY COMPANY CONTACTS IS NOT A COMPLETE LIST OF ALL UTILITY COMPANIES WITH FACILITIES IN THE AREA. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ALL UTILITIES TO BE AFFECTED. NOT JUST THOSE LISTED BELOW.

ELECTRIC - GREENVILLE UTILITIES COMMISSION	TELEPHONE: XXXX
PHONE: 254-885-1861	PHONE: XXXX
GAS - GREENVILLE UTILITIES COMMISSION	CABLE - XXXX
PHONE: 254-885-1861	EMAIL: XXXX

**BENCHMARK**

EXISTING TOPOGRAPHIC INFORMATION PROVIDED BY REVERS & ASSOCIATES INC. LICENSE: KA0410257001010

**BENCHMARK DESCRIPTIONS:**

<b>BM 44</b>	TM 44
ELEV: 55.34	TM LAG IN LP
<b>BM 65</b>	ELEV: 55.34
<b>BM 66</b>	TM X ON TRANS BASE
ELEV: 58.61	
<b>BM 68</b>	TM ERRS IN PP
ELEV: 55.10	

PROJECT VERTICAL CONTROL, BASED ON NC685 MONUMENT LUPTON (IPD) BY THE ELEVATION 55.00 ± 7' NAVD83

- EXISTING TREES TO REMAIN
- CRIMLINE OF EXISTING TREE (TYP)
- CONTINUOUS SILK ON THE STRING TIED TO STAKE TOPS ON 2" TONDA WEIGHT ORANGE STREAMERS @ 1' O.C.
- 16" METAL T-FASTENERS @ 0.2 MPH ON 2" TONDA WEIGHT ORANGE TRENCH OR OUTSIDE TREE CRIMLINE
- 12" EXISTING GRADE TO REMAIN
- 4" 100% HEIGHT ORANGE PLASTIC FENCING INSTALLED PER MANUF. RECOMMENDATIONS (TYP) EXISTING SURFACE FENCING @ PRUNING TRENCH AS REQ'D.
- EXISTING SURFACE FENCING @ PRUNING TRENCH AS REQ'D.
- ROOT PRUNING TRENCH 12" OUTSIDE FENCING - SEE NOTES.
- EXISTING GRADE TO REMAIN - SEE NOTES.

**NOTES**

- PERFORM ROOT PRUNING ON ALL EXISTING TREES TO REMAIN WHERE CONSTRUCTION ACTIVITY FALLS WITHIN THE CRIMLINE OF EXISTING TREES.
- ROOT PRUNING METHOD: 3 MONTHS PRIOR TO EXCAVATION & CONSTRUCTION ACTIVITIES, HAND-CUT ROOTS BY SERRING A 1/4" DEEP 4" WIDE TRENCH ALONG THE OUTSIDE PERIMETER OF EXISTING TREES ADJACENT TO CONSTRUCTION AREAS. MAXIMIZE PRUNING TRENCH DISTANCE FROM TRUNK TO THE FULLEST EXTENT POSSIBLE. THE ROOT PRUNING LINE PLACED @ THE EDGE OF CONSTRUCTION LIMITS.
- CONTRACTOR SHALL TAKE NECESSARY STEPS TO LIMIT ROOM COMPACTION UNDER THE DRIP LINE OF EXISTING TREES. A MEETING WITH THE CITY ASSOCIATES PRIOR TO CONSTRUCTION IS RECOMMENDED TO DETERMINE ACCEPTABLE TREE PROTECTION METHODS.

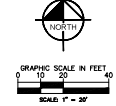
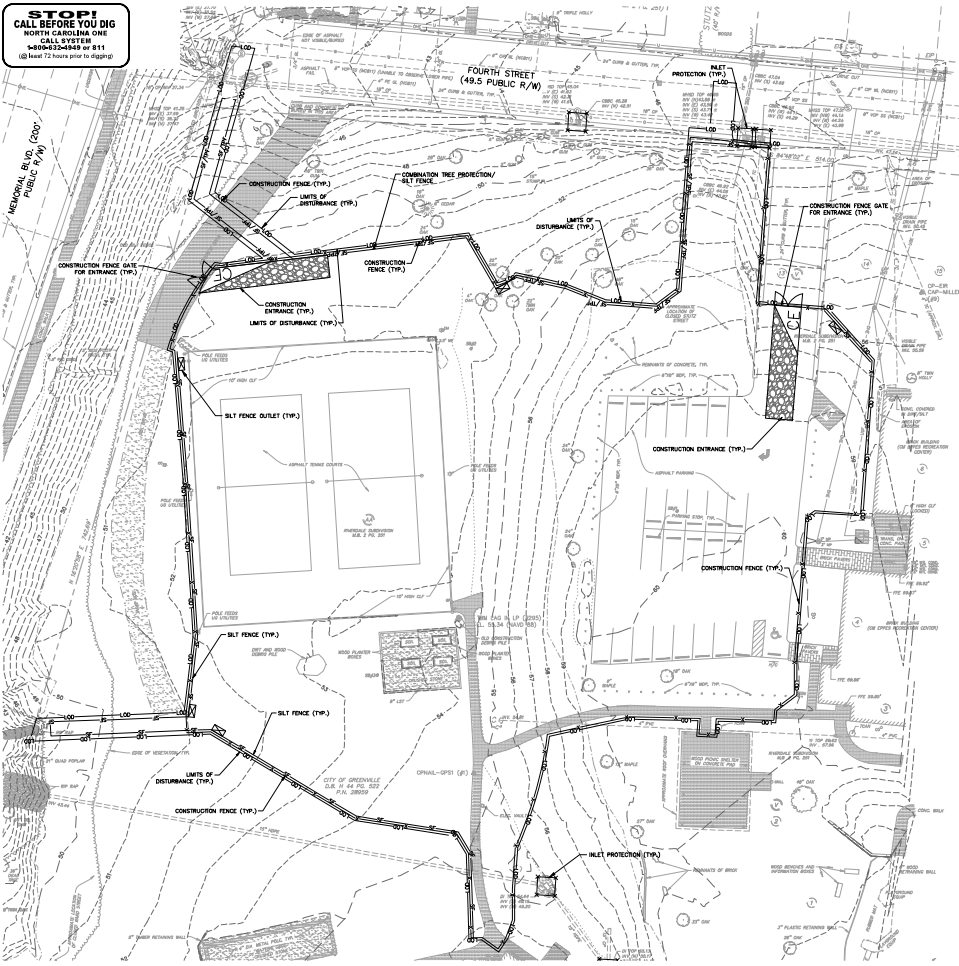
**Kimley-Horn**  
417 Hawthorne Avenue, Suite 200, Raleigh, NC 27603  
919.876.5600  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC. NC LICENSE #28022

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PROJECT #2021-001  
CITY OF GREENVILLE, NC

**EXISTING CONDITIONS & REMOVAL ITEMS**

SCALE:	AS SHOWN
DATE:	MAY 2021
DESIGNED BY:	MD
CHECKED BY:	DK
DATE:	APRIL 2021
PROJECT NO.:	2021-001
SHEET:	C-3

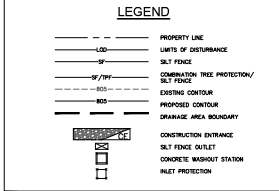
**STOP!**  
**CALL BEFORE YOU DIG**  
 NORTH CAROLINA ONE  
 CALL SYSTEM  
 1-800-333-4549 or 811  
 (at least 72 hours prior to digging)



**EROSION AND SEDIMENT CONTROL NOTES**

- REFER TO SHEET 6-1, GENERAL NOTES SHEET FOR EROSION CONTROL NOTES.

- PHASE I CONSTRUCTION SEQUENCE**
- THE FOLLOWING PHASE I CONSTRUCTION SEQUENCE IS INTENDED TO BE A GENERAL GUIDE FOR PREPARATION OF A SCHEDULE OF CONSTRUCTION ACTIVITIES.
  - SETUP AND INSTALL PRECONSTRUCTION CONFERENCE WITH PROJECT ENGINEER, REPRESENTATIVE OF THE CITY OF GREENVILLE, AND REPRESENTATIVE OF THE DISTRICT ENGINEER, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND TRAVEL DEVELOPMENT.
  - VERIFY EROSION AND SEDIMENT CONTROL PLAN APPROVAL FROM THE CITY OF GREENVILLE.
  - INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, SILT FENCE OUTLET, AND SILT FENCE PROTECTION. EXCAVATION SHALL BE LIMITED TO EROSION CONTROL PURPOSES ONLY. EROSION CONTROL SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
  - CALL FOR ONE-STOP EROSION CONTROL INSPECTION FROM THE CITY OF GREENVILLE.
  - VERIFY APPROVAL, CORRECT AND VERIFY APPROVAL FROM ALL CITY AND COUNTY DEPARTMENTS, INCLUDING THE CITY OF GREENVILLE AND THE CITY OF GREENVILLE DEPARTMENT OF PUBLIC WORKS.
  - INSPECT AND VERIFY EROSION CONTROL MEASURES AFTER EVERY MAJOR EVENT OF 1" OF GREATER OR GREATER WET WEATHER DAILY.
  - ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
  - REFER TO THE BEST MANAGEMENT PRACTICES (BMP) MANUAL FOR THE CITY OF GREENVILLE FOR EROSION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES.



**NOTES GROUND COVER REQUIREMENTS**

SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERMITS ONLY, FINALS	7 DAYS	NONE
DRIVEN, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER	7 DAYS	NONE
FLOW ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 3:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR FLOW ZONES AND FLOW

SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES. CONTRACTOR SHALL MAINTAIN SILT FENCES THROUGHOUT THE DURATION OF CONSTRUCTION.

SILT FENCE OUTLETS ARE TO BE PROVIDED ALONG ALL LOW POINTS OF SILT FENCE AND SHALL BE SUBJECT TO INSPECTION AND MAINTENANCE BY CONTRACTOR TO ENSURE SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.

LIMITS OF DISTURBANCE: 150' AS SHOWN

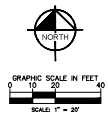
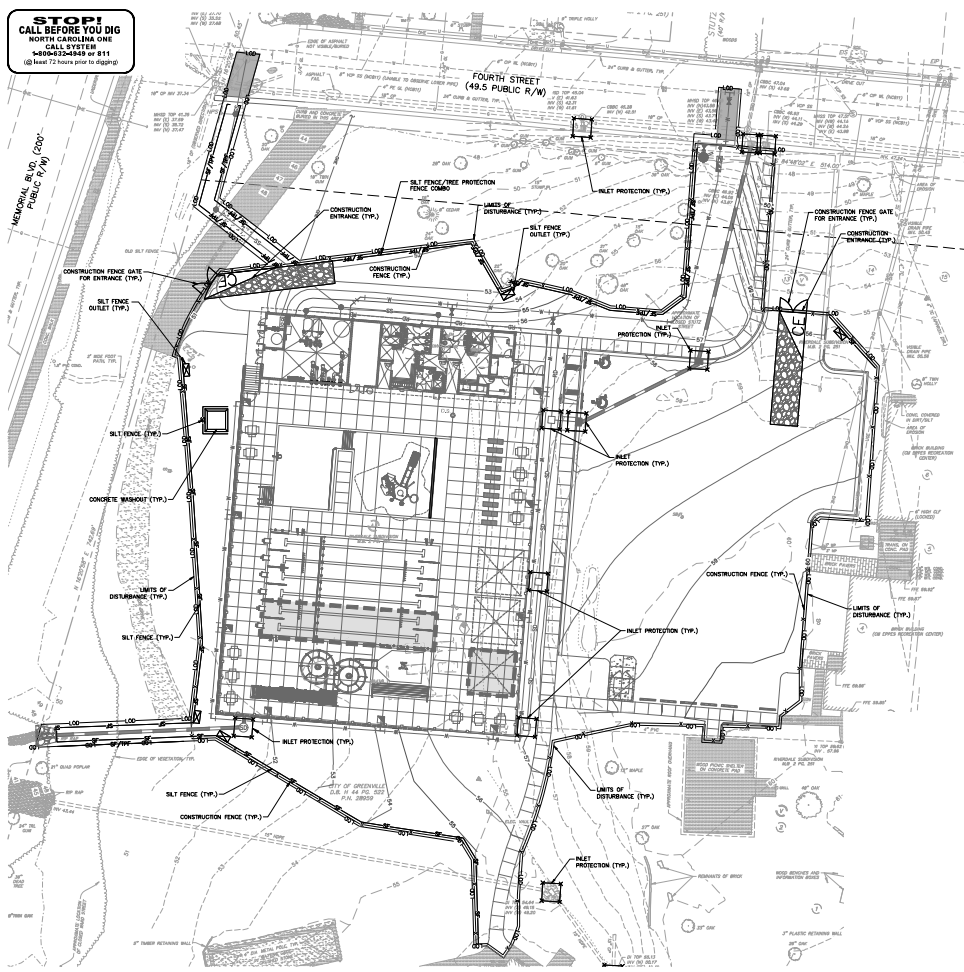


**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE, NC

**EROSION CONTROL PLAN - PHASE 1**

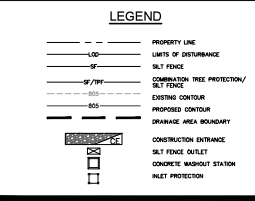
SCALE	AS SHOWN
DATE	APRIL 2011
DESIGNED BY	DK
CHECKED BY	DK
DATE	APRIL 2011
PROJECT NO.	2010-0000
SHEET NO.	4

**STOP!**  
**CALL BEFORE YOU DIG**  
 NORTH CAROLINA ONE  
 CALL SYSTEM  
 1-800-333-6889 or 811  
 (at least 72 hours prior to digging)



**EROSION AND SEDIMENT CONTROL NOTES**

- REFER TO SHEET G-4 GENERAL NOTES SHEET FOR EROSION CONTROL NOTES.
- THE FOLLOWING PHASE 2 CONSTRUCTION SEQUENCE IS FURNISHED AS A GENERAL GUIDE FOR PREPARATION OF A SEQUENCE OF CONSTRUCTION EVENTS.
- BEFORE ANY GRADING MAINTAIN EROSION CONTROL DEVICES AS NEEDED.
- INSTALL SITE RETAINING WALL AND GRADE TO POOL AND BUILDING ELEVATIONS AS SHOWN ON PLAN.
- BEFORE INSTALLATION OF STORM DRAIN SYSTEM, INLET PROTECTION SHALL BE INSTALLED. ONLY ONE (1) PAIR OF PROTECTIVE SILT FENCES SHALL NOT LEAVE OVER REMOVED. ALL OTHERS SHALL BE REMOVED IMMEDIATELY UPON GRADE ON THE SPECIFIC SIDE TO SHEET WATER THROUGH THE STRUCTURE.
- CONSTRUCT UTILITIES AND DRIVE ADJACENT/PARKING AREAS. INSTALL CURB AND GUTTER AND PAVING STONE BASE TO STABILIZE PARKING LOT AND ROADWAY.
- COMPLETING BUILDING PAD AND POOL DECK CONSTRUCTION.
- MAINTAIN DEVICES AS NEEDED. INLET PROTECTION SHALL REMAIN UNTIL THE ENTIRE CONTROLLING DRAINAGE AREA IS STABILIZED.
- REPAIR AND REPAIR EROSION CONTROL MEASURES AFTER EVERY RAINFALL EVENT OF 1/2" OR GREATER OR EVERY SEVEN (7) CALENDAR DAYS.
- STABILIZE SITE AS NEARLY AS POSSIBLE TO FINISH GRADE WITH VEGETATION, PANGOL, BUNCH GRASS, ETC. SEED AND MULCH DERIVED AREAS WITHIN FOURTEEN (14) DAYS UNLESS OTHERWISE SPECIFIED FOR IMPROVEMENT.
- COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL THE CITY OF GREENVILLE ENVIRONMENTAL DEPARTMENT INSPECTORS FOR INSPECTION.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AND SEED OR STABILIZE ANY RESULTING BARE AREAS.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY CITY OF GREENVILLE EROSION CONTROL INSPECTOR.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NCDENR EROSION AND SEDIMENT CONTROL PLAN AND DESIGN MANUAL, DEPARTMENT OF AGRICULTURE, AND CITY OF GREENVILLE EROSION CONTROL ORDINANCE.
- REFER TO THIS SHEET AND GENERAL NOTES SHEET C-1 FOR GENERAL EROSION CONTROL NOTES AND MAINTENANCE AND RECORD PREPARATION AND RECORD SCHEDULE.



**MINIMUM GROUND COVER REQUIREMENTS**

SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERMEABLE DRIVES, TERRACES, DITCHES, SLOPES	7 DAYS	NONE
NON PERMEABLE WATER (LOW ZONES)	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1
SLOPES 3:1 OR FLATTER	14 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE EXCEPT FOR PERIMETERS AND LOW ZONES

SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES. OWNERS SHOULD VERIFY ALL LIMITS OF DISTURBANCE WHERE APPLICABLE.  
 SET FENCE LOCATIONS AND TREE PROTECTION SHALL BE ALL THE POINTS OF SILT FENCE AND AREAS WHERE RUNOFF MAY CONCENTRATE. LANDING DAMS TO SILT FENCE CONSTRUCTION IS NOT NECESSARY UNLESS NECESSARY TO MAINTAIN SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.

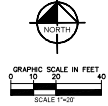
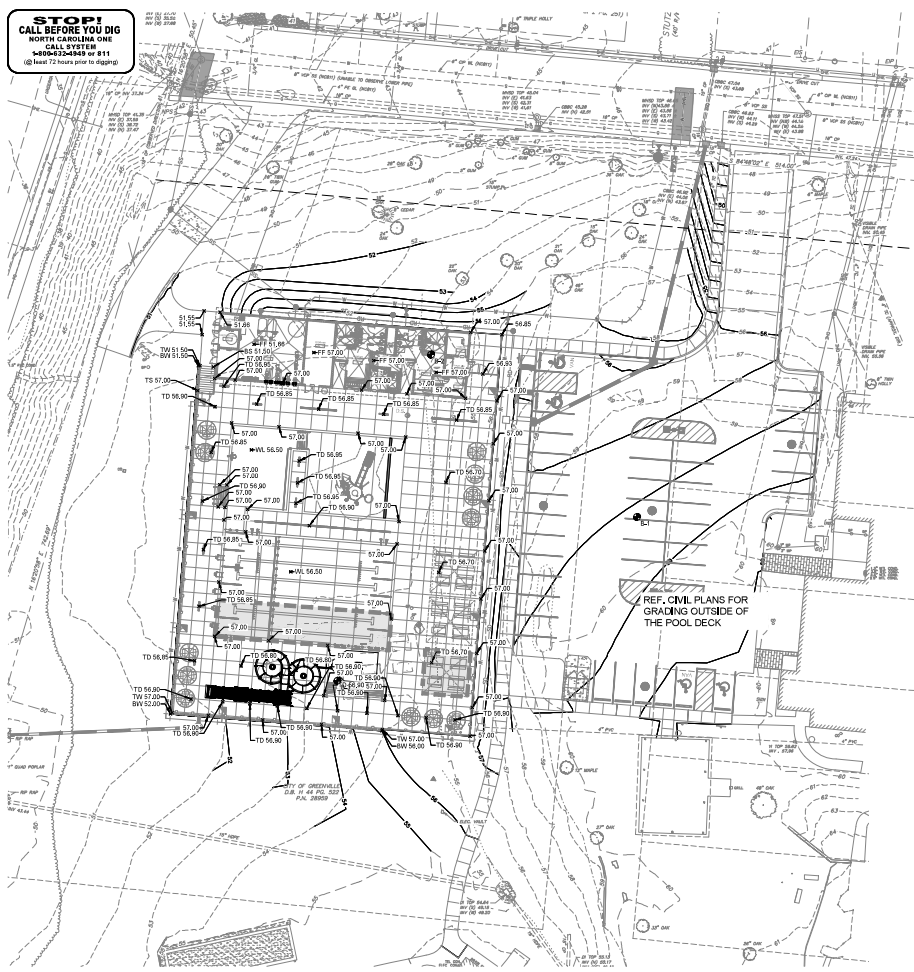
**Kimley»Horn**  
 417 HARRIS DRIVE, GREENVILLE, NC 27601  
 P: 864.333.7700  
 F: 864.333.7701  
 WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR: CITY OF GREENVILLE, NC

**EROSION CONTROL PLAN - PHASE 2**

SCALE: AS SHOWN  
 DATE: APRIL 2023  
 SHEET C-5

**STOP!**  
**CALL BEFORE YOU DIG**  
 NORTH CAROLINA ONE  
 CALL SYSTEM  
 1-800-333-6969 or 811  
 (Call 72 hours prior to digging)



**LEGEND**

1000	PROPOSED CONTOUR
1000	EXISTING CONTOUR
FF	FINISHED FLOOR
TD	TOP OF DRAIN
TC	TOP OF CURB
BC	BOTTOM OF CURB
ME	MATCH LINES
WL	WATER LEVEL
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
PROSD	PROPOSED
HP	HIGH POINT
LP	LOW POINT
TW	TOP OF WALL
BW	BOTTOM OF WALL

- GRADING NOTES**
- REFER TO ARCHITECTURAL PLANS FOR EXACT GRADE REQUIREMENTS OF PAVEMENT AT DOORS TO MEET BUILDING AND ADA REQUIREMENTS AND FLOOR DRAINAGE GRADING.
  - THE CONTRACTOR SHALL EMPLOY A LICENSED PUBLIC SURVEYOR TO SET ALL GRADES, SPOT ELEVATIONS, FLOWLINES, POOL CORING AND FLOOR LEVELS, ETC.
  - SHOULD ANY MODIFICATIONS BE REQUIRED TO THE PROPOSED SPOT GRADES DUE TO CONDITIONS ENCOUNTERED IN THE FIELD, CONTACT THE ENGINEER IMMEDIATELY PRIOR TO MAKING ANY CHANGES.
  - ALL CURBS ARE 8" HIGH TYPICAL CROSS SLOPES ON WALKS AND PARKWAY AT HANDICAP ACCESSIBLE PORTS SHALL NOT EXCEED 2% MAX. HANDICAP ACCESSIBLE ROUTES SHALL NOT EXCEED 5% MAX.
  - NO DEPRESSIONS, "BIRD BATHS", ETC. SHALL BE PERMITTED IN THE FINISH. SHOULD ANY MODIFICATIONS BE REQUIRED TO THE PROPOSED GRADES TO ACHIEVE POSITIVE DRAINAGE, CONTACT THE ENGINEER IMMEDIATELY.
  - ALL MANHOLES, CLEANOUTS, VALVE BOXES, ETC. SHALL BE ADJUSTED TO MATCH PROPOSED GRADES.
  - THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING UTILITIES WITHIN THE CONNECS. SHOULD ANY UTILITIES BE DAMAGED, THE CONTRACTOR SHALL PROMPTLY REPAIR ANY SUCH DAMAGE AT NO ADDITIONAL EXPENSE TO THE OWNER AND THE WAREHOUSING UTILITY COMPANIES.

- NOTES**
- REFER TO EXISTING PLAN & DETAIL KEY FOR ADDITIONAL SITE PLAN ANNOTATIONS.
  - ADA COMPLIANCE: ALL NEW PAVING MUST COMPLY WITH ADA. NON-COMPLYING PAVEMENT WILL BE REMOVED AND REPLACED BY CONTRACTOR AT THEIR OWN EXPENSE.

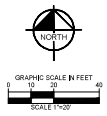
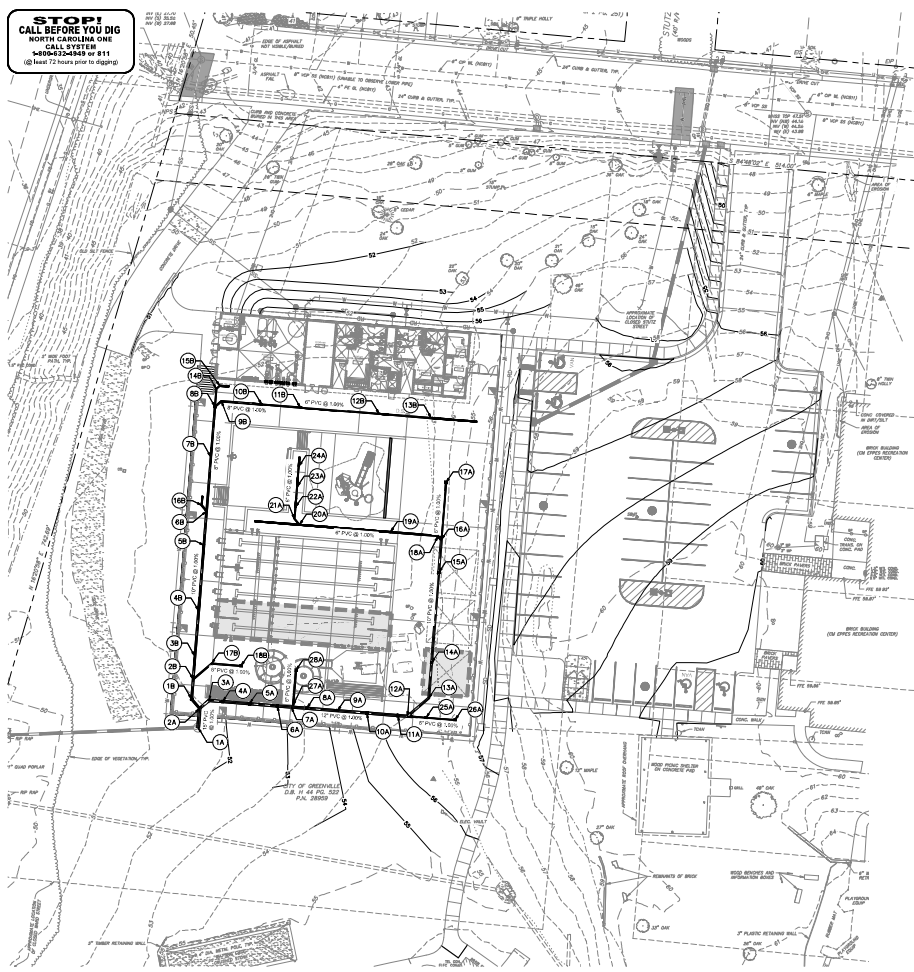
**TOTAL STATION LAYOUT**  
 KIMLEY-HORN WILL PROVIDE AN AUTOCAD FILE OF THIS PLAN TO THE CONTRACTOR'S SURVEYOR TO USE FOR LAYOUT. IN TOTAL STATION.

**BENCHMARK**  
 EXISTING TOPOGRAPHIC INFORMATION PROVIDED BY HORNERS & ASSOCIATES INC. LICENSE #0334 (202 7524119)  
**BENCHMARK DESCRIPTIONS:**  
**TBM #1:**  
 TBM LAG IN LP  
 ELEV: 55.34'  
**TBM #2:**  
 TBM X ON TRANS BASE  
 ELEV: 58.61'  
**TBM #3:**  
 TBM 8502  
 TBM 8503 IN PP  
 ELEV: 56.10'  
 PROJECT VERTICAL CONTROL BASED ON NCOS MONUMENT LUPTON (JPD FV1808); ELEVATION 85.99 FT NAVD83

**1 DECK GRADING PLAN**  
 SCALE: 1" = 20'

SCALE:	AS SHOWN
DESIGNED BY:	MMO
DRAWN BY:	DKK
CHECKED BY:	DKK
DATE:	APRIL, 2021
PROJECT:	GREENVILLE OUTDOOR AQUATIC CENTER
SHEET:	C-6

**STOP!**  
CALL BEFORE YOU DIG  
NORTH CAROLINA ONE  
CALL SYSTEM  
1-800-333-6949 or 811  
(at least 72 hours prior to digging)



NO.	STATION	LINE	INSTALL	TOP ELEV.	FLOW LINE	FLOW LINE	FLOW LINE
<b>LINE A</b>							
1A	D+00.00	A	80' CIVIL FOR CONNECTION	57.15	+45.81		
2A	D+00.62	A	12\"/>				

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

**BENCHMARK**  
EXISTING TOPOGRAPHIC INFORMATION PROVIDED BY RYMERS & ASSOCIATES INC. LICENSE #4334 (262 7534135)

**BENCHMARK DESCRIPTIONS**

- TBM 86**  
TBM LGS IN LP  
ELEV= 55.24'
- TBM 87**  
TBM X ON TRANS BASE  
ELEV= 58.61'
- TBM 85/87**  
TBM ERRS IN PP  
ELEV= 50.16'

PROJECT VERTICAL CONTROL BASED ON NCDS MONUMENT LUPTON (PID BY1608), ELEVATION 66.90 FT NAVD83

**1 DECK DRAINAGE PLAN**  
SCALE: 1" = 20'

**Kimley-Horn**  
477 Hawthorne Road, Suite 200, Raleigh, NC 27603  
919.876.1000  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
N.C. LICENSE #22022



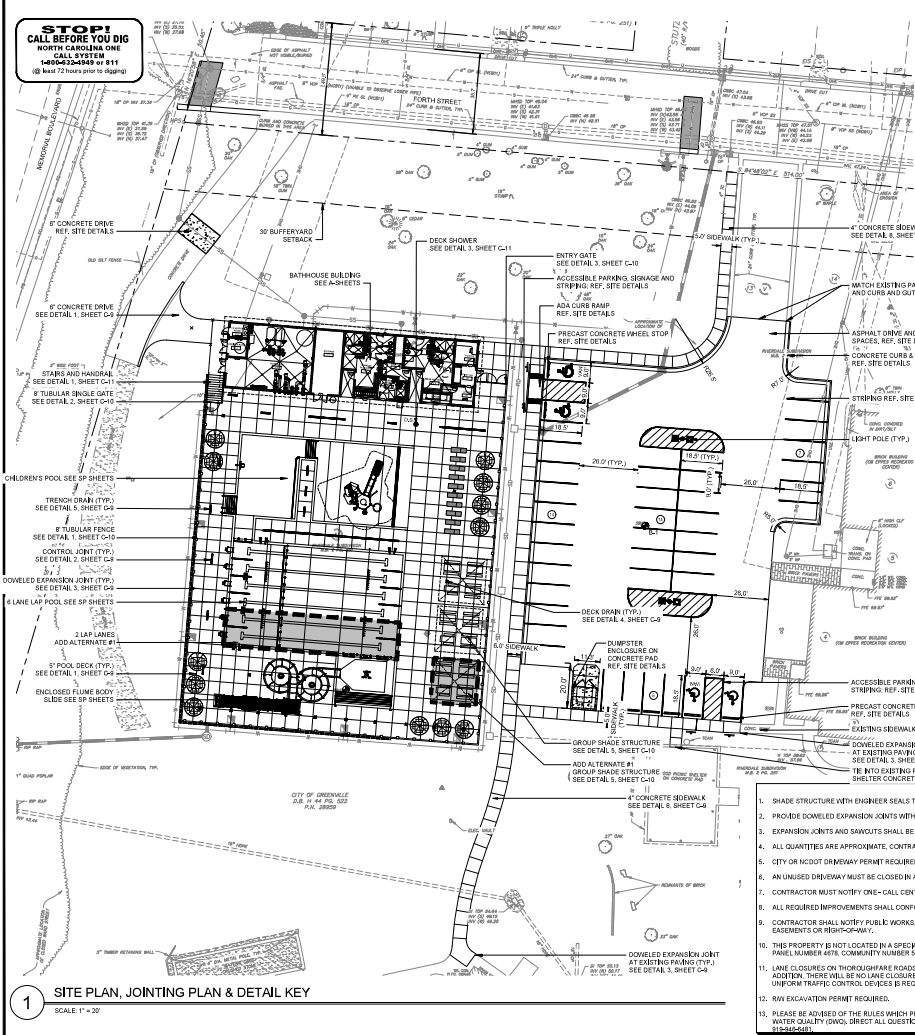
**GREENVILLE OUTDOOR AQUATIC CENTER**  
DESIGNED BY  
CITY OF GREENVILLE, NC

**DECK DRAINAGE PLAN**

SCALE: AS SHOWN  
DATE: APRIL 2021  
PROJECT: GREENVILLE OUTDOOR AQUATIC CENTER  
SHEET: C-7

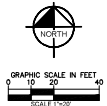


**STOP!**  
CALL BEFORE YOU DIG  
NORTH CAROLINA ONE  
1-800-333-4545 or 811  
(Call 72 hours prior to dig)



**TOTAL STATION LAYOUT**  
KIMLEY-HORN WILL PROVIDE AN AUTOCAD FILE OF THIS PLAN TO THE CONTRACTOR'S SUBMITTER/TOUSE FOR LAYOUT. (A TOTAL STATION)

- NOTES:**
- CONTRACTOR TO STAKE SHADE FOOTER LOCATION TO AVOID UNDERGROUND UTILITY CONFLICTS.
  - CONTRACTOR TO COORDINATE WITH USA SHADE FOR INSTALLATION.
  - PLEASE BE AWARE OF THE RULES WHICH PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE-TARPAWING RIVER BASIN. THIS RULE IS ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ALL QUESTIONS ABOUT THE APPLICABILITY OF THIS RULE TO YOUR PROJECT TO ROGER THORPE, REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE.



**SITE FURNISHINGS**

SYMBOL	DESCRIPTION	QTY	SYMBOL	DESCRIPTION	QTY
[Symbol]	GROFFLEX LOUNGE (W/AN "SHADE") (COLOR: TRD) OR APPROVED EQUAL	10	[Symbol]	GROFFLEX UMBRELLA & BASE MODEL #9919437	12
[Symbol]	FRMC TABLE BY WABASH VALLEY, MODEL #PSY110	8	[Symbol]	RECTANGULAR FENCE TABLE BY WABASH VALLEY MODEL #PSY116 (COLOR: TRD)	9
[Symbol]	ADA FRMC TABLE BY WABASH VALLEY MODEL #PSY111	4	[Symbol]	ADA RECTANGULAR FENCE TABLE BY WABASH VALLEY MODEL #PSY115 (COLOR: TRD)	3

**LEGEND**

SYMBOL	DESCRIPTION
[Symbol]	DOWELED EXPANSION JOINT DETAIL 3, SHEET C-4
[Symbol]	SAWED CONTROL JOINT DETAIL 2, SHEET C-4
[Symbol]	8" CONCRETE POOL DECK DETAIL 1, SHEET C-4
[Symbol]	8" CONCRETE POOL DECK DETAIL 2, SHEET C-4
[Symbol]	TUBULAR STEEL FENCE DETAIL 2, SHEET L-8
[Symbol]	4" CONCRETE SIDEWALK DETAIL 3, SHEET C-4

**PROJECT DATA**

5" CONCRETE POOL DECK	112,718 SF
8" CONCRETE DRIVE	1,590 SF
ASPHALT DRIVE	119,220 SF
4" CONCRETE SIDEWALK	19,900 SF
8" TUBULAR STEEL FENCE	4,400 LF
4 LANE LAP POOL AND CHILDREN'S POOL	45,153 SF
20x20 GROUP SHADE STRUCTURE	2 EACH
PARKING SPACES	41 SPACES

**ADD ALTERNATE #1**

5" CONCRETE POOL DECK	1,877 SF
8" TUBULAR STEEL FENCE	252 LF
2 LANE LAP POOL	11,126 SF
20x20 GROUP SHADE STRUCTURE	1 EACH

**ADD ALTERNATE #2**

ENCLOSED FLUME BODY SLIDE	1 EACH
---------------------------	--------

**SITE DATA**

TOTAL SITE AREA:	9.44 ACRES
TOTAL AREA DISTURBED:	1.56 (16%) ACRES
CURRENT ZONING:	R6 RESIDENTIAL
SUBDIVISION:	RMERDALE SUBDIVISION
WATERSHED:	HARRIS MILLS/SCHOOL HOUSE WATERSHED
NORM:	487821027
TOTAL NUMBER OF PARKING SPACES WITHIN PROJECT AREA:	41 SPACES
EXISTING:	25 SPACES
PROPOSED (INCLUDING ADA):	41 SPACES
ADA:	4 SPACES (2 VAN)
IMPERVIOUS SURFACE AREAS WITHIN PROPERTY BOUNDARY:	
EXISTING:	2.11 (22%) ACRES
PROPOSED:	2.55 (27%) ACRES
BUILDING CROSS FLOOR AREA:	4057 SF
BUILDING HEIGHT:	12'
DEEDBOOK/PAGE:	H44 9522

- NOTES:**
- SHADE STRUCTURE WITH ENGINEER SEALS TO BE SUBMITTED BY MANUFACTURE FOR SEPARATE PERMIT.
  - PROVIDE DOWELED EXPANSION JOINTS WITH SEALER ADJACENT WHERE PAVING ADJUTS BUILDINGS.
  - EXPANSION JOINTS AND SAWCUTS SHALL BE CONTINUOUS THROUGH ADJACENT CURBS, (TYP).
  - ALL QUANTITIES ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND PROVIDING SUFFICIENT MATERIALS TO ACHIEVE THE DESIGN LAYOUT FOR ALL ELEMENTS AS SHOWN.
  - CITY OR NC DOT DRIVEWAY PERMIT REQUIRED. ANY ENCROACHMENT AGREEMENTS SHALL BE APPROVED BEFORE INSTALLATION.
  - AN UNUSED DRIVEWAY MUST BE CLOSED IN ACCORDANCE WITH THE CITY OF GREENVILLE'S DRIVEWAY ORDINANCE.
  - CONTRACTOR MUST NOTIFY ONE - CALL CENTER, INC. (NC ONE-CALL) @ (811) AT LEAST 72 HOURS PRIOR TO THE START OF EXCAVATION OR TRENCHING TO HAVE ALL UNDERGROUND UTILITIES LOCATED.
  - ALL REQUIRED IMPROVEMENTS SHALL CONFORM TO THE CITY OF GREENVILLE MANUAL OF STANDARD DESIGNS AND DETAILS (MSDD).
  - CONTRACTOR SHALL NOTIFY PUBLIC WORKS. STREET MAINTENANCE DIVISION 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING STORM DRAIN. LOCATED WITHIN PUBLIC STORM DRAINAGE BASINMENTS OR RESIDUALLY.
  - THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. THIS PROPERTY IS LOCATED IN ZONE "X", AS SHOWN ON FIRM PANEL NUMBER 4878. COMMUNITY NUMBER 5742. INDEX DATE 2017/07/07.
  - LANE CLOSURES ON THROUGHWAY ROADS ARE ONLY PERMITTED BETWEEN THE HOURS OF 8:00AM AND 6:00PM, MONDAY THROUGH FRIDAY, UNLESS OTHERWISE PERMITTED BY THE CITY ENGINEER. IN ADDITION, THERE WILL BE NO LANE CLOSURES ON HOLIDAYS INCLUDING THE DAY BEFORE OR AFTER SAID HOLIDAY. A TRAFFIC CONTROL PLAN PREPARED IN ACCORDANCE WITH THE NC DOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES IS REQUIRED FOR ALL LANE CLOSURES AND MUST BE APPROVED BY THE CITY ENGINEER.
  - NO EXCAVATION PERMIT REQUIRED.
  - PLEASE BE AWARE OF THE RULES WHICH PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE AND TARPANWING RIVER BASIN. THIS RULE IS ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ALL QUESTIONS ABOUT THE APPLICABILITY OF THE RULE TO YOUR PROJECT TO ROGER THORPE, REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE, AT 878-6681.

**1 SITE PLAN, JOINTING PLAN & DETAIL KEY**  
SCALE 1" = 20'

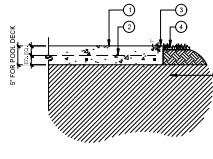
**Kimley-Horn**  
417 Hawthorne Road, Suite 100, Greenville, NC 27834  
P: 252.333.4545 F: 252.333.4546  
WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED BY: [Signature]  
CITY OF GREENVILLE, NC

**SITE PLAN, JOINTING PLAN & DETAIL KEY**

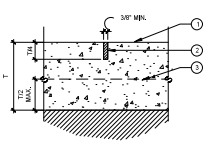
SCALE:	AS SHOWN
DATE:	APRIL 2021
PROJECT:	GREENVILLE OUTDOOR AQUATIC CENTER
DESIGNED BY:	MD
CHECKED BY:	DK
DATE:	APRIL 2021

SHEET  
**C-8**



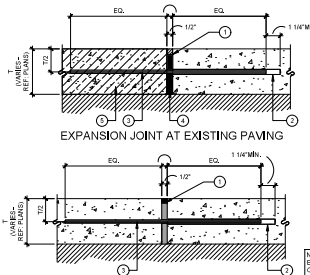
1. SLAB FINISH: SLP RESISTANT DRY BRUSH FINISH, PROVIDE 4"x4" SAMPLE FOR APPROVAL BY ARCHITECT/ENGINEER FOR DRY BRUSH CONCRETE FINISH
2. #3 REBAR @ 18" O.C. BOTH WAYS, 12" MIN. CLEAR TO SLAB SURFACE AND 12" MIN.
3. 1/2" RADIUS SMOOTH TROMELED EDGE (TYPICAL)
4. FINISH SMOODED, OR MATCHED BED GRADE @ 1" BELOW PAVEMENT
5. SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATIONS

NOTES:  
1. REFER TO PLAN SHEET C-9 FOR EXPANSION & SAW JOINT LOCATIONS.  
2. REFER TO GEOTECHNICAL INVESTIGATION COMPLETED BY FALCON ENGINEERING, DATED JANUARY 21, 2021 (REPORT NO. 202001010)



1. CONCRETE FINISH REFER TO DETAIL 1, THIS SHEET
2. SAWCUT JOINT FILLED W/ SYNTHETIC JOINT SEALER (CHLORIDE RESISTANT) COMPARED TO WITHIN 1/4" OF FINISH SURFACE
3. PAVING REPORT REFER TO DETAIL 1, THIS SHEET

NOTE:  
JOINTS SHALL BE SAWS AS SOON AS FINISHING CAN BE PERFORMED WITHOUT STRIPPING AGGREGATE FROM THE CONCRETE, GENERALLY WITHIN 24 HOURS AFTER PLACEMENT. REFER TO GEOTECHNICAL REPORT.



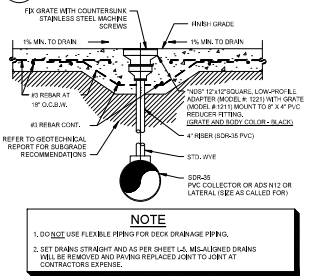
1. SEAL WITH A SYNTHETIC JOINT SEAL COMPOUND (SEE SPECIFICATION)
2. CLOSED END DOWEL SLEEVE WITH 1/4" MIN. CLEARANCE TO END, FIT & SECURE TO DOWEL.
3. 2"x4" NO. 4 SMOOTH STEEL DOWEL SPACING EQ. TO SLAB REBAR, WEAR ONE END FOR EXPANSION, 2" DOWN, DRILL AND SET IN EPOXY GROUT
4. 1/2" PREMOULDED ASPHALT-FIBER EXPANSION JOINT FILLER
5. EXISTING CONCRETE
6. JOINT FILLER WITH 2" STRIP BLACK SYNTHETIC FIBER EXPANSION JOINT MATERIAL, SURMIT COLOR TO OWNER FOR APPROVAL
7. CLOSED END DOWEL SLEEVE WITH 1/4" MIN. CLEARANCE TO END, FIT & SECURE TO DOWEL.
8. 1/4" NO. 4 SMOOTH STEEL DOWEL SPACING EQ. TO SLAB REBAR, WEAR ONE END FOR EXPANSION AS SHOWN

NOTE:  
ELECTRICAL BOXINGS MUST BE CONTINUOUS THROUGH EXPANSION JOINTS.

1 CONCRETE PAVING (POOL DECK)  
SCALE: 3/8"=1'-0"

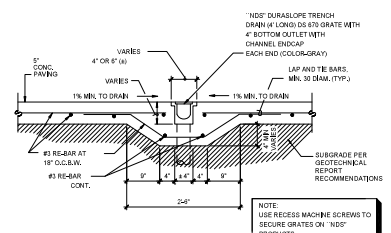
2 CONTROL JOINT - SAW CUT  
SCALE: 3/8"=1'-0"

3 DOWELED EXPANSION JOINT  
SCALE: 3/8"=1'-0"



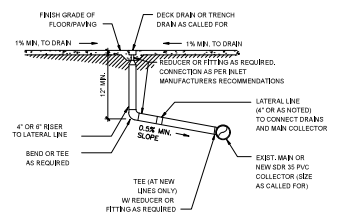
NOTE:  
1. DO NOT USE FLEXIBLE EPDM FOR DECK DRAINAGE PIPING.  
2. SET DRAINS STRAIGHT AND AS PER SHEET L.A. METALIZED DRAINS WILL BE REMOVED AND PAVING REPLACED JOINT TO JOINT AT CONTRACTOR'S EXPENSE.

4 DECK DRAIN DETAIL (TYP.)  
SCALE: N.T.S.

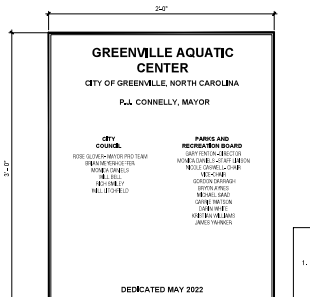


NOTE:  
USE RECESS MACHINE SCREWS TO SECURE GRATES ON "NDS" PRODUCTS.

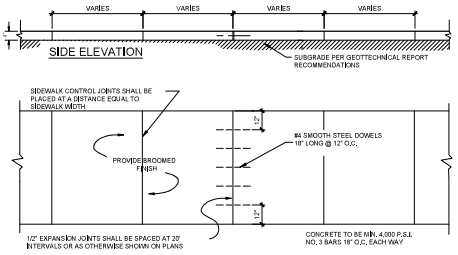
5 TRENCH DRAIN (TYP.)  
SCALE: N.T.S.



6 INLET CONNECTION DETAIL (TYP.)  
SCALE: N.T.S.



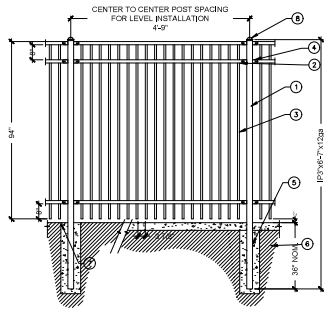
7 CAST ALUMINUM PLAQUE (PROVIDE 1)  
SCALE: N.T.S.



NOTES:  
1. PLaque SHALL BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR. LOCATION OF PLAQUE TO BE DETERMINED BY OWNER. PROVIDE ONE.  
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.  
3. REINFORCEMENT SHALL BE #3 BARS ON 18" CENTERS.

8 4" CONCRETE SIDEWALK  
SCALE: N.T.S.

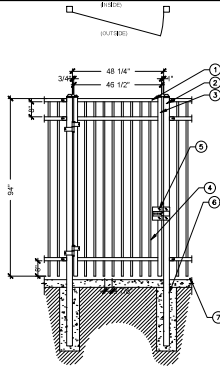
SCALE:	AS SHOWN
DATE:	APRIL 2021
PROJECT:	GREENVILLE OUTDOOR AQUATIC CENTER
DESIGNED BY:	MD
CHECKED BY:	DK
DATE:	APRIL 2021



- NOTES:
- SUBMIT SHOP DRAWINGS AND MATERIALS TO ARCHITECT/ENGINEER. COLOR TO BE BLACK.
  - FENCING SHALL BE FINISHED METAL PANEL AS PROVIDED BY FORTRESS FENCE (GARLAND, TX) OR APPROVED EQUAL.
  - SEND FENCE DETAILS TO FORTRESS TO CHECK AND ASK FORTRESS TO PROVIDE TECHNICAL SPECS THAT MATCH.
  - FENCING AND GATES THAT ARE NOT PER CODE OR PER "FORTRESS FENCE" STANDARDS SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.

- 3" SQUARE POST
- 1 3/8" X 1 3/8" X 1/2" GA
- 1" SQ. PICKET
- BRACKETS
- 12" DIAMETER CONCRETE FOOTING (3,000 PSI CONCRETE)
- ADJACENT CONCRETE SLAB TO GO OVER FOOTING
- FINISHED GRADE TO COVER FOOTING WHEN FENCE IS IN LANDSCAPED AREA
- 3" X 3" PRESSED DOME CAP

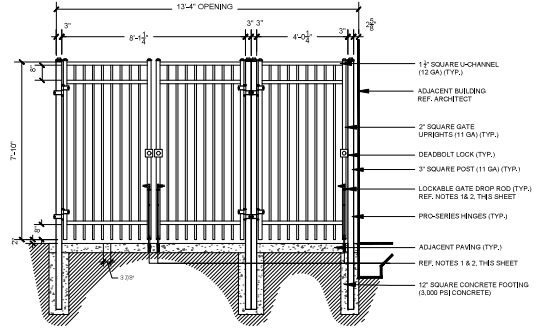
1 8' TUBULAR STEEL FENCE (± 459 LF)  
SCALE: 1/2"=1'-0"



- NOTES:
- SUBMIT SHOP DRAWINGS AND MATERIALS TO ARCHITECT/ENGINEER. COLOR TO BE BLACK.
  - FENCING SHALL BE FT-24V54K INCL 90.5 PANEL AS PROVIDED BY FORTRESS FENCE (GARLAND, TX) OR APPROVED EQUAL.
  - SEND FENCE DETAILS TO FORTRESS TO CHECK AND ASK FORTRESS TO PROVIDE TECHNICAL SPECS THAT MATCH.
  - FENCING AND GATES THAT ARE NOT PER CODE OR PER "FORTRESS FENCE" STANDARDS SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.

- 1 3/4" X 1 3/4" X 1/2" GA U-CHANNEL
- 3" SQUARE POST (11 GA)
- 1" SQ. GATE UPRIGHTS (11 GA)
- 1" SQ. X 1 1/4" PICKET
- GATE HARDWARE: PROXIMITY SLIDE LATCH PROXIMITY HINGES
- 12" DIAMETER CONCRETE FOOTING (3,000 PSI CONCRETE)
- ADJACENT PAVING

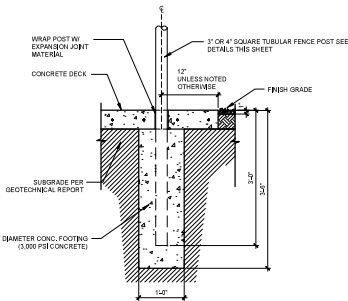
2 8' TUBULAR STEEL FENCE SINGLE GATE DETAIL (PROVIDE 1)  
SCALE: 1/2"=1'-0"



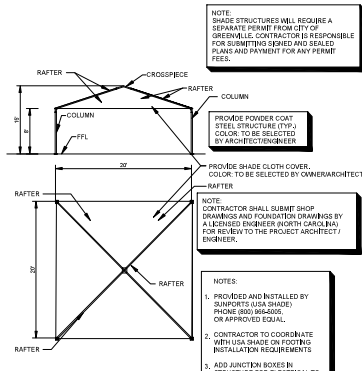
- NOTES:
- RETAIL DEALER (SEE SCHEDULE) TO CONCRETE PAVING AT LOCATION OF ENTRY AND EXIT GATES. THE LOCATION SHOULD CORRESPOND WITH THE LOCATION OF THE LOCKABLE DROP ROOS TO ALLOW EACH GATE LEAF TO BE SECURELY LOCKED IN AN OPEN AND CLOSED POSITION AS SHOWN IN THE DRAWINGS.
  - LOCKABLE GATE DROP ROOS SHALL BE EQUAL TO MODEL NAME "KEYTOP" BY LOCKNOX, 465-464 WINDY POINT DRIVE, GLENDALE HEIGHTS, IL 60137. 874-LOCKNOX, SALES@LOCKNOX.COM
  - SUBMIT SHOP DRAWINGS AND MATERIALS TO ARCHITECT/ENGINEER. COLOR TO BE BLACK.
  - FENCING SHALL BE FT-24V54K INCL 90.5 PANEL AS PROVIDED BY FORTRESS FENCE (GARLAND, TX) OR APPROVED EQUAL.
  - SEND FENCE DETAILS TO FORTRESS TO CHECK AND ASK FORTRESS TO PROVIDE TECHNICAL SPECS THAT MATCH.
  - FENCING AND GATES THAT ARE NOT PER CODE OR PER "FORTRESS FENCE" STANDARDS SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.

- 1" SQUARE U-CHANNEL (12 GA) (TYP.)
- ADJACENT BUILDING REF. ARCHITECT
- 2" SQUARE GATE UPRIGHTS (11 GA) (TYP.)
- DEADBOLT LOCK (TYP.)
- 3" SQUARE POST (11 GA) (TYP.)
- LOCKABLE GATE DROP ROO (TYP.) REF. NOTES 1 & 2, THIS SHEET
- PROXIMITY HINGES (TYP.)
- ADJACENT PAVING (TYP.)
- REF. NOTES 1 & 2, THIS SHEET
- 12" SQUARE CONCRETE FOOTING (3,000 PSI CONCRETE)

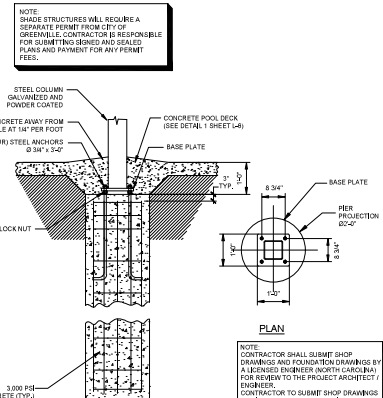
3 ENTRY GATE ELEVATION  
SCALE: N.T.S.



4 TYP. FENCE SECTION AT POOL DECK  
SCALE: 1"=1'-0"

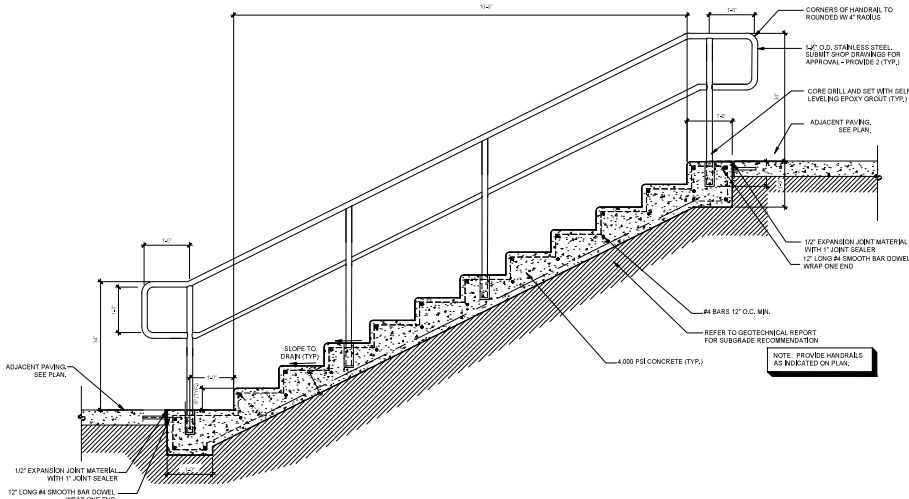


5 GROUP SHADE STRUCTURE (PROVIDE 2 - BASE BID)  
SCALE: N.T.S.

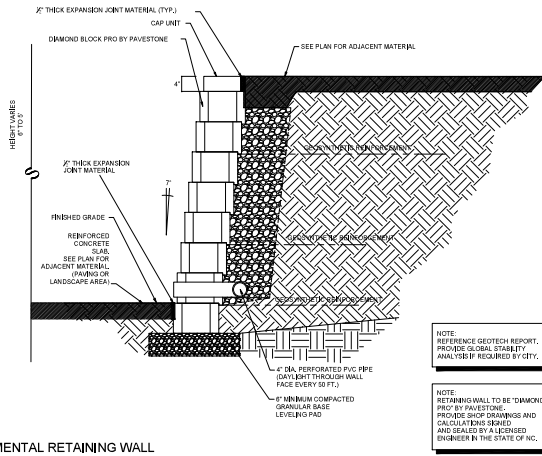


6 SHADE STRUCTURE FOOTING (TYP.)  
SCALE: N.T.S.

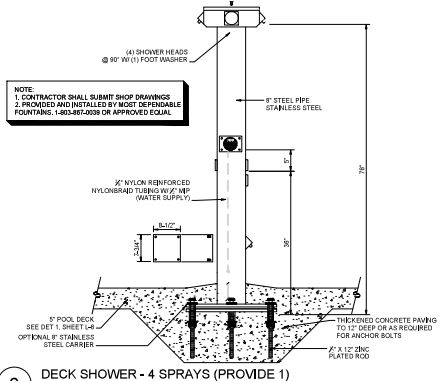
SCALE:	AS SHOWN
DATE:	APRIL 2023
DESIGNED BY:	MD
CHECKED BY:	DK
DATE:	APRIL 2023
PROJECT:	GREENVILLE OUTDOOR AQUATIC CENTER
SHEET:	C-10



**1 TYPICAL STAIR AND HANDRAIL**  
SCALE: N.T.S.



**2 SEGMENTAL RETAINING WALL**  
SCALE: 1" = 1'-0"



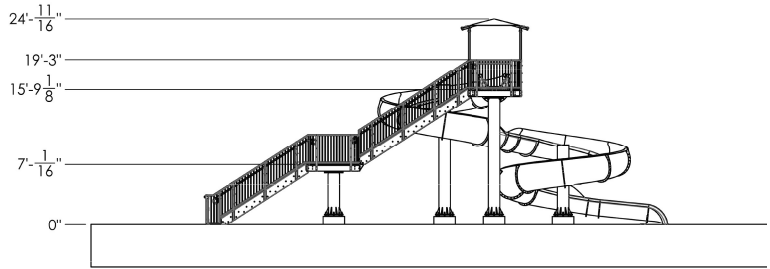
**3 DECK SHOWER - 4 SPRAYS (PROVIDE 1)**  
SCALE: N.T.S.



SCALE:	AS SHOWN
DATE:	APRIL 2011
DESIGNED BY:	MD
CHECKED BY:	DK
DATE:	APRIL 2011
PROJECT:	GREENVILLE OUTDOOR AQUATIC CENTER
SHEET:	C-11



VORTEX: 16' BODY FLUME SLIDE  
VERSION A - 36234



\* Slide height is from finished pool deck to finished tower platform.  
\* Water level is assumed to be 6" BELOW finished pool deck.

PRELIMINARY - NOT FOR CONSTRUCTION

1 ENCLOSED FLUME BODY SLIDE  
SCALE: N.T.S.



VORTEX: PLAYNIK N02 POOL  
VERSION A - A32660

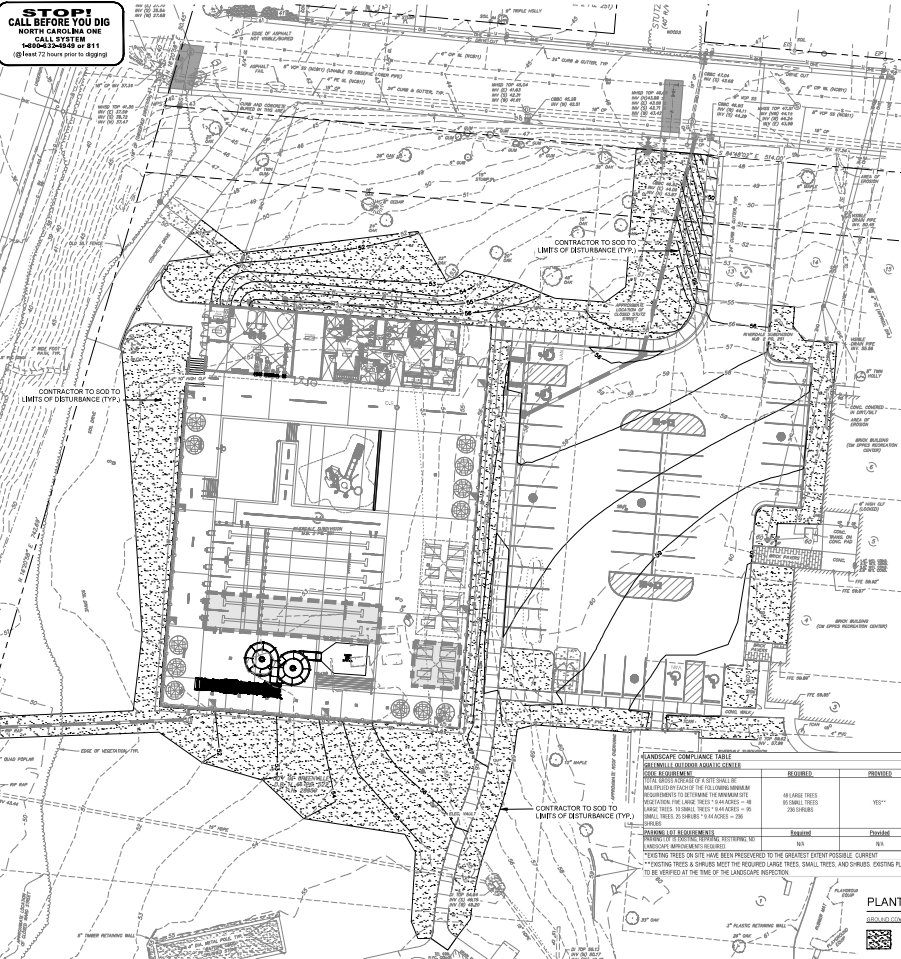
shown in H000 06

2 CHILDREN'S PLAY STRUCTURE  
SCALE: N.T.S.

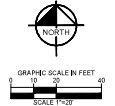


SCALE:	AS SHOWN
DESIGNED BY:	MMO
CHECKED BY:	DK
DATE:	APRIL 2021
PROJECT NO.:	2020000000

**STOP!**  
CALL BEFORE YOU DIG  
NORTH CAROLINA ONE  
CALL SYSTEM  
1-800-333-4548 or 811  
(2 hours 24 hours a day 7 days a week)



**NOTE**  
PRELIMINARY VEGETATION PLAN  
SHALL BE SUBMITTED AND APPROVED  
PRIOR TO THE ISSUANCE OF ANY  
PERMIT OR THE GRANTING OF ANY  
OTHER APPROVAL.



**PLANTING NOTES**

1. ALL PLANT MATERIAL SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES AND SHALL MEET ALL STANDARDS AS STATED IN THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERMEN.
2. NO SUBSTITUTIONS IN PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM OWNER OR LANDSCAPE ARCHITECT. IN THE EVENT OF DISCREPANCIES BETWEEN THE DRAWINGS AND THE PLANT LIST, THE DRAWING SHALL PREVAIL.
3. LOCATE ALL UTILITIES PRIOR TO ANY CONSTRUCTION OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO EXISTING UTILITIES INCURRED BY HIS WORK.
4. ALL LANDSCAPED AREAS SHALL BE FULLY PERMEATED WITH AN AUTOMATIC IRRIGATION SYSTEM.
5. STAKING AND SOOTHING ALTERNATIVE METHODS INDICATED IN DRAWING SHALL BE PREPARED. CONTRACTOR MAY SUGGEST ALTERNATE METHODS, ASSUMING FULL RESPONSIBILITY FOR THEIR IMPLEMENTATION. CONTRACTOR SHALL REPLACE, PLANT, OR UPRIGHT ANY TREES BLOWN OVER OR DAMAGED DUE TO INADEQUATE STAKING AT NO ADDITIONAL COST TO THE OWNER.
6. PLANTS PLANTED IN BEDS SHALL BE ARRANGED USING TRIANGULAR SPACING.
7. PROVIDE A STEEL EDGE OR SPADE EDGE BETWEEN ALL PLANTING BEDS AND LAWN AREAS AS CALLED FOR ON PLANS.
8. ALL PLANTING BEDS TO BE TOP DRESSED WITH A MINIMUM OF 2" SHREDED CYPRESS BARK MULCH.
9. PROVIDE GRASS SEEDING OR LAY SOO FOR PROPOSED LAWN AREAS TO ALL EDGES OF PAVEMENT AND/OR LIMITS OF DISTURBANCE OUTSIDE PLOIN, OR PROPOSED LANDSCAPE ELEMENTS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING UNITS. FINAL ACCEPTANCE. ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THE WORK SHALL INCLUDE, BUT NOT TO BE LIMITED TO, MOWING, SOOTHING, PRUNING, FERTILIZING, WATERING, WEEDING AND OTHER GOOD PRACTICES COMMON TO THE MAINTENANCE OF LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR. PLANT MATERIAL THAT DOES NOT MEET THESE REQUIREMENTS SHALL BE REPLACED WITH PLANT MATERIAL OF SIMILAR SIZE AND VARIETY.
11. CONTRACTOR SHALL WARRANTY PLANT MATERIAL TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. WARRANTY SHALL NOT INCLUDE DAMAGE FOR LOSS OF PLANT MATERIAL DUE TO NATURAL CAUSES, ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.
12. QUANTITIES ARE APPROXIMATE AND ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES AND PROVIDING SUFFICIENT QUANTITIES OF MATERIAL FOR COVERAGE BASED ON THE AREAS TO BE COVERED AND PLANT MATERIALS CALLED FOR.
13. ALL DISTURBED AREAS ON SITE NOT CALLED TO BE SOOED, SHALL BE REESTABLISHED WITH SEED OR HYDROMULCH.
14. ALL PROPOSED PLANT MATERIAL SHALL COMPLY WITH THE CURRENT EDITION OF ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK. ALL PLANT MATERIAL SHALL MEET OR SURPASS ANY LOCAL GRADING STANDARDS.
15. CONTRACTOR SHALL LANDSCAPE ALL PROPOSED PLANT BEDS WITH SOO, AMENDMENTS PER CITY OF GREENVILLE STANDARDS.
16. NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE OR PROJECT LANDSCAPE ARCHITECT.
17. ALL PLANT LOCATIONS AND BED LINE LAYOUT SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE. PROJECT LANDSCAPE ARCHITECT AND THE CITY OF GREENVILLE PRIOR TO INSTALLATION.
18. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
19. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.

**PLANTING NOTES**

1. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
2. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.
3. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
4. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.
5. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
6. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.
7. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
8. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.
9. ALL PLANTING SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH AND SOO. AMENDMENTS. REFERENCE DETAILS FOR DEPTH AND TYPE OF MULCH.
10. CANOPY TREES SHALL BE LIMITED UP TO A MINIMUM OF 7' ABOVE GRADE.

**LANDSCAPE COMPLIANCE TABLE**  
GREENVILLE PLANNING AND ZONING DEPARTMENT

SOO REQUIREMENTS	REQUIRED	PROVIDED
NO LARGE TREES	NO	YES
NO SMALL TREES	NO	YES
NO SHRUBS	NO	YES
NO MULCH	NO	YES
NO SOO	NO	YES

**STAKING REQUIREMENTS**

STAKING REQUIREMENTS	REQUIRED	PROVIDED
NO STAKING	NO	YES
NO SOOTHING	NO	YES

**EXISTING TREES TO BE PRESERVED TO THE GREATEST EXTENT POSSIBLE. CONTRACTOR SHALL STAKE AND SOO EXISTING PLANTS TO BE PRESERVED AT THE TIME OF THE LANDSCAPE INSTALLATION.**

**PLANT SCHEDULE**

PLANT SYMBOL	CODE	QTY	PLANT NAME	COMMENTS	PLANTING NOTES	REMARKS
(Symbol)	900	200	10' ROUND CANOPY TREE	TRANSPLANTED	900	TO BE PLANTED IN 6" DEPTH FREE OF WEEDS

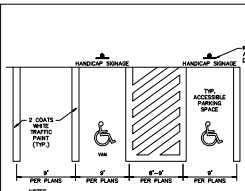
**1 PLANTING PLAN**  
SCALE: 1" = 20'

**Kimley-Horn**  
4710 W. HUNTER DRIVE, SUITE 200  
GREENVILLE, NC 27604  
TEL: 864.633.1111  
WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR  
CITY OF GREENVILLE, NC

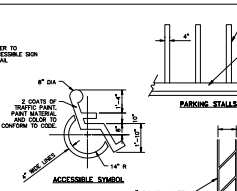
**PLANTING PLAN**

SHEET  
C-14



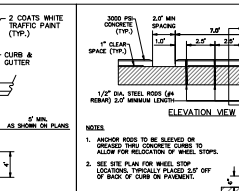
**PAVEMENT STRIPING**  
N.T.S.

1. SEE SITE DEVELOPMENT PLAN FOR PARKING DIMENSIONS AND LAYOUT INCLUDING SIGN MOUNTING.  
2. ALL STRIPING TO CONFORM TO THE APPLICABLE LOCAL AND FEDERAL CODES.  
3. PAVED SURFACES TO HAVE MINIMUM 2% CROSS SLOPE AND MAXIMUM 0% LONGITUDINAL SLOPE.  
4. SIDE PARKING SPACES TO HAVE MINIMUM 2% CROSS SLOPE AND MAXIMUM 0% LONGITUDINAL SLOPE WITH STRIPED AREA TO HAVE MINIMUM 2% CROSS SLOPE IN ANY DIRECTION.  
5. SIDE PARKING SPACES AND ACCESSIBLE AREAS TO HAVE A MAXIMUM 2% SLOPE IN ANY DIRECTION.  
6. SIDEWALK INTERSECTIONS AND RAMP LANDING TO HAVE A MAXIMUM 2% SLOPE IN ANY DIRECTION.  
7. SIDEWALK EDGE FINISH AND WITH ACCESSIBLE PARKING AREAS OUTSIDE PARK SLOPE SHALL NOT EXCEED 2%.



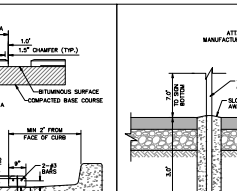
**PEDESTRIAN ACCESSIBILITY CROSSWALK**  
KHA DETAIL NO.02.305.R02

1. 8" DIA. 2" THICK CONCRETE CURB AND GUTTER TO CONFORM TO CODE.  
2. 4" COLD WHITE RETROREFLECTIVE PAINTED STRIPE AS SHOWN ON PLANS.  
3. 4" COLD WHITE RETROREFLECTIVE PAINTED STRIPE AS SHOWN ON PLANS.



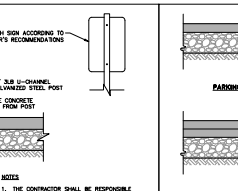
**WHEEL STOP**  
N.T.S.

1. ANCHOR RODS TO BE SLOVED ON GRADE WITH CONCRETE CURB TO ALLOW FOR RELOCATION OF WHEEL STOPS.  
2. SEE SITE PLAN FOR WHEEL STOP LOCATIONS. WHEEL STOPS TO BE 3" OFF OF BACK OF CURB ON PavEMENT.



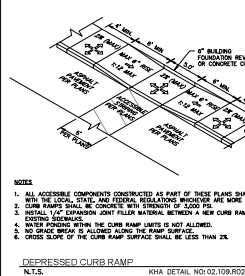
**SIGN POST**  
N.T.S.

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES, WHETHER SHOWN OR NOT SHOWN HEREON, AND SHALL REPAIR OR RELOCATE ANY DAMAGE WHICH MAY OCCUR TO SAID UTILITIES.



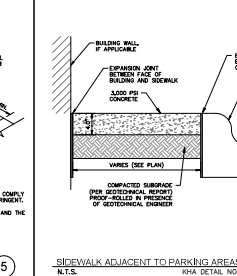
**DRIVE ANGLES**  
N.T.S.

1. ALL PAVEMENT MATERIALS SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (DOT) SPECIFICATIONS.  
2. PAVEMENT SECTION MUST MEET THE CRITERIA SHOWN IN THE SITE SOIL REPORT.  
3. REFER TO GEOTECHNICAL REPORT OF SUBSURFACE INVESTIGATION, GREENVILLE OUTDOOR AQUATIC FACILITY, PREPARED BY FALCON ENGINEERING, INC. DATED JAN. 21, 2021.  
4. ASPHALT PAVEMENT SECTIONS  
KHA DETAIL NO.02.101.R02



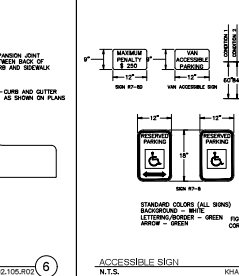
**DEPRESSED CURB RAMP**  
N.T.S.

1. ALL ACCESSIBLE COMPONENTS CONSTRUCTED AS PART OF THESE RAMP SHALL COMPLY WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS PROCEDURE AND WIDE STRAIGHT.  
2. CURB RAMP SHALL BE CONCRETE WITH STRENGTH OF 3000 PSI.  
3. INCLUDE 1/2" EXPANSION JOINT FILLER MATERIAL BETWEEN A NEW CURB RAMP AND THE EXISTING CURB.  
4. WATER POOLING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.  
5. NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.  
6. CROSS SLOPE OF THE CURB RAMP SURFACE SHALL BE LESS THAN 2%.



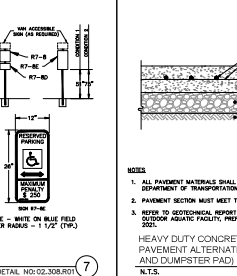
**SIDEWALK ADJACENT TO PARKING AREAS**  
N.T.S.

1. EXPANSION JOINT BETWEEN FACE OF BUILDING AND SIDEWALK.  
2. CURB AND GUTTER AS SHOWN ON PLANS.  
3. VARIES (SEE PLAN).  
4. COMPACTED SUBGRADE (PER GEOTECHNICAL REPORT) PROVIDED IN PRESENCE OF GEOTECHNICAL ENGINEER.



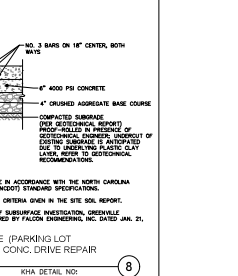
**ACCESSIBLE SIGN**  
N.T.S.

1. SIGN HEIGHT - 5' MIN.  
2. SIGN WIDTH - 18" MIN.  
3. SIGN DEPTH - 12" MIN.  
4. SIGN WEIGHT - 15 LBS. MAX.  
5. SIGN COLOR - WHITE ON BLUE FIELD CORNER RADIUS = 1/2" (TYP.)



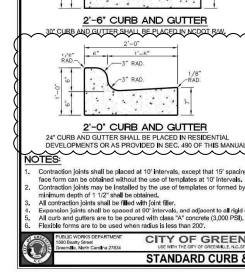
**HEAVY DUTY CONCRETE (PARKING LOT PAVEMENT ALTERNATE, CONC. DRIVE REPAIR AND DUMPSTER PAD)**  
N.T.S.

1. ALL PAVEMENT MATERIALS SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (DOT) SPECIFICATIONS.  
2. PAVEMENT SECTION MUST MEET THE CRITERIA SHOWN IN THE SITE SOIL REPORT.  
3. REFER TO GEOTECHNICAL REPORT OF SUBSURFACE INVESTIGATION, GREENVILLE OUTDOOR AQUATIC FACILITY, PREPARED BY FALCON ENGINEERING, INC. DATED JAN. 21, 2021.



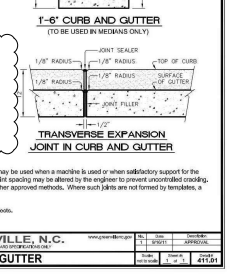
**DUMPSTER ENCLOSURE**  
N.T.S.

1. 4" DIA. RIVET W/ 1/2" DIA. W/ 1/2" DIA. O.C.  
2. 1" CONCRETE PAVING FOR GUTTER RECOMMENDATIONS.  
3. ADJACENT PAVING.  
4. 4" x 4" 18" O.C. TOP & BOTTOM.  
5. 4" x 4" 18" O.C. TOP & BOTTOM.



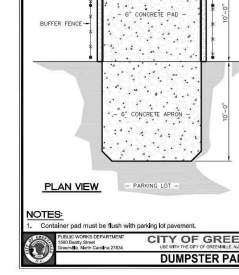
**STANDARD CURB & GUTTER**  
KHA DETAIL NO.02.109.R02

1. CONNECTION JOINTS SHALL BE LOCATED AT 10' INTERVALS, UNLESS THAT 15' SPACING MAY BE USED WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.  
2. CONNECTION JOINTS MAY BE FORMED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.  
3. ALL CONNECTION JOINTS SHALL BE FILLED WITH LEAK-BAR.  
4. EXPANSION JOINTS SHALL BE LOCATED AT 60' INTERVALS, AND ADJACENT TO ALL RIGHT ANGLES.  
5. ALL JOINT AND GUTTER ARE TO BE FINISHED WITH CLASS '90' CONCRETE (3000 PSI).  
6. FINISHABLE FORMS ARE TO BE USED UNLESS NOTED OTHERWISE.



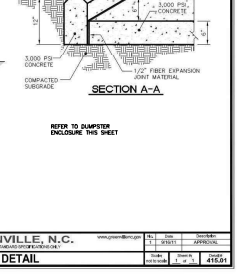
**TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER**  
KHA DETAIL NO.02.308.R01

1. JOINT SEALER - 1/2" RADIUS.  
2. JOINT SEALER - 1/2" RADIUS.  
3. JOINT SEALER - 1/2" RADIUS.  
4. JOINT SEALER - 1/2" RADIUS.



**DUMPSTER PAD DETAIL**  
KHA DETAIL NO.02.308.R01

1. CURB AND GUTTER TO BE REPLACED WITH STAINLESS STEEL CURB AND GUTTER.  
2. 3000 PSI CONCRETE.  
3. 1/2" FIBER EXPANSION JOINT MATERIAL.  
4. COMPACTED SUBGRADE.  
5. REFER TO DUMPSTER ENCLOSURE SHEET.



**DUMPSTER ENCLOSURE**  
N.T.S.

1. 4" DIA. RIVET W/ 1/2" DIA. W/ 1/2" DIA. O.C.  
2. 1" CONCRETE PAVING FOR GUTTER RECOMMENDATIONS.  
3. ADJACENT PAVING.  
4. 4" x 4" 18" O.C. TOP & BOTTOM.  
5. 4" x 4" 18" O.C. TOP & BOTTOM.

**Kimley-Horn**  
417 Fairview Ave. Raleigh, NC 27603  
919.876.5600  
WWW.KIMLEY-HORN.COM

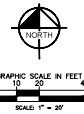
**GREENVILLE OUTDOOR AQUATIC CENTER**  
DESIGNED BY  
CITY OF GREENVILLE, NC

**SITE DETAILS - 5**

DATE: APRIL 2021  
SCALE: AS SHOWN  
DRAWN BY: KIM  
CHECKED BY: KIM  
DATE: APRIL 2021

SHEET  
C-13

**STOP!**  
**CALL BEFORE YOU DIG**  
 NORTH CAROLINA ONE  
 CALL SYSTEM  
 1-800-333-6849 or 811  
 (to have 72 hours prior to digging)

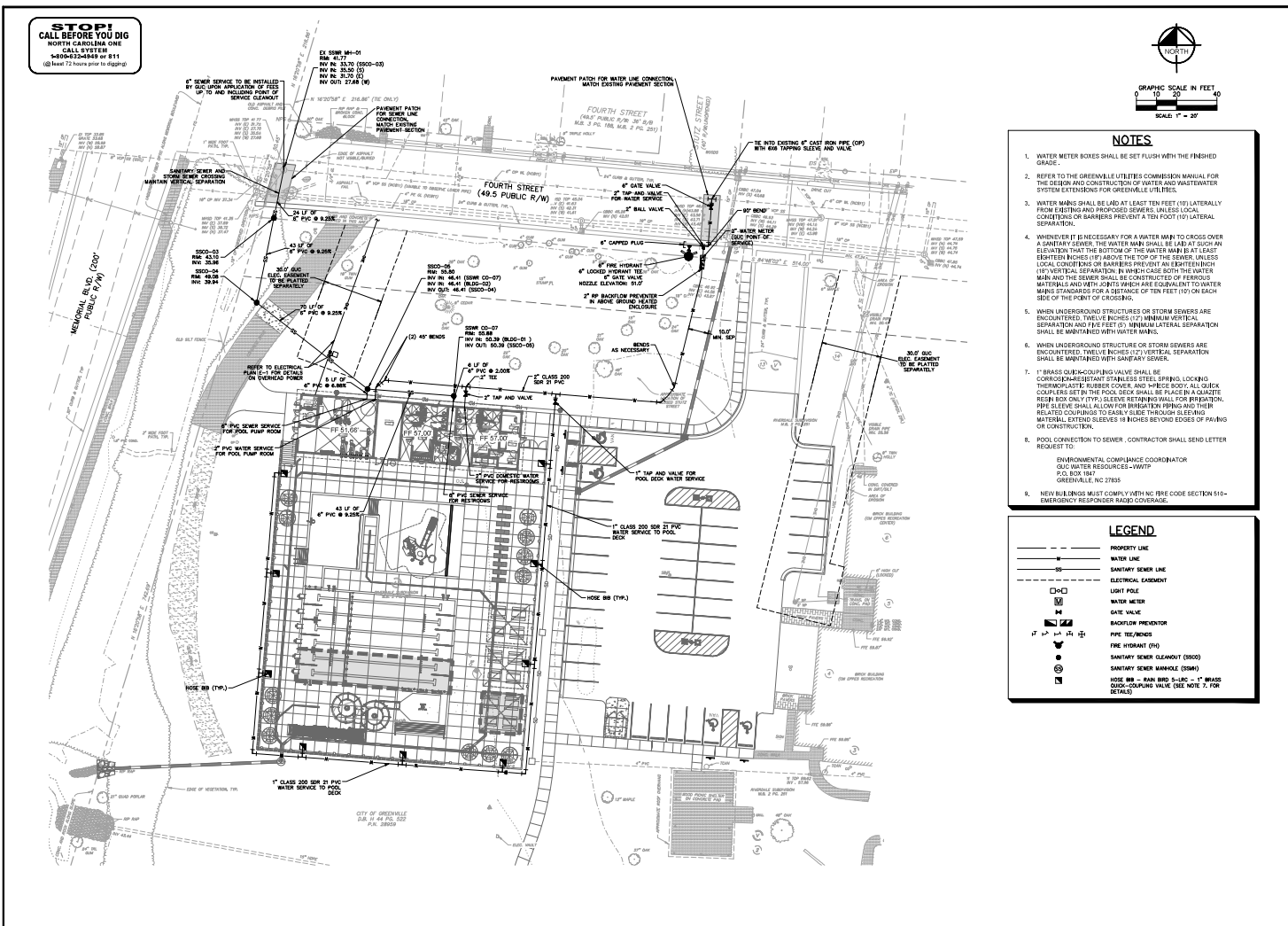


**NOTES**

1. WATER METER BOXES SHALL BE SET FLUSH WITH THE FINISHED GRADE.
2. REFER TO THE GREENVILLE UTILITIES COMMISSION MANUAL FOR THE DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER SYSTEM EXTENSIONS FOR GREENVILLE UTILITIES.
3. WATER MAINS SHALL BE Laid AT LEAST TEN FEET (10') Laterally FROM EXISTING AND PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARBERS PREVENT A TEN FOOT (10') LATERAL SEPARATION.
4. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SANITARY SEWER, THE WATER MAIN SHALL BE AT LEAST 2000 AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN BE AT LEAST SEVENTY INCHES (70") ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARBERS PREVENT AN ELEVATION (10") VERTICAL SEPARATION. IN ANY CASE BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF PERIODIC MATERIALS AND VENT CAPS SHALL BE EQUIVALENT TO WATER MAINS STANDARDS FOR A DISTANCE OF TEN FEET (10') ON EACH SIDE OF THE POINT OF CROSSING.
5. WHEN UNDERGROUND STRUCTURES OR STORM SEWERS ARE ENCOUNTERED, TWELVE INCHES (12") MINIMUM VERTICAL SEPARATION AND FIVE FEET (5') MINIMUM LATERAL SEPARATION SHALL BE MAINTAINED WITH WATER MAINS.
6. WHEN UNDERGROUND STRUCTURE OR STORM SEWERS ARE ENCOUNTERED, TWELVE INCHES (12") VERTICAL SEPARATION SHALL BE MAINTAINED WITH SANITARY SEWER.
7. 1" BRASS OUTFLOW VALVE SHALL BE CORROSION RESISTANT STAINLESS STEEL SPRING LOCKING THERMOPLASTIC RUBBER COVER AND WHEE BODY. ALL QUICK COUPLERS SET IN THE POOL DECK SHALL BE PLACED IN A GASKETED HEAD BOX ONLY. FIVE SLEEVES REFERRING SHALL BE BRONZE. FIVE SLEEVES SHALL ALLOW FOR OPERATOR WORK. ALL OTHER RELATED COMPONENTS TO ASSEMBLY SHALL BE BRONZE. SLEEVES MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.
8. POOL CONNECTION TO SEWER, CONTRACTOR SHALL SEND LETTER REQUEST TO:  
 ENVIRONMENTAL COMPLIANCE COORDINATOR  
 OLD WATER RESOURCES - 3007P  
 P.O. BOX 1847  
 GREENVILLE, NC 27615
9. NEW BUILDINGS MUST COMPLY WITH NC FIRE CODE SECTION 510 - EMERGENCY RESPONDER ROAD COVERAGE.

**LEGEND**

	PROPERTY LINE
	WATER LINE
	SANITARY SEWER LINE
	ELECTRICAL EQUIPMENT
	LIGHT POLE
	WATER METER
	GATE VALVE
	BACKFLOW PREVENTOR
	FIRE HYDRANT (FH)
	SANITARY SEWER CLEANOUT (SSCO)
	SANITARY SEWER MANHOLE (SSMH)
	HOSE BIB - RAIN BIRD VALVE - 1" BRASS OUTFLOW VALVE (SEE NOTE 7, FOR DETAILS)



**Kimley-Horn**  
 CONSULTING ENGINEERS, INC.  
 417 HARRIS DRIVE, SUITE 200, GREENVILLE, NC 27601  
 P: 864.633.7000 F: 864.633.7001  
 WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR:  
 CITY OF GREENVILLE, NC

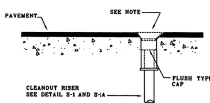
**UTILITY PLAN**

SCHEMATIC	AS SHOWN
DESIGNED BY	MM
CHECKED BY	DK
DATE	APRIL, 2023
PROJECT NO.	2023000000

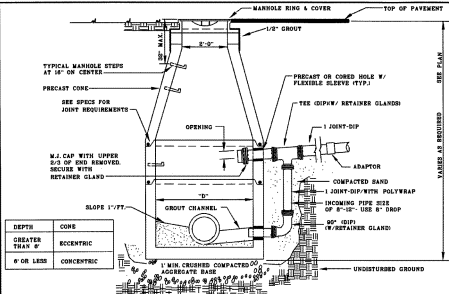
SHEET  
**C-15**



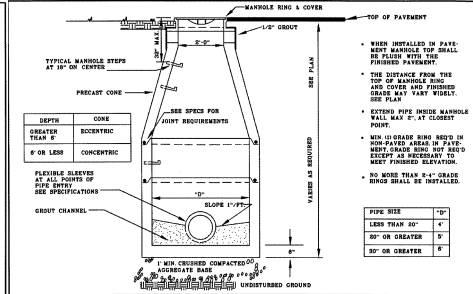
NOTE:  
FOR 4" SERVICE BOX TO BE VULCAN MODEL #0411  
WITH #04010 MARKED SEWER.  
FOR 4" SERVICE BOX TO BE EAST JORDAN #10742  
WITH MARKED SEWER.



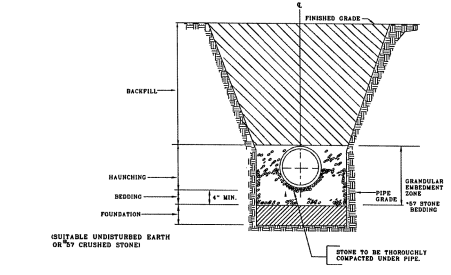
CLEANOUT DETAIL FOR PAVED AREAS		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-3	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



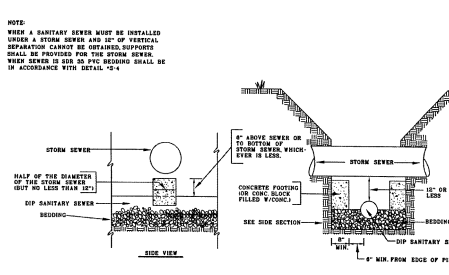
TYPICAL MANHOLE DETAIL		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-4	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



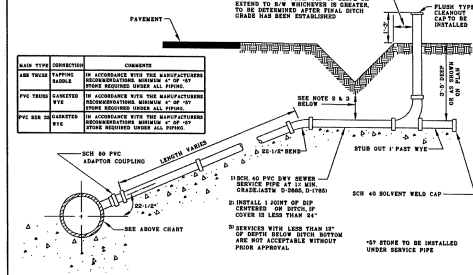
TYPICAL PRECAST MANHOLE		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-4	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



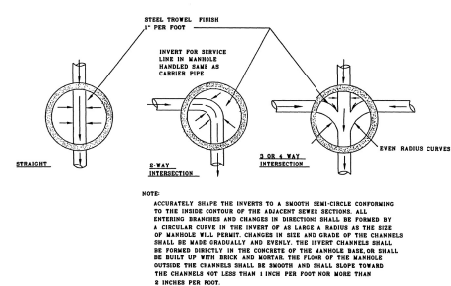
TRENCH SECTION DETAIL FOR THE INSTALLATION OF PVC SANITARY SEWER SERVICE PIPE - 8\"/> <th>GREENVILLE UTILITIES GREENVILLE, N.C.</th> <th>NO. DATE DESCRIPTION</th>		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-10	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



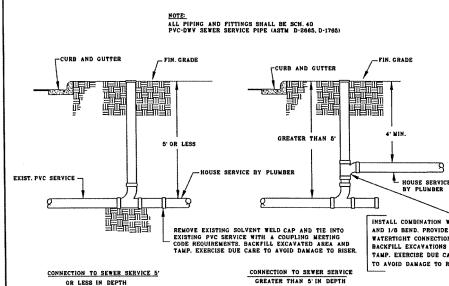
SEWER CROSSING BELOW STORM SEWER		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-11	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



PVC SANITARY SEWER SERVICE DETAIL FOR AREAS WITHOUT CURB AND GUTTER FOR WIDE STREETS (SEE DETAIL S-1)		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-2	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



MANHOLE INVERTS		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-17	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.



PVC SEWER SERVICE CONNECTION		GREENVILLE UTILITIES GREENVILLE, N.C.	NO. DATE DESCRIPTION
SHEET DWG. NO. S-18	DWG. H. WOOTEN	WATER RESOURCES ENGINEERING	
1 OF 1	DATE 3-18-99	APP. H. COBEY	GREENVILLE, N.C.

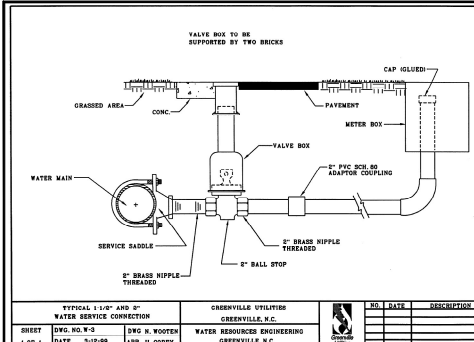
**Kimley-Horn**  
417 Parkside Drive, Raleigh, NC 27601  
919-876-7000  
WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
DESIGNED FOR  
CITY OF GREENVILLE, NC

**SEWER DETAILS**

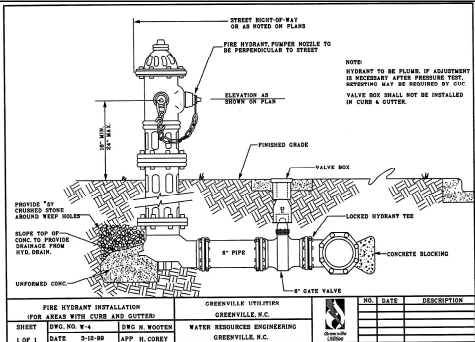
SCALE: AS SHOWN  
Drawn By: EAM  
Checked By: OKK  
Date: April, 2003  
Project No.: 000000000  
Revision No.: 000000000

SHEET  
C-16



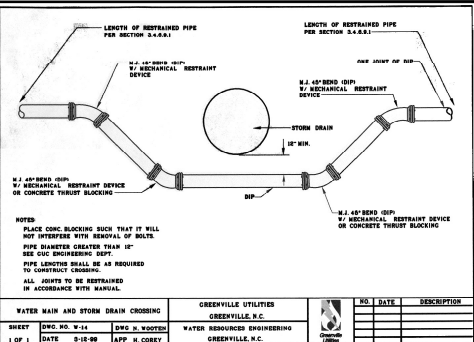
TYPICAL 1 1/2" AND 2" WATER SERVICE CONNECTION

SHEET	DWG. NO. W-3	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



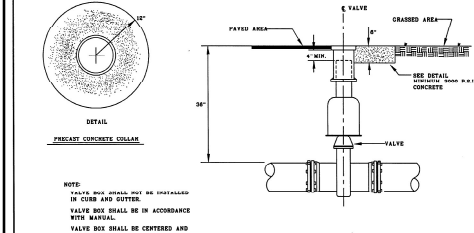
FIRE HYDRANT INSTALLATION FOR AREAS WITH CURB AND GUTTER

SHEET	DWG. NO. W-4	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



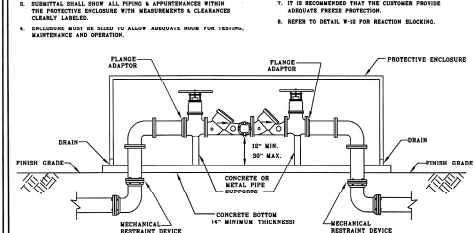
WATER MAIN AND STORM DRAIN CROSSING

SHEET	DWG. NO. W-14	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



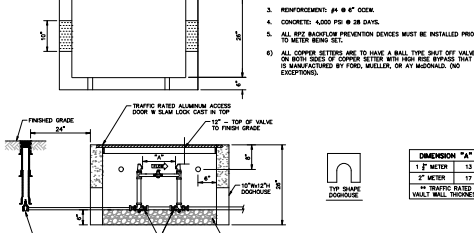
VALVE BOX DETAIL FOR VALVES SMALLER THAN 18"

SHEET	DWG. NO. W-7	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



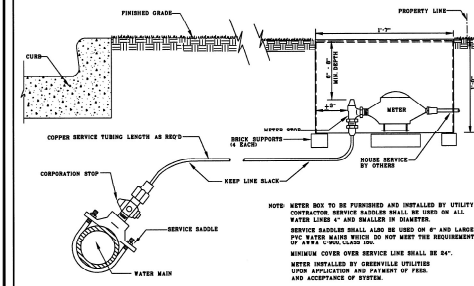
ALTERNATE INSTALLATION FOR DETAIL

SHEET	DWG. NO. W-17	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	6-14-99	APP. H. COBEY			



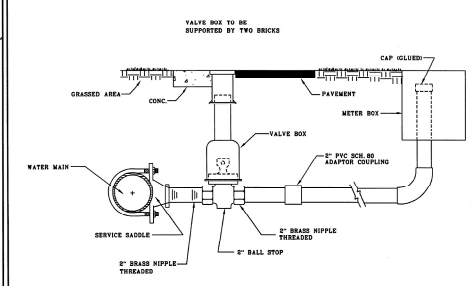
1 1/2" WATER METER BOX INSTALLATION

SHEET	DWG. NO. W-18	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



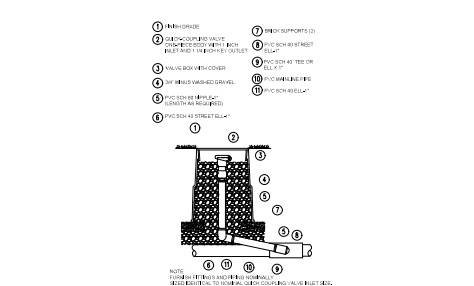
1" WATER SERVICE DETAIL FOR AREAS WITH CURB AND GUTTER

SHEET	DWG. NO. W-1	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



TYPICAL 1 1/2" AND 2" WATER SERVICE CONNECTION

SHEET	DWG. NO. W-2	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			



HOSE BIB

SHEET	DWG. NO. W-19	DWG. N. WOOTEN	WATER RESOURCES ENGINEERING GREENVILLE, N.C.	NO.	DATE	DESCRIPTION
1 OF 1	DATE	3-18-99	APP. H. COBEY			

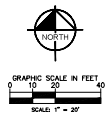
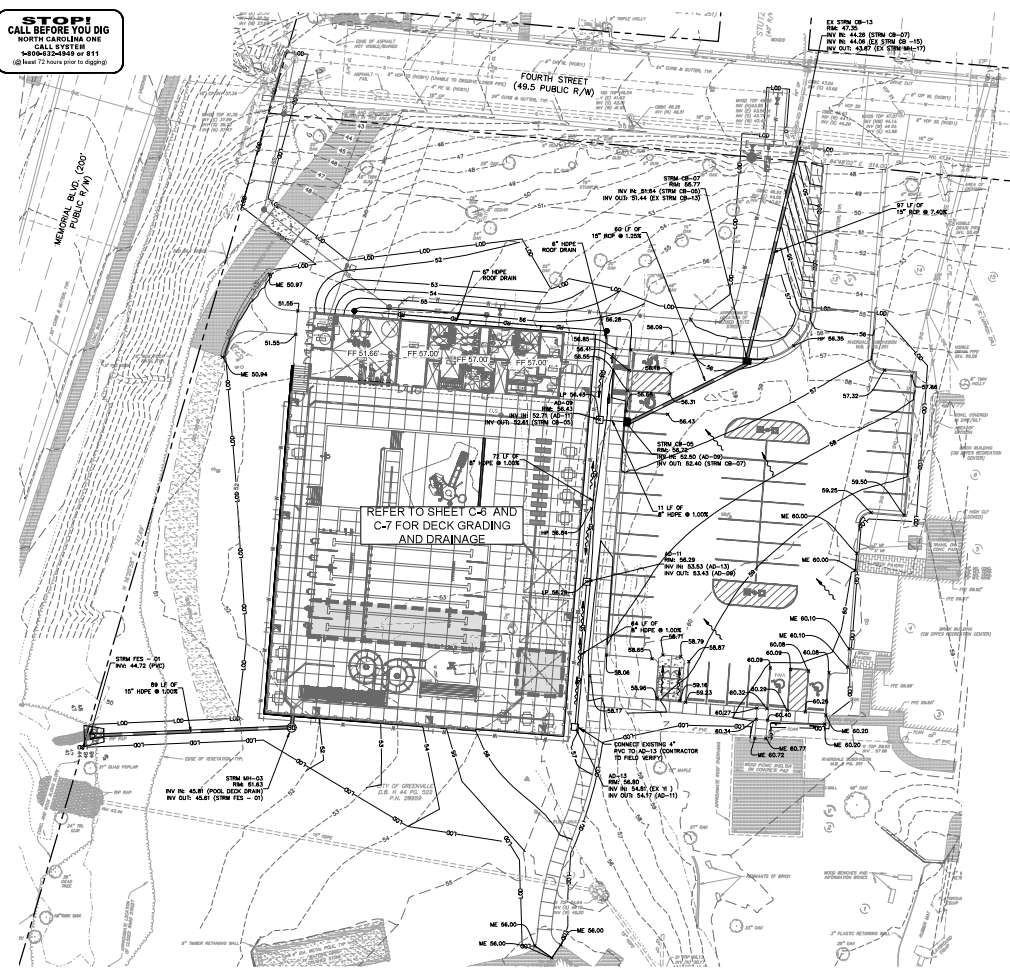
**Kimley-Horn**  
417 Hawthorne Avenue, Suite 200, Raleigh, NC 27603  
 P. 919.791.2222 F. 919.791.2223  
 WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 GREENVILLE, N.C.  
 CITY OF GREENVILLE, NC

**WATER DETAILS**

SHEET  
C-17

**STOP!**  
CALL BEFORE YOU DIG  
NORTH CAROLINA ONE  
CALL SYSTEM  
1-800-333-6849 or 811  
(Call 72 hours prior to digging)



**LEGEND**

- PROPERTY LINE
- STORM DRAIN (≥ 12 INCH)
- ROOF DRAIN
- CURB AND GUTTER
- SPILL CURB AND GUTTER
- LIMITS OF DISTURBANCE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATION
- CATCH BASIN (CB)
- MANHOLE (DMH)
- CLEANOUT (CDO)
- DRAIN PILE (DP)
- AREA DRAIN (AD)
- CONTROL STRUCTURE (CS)
- FLOWED AND SECTION (FES)
- R/F-RAIP APPROX
- FLOW ARROW

LIMITS OF DISTURBANCE: 1.56 AC

**STORMWATER NOTE:**  
PER THE CITY OF GREENVILLE STORMWATER MANAGEMENT PROGRAM, SEE TABLE EXCEPTS TO PEAK FLOW REQUIREMENTS, STATED BELOW.  
THE INCREASE IN PEAK FLOW BETWEEN PRE- AND POST-DEVELOPMENT CONDITIONS DOES NOT EXCEED 10% (NOTE THAT THE EXEMPTION MAKES IT EASIER TO CONDUCT REDEVELOPMENT ACTIVITIES).  
THIS PROJECT RESULTS IN A PEAK FLOW INCREASE OF 4.68% FROM PRE- TO POST-DEVELOPMENT. THEREFORE, THIS PROJECT IS EXEMPT FROM PEAK FLOW REQUIREMENTS. SEE TABLE BELOW.

	Impervious (AC)	Permeous (AC)	Site Area (AC)	% Impervious	Avg C	11.5 in/hr, 24 Hour	Q (1) (cfs)	Q (2) (cfs)
Pre-Development	2.11	2.33	4.44	27%	0.52	0.33	0.66	
Post-Development	2.55	0.89	3.44	27%	0.55	0.33	0.68	
% Increase								4.68%

\*\*\* assumed C value 0.4 for pervious and 0.95 for impervious

**Kimley-Horn**  
417 Fairview Park Drive, Suite 200, Greenville, NC 27834  
P.O. Box 26170, Greenville, NC 27802  
© 2011 KIMLEY-HORN AND ASSOCIATES, INC.  
N.C. LICENSE #22022



**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR:  
**CITY OF GREENVILLE, NC**

**PARKING LOT GRADING AND DRAINAGE PLAN**

AS SHOWN  
Scale: 1" = 20'  
Drawn By: [Name]  
Checked By: [Name]  
Date: April, 2011  
Project No.: 2010-000000  
SHEET  
**C-18**

06/20/2011 - 11:23:31 AM

### CATCH BASIN & JUNCTION BOX STANDARD NOTES

- Mortar Joints 1/2" x 1/8" thick. Concave tool exposed mortar joints.
- Unless 7/8" concrete for cover. 6" minimum of exposed mortar joints.
- The painting of base shall be accomplished by forming.
- All catch basins over 3'4" in depth shall be provided with steps 1" on centers. Steps shall be in accordance with std. detail No. 615.01.
- Concrete brick may be used in lieu of clay brick. Jumbo brick will be permitted.
- Engineered pre-cast bases are permitted with the City Engineer's approval.
- For 8" in height or less use 8" wall. Over 8" in height use 12" wall to 6" from top of wall, and 8" wall for the remaining 6". Adjust quantities accordingly.
- Leave weep holes as directed by the engineer.
- Construct with pipe covers matching.
- All drawings not to scale.

06/20/2011 - 11:23:31 AM

### MANHOLE STANDARD NOTES

- Mortar Joints 1/2" x 1/8" thick. Concave tool exposed mortar joints.
- Class 75 concrete to be used. Chamber of exposed concrete 1".
- Forms to be used for the construction of the base.
- Where the manhole top is exposed to road traffic, the top of the manhole is to be flush with the ground. At other locations it should be a minimum of 8" above the ground.
- Manholes over 3'4" in depth shall be provided with steps 1" on centers. Steps shall be in accordance with Std. detail No. 615.01.
- Over 3'4" pipe design requires City Engineer's approval.
- For manholes over 12 ft, vertical wall depth, brick masonry wall thickness shall be 12".
- For manholes with a vertical wall depth less than 12 ft, brick masonry wall thickness shall be 8".
- All drawings not to scale.

CITY OF GREENVILLE, N.C. **STANDARD CATCH BASIN AND MANHOLE NOTES** 416.01

06/20/2011 - 11:23:31 AM

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)** 615.01

06/20/2011 - 11:23:31 AM

### DIMENSIONS AND QUANTITIES FOR BRICK CATCH BASIN

PIPE SIZE	WIDTH	DEPTH	HEIGHT	DIMENSIONS		QUANTITIES		CONCRETE		BRICK MASONRY	
				BRICK	CONCRETE	BRICK	CONCRETE	CONCRETE	BRICK		
15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"
18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"
42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"
48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"	48"
54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"	54"

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)** 615.02

06/20/2011 - 11:23:31 AM

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STANDARD CATCH BASIN ASSEMBLY FRAME, HOOD & GRATE** 616.01

06/20/2011 - 11:23:31 AM

### NOTES

- MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF SOIL INTO BACKFILL MATERIAL, WHEN REQUIRED.
- SOIL CLASSIFICATIONS ARE PER THE LATEST EDITION OF ASTM D2958. CLASS 1 MATERIALS ONLY. AS DEFINED IN MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD SPECIFICATIONS FOR BRICK MASONRY. CLASS 1 MATERIALS ONLY. NOT APPROPRIATE FOR BACKFILL.
- FOUNDATION WHERE THE TRENCH BOTTOM IS UNSTABLE, THE FOUNDATION SHALL BE CONSTRUCTED TO A DEPTH BEYOND THE UNSTABLE MATERIAL AND REPLACED WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AN ALTERNATE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A SUITABLE MATERIAL.
- BACKFILL SUITABLE MATERIAL SHALL BE CLASS 1. THE FOUNDATION SHALL PROVIDE PROTECTION FOR MATERIAL MIGRATION TO OCCUR. BRICK MASONRY SHALL BE 12" MINIMUM THICKNESS. BRICK MASONRY SHALL BE 12" MINIMUM THICKNESS. BRICK MASONRY SHALL BE 12" MINIMUM THICKNESS. BRICK MASONRY SHALL BE 12" MINIMUM THICKNESS.
- INSTALL 4" MIN. THICKNESS OF CONCRETE OR 4" MIN. THICKNESS OF POLYMER CONCRETE OVER THE FOUNDATION. CONCRETE SHALL BE 4" MIN. THICKNESS. POLYMER CONCRETE SHALL BE 4" MIN. THICKNESS. CONCRETE SHALL BE 4" MIN. THICKNESS. POLYMER CONCRETE SHALL BE 4" MIN. THICKNESS.
- INSTALL 4" MIN. THICKNESS OF CONCRETE OR 4" MIN. THICKNESS OF POLYMER CONCRETE OVER THE FOUNDATION. CONCRETE SHALL BE 4" MIN. THICKNESS. POLYMER CONCRETE SHALL BE 4" MIN. THICKNESS. CONCRETE SHALL BE 4" MIN. THICKNESS. POLYMER CONCRETE SHALL BE 4" MIN. THICKNESS.
- SELECT HAVE CLEAN BACKFILL SHALL BE WELL PLACED. BACKFILL SHALL BE CLASS 1. BACKFILL SHALL BE CLASS 1. BACKFILL SHALL BE CLASS 1. BACKFILL SHALL BE CLASS 1.
- FOR STORM TRENCHES, SEE DETAIL 615.01 FOR HOPE (HP) STORM TRENCH INSTALLATION DETAIL. FOR HOPE (HP) STORM TRENCH INSTALLATION DETAIL, SEE DETAIL 615.01 FOR HOPE (HP) STORM TRENCH INSTALLATION DETAIL.

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STANDARD PRECAST MANHOLE (15" THRU 36" PIPE)** 615.03

06/20/2011 - 11:23:31 AM

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STANDARD PRECAST MANHOLE (15" THRU 36" PIPE)** 615.03

06/20/2011 - 11:23:31 AM

### NOTES

- GRAVELLY COVER SHALL BE 18" MINIMUM DEPTH. COVER SHALL BE 18" MINIMUM DEPTH. COVER SHALL BE 18" MINIMUM DEPTH. COVER SHALL BE 18" MINIMUM DEPTH.
- FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH.
- FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH.
- FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH.
- FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH.
- FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH. FRAMES SHALL BE 18" MINIMUM DEPTH.

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **HOPE (HP) STORM TRENCH INSTALLATION DETAIL** N.T.S. KHA DETAIL NO. 03.101.001

06/20/2011 - 11:23:31 AM

### TABLE 1. RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE SIZE	CLASS 1	CLASS 2	CLASS 3	CLASS 4
15"	15"	15"	15"	15"
18"	18"	18"	18"	18"
24"	24"	24"	24"	24"
30"	30"	30"	30"	30"
36"	36"	36"	36"	36"
42"	42"	42"	42"	42"
48"	48"	48"	48"	48"
54"	54"	54"	54"	54"

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **TYPICAL CLEANOUT** N.T.S. KHA DETAIL NO. 03.201.001

06/20/2011 - 11:23:31 AM

06/20/2011 - 11:23:31 AM

CITY OF GREENVILLE, N.C. **STORMWATER DETAILS** 316.01

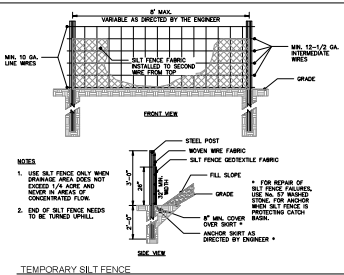
06/20/2011 - 11:23:31 AM

**Kimley-Horn**

GREENVILLE OUTDOOR AQUATIC CENTER  
DESIGNED BY  
CITY OF GREENVILLE, NC

STORMWATER DETAILS

316.01



**CONSTRUCTION SPECIFICATIONS**

**MATERIALS**

- USE A STANDARD FILTER FABRIC OF AT LEAST 80% EFFICIENCY OF FLOCCULATED SOLS, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS A MINIMUM OF 10 MICRONS OF EFFECTIVE SCREENING. CONSTRUCTION OF A 2\"/>
- ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1/2\"/>
- FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

**CONSTRUCTION**

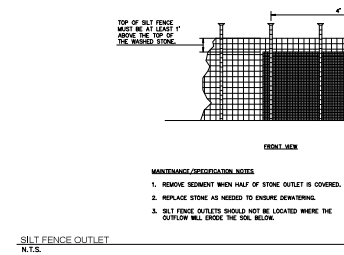
- CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
- ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. OTHER FENCES MAY EXCEED VOLUMES OF WATER SUPPORTED TO CAUSE FAILURE OF THE STRUCTURE.
- CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL, CUT TO LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER FABRIC TO A SUPPORT POST WITH A 1/2\"/>
- SUPPORT STANDARD STRENGTH FILTER FABRIC WITH WIRE FENCE TO THE OUTSIDE OF THE TRENCH. FASTEN THE WIRE FENCE TO THE WIRE FABRIC ON THE UPSIDE SIDE OF THE FENCE POST. WIRE OR PLASTIC TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH AND BE SECURELY FASTENED TO THE GROUND WITH A MINIMUM OF 12 INCHES.
- EXTRA STRENGTH FILTER FABRIC WITH 8 FEET POST SPACING DOES NOT REQUIRE WIRE FENCE SUPPORT. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS WITH WIRE OR PLASTIC TIES WITH A MINIMUM OF 50 POUND TENSILE STRENGTH.
- EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT THOROUGHLY. THE BACKFILL IS CRITICAL TO SELF FENCE PERFORMANCE.
- DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

**MAINTENANCE**

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE BECOME DAMAGED OR WEAR, IT SHOULD BE IMMEDIATELY REPAIRED OR REPLACED. THE FABRIC SHOULD BE REPLACED IMMEDIATELY IF IT IS FOUND TO BE DAMAGED OR WEAR. THE FABRIC SHOULD BE REPLACED IMMEDIATELY IF IT IS FOUND TO BE DAMAGED OR WEAR. THE FABRIC SHOULD BE REPLACED IMMEDIATELY IF IT IS FOUND TO BE DAMAGED OR WEAR.

TEMPORARY SILT FENCE  
N.T.S.

KHA DETAIL NO.01.302.R002



**CONSTRUCTION SPECIFICATIONS**

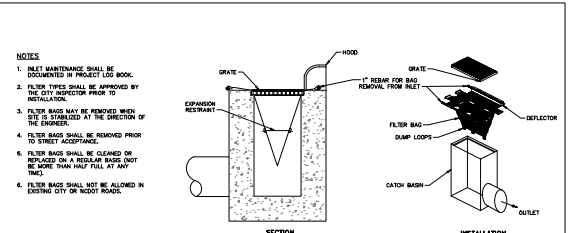
- CLEAR THE ENTRANCE AND EXIT AREA OF ALL WEEDS, ROOTS, AND OTHER OBSTACLES. REMOVE AND PROPERLY DISPOSE OF.
- PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
- USE GEOTEXTILE FABRICS BECAUSE THEY PROVIDE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEPARATION OF HIGH WATER TABLE.

**MAINTENANCE NOTES**

- REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS COVERED.
- REPLACE STONE AS NEEDED TO MAINTAIN DRAINAGE.
- SILT FENCE OUTLETS SHOULD NOT BE LOCATED WHERE THE OUTFLOW WILL EXCEED THE SOI BELOW.

SILT FENCE OUTLET  
N.T.S.

KHA DETAIL NO.01.303.R002



**NOTES**

- BUILT MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK.
- FILTER TYPES SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION.
- FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE DIRECTION OF THE ENGINEER.
- FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE.
- FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR BASIS BUT BE MORE THAN HALF FULL AT ANY TIME.
- FILTER BAGS SHALL NOT BE ALLOWED IN EXISTING CITY OR HOIST RIGGS.

CATCH BASIN INLET PROTECTION  
N.T.S.

KHA DETAIL NO.01.201.R001

**SEDIMENTATION AND EROSION CONTROL**

**EROSION CONTROL GUIDES**

ANY EROSION CONTROL DEVICES OR METHODS SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES, EROSION AND SEDIMENTATION CONTROL PLANNING AND DESIGN MANUAL AND ALL AMENDMENTS. THE EROSION CONTROL GUIDES AND METHODS THAT FOLLOW ARE SUPPLEMENTAL TO THE STATE MANUAL. OTHER DEVICES & METHODS NOT INCLUDED IN THE STATE MANUAL MAY BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

**EROSION CONTROL NOTES**

- Scheduling of a construction conference with the Engineer/Designer is required prior to initiating land disturbing activities. For scheduling conference call (252) 326-4467. A 24-hour notice is required. No person may initiate land disturbing activity before notified by the City of the date of the land disturbing activity.
- No land disturbing activity beyond that required to install appropriate erosion control may proceed until erosion control measures are inspected and approved by the City.
- Seeding and mulching or otherwise providing ground cover devices or structures sufficient to restrain erosion for all exposed slopes is required within 21 working days of completing any grade or grading.
- Contractor shall inspect and maintain all erosion control devices on a weekly basis and after each major storm event. Failure to maintain erosion control devices may result in an issuance of stop work order or civil penalties up to \$5,000 per day of violation. When silting sediment traps must also specify a maximum depth of sediment prior to clean out.
- The City Engineer reserves the right to require additional erosion control measures should the plan or its implementation prove to be inadequate.
- Acceptance and approval of this plan is conditional upon your compliance with Federal and State water quality laws, regulations and rules. In addition, local City and County ordinances or rules may also apply to the land disturbing activity. Approval by the City does not supersede any other permit or approval.

A. Please be advised of the rules to protect and maintain existing buffers along watercourses in the Neuse and the River basins. These rules are enforced by the Division of Water Quality (DWQ). Direct any questions about the applicability of these rules to your project to the regional water quality coordinator, Washington Regional Office at (252) 986-6581.

**CITY OF GREENVILLE, N.C.**

**EROSION CONTROL GUIDE**

DATE: 01/15/2018

SCALE: 1/8\"/>

**SEEDING AND MULCHING**

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and broadcast, shall be stated below. Duffly ports of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

Seed	Fertilizer	Water and Barrow Locations
March 1 - August 31	All Barrow Areas	September 1 - February 28
50# Tall Fescue	50# Tall Fescue	50# Tall Fescue
10# Centipede	10# Centipede	10# Centipede
25# Bermuda (Hybrid)	25# Bermuda (Hybrid)	25# Bermuda (Hybrid)
50# Fertilizer	50# Fertilizer	50# Fertilizer
400# Limestone	400# Limestone	400# Limestone

**Approved Tall Fescue Cultivars**

2nd Millennium	Chippew	Falco	Masterpiece	Quest	Titan 1.0L
Arroyo	Comet	Orlando II	Masterpiece	Royal Knight	Yankee
Baldwin	Coyote	Greenkeeper	Master GT	Royal Knight	Yankee
Baldwin II	Dawson	Greystone	Millennium	Regiment II	Tiger
Barnes	Quincy	Intero	Monte	Regiment	Trooper
Barrington	Dominion	Justus	Musking 3	Revolution	Turbo
Bray	Quincy	Jasper 3	Quincy Gold	Revolution	Ultimate
Bray	Endorse	Kalahari	Parlo	Shelby	Wildfire
Brown	Falco II, III, IV & V	Kelly Hawk	Plazzo	Sigra	Wildfire
Cayenne	Falco II, III, IV & V	Kelly Hawk 200	Plazzo	Southern	Crack II
Cherokee III	Freedom II	Louisa	Procedo	Southern	Crack II
Cherokee IV	Freedom II	Mapleleaf	Procedo	Southern	Crack II
Constellation	Freedom II	Mapleleaf	Procedo	Southern	Crack II
Constellation	Freedom II	Mapleleaf	Procedo	Southern	Crack II

**CITY OF GREENVILLE, N.C.**

**EROSION CONTROL GUIDE**

DATE: 01/15/2018

SCALE: 1/8\"/>

**CONCRETE WASHOUT STATION**

The washout station shall be constructed of concrete and shall be capable of receiving concrete washout from a maximum of 100 cubic yards of concrete per day.

Fortifier shall be 10-20-20 analysis. A different analysis of fortifier may be used provided the 10-20-20 analysis and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis used on project.

All areas seeded and mulched shall be locked with asphalt. Crimping of straw in lieu of asphalt lock shall not be allowed on projects.

Crimping shall be required on projects adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet of the edge of pavement, straw is to be applied and then crimped. After the crimping operation is complete, an additional application of straw shall be applied and immediately locked with a sufficient amount of uncrimped asphalt.

Straw mulch shall be sufficient length and quality to withstand the crimping operation.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimping blades shall not exceed 8\"/>

**CITY OF GREENVILLE, N.C.**

**EROSION CONTROL GUIDE**

DATE: 01/15/2018

SCALE: 1/8\"/>

**Kimley-Horn**

GREENVILLE OUTDOOR AQUATIC CENTER  
DESIGNED BY  
CITY OF GREENVILLE, NC

**EROSION CONTROL DETAILS**

DATE: 04/01/2013

PROJECT NO: 13-001

SHEET: C-20



2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: Greenville Outdoor Aquatic Facility
Address: 400 Nash Street, Greenville, NC
Owner: National Aquatic, Mark Nottingham

CONTACT table with columns: PROVIDER, FIRM, NAME, LICENSE #, TELEPHONE #, E-MAIL

2018 NC BUILDING CODE: See Building
2018 NC EXISTING BUILDING CODE: N/A

PERCENTAGE OF WALL OPENING CALCULATION table with columns: EXISTING WALL AREA, PROPOSED WALL AREA, PERCENT OPENING

LIFE SAFETY SYSTEM REQUIREMENTS table with columns: SYSTEM, TYPE, LOCATION

ALLOWABLE AREA table with columns: TYPE, EXISTING AREA, NEW AREA, SUB-TOTAL

2018 NC Administrative Code and Policies
Primary Occupancy Classification: Utility and Miscellaneous

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

1) Framing area increases from Section 506.2 are compared then
a. Perimeter which forms a public way or open space having 20 feet minimum width = 150%

ALLOWABLE HEIGHT table with columns: BUILDING HEIGHT, TYPE, PERCENT OPENING

FIRE PROTECTION REQUIREMENTS table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

2018 NC Administrative Code and Policies
Special approval: (Local Jurisdiction, Department of Insurance, OIG, DPH, DEHS, etc., describe below)

Table with columns: PROVIDING WALL OR PARTITION, TYPE, LOCATION

PERCENTAGE OF WALL OPENING CALCULATION table with columns: EXISTING WALL AREA, PROPOSED WALL AREA, PERCENT OPENING

LIFE SAFETY SYSTEM REQUIREMENTS table with columns: SYSTEM, TYPE, LOCATION

ALLOWABLE AREA table with columns: TYPE, EXISTING AREA, NEW AREA, SUB-TOTAL

2018 NC Administrative Code and Policies
Primary Occupancy Classification: Utility and Miscellaneous

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

1) Framing area increases from Section 506.2 are compared then
a. Perimeter which forms a public way or open space having 20 feet minimum width = 150%

ALLOWABLE HEIGHT table with columns: BUILDING HEIGHT, TYPE, PERCENT OPENING

FIRE PROTECTION REQUIREMENTS table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

2018 NC Administrative Code and Policies
Special approval: (Local Jurisdiction, Department of Insurance, OIG, DPH, DEHS, etc., describe below)

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: Greenville Outdoor Aquatic Facility
Address: 400 Nash Street, Greenville, NC
Owner: National Aquatic, Mark Nottingham

CONTACT table with columns: PROVIDER, FIRM, NAME, LICENSE #, TELEPHONE #, E-MAIL

2018 NC BUILDING CODE: See Building
2018 NC EXISTING BUILDING CODE: N/A

PERCENTAGE OF WALL OPENING CALCULATION table with columns: EXISTING WALL AREA, PROPOSED WALL AREA, PERCENT OPENING

LIFE SAFETY SYSTEM REQUIREMENTS table with columns: SYSTEM, TYPE, LOCATION

ALLOWABLE AREA table with columns: TYPE, EXISTING AREA, NEW AREA, SUB-TOTAL

2018 NC Administrative Code and Policies
Primary Occupancy Classification: Utility and Miscellaneous

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

1) Framing area increases from Section 506.2 are compared then
a. Perimeter which forms a public way or open space having 20 feet minimum width = 150%

ALLOWABLE HEIGHT table with columns: BUILDING HEIGHT, TYPE, PERCENT OPENING

FIRE PROTECTION REQUIREMENTS table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

2018 NC Administrative Code and Policies
Special approval: (Local Jurisdiction, Department of Insurance, OIG, DPH, DEHS, etc., describe below)

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: Greenville Outdoor Aquatic Facility
Address: 400 Nash Street, Greenville, NC
Owner: National Aquatic, Mark Nottingham

CONTACT table with columns: PROVIDER, FIRM, NAME, LICENSE #, TELEPHONE #, E-MAIL

2018 NC BUILDING CODE: See Building
2018 NC EXISTING BUILDING CODE: N/A

PERCENTAGE OF WALL OPENING CALCULATION table with columns: EXISTING WALL AREA, PROPOSED WALL AREA, PERCENT OPENING

LIFE SAFETY SYSTEM REQUIREMENTS table with columns: SYSTEM, TYPE, LOCATION

ALLOWABLE AREA table with columns: TYPE, EXISTING AREA, NEW AREA, SUB-TOTAL

2018 NC Administrative Code and Policies
Primary Occupancy Classification: Utility and Miscellaneous

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

1) Framing area increases from Section 506.2 are compared then
a. Perimeter which forms a public way or open space having 20 feet minimum width = 150%

ALLOWABLE HEIGHT table with columns: BUILDING HEIGHT, TYPE, PERCENT OPENING

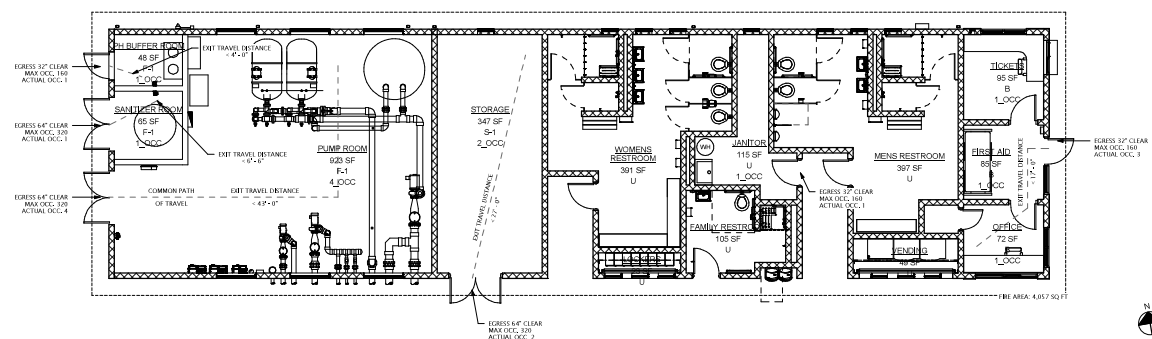
FIRE PROTECTION REQUIREMENTS table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

Table with columns: TYPE, HEIGHT, AREA, PERCENT OPENING

2018 NC Administrative Code and Policies
Special approval: (Local Jurisdiction, Department of Insurance, OIG, DPH, DEHS, etc., describe below)

Greenville Outdoor Aquatic Center Aquatic Center Prepared For City of Greenville CODE SUMMARY SHEET G001

Osterlund ARCHITECTS, PLLC PROJECT #2021-0037



LIFE SAFETY PLAN  
 3/16" = 1'-0"

PROJECT: MAS556

Osterlund ARCHITECTS, PLLC  
 5 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 849-3333  
 osterlund.com

**LIFE SAFETY PLANS**

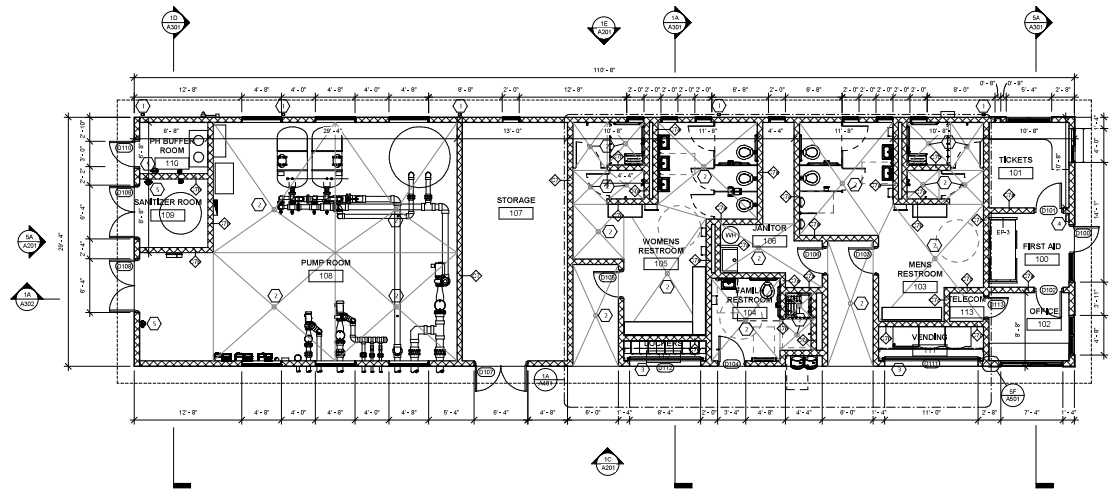
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

**Kimley Horn**  
 417 FAYVILLE STREET, GREENVILLE, SOUTH CAROLINA 29615  
 © 2025 KIMLEY-HORN AND ASSOCIATES, INC.  
 PROJECT #2025

SCALE: AS SHOWN  
 DRAWN BY: RLR  
 CHECKED BY: RMP  
 DATE: APRIL 2025  
 PROJECT NO.: MAS556

SHEET  
**G100**





- GENERAL NOTES**
1. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.
  2. FINISH LINE INDICATES ROOF OVERHANG.
  3. DASHED LINE INDICATES ROOF OVERHANG.
  4. INTERIOR WALLS ARE 8" CMU, THICK.
  5. ALL FLOORS TO BE TO FINISH DIMENSIONS - SEE FINISHING DRAWINGS.
  6. POOL EQUIPMENT SUPPORTS FOR RESTROOM ONLY - SEE FINISHING AND MECHANICAL DRAWINGS.
- KEY NOTES**
1. DOWNPOUT - SEE MECHANICAL DRAWINGS TO TIE IN TO STORM DRAINAGE.
  2. FLOOR FINISH - SEE FINISHING DRAWINGS.
  3. CONCRETE CURB - 4" TALL.
  4. FIRE EXTINGUISHER AND CABINET.
  5. SEE EXTERIOR AND MECHANICAL DRAWINGS.

**Kimley-Horn**  
 CONSULTING ENGINEERS  
 1001 N. W. 10th Street, Suite 200  
 Ft. Lauderdale, FL 33304  
 PHONE: (954) 576-8800  
 FAX: (954) 576-8801  
 WWW.KIMLEY-HORN.COM



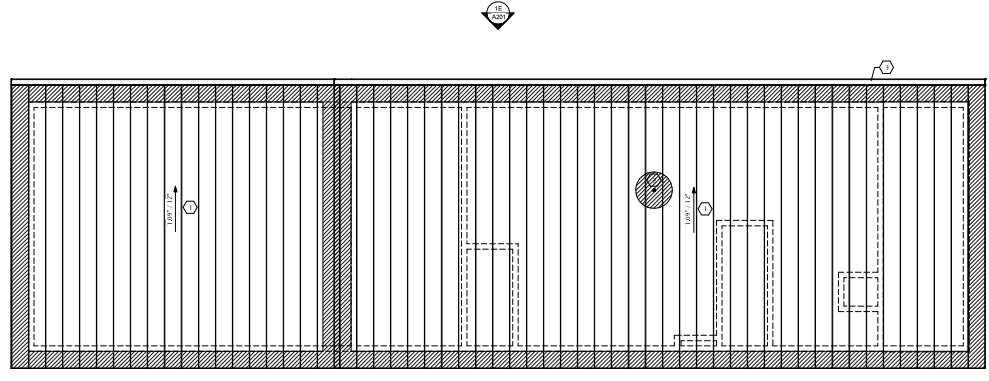
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

**FLOOR PLAN**

**Osterlund ARCHITECTS, PLLC**  
 PROJECT NO: 1001  
 5 W. Hargett Street, 3rd Floor  
 Raleigh, NC 27601  
 (919) 843-1333  
 www.ost.com

Scale:	AS SHOWN
Checked by:	ACE
Checked by:	ACE
Date:	09/01/2017
Project No.:	1001
Sheet No.:	010101

**A101**



ROOF NOTES	
1	PROVIDE 2" ADHERED WATERPROOFING AT GAVES, EAVES, AND OTHER WATERING INDICATED BY MATCHED LINES.
ROOF KEY NOTES	
1	STANDARD 30# GALV METAL ROOF
2	SEE PLUMBING DRAWINGS FOR ROOF PENETRATIONS
3	GUTTER

**Kimley-Horn**  
 AN PARTNERSHIP UNDER THE GENERAL PARTNERSHIP ACT OF NORTH CAROLINA  
 1001 PARKWAY DRIVE, SUITE 200  
 GREENVILLE, NC 27601  
 PHONE: 813.384.4444  
 WWW.KIMLEY-HORN.COM  
 PROJECT # 2022



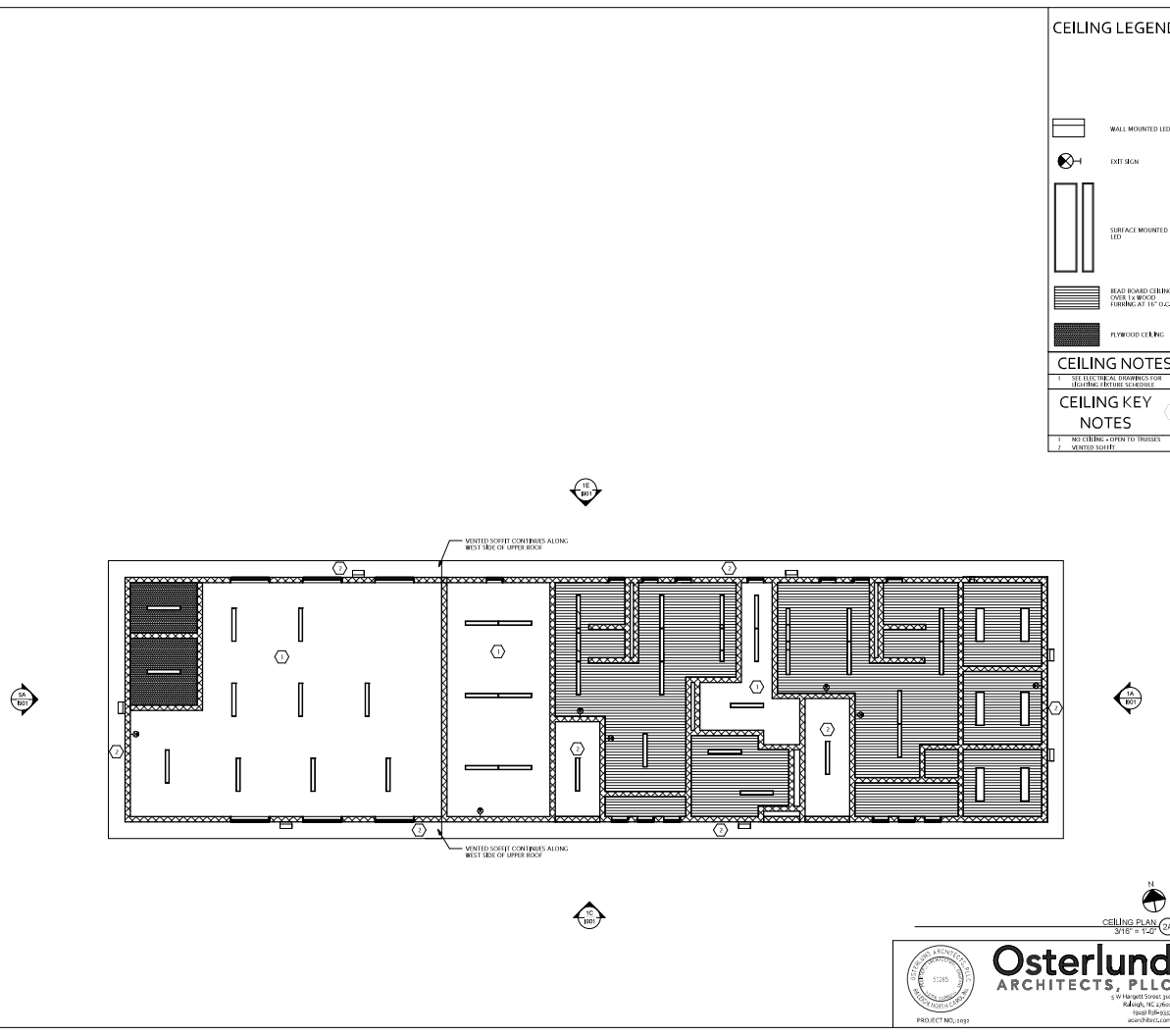
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

**ROOF PLAN**

PROJECT: MAS556.dwg

**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd Floor  
 Raleigh, NC 27601  
 (919) 848-3333  
 oster@osterc.com

AS SHOWN  
 DRAWN BY: JMS  
 CHECKED BY: JMS  
 DATE: APRIL 2023  
 PROJECT NO.: 2022000000  
 SHEET: A102



CEILING LEGEND	
	WALL MOUNTED LED
	EXIT SIGN
	SURFACE MOUNTED LED
	HEAD BOARD CEILING FORM 1x4 WOOD FINISH AT 10' O.C.
	PLYWOOD CEILING

**CEILING NOTES**

1. SEE THE REAL DRAWINGS FOR THE FINISH SCHEDULE.

**CEILING KEY NOTES**

1. NOT CEILING TYPES TO VISUAL VENTED SOFFIT

**GREENVILLE OUTDOOR AQUATIC CENTER**  
CITY OF GREENVILLE

**Kimley-Horn**  
AN PARTNERSHIP BETWEEN KIMLEY-HORN AND ASSOCIATES, INC.  
© 2017 KIMLEY-HORN AND ASSOCIATES, INC.  
PROJECT #2016-0028

ARCHITECT'S SEAL  
JAMES M. HORN  
10015  
SOUTH GREENVILLE, SC 29615

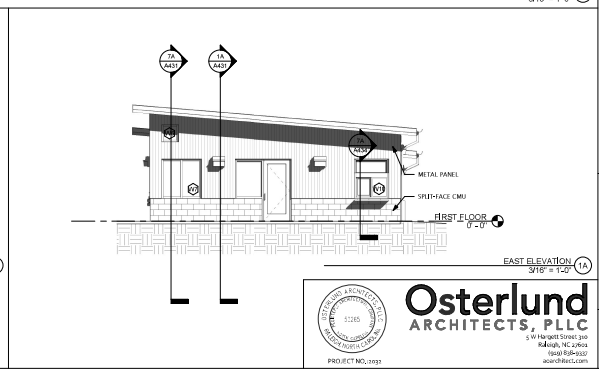
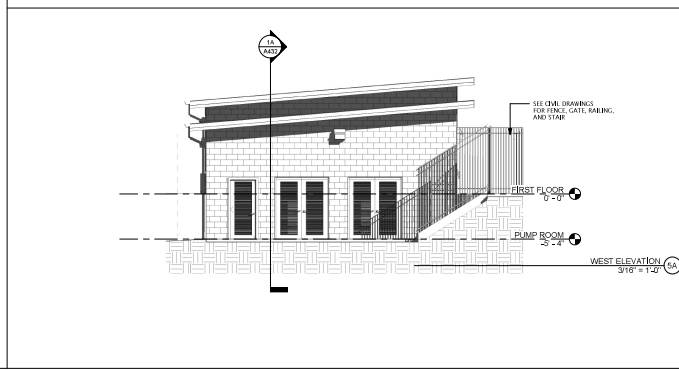
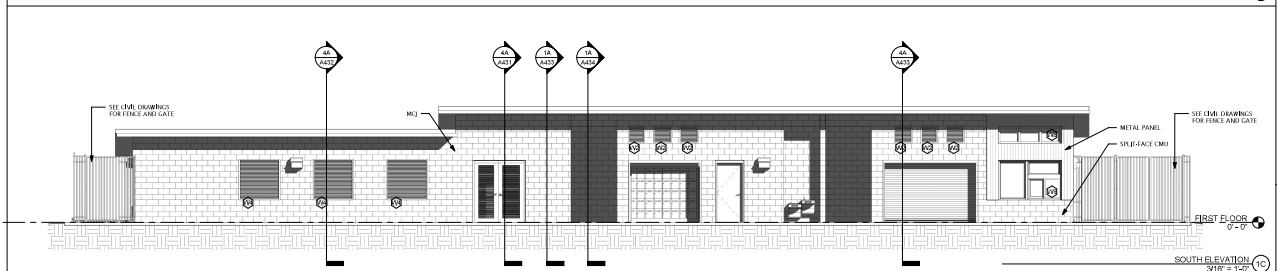
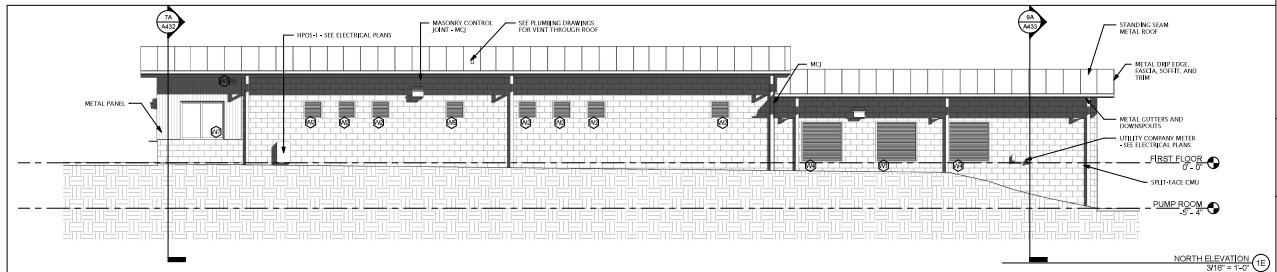
**CEILING PLANS**

**Osterlund ARCHITECTS, PLLC**  
PROJECT: MAS556

AS SHOWN  
Scale: 3/16" = 1'-0"  
Checked by: JMH  
Date: APRIL 2017  
Project No.: 2016-0028

**SHEET A120**

5 W. Hargett Street, 3rd Floor  
Raleigh, NC 27601  
Phone: 919-853-3333  
www.ola.com



**Osterlund ARCHITECTS, PLLC**  
PROJECT: MCJ\_0001

5 W. Hargett Street, 3rd Floor  
Raleigh, NC 27601  
919.833.8333  
ost@ost.com

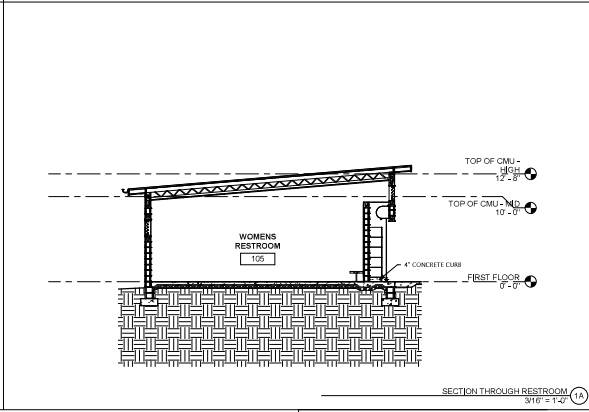
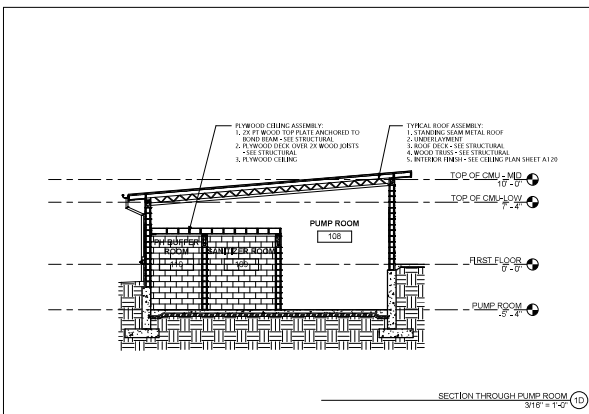
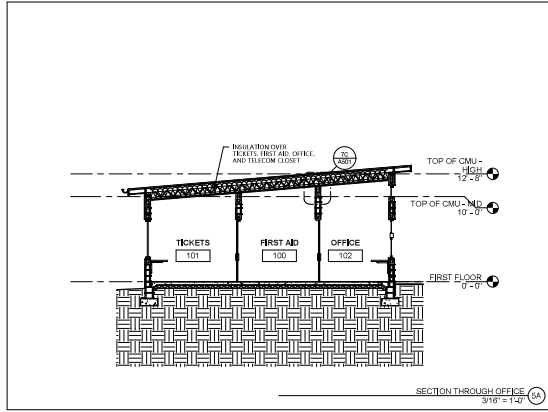
**Kimley Horn**  
10015  
10015  
10015

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR: CITY OF GREENVILLE

**BUILDING ELEVATIONS**

AS SHOWN  
DESIGNED BY  
CHECKED BY  
DATE  
PROJECT NO.  
SHEET  
A201

C:\Users\mkh\OneDrive - Greenleaf Architects, PLLC\Documents\353 Greenville Outdoor Aquatic Facility\msh5596.dwg 4/16/2017 4:34:35 PM ARCH (export) D:\Greenleaf\Architects, LLC\2017\Arch



**Osterlund ARCHITECTS, PLLC**  
SHEET A301

PROJECT: MCO, 0000

AS BROWN  
Checked By: ASB  
Checked By: MCB  
Date: APRIL 2017  
Project No.: 00000000

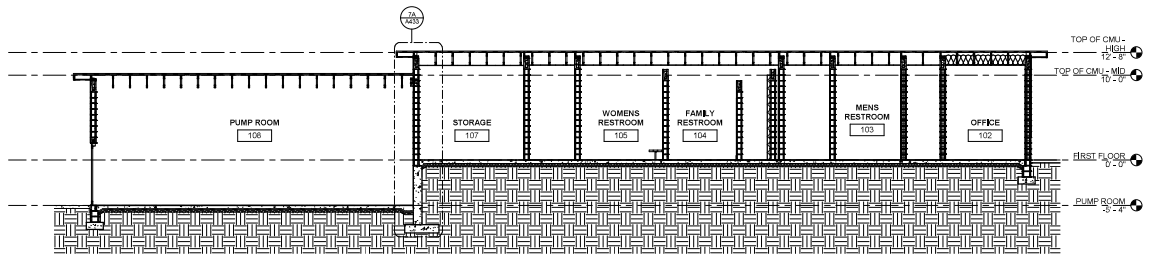
**Kimley Horn**  
1015  
1015  
1015

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR  
CITY OF GREENVILLE

**BUILDING SECTIONS**

4/10/2011 4:51:38 PM ARCH/egard/D:\green\awh\hwh\... 01/20/11

C:\Users\msh\CA\ConDraw - Osterlund Architects, PLLC\Documents\355 Greenville Outdoor Aquatic Facility\msh5556.dwg



SECTION THROUGH BUILDING  
3/16" = 1'-0"

**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 843-3333  
 osterlund.com

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

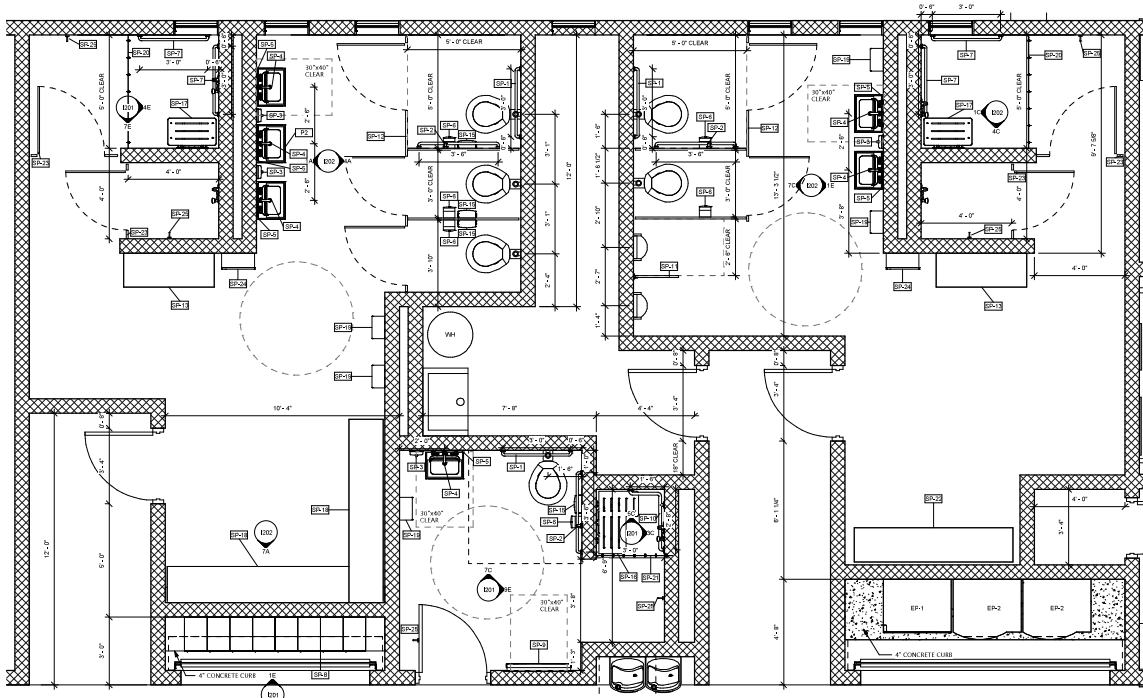
**BUILDING SECTIONS**

**SHEET A302**

Scale: 3/16" = 1'-0"  
 Checked by: MSH  
 Date: APRIL 2011  
 Project No.: 355600045

**Kimley Horn**  
 417 FAYETTEVILLE STREET, SUITE 200, GREENVILLE, SC 29601  
 (803) 271-1100  
 WWW.KIMLEYHORN.COM  
 P.C. LICENSE #2008

Professional Engineer  
 License No. 10313  
 State of South Carolina  
 4/10/2011



ENLARGED RESTROOM PLAN  
1/2" = 1'-0"

**Osterlund**  
**ARCHITECTS, PLLC**

James Osterlund  
Professional Engineer  
License No. 31135  
State of North Carolina

**PROJECT NO. 1007**

AS SHOWN  
DESIGNED BY: MARY  
CHECKED BY: JAMES  
DATE: APRIL 2011  
PROJECT NO.: 1007/002

**ENLARGED PLANS**

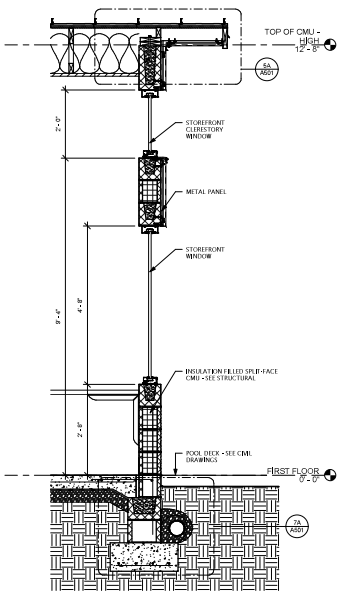
**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR:  
**CITY OF GREENVILLE**

**Osterlund**  
**ARCHITECTS, PLLC**

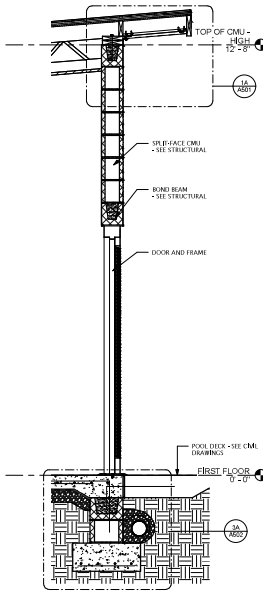
James Osterlund  
Professional Engineer  
License No. 31135  
State of North Carolina

**Kimley-Horn**

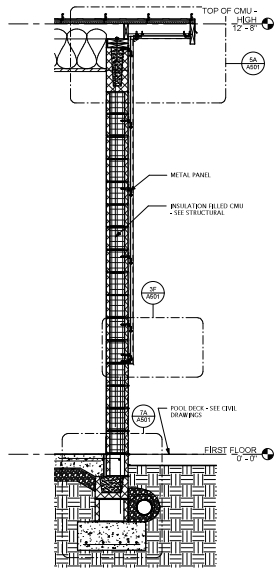
REGISTERED PROFESSIONAL ENGINEERS  
101 SOUTH MAIN STREET, SUITE 100  
GREENVILLE, SOUTH CAROLINA 29601  
PH: 864.636.1100  
WWW.KIMLEY-HORN.COM



METAL PANEL WALL SECTION AT STOREFRONT  
3/4" = 1'-0"



SPLIT-FACE WALL SECTION AT DOOR  
3/4" = 1'-0"



TYPICAL RAKE WALL SECTION AT METAL PANEL  
3/4" = 1'-0"

**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 848-1100  
 oster@ost.com

**Kimley Horn**  
 417 FAYVILLE DRIVE, GREENVILLE, SOUTH CAROLINA 29615  
 WWW.KIMLEYHORN.COM  
 © 2021 KIMLEY HORN CONSULTANTS, INC.  
 NC LICENSE #2020

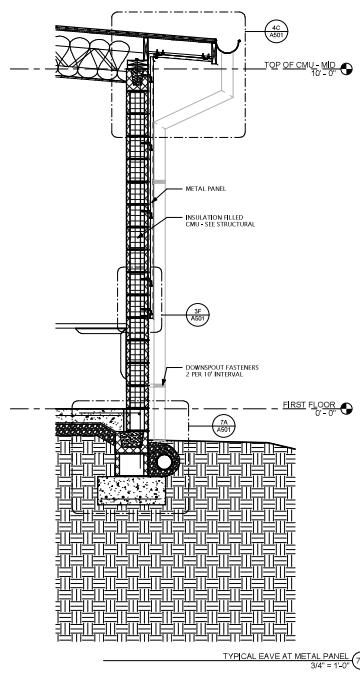
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR:  
 CITY OF GREENVILLE

**WALL SECTIONS**

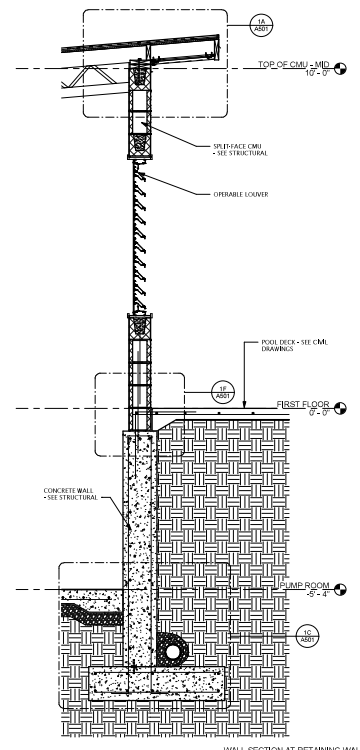
AS SHOWN  
 DRAWN BY: AJS  
 CHECKED BY: JPH/2021  
 DATE: 04/15/2021  
 PROJECT NO.: 20200700

**SHEET A431**

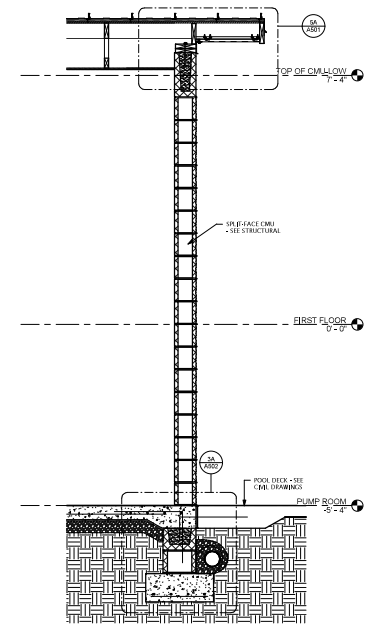




TYPICAL EAVE AT METAL PANEL  
3/4" = 1'-0"



WALL SECTION AT RETAINING WALL  
3/4" = 1'-0"



TYPICAL RAKE AT SPLIT-FACE  
3/4" = 1'-0"

**Osterlund ARCHITECTS, PLLC**  
5 W. Hargett Street, 3rd  
Floor, Raleigh, NC 27601  
(919) 848-1333  
ost@ost.com

PROJECT: 1602\_0001

**Kimley Horn**  
1001 S. GREENVILLE AVENUE  
GREENVILLE, SC 29615  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
PROJECT #2021-0001

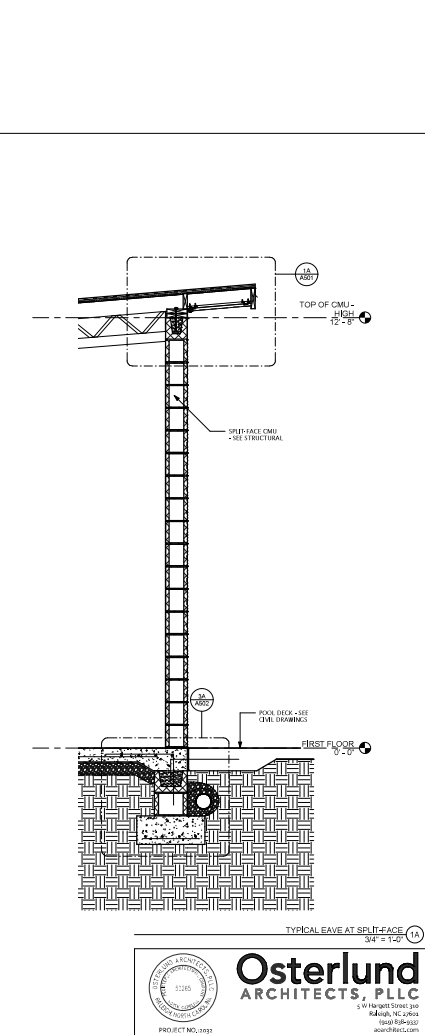
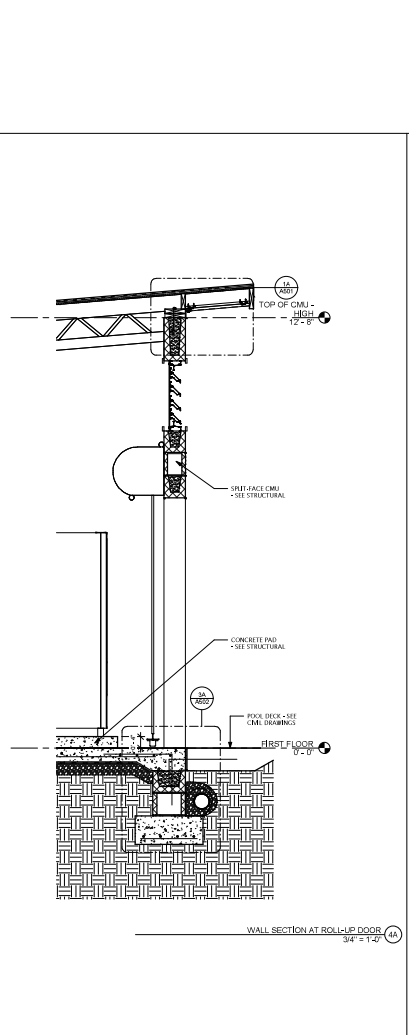
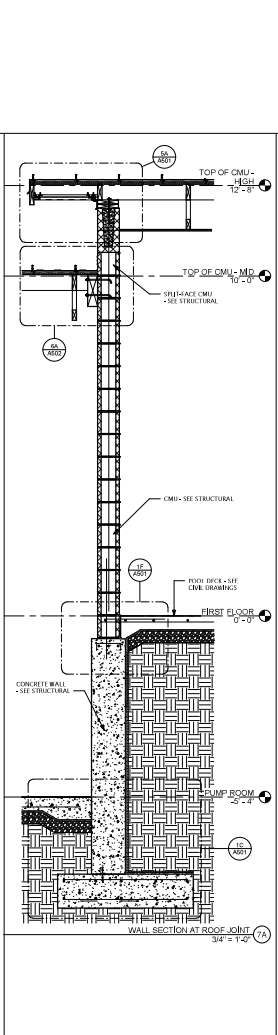
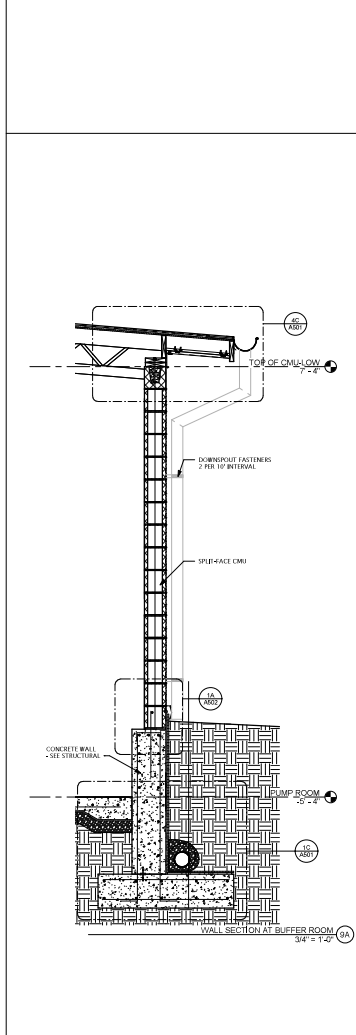
**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR  
CITY OF GREENVILLE

**WALL SECTIONS**

DATE: 05/11/2021  
DRAWN BY: JMH  
CHECKED BY: JMH  
DATE: 05/11/2021  
PROJECT NO.: 1602\_0001

**SHEET A432**

C:\Users\jmh\OneDrive - Greenleaf Architects, PLLC\Documents\355 Greenville Outdoor Aquatic Facility\mst5556.rvt  
 4/16/2017 10:54:47 AM ARCH EXPANDED (3/20/17 3:50:16 PM) © 2017 KIMLEY-HORN AND ASSOCIATES, INC.



**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 848-1333  
 oster@ost.com

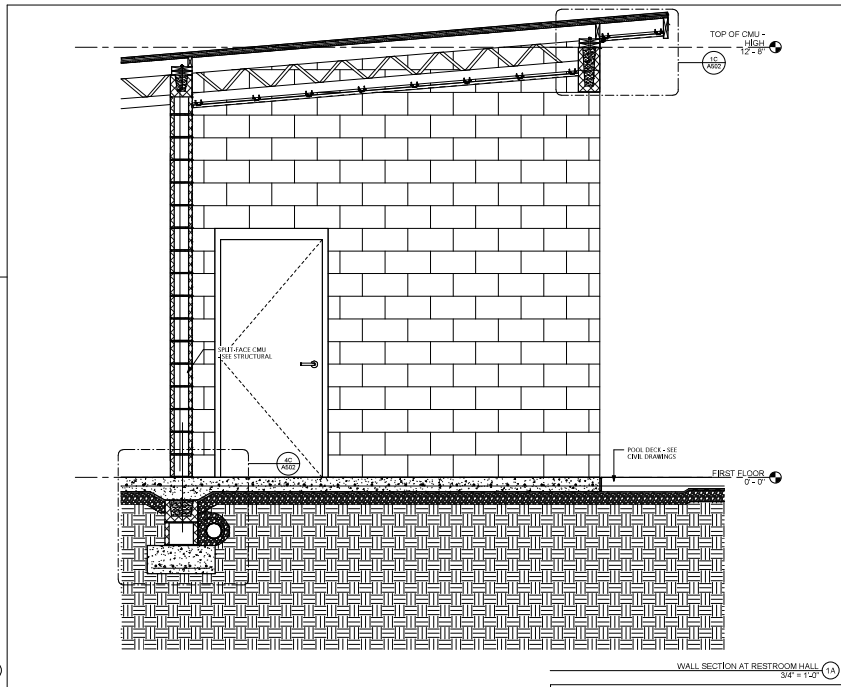
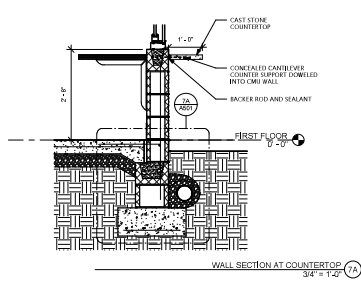
PROJECT: MCO\_0001

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR: CITY OF GREENVILLE

**WALL SECTIONS**

**Kimley-Horn**  
 10101 FARM ROAD, SUITE 200  
 RALEIGH, NC 27613  
 (919) 848-1333  
 khor@kimley-horn.com

DATE: 04/11/2017  
 SHEET: A433



**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd Floor  
 Raleigh, NC 27601  
 (919) 833-1533  
 oster@ost.com

PROJECT: MCO\_0001

Scale:	AS SHOWN
Checked by:	AKS
Drawn by:	AKS
Checked by:	AKS
Date:	APRIL 2021
Project No.:	20070000

**WALL SECTIONS**

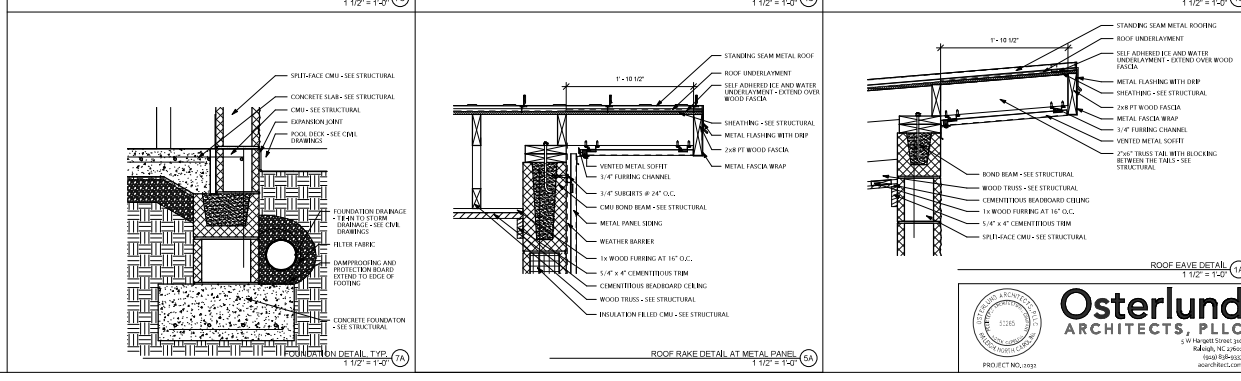
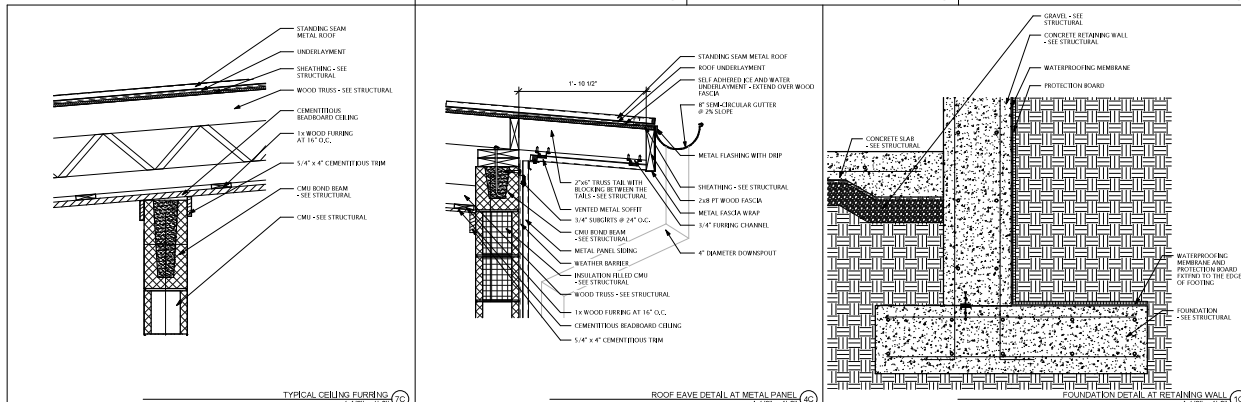
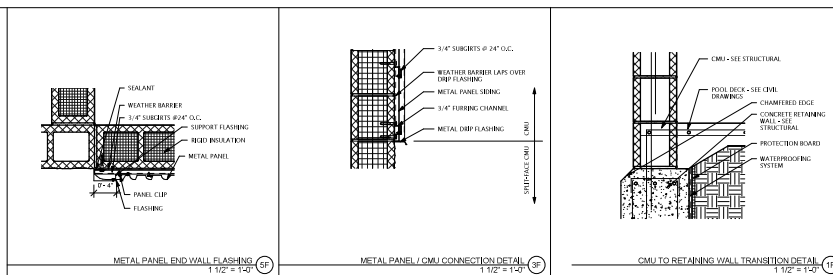
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR:  
 CITY OF GREENVILLE



**Kimley Horn**  
 415 FAYETTEVILLE STREET, SUITE 200, GREENVILLE, NC 27601  
 WWW.KIMLEYHORN.COM  
 © 2021 KIMLEY HORN AND ASSOCIATES, INC.  
 NC LICENSE #2285

SHEET  
**A434**

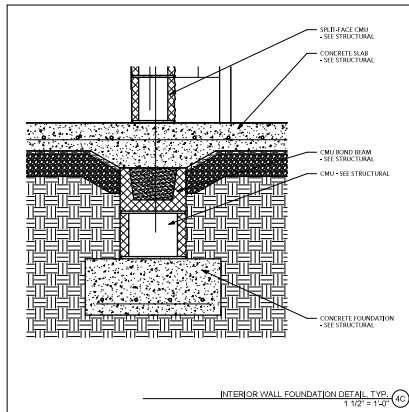
C:\Users\jsh\OneDrive - Greenleaf Architects, PLLC\Documents\55 Greenville Outdoor Aquatic Facility\misc\55\55.dwg  
 4/10/2021 10:47 PM ARCI (export) D:\greenleaf\55\55.dwg (sheet), s.d. 0/20/2021  
 © OSTERLUND ARCHITECTS, PLLC  
 PROJECT: 555555



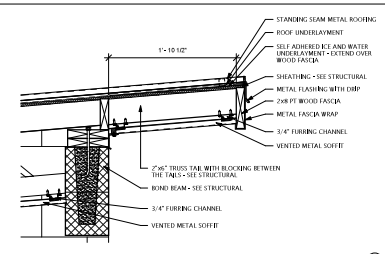
**Osterlund ARCHITECTS, PLLC**  
 PROJECT: 555555  
 4000 Highway 55, Suite 300  
 Raleigh, NC 27606  
 (919) 850-1550  
 osterl@ost.com

**Kimley Horn**  
 10015  
 GREENVILLE OUTDOOR AQUATIC CENTER  
 PREPARED FOR: CITY OF GREENVILLE  
 PROJECT NO.: 555555  
 SHEET: A501  
 DATE: APRIL 2021  
 DRAWN BY: JAH  
 CHECKED BY: JAH  
 PROJECT NO.: 555555

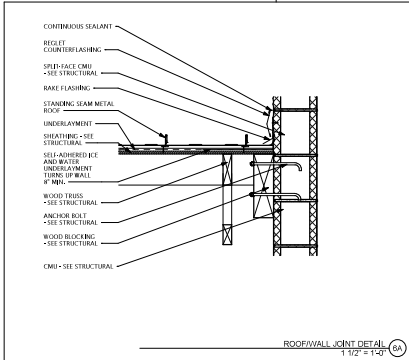
C:\Users\mkh\OneDrive - Kimley-Horn & Associates, PLLC\Documents\2025\Greenville Outdoor Aquatic Facility\misc\5/26/24.dwg 4/30/2025 3:54:47 PM ARCI (page 1) of 6 (sheet) of 6 (sheet) of 6 (sheet)



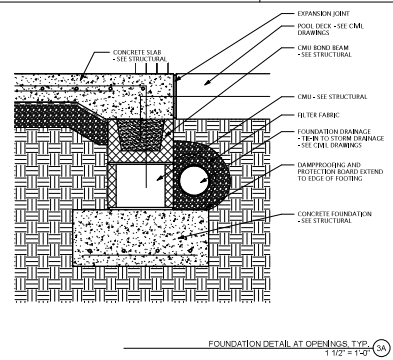
INTERIOR WALL FOUNDATION DETAIL, TYP. (1/2) = 1'-0



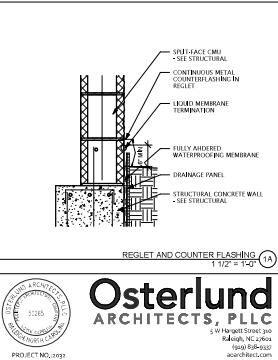
ROOF EAVE DETAIL AT WALL OPENING (1/2) = 1'-0



ROOFWALL JOINT DETAIL (1/2) = 1'-0



FOUNDATION DETAIL AT OPENINGS, TYP. (1/2) = 1'-0



REGLET AND COUNTER FLASHING (1/2) = 1'-0



**Osterlund ARCHITECTS, PLLC**  
 6 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 849-1100  
 oster@oster.com

**Kimley-Horn**  
 417 FAYETTEVILLE STREET, SUITE 2000, RALEIGH, NC 27601  
 © 2021 KIMLEY-HORN & ASSOCIATES, PLLC  
 PE LICENSE #2688

PROFESSIONAL ENGINEER  
 10015  
 10/1/2021  
 10/1/2021

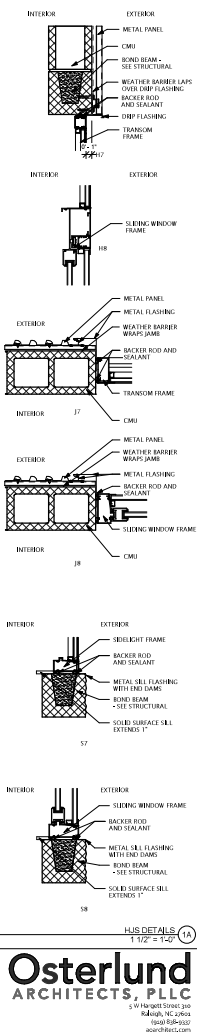
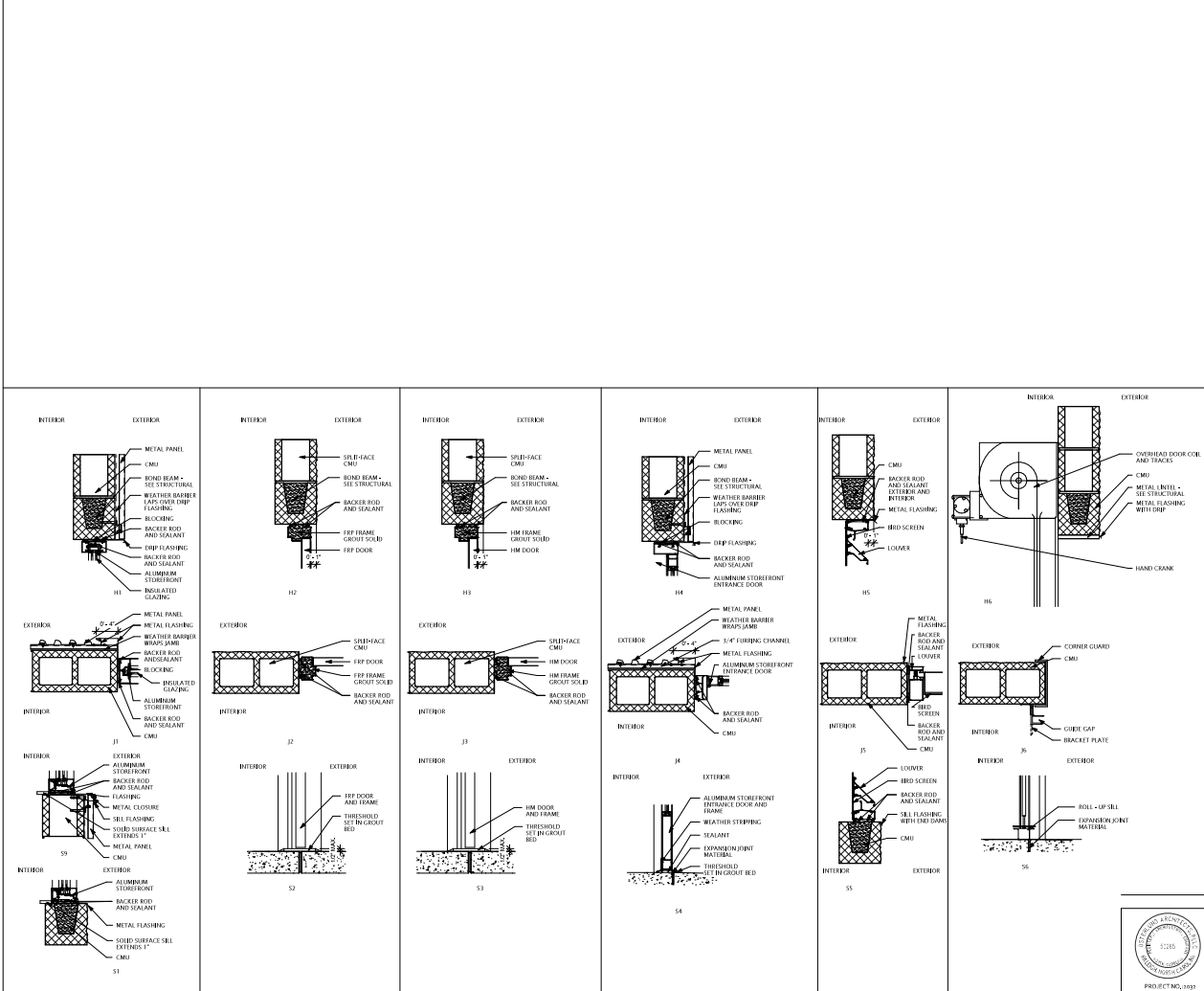
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

DETAILS

**A502**

SCALE

DATE  
 DRAWN BY  
 CHECKED BY  
 DATE  
 PROJECT NO.  
 SHEET NO.



**Kimley Horn**  
A PROFESSIONAL ENGINEERING FIRM  
© 2021 KIMLEY HORN AND ASSOCIATES, INC.  
P.E. LICENSE #2008

GREENVILLE OUTDOOR  
AQUATIC CENTER  
PREPARED FOR  
CITY OF GREENVILLE

**HJS DETAILS**

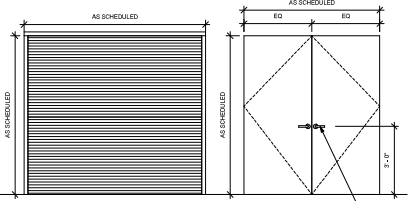
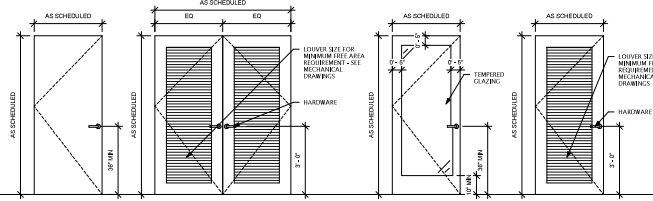
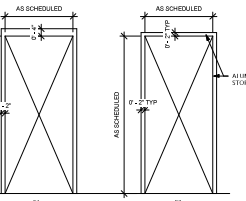
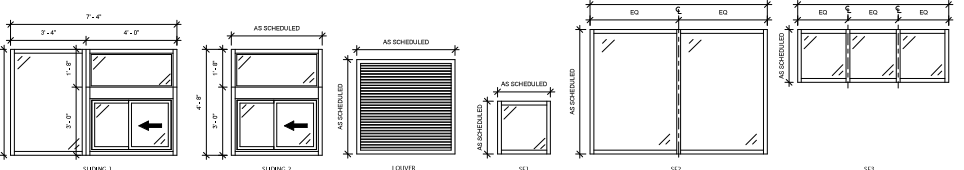
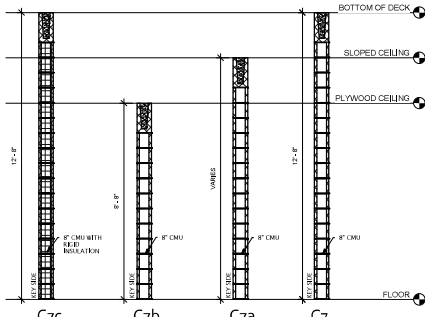
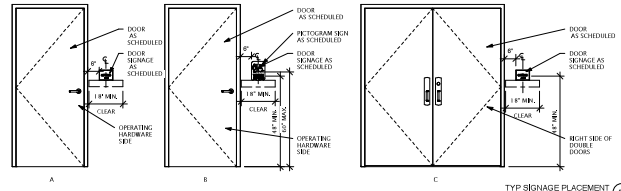
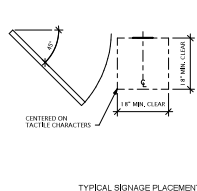
Scale	Date
Checked by	Date
Drawn by	Date
Project No.	Sheet No.

**A503**

HJS DETAILS  
1/32" = 1'-0"

**Osterlund**  
ARCHITECTS, PLLC

1000 W. Hargett Street, 3rd Floor  
Raleigh, NC 27601  
(919) 853-3333  
ost@ost.com



DOOR AND FRAME SCHEDULE

MARK	R	SET				DOOR				LOCKER				FRAME				FIN	HARDWARE	KEY/CL	DOOR	SCHED	NOTES
		W	H	W	H	W	H	W	H	W	H	W	H	W	H	W	H						
0101	1'-0"	7'-2"	0'-0"	0'-0"	AL	03	FACTORY	TEMP	-	-	AL	03C	02	-	04	02	02	-	02	102	BUZZERS	A	
0102	1'-0"	7'-2"	0'-0"	0'-0"	AL	03	FACTORY	TEMP	-	-	AL	03C	02	-	04	02	02	-	02	102	BUZZERS	A	
0103	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0104	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0105	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0106	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0107	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0108	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0109	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0110	1'-0"	7'-0"	0'-1 1/4"	0'-0"	FM	04	FACTORY	TEMP	-	-	FM	03C	01	-	03	02	03	-	01	102	BUZZERS	B	
0111	1'-0"	8'-10"	0'-1 1/4"	0'-0"	AL	05	FACTORY	TEMP	-	-	AL	03C	01	-	06	06	06	-	01	102	BUZZERS	C	
0112	1'-0"	8'-10"	0'-1 1/4"	0'-0"	AL	05	FACTORY	TEMP	-	-	AL	03C	01	-	06	06	06	-	01	102	BUZZERS	C	
0113	2'-4"	7'-0"	0'-1 1/4"	0'-0"	FM	03	FACTORY	TEMP	-	-	FM	03C	02	-	03	02	03	-	01	102	BUZZERS	A	

WINDOW SCHEDULE

MARK	R	SET		TYPE	CLZ	MATT	RFR	RATING	HEAD	JAMB	SL	NOTES
		W	H									
W1	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W2	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W3	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W4	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W5	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W6	1'-0"	4'-0"	4'-0"	LOOPER	-	AL	-	10	10	10	10	
W7	1'-0"	4'-0"	4'-0"	TEMP. INSUL.	AL	-	-	10	10	10	10	
W8	1'-0"	4'-0"	4'-0"	TEMP. INSUL.	AL	-	-	10	10	10	10	
W9	1'-0"	4'-0"	4'-0"	TEMP. INSUL.	AL	-	-	10	10	10	10	
W10	1'-0"	4'-0"	4'-0"	TEMP. INSUL.	AL	-	-	10	10	10	10	
W11	1'-0"	4'-0"	4'-0"	TEMP. INSUL.	AL	-	-	10	10	10	10	

**Kimley Horn**  
 10315  
 10/1/2021

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

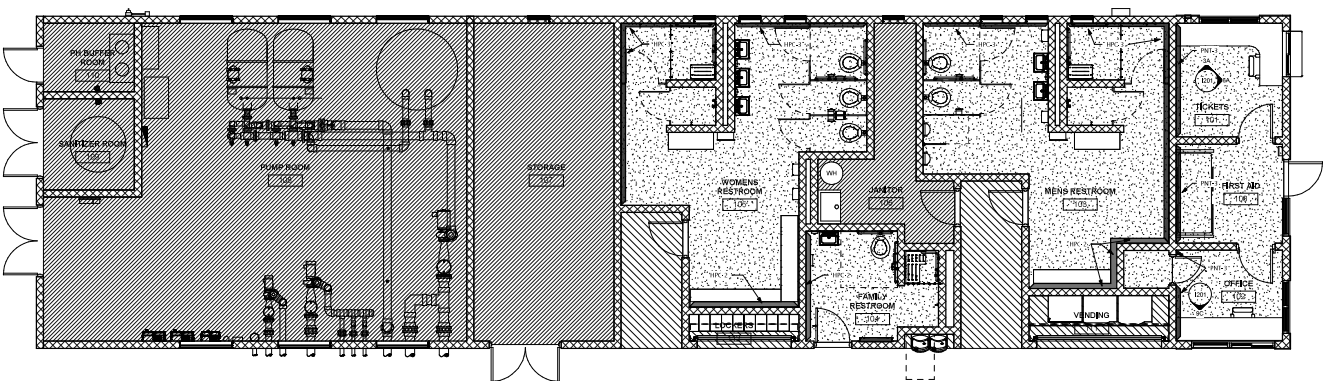
**SCHEDULES**

**Osterlund ARCHITECTS, PLLC**  
 5 W. Hargett Street, 3rd Floor  
 Raleigh, NC 27601  
 (919) 843-3333  
 osterlund.com

PROJECT #2021-001

DATE: 10/1/2021  
 DRAWN BY: JAC  
 CHECKED BY: JAC  
 PROJECT NO.: 2021-001

SHEET  
**A601**



**FINISH KEY**

[Pattern]	RES-1 RESINOUS FLOORING
[Pattern]	DRY BRUSH/NOB-CLIP PALED CONCRETE
[Pattern]	HEAVY BRUSH FRESH FINISH/CLIP CONCRETE
[Pattern]	RPC-2 ACCENT HIGH PERFORMANCE COATING
[Pattern]	RPC-3 ACCENT HIGH PERFORMANCE COATING
[Pattern]	PR-3 ACCENT PAINT

**FINISH NOTES**

1 FLOORING FINISHED EXTEND THE FULL AREA OF THE ROOM INCLUDING AREAS BELOW COUNTERTOP, CASING, PUBLIC UTILITIES AND EQUIPMENT.



**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

**FINISH PLAN**

Scale:	AS SHOWN
Checked by:	AMR
Drawn by:	AMR
Date:	APRIL 2021
Project No.:	20190045

**Osterlund ARCHITECTS, PLLC**  
 PROJECT: 1101.dwg  
 5 W. Market Street, 3rd Floor  
 Raleigh, NC 27601  
 Phone: 919.833.3333  
 www.ostelund.com



4/15/2021 4:55:55 PM ARCH EXPANDED (Greenville Aquatic Center) - 11/10/2020  
 C:\Users\jshank\OneDrive - Greenville Aquatic Center\Documents\Greenville Outdoor Aquatic Facility\misc\5/16/21



GREENVILLE OUTDOOR AQUATIC CENTER  
PREPARED FOR  
CITY OF GREENVILLE

**Kimley-Horn**  
 A PROFESSIONAL ENGINEERING CONSULTING FIRM  
 201 N. HARRIS STREET, SUITE 200  
 GREENVILLE, NORTH CAROLINA 27601  
 PHONE: 813-833-8888  
 WWW.KIMLEY-HORN.COM  
 NC LICENSE #2888

INTERIOR ELEVATIONS

**Osterlund**  
 ARCHITECTS, PLLC

PROJECT: 1602.0000

5 W. Hargett Street, 3rd  
 Raleigh, NC 27601  
 (919) 849-1333  
 osterlund.com

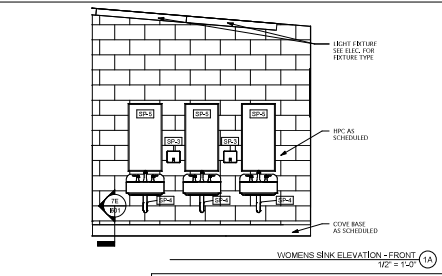
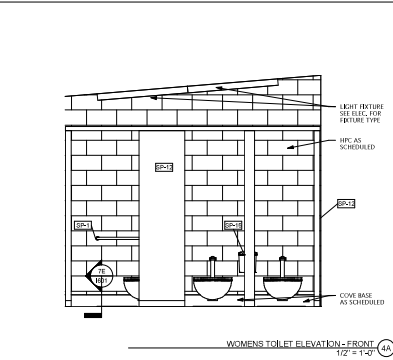
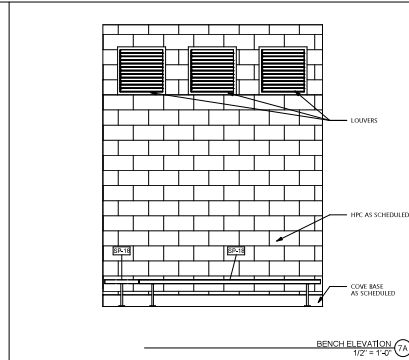
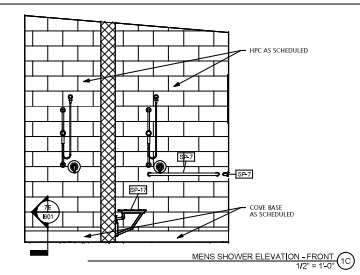
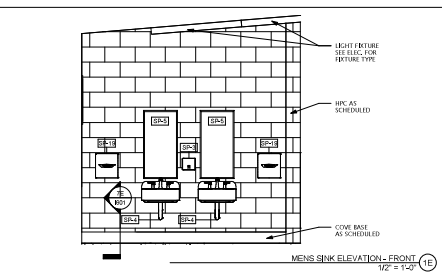
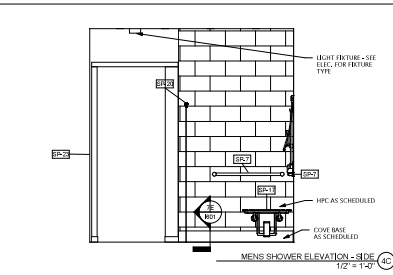
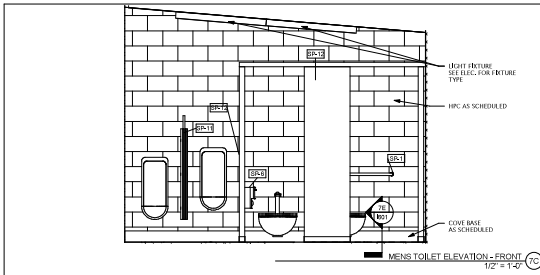
AS SHOWN  
 DESIGNED BY: AMB  
 CHECKED BY: JMB  
 DATE: APRIL 2021  
 PROJECT NO.: 1602.0000

SHEET

**I201**

PROJECT NO.

4/16/2021 4:55:58 PM ACCT export D:\green\3\work\interior\1.dwg (1/24/21) C:\Users\jmh\OneDrive - Osterlund Architects, PLLC\Documents\355 Greenville Outdoor Aquatic Facility\interior\1.dwg



AS SHOWN  
DESIGNED BY AMB  
CHECKED BY JMB  
DATE APRIL 2021  
PROJECT No. 1202  
SHEET 1202

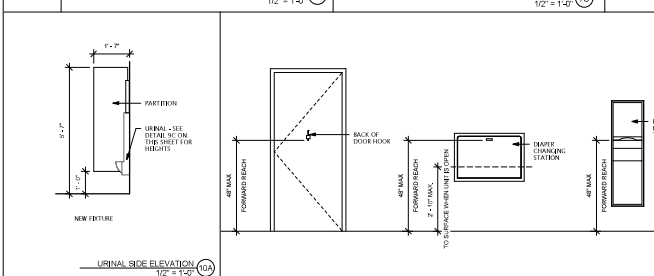
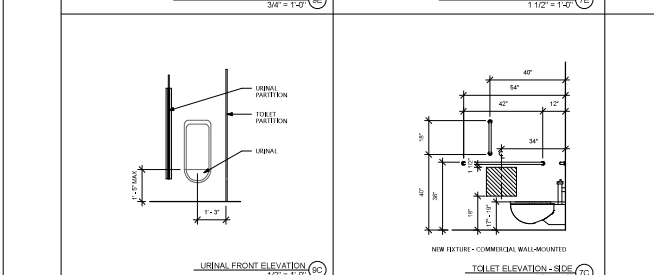
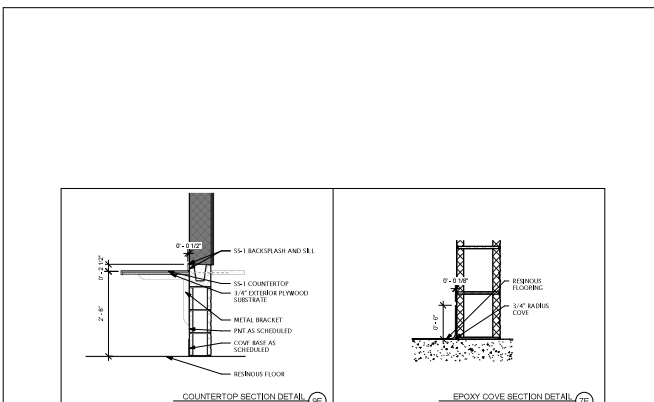
**Osterlund ARCHITECTS, PLLC**  
5 W. Hargett Street, 3rd  
Floor, Raleigh, NC 27601  
(919) 849-1333  
ost@ost.com

PROJECT No. 1202

**Kimley Horn**  
A PROFESSIONAL ENGINEERING FIRM  
101 SOUTH MAIN STREET, SUITE 200  
GREENVILLE, SOUTH CAROLINA 29601  
PH: 864.636.1100 FAX: 864.636.1101  
WWW.KIMLEYHORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR  
CITY OF GREENVILLE

**INTERIOR ELEVATIONS**



EQUIPMENT KEY			
MARK	NAME	PROVIDED BY	INSTALL BY
101	CEILING JOIST	OWNER	OWNER
102	ROOF INSULATION	OWNER	OWNER
103	ROOF TRUSS	OWNER	OWNER

SPECIALTY KEY			
MARK	NAME	PROVIDED BY	INSTALL BY
104	BACK & SIDE CRAB BARS	BY	BY
105	URINAL CRAB BAR	GC	GC
106	URINAL BRACKET	GC	GC
107	INSULATED URINAL PIPE	GC	GC
108	1/2\"/>		

ROOM FINISH SCHEDULE											
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING	DECK/IT	NOTES	
				N	E	S	W				
100	REST AREA	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
101	OFFICE	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
102	MEETING ROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
103	RESTROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
104	FAMILY RESTROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
105	WORKING RESTROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
106	JAMMER	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
107	STORAGE	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
108	STAMP ROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
109	SANITIZER ROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
110	PRE BUTTER ROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
111	VENDING	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
112	LOCKERS	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			
113	TRUCK ROOM	1ST	1ST	PN1-2	PN1-1	PN1-2	PN1-2	CONCRETE			

**Kimley-Horn**

GREENVILLE OUTDOOR AQUATIC CENTER  
 PREPARED FOR  
 CITY OF GREENVILLE

**SCHEDULES**

AS SHOWN  
 CHECKED BY: AMB  
 DATE: APRIL 2021  
 PROJECT NO.: 1601  
 SHEET: 1601

**Osterlund ARCHITECTS, PLLC**

5 W. Market Street, 3rd Floor  
 Asheville, NC 28801  
 (828) 253-1100  
 osterlund.com

HPC-1/PNT-1 MAIN PAINT WALL COLOR

HPC-2/PNT-2 ACCENT WALL COLOR

HPC-3/PNT-3 ACCENT WALL COLOR

HPC-4/PNT-4 CEMENTITIOUS BEAD BOARD CEILING PAINT COLOR

METAL ROOF COLOR

METAL FACIA COLOR

ALUMINUM STOREFRONT/SLIDING WINDOW COLOR

METAL PANEL COLOR

HPC-5/PNT-5 DOOR PAINT COLOR

HPC-6/PNT-6 DOOR FRAME / LOUVER COLOR

FRP DOOR AND FRAME COLOR

SOLID PLASTIC BATHROOM PARTITION & BENCH COLOR

SS-1 SOLID SURFACE COUNTERTOP

SPLIT FACE CMU COLOR

SOLID PLASTIC LOCKER COLOR

LEVER HANDLE

**Kimley-Horn**  
AN IRVING-CLOUD COMPANY  
 401 FAYVILLE DRIVE, SUITE 200, GREENVILLE, SC 29615  
 © 2011 KIMLEY-HORN AND ASSOCIATES, INC.  
 PROJECT #2010

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE

**FINISH SELECTIONS**

Scale	AS SHOWN
Checked By	AMB
Drawn By	AMB
Date	APRIL 2011
Project No.	20100420

**Osterlund ARCHITECTS, PLLC**  
5 W. Hargett Street, 3rd Floor  
 Raleigh, NC 27601  
 (919) 833-3333  
 oster@oster.com

SHEET  
**1602**

## GENERAL NOTES

### GENERAL

- THE FOLLOWING GENERAL NOTES CONSTITUTE A MAJOR PART OF THE PLANS AND SPECIFICATIONS. THESE NOTES SHALL BE READ IN CONJUNCTION WITH THE PLANS AND SPECIFICATIONS TO THE PROPER CONSTRUCTION OF THE BUILDING.
- THE DETAILS DESIGNATED AS "TYPICAL DETAILS" APPLY GENERALLY TO THE CONDITIONS IN ALL SIMILAR SITUATIONS UNLESS OTHERWISE SPECIFIED IN THE DETAILS.
- SECTIONS AND MODIFIERS REFERRED TO IN THE DETAILS SHALL BE IDENTIFIED BY SYMBOLS, DIMENSIONS, MATERIALS, AND FINISHES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE APPLICABLE JURISDICTIONS AND OBTAIN ALL NECESSARY APPROVALS FROM THE APPLICABLE AGENCIES PRIOR TO FABRICATION OF CONSTRUCTION OF THE BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS OF ALL FINISHED WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, OMISSIONS, OR INADEQUACIES IN THE EXISTING CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL WHICH ARE NOT AS SPECIFIED IN THE DOCUMENTS SHALL BE ACCOMPANIED BY A CURRENT LISTED CERTIFICATION OF CONFORMANCE FROM AN ACCREDITED TESTING AGENCY. MATERIALS OR PRODUCTS WHICH DO NOT MEET THESE REQUIREMENTS SHALL BE REJECTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- PLANS, SECTIONS, AND DETAILS ARE NOT TO BE USED FOR DETERMINATION OF QUANTITIES, LOADS, OR TYPE OF MATERIALS.
- THE CONTRACTOR SHALL VERIFY JOB SITE CONDITIONS, UNDERGROUND UTILITIES, ETC., THAT MAY CONFLICT WITH THE PROPOSED CONSTRUCTION.

### EXISTING CONDITIONS

- FIELD VERIFY ALL NECESSARY DIMENSIONS AND CONDITIONS AT EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORKING AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- EXISTING CONDITIONS WHICH REQUIRE MODIFICATION TO THE DESIGN OF THE PROPOSED CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT.

### SUBSTITUTIONS

- ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR REVIEW DURING THE BIDDING PERIOD. ONLY THOSE WHICH ARE ACCRUITED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED. ONLY THOSE WHICH ARE OFFICIALLY SUBMITTED WITH AN IDENTIFIED DRAWING TO BE DERIVED FROM THE CONTRACT.

### DESIGN LOADS

1. DEAD LOADS INCLUDE THE WEIGHT OF THE STRUCTURAL COMPONENTS, PERMANENT FIXTURES (CEILING, MECHANICAL EQUIPMENT, ETC.)	20 PSF
2. DESIGN LIVE LOADING IS AS FOLLOWS:	
OFFICE	10 PSF
RETAIL	20 PSF
WALK SPEED	100 MPH
ZONE A	30.0 PSF
ZONE B	18.0 PSF
ZONE C	4.2 PSF
ZONE E	48.1 PSF
ZONE F	20.4 PSF
ZONE G	20.0 PSF
ZONE H	15.4 PSF
3. SEISMIC LOADING IS AS FOLLOWS:	
SSE CLASS	0
FA	1.40
FV	2.40
SS	0.102
SD	0.076
SEISMIC DESIGN CATEGORY (SDC)	B

### CODES AND DESIGN SPECIFICATIONS

- 2018 NORTH CAROLINA BUILDING CODE.
- STRUCTURAL STEEL: SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- STRUCTURAL CONCRETE: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND PRECAST/CAST-IN-PLACE CONCRETE." THE AMERICAN CONCRETE INSTITUTE.
- WHERE THERE IS A CONFLICT BETWEEN THE BUILDING CODE AND THE MATERIAL CODES, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

### FOUNDATION DESIGN - FOOTINGS

- FOUNDATION DESIGN IS BASED ON THE FOLLOWING CRITERIA:  
 SOIL REPORT BY: FALCON ENGINEERING  
 DATE OF REPORT: JANUARY 21, 2021  
 REPORT NUMBER: 2021-001  
 FOUNDATION TYPE: FOOTINGS SLAB-ON-GRADE  
 BEARING CAPACITY: 3000 PSF  
 ALLOWABLE BEARING: 7500 PSF
- TEMPERATURE SHALL BE USED FOR PLACEMENT OF ANCHOR BOLTS AND FOR CONCRETE CURING. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE ACI 308.1R-16.
- CONTRACTOR SHALL REVIEW THE GEOLOGICAL REPORT FOR ADDITIONAL INFORMATION FOR ALL SUBGRADE IMPROVEMENT.

### CONCRETE REINFORCEMENT

- REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60.
- DETAILED REINFORCING BARS AND PROVIDE BAY SUPPORTS AND SPACERS IN ACCORDANCE WITH THE ACI 308.1R-16.
- ALL BAY SPACERS IN BEAMS AND SLABS SHALL BE 3/4" DIA. CHAIRS. EXCEPT THOSE SPACERS IN HORIZONTAL WALL BARS AND INTERMEDIATE BEAM BARS SHALL BE 1/2" DIA. CHAIRS.
- PROVIDE CORNER BARS FOR EACH HORIZONTAL BAR AT THE JOINT AND OTHER PLACES OF INTERSECTING BEAMS OR WALLS. REFER TO CORNER BAR TYPICAL DETAIL.
- PROVIDE FOUNDATION DOWN TO MATCH MASONRY WALL REINFORCEMENT. DOWN TO MATCH A MINIMUM OF 4 BAY DIMENSIONS ABOVE AND BELOW TOP OF FOUNDATION.
- REINFORCING CLEAR COVER:
 

A. CONCREASERS	1 1/2" TOP, 2" SIDES, 3" BOTTOM
----------------	---------------------------------

### STRENGTH OF MATERIALS

- CONCRETE: REFER TO CAST IN PLACE CONCRETE SECTION
- REINFORCING:
 

ASTM A615 U.S.A.	GRADE 60
#3 BARS	GRADE 40
ALL OTHER	GRADE 60
- STRUCTURAL STEEL:
 

STRUCTURAL STEEL SHAPES AND PLATES (NORMAL STRENGTH)	ASTM 36
ANCHOR BOLTS THROUGH BOLTS	ASTM A307

### SLAB-ON-GRADE

- THE SLAB-ON-GRADE DESIGN IS BASED ON A SOIL REPORT NOTED ABOVE.
- THE FLOOR SLAB SHALL BE FIVE INCH (5") THICK CONCRETE OVER UNIMPROVED GRADE. IT SHALL BE REINFORCED WITH #3 BARS AT 18" ON CENTER. REFER TO THE ARCHITECTURAL REPORT FOR DIMENSIONAL SPECIFICATIONS.
- REINFORCEMENT SHALL BE PLACED 2" FROM TOP OF SLAB & 3" FROM BOTTOM OF SLAB FOR DOUBLE END REINFORCEMENT.
- A METAL CONSTRUCTION JOINT FORM MAY BE USED. REMOVE METAL FORMS BEFORE PLACING SECOND POUR.
- PROVIDE A TEN (10) MILL VIBRATOR OVER IMPROVED SUBGRADE.

\* NOTE TO OWNER: SOME SLAB IMPROVEMENT MAY OCCUR FOR SLABS SUPPORTED ON GRADE. CHECKING CONCRETE IN THE SLAB AND NON-STRUCTURAL ELEMENTS. THE INDUSTRY STANDARD FOR ALLOWABLE FLOOR SLOPE (SEE PART 1) IS 1/8" PER FT. THIS AMOUNT OF MOVEMENT IS UNACCEPTABLE TO THE OWNER. NOTIFY THE OWNER GROUP FOR ADDITIONAL SOLUTIONS.

### CAST-IN-PLACE CONCRETE

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI STANDARD "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-LATEST EDITION).
- SLABES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, EXPANSION JOINTS AND ALL EMBEDDED ITEMS SHALL BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. UNBARR CONCRETE BETWEEN SLABS IN STRUCTURAL MEMBERS SHALL BE 6" MIN. INSULATION OF THESE ITEMS SHALL BE COORDINATED WITH SHOP DRAWINGS OF TRUSSES REQUIRING THESE ITEMS.
- ALL CONCRETE AND REINFORCEMENT IN CONCRETE SHALL COMPLY WITH ALL PROVISIONS SPECIFIED IN ACI 318, SECTION 8.1.
- ALL CRACK BEAMS AND OTHER ELEMENTS BELOW GRADE SHALL BE FORMED STRAIGHT AND TO THE SAME AND GRADES EXISTING. BRIDGES, AS REQUIRED, DO NOT CAST SIDES AGAINST THE EXCAVATION.

### STRUCTURAL MASONRY

- STRUCTURAL PROPERTIES: ASSUMED FROM F<sub>m</sub> = 1500 PSI - SEE ARCHITECTURAL SPECIFICATIONS FOR CODES, TOLERANCES AND SPECIAL REQUIREMENTS.
- CONCRETE MASONRY UNITS: NORMAL WEIGHT CMU WITH A MINIMUM COMPRESSIVE STRENGTH ON THE NET AREA OF 3500 PSI.
- MORTAR: ASTM C270 TYPE "N" WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI.
- CONCRETE GROUP: ASTM C571 COMPATIBLE WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- REINFORCING:
 

ASTM A615 GRADE 60
"T" TIE: ASTM A615 GRADE 60
"T" TIE: ASTM A615 GRADE 60
- HORIZONTAL JOINT REINFORCING SHALL BE DUB-ON-WALL TRUSS TYPE OF EQUAL AS FOLLOWS:
 

(A) 8", 8" AND 12" MASONRY WALL, 2 INCH BARS SPACED AT 16" O.C. VERTICALLY WITH CORROSION RESISTANT WIRE.
(B) PROVIDE SPECIAL "T" AND "T" SHAPED SECTIONS AT WALL INTERSECTIONS. LAP HORIZONTAL WIRES AT LEAST 12" AT SPACES.
- HORIZONTAL REINFORCING IN ROOF BEAM SHALL BE LAPPED TO BAY DIMENSIONS AT SPACES. SPACER SPACES IN ADJACENT BAYS AT LEAST 4'-0".
- THE FIRST CELL IN EACH WALL, AT CORNERS, END OF WALLS AND EACH SIDE OF OPENINGS SHALL BE SPICED AND REINFORCED WITH ONE (1) #4 VERTICALLY (AT 4" WALLS) AND (1) #4 VERTICALLY (12" WALLS). REFER TO TYPICAL DETAIL FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
- PROVIDE DOUBLE LEVEL BOND BEAMS, REINFORCED WITH 3-#4 CONTINUOUS EACH BEAM AT ALL MANHOLES HEADER CONDITIONS. THE LEVEL SHALL EXTEND 8" EITHER SIDE OF OPENING.

### CONCRETE MIX

- PROVIDE CONCRETE HAVING THE FOLLOWING CHARACTERISTICS:
- | CLASS | STRENGTH (PSI) | SLUMP (IN) | ACC. TEST TYPE (IN) | MAX. TEST (IN) | GRADE                               |
|-------|----------------|------------|---------------------|----------------|-------------------------------------|
| A     | 3000           | 3-4        | NON                 | 17             | FOOTINGS, SLAB-ON-GRADE, CONC. CURS |
- WORKABILITY ADJUSTMENTS MAY BE ADJUSTED, PROVIDED THAT BATCH PROPORTIONS ARE REMAINED IN THE RANGES SPECIFIED IN THE SPECIFICATIONS.
  - SET TIME SHALL NOT BE EXCEEDED IN ANY CONCRETE.
  - PROVIDE A FREEZE PLUS OR MINUS 1/2 PERCENT LAP EXPANSION IN CONCRETE PERMANENTLY EXPOSED TO THE WEATHER (ONE ELEMENTS AT THE CONTRACTORS OPTION). USE OF LAP EXPANSION AND COMPENSATING REINFORCEMENT OF THE WEATHER EXPOSED MUST BE NOTED ON THE WORK SPECIES.
  - USE OF ACCELERATING OR SET-RETARDING ADJUSTMENTS REQUIRES PRIOR APPROVAL. ALL SET-RETARDING, CEMENT, USE OF CALCIUM.
  - CEMENT SHALL BE TYPE I OR TYPE II (SEE ASTM C 150).
  - ALL CONCRETE SHALL BE SUITABLE RESISTIVE.

### PRE-FABRICATED WOOD TRUSSES

- ALL TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LOADS INDICATED ON PLAN AND IN THE GENERAL NOTES. INCLUDE ALL LOADS FROM ROOF FOR LIMITS SHOWN ON PLAN.
- TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE OWNER GROUP FOR REVIEW.
- TRUSS MANUFACTURER SHALL PROVIDE ALL NECESSARY BRACING.
- ALL TRUSSES SHALL BE DESIGNED WITH THE FOLLOWING DEFLECTION CRITERIA:
 

(A) ALLOWABLE TL DEFLECTION - L/240
(B) ALLOWABLE TL DEFLECTION - L/240
- ALL TRUSSES SHALL BE INSTALLED TO SUPPORTING BEAMS WITH WELDED METAL CONNECTORS AS INDICATED IN FRAMING DETAILS.
- TRUSS PLATE CONNECTIONS HAVE NOT BEEN SHOWN. TRUSS WIRE TO BEAR CONNECTION PLATES FOR REQUIRED LOADING. THESE PLATES SHOULD NOT EXCEED THE BOUNDARY EDGES OF THE CONNECTING BEAMS FOR HEIGHT. RESOLVE SIMULTANEOUS CONNECTION DETAILS TO ARCHITECT FOR REVIEW PRIOR TO FABRICATION.
- ERECT WOOD TRUSSES IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TP) PUBLICATION "COMBINATION AND RECOMMENDATIONS FOR HANDLING AND ERECTING WOOD TRUSSES" AND TP'S RECOMMENDATIONS. BRACE WOOD TRUSSES IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TP) PUBLICATION "BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS" AND TP'S RECOMMENDATIONS. SUBMIT TRUSS DESIGN SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. TRUSS DESIGN SHOP DRAWINGS TO BE DESIGN AND SEALED BY REGISTERED STRUCTURAL ENGINEER.

### ROOF SHEATHING

- ROOF DECK UPLIFT: USE 5/8" APA RATED EXPOSURE GRADE ROOF DECKING THROUGHOUT. FACE GRAH SHOULD BE PLACED PERPENDICULAR TO DIRECTION OF JOISTS AND SHOULD BE CONSTRUCTED WITH THREE (3) SPAN MIN. CONDITION. FIELD SPACING PROVISIONS FOR THE PANEL ARE AS FOLLOWS:
 

BOUNDARY WALLS:	4" O.C.
INTERMEDIATE WALLS:	12" O.C.
CHANGING HEIGHT:	4" O.C.
BLOCKING HEIGHT:	4" O.C.



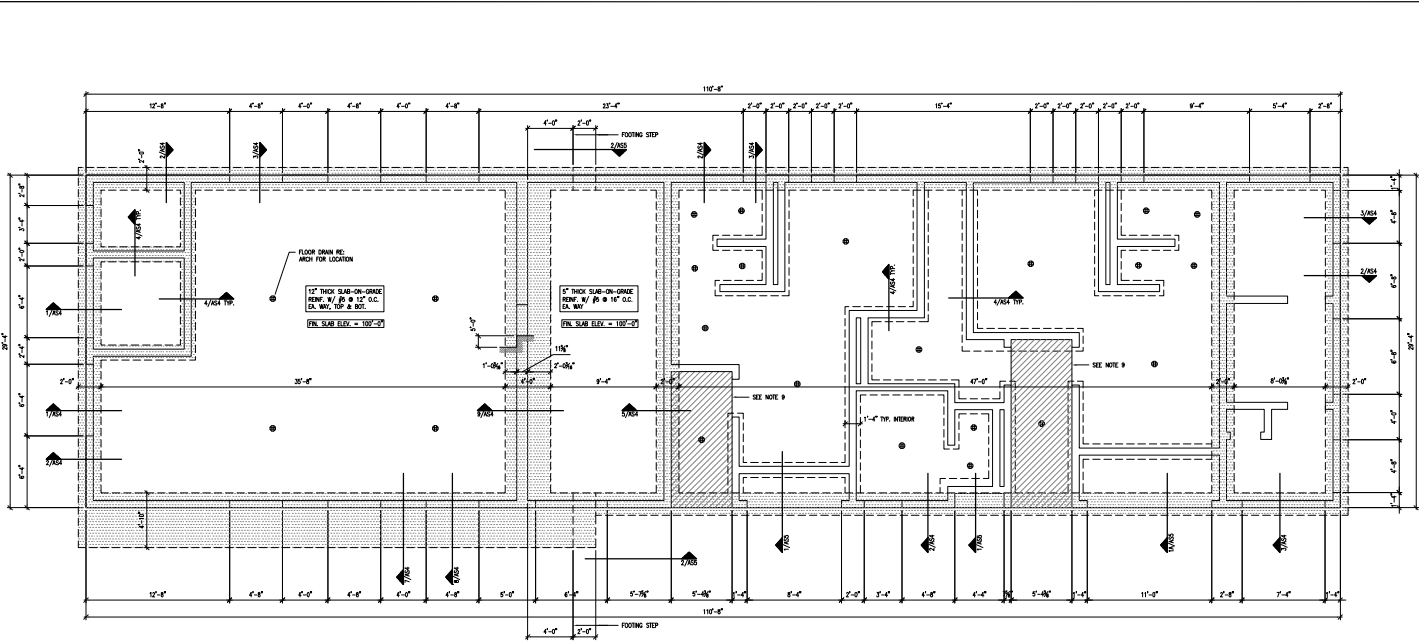
GREENVILLE OUTDOOR AQUATIC CENTER  
 PREPARED FOR:  
 CITY OF GREENVILLE, NC

GENERAL NOTES



**The Core Group**  
 Structural Engineering  
 2488 FM 497 Suite 210 A, Bartlett, Texas 78228  
 Phone: 842.455.7733  
 Email: CORE@COREGROUPENGINEERING.COM

Scale:	AS SHOWN
Drawn by:	SS
Checked by:	TC
Date:	APRIL, 2021
Project No.:	0465274600
SHEET	
AS1	



**1 FOUNDATION PLAN**

- SCALE: 1/4" = 1'-0"
- SLAB NOTES:
1. REFERENCE ELEVATION 100'-0" EQUALS ACTUAL FINISH SLAB ELEVATION DETERMINED BY SLM SURVEY.
  2. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR LOCATION OF FLOOR DROPS AND DOWN LOCATIONS NOT INDICATED ON PLANS. REFER TO PLUMBING DRAWINGS FOR FOUNDATION PENETRATIONS.
  3. REFERENCE SHEET AS1 AND AS2 FOR FOUNDATION DETAILS.
  4. REFERENCE ARCHITECTURAL FOR CMU WALL THICKNESS.
  5. ALL CMU WALLS NOT SUPPORTED BY DRIVE BEAMS SHALL BE SUPPORTED BY A THICKENED SLAB RE. FLOOR.
  6. PROVIDE VERTICAL CONTROL JOINTS IN CMU WALLS @ 30'-0" O.C. MAXIMUM AND BETWEEN INTERIOR AND EXTERIOR PERPENDICULAR WALLS.
  7. HATCHED AREAS INDICATE STRIP FOOTINGS.
  8. PROVIDE CH-ANCHORS FROM TO THE CONCRETE IN:  
 IN: BUFFER ROOM  
 PUMP ROOM  
 STORAGE ROOM  
 MECH ROOM
  9. PROVIDE HEAVY BROOM FINISH TO INTERIOR AND EXTERIOR RESTROOM ENTRY WALLS.
  10. PROVIDE SH-02 SLAB JOINTS @ 15'-0" O.C. EX. WALL.



**The Core Group**  
 Structural Engineering  
 3888 FM 487 Suite 215 A, Boffinville, Texas 76226  
 Phone: 842.452.7723  
 Email: CORE@COREGROUPENGINEERING.COM

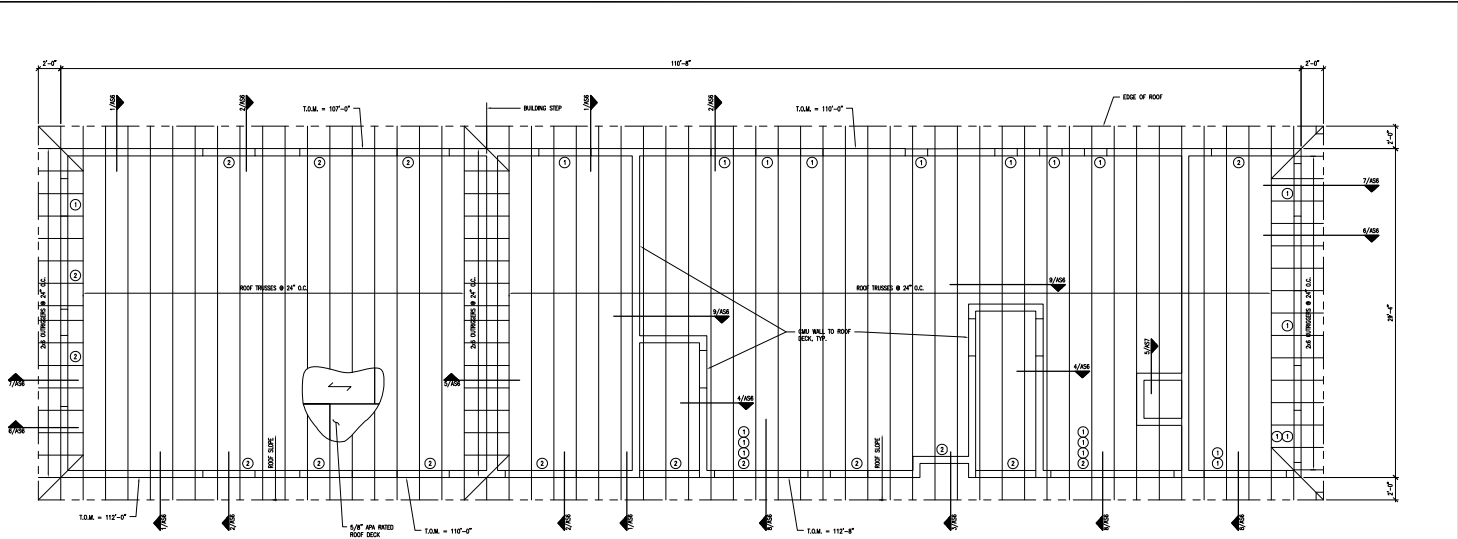
**Kimley»Horn**  
 4217 Fritchfield Street, Suite 400, Raleigh, NC 27604  
 P: 919.876.1000 | F: 919.876.1001 | www.kimleyhorn.com  
 © 2021 KIMLEY-HORN CONSULTANTS, INC.  
 NC License # 7-2021

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 GREENVILLE, NC  
 CITY OF GREENVILLE, NC

**FOUNDATION PLAN**

SHEET  
**AS2**

Scale:	AS (SHOWN)
Drawn by:	SS
Checked by:	TC
Date:	APRIL 2021
Project No.:	046527400



**1 ROOF FRAMING PLAN**

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

**GENERAL NOTES:**

1. REFERENCE ELEVATION 102'-0" EQUALS ACTUAL FINISH SLAB ELEVATION DETERMINED BY CIVIL ENGINEER.
2. REFERENCE SHEETS FOR FRAMING DETAILS.
3. USE 5/8" AN ANKLED EXTERIOR EXPOSURE SCHEDING FOR ALL ROOF DECK OVER WOOD FRAMING.
4. CONTRACTOR SHALL COORDINATE EXACT ROOF OPENING SIZES WITH MECHANICAL EQUIPMENT SUPPLIER AND TRUSS MFG.
5. REFERENCE ARCHITECTURAL FOR ALL CHU WALL THICKNESS.
6. (1) DENOTES BRAD BEAM TYPE.

LABEL BEAM SCHEDULE						
MARK	# OF BRAD BEAMS	REINFORCING	LOW OPENING HEADS ELEV.	HIGH OPENING HEADS ELEV.	HIGH OPENING SILL ELEV.	OPENING WIDTH
1	8"x8" U-BLOCK BRG, 3-8"x4" INDOCK-OUT BRG	2-#4 HORIZ.	RE. ARCH.	RE. ARCH.	RE. ARCH.	RE. ARCH.
2	8"x8" U-BLOCK BRG, 3-8"x4" INDOCK-OUT BRG	2-#4 HORIZ.	RE. ARCH.	RE. ARCH.	RE. ARCH.	RE. ARCH.

- NOTE:**
1. EXTEND ALL BRAD BEAM HEADER REINFORCING 2'-0" BEYOND OPENING.
  2. REINFORCE ALL U-BLOCK BEAMS & INDOCK-OUT BEAMS AS NOTED. ALL SINKS BE GROUDED SOLID.
  3. PROVIDE 2'-0" MIN. VERTICALLY GROUDED CELL BELOW ALL BRG & BRG IN SUPPORTS. REINFORCE (A, CELL BY (B) NOTED.



**The Core Group**  
 Structural Engineering  
 3808 FM 407 Suite 215 A, Boffinville, Texas 76226  
 Phone: 846.452.7733  
 Email: CORE@COREGROUPENGINEERING.COM

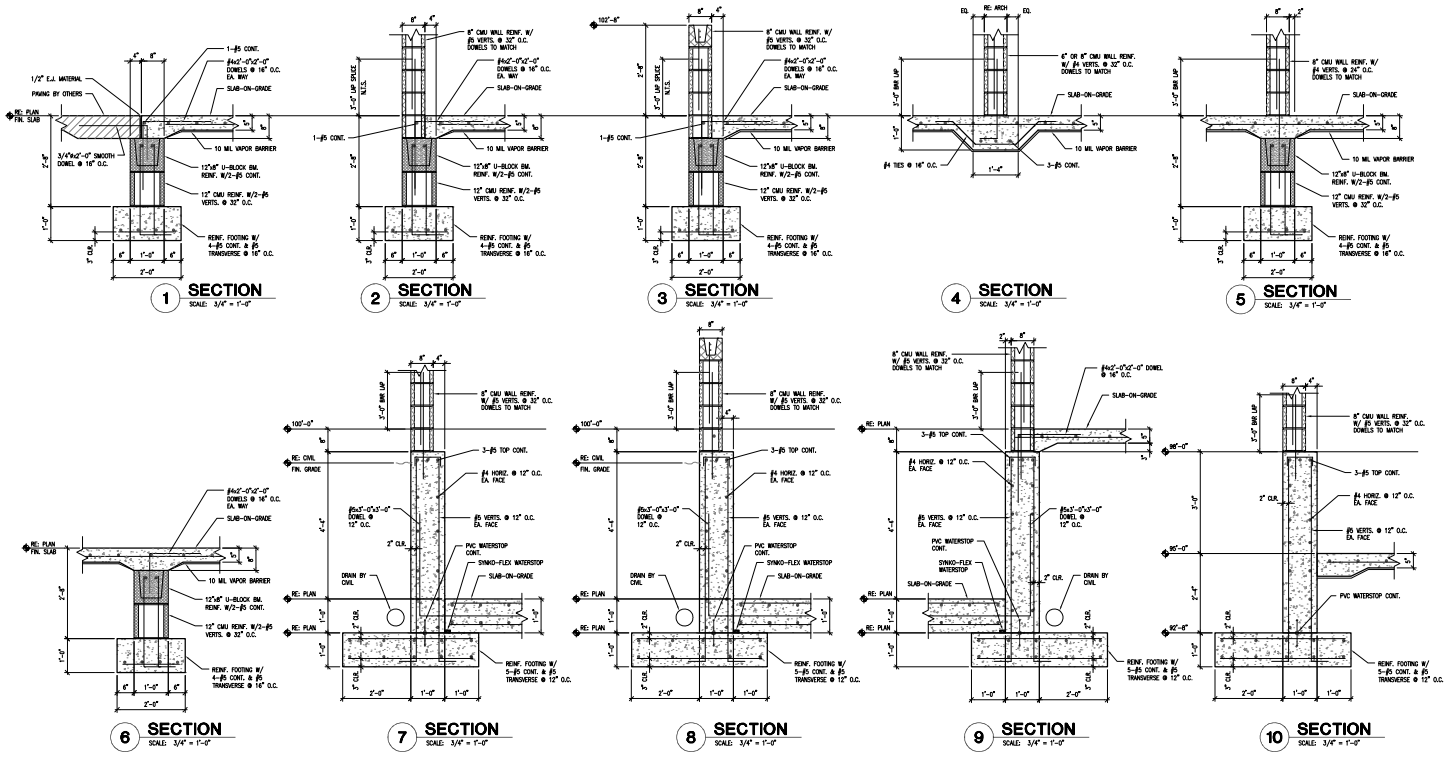
**Kimley-Horn**  
 4211 Northwest Blvd., Suite 400  
 Greenville, NC 27834  
 © 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
 REG. ENGINEER # 2202

**GREENVILLE OUTDOOR  
 AQUATIC CENTER**  
 PREPARED FOR:  
 CITY OF GREENVILLE, NC

**ROOF FRAMING PLAN**

Scale: 1/4" = 1'-0"  
 Drawing No.: 25  
 Created by: TC  
 Date: APRIL 2021  
 Project No.: 046527-0200

SHEET  
**AS3**



**Kimley-Horn**  
4215 Fryingpan Drive, Suite 400, Raleigh, NC 27604  
PH: 919.876.5600 FAX: 919.876.5601  
© 2001 KIMLEY-HORN AND ASSOCIATES, INC.  
N.C. LICENSE # 3500

**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR:  
CITY OF GREENVILLE, NC

**FOUNDATION DETAILS**

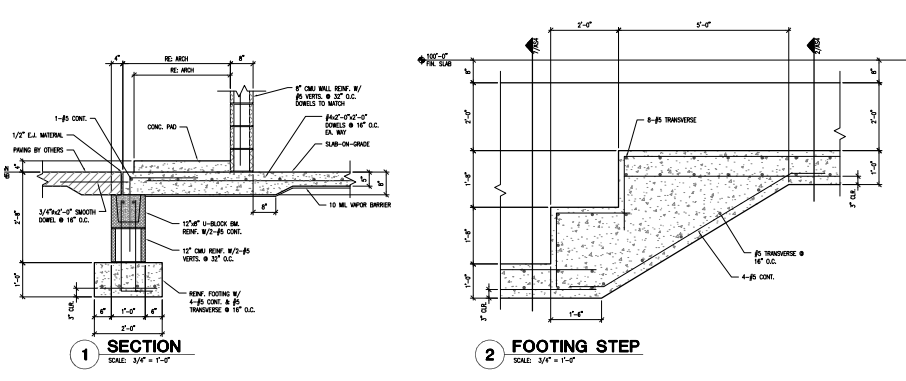
**AS4**

Scale: 3/4" = 1'-0"  
Drawn by: SS  
Checked by: TC  
Date: APRIL 2021  
Project No.: 045527400

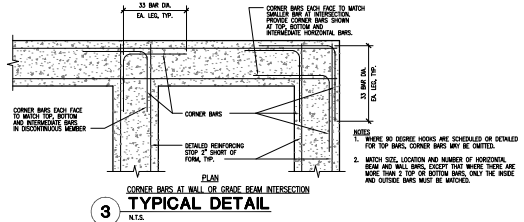
**The Core Group**  
Structural Engineering  
3408 FM 497, Suite 515 A, Bortomville, Texas 78226  
Phone: 845.455.7703  
Email: CORE@COREGROUPENGINEERING.COM

**SEAL 14362**





**2 FOOTING STEP**  
SCALE: 3/4" = 1'-0"



**3 TYPICAL DETAIL**  
N.T.S.



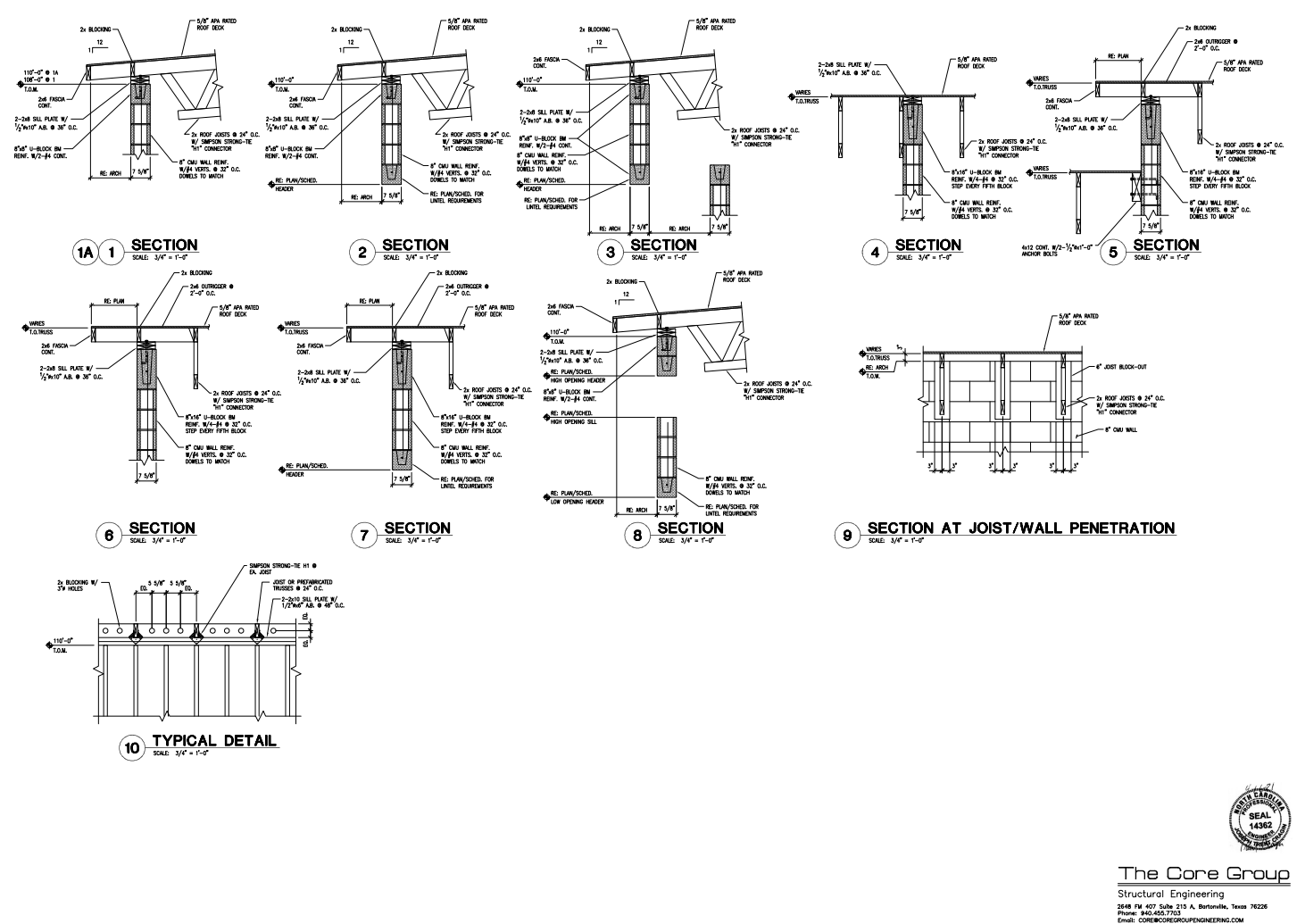
**The Core Group**  
Structural Engineering  
3408 FM 407 Suite 215 A, Boffinville, Texas 76226  
Phone: 842.455.7723  
Email: CORE@COREGROUPENGINEERING.COM

Scale:	AS5
Drawn by:	SS
Checked by:	TC
Date:	APRIL 2021
Project No.:	0465274600

SHEET  
**AS5**



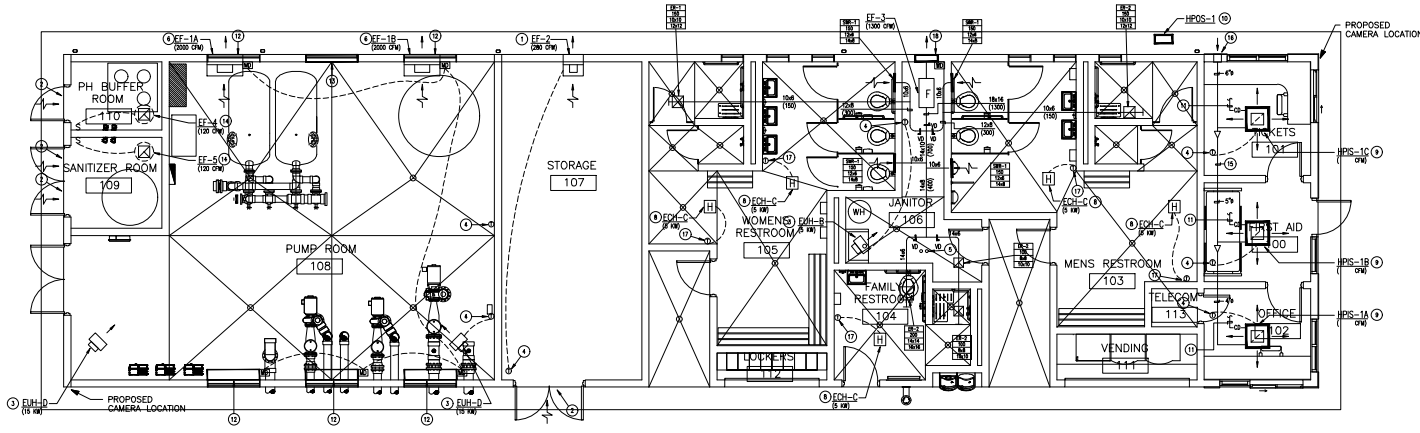
**The Core Group**  
 Structural Engineering  
 3488 FM 487, Suite 515 A, Boffinville, Texas 76226  
 Phone: 842.455.7733  
 Email: CORE@COREGROUPENGINEERING.COM







Scale:	AS SHOWN
Designed by:	C.C.H.
Drawn by:	R.E.L.
Checked by:	C.C.H.
Project No.:	20160100



**FLOOR PLAN – MECHANICAL**  
 SCALE: 1/8"=1'-0"

**SHEET NOTES**

- ① WALL MOUNTED PROPELLER EXHAUST FAN – HIGH ON WALL WITH BOD.
- ② LOWERED DOOR.
- ③ ELECTRIC UNIT HEATER CEILING HANG.
- ④ WALL MOUNTED THERMOSTAT.
- ⑤ GAS FIRED CONDENSING WATER HEATER CPVC FLEX AND COMBUSTION AIR UP TO ROOF TOP TERMINATION PER MANUFACTURER'S REQUIREMENTS.
- ⑥ WALL MOUNTED PROPELLER FAN WITH MISTPROOF DAMPER, INTERLOCK WITH HEATER FAN CONTROLLED BY THERMOSTAT, LEAKAGE BEING LOWERED PRINCE BLANK OFF SWITCH LEAKAGE AREA, PROVIDE WITH INSULATION.
- ⑦ CEILING MOUNTED EXHAUST FAN.
- ⑧ ELECTRIC CEILING HEATER.
- ⑨ SPLIT SYSTEM HEAT PUMP INDOOR CEILING CASSETTE.
- ⑩ SPLIT SYSTEM HEAT PUMP OUTDOOR UNIT.
- ⑪ 1" S PUMPED CONDENSATE TO EXTERIOR.
- ⑫ LOUVERS MATCHING ARCHITECTURAL OPENING MINIMUM 4" SQ. FT. FREE AREA.
- ⑬ LOUVER – BLANDED OFF WITH INSULATION.
- ⑭ ROOF TOP FAN – PROVIDE LOCKING BALL SWITCH FOR MANUAL CONTROL.
- ⑮ OUTSIDE AIR DUCT – INSULATED R-5 WITH VAPOR BARRIER.
- ⑯ R-6 INSULATED AIR HEAVE COVER WITH BUILT INSULATED FLOOR.
- ⑰ WALL MOUNTED THERMOSTAT IN LIVING COVER, HEIGHTS 84" A.F.F.
- ⑱ DOME EXHAUST LOUVER WITH MISTPROOF DAMPER INTERLOCK WITH EXHAUST FAN.

**HURST ENGINEERS**  
 308 HILLTOP AVE.  
 FALLS CHURCH, VA 22048  
 (703) 534-7872

THE CONSTRUCTION OF THIS PROJECT REQUIRES THE CONTRACTOR TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AND ORDINANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.

Hurst Engineers Project Number: 21-04

FAN SCHEDULE										
UNIT MAKE	MANUFACTURER MODEL	TYPE	CFM	SP W/20	BPM	HP (WATTS)	ELECTRICAL V	P	NOTES	SERVING
EF-1A	GREENHECK ZEROCURVE	PROPELLER	2,000	0.25	793	2	N/A	208	1	PUMP ROOM 108
EF-1B	GREENHECK ZEROCURVE	PROPELLER	2,000	0.25	793	2	N/A	208	1	PUMP ROOM 108
EF-2	GREENHECK SOPE C-382-105	PROPELLER	280	0.2	1048	1/2	N/A	120	1	STORAGE 107
EF-3	GREENHECK ESP-A1410	INLINE	1,300	0.4	1340	(579)	N/A	120	1	RESTROOMS 105, 104, 105
EF-4	GREENHECK G-375-G	PRV	120	0.25	1223	1/60	N/A	120	1	20 FILTER ROOM 110
EF-5	GREENHECK G-375-G	PRV	120	0.25	1223	1/60	N/A <td 120	1	20 FILTER 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/4 STARTER (W/4 THERMISTOR AS REQUIRED).
  7. PROVIDE FAN SPEED CONTROLLER MOUNTED IN WEATHERPROOF NEMA ENCLOSURE.
  8. FAN TO BE PROVIDED WITH THREE CLOCK FOR OPERATION, PARADOX/SHIMMUS, MODEL WITH 3-DAY PROGRAMMING.
  9. INTAKE WITH MOTORIZED DAMPER.
  10. FAN TO BE ON-GENERATOR OPERATOR.
  11. PROVIDE WITH BACKDRIFT DAMPER (ALUMINUM).
  12. PROVIDE WITH MOTORIZED DAMPER.
  13. PROVIDE WITH HINGED CURB.
  14. PROVIDE WITH FACTORY SUPPLIED, INSULATED CURB SUITABLE FOR FAN, CURB HEIGHT AS REQUIRED.
  15. PROVIDE WITH FACTORY SUPPLIED, ROOF CAP DISCHARGE.
  16. PROVIDE WITH FACTORY SUPPLIED, WALL DISCHARGE LOUVER.
  17. ALL ALUMINUM CONSTRUCTION.
  18. PROVIDE WITH STAINLESS STEEL SHAF.
  19. PROVIDE WITH EXTERNAL INLET VANE DAMPER.
  20. PROVIDE WITH WALL/CEILING MOUNTING BRACKET AND SEPARATE SAFETY CHAIN.
  21. PROVIDE WITH VIBRATION MOUNTERS.
  22. PROVIDE WITH SPARE SET OF BELTS.
  23. PROVIDE WITH SAFETY ENCLOSURE.
  24. PROVIDE WITH BIRD SCREEN.
  25. FAN CONTROLLED BY COX/NOX MONITORING SYSTEM.
  26. FAN INTERLOCKED WITH KITCHEN EXHAUST HOOD CONTROL SYSTEM.
  27. PROVIDE WITH DIRECT GAS FIRED HEATER WITH MODULATING GAS VALVE, AND OXYGEN 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. FAN MOTOR MUST BE FAN AND ALL COMPONENTS AND ELECTRICALS.
  34. INTERLOCK WITH METHANE GAS REMOVAL SYSTEM CONTROL.
  35. ALL CONSTRUCTION MATERIALS TO BE COMPATIBLE WITH EXPOSURE TO METHANE GAS.
  36. PROVIDE WITH HALO-POLYESTER COATING, COAT ENTIRE FAN AND FACTORY ATTACHED ACCESSORIES.
  37. GALVANIZED 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 STAIRWELL PRESSURIZATION Riser FOR ADDITIONAL INFORMATION.
  45. INTERLOCK WITH PRESSURE SENSING CONTROL FOR STAIRWELL PRESSURIZATION.
  46. MOTORIZED DAMPER SHALL BE IN "OPEN" POSITION UPON POWER LOSS.
  47. PROVIDE WITH ROOF MOUNTING ASSEMBLY.
  48. FAN AND CONTROLS SUITABLE FOR WET LOCATION.
  49. PROVIDE INLET PROTECTIVE SCREEN.
  50. PROVIDE WITH VARI-DRIVEN CONSTANT PRESSURE REMOTE TRANSDUCER.
  51. PROVIDE WITH VARI-DRIVEN FAN MOTOR WITH VFD.
  52. PROVIDE STARTER FOR CONTROL BY FIRE CONTROL CENTER.
  53. PROVIDE WITH STARTER CONTROL FOR FIRE ALARM OPERATION.
  54. INTERLOCK TO OPERATE WITH GENERATOR.

ELECTRIC HEATER SCHEDULE										
UNIT	MANUFACTURER	MODEL NO.	MMB	KW	AMPS	V	P	MOUNTING	NOTES	SERVING
ELH-A	QMARK	QMARK	3		277	1		CEILING HUNG	1, 2, 3, 9	
ELH-B	QMARK	MU0271	17.1	5	18.1	277	1	CEILING HUNG	1, 2, 3, 9	
ELH-C	QMARK	MU0108	34.1	10	12.1	480	3	CEILING HUNG	1, 2, 3, 9	
ELH-D	QMARK	MU0114	51.2	15	18.1	480	3	CEILING HUNG	1, 2, 3, 9	
ELH-E	QMARK	MU0202	68.2	20	24.1	480	3	CEILING HUNG	1, 2, 3, 9	
ELH-A	QMARK	QD0105	3.4	1	8.3	120	1	CEILING	1, 3, 4, 7, 8	
ELH-B	QMARK	QD0147	10.7	3	11	277	1	CEILING	1, 2, 3, 8, 11	
ELH-C	QMARK	QD0147	17.1	5	18.1	277	1	CEILING	1, 2, 3, 8, 11	
ELH-A	QMARK	QD0147	6.8	2	7.2	277	1	WALL RECESSED SURFACE MOUNTED	1, 3, 4, 8, 10	
ELH-B	QMARK	QD0147	13.6	4	14.4	277	1	WALL RECESSED SURFACE MOUNTED	1, 3, 4, 8, 10	

- 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 GAGLE 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. PLUNAM RATED HEATER.
  17. PROVIDE WITH 240 HOUSING 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		FAN		COOLING CAPACITY		HEATING CAPACITY		ELECTRICAL CHARACTERISTICS		NOTES	SERVING	MAX WT. LBS						
		SA CFM	OA CFM	CFM	HP (WATTS)	AMPS	TOTAL (MMB)	SENS (MMB)	REVERSE CYCLE (MMB)	REVERSE CYCLE (MMB)	V				P	FLA	MCA	MDDP		
HPIS-1A	MITSUBISHI SZ-4712NA	300	15	N/A	N/A	0.24	12	7.8	13	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 SZ-4712NA	300	15	N/A	N/A	0.24	12	7.8	13	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 SZ-4712NA	300	15	N/A	N/A	0.24	12	7.8	13	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 LING.
  6. CEILING HUNG.
  7. RECESSED CEILING GRID INSTALLATION.
  8. PROVIDE SPECIAL SOUND PROTECTIVE 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 UP TO EXTEND 4' BEYOND AHU AND REFRIGERANT COIL ON ALL SIDES. FITCH 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-357JF-E.
  20. PROVIDE WITH FRESH AIR INTAKE OPTION.
  21. PROVIDE WITH EC CONTROLLER.
  22. PROVIDE WITH FETTER BOX.
  23. PROVIDE MERV 8 FILTERS ON ALL LINES DURING CONSTRUCTION. REPLACE ALL FILTERS WITH MERV 11 AT COMPLETION OF CONSTRUCTION.

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

UNIT MAKE	MANUFACTURER MODEL NO.	NOMINAL COOLING CAPACITY (MMB)	NOMINAL REVERSE CYCLE HEATING (MMB)	NO. COMP.	COMP. RLA	COMP. IRLA	NO. COND. FANS	COND. FAN FLA	ELECTRICAL DATA													
									V	P	FLA	MCA	MDDP	INDOOR UNIT SERVED	MAX WT. (LBS)	NOTES	REFRIGERANT TYPE	DESIGNER DESIGN (COF) (HP)	RECC ENR (ENR)	RECC COP (HP)		
HPIS-1	MITSUBISHI MZ-4C30N2	36	43	1	N/A	N/A	1	N/A	208	1	18	22.5	25	HPFP-1A, 1B, 1C	145	1, 3, 14, 17, 19, 20, 25, 26, 28, 29, 30, 31	HPFP (COF) (HP) 100/100/100	410A	(19.2)	(13)	(14)	(7.7)

- NOTES:**
1. PROVIDE WITH DISCONNECT SIZED AS PER NEC.
  2. PROVIDE WITH MOTOR MASTER HEAD CONTROL.
  3. PROVIDE LOW AMBIENT CONTROLS.
  4. PROVIDE CRANKCASE HEATER.
  5. PROVIDE WITH HIGH AND LOW PRESSURE SWITCHES.
  6. PROVIDE WITH HATCH START CONTROL.
  7. PROVIDE WITH TIME DELAY RELAY.
  8. PROVIDE COMPRESSOR START ASSIST - CAPACITOR AND RELAY.
  9. EVAPORATOR FRETZ THERMOSTAT.
  10. PROVIDE FILTER-DRIER (B/FLOW ON HEAT PUMP).
  11. PROVIDE PHASE/ORDER/LOG MONITOR.
  12. PROVIDE WITH HOT GAS REHEAT.
  13. PROVIDE WITH SOUND HOOD.
  14. PROVIDE WITH UNIT FETTER.
  15. VARIABLE SPEED COMPRESSOR.
  16. SUPPLYING MULTIPLE HPIS UNITS, PROVIDE WITH REFRIG. PIPING CONNECTIONS AND CONTROL.
  17. PROVIDE WITH WIND Baffle.
  18. PROVIDE WITH BRANCH HEADERS.
  19. PROVIDE WITH WIND Baffle.
  20. PROVIDE WITH BRANCH HEADERS.
  21. PROVIDE WITH WIND Baffle.
  22. PROVIDE WITH BRANCH HEADERS.
  23. PROVIDE WITH WIND Baffle.
  24. PROVIDE WITH BRANCH HEADERS.
  25. PROVIDE WITH WIND Baffle.
  26. PROVIDE WITH BRANCH HEADERS.
  27. PROVIDE WITH WIND Baffle.
  28. PROVIDE WITH BRANCH HEADERS.
  29. PROVIDE WITH WIND Baffle.
  30. PROVIDE WITH BRANCH HEADERS.
  31. PROVIDE WITH WIND Baffle.

**HURST ENGINEERS**  
 308 HILLTOP AVE.  
 PALM BEACH, FL 33480  
 (561) 834-1972

**Scale:** AS SHOWN  
**Designed By:** C.C.K.  
**Drawn By:** R.E.L.  
**Checked By:** G.C.L.  
**Project No.:** 140510400

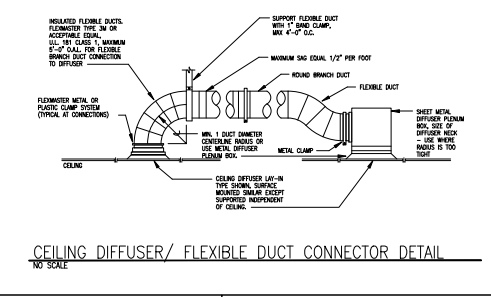
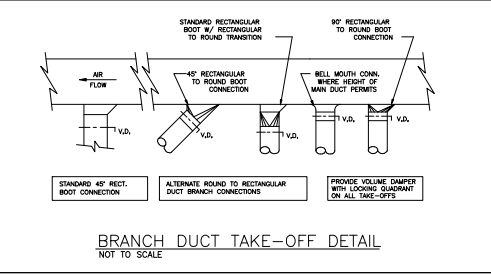
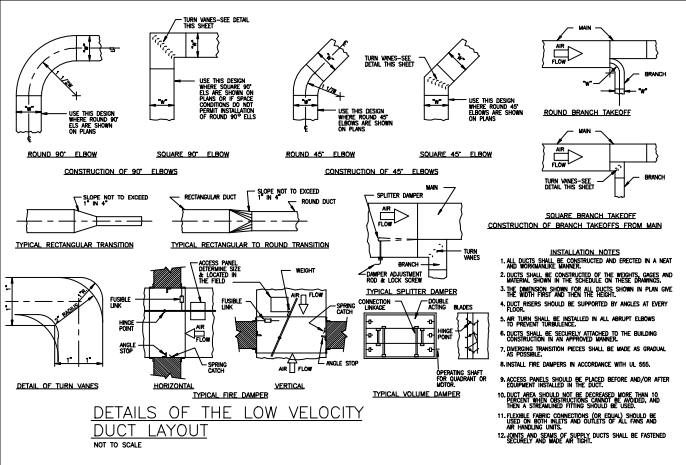
**NOTE:**  
 THE COMPLETION OF THIS PROJECT REQUIRES THE CONTRACTOR TO GUARANTEE THE WORKMANSHIP OF THE CONTRACTOR TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE.

**SHEET**  
 M-2

**Kimley-Horn**  
 400 WEST BAYVIEW AVENUE, SUITE 200  
 GREENVILLE, SOUTH CAROLINA 29601  
 (864) 606-7000  
 WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE, NC

**SCHEDULES MECHANICAL**

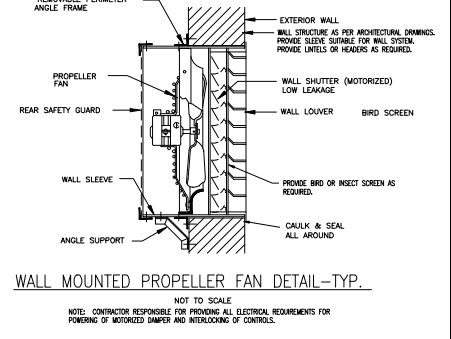
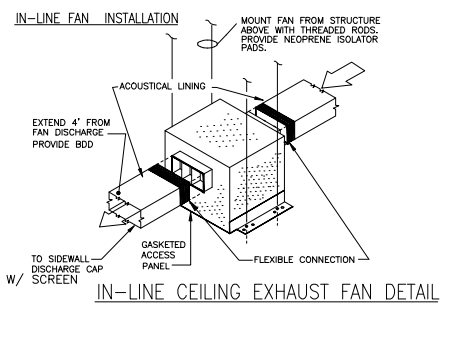
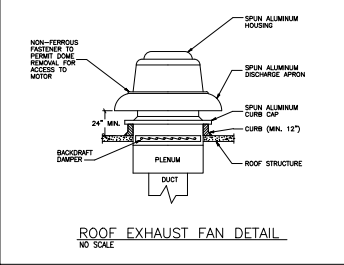


**DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESSES**

RECTANGULAR DUCTS		
MAXIMUM SIZE (INCHES)	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.022 INCH (26 GAUGE, GALV.)	0.020 INCH (NO. 24 BARS GAUGE)
13 THROUGH 30	0.028 INCH (24 GAUGE, GALV.)	0.025 INCH (NO. 22 BARS GAUGE)
31 THROUGH 54	0.036 INCH (22 GAUGE, GALV.)	0.032 INCH (NO. 20 BARS GAUGE)
55 THROUGH 84	0.040 INCH (20 GAUGE, GALV.)	0.040 INCH (NO. 18 BARS GAUGE)
OVER 84	0.052 INCH (18 GAUGE, GALV.)	0.051 INCH (NO. 16 BARS GAUGE)

**ROUND DUCTS**

MAXIMUM SIZE (INCHES)	SPIRAL SEAM DUCT		LONGITUDINAL SEAM DUCT		FITTINGS	
	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.019 INCH (28 GAUGE, GALV.)	0.022 INCH (26 GAUGE, GALV.)	0.022 INCH (26 GAUGE, GALV.)	0.022 INCH (26 GAUGE, GALV.)	0.022 INCH (26 GAUGE, GALV.)	0.022 INCH (26 GAUGE, GALV.)
13 THROUGH 18	0.022 INCH (26 GAUGE, GALV.)	0.028 INCH (24 GAUGE, GALV.)	0.028 INCH (24 GAUGE, GALV.)	0.028 INCH (24 GAUGE, GALV.)	0.028 INCH (24 GAUGE, GALV.)	0.028 INCH (24 GAUGE, GALV.)
19 THROUGH 28	0.028 INCH (24 GAUGE, GALV.)	0.034 INCH (22 GAUGE, GALV.)	0.034 INCH (22 GAUGE, GALV.)	0.034 INCH (22 GAUGE, GALV.)	0.034 INCH (22 GAUGE, GALV.)	0.034 INCH (22 GAUGE, GALV.)
29 THROUGH 36	0.034 INCH (22 GAUGE, GALV.)	0.040 INCH (20 GAUGE, GALV.)	0.040 INCH (20 GAUGE, GALV.)	0.040 INCH (20 GAUGE, GALV.)	0.040 INCH (20 GAUGE, GALV.)	0.040 INCH (20 GAUGE, GALV.)
37 THROUGH 52	0.040 INCH (20 GAUGE, GALV.)	0.052 INCH (18 GAUGE, GALV.)	0.052 INCH (18 GAUGE, GALV.)	0.052 INCH (18 GAUGE, GALV.)	0.052 INCH (18 GAUGE, GALV.)	0.052 INCH (18 GAUGE, GALV.)



**HURST ENGINEERS**  
 308 HILLBORO AVE.  
 PALM BEACH, FL 33480  
 (561) 834-1972

Scale: ALL DRAWINGS  
 Designed by: C.G.K.  
 Drawn by: R.E.L.  
 Checked by: C.G.K.  
 Date: 11/11/10  
 Project No.: 10057400

THE CONTRACTOR OF THIS PROJECT AGREES TO COMPLY WITH ALL CITY ORDINANCES AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL ELECTRICAL REQUIREMENTS FOR POWERING OF MOTORIZED DAMPER AND INTRODUCING OF CONTROLS.

SHEET  
 M-3

**Kimley-Horn**  
 INC.  
 400 WEST HARRISON AVENUE  
 GREENVILLE, SOUTH CAROLINA 29601  
 TEL: 864.636.1000  
 FAX: 864.636.1001  
 WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED BY  
 CITY OF GREENVILLE, NC

GREENVILLE  
 SEAL  
 2011

DETAILS  
 MECHANICAL

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER/MODEL #	VOLTAGE	WATTAGE	LAMPS	REMARKS
A	SURFACE MOUNTED VANDAL RESISTANT LED	NEW STAR NY0642 4P IC-RUC-UN-4H	00271	90	LED5 FURNISHED	
A1	SAME AS TYPE A EXCEPT WITH EMERGENCY BATTERY PACK	NEW STAR NY0642 4P IC-RUC-UN-4H-EL2	00271	90	LED5 FURNISHED	
B	SURFACE MOUNTED LED WRAP AROUND	LITHONIA 9514 46L E21 LFB35	00271	35	LED5 FURNISHED	
B1	SAME AS TYPE B EXCEPT WITH EMERGENCY BATTERY PACK	LITHONIA 9514 46L E21 LFB35 EL2	00271	35	LED5 FURNISHED	
C	A-4 SURFACE MOUNTED LED STRIP	LITHONIA 9514 L45 3000LM F87 MVOLT 40K B2CR1	00271	75	LED5 FURNISHED	
C1	SAME AS TYPE C EXCEPT WITH EMERGENCY BATTERY PACK	LITHONIA 9514 L45 3000LM F87 MVOLT 40K B2CR1 E1U	00271	75	LED5 FURNISHED	
C2	SAME AS TYPE C EXCEPT 2'-0" IN LENGTH	LITHONIA 9514 L45 3000LM F87 MVOLT 40K B2CR1	00271	75	LED5 FURNISHED	
D	MALL MOUNTED VANDAL RESISTANT LED WITH EMERGENCY BATTERY PACK	ECOLINE LIGHTING L2-A-LED50-4K-EBU-BK-EL61	100	30	LED5 FURNISHED	
D1	SAME AS TYPE D EXCEPT WITHOUT EMERGENCY BATTERY PACK	ECOLINE LIGHTING L2-A-LED50-4K-EBU-BK	100	30	LED5 FURNISHED	
E	CHAIN HANG W/RE LOCATION LISTED ENCLOSED LED	LITHONIA 9514 L45 3000LM F87 MVOLT 40K B2CR1	00271	42	LED5 FURNISHED	
E1	SAME AS TYPE E EXCEPT WITH EMERGENCY BATTERY PACK	LITHONIA 9514 L45 3000LM F87 MVOLT 40K B2CR1 E1U	00271	42	LED5 FURNISHED	
F	POLE MOUNTED LED AREA LUMINAIRE WITH SUN HEADS # 50' ON 30'-0" ROUND TAPERED STEEL POLE	LITHONIA 7210801 LED PM 4000 RD ARE 80W DELCO POLE AMERICAN LITE POLE 9514-30-60-T-AB-DT08-BLK W/ SHIELD COVER	480	33 EA.	LED5 FURNISHED	REFER LE-9 FOR POLE BASE DETAIL
X	UNIVERSAL MOUNT LED EMERGENCY EXIT SIGN	LITHONIA LX 6.5 B EL N	00271	18	LED5 FURNISHED	

ELECTRICAL SYMBOL LEGEND

NOTE: NOT ALL SYMBOLS APPEAR ON ALL DRAWINGS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
○	2' x 4' Light Fixture	⊕	Flush In Wall Duplex Receptacle
○	1' x 4' Light Fixture	⊕m	Flush In Wall Duplex Receptacle - Ground Fault Circuit Interrupt
○	Wall Mounted Light Fixture	⊕m	Flush In Wall Duplex Receptacle - Insulated Ground
○	Wall Mounted Strip Light	⊕m	Flush In Wall Duplex Receptacle Mounted Above Counter
○	Ceiling Mounted Light Fixture	⊕m	Flush In Wall Quadruplex Receptacle
○	Ceiling Mounted Strip Light	⊕m	Flush In Wall Quadruplex Receptacle Mounted Above Counter
○	Ceiling Mounted Strip Light	⊕m	Flush In Wall Quadruplex Receptacle
○	Clearance/Obstruction Fixture On Emergency Circuit Or With Emergency Battery Pack	⊕m	Flush In Wall Quadruplex Receptacle
○	Wall Mounted Dual Head Emergency Egress Light	⊕m	Special Purpose Flush In Wall Receptacle (Verify NEMA Configuration with Owner) (Verify NEMA Configuration with Owner)
○	Wall Mounted Dual Head Emergency Egress Light Remote Head	⊕m	Flush In Wall Receptacle 220V
○	Surface Mounted Combination Exit Sign / Dual Head Emergency Egress Light	⊕m	Single Pole Switch Controlled Single Receptacle
○	Single Pole Light	⊕m	Plughead Receptacle
○	Double Pole Light	⊕m	Wall Mounted Junction Box
○	Post Top Mounted Area Light	⊕m	Ceiling Mounted Junction Box
○	Single Pole Switch (Lower Case Linear Devices Including Pattern)	⊕m	Flush In Grade Junction Box
○	Three Way Switch	⊕m	Flush In Grade Concrete Pull Box w/ Bolt Down Lid
○	Four Way Switch	⊕m	Flush Mounted Ceiling Breaker Assembly w/ Back Box, Transition And Cable Entry (Verify)
○	Dimmer Switch	⊕m	Weatherproof Outdoor Speaker
○	Motor Rated Switch	⊕m	Plughead Telephone Base/Outlet
○	Keypad Switch	⊕m	Data Outlet (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Fluor Light Switch	⊕m	Floor Hole Data Outlet (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Variable Speed Fan Control Switch	⊕m	Telephone Outlet (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Weatherproof Switch	⊕m	Floor Hole Telephone Outlet (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Manual Over-Ride Switch For Ceiling Mounted Occupancy Sensor	⊕m	Telephone Outlet - 247 (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Wall Mounted Occupancy Sensor Light Switch	⊕m	Public Telephone (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Wall Mounted Occupancy Sensor Light Switch (Wall Breaker Model 071-300 Series)	⊕m	Competition Telephone (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Conduit in Ceiling Or Wall	⊕m	Floor Hole Competition Telephone/Data Outlet (Provide w/ 1" Conduit w/ Pull String To Above Accessible Ceiling)
○	Conduit in Or Under Floor / Grade	⊕m	Aserial Devices Tele/Data Device Mounted Above Counter
○	Home-run to Panelboard in Ceiling Or Wall	⊕m	Exit - Single Direction Indication - Ceiling Mounted
○	Wire Run Indicating Ground Wire, Phase And Neutral Conductors	⊕m	Exit - Bi-Directional Indication - Ceiling Mounted
○	CCTV Receiving 1" Conduit Minimum w/ Pull String	⊕m	Exit - Single Direction Indication - Wall Mounted
○	Telephone Receiving 1" Conduit Minimum w/ Pull String	⊕m	Exit - Bi-Directional Indication - Wall Mounted
○	Overhead Power Line	⊕m	Exit - Directional Arrow - Single
○	Power Pole	⊕m	Exit - Directional Arrow - Double
○	Combination Motor Starter / Disconnect Switch	⊕m	Space Smoke Detector - Ceiling Mounted
○	Non-Fused Disconnect Switch (NFB)	⊕m	Space Smoke Detector - Wall Mounted
○	Fused Disconnect Switch (FDS)	⊕m	PhotoCell
○	Variable Frequency Drive (VFD)	⊕m	Tracklock
○	Transformer	⊕m	Fire Alarm Manual Pull Station
○	Motor	⊕m	Fire Alarm Horn Only
○	Main Panel Or Distribution Panel	⊕m	Fire Alarm Horn / Strobe (Number Devices Stroke Interval Measured In Cycles)
○	Surface Mounted Branch Circuit Panel	⊕m	Fire Alarm Strobe Only (Number Devices Stroke Interval Measured In Cycles)
○	Flush Mounted Branch Circuit Panel	⊕m	None
○	Fire Alarm Control Panel	⊕m	Emergency Stop Push Button
○	Fire Sprinkler System Flow Switch	⊕m	Control Weatherproof
○	Fire Sprinkler System Tapper Switch	⊕m	Television Outlet

SYMBOL NOTES:  
 1. ALL DEVICE SURFACES, OUTLETS, ETC. SHALL BE MOUNTED AT THE HEIGHTS ESTABLISHED IN THE SPECIFICATIONS WITH DIMENSIONS AS NOTED. TEXAS ACCESSIBILITY STANDARDS (TAS) AND ANY LOCAL CODES, IF ADA, TAS AND OTHER CODES HAVE CONFLICTING DATA, CONTRACTOR WILL DEPEND TO THE MORE STRINGENT OF THE CODES.  
 2. ALL TELEPHONE DATA, TELEVISION SECURITY, POS AND JUNCTION BOXES SHALL BE INSTALLED WITH A 1" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING UNLESS INDICATED OR NOTED OTHERWISE.



**Kimley-Horn**  
 4775 Highway 281, Suite 300, Austin, TX 78748  
 © 2017 KIMLEY-HORN AND ASSOCIATES, INC.  
 ALL RIGHTS RESERVED.

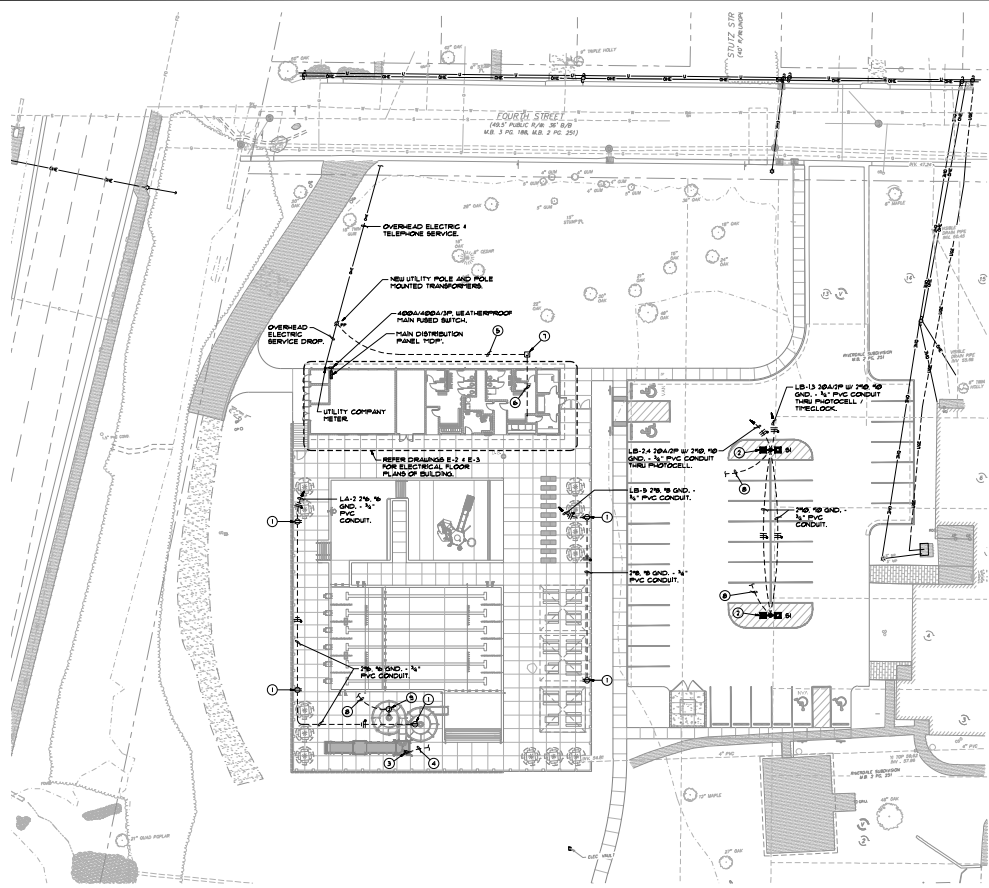


**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE, NC

**ELECTRICAL SYMBOL LEGEND**

Scale:  
 Drawn by: C.A.C.  
 Checked by: J.W.  
 Date: 07/10/17  
 Project No: 20160004

SHEET  
 OF 20  
 E-0



**SITE PLAN - ELECTRICAL**  
SCALE: 1"=20'-0"

**SITE PLAN NOTES BY SYMBOL**

- ① SEE LISTED GFCI, 20A, 250V DUPLEX RECEPTACLE IN GROUND-FLOOR MOUNTING FEDERAL. REFER 316-3 FOR MOUNTING DETAIL.
- ② FUTURE HEAD SHOW BOLD TO BE UTILIZED AS A SECURITY LIGHT.
- ③ WEATHERPROOF EMERGENCY "E" 8"ØPT PUSH BUTTON WITH PLASTIC UNSEAL FLIP TOP COVER AT TOP OF RISE TOWER.
- ④ 2# 10 ØND - 1/2" PVC CONDUIT TO SLIDE PUMP VMD FOR FUTURE STOP CAPABILITY.
- ⑤ PROVIDE AND INSTALL (1) 4" PVC CONDUIT WITH PULL STRONG UNDERGROUND FOR TELEPHONE SERVICE.
- ⑥ PROVIDE AND INSTALL (2) 4" PVC CONDUITS WITH PULL STRONG FROM JUNCTION BOX TO TELECOM RM. 103. (1) DATA AND (1) TELEPHONE.
- ⑦ PROVIDE AND INSTALL IN-GRADE JUNCTION BOX WITH BOLT DOWN LID FOR DATA / TELEPHONE.
- ⑧ EMPTY PVC CONDUIT WITH PULL STRONG FOR SECURITY CAMERA ROUTE CONDUIT TO TELECOM RM. 103. TERMINATE AT LOCATION TO BE DETERMINED BY THE OWNER.
- ⑨ JUNCTION BOX FOR SECURITY CAMERA. VERIFY EXACT MOUNTING LOCATION WITH OWNER.

**POOL AREA BONDING NOTE**

- 1. PER NEC ART. 680-26 AND ART. 250, BOND ALL METALLIC PARTS OF THE POOL INCLUDING ALL LADDERS AND RAILS A POOL, REINFORCING STEEL, COCK REINFORCING STEEL, UNDERFLOOR LIGHT, NICKEL CHAINS, GATES, BRIMMING PUMPS, MOTORS, METAL JUNCTION BOXES, AUTOMATIC SLIDING SUPPORT ENCLOSURE, METAL PIPING, ETC. REFER DRAWING 216-3 FOR TYPICAL POOL BONDING DETAIL.

UTILITY CONTACTS		
Greenville Utility Company	Bussard Link	HURST ENGINEERS
71 Ryan Van Buren (252) 561-9111	71 Ryan Van Buren (252) 561-1835	88 BEAVER DR FAIR GROVE, N.C. 28724 (704) 296-2925

**Kimley-Horn**  
© Prepared by Kimley-Horn and Associates, Inc. (KHA) for the City of Greenville, NC (2017)  
 4710 Fayetteville Road, Raleigh, NC 27609  
 P.O. Box 24390, Raleigh, NC 27624  
 © 2017 100% BY KIMLEY-HORN AND ASSOCIATES, INC.  
 NC LICENSE #005216

**GREENVILLE OUTDOOR AQUATIC CENTER**  
 PREPARED FOR  
 CITY OF GREENVILLE, NC

**SITE PLAN - ELECTRICAL**

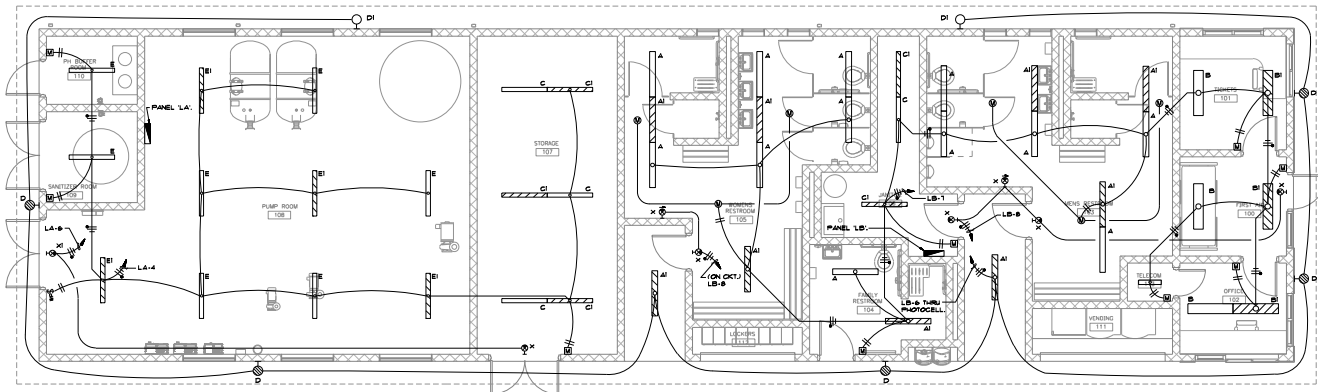
SCALE:	DATE:
Drawn By: C.A.S.	2/17/2017
Checked By: J.W.	
Date:	
Project No. 201601003	

SHEET  
E-1





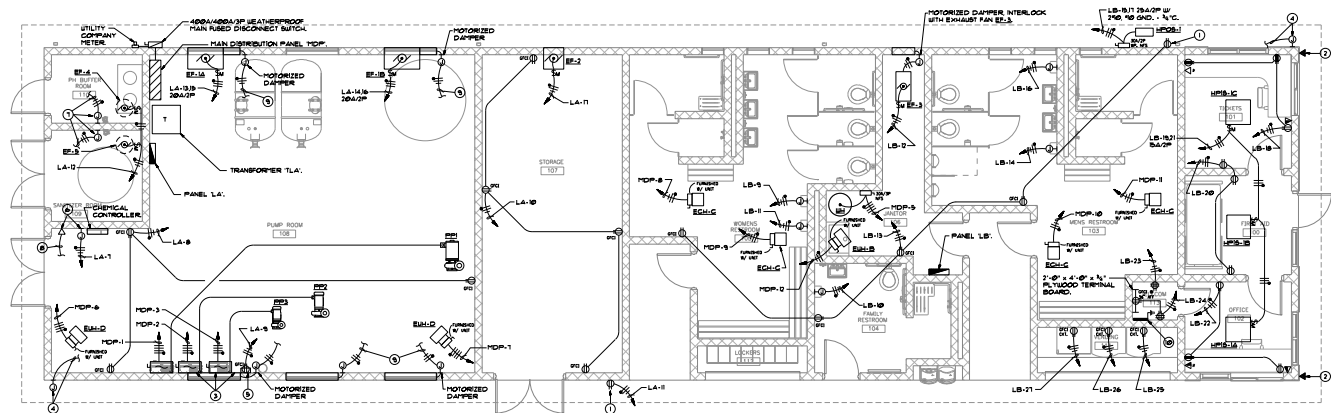
Scale:	As Shown
Designed By:	C.A.O.
Drawn By:	J.W.
Checked By:	J.W.
Date:	06/18/2011
Project No.:	20080000



**BUILDING FLOOR PLAN - LIGHTING**  
 SCALE: 1/4" = 1'-0"

**LIGHTING PLAN  
 GENERAL NOTES**

1. CONNECT ALL EMERGENCY BATTERY PACKS TO THE SIDE OF FIXTURE CONTROL DEVICE FOR CONSTANT "HOT" TO BATTERY PACKS.
2. REFER DRAWING E-6 FOR LUMINAIRE SCHEDULE.
3. VERIFY TYPE 'A' OF FIXTURE MOUNTING HEIGHTS WITH ARCHITECT.



**BUILDING FLOOR PLAN - POWER**  
 SCALE: 1/4"=1'-0"

**POWER PLAN GENERAL NOTES**

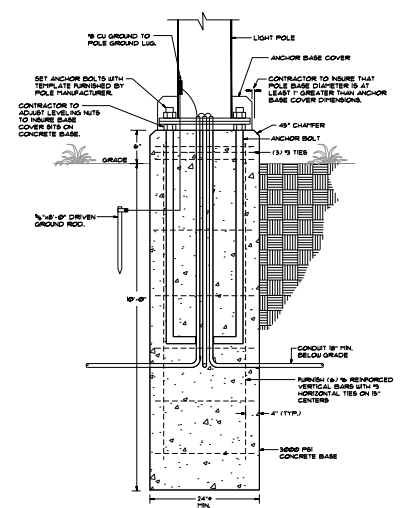
1. REFER MAIN DISTRIBUTION PANEL (MDF) SCHEDULES ON DRAWING E-4 FOR WIRE AND CONDUIT SIZES NOT SHOWN.
2. BUILDING MUST COMPLY WITH N.E.C. FIRE CODE SECTION 909 (FIREPROOF RESPONSE RATING) COVERAGE.
3. REFER DRAWING E-6 FOR ELECTRICAL SYMBOL LEGEND.

**POWER PLAN NOTES BY SYMBOL 'O'**

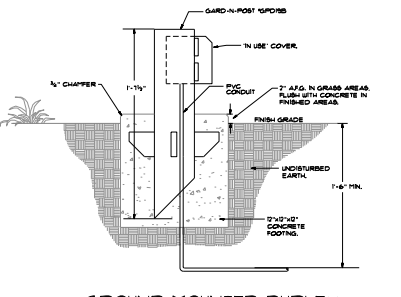
1. PROVIDE AND INSTALL WIR LIMITED SPEC. 30AL 25KV DUPLEX RECEPTACLE WITH METAL IN USE COVER EQUAL TO THE "000V" SERIES.
2. WEATHERPROOF EMERGENCY BY TELEPHONE OUTLET AT 48" AFFL. INSTALL 1" PVC CONDUIT WITH PULL STRING TO TELEPHONE BOARD.
3. VARIABLE FREQUENCY DRIVE (VFD) PROVIDED BY POOL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. REFER TO "0" SERIES DRAWINGS FOR VFD SPECIFICATIONS.
4. JUNCTION BOX FOR SECURITY CAMERA ROUTE 7 8WYTY CONDUIT WITH PULL STRING TO TELECOPY RM. #13. TERMINATE AT LOCATION TO BE DETERMINED BY OWNER.
5. WATER LEVEL CONTROLLER.
6. POINT WEATHERPROOF J-BOXES AND WEATHERPROOF DATA OUTLET BY 8" ABOVE CHEMICAL CONTROLLER. INTERLOCK CHEMICAL CONTROLLER WITH RECIRCULATION PUMP TO RESPOND CHEMICAL FEEDS IN THE EVENT THE RECIRCULATION PUMP IS SHUT DOWN.
7. POINT J-BOXES AT 8" ABOVE CHEMICAL PUMPS 2" TO 12" GND. - 1/2" TO CHEMICAL CONTROLLER.
8. 1/2" 8WYTY PVC CONDUIT WITH PULL STRING TO TERMINAL BOARDS IN TELECOPY RM. #13.
9. INTERLOCK MOTORIZED DAMPER WITH EXHAUST FANS FE-1A AND FE-1B.
10. PROVIDE AND INSTALL COPPER GROUNDING BUSBAR 1/2" THICK 4" WIDE AND 1/2" LONG COMPLETE WITH BRACKETS AND GROUND WITH #10 COPPER GROUNDING CONDUCTOR.



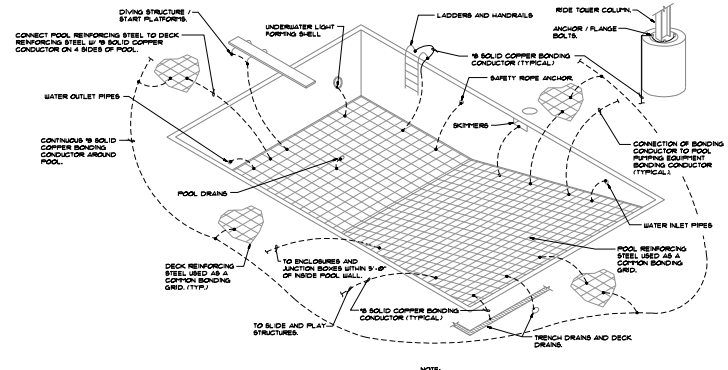




1 FIXTURE TYPE 'S' POLE BASE DETAIL  
SCALE: NONE



3 GROUND MOUNTED DUPLEX RECEPTACLE DETAIL  
SCALE: NONE



2 TYPICAL POOL BONDING DETAIL  
SCALE: NONE

E-T-N  
BUSSMANN  
SERIES

FC<sup>2</sup> available fault current calculator

**Your System Details**

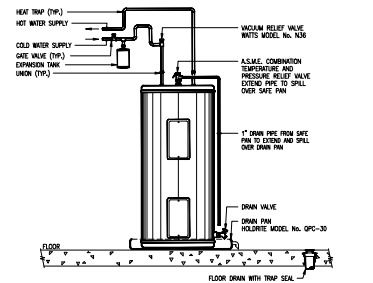
Project Name: Greenville Aquatic Center  
 System Type: Three-Phase Center  
 Creator Name: Jim Wozniak  
 Creator Email: jwozniak@gmail.com  
 Creator Company/Organization: EA  
 Creator Title/Position: Engineer  
 Creation Date: Mar 4, 2021 @ 7:55am

V	<b>INFINITE PRIMARY SOURCE</b>
~	<b>TRANSFORMER - T1</b>
	kVA: 75 Voltage: 480 Hz: 60 NZ: NONE - WITH OTHER FAULTS
-	<b>FAULT - A1</b>
	Resistance: 0.015 Ω/FT Voltage (L-L): 480 V
	<b>CONDUCTOR RUN - C1</b>
CONDUCTOR	LENGTH: 10 FT SIZE: 300 CITY: 1 TYPE: Three Single Conductors CONDUIT: Steel WIRE: 60, 600 V
-	<b>FAULT - N2</b>
	Resistance: 0.015 Ω/FT Voltage (L-L): 480 V

Created Using Eaton's Busmann Series - Available Fault Current Calculator 1.5 Page 1

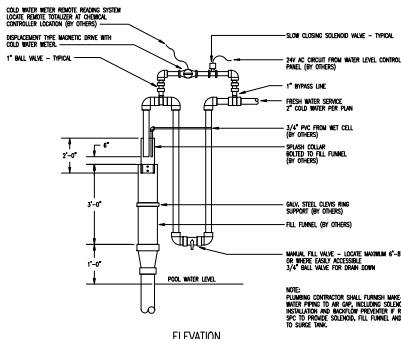


Scale:	As Noted
Drawn By:	C.A.S.
Checked By:	J.W.
Date:	09/18/21
Project No.:	201801003



SCHEDULE OF CAPACITIES						
WAL. NO.	GALLONS	GPM	GPM			BASE OF DESIGN
			15 MIN	1 HR	24 HR	
1	119 Gal.	78 Gal.	708 Gal.	480	3	60

**1 ELECTRIC WATER HEATER DETAIL**  
SCALE: NONE



**2 WATER FILLER DETAIL**  
SCALE: NONE

FIXTURE CONNECTION SCHEDULE						
ITEM	DESCRIPTION	WASTE	VENT	C.L.K.	H.W.K.	REMARKS
P-1	WATER CLOSET	4"	2"	1"	-	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-2	WATER CLOSET	4"	2"	1"	-	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-3	URINAL	2"	1 1/2"	3/4"	-	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-4	URINAL	2"	1 1/2"	3/4"	-	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-5	LABATORY	1 1/2"	1 1/2"	1 1/2"	1 1/2"	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-6	WSP SINK	3"	1 1/2"	1 1/2"	-	FLOOR MOUNTED, 30" x 24" SINK WITH ADA SHOWER ACCESSORIES.
P-7	ELECTRIC WATER COOLER	1 1/2"	1 1/2"	1 1/2"	-	WALL MOUNTED, 30" x 24" SINK WITH ADA SHOWER ACCESSORIES.
P-8	SHOWER	2"	1 1/2"	1 1/2"	1 1/2"	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-9	SHOWER	2"	1 1/2"	1 1/2"	1 1/2"	TILED SHOWER STALL WITH SHOWER ACCESSORIES.
P-10	SHOWER	2"	1 1/2"	1 1/2"	1 1/2"	SENDER (BATTERY POWERED) A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.
P-11	BOTTLE FILLING STATION	1 1/2"	1 1/2"	1 1/2"	-	WALL MOUNTED, A.S.A. COMPLIANT PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS.

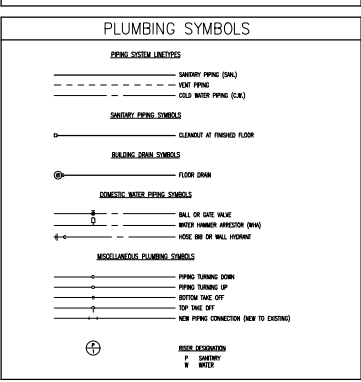
FLOOR DRAIN SCHEDULE					
ITEM	MFG	MODEL NO.	STRAINER	FREE AREA	REMARKS
FD-1	SOLO CHEF	802-PWR	-	-	3" PIPE SIZE, N/TRAP SEAL
FD-2	SOLO CHEF	800-F	-	-	4" PIPE SIZE

PLUMBING FIXTURE SPECIFICATIONS	
P-1	WATER CLOSET (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, ELOMATED WATER CLOSET, SLOW, A.S.A. COMPLIANT, 4" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)
P-2	WATER CLOSET (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, ELOMATED WATER CLOSET, SLOW, A.S.A. COMPLIANT, 4" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)
P-3	URINAL (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, URINAL, SLOW, A.S.A. COMPLIANT, 2" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)
P-4	URINAL (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, URINAL, SLOW, A.S.A. COMPLIANT, 2" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)
P-5	LABORATORY (A.S.A. COMPLIANT) AMERICAN STANDARD "LITERNE" MODEL NO. 8024848 WITH HOLE, 1 1/2" x 1 1/2" IN WHITE. FAUCETS: (A.S.A. COMPLIANT) AMERICAN STANDARD "LITERNE" MODEL NO. 8024848 WITH CONTRACTOR SUPPLIED O-RING. SHOWER CONTROLS: SHOWER MODEL NO. 200 IN THERMOZ. SHOWER RECEPTOR: FLOORMETER MODEL 200 IN THERMOZ. APPROVED PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. (OR AN APPROVED EQUAL)
P-6	WSP SERVICE SINK: 30" x 24" MODEL NO. WSP-30X24. FAUCETS: (A.S.A. COMPLIANT) AMERICAN STANDARD "LITERNE" MODEL NO. 8024848 WITH CONTRACTOR SUPPLIED O-RING. SHOWER CONTROLS: SHOWER MODEL NO. 200 IN THERMOZ. SHOWER RECEPTOR: FLOORMETER MODEL 200 IN THERMOZ. APPROVED PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. (OR AN APPROVED EQUAL)
P-7	ELECTRIC WATER COOLER (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, URINAL, SLOW, A.S.A. COMPLIANT, 2" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)
P-8	SHOWER (UNDEVELOPED) TILED ENCLOSURE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. SHOWER CONTROLS: SHOWER MODEL NO. 200 IN THERMOZ. SHOWER RECEPTOR: FLOORMETER MODEL 200 IN THERMOZ. APPROVED PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. (OR AN APPROVED EQUAL)
P-9	SHOWER (UNDEVELOPED) TILED ENCLOSURE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. SHOWER CONTROLS: SHOWER MODEL NO. 200 IN THERMOZ. SHOWER RECEPTOR: FLOORMETER MODEL 200 IN THERMOZ. APPROVED PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. (OR AN APPROVED EQUAL)
P-10	SHOWER (UNDEVELOPED) TILED ENCLOSURE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. SHOWER CONTROLS: SHOWER MODEL NO. 200 IN THERMOZ. SHOWER RECEPTOR: FLOORMETER MODEL 200 IN THERMOZ. APPROVED PRESSURE BALANCED MING VALVE WITH SHOWER RECEPTOR, APPROVED PRESSURE BALANCED MING VALVE AND CONTROLS. (OR AN APPROVED EQUAL)
P-11	BOTTLE FILLING STATION (A.S.A. COMPLIANT) SLOW MODEL NO. WEIS 20001201-128 SOLS (128 G.P.F.) IN WHITE, URINAL, SLOW, A.S.A. COMPLIANT, 2" GPM FLOW RESTRICTOR (FACTORY INSTALLED) PER MANUFACTURER'S RECOMMENDATION. FLUSH VALVE: SLOW, SLOW POWERED (BATTERY POWERED) MET FLOORMETER VALVE. (OR AN APPROVED EQUAL)

PLUMBING DRAWING LIST		
DRAWING NUMBER	TITLE	NUMBER OF DRAWING
P101	COVER SHEET - PLUMBING	1
P301	BATH HOUSE PLAN - SANITARY - PLUMBING	2
P302	BATH HOUSE PLAN - WATER - PLUMBING	3
P801	RISER DIAGRAMS - PLUMBING	4

**GENERAL NOTES**

- DRAWINGS ARE DIMENSIONED ONLY AND REPRESENT THE GENERAL SCOPE OF WORK. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE BEGINNING OF WORK TO VERIFY ALL CONDITIONS THAT AFFECT HIS WORK, VERIFY LOCATION OF SHOWER WALLS AND SERVICE (WATER AND/OR BELOW THE FLOOR) FROM WATER SERVICE, WATER AND NATURAL GAS MAINS TO HAVE CORRECT THE ALL CONNECTIONS ON HIS MARK.
- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL PLUMBING CODES, BUILDING CODES, STATE REGULATIONS AND LOCAL CODE SUPPLEMENTS AND AMENDMENTS.
- EVERY FITTING, ELBOW, APPARATUS OR PIECE OF EQUIPMENT WHICH COMES IN CONTACT WITH WATER SHALL BE OF SUCH DESIGN AND BE INSTALLED IN SUCH A MANNER THAT THE DOMESTIC WATER SYSTEM IS PROTECTED AGAINST CONTAMINATION.
- ALL PLUMBING PIPING SHALL BE CLOSELY COORDINATED WITH OTHER TRADES. PIPING SHALL BE COORDINATED WITH THE WORKER TRADES, INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, LIGHTING, FLOORING, CEILING, ROOF STRUCTURE, ETC. PRIOR TO ANY INSTALLATION.
- KEEP ALL PIPING AS HIGH AS POSSIBLE ABOVE CEILING AND IN MOST SPACES AND AT THE LEVEL OF ROOF STRUCTURE WHERE THERE ARE NO CEILING. INSURE NO CONTACT OR OVERLAPPING SHALL BE PERMITTED. WATER PIPING OF OTHER TRADES SUBJECT TO THE DAMAGE BY FREEZING BE INSTALLED IN UNHEATED SPACES. ROUTE PIPING THROUGH REARER SPACES AS NECESSARY.
- CLEANOUTS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE PLUMBING CODE.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL WALLS, CEILING, FLOORS AND PLUMBING FIXTURES, ETC.
- THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND ALL REVISIONS THAT ARE REQUIRED.
- ALL POSSIBLE WATER PIPING ABOVE FLOOR SHALL BE TYPE "C" COPPER. UNDERGROUND WATER PIPING SHALL BE TYPE "C" COPPER. EXCEPT ALL WATER PIPING IN ACCORDANCE WITH THE 2001 INTERNATIONAL ENERGY CONSERVATION CODE. EXCEPT THREE (3) INCHES OF 1/2" DIA. COLD WATER HEATING AND THE USE OF EXCEPTIONS IN SECTION C.A.4. (SEE TABLE ON THIS DRAWING).
- ALL NEW SOL, BRASS, WET AND/OR STAIN PIPING SHALL BE SCHEDULE 40 P.A.C. EXCEPT IN RETURN AIR PLUMBING SYSTEMS IN SUCH CASES, PIPING SHALL BE COATED WITH ZINC COPPER OR COAT WITH PIPING CONFORMING TO THE REQUIREMENTS OF CLASS 2 STANDARD 301. (WET CURRENT EXCEPT FROM A BISE OR WITH 7A EXCEPT CURRENT EXCEPT) PIPING AND FITTINGS SHALL BE FINISHED WITH THE COLOCATING TREATMENT OF THE CODE. SOL, SOL PIPE INSULATE AND BE LISTED BY NSF INTERNATIONAL, OR INSULATE FROM APPROVAL FROM THE BUILDING CODES OR ASSET TO USE AN ACCEPTABLE MANUFACTURER. THE BUILDING CODES ALSO HAS THE OPTION TO WARP THE NEW PIPING WITH A CODE APPROVED P.A.C. PIPING WRAP INSULATION.



**PLUMBING ABBREVIATIONS**

AMB.	AMVIC	F.L.R.	FLOOR
B.K.	BELLO	H.B.	HOSE END
C.O.	CLEANOUT	T.P.	TYPICAL
D.	EXISTING	V.T.A.	VOID THROUGH ROOF
F.S.	FLOOR FINISH	V.W.A.	VOID THROUGH WALL
F.F.	FRESH FLOOR	R/W	R/W
F.C.	FINISHED GRAVE	-	-

**HURST ENGINEERS**  
508 BILLBOARD AVE.  
PALM BEACH, FL 33480  
(561) 834-7878

THE CONTRACTOR OF THIS PROJECT AGREES TO HOLD THE CONTRACTOR RESPONSIBLE FOR THE DESIGN OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE.

Scale: AS SHOWN  
Designed by: S.P.M.  
Drawn by: S.P.M.  
Checked by: C.H.H.  
Project No.: 04057400

SHEET  
P-0

**Kimley-Horn**  
INCORPORATED  
1000 EAST 17TH AVENUE, SUITE 200  
DENVER, COLORADO 80202  
TEL: 303.733.1100  
WWW.KIMLEY-HORN.COM

**GREENVILLE OUTDOOR AQUATIC CENTER**  
CITY OF GREENVILLE, NC

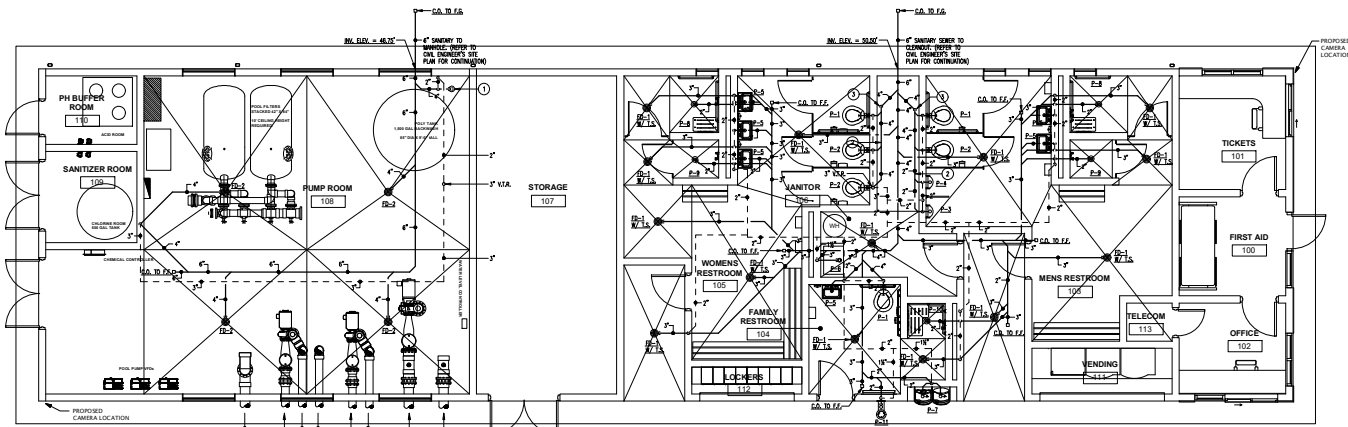
**COVER SHEET - PLUMBING**

**PLUMBING SHEET NOTES**

1. ALL SANITARY PIPING SHOWN ON DRAWING ARE INSTALL AT BELOW FLOOR UNLESS OTHERWISE NOTED.
2. ALL NEW 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 1077 AS MANUFACTURED BY JAY R. SMITH, METAL PROJECT OR SURSEAL.

**PLUMBING WORK NOTES**

- ① 2" FROM 500 GALLON RETENTION TANK TO DOWN INDUCTOR, TO 4" DRAIN WITH 4" AHD, OPER. SITE RECEPTOR WITH A 1" WELLS UP ASSE AND THROUGH FLOOR FOR PUMP, BACKWASH WITH 1" AIR GAP.
- ② RUN SAN. PIPE EXPOSED ON INTERIOR AS INDICATED ON PLANS.
- ③ 4" SAN. DIAL IN TO 4" SAN. LINE BLUE DIA.



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

**HURST ENGINEERS**  
308 HILLWOOD AVE.  
PALM BEACH, FL 33480  
(561) 834-7872

**SCALE:** ALL SHEETS: AS SHOWN  
**DESIGNED BY:** S.P.M.  
**DRAWN BY:** C.P.M.  
**CHECKED BY:** C.P.M.  
**PROJECT NO.:** 21-04

**SCALE:** ALL SHEETS: AS SHOWN  
**DESIGNED BY:** S.P.M.  
**DRAWN BY:** C.P.M.  
**CHECKED BY:** C.P.M.  
**PROJECT NO.:** 21-04



**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR  
CITY OF GREENVILLE, NC

**BATH HOUSE PLAN**  
SANITARY - PLUMBING

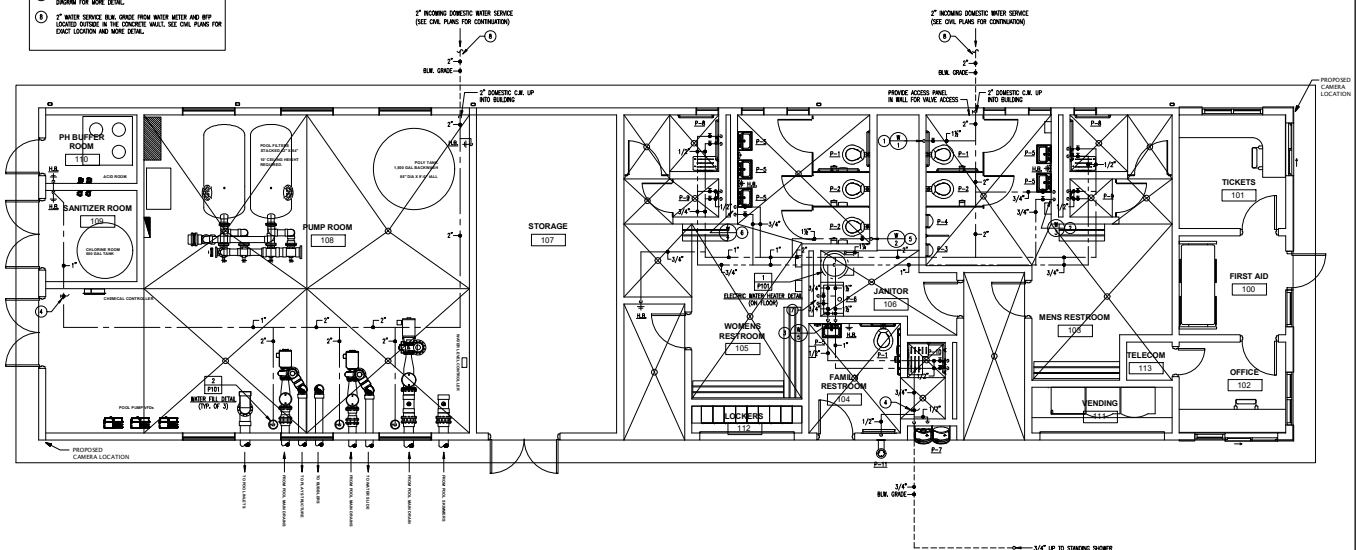
**SHEET**  
P-1

**PLUMBING SHEET NOTES**

1. PROVIDE SHUT-OFF VALVES AT EACH PLUMBING FEATURE.
2. ALL WATER PIPING SHOWN ON DRAWING ARE INSTALL AT OR ABOVE CEILING UNLESS OTHERWISE NOTED.

**PLUMBING WORK NOTES**

1. 1/2" C.R. DR. THRU WALL AND TO P-1, P-2, P-3 & P-4. SEE WATER RISER DIAGRAM FOR MORE DETAIL.
2. 3/4" R.H.C. DR. THRU WALL AND TO TWO (2) P-5 & H.S., SEE WATER RISER DIAGRAM FOR MORE DETAIL.
3. 1/2" C.R. DR. THRU WALL AND TO TWO (2) P-5 & H.S. & P-1. SEE WATER RISER DIAGRAM FOR MORE DETAIL.
4. SHUT-OFF VALVE WITH AN VENT FOR DRAINAGE PURPOSES (INTERLOCKING).
5. 1/2" C.R. DR. THRU WALL AND TO TWO (2) P-2 & P-1. SEE WATER RISER DIAGRAM FOR MORE DETAIL.
6. 3/4" R.H.C. DR. THRU WALL AND TO THREE (3) P-4 & H.S., SEE WATER RISER DIAGRAM FOR MORE DETAIL.
7. 1/2" R.H.C. DR. THRU WALL AND TO P-4. SEE WATER RISER DIAGRAM FOR MORE DETAIL.
8. 1" WATER SERVICE R.H.C. GROSS FROM WATER METER AND SHIP LOCATED WATER IN THE CONCRETE WALL. SEE CIVIL PLANS FOR EXACT LOCATION AND MORE DETAIL.



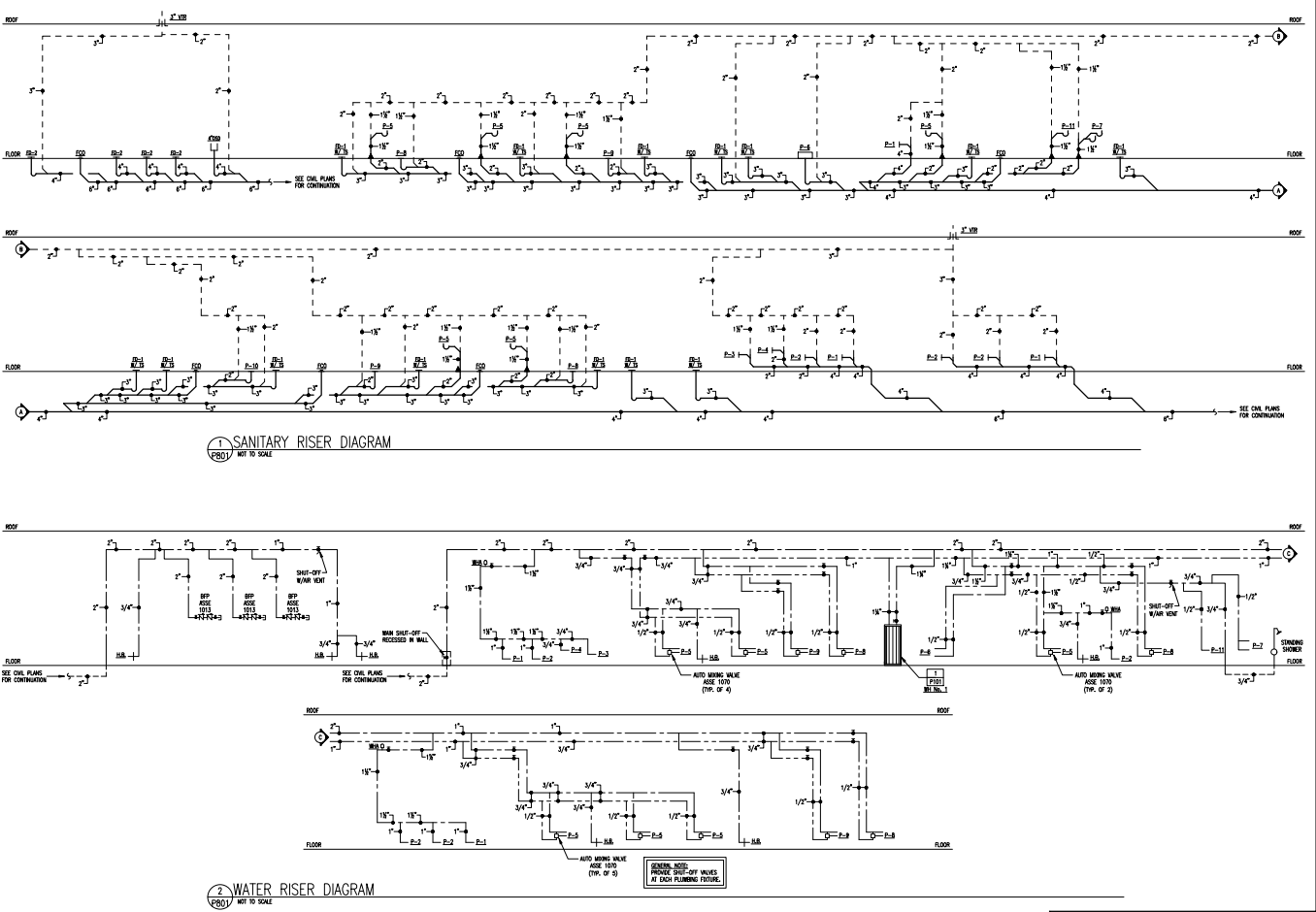
**BATH HOUSE PLAN - WATER - PLUMBING**  
SCALE: 1/4"=1'-0"

**HURST ENGINEERS**  
308 HILLWOOD AVE.  
PALM BEACH, FL 33480  
(561) 834-1872

**NOTES:**  
THE OWNER OF THIS PROJECT AGREES THE CONTRACTOR TO COMPLETE ALL WORK ON THE DRAWING WITHIN 90 DAYS FROM THE DATE OF COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE.

Scale:	AS SHOWN
Designed by:	S.P.M.
Drawn by:	S.P.M.
Checked by:	C.C.H.
Project No.:	00057400

SHEET  
P-2



1 SANITARY RISER DIAGRAM  
(P&I) NOT TO SCALE

2 WATER RISER DIAGRAM  
(P&I) NOT TO SCALE

MIN. SHUT-OFF RECESSED IN WALL AT EACH PLUMBING FIXTURE.

**HURST ENGINEERS**  
 508 HILLWOOD AVE.  
 PALM BEACH, FL 33480  
 (561) 834-7872

Scale: ALL DRAWINGS  
 Designed By: S.P.M.  
 Drawn By: S.P.M.  
 Checked By: C.C.H.  
 Date: 08/20/2018  
 Project No.: 180524000

THE CONTRACTOR OF THIS PROJECT AGREES TO COMPLY WITH ALL CITY AND STATE REGULATIONS AND ALL APPLICABLE CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE.

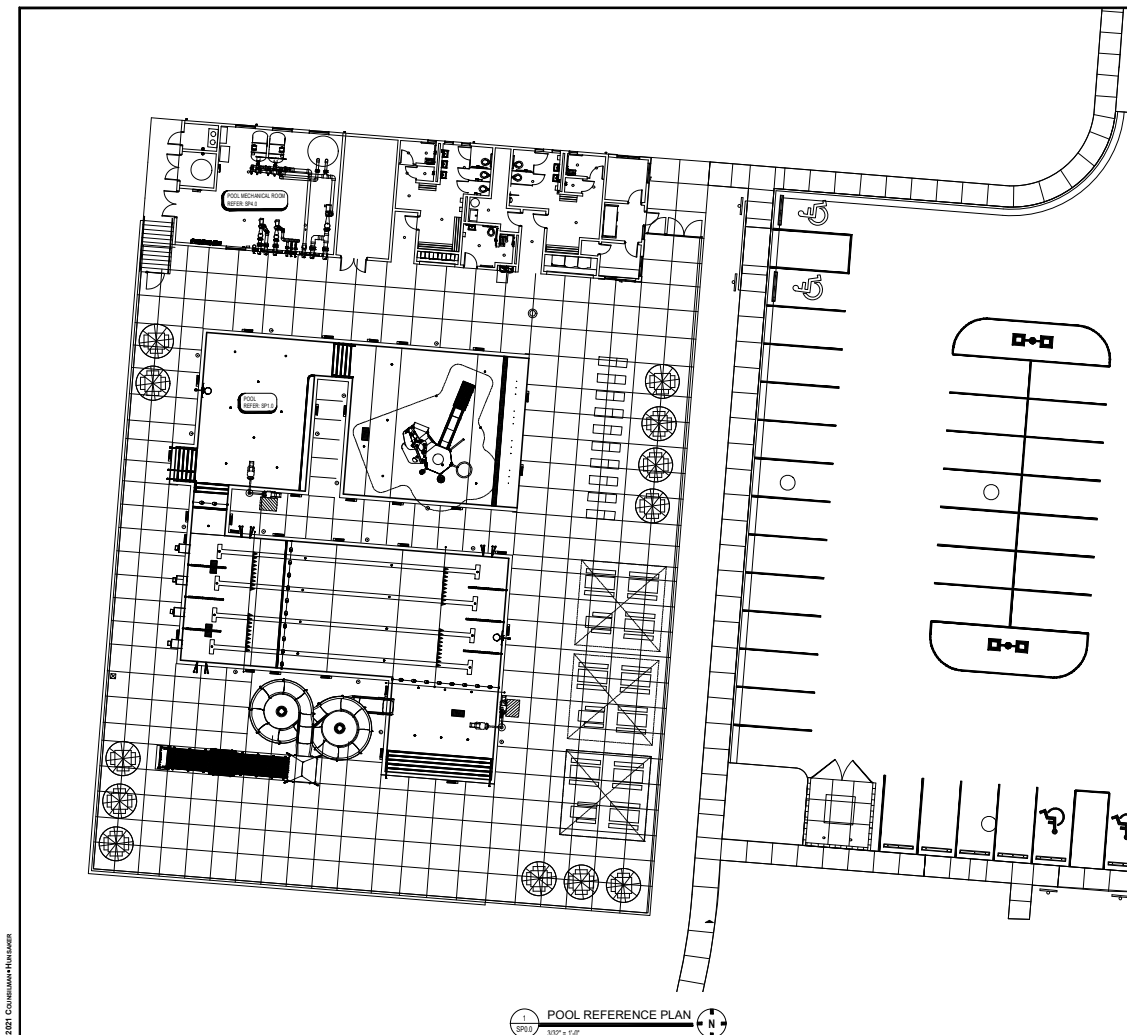
**Kimley-Horn**  
 1000 PARKWAY, SUITE 1000, GREENVILLE, SC 29615  
 TEL: 864.606.1000 FAX: 864.606.1001

GREENVILLE OUTDOOR AQUATIC CENTER  
 PREPARED FOR  
 CITY OF GREENVILLE, NC

RISER DIAGRAMS  
 PLUMBING

SHEET  
 P-3





DESIGN DATA			
	UNITS	BASE 80' LANE POOL	ALTERNATE #11 LANE POOL
LENGTH	FT	74	74
WIDTH	FT	30	30
WATER SURFACE AREA	SQ FT	2,220	2,220
PERIMETER	FT	204	204
VOLUME	GALLON	125,280	125,280
RECYCLATION SYSTEM			
POOL TURNOVER RATE	HOURLY	2.27	2.28
RECYCLATION RATE	SPM	600	600
DESIGN FLOW	MGD	18	18
DESIGN FLOW	MGD	21	21
BATHER LOAD	PERSON	286	286

- GENERAL POOL NOTES**
1. DENOTES WATER DEPTH FROM WATER LEVEL.
  2. POOL FLOOR SHALL BE EPXY PAINT WITH VERTICAL AT TILE BAND AND TILE DECK FINISHING.
  3. ALL POOL FLOOR AREAS OF AND SHOWER AND ALL START/TREADS SHALL HAVE A 5/8\"/>

**DRAWING INDEX**

SHEET	DESCRIPTION
SPR2	POOL REFERENCE PLAN
SPR1	ALTERNATE POOL REFERENCE PLAN
SP13	POOL PLAN
SP11	POOL SECTION
SP12	POOL DETAILS
SP13	POOL DETAILS
SP14	POOL DETAILS
SP15	POOL SECTION FLOW PLAN
SP16	POOL SECTION PUMP PLAN
SP17	POOL RETURN PUMP PLAN
SP18	ALTERNATE POOL SECTION PUMP PLAN
SP19	ALTERNATE POOL RETURN PUMP PLAN
SP20	POOL MECHANICAL ROOM PLAN & SECTION
SP21	POOL MECHANICAL DETAILS
SP22	POOL MECHANICAL DETAILS
SP23	POOL MECHANICAL DETAILS
SP24	POOL SYSTEM SCHEMATIC

**POOL ALTERNATES**

ALTERNATE #11 - THE CONSTRUCTION OF THE ADDITIONAL TWO LANES FOR THE 25-YARD COMPETITION AREA OF THE POOL, INCLUDING CONSIDERATION FROM MECHANICAL AND ELECTRICAL FINISHES AND EQUIPMENT.

ALTERNATE #12 - THE STRUCTURE INCLUDING THE BLUE TOWER AND ALL STRUCTURAL, STEEL, BRASS, BRASS, CAPRI, STAINLESS STEEL, BRASS, BRASS, BRASS, BRASS AND STRAINER. ALL 80\"/>

**Kimley-Horn**  
 CONSULTING ENGINEERS, INC.  
 2010 STATE STREET, SUITE 200  
 GREENVILLE, SC 29602  
 PHONE: 864.606.1000  
 FAX: 864.606.1001  
 WWW.KIMLEY-HORN.COM

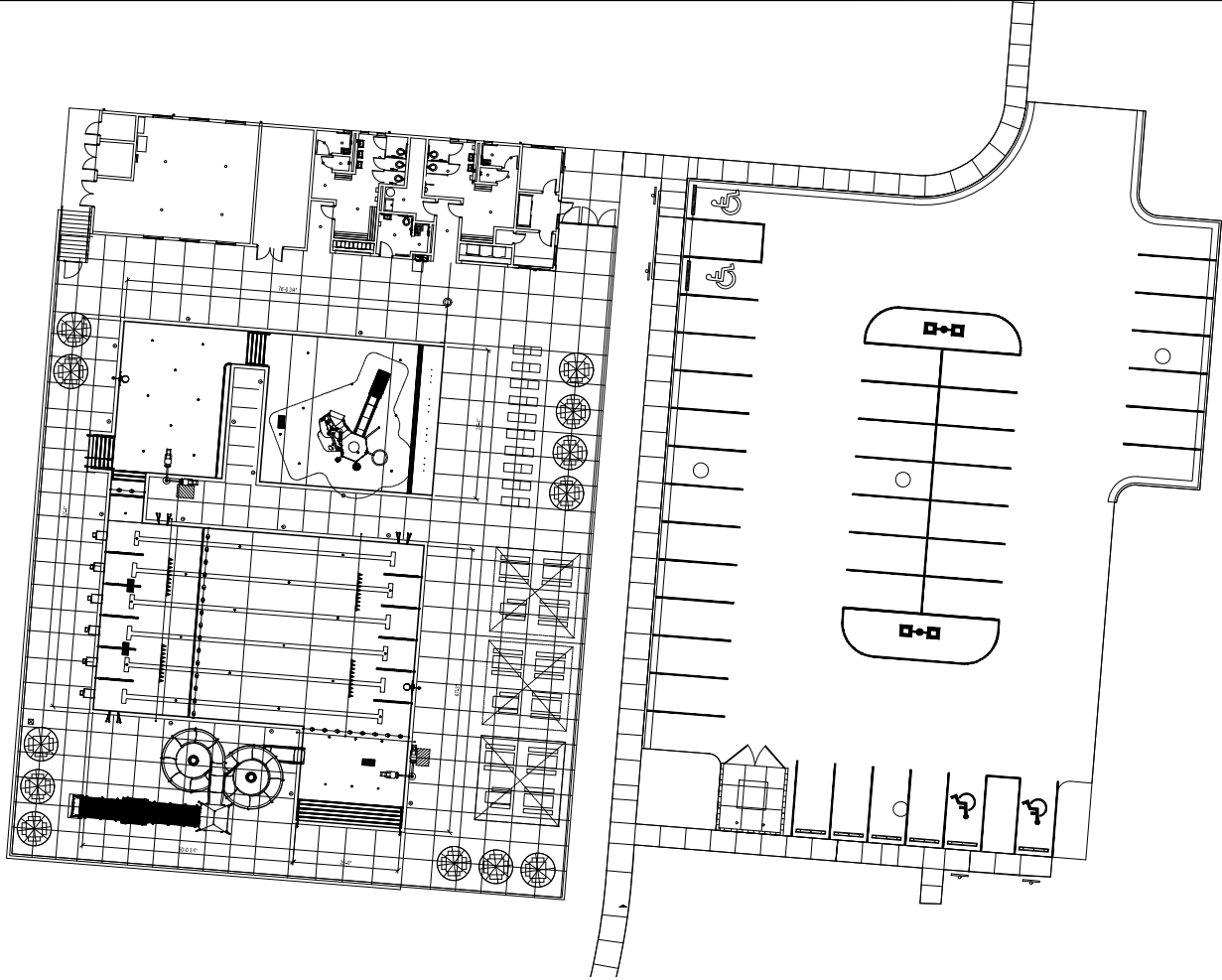
**GREENVILLE OUTDOOR AQUATIC CENTER**  
 GREENVILLE, NC

**POOL REFERENCE PLAN**

**SP.0.0**

Scale: AS SHOWN  
 Drawn By: CMB  
 Checked By: CMB  
 Date: APRIL 2017  
 Project No.: 040816100

**CONSTRUCTION SERVICES**  
 AQUATICS FOR LIFE  
 1011 14th Street, Suite 200  
 Greenville, SC 29602



1  
 SP01  
 332' x 110'

ALTERNATE POOL REFERENCE PLAN



Scale: AS SHOWN  
 Drawn By: CMR  
 Checked By: CJD  
 Date: APRIL 2021  
 Project No.: 00821010

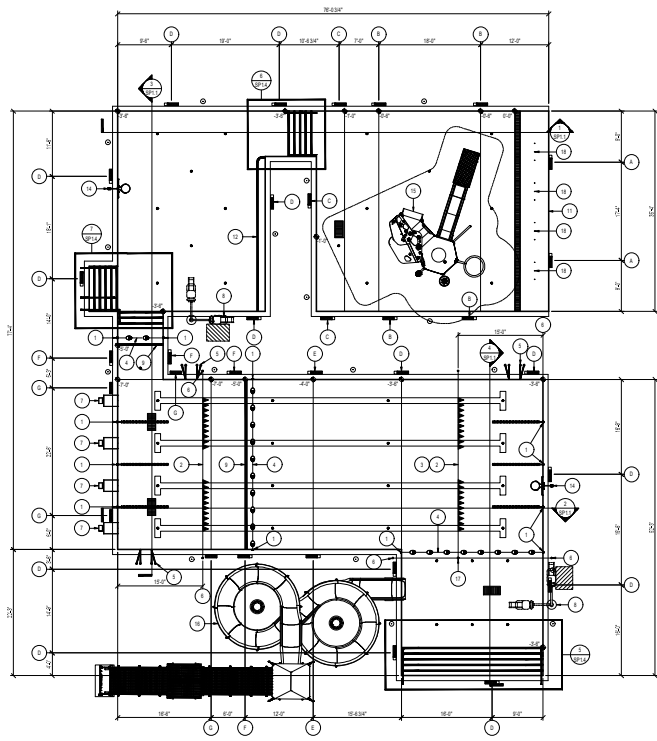
ALTERNATE POOL  
 REFERENCE PLAN

GREENVILLE OUTDOOR  
 AQUATIC CENTER  
 PREPARED FOR:  
 CITY OF GREENVILLE, NC



**Kimley»Horn**  
 417 Parkside Dr. Suite 1000 Raleigh, NC 27601  
 919.876.1000  
 www.kimleyhorn.com  
 © 2021 KIMLEY HORN  
 NC LICENSE #2525

SHEET  
 SP0.1



1 POOL PLAN  
SP1.0  
1/8" = 1'-0"

**DEPTH & WARNING SIGNAGE SCHEDULE**

ID	SWAGE
○	5FT6 IN ■
○	5FT6 IN ■
○	5FT6 IN ■
○	5FT6 IN ■
○	5FT6 IN ■
○	5FT6 IN ■
○	5FT6 IN ■

NOTE:  
REFER 10SP1.2 FOR DETAIL.

**POOL EQUIPMENT SCHEDULE**

ID	ITEM
○	LANGUASTERY ROPE CUP ANCHOR REFER: 10SP1.3
○	BACKSTROKE FURNISHMENT
○	FALSE START ROPE ASSEMBLY
○	SAFETY ROPE
○	GRAB RAILS & RECESSED STEPS REFER: 10SP1.3
○	STAIR ANCHOR ROPE & ANCHOR REFER: 10SP1.3
○	DECK MOUNTED STARTING PLATFORM & ANCHOR REFER: 10SP1.3
○	POOL LIFT ANCHOR REFER: 10SP1.3
○	FORM FINISHING PAINT BAND COLOR BY ARCHITECT
○	BALL TARGET REFER: 10SP1.2
○	WALL TARGET REFER: 10SP1.2
○	RECREATION BEACH REFER: 10SP1.2
○	POOL COVE REFER: 10SP1.2
○	WATER BARRIERS/TOOL REFER: 10SP1.3
○	WATER TOWER REFER: 10SP1.4
○	WATER TOWER REFER: 10SP1.4
○	BACKSTROKE CABLE CLAMP REFER: 10SP1.3
○	BARBICURE REFER: 10SP1.3

**Kimley»Horn**  
401 FARMERSVILLE ROAD, SUITE 200, GREENVILLE, NC 27601  
P.O. BOX 10000, GREENVILLE, NC 27609  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
NC LICENSE # 2202

**GREENVILLE OUTDOOR AQUATIC CENTER**  
GREENVILLE, NC  
CITY OF GREENVILLE, NC

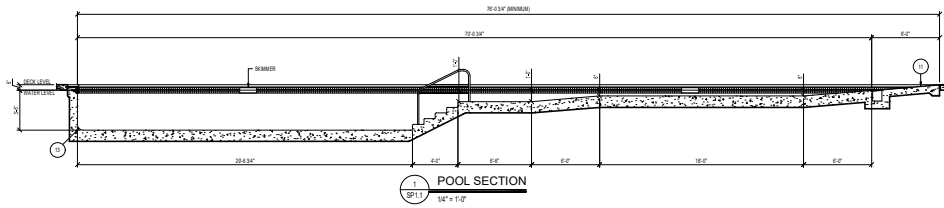
**POOL PLAN**

**SP1.0**

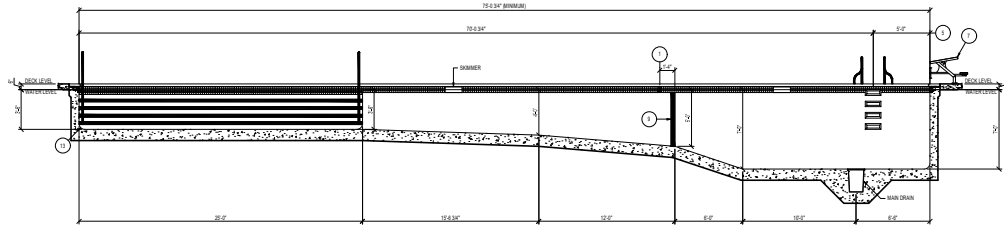
SHEET  
PROJECT No. 2018-0000

Scale: AS SHOWN  
Drawn By: CMR  
Checked By: CJD  
Date: APRIL 2021

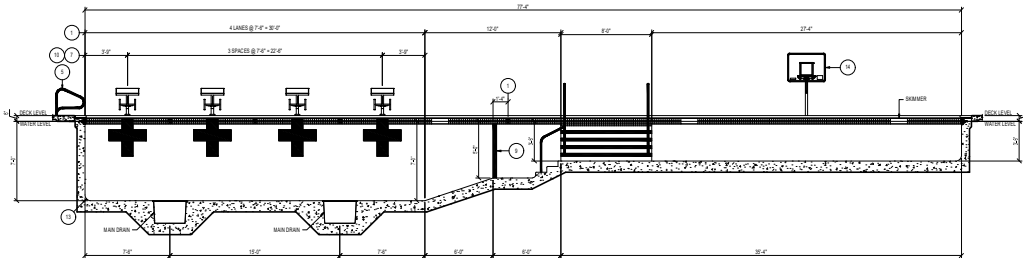




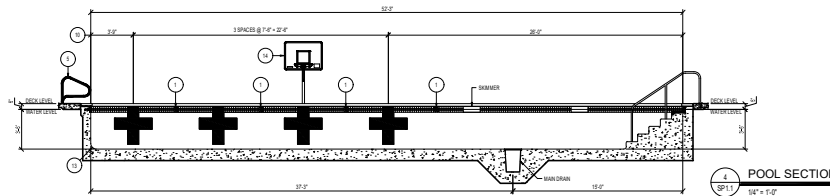
1 POOL SECTION  
1/8" = 1'-0"



2 POOL SECTION  
1/8" = 1'-0"



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



4 POOL SECTION  
1/8" = 1'-0"

ID	ITEM
1	LANEWAY TYP ROPE CUP ANCHOR REFER: SSP1.3
2	BACKSTOPPING FINNANT
3	FALSE START ROPE ASSEMBLY
4	SAFETY ROPE
5	DRINK RAILS & RECESSED STEPS REFER: SSP1.3
6	DECK-MOUNTED POSE & ANCHOR REFER: SSP1.3
7	DECK MOUNTED STARTING PLATFORM & ANCHOR REFER: SSP1.3
8	POOL LIFT ANCHOR REFER: SSP1.3
9	POLE POSITIONING POINT AND COLOR BY ARCHITECT
10	HALL TARGET REFER: SSP1.2
11	2000 ENTRY REFER: SSP1.2
12	RESURFACING BEACH REFER: SSP1.2
13	POOL COVE REFER: SLS SSP1.2
14	WATER BAR/FRONTAL LOGAL REFER: SSP1.3
15	WATER FOUNTAIN REFER: SSP1.4
16	WATER SLED REFER: SSP1.3
17	BACKSTOPPING CABLE CLAMP REFER: SSP1.3
18	SKIMMER REFER: SSP1.3

**Kimley-Horn**  
INCORPORATED  
1000 WEST 10TH STREET  
GREENVILLE, SOUTH CAROLINA 29606  
PH: 864.636.1000  
WWW.KIMLEY-HORN.COM



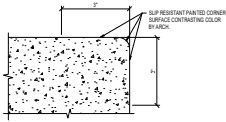
**GREENVILLE OUTDOOR  
AQUATIC CENTER**  
PREPARED FOR:  
CITY OF GREENVILLE, NC

**POOL SECTIONS**

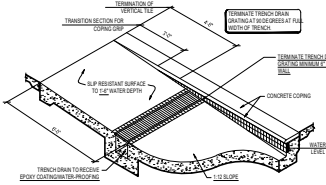
Scale:	AS SHOWN
Drawn By:	CMR
Checked By:	CMR
Date:	APRIL 2017
Project No.:	00816100

SHEET  
**SP1.1**

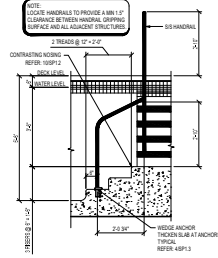




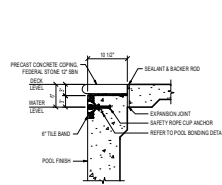
10 CONTRASTING NOSING  
6" = 1/4"



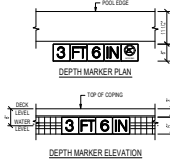
7 ZERO ENTRY ISOMETRIC  
38" = 1/4"



4 STAIR SECTION  
1/2" = 1/4"

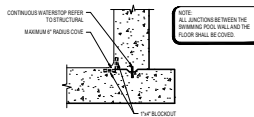


1 POOL WALL SECTION  
1" = 1/4"

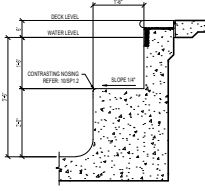


NOTE:  
1. DEPTH WARNERS & WARNING SIGNS SHALL BE PROVIDED AS 3 FT TILES WITH EITHER 6" TALL CONTRASTING LETTERS AND NUMBERS COLOR BY ARCHITECT.  
2. PROVIDE NOCTURNAL ILLUMINATION WITH 3 FT TILES DISPLAYING INTERNATIONAL NOCTURNAL SYMBOLS.  
3. ALL HORIZONTAL TILE INSTALLATIONS SHALL HAVE A SLIP RESISTANT FINISH. ALL VERTICAL TILE INSTALLATIONS SHALL HAVE AN UNPOLISHED FINISH.  
4. LOCATE ALL COPING FINISHES AND WARNING SIGN TILES SUCH THAT THEY DO NOT CONFLICT WITH PAINTING JOINTS.

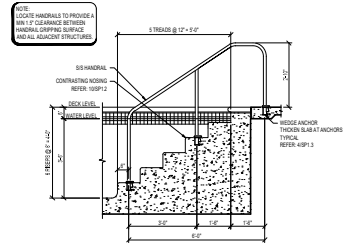
11 DEPTH MARKERS & WARNING SIGNS  
3/4" = 1/4"



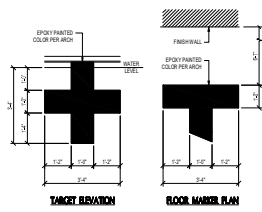
8 CAST IN PLACE CONCRETE COVE  
3/4" = 1/4"



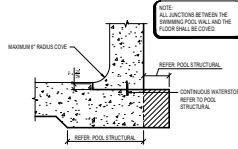
1 UNDERWATER BENCH  
3/4" = 1/4"



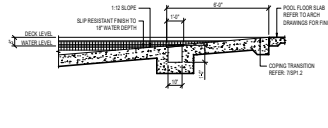
2 STAIR SECTION  
1/2" = 1/4"



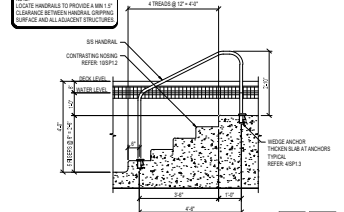
12 WALL TARGETS & FLOOR MARKERS  
1/2" = 1/4"



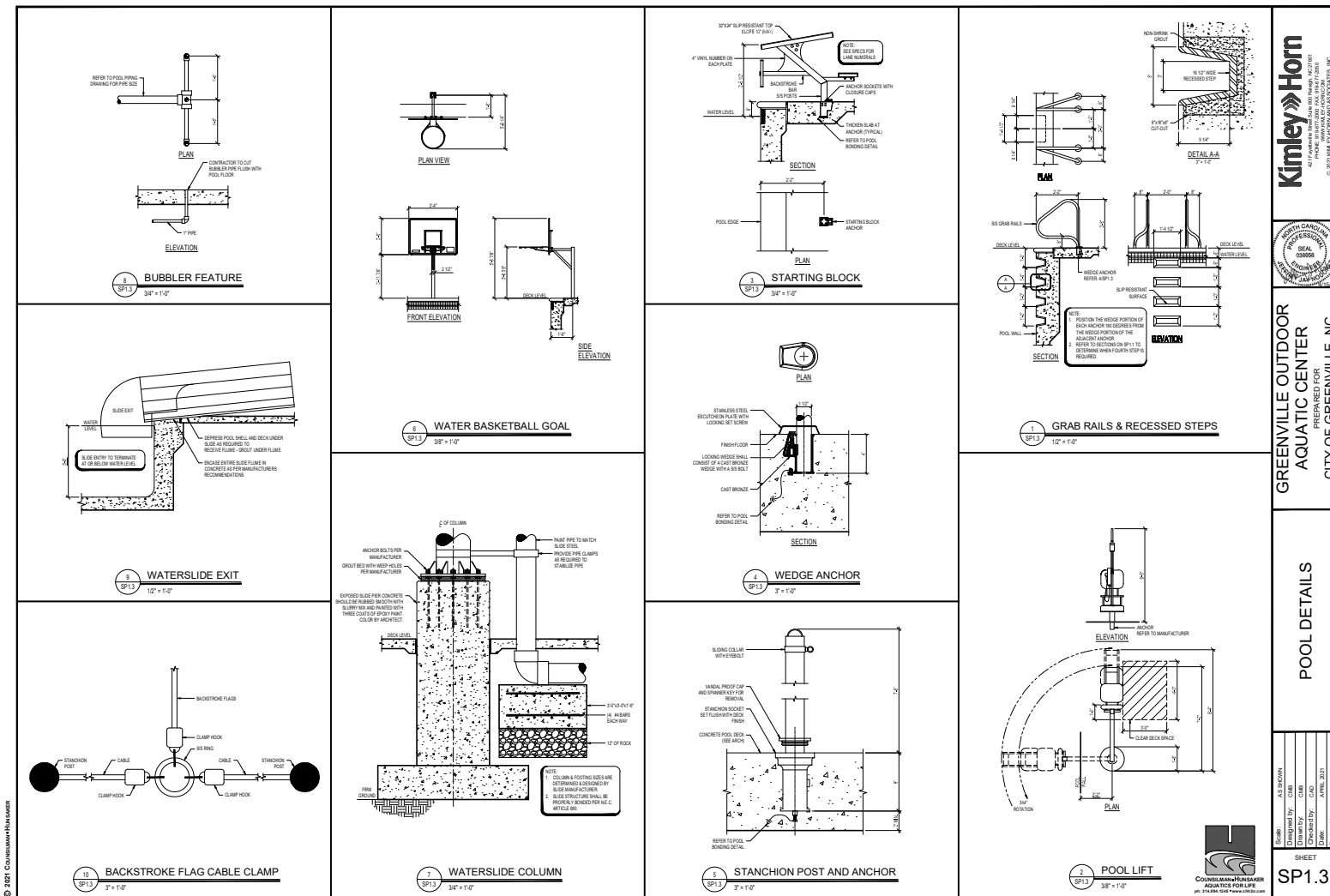
9 SHOTCRETE COVE  
3/4" = 1/4"



6 ZERO ENTRY SECTION  
38" = 1/4"



3 STAIR SECTION  
1/2" = 1/4"



© 2021 CONCRETEWORKS/HERMAN

**Kimley-Horn**  
INC.

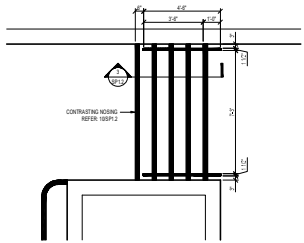


**GREENVILLE OUTDOOR AQUATIC CENTER**  
GREENVILLE, NC

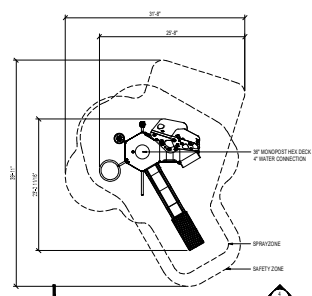
**POOL DETAILS**

Scale:	As Shown
Drawn By:	CMR
Checked By:	CMR
Date:	APRIL 2021
Project No.:	00867600
SHEET	
<b>SP1.3</b>	

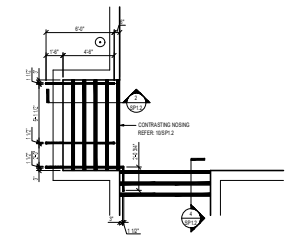




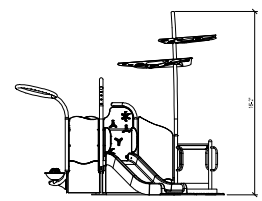
6  
SP1.4  
ENLARGED STAIR PLAN  
3/8" = 1'-0"



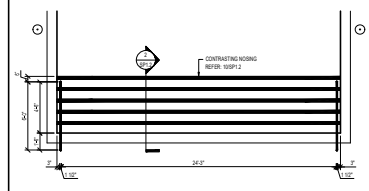
5  
SP1.4  
PLAY STRUCTURE PLAN  
1/2" = 1'-0"



7  
SP1.4  
ENLARGED STAIR PLAN  
1/4" = 1'-0"



4  
SP1.4  
PLAY STRUCTURE ELEVATION  
1/4" = 1'-0"

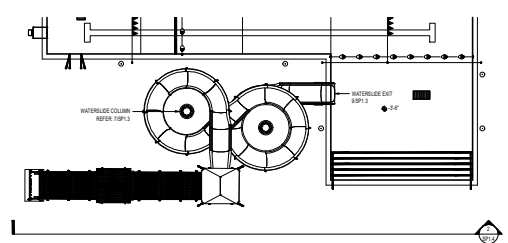


8  
SP1.4  
ENLARGED STAIR PLAN  
1/8" = 1'-0"

WATERSLIDE DESIGN DATA	
POOL	WATERSLIDE
PLATFORM HEIGHT	18'-0"
WATERSLIDE LENGTH	18'-0"

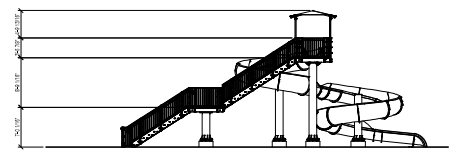
**DEFERRED APPROVAL NOTICE**

1. INSTALLATION OF THE WATERSLIDE FOOTINGS SHALL NOT COMMENCE UNTIL CONTRACTOR PROVIDES DETAILED DRAWINGS, SPECIFICATIONS, AND SERVIC CALCULATION BEARING THE SEAL, SIGNATURE AND TITLE OF A LICENSED PROFESSIONAL ENGINEER TO BE REVIEWED AND APPROVED BY THE DEPARTMENT OF REGULATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIME, PROCESS AND ALL COSTS ASSOCIATED WITH OBTAINING PERMITTING APPROVAL.



3  
SP1.4  
WATERSLIDE PLAN  
1/8" = 1'-0"

NOTE:  
1. OVERHEAD CLEARANCE TO BOTTOM OF WATERSLIDE AND WATERSLIDE STRUCTURE SHALL BE MINIMUM 6'-0" OVER ALL DECK AREA INTENDED FOR FOOT TRAFFIC.  
2. DESIGN OF WATERSLIDE FOOTING, PIER, ANCHOR AND BRACING SHALL BE PROVIDED BY WATERSLIDE MANUFACTURER. CALCULATIONS AND DETAILED DRAWINGS SHALL BE PROVIDED.



2  
SP1.4  
WATERSLIDE ELEVATION  
1/8" = 1'-0"

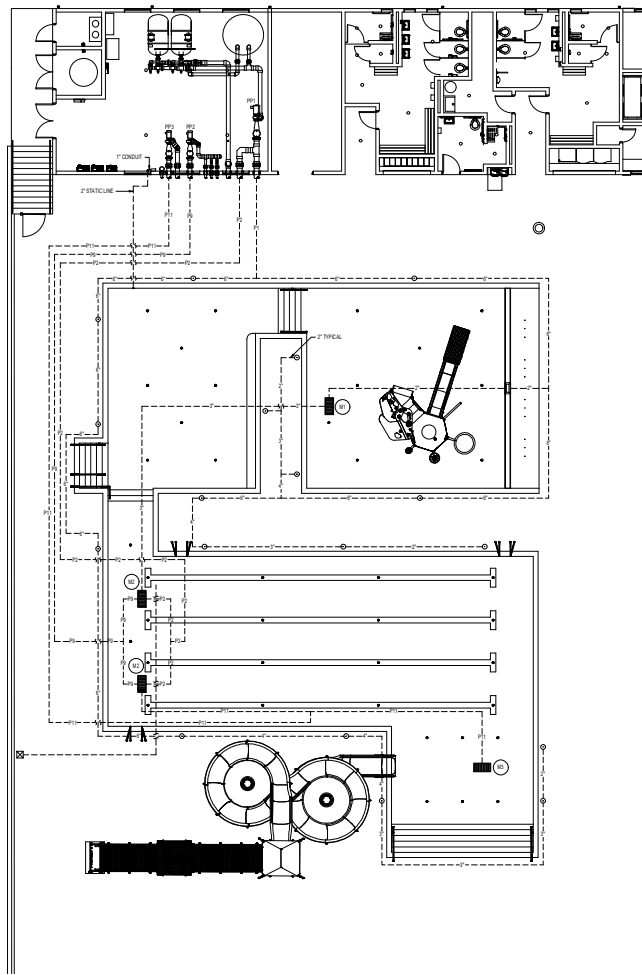


GREENVILLE OUTDOOR AQUATIC CENTER  
GREENVILLE, NC  
CITY OF GREENVILLE, NC

POOL DETAILS

Scale:	AS SHOWN
Drawn By:	CMR
Checked By:	CAD
Date:	APRIL 2021
Project No.:	008281000

SHEET  
SP1.4



1 POOL SUCTION PIPING PLAN  
1/8" = 1'-0"

PIPING LEGEND				
LEGEND	QTY	ITEM	SIZE	MODEL
BASE 80 CLANE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFWAND	SP141E & SP102E
●	40	FLOOR INLET REFER: 25M.3	ETAFITE	847-450 (WHITE) 847-500 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 45M.3	ETAFITE	1-3 88865-1413 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUETAR	48N201
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
▬	1	TRENCH PUMP REFER: 35M.3	FIELD FABRICATED	
▬	1	STATIC WATER LINE INLET FITTING	HAFWAND	SP102B & SP102E
⊗	1	ISGAT PUMP REFER: 65M.3	ZORN	420MB-145-14P (20HP)
ALTERNATE #1 CLANE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFWAND	SP141E & SP102E
●	41	FLOOR INLET REFER: 25M.3	ETAFITE	847-450 (WHITE) 847-500 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 45M.3	ETAFITE	1-3 88865-1413 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUETAR	48N201
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
▬	1	TRENCH PUMP REFER: 35M.3	FIELD FABRICATED	
▬	1	STATIC WATER LINE INLET FITTING	HAFWAND	SP102B & SP102E
⊗	1	ISGAT PUMP REFER: 65M.3	ZORN	420MB-145-14P (20HP)
COMBINED				
NA	NA	BELOW GRADE PIPING	CONCRETE	SC 60 P/C

- ### GENERAL PIPING NOTES
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PIPING SYSTEM AS INDICATED ON THE DRAWINGS AS SPECIFIED AND AS REQUIRED BY CODE.
  - PIPE SIZES INDICATED ARE NOMINAL I.P.S.
  - UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.
  - ALL BRANCHING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
  - ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
  - PROVIDE CHAINWHEEL OPERATIONS FOR ALL VALVES IN EQUIPMENT ROOMS UNLESS OTHERWISE SPECIFIED. 1/2" ABOVE FINISHED FLOOR, CHAIN SHALL EXTEND TO 1/2" ABOVE FINISHED FLOOR LEVEL.
  - INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
  - ALL PIPING WORK SHALL BE CONSIDERED WITH ALL TRADES AND SITE CONDITIONS. OFFER LETTER EXPANSION, LOCKS, OR TRANSITIONS IN PIPING ALONG OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
  - ALL PIPING AND FITTINGS SHALL BE CONSIDERED DRAIN/WASTE.
  - ALL SWIMMING POOL PIPING ROUTES BELOW THE POOL SHELL SHALL BE ALL SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. REFER: 88M.2
  - ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING FACILITY AND INSTALLATION OF BELOW GRADE POOL PIPE.
  - ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.
  - THE CHECKVALVE LENGTH SHALL BE 1/4" TO 1/2" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE NET CELL SENSOR TO ITS RESPECTIVE FULL PANEL AND THE BROOMHEAD FOR MAIN OR PUMP SECTION.
  - ALL FLOOR INLETS SHALL BE ADJUSTED TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.
  - ALL PPE TESTS SHALL BE SIZED FOR LARGEST PIPE CONNECTION.
- POOL PIPING UNDERGROUND NOTES (IN DECK) SHALL BE:**
- ALL POOL PIPING SHALL HAVE THE CAPABILITY TO BE DRAINAGE FOR WINTERIZATION.
  - ALL POOL SECTION SHALL BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAIN.
  - ALL POOL SECTION PIPING SHALL HAVE THE ABILITY TO COMPLETELY DRAIN TO THE UNDERGROUND LINE AS SHOWN ON THE DRAWINGS.
  - BLIND OUT ALL PIPES AT BEANS OF AN AIR BLOWER AND WINTERIZATION TAP CAP ALL PIPES FOR ADEQUATE PROTECTION AGAINST FREEZING PIPES, THE PIPES CAN BE FILLED WITHWATER.

### PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	TDK	HP	WPHR	WARRANTY	NOTES
PP1	POOL REGULATION PUMP REFER: 10M.4	PAICO	10103-02	800	75	20	10.08	36 MONTH	12.1.6
PP2	EXHAUSTION PUMP REFER: 10M.4	PAICO	10807-02	500	65	10	10.08	36 MONTH	12.1.4, 12.1.6
PP3	WATERLINE PUMP REFER: 10M.4	PAICO	10807-02	700	85	15	8.74	36 MONTH	12.1.4, 12.1.6

NOTE:  
 1. THE MANUFACTURER INDICATED IS BASED ON DESIGN PUMP MANUFACTURERS (IT' SARDIN, GREENGLD, PAICO OR AURORA SHALL BE CONSIDERED EQUAL).  
 2. PROVIDE THE BEST SPECIFICATION AVAILABLE TO THE OWNER.  
 3. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-68 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-10 PSI.  
 4. PROVIDE WITH 48 VOL. 1.5 PHASE, 60HZ, 1750RPM MOTOR.  
 5. PROVIDE VIBRATION ISOLATION.  
 6. PROVIDE VARIABLE FREQUENCY DRIVE.  
 7. PROVIDE EMERGENCY STOP.

### MAIN DRAIN SCHEDULE

ID	DESCRIPTION	SIZE	QTY	DESIGN PRESSURE (PSI)	DESIGN VELOCITY (FPS)	MODEL	MANUFACTURER
MT	MAIN DRAIN	18" x 4"	2.75	140	5.40	SALWA-180	SALWA/DAKO

### PIPE SCHEDULE

ID	DESCRIPTION
PI1	SP FROM POOL SKIMMERS TO PIP
PI2	SP FROM POOL MAIN DRAIN TO PIP
PI3	F FROM POOL FILTERS TO POOL INLETS
PI4	F FROM P13 TO SUBLERS
PI5	F FROM P13 TO SUBLERS
PI6	F FROM P13 TO SUBLERS
PI7	F FROM P13 TO SUBLERS
PI8	F FROM P13 TO PLAY STRUCTURE
PI9	F FROM POOL MAIN DRAIN TO PIP
PI10	F FROM P13 TO WATERLINE
PI11	F FROM POOL MAIN DRAIN TO PIP
PI12	F FROM P13 TO PLAY STRUCTURE
PI13	F FROM P13 TO PLAY STRUCTURE
PI14	F FROM P13 TO POOL FILTERS
PI15	F FROM P13 TO SKIMMERS/CHIMMERS
PI16	F FROM POOL FILTERS TO BACKWASH CHIMMERS



GREENVILLE OUTDOOR AQUATIC CENTER  
DESIGNED FOR  
CITY OF GREENVILLE, NC



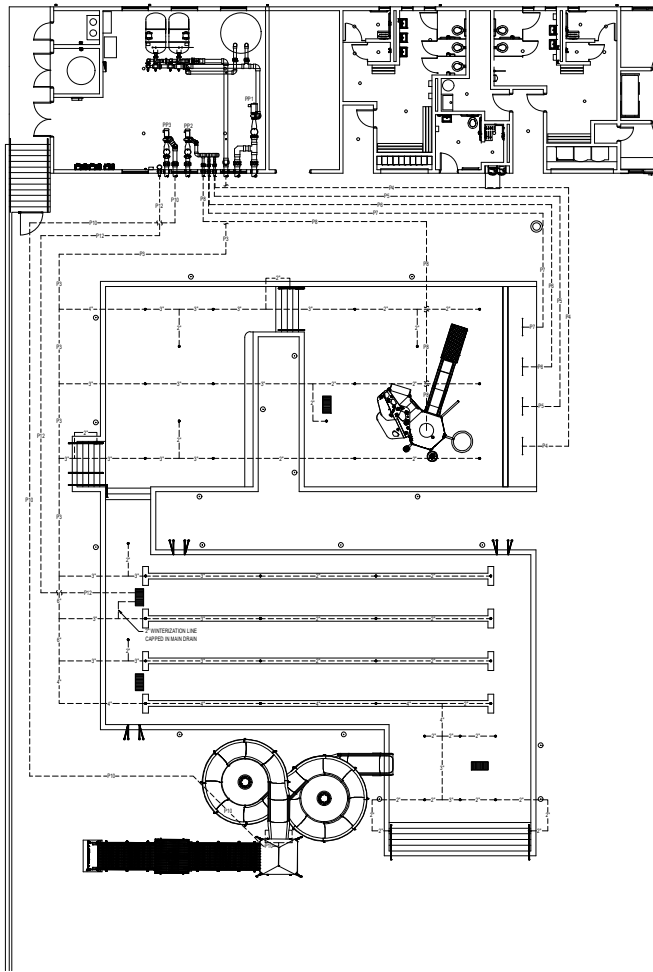
POOL SUCTION PIPING PLAN

Scale:	AS SHOWN
Drawn By:	CMR
Checked By:	CAD
Date:	APRIL 2021
Project No.:	04581610

SHEET  
SP.3.0







1 POOL RETURN PIPING PLAN  
1/8" = 1'-0"

PIPING LEGEND				
LEGEND	QTY	ITEM	SIZE	MODEL
BASE HD PLANE POOL				
▲	1	WALL INLET REFER: 10M.3	HDW/STD	SP141E & SP102S
●	40	FLOOR INLET REFER: 10M.3	ST/ALTE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 48M.3	ST/ALTE	1-3 88863-043 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUATEAR	48WZ01
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
▬	1	TRENCH PUMP REFER: 10M.3	FIELD FABRICATED	
▬	1	STATIC WATERLINE INLET FITTING	HDW/STD	SP102B & SP102S
⊗	1	ISGATE VALVE REFER: 68M.3	Z/DRN	420MB-145-14P (Z/DRN)
ALTERNATE BY LINE POOL				
▲	1	WALL INLET REFER: 10M.3	HDW/STD	SP141E & SP102S
●	41	FLOOR INLET REFER: 10M.3	ST/ALTE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 48M.3	ST/ALTE	1-3 88863-043 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUATEAR	48WZ01
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
▬	1	TRENCH PUMP REFER: 10M.3	FIELD FABRICATED	
▬	1	STATIC WATERLINE INLET FITTING	HDW/STD	SP102B & SP102S
⊗	1	ISGATE VALVE REFER: 68M.3	Z/DRN	420MB-145-14P (Z/DRN)
COMBINED				
NA	NA	BELOW GRADE PIPING	CONCRETE	SC 60 PVC

- ### GENERAL PIPING NOTES
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PIPING SYSTEM AS INDICATED ON THE DRAWINGS AS SPECIFIED AND AS REQUIRED BY CODE.
  - PIPE SIZES INDICATED ARE NOMINAL I.P.S.
  - UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.
  - ALL BRANCHING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
  - ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
  - PROVIDE CHANGEWHEEL OPERATIONS FOR ALL VALVES IN EQUIPMENT ROOMS UNLESS OTHERWISE NOTED. 1" ABOVE FINISHED FLOOR, OWNERS SHALL EXTEND TO 1" ABOVE FINISHED FLOOR LEVEL.
  - INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
  - ALL PIPING WORK SHALL BE CONSIDERED WITH ALL TRADES AND SITE CONDITIONS. OFFER LETTER, EXPANSION JOINTS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
  - ALL PIPING AND FITTINGS SHALL BE CONSIDERED DRIPPROOF.
  - ALL SWIMMING POOL PIPING ROUTES BELOW THE POOL SHELL SHALL BE ALL SCHEDULE 40S UNLESS OTHERWISE NOTED. REFER: 88M.2
  - ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 40S UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING FACILITY AND INSTALLATION OF BELOW-GRADE POOL PIPE.
  - ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.
  - THE CHECKED ELEVATION LINE SHALL BE A 3/4" TO 1" DIAMETER, SCHEDULE 40S PVC PIPE EXTENDED FROM THE MET CELL SENSOR TO ITS RESPECTIVE FILL PANEL AND THE BROADCASTER FOR MAIN OR PUMP SECTION.
  - ALL FLOOR INLETS SHALL BE ADJUSTED TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.
  - ALL PVP TUBES SHALL BE SIZED FOR LARGEST PIPE CONNECTION.
- POOL PIPING WINTERIZATION NOTES (IN SWIMMING POOL ONLY)**
- ALL POOL PIPING SHALL HAVE THE CAPABILITY TO BE DRAINED FOR WINTERIZATION.
  - ALL POOL SUCTION SHALL BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAIN.
  - ALL POOL RETURN PIPING SHALL HAVE THE ABILITY TO COMPLETELY DRAIN TO THE WINTERIZATION LINE AS SHOWN ON THE DRAWINGS.
  - BELOW-GRADE PIPING SHALL BE INSULATED WITH AN AIR BLOWER AND A WINTERIZATION TAP CAP ALL PIPES FOR PROTECTION AGAINST FREEZING PIPES, THE PIPES CAN BE FILLED WITHWATER.

PUMP SCHEDULE									
ID	DESCRIPTION	MANUFACTURER	MODEL	QPM	TDH	HP	WPSH	WARRANTY	NOTES
PP1	POOL RECIRCULATION PUMP REFER: 10M.4	INCO	10103-02	800	75	20	10.0A	3 YEAR	12.1.4
PP2	FEEDER PUMP REFER: 10M.4	INCO	10807-02	500	65	10	10.0A	3 YEAR	12.1.4
PP3	WATERLINE PUMP REFER: 10M.4	INCO	10807-02	700	85	15	8.0A	3 YEAR	12.1.4

NOTE:  
 1. THE MANUFACTURER INDICATED IS BASED ON DESIGN PUMP MANUFACTURERS (IT) (WILSON), GREENGLASS, INCO OR AURORA SHALL BE CONSIDERED EQUAL.  
 2. PROVIDE THE BEST SPECIFICATION AVAILABLE TO THE OWNER.  
 3. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-68 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-10 PSI.  
 4. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-68 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-10 PSI.  
 5. PROVIDE VARIABLE FREQUENCY DRIVE.  
 6. PROVIDE EMERGENCY STOP.

MAIN DRAIN SCHEDULE									
ID	DESCRIPTION	SIZE	QPM	DESIGN HEAD (FT)	DESIGN VELOCITY (FPS)	MODEL	MANUFACTURER		
MT	MAIN DRAIN	18" x 4"	2.75	140	5.00	SDMVA-180	SALDARADO		

PIPE SCHEDULE	
ID	DESCRIPTION
PI1	1/2" FROM POOL SKIMMERS TO PVP
PI2	1/2" FROM POOL MAIN DRAIN TO PVP
PI3	1/2" FROM P13 TO BUBBLERS
PI4	1/2" FROM P13 TO BUBBLERS
PI5	1/2" FROM P13 TO BUBBLERS
PI6	1/2" FROM P13 TO BUBBLERS
PI7	1/2" FROM P13 TO BUBBLERS
PI8	1/2" FROM P13 TO BUBBLERS
PI9	1/2" FROM P13 TO BUBBLERS
PI10	1/2" FROM P13 TO BUBBLERS
PI11	1/2" FROM P13 TO BUBBLERS
PI12	1/2" FROM P13 TO BUBBLERS
PI13	1/2" FROM P13 TO BUBBLERS
PI14	1/2" FROM P13 TO BUBBLERS
PI15	1/2" FROM P13 TO BUBBLERS
PI16	1/2" FROM P13 TO BUBBLERS
PI17	1/2" FROM P13 TO BUBBLERS
PI18	1/2" FROM P13 TO BUBBLERS
PI19	1/2" FROM P13 TO BUBBLERS
PI20	1/2" FROM P13 TO BUBBLERS
PI21	1/2" FROM P13 TO BUBBLERS
PI22	1/2" FROM P13 TO BUBBLERS
PI23	1/2" FROM P13 TO BUBBLERS
PI24	1/2" FROM P13 TO BUBBLERS
PI25	1/2" FROM P13 TO BUBBLERS
PI26	1/2" FROM P13 TO BUBBLERS
PI27	1/2" FROM P13 TO BUBBLERS
PI28	1/2" FROM P13 TO BUBBLERS
PI29	1/2" FROM P13 TO BUBBLERS
PI30	1/2" FROM P13 TO BUBBLERS
PI31	1/2" FROM P13 TO BUBBLERS
PI32	1/2" FROM P13 TO BUBBLERS
PI33	1/2" FROM P13 TO BUBBLERS
PI34	1/2" FROM P13 TO BUBBLERS
PI35	1/2" FROM P13 TO BUBBLERS
PI36	1/2" FROM P13 TO BUBBLERS
PI37	1/2" FROM P13 TO BUBBLERS
PI38	1/2" FROM P13 TO BUBBLERS
PI39	1/2" FROM P13 TO BUBBLERS
PI40	1/2" FROM P13 TO BUBBLERS
PI41	1/2" FROM P13 TO BUBBLERS
PI42	1/2" FROM P13 TO BUBBLERS
PI43	1/2" FROM P13 TO BUBBLERS
PI44	1/2" FROM P13 TO BUBBLERS
PI45	1/2" FROM P13 TO BUBBLERS
PI46	1/2" FROM P13 TO BUBBLERS
PI47	1/2" FROM P13 TO BUBBLERS
PI48	1/2" FROM P13 TO BUBBLERS
PI49	1/2" FROM P13 TO BUBBLERS
PI50	1/2" FROM P13 TO BUBBLERS
PI51	1/2" FROM P13 TO BUBBLERS
PI52	1/2" FROM P13 TO BUBBLERS
PI53	1/2" FROM P13 TO BUBBLERS
PI54	1/2" FROM P13 TO BUBBLERS
PI55	1/2" FROM P13 TO BUBBLERS
PI56	1/2" FROM P13 TO BUBBLERS
PI57	1/2" FROM P13 TO BUBBLERS
PI58	1/2" FROM P13 TO BUBBLERS
PI59	1/2" FROM P13 TO BUBBLERS
PI60	1/2" FROM P13 TO BUBBLERS
PI61	1/2" FROM P13 TO BUBBLERS
PI62	1/2" FROM P13 TO BUBBLERS
PI63	1/2" FROM P13 TO BUBBLERS
PI64	1/2" FROM P13 TO BUBBLERS
PI65	1/2" FROM P13 TO BUBBLERS
PI66	1/2" FROM P13 TO BUBBLERS
PI67	1/2" FROM P13 TO BUBBLERS
PI68	1/2" FROM P13 TO BUBBLERS
PI69	1/2" FROM P13 TO BUBBLERS
PI70	1/2" FROM P13 TO BUBBLERS
PI71	1/2" FROM P13 TO BUBBLERS
PI72	1/2" FROM P13 TO BUBBLERS
PI73	1/2" FROM P13 TO BUBBLERS
PI74	1/2" FROM P13 TO BUBBLERS
PI75	1/2" FROM P13 TO BUBBLERS
PI76	1/2" FROM P13 TO BUBBLERS
PI77	1/2" FROM P13 TO BUBBLERS
PI78	1/2" FROM P13 TO BUBBLERS
PI79	1/2" FROM P13 TO BUBBLERS
PI80	1/2" FROM P13 TO BUBBLERS
PI81	1/2" FROM P13 TO BUBBLERS
PI82	1/2" FROM P13 TO BUBBLERS
PI83	1/2" FROM P13 TO BUBBLERS
PI84	1/2" FROM P13 TO BUBBLERS
PI85	1/2" FROM P13 TO BUBBLERS
PI86	1/2" FROM P13 TO BUBBLERS
PI87	1/2" FROM P13 TO BUBBLERS
PI88	1/2" FROM P13 TO BUBBLERS
PI89	1/2" FROM P13 TO BUBBLERS
PI90	1/2" FROM P13 TO BUBBLERS
PI91	1/2" FROM P13 TO BUBBLERS
PI92	1/2" FROM P13 TO BUBBLERS
PI93	1/2" FROM P13 TO BUBBLERS
PI94	1/2" FROM P13 TO BUBBLERS
PI95	1/2" FROM P13 TO BUBBLERS
PI96	1/2" FROM P13 TO BUBBLERS
PI97	1/2" FROM P13 TO BUBBLERS
PI98	1/2" FROM P13 TO BUBBLERS
PI99	1/2" FROM P13 TO BUBBLERS
PI100	1/2" FROM P13 TO BUBBLERS

**Kimley-Horn**

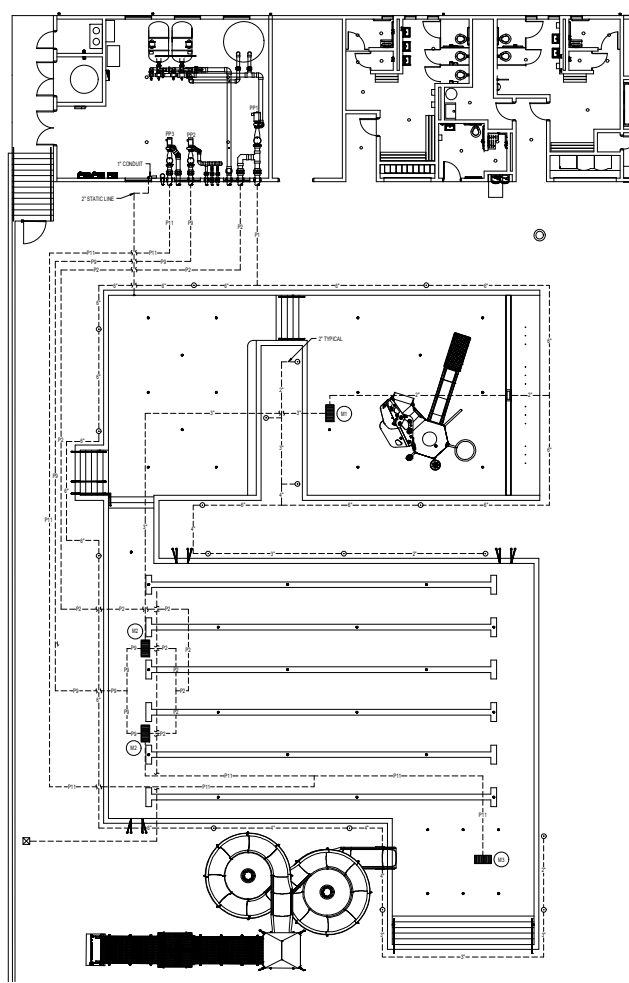
GREENVILLE OUTDOOR AQUATIC CENTER  
REDESIGNED FOR  
CITY OF GREENVILLE, NC

POOL RETURN PIPING PLAN

SHEET  
SP.3.1

CONNELMAN-HILBARGER  
AQUATICS FOR LIFE

Scale: As Shown  
Drawn By: CMH  
Checked By: CMH  
Date: APRIL 2021  
Project No.: 04581610



1  
SP3.2  
ALTERNATE POOL SUCTION PIPING PLAN  
1/8" = 1'-0"

PIPING LEGEND				
LEGEND	QTY	ITEM	SIZE	MODEL
BASE 80 FLANGE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFBRAND	SP421E & SP102S
●	40	FLOOR INLET REFER: 20M.3	ETA/ATE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 48M.3	ETA/ATE	1-3 88865-1413 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUETAR	48WZ01
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
■	1	TRENCH PUMP REFER: 30M.3	FIELD FABRICATED	
■	1	STATIC WATERLINE INLET FITTING	HAFBRAND	SP102B & SP102S
■	1	ISGATE VALVE REFER: 60M.3	ZURN	4204B-1435-143P (ZURN)
ALTERNATE #1 LINE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFBRAND	SP421E & SP102S
●	41	FLOOR INLET REFER: 20M.3	ETA/ATE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 48M.3	ETA/ATE	1-3 88865-1413 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUETAR	48WZ01
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
■	1	TRENCH PUMP REFER: 30M.3	FIELD FABRICATED	
■	1	STATIC WATERLINE INLET FITTING	HAFBRAND	SP102B & SP102S
■	1	ISGATE VALVE REFER: 60M.3	ZURN	4204B-1435-143P (ZURN)
COMBINED				
NA	18	BELOW GRADE PIPING	CONCRETE	SC 60 PVC

- ### GENERAL PIPING NOTES
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PIPING SYSTEM AS INDICATED ON THE DRAWINGS AS SPECIFIED AND AS REQUIRED BY CODE.
  - PIPE SIZES INDICATED ARE NOMINAL I.P.S.
  - UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TOFT TO UNDERSIDE OF STRUCTURE OR SLAB.
  - ALL BRANCHING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
  - ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
  - PROVIDE CHAINWHEEL OPERATIONS FOR ALL VALVES IN EQUIPMENT ROOMS UNLESS OTHERWISE SPECIFIED. 1/2" ABOVE FINISHED FLOOR, CHAIN SHALL EXTEND TO 12" ABOVE FINISHED FLOOR LEVEL.
  - INSTALL ALL PIPING WITHOUT FORGING OR SPRINGING.
  - ALL PIPING WORK SHALL BE CONSIDERED WITH ALL TRADE AND SITE CONDITIONS, OFFER IT, EXPANSION, JOISTS, OR TRANSITIONS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
  - ALL PIPING AND FITTINGS SHALL BE CONSIDERED DRAINAGE/TIE.
  - ALL SWIMMING POOL PIPING ROUTES BELOW THE POOL SHELL SHALL BE ALL SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. REFER: 88M.2
  - ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 80 PVC, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING FACED AND BACKFILL OF BELOW GRADE POOL PIPE.
  - ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.
  - THE CHECKVALVE LENGTH SHALL BE 4" IN 1/2" DIAMETER, SCHEDULE 80 PVC PIPE EXTENDED FROM THE NET CELL SENSOR TO ITS RESPECTIVE FULL PANEL AND THE BUSHINGS FOR CHECKVALVE OR PUMP FACTORY.
  - ALL FLOOR INLETS SHALL BE ADJUSTED TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.
  - ALL PIPES SHALL BE SIZED FOR LARGEST PIPE CONNECTION.
- POOL PIPING UNDERGROUND NOTES (IN BELOW GRADE ONLY)**
- ALL POOL PIPING SHALL HAVE THE CAPABILITY TO BE DRAINED FOR WINTERIZATION.
  - ALL POOL SUCTION SHALL BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAIN.
  - ALL POOL RETURN PIPING SHALL HAVE THE ABILITY TO COMPLETELY DRAIN TO THE 2" UNDERSTRUCTURE LINE AS SHOWN ON THE DRAWINGS.
  - BELOW-GRADE ALL PIPES ARE BEANS OF AN AIR BLOWER AND WINTERIZATION TAP. ALL PIPES FOR ADEQUATE PROTECTION AGAINST FREEZING PIPES, THE PIPES CAN BE FILLED WITH AIR/DEGREE.

### PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QPM	TDK	HP	WPSH	WARRANTY	NOTES
PP1	POOL REGULATION PUMP REFER: 10M.4	INCO	80103-02	800	75	20	10.0M	3 YEARS	12.1.6
PP2	FLUORIDE PUMP REFER: 10M.4	INCO	80807-02	500	65	10	10.0M	3 YEARS	12.1.6
PP3	WATERLINE PUMP REFER: 10M.4	INCO	80807-02	700	85	15	6.7M	3 YEARS	12.1.6

NOTE:  
 1. THE MANUFACTURER INDICATED IS BASED ON DESIGN PUMP MANUFACTURERS (IT) WARDON, GREENGLASS, PACO OR AURORA SHALL BE CONSIDERED EQUAL.  
 2. PROVIDE THE BEST SPECIFICATION AVAILABLE TO THE CONTRACTOR.  
 3. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-68 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-10 PSI.  
 4. PROVIDE WITH 48V VOLTS 3 PHASE, 60HZ, 1750RPM MOTOR.  
 5. PROVIDE VFD/CHIEF VALVE.  
 6. PROVIDE VARIABLE FREQUENCY DRIVE.  
 7. PROVIDE EMERGENCY STOP.

### MAIN DRAIN SCHEDULE

ID	DESCRIPTION	SIZE	QPM	DESIGN PRESSURE (PSI)	MODEL	MANUFACTURER
MT	MAIN DRAIN	100M	4	2.50	540	SALMORA-100

### PIPE SCHEDULE

ID	DESCRIPTION
PI1	SP FROM POOL SKIMMERS TO PIP
PI2	SP FROM POOL MAIN DRAIN TO PIP
PI3	P FROM POOL FILTERS TO POOL INLETS
PI4	P FROM P13 TO BUBBLERS
PI5	P FROM P13 TO BUBBLERS
PI6	P FROM P13 TO BUBBLERS
PI7	P FROM P13 TO BUBBLERS
PI8	P FROM P13 TO PLAY STRUCTURE
PI9	P FROM POOL MAIN DRAIN TO PIP
PI10	P FROM P13 TO WATERLIDE
PI11	P FROM P13 TO WATERLIDE
PI12	P FROM P13 TO PLAY STRUCTURE
PI13	P FROM POOL MAIN DRAIN TO PIP
PI14	P FROM P13 TO FLATLIFE WINGWALK
PI15	P FROM P13 TO POOL FILTERS
PI16	P FROM P13 TO SKIMMING/CHANGERS
PI17	P FROM POOL FILTERS TO BACKWASH/CHANGERS



GREENVILLE OUTDOOR AQUATIC CENTER  
ALTERNATE POOL SUCTION PIPING PLAN  
CITY OF GREENVILLE, NC

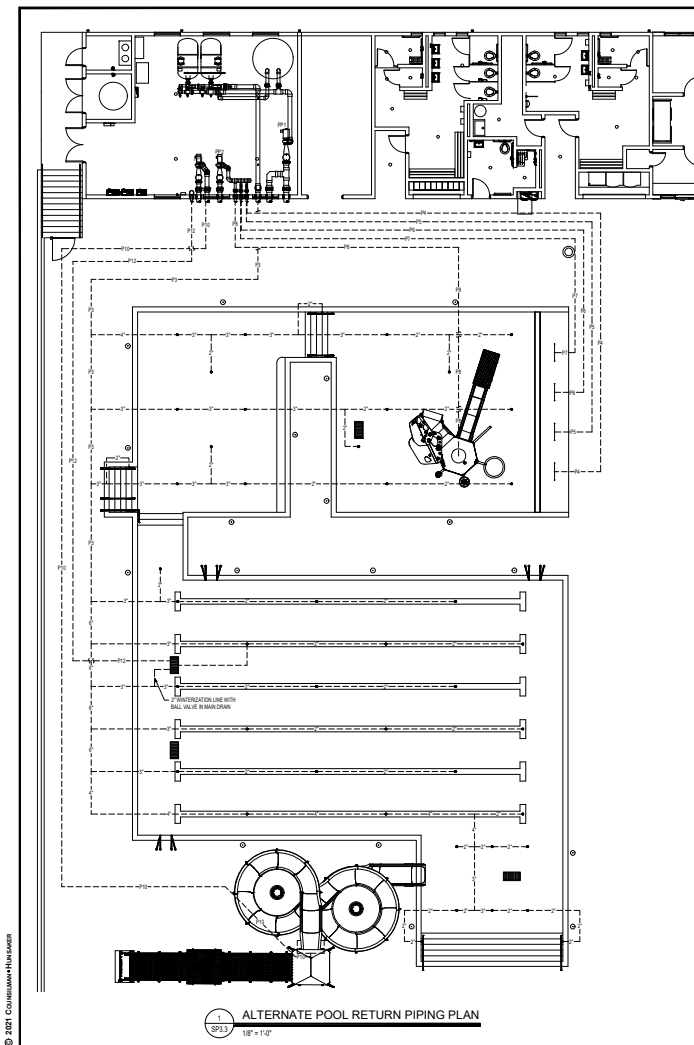


Scale: As Shown  
 Drawn By: CMH  
 Checked By: CMH  
 Date: APRIL 2021  
 Project No.: 048816040

SHEET  
SP.3.2



CONNELMAN-HILBARGER  
AQUATICS FOR LIFE



1 ALTERNATE POOL RETURN PIPING PLAN  
SP11 1/8" = 1'-0"

PIPING LEGEND				
LEGEND	QTY	ITEM	MAKE	MODEL
BASE HD PLANE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFWARD	SP141E & SP102S
●	40	FLOOR INLET REFER: 20M.3	ETA/ATE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 40M.3	ETA/ATE	1-3 88865-1013 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUATEAR	48N201
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
■	1	TRENCH PUMP REFER: 30M.3	FIELD FABRICATED	
■	1	STATIC WATERLINE INLET FITTING	HAFWARD	SP102B & SP102S
■	1	ISGAT PUMP REFER: 60M.3	ZURN	4024B-1435-14FP (20HP)
ALTERNATE BY LINE POOL				
▲	1	WALL INLET REFER: 10M.3	HAFWARD	SP141E & SP102S
●	41	FLOOR INLET REFER: 20M.3	ETA/ATE	847-400 (WHITE) 847-400 (BLACK) (FOR LINE LINES ONLY)
○	18	SKIMMER REFER: 40M.3	ETA/ATE	1-3 88865-1013 (WHITE)
NA	18	SKIMMER EQUALIZER	ACQUATEAR	48N201
■	4	MAIN DRAIN REFER: 10M.2	REFER TO MAIN DRAIN SCHEDULE	
■	1	TRENCH PUMP REFER: 30M.3	FIELD FABRICATED	
■	1	STATIC WATERLINE INLET FITTING	HAFWARD	SP102B & SP102S
■	1	ISGAT PUMP REFER: 60M.3	ZURN	4024B-1435-14FP (20HP)
COMBINED				
---	NA	BELOW GRADE PIPING	CONCRETE	SC 60 PVC

- ### GENERAL PIPING NOTES
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERATIONAL PIPING SYSTEM AS INDICATED ON THE DRAWINGS AS SPECIFIED AND AS REQUIRED BY CODE.
  - PIPE SIZES INDICATED ARE NOMINAL I.P.S.
  - UNLESS OTHERWISE NOTED, ALL OVERHEAD PIPING SHALL BE TIGHT TO UNDERSIDE OF STRUCTURE OR SLAB.
  - ALL BRANCHING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
  - ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN THE EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
  - PROVIDE CHAIN WELDED OPERATIONS FOR ALL VALVES IN EQUIPMENT ROOMS INSTALLED GREATER THAN 1'-0" ABOVE FINISHED FLOOR, CHAIN SHALL EXTEND TO 1'-0" ABOVE FINISHED FLOOR LEVEL.
  - INSTALL ALL PIPING WITHOUT FORGING OR SPRINGING.
  - ALL PIPING WORK SHALL BE CONSIDERED WITH ALL TRADES AND SITE CONDITIONS. OFFER TIE-UPS, LOOPS, OR TRANSITIONS IN PIPING ON DRAWING OBSERVATIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
  - ALL PIPING AND FITTINGS SHALL BE CONSIDERED DRAIN/WASTE.
  - ALL SWIMMING POOL PIPING LOCATED BELOW THE POOL SHELL SHALL BE ALL SCHEDULE 40 UNLESS OTHERWISE NOTED. REFER: 88M.2
  - ALL UNDERGROUND OR EXPOSED SWIMMING POOL PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED. CONTRACTOR SHALL REFER TO PLANS AND SPECIFICATIONS FOR ANY SPECIFIC REQUIREMENTS REGARDING FACED AND BACKFILL OF BELOW GRADE POOL PIPE.
  - ALL DIMENSIONS INDICATED FROM THE FINISH WALL SURFACE AND DO NOT ACCOUNT FOR ANY VARIATIONS IN EITHER GRADE OR SLOPE DISTANCES.
  - THE CHECKED LENGTH LINE SHALL BE 1/4" TO 1/2" DIAMETER, SCHEDULE 40 PVC PIPE EXTENDED FROM THE MET CELL SENSOR TO ITS RESPECTIVE FILL PANEL AND THE BROOMING FOR CLEAN OR PUMP FACTORY.
  - ALL FLOOR INLETS SHALL BE ADJUSTED TO ACHIEVE AN EVEN FLOW DISTRIBUTION THROUGHOUT SYSTEMS.
  - ALL PPE TESTS SHALL BE SIZED FOR LARGEST PIPE CONNECTION.
- POOL PIPING WINTERIZATION NOTES (IN SEASON ROOM ONLY)**
- ALL POOL PIPING SHALL HAVE THE CAPABILITY TO BE DRAINED FOR WINTERIZATION.
  - ALL POOL SUCTION SHALL BE INSTALLED WITH A CONSTANT SLOPE TO THE MAIN DRAIN.
  - ALL POOL RETURN PIPING SHALL HAVE THE ABILITY TO COMPLETELY DRAIN TO THE WINTERIZATION LINE AS SHOWN ON THE DRAWINGS.
  - BELOW GROUND ALL PIPES BEANS OF AN AIR BLOWER AND WINTERIZATION TAP CAP ALL PIPES FOR ADEQUATE PROTECTION AGAINST FREEZING PIPES, THE PIPES CAN BE FILLED WITHWATER.

### PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QPM	TDK	HP	WPHR	WARRANTY	NOTES
PP1	POOL RECIRCULATION PUMP REFER: 10M.4	PACO	30103-02	800	75	20	10.08	3 YEAR/3	12.1.4
PP2	FEEDER PUMP REFER: 10M.4	PACO	4887-02	500	65	15	10.08	3 YEAR/3	12.1.4
PP3	WATERLINE PUMP REFER: 10M.4	PACO	4887-02	700	85	15	8.74	3 YEAR/3	12.1.4

NOTE:  
 1. THE MANUFACTURER INDICATED IS BASED ON DESIGN PUMP MANUFACTURERS (IT) (WILSON, GREENGLASS, PACO OR AURORA) SHALL BE CONSIDERED EQUAL.  
 2. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-68 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-10 PSI.  
 3. PROVIDE WITH 48 VOL. 1.5 PHASE, 60HZ, 1150RPM MOTOR.  
 4. PROVIDE W/REVERSE VALVE.  
 5. PROVIDE VARIABLE FREQUENCY DRIVE.  
 6. PROVIDE EMERGENCY STOP.

### MAIN DRAIN SCHEDULE

ID	DESCRIPTION	SIZE	QPM	DESIGN PRESSURE (PSI)	MODEL	MANUFACTURER
MT	MAIN DRAIN	18" x 4"	2.75	140	SALWA-180	SALWA/DAKO

### PIPE SCHEDULE

ID	DESCRIPTION
PI1	1/2" FROM POOL SWIMMERS TO PIP
PI2	1/2" FROM POOL MAIN DRAIN TO PIP
PI3	1/2" FROM P13 TO BUBBLERS
PI4	1/2" FROM P13 TO BUBBLERS
PI5	1/2" FROM P13 TO BUBBLERS
PI6	1/2" FROM P13 TO BUBBLERS
PI7	1/2" FROM P13 TO BUBBLERS
PI8	1/2" FROM P13 TO BUBBLERS
PI9	1/2" FROM P13 TO BUBBLERS
PI10	1/2" FROM P13 TO BUBBLERS
PI11	1/2" FROM P13 TO BUBBLERS
PI12	1/2" FROM P13 TO BUBBLERS
PI13	1/2" FROM P13 TO BUBBLERS
PI14	1/2" FROM P13 TO BUBBLERS
PI15	1/2" FROM P13 TO BUBBLERS
PI16	1/2" FROM P13 TO BUBBLERS
PI17	1/2" FROM P13 TO BUBBLERS
PI18	1/2" FROM P13 TO BUBBLERS

© 2021 CONSELMAN/HILBARGER

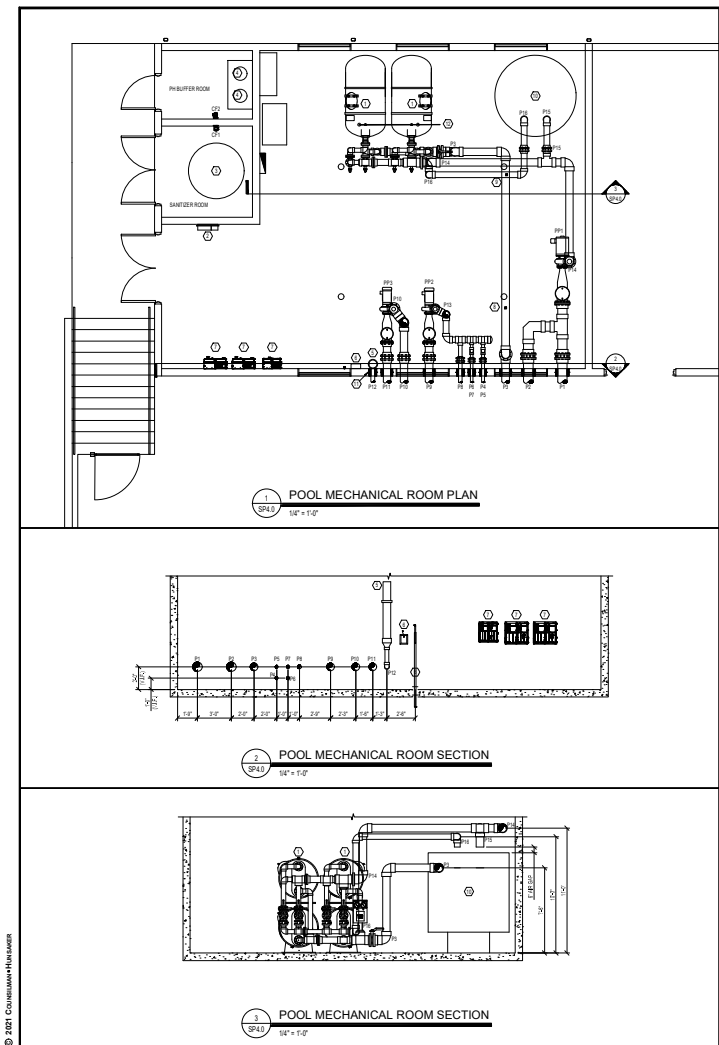
**Kimley-Horn**

GREENVILLE OUTDOOR AQUATIC CENTER  
ALTERNATE POOL RETURN PIPING PLAN  
CITY OF GREENVILLE, NC

SHEET  
**SP.3.3**

CONSELMAN/HILBARGER  
AQUATICS FOR LIFE

Scale: AS SHOWN  
 Drawn By: CMR  
 Checked By: CND  
 Date: APRIL 2021  
 Project No.: 045816040



### PIPE SCHEDULE

ID	DESCRIPTION
P1	FROM POOL BONNETS TO PIP
P2	FROM POOL MAIN DRAIN TO PIP
P3	FROM POOL FILTERS TO POOL TRAYS
P4	FROM P3 TO SUBSILERS
P5	FROM P3 TO SUBSILERS
P6	FROM P3 TO SUBSILERS
P7	FROM P3 TO SUBSILERS
P8	FROM P3 TO SUBSILERS
P9	FROM P3 TO PLAT STRUCTURE
P10	FROM POOL MAIN DRAIN TO PIP
P11	FROM P10 TO WATERLOG
P12	FROM POOL MAIN DRAIN TO PIP
P13	FROM PIP TO FIBRE TUBING
P14	FROM PIP TO FEATURE MAINFOLD
P15	FROM PIP TO POOL FILTERS
P16	FROM PIP TO BACKWASH CATCH-BASIN
P17	FROM PIP TO BACKWASH CATCH-BASIN
P18	FROM POOL FILTERS TO BACKWASH CATCH-BASIN

### EQUIPMENT SCHEDULE

ID	ITEM
E1	FILTER SYSTEM
E2	CHEMICAL CONTROLLER REFER: SP4.1
E3	CHEMICAL TANK REFER: SP4.1
E4	WATER LEVEL CONTROLLER REFER: SP4.2
E5	FLOW METER SENSORS REFER: SP4.1
E6	IMPACTION METER REFER: SP4.1
E7	BACKWASH METER REFER: SP4.1
E8	UM SEAL
E9	WIND PIPE TO DRAIN

### GENERAL POOL MECHANICAL ROOM NOTES

- POOL PUMPS, STANBENS, AND SHALL BE INSTALLED ON HOUSEKEEPING PADS UNLESS NOTED OTHERWISE.
- EQUIPMENT FLOOR SHALL BE 1/4" TO 1/2" FROM FLOOR FINISH OR CASP. REFER TO PLUMBING.
- PROVIDE HOSE BIBBS FOR HOUSE CLEANING PURPOSES. REFER BUILDING MECHANICAL DRAWINGS.
- VENTILATION OF POOL MECHANICAL ROOM AND CHEMICAL STORAGE AREAS PER LOCAL, STATE AND INTERNATIONAL MECHANICAL CODE MINIMUM. REFER TO MECHANICAL.
- THE FOLLOWING INFORMATION SHALL BE OBTAINED AND POSTED IN THE POOL MECHANICAL ROOM: BACKWASH PROCEDURE, POOL FILING & DRAINING, VACUUM REFERENCE CHART, POOL MECHANICAL ROOM FAN, POOL PIPING SCHEMATIC & PUMP SYSTEMS SCHEMATIC.
- REFER TO MECHANICAL FOR HVAC SYSTEMS DESIGN.

**NOTES:**

- MINIMUM 1'-0" CLEARANCE BENEATH ALL OVERHEAD PIPING.
- PROVIDE AND SUPPORT OVERHEAD AND VERTICAL PIPING PER SPECIFICATION REQUIREMENTS.
- LABEL AND IDENTIFY ALL PIPING IN COMPLIANCE WITH THE SPECIFICATIONS.
- ALL FLOOR REPAIR SHALL BE MADE TO MATCH THE FLOOR FINISH IF INSTALLED. PROVIDE PRESSURE GAUGES ON INFLUENT AND EFFLUENT SIDE OF EACH FILTRATION SYSTEM AND A FLOW METER ON FLOW RETURN.
- THE BACKWASH PIPING SHALL TERMINATE IN A CLOSURE THAT IS ABOVE THE FLOOR FINISH OF THE BACKWASH CATCH-BASIN OR TRUCK THE PIPE DIAMETER. PROVIDE A GYSETER.
- HYDROLOGICALLY TEST ALL PIPING AT 50 PSI FOR TWO HOURS AND MAINTAIN A PRESSURE OF 30 PSI IN ALL PIPING THROUGHOUT CONSTRUCTION. SECURE ALL FITURES PER SPECIFICATION REQUIREMENTS BEFORE HYDROLOGIC TEST.
- REFER TO ELECTRICAL FOR INSTALLATION OF PIPE SUPPORTS.

**CHEMICAL TREATMENT:**

- CHEMICAL FEED REQUIREMENTS: REFER TO THE POOL SYSTEM SCHEMATIC ON SP4.3.
- INSTALL POOL RECIRCULATION PUMPS WITH A CORRESPONDING WATER CHEMISTRY CONTROLLER, CHEMICAL FEED PUMPS.
- PROVIDE ISOLATION ON CHEMICAL ROOM DOORS IN COMPLIANCE WITH THE STATE FIRE CODE. REFER: SP4.1
- SECURE CHEMICAL WETTING PUMP FEED LINES TO WALL AND/OR OVERHEAD WITH CLIPS OR DEVICES THAT DO NOT CRIMP, DISTORT OR ALLOW HIGH AND LOW AREAS IN TUBING RUNS. PROVIDE CHECK VALVE AND SHUT-OFF VALVE BEFORE ENTERING POOL RETURN PIPING.
- WATER CHEMISTRY CONTROLLERS SHALL CONTROL THE SANITIZING SYSTEM AND PH CONTROL SYSTEM AND SHUT THEM DOWN UPON LOGICAL INJECTION POINTS. PROVIDE CHECK VALVE ON EACH INJECTION POINT.
- THE CHEMICAL CONTROL SYSTEMS PIPING SHALL SAMPLE WATER AFTER THE FILTERS.
- WATER CHEMISTRY CONTROLLERS SHALL CONTROL THE SANITIZING SYSTEM AND PH CONTROL SYSTEM AND SHUT THEM DOWN UPON LOGICAL INJECTION POINTS. PROVIDE CHECK VALVE ON EACH INJECTION POINT. SHALL BE LOCATED DOWNSTREAM OF ALL OTHER EQUIPMENT SYSTEMS IN THE POOL MECHANICAL ROOM AT A MAXIMUM HEIGHT OF 7'-0" ABOVE FINISHED FLOOR. REFER: SP4.1

**ELECTRICAL:**

- DEVICES PROVIDED AT OUTLETS REFER TO ELECTRICAL.
- POOL EQUIPMENT ROOM AND CHEMICAL STORAGE AREAS SHALL BE PROVIDED WITH ARTIFICIAL LIGHTING SUFFICIENT TO ILLUMINATE ALL EQUIPMENT AND SUPPLIES. REFER TO ELECTRICAL.
- CONDUIT SHALL BE NOTED OVERHEAD OR BELOW GRADE.

### FILTER SCHEDULE

POOL	MANUFACTURER	FILTER MODEL	QTY.	FILTRATION RATE (GPM)	MANUFACTURER FILTRATION AREA (SQ. FT.)	DESIGN FILTRATION RATE (GPM)	DESIGN FILTRATION AREA (SQ. FT.)	BACKWASH FLOW RATE PER FILTER (GPM)
POOL	KEFUNE	SDS20	4	495	125	125	125	15

**NOTE:**

- BACKWASH METHOD SHALL BE MANUAL.
- ALL FILTERS MUST BE INSTALLED IN THE DESIGN ZONE IN WHICH IT IS INSTALLED IN ACCORDANCE WITH LOCAL AND/OR STATE REQUIREMENTS.
- FILTER MANUFACTURER SHALL VERIFY FILTER MEDIA.
- ALL FILTERS SHALL BE PROVIDED TO MATCH EACH FILTER VESSEL, INDEPENDENTLY.
- FILTER TANK ASSEMBLIES SHALL BEA THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL FOR A MAXIMUM FLOW RATE 200% PER SQUARE FOOT OF FILTER MEDIA.
- THE BACKWASH PRESSURE PIPING SHALL BE PROVIDED TO THE OVERHEAD OF THE BACKWASH CATCH-BASIN. THE PRESSURE PIPING SHALL BE TESTED, INSULATED AND BALANCED.
- PROVIDE 1" DIAMETER SCHEDULE 40 PIPE FROM THE AUTOMATIC AIR VENT ON EACH OF THE FILTER VESSELS TO THE NEAREST FLOOR DRAIN OR BACKWASH CATCH-BASIN. THE VENT PIPE SHALL BE SLOPED TO THE DRAIN.
- VESSELS SHALL BE BACKWASHED AT NO LESS THAN 750 GPM.

### PUMP SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QPM	TSH	HP	WPM	WARRANTY	NOTES
BP1	POOL RECIRCULATION PUMP REFER: SP4.1	BAICO	5073LC	300	35	25	16.88	FILTRONEL	12.5/8
BP2	FEEDLINE PUMP REFER: SP4.1	BAICO	4807LC	100	10	10	16.88	FILTRONEL	12.5/4
BP3	BACKWASH PUMP REFER: SP4.1	BAICO	4807LC	700	32	5	6.74	FILTRONEL	12.5/4

**NOTE:**

- THE MANUFACTURER INDICATED IS BASED ON DESIGN. PUMP MANUFACTURERS (ITT MARLOW, ORSKOLD, PACO OR AURORA) SHALL BE CONSIDERED EQUAL PROVIDED THEY MEET THE SPECIFICATIONS AS INDICATED IN THE DOCUMENTS.
- PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 5-60PSI. COMPOUND GAUGES HAVE A RANGE OF 5-30 PSI. 2-1/2" DIA.
- PROVIDE 1/2" NPT 1/2" PHASE 60HZ 1750RPM MOTOR.
- PROVIDE 4" NPT HOSE.
- PROVIDE 1/2" NPT HOSE.
- PROVIDE 1/2" NPT HOSE.
- PROVIDE 1/2" NPT HOSE.

### CHEMICAL FEED SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	TUBS #	HP	FLOW	NOTES
CF1	AQUAMINOR CHEMICAL FEED PUMP REFER: SP4.1	STENBER	888PS	3	FRAC	20 GAL/DAY	1.2/3
CF2	ACID FEED PUMP REFER: SP4.1	STENBER	4800	3	FRAC	20 GAL/DAY	1.2/3

**NOTE:**

- THE MANUFACTURER INDICATED IS BASED ON DESIGN. ALTERNATE MANUFACTURERS: 48" OR APPROVED EQUAL.
- PROVIDE WITH 1/2" NPT 1/2" PHASE 60HZ AS REQUIRED.
- WARRANTY: 12 MONTHS.

© 2021 CONSULTANTS INC.

**Kimley-Horn**  
INC.

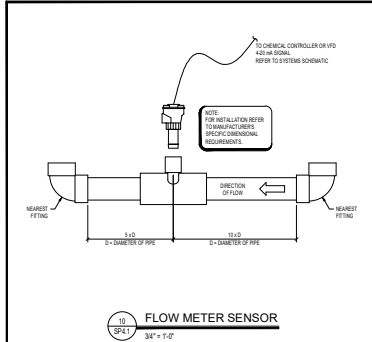
**GREENVILLE OUTDOOR AQUATIC CENTER**  
ROOM PLAN & SECTIONS  
CITY OF GREENVILLE, NC

**POOL MECHANICAL ROOM PLAN & SECTIONS**

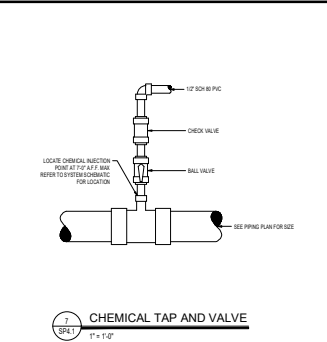
**SP4.0**

Scale: As Shown  
Drawn By: CMB  
Checked By: CMB  
Date: APRIL 2021  
Project No.: 042020000

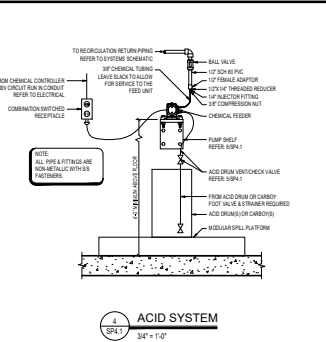
CONSULTANTS INC.  
AQUATICS FOR LIFE



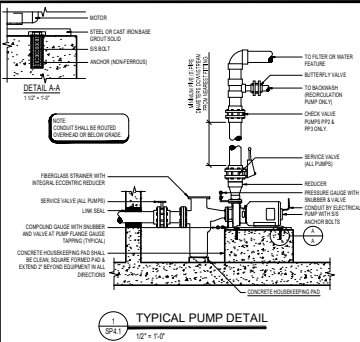
10 FLOW METER SENSOR  
3/4" x 1'-0"



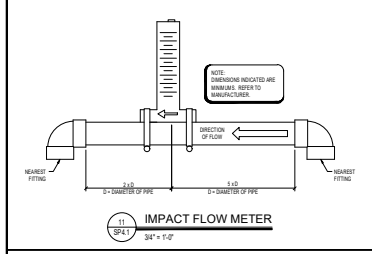
7 CHEMICAL TAP AND VALVE  
1" x 1'-0"



4 ACID SYSTEM  
3/4" x 1'-0"



1 TYPICAL PUMP DETAIL  
12" x 1'-0"



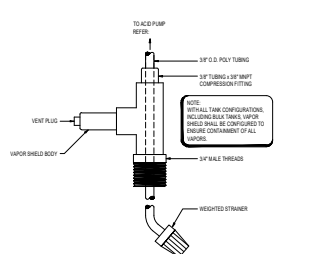
11 IMPACT FLOW METER  
3/4" x 1'-0"

**RATING EXPLANATION GUIDE**

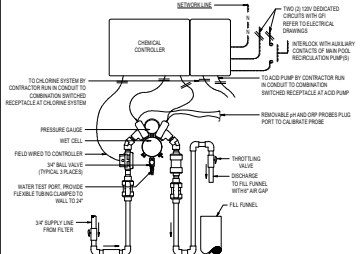
RATING	HEALTH HAZARD	FLAMMABILITY HAZARD	IRRITABILITY HAZARD	NON-FLAMMABLE TOXIC
4	LOWEST RISK	SEVERE TO DANGEROUS	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)
3	LOW TO MODERATE RISK	MODERATE TO SEVERE, BELOW 100 DEGREES F	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)
2	LOW TO MODERATE RISK	MODERATE TO SEVERE, BELOW 100 DEGREES F	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)
1	LOW TO MODERATE RISK	MODERATE TO SEVERE, BELOW 100 DEGREES F	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)	HIGH TOXICITY SYNDROME (TEMPERATURE & PRESSURES)
0	NO HAZARD	NO HAZARD	NO HAZARD	NO HAZARD

CONFIRM SOURCE WITH LOCAL FIRE MARSHAL AND/OR BUILDING CODES PRIOR TO INSTALLATION.

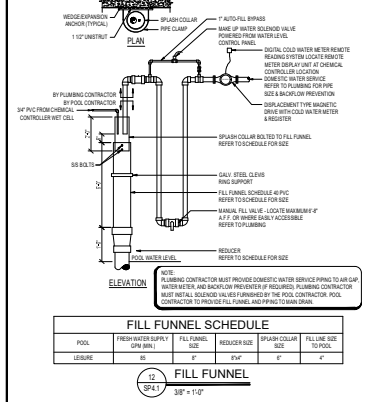
8 HAZARD SIGNAGE  
N/A



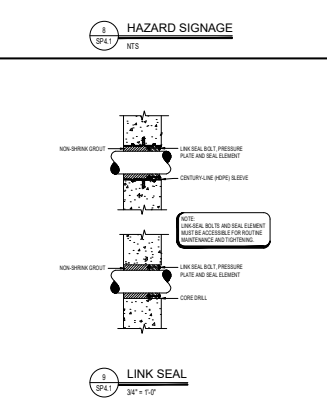
5 ACID VENT PIPING  
3/4" x 1'-0"



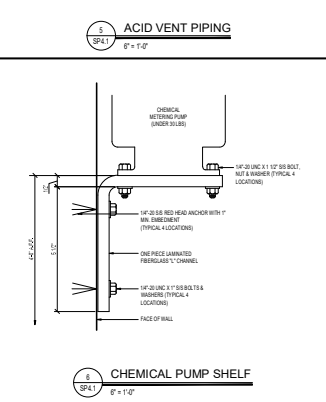
2 CHEMICAL CONTROLLER  
N/A



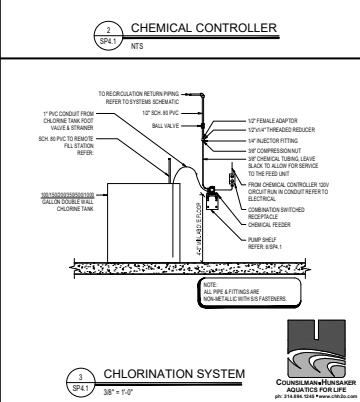
12 FILL FUNNEL  
3/8" x 1'-0"



9 LINK SEAL  
3/4" x 1'-0"



6 CHEMICAL PUMP SHELF  
6" x 1'-0"



3 CHLORINATION SYSTEM  
3/8" x 1'-0"

**Kimley-Horn**  
417 Parkwood Drive, Greenville, SC 29615  
P: 864.271.0000 F: 864.271.0001  
WWW.KIMLEY-HORN.COM

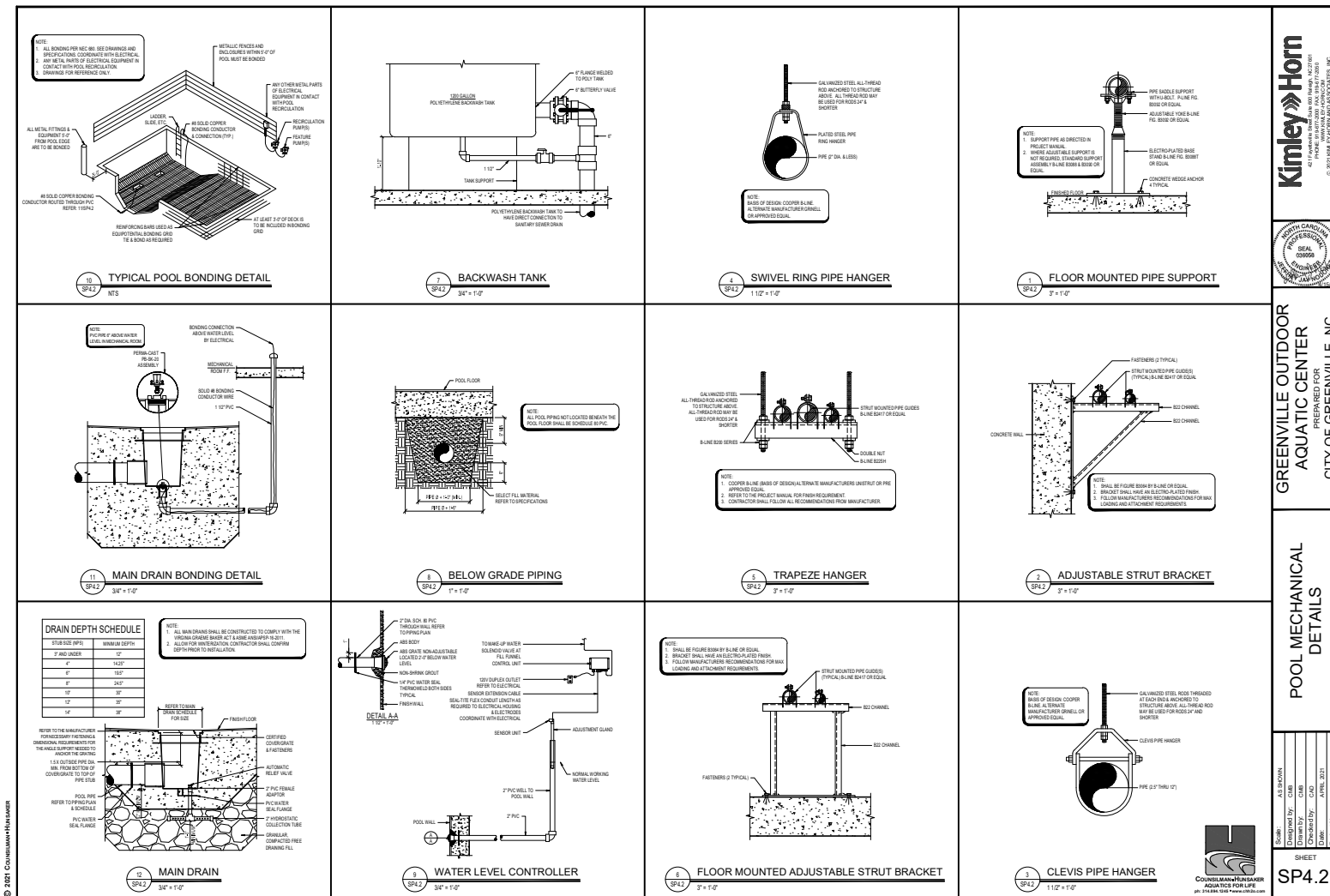
**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR:  
CITY OF GREENVILLE, NC

**POOL MECHANICAL DETAILS**

Scale: As Shown  
Drawn By: CMB  
Checked By: CMB  
Date: APRIL 2017  
Project No.: 04580000

SHEET  
**SP.4.1**

**CHLORINATION SYSTEM**  
CHLORINATION SYSTEM FOR AQUATIC LIFE  
417 Parkwood Drive, Greenville, SC 29615  
P: 864.271.0000 F: 864.271.0001  
WWW.KIMLEY-HORN.COM



© 2021 CONSUMERS-HILTI/AMER

**Kimley-Horn**  
INC.



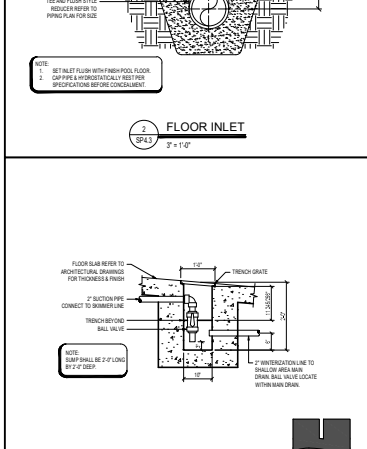
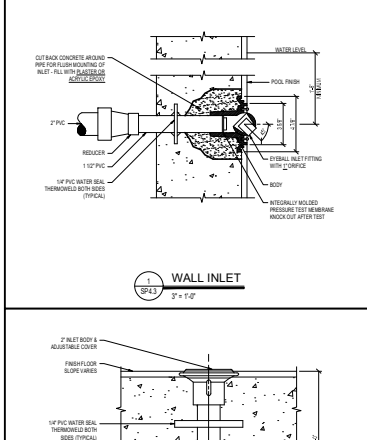
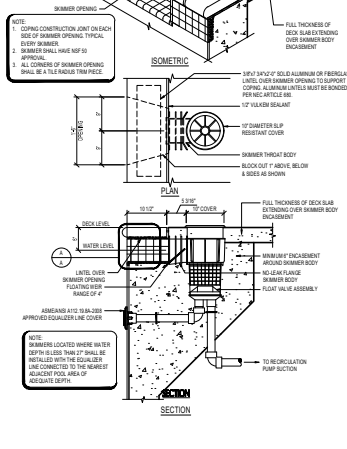
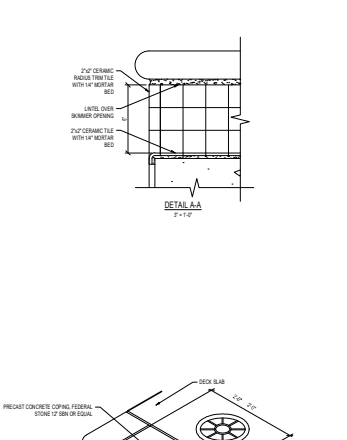
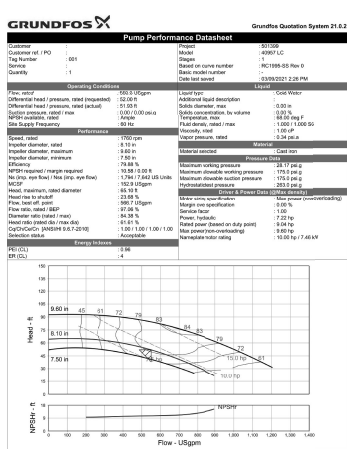
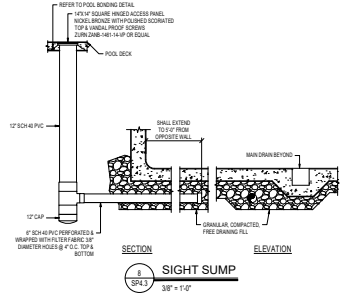
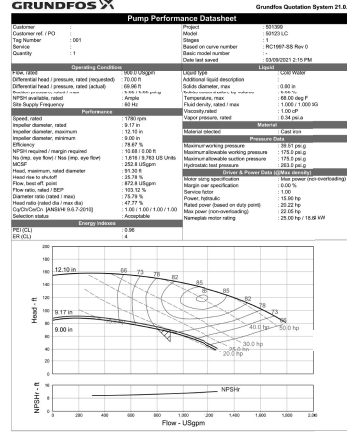
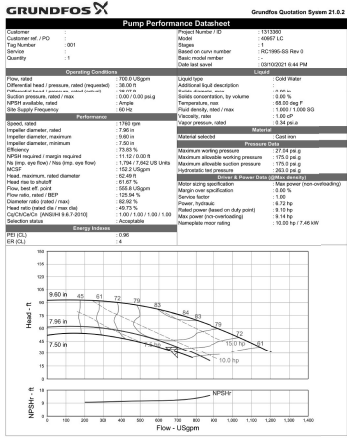
**GREENVILLE OUTDOOR AQUATIC CENTER**  
GREENVILLE, NC  
CITY OF GREENVILLE, NC

**POOL MECHANICAL DETAILS**

Scale:	As Shown
Drawn By:	CMR
Checked By:	CMR
Date:	APRIL 2021
Project No.:	04587600

SHEET  
**SP4.2**





**Kimley-Horn**  
INCORPORATED

**GREENVILLE OUTER AQUATIC CENTER**  
GREENVILLE, NC

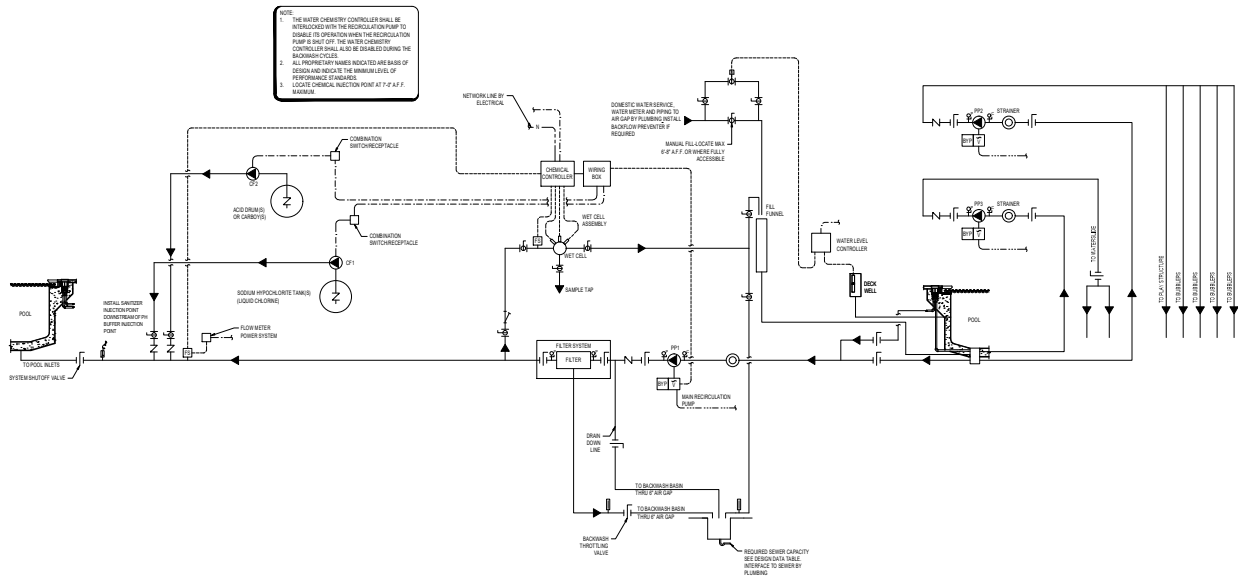
**CITY OF GREENVILLE, NC**

**POOL MECHANICAL DETAILS**

AS SHOWN  
DATE: 04/11/2017  
PROJECT NO.: 04587840

**SHEET SP4.3**

**COULDS BROTHERS & SONS AQUATICS FOR LIFE**



1 POOL SYSTEMS SCHEMATIC  
NTC

**SCHEMATIC LEGEND**

LEGEND

- ISOLATION VALVE
- ISOLATING FLOAT VALVE
- SOLENOID VALVE
- CHECK VALVE
- PUMP
- HUB AND LIFT STRAINER
- "Y" STRAINER
- FLOW METER
- FLOW SWITCH
- IMPACT FLOW METER
- VENTURI FLOW METER
- WATER METER
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PRESSURE GAUGE AND COCK
- COMPOUND GAUGE AND COCK
- DIGITAL TEMP. SENSOR
- TEMPEROMETER
- PNEUMATIC ACTUATOR
- FLOW CONTROL VALVE
- VARIABLE FREQUENCY DRIVE
- REMOTE START/STOP
- VARIABLE FREQUENCY DRIVERS/STOP
- CONTACT MOTOR SELECTOR
- ISOLATE VIBRATOR SWITCH
- LOW VOLTAGE CONTROL
- WATER LINE
- 1 PHASE POWER
- 3 PHASE POWER
- COLD LINE
- HEAT LINE
- NETWORK LINE
- GAS LINE



**GREENVILLE OUTDOOR AQUATIC CENTER**  
PREPARED FOR:  
CITY OF GREENVILLE, NC

**POOL SYSTEMS SCHEMATIC**

Scale:	As Shown
Drawn By:	CMB
Checked By:	CMB
Date:	APRIL 2021
Project No.:	008287000

SHEET  
**SP.5.0**



CONSUMERS-HILTI/BAKER  
AQUATICS FOR LIFE



GENERAL NOTES

CODES

- (1) 2018 NORTH CAROLINA BUILDING CODE.
(2) CONCRETE & REINFORCING (RETEL): AMERICAN CONCRETE INSTITUTE (ACI 318-LATEST EDITION).
(3) STRUCTURAL STEEL: AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-LATEST EDITION).
(4) WELDED CONNECTIONS: AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND MATERIAL CODES, THE BUILDING CODE SHALL GOVERN.

GENERAL

- (1) STANDARDS REFERENCED IN GENERAL NOTES SHALL BE THE EDITIONS REFERENCED IN THE BUILDING CODE OF JURISDICTION, OR THE LATEST EDITION AT THE TIME OF CONTRACT.
(2) 'TYPICAL DETAILS' APPLY TO ALL CONDITIONS OF THE PROJECT UNLESS TO THOSE SHOWN IN THE DETAILS INDICATED OTHERWISE OR NOT THEY ARE SPECIFICALLY REFERENCED ON THE PLANS.
(3) PLANS, SECTIONS AND DETAILS ARE NOT TO BE SCALE FOR DETERMINATION OF QUANTITIES, LENGTHS OR FIT OF MATERIALS.
(4) VERIFY JOB SITE CONDITIONS UNDERSTAND UTILITIES, EXISTING STRUCTURES, ETC. THAT MAY CONFLICT WITH THE PROPOSED CONSTRUCTION.
(5) THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE ALL DIMENSIONS OF THE CONTRACT DOCUMENTS AND SHALL AS SOON AS POSSIBLE REPORT TO THE ARCHITECT/ENGINEER ANY ERRORS, INCONSISTENCIES OR OMISSIONS IN ANY DISCREPANCY PROCEDURE TO CORRECTION OR FORFEITURE OF THE BIDDING AND.
(6) THE CONTRACTOR SHALL SUBMIT TO THE OWNER/ARCHITECT/ENGINEER, WITH SUCH PROVISIONS AS TO CHANGE NO DEFAY IN HIS WORK OR IN THAT OF ANY OTHER CONTRACTOR, TWO (2) SETS AND ONE (1) SET, UNLESS NOTED OTHERWISE IN SPECIFICATIONS, OF ALL SHOP AND/OR ERECTION DRAWINGS AND SCHEDULES REQUIRED FOR THE WORK OF THE WHOLE PROJECT. THE SHOP DRAWINGS SHALL CONSIST OF: LOCATION, DIMENSIONS, MATERIALS, MANUFACTURING METHODS, CONNECTIONS, BRIMS, LIGATURES, THE DESIGN AND ANY OTHER SPECIAL CONDITIONS THAT RELATES TO THE CONTRACT DRAWINGS.
(7) THE OWNER/ARCHITECT/ENGINEER SHALL REVIEW THE SHOP DRAWINGS AND APPROVE OR CORRECT THEM FROM FOURTEEN (14) CALENDAR DAYS AFTER RECEIVING THE APPROVED AND CORRECTED SHOP DRAWINGS. THE CONTRACTOR SHALL MAKE ANY CORRECTIONS INDICATED.
(8) THE OWNER/ARCHITECT/ENGINEER'S APPROVAL OF SUCH DRAWINGS OR SCHEDULES SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR SPANNING FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS OR SCHEDULES.

EXISTING CONDITIONS

- (1) FIELD VERIFY ALL RELEVANT DIMENSIONS AND CONDITIONS AT EXISTING STRUCTURES PRIOR TO STARTING SHOP DRAWINGS AND THE CONSTRUCTION PROCESS IN THESE AREAS. OBTAIN APPROVED PLANS AND DETAILS REFLECTING THE FIELD-VERIFIED EXISTING CONDITIONS FOR THE ARCHITECT'S USE.
(2) EXISTING CONDITIONS WHICH REQUIRE MODIFICATIONS TO THE DESIGN OF THE PROPOSED CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT.
(3) REMOVE EXISTING POOL STRUCTURE THAT CONFLICTS WITH THE PROPOSED NEW POOL STRUCTURE.

SUBSTITUTIONS

- (1) ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. ONCE BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONE WITH THE ONE OFFICIALLY SUBMITTED WITH AN IDENTIFIED SAVINGS TO BE DECIDED FROM THE CONTRACTOR.
(2) THE CONTRACTOR SHALL SUBMIT ALTERNATE DETAILS FOR SHOTCRETE CONSTRUCTION TO THE NUMBER OF PERIODS, PRIOR TO CONSTRUCTION, IMPROVED BY A REGISTERED ENGINEER IN THE STATE OF NORTH CAROLINA, WITH THE SUBMITTED ALTERNATE DETAILS.

STRENGTH OF MATERIALS

- (1) CONCRETE: REFER TO CAST-IN PLACE CONCRETE SECTION.
(2) REINFORCING: A501 A615 A618.
#3 BARS: GRADE 40
ALL OTHERS: GRADE 60

CONCRETE REINFORCING

- (1) HOOKS AND BENDS SHALL CONFORM TO ACI 318-LATEST EDITION OF SPECIFICATIONS FOR MINIMUM BEND ANGLES AND EXTENSIONS. LENGTHS GIVEN FOR BEND BARS DO NOT INCLUDE THE HOOKS AND MINIMUM EXTENSION FOR STANDARD HOOKS.
(2) BARS SHALL BE LAPPED 33 BAR DIAMETERS AT SPACES UNLESS OTHERWISE SPECIFIED. NO SPACES SHALL BE PERMITTED IN SLAB, FOOTINGS.
(3) PROVIDE CORNER BARS AT ALL INTERSECTIONS OF BEAMS AND WALLS PER 'TYPICAL DETAILS'.
(4) COVER REQUIREMENTS FOR REINFORCING:
(a) POOL SLABS: 2" MINIMUM BUT NOT LESS THAN 1"
(b) WALLS: 2" MINIMUM BUT NOT LESS THAN 1"
(5) REINFORCING IN SLABS ON GRADE SHALL BE PLACED AT THE CENTER OF THE SLAB UNLESS NOTED OTHERWISE.

CAST-IN-PLACE CONCRETE

- (1) ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE CODE (ACI 318-LATEST EDITION).
(2) CONCRETE MIX SCHEDULE:
STRENGTH CLASS: 4000
AGG. SIZE: 3/4"
SLUMP: 4-6
POOL SLAB
(3) STRENGTH TESTS SHALL BE MINIMUM DESIGN STRENGTH AT TWENTY-EIGHT (28) DAYS AS SPECIFIED BY THE AMERICAN CONCRETE INSTITUTE (ACI 318-CURRENT EDITION).
(4) 'WASH' RETAIN TO WORKFORM CONCRETE USING AN AIR DRY LANT WEIGHT OF APPROXIMATELY 140 PCF.
(5) FIVE TO SEVEN PERCENT (5-7%) AIR ENTRAINMENT SHALL BE ADDED TO CONCRETE MIXES FOR STRUCTURAL ELEMENTS PERMANENTLY EXPOSED TO WEATHER.
(6) ADJUSTMENTS MAY BE REQUIRED IN ANY CLASS OF CONCRETE AT THE CONTRACTOR'S OPTION. TO IMPROVE WORKABILITY OR STRENGTH CHARACTERISTICS. BUT NEVER EXCEED TO JOB FOR ALL CAST-IN-PLACE POOL CONTAINMENT STRUCTURES. LIMIT WATER CONTENT RATIO TO 40 WHEN THE STRENGTH REMAINS S. SUFFICIENT.
(7) FORMWORK CONSTRUCTION JOINTS IN POOL AND LAZY RIVER WALLS THAT EXCEED 8'-0", OR AS NOTED ON PLAN.
(8) ALL CONCRETE USES FOR THE SHOTCRETE METHOD SHALL BE READY-MIXED BY THE CONCRETE SUPPLIER AND DELIVERED TO THE SITE.
(9) PROVIDE A 'WASH' COAT FOR ALL CONCRETE APPLIED BY THE SHOTCRETE METHOD, FOLLOWED BY A SLEW TRAVEL PUMP. FINISH THE FINAL SURFACE FINISH IS SPRAY FINISH.
(10) REFERENCE AS TO SHALL FOR SHOTCRETE TESTING PROCEDURES TO BE FOLLOWED BY PRELIMINATION AND CONSTRUCTION. VERIFY THAT THE WATER ABSORPTION RATE IS EQUAL TO THAT OF THE CAST-IN-PLACE CONCRETE.
(11) THE USE OF CURING COMPOUNDS SHALL BE REVIEWED BY THE CONTRACTOR/MANUFACTURER, WHERE THE FINAL CONCRETE FINISH COAT WILL BE PAINT.
(12) PROVIDE CONSTRUCTION JOINTS IN POOL AND LAZY RIVER WALLS THAT EXCEED 8'-0", OR AS NOTED ON PLAN.

FOUNDATION DESIGN

- (1) FOUNDATION DESIGN IS BASED ON THE FOLLOWING CRITERIA:
SOIL REPORT BY: FALCON ENGINEERING
DATE OF REPORT: JANUARY 21, 2021
REPORT NUMBER: 202006-21
RECOMMENDED FOUNDATION TYPE: FOOTINGS - MIN-ON-GRADE BEARING STRIPS.
ALLOWED SETTLEMENT: 2.00" @ 5'
(2) REFERENCE THE GEOLOGICAL REPORT FOR SURFACE SETTLEMENT REQUIRED TO LIMIT THE POTENTIAL VERTICAL SETT (DOWN) TO ONE (1) INCH AND TO COMPLETE REQUIRED SURFACE IMPROVEMENT.
(3) PROVIDE HYDROSTATIC RELIEF VALVES IN ALL WREN DRAIN STAMPS AT THE BOTTOM OF POOLS TO RELIEVE HYDROSTATIC PRESSURE. POOL WATER CAN BE DRAINED PROVIDED THAT ALL HYDROSTATIC RELIEF VALVES ARE IN WORKING ORDER AND WELL POINT PLUGS ARE REMOVED. WATER SHOULD REMAIN IN POOL. EXCEPT FOR EMERGENCY MAINTENANCE.
(4) ALL POOLS SHALL HAVE A 4" THICK LAYER OF CRUSHED STONE BELOW POOL SLAB.
(5) ALL POOL WALLS HAVE BEEN DESIGNED FOR DRAINED CONDITIONS. THE DESIGN EQUIVALENT FLUID PRESSURE IS 80 PCYF FOR UNRESTRAINED WALLS. TO ACHIEVE THIS VALUE, PROVIDE CLEAN SAND BACKFILL BEHIND POOL WALLS.

ABBREVIATIONS

- AB - ANCHOR BOLT
AF - ANCHOR FISH FLOOR
AGG - AGGREGATE
ARCH - ARCHITECT
BLDG - BUILDING
BLK - BLOCK
BM - BEAM
BOT - BOTTOM
BOF - BOTTOM OF FOOTING
C - COMPRESSION
CJ - CONSTRUCTION JOINT
CL - CENTERLINE
CMU - CONCRETE MASONRY UNIT
COL - COLUMN
CONC - CONCRETE
CONCR - CONCRETE
D - DIAMETER
DET - DETAIL
DNM - DIAMETER
DM - DIMENSION
EJ - EXPANSION JOINT
ELY - ELEVATION
ENGR - ENGINEER
FABR - FABRICATOR
FF - FINISH FLOOR
FK - FOOT KIPS
HOR - HORIZONTAL
INT - INTERIOR
JST - JOIST BEARING
JST - JOIST
K - KIP (1000 LB)
LB - POUND
LL - LIVE LOAD
MATL - MATERIAL
MAX - MAXIMUM
MFG - MANUFACTURER
MIN - MINIMUM
MRK - MARK
MOM - MOMENT
NC - NOT IN CONTRACT
NO - NUMBER
NSG - NON-SHOWN GROUT
NOT TO SCALE
OC - ON CENTER
OP HD - OPPOSITE HAND
P/C - PRE-CAST CONCRETE
PENET - PENETRATION
PL - PLATE
PSF - POUNDS PER SQ. FOOT
PSI - POUNDS PER SQ. INCH
RAILS - RAILS
REIN - REINFORCING
SCHED - SCHEDULE
SECT - SECTION
SHT - SHEET
STD - STANDARD
STEEL - STEEL
T - THICKNESS
TL - TOTAL LOAD
TOP OF FOOTING
TOP OF CONCRETE
TOP OF FINISH FLOOR
TOP OF PRE/PRECAST
TOP OF JUST
TOP OF STEEL
TOP OF WALL
TYP - TYPICAL
UNO - UNLESS NOTED OTHERWISE
WD - WOOD
WALL - MATERIAL
WALL - MAXIMUM

SPECIAL INSPECTIONS REQUIRED

- SPECIAL INSPECTION IS REQUIRED AS FOLLOWS:
1. SURFACE INSPECTION TO VERIFY ALLOWABLE BEARING AND SURFACE PREPARATION FOR FORMWORKING.
2. CONCRETE AND REINFORCEMENT PLACEMENT FOR POOL SHELL.
3. CONCRETE TESTING FOR POOL SHELL.
4. POOL SHELL LEAKAGE TESTING.
CONSTRUCTION OBSERVATION AND INSPECTION SHALL BE PROVIDED BY THE OWNER. THE CORE GROUP WILL NOT PROVIDE AN OBSERVATION WITHOUT VERIFICATION THAT ALL STRUCTURES HAVE BEEN CONSTRUCTED ACCORDING TO THE ORIGINAL DOCUMENTS. STRUCTURAL OBSERVATION AND INSPECTION ARE NOT PART OF OUR CONTRACT. THIRD PARTY INSPECTION IS RECOMMENDED AND ALL INSPECTION REPORTS SHALL BE SENT TO KIMLEY-HORN AND THE CORE GROUP.



GREENVILLE OUTDOOR AQUATIC CENTER
REDESIGNED AND RECONSTRUCTED
CITY OF GREENVILLE, NC

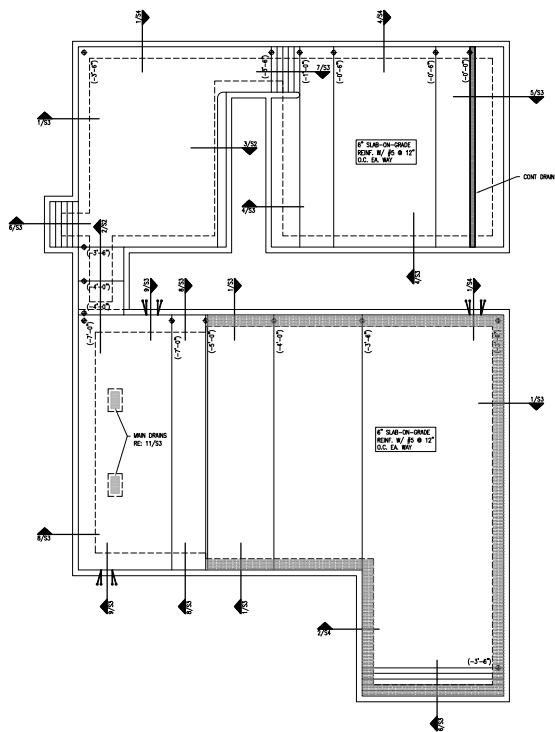
GENERAL NOTES



The Core Group
Structural Engineering
NW Regard Airport, 102 Lindbergh Dr., Roanoke, Texas 76262
Phone: 817-854-0142 Fax: 817-491-4194

Table with project details: Scale: AS SHOWN, Drawn By: SS, Checked By: TC, Date: APRIL 2021, Project No.: 046527-000

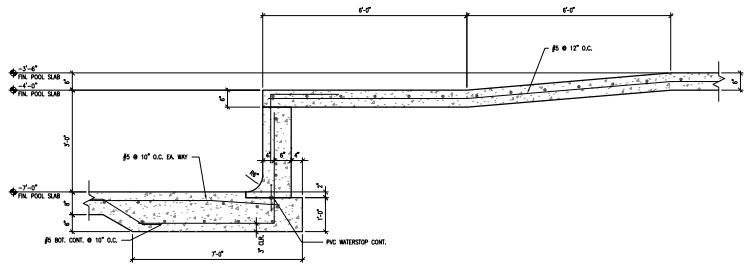
SHEET 51



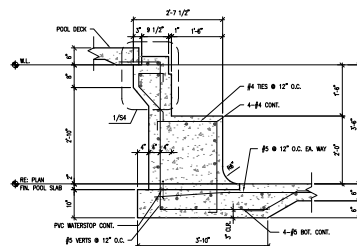
**1 POOL FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

**PLAN NOTES**

1. REFERENCE SHEET 51 FOR GENERAL NOTES. REFERENCE DME FOR POOL WATER ELEVATION. (-1'-0") INDICATES TOP OF CONCRETE MEASURED FROM MEER LEVEL.
2. COORDINATE POOL MECHANICAL AND PIPING WITH COUNSLMAN/HANSHAW. REFERENCE COUNSLMAN/HANSHAW FOR DIMENSIONAL CONTROL POINTS NOT SHOWN ON THIS PLAN AND EQUIPMENT NOT SHOWN IN THIS PLAN.
3. THE SHADDED AREA DENOTES THICKENED SLAB. COORDINATE ADDITIONAL SLAB REQUIREMENTS WITH SDS WATER FEATURES.
4. C.I. OWNER'S CONSTRUCTION IF THESE ARE SUGGESTED LOCATIONS OF CONSTRUCTION JOINTS. THE CONTRACTOR CAN SUBMIT ALTERNATE LOCATIONS FOR REVIEW.
5. REFERENCE COUNSLMAN/HANSHAW FOR ALL CONTROL POINTS.



**2 SECTION**  
SCALE: 3/4" = 1'-0"



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



**The Core Group**  
Structural Engineering  
3808 FM 497 Suite 215 A, Boffinville, Texas 76226  
Phone: 842.455.7733  
Email: CORE@COREGROUPENGINEERING.COM

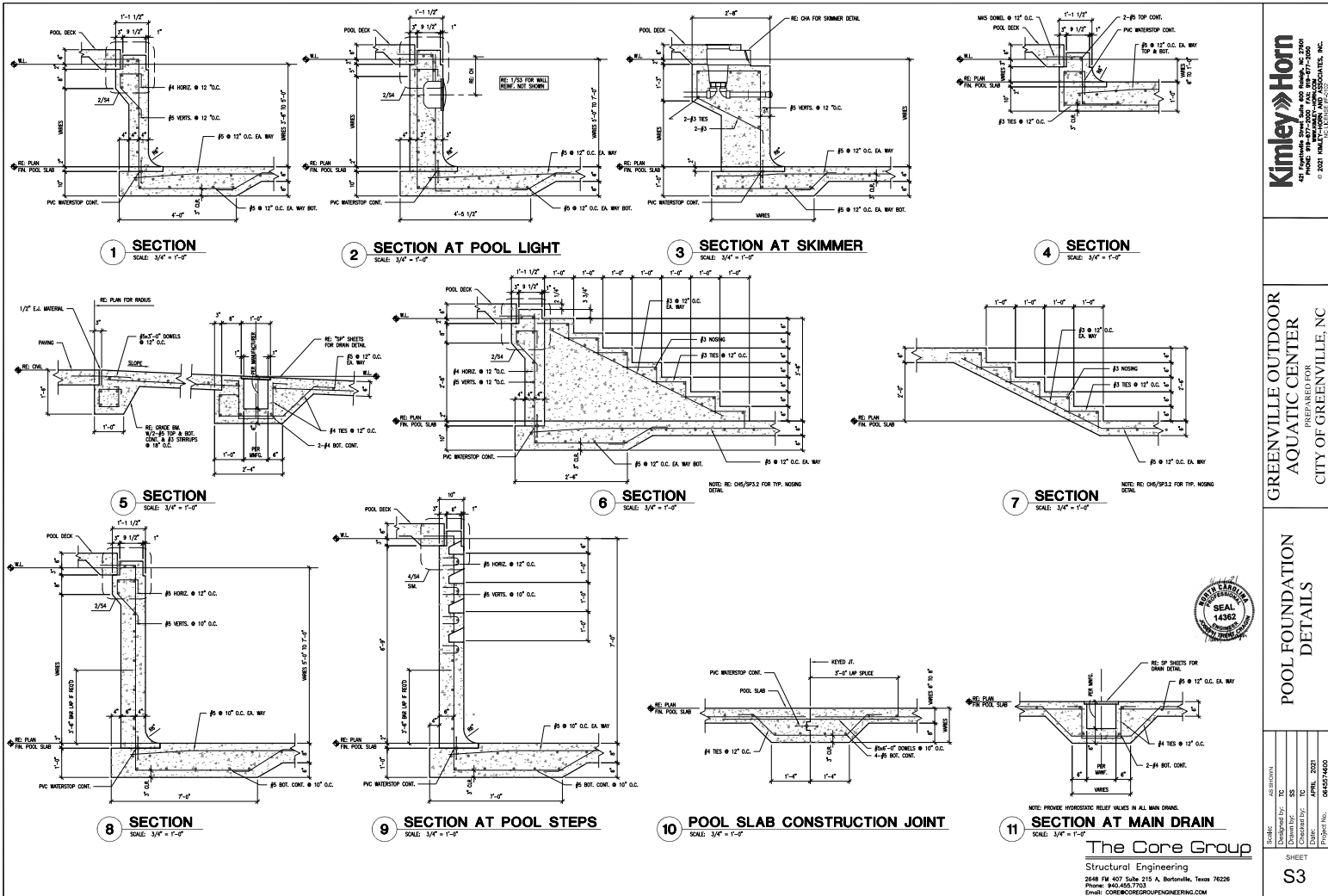
**Kimley-Horn**  
421 Fayetteville Street, Suite 400  
Fayetteville, NC 27401  
Phone: 704.328.1100  
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.  
N.C. LICENSE # 7-2020

**GREENVILLE OUTDOOR  
AQUATIC CENTER**  
PREPARED FOR:  
CITY OF GREENVILLE, NC

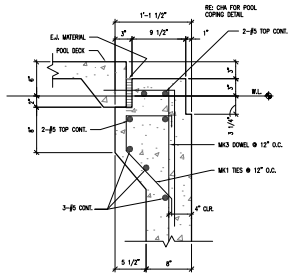
**POOL FOUNDATION  
PLANS & DETAILS**

Scale:	AS SHOWN
Drawn by:	SS
Checked by:	TC
Date:	APRIL 2021
Project No.:	046527460

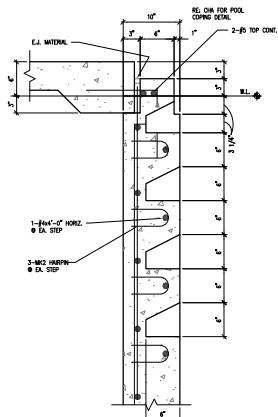
SHEET  
**S2**



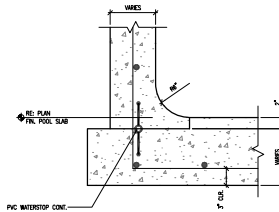
Scale:	AS SHOWN
Drawn by:	SS
Checked by:	TC
Date:	APRIL 2021
Project No.:	045527400
SHEET	
<b>53</b>	



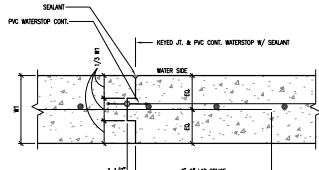
**1 TYPICAL DETAIL**  
SCALE: 1 1/2" = 1'-0"



**2 TYPICAL DETAIL**  
SCALE: 1 1/2" = 1'-0"



**3 TYPICAL DETAIL**  
SCALE: 1 1/2" = 1'-0"



**4 WALL CONSTRUCTION JOINT**  
SCALE: 1 1/2" = 1'-0"

REBAR SCHEDULE

MARK	TYPE	SIZE	A	B	C	D	E
W1	W	#5	2'-1 1/2"	1'-2 3/4"	3"	2'-0"	1'-0"
W2	W	#5	3"	1'-0"	-	-	-
W3	W	#5	2'-0"	2'-0"	-	-	-
W4	W	#5	3"	-	-	-	-
W5	W	#5	1'-1 1/2"	3"	3'-4"	1'-0"	-
W6	W	#5	3"	-	3"	1'-10"	-

DO NOT REBAR TOP FOR #1-#5  
DO REBAR TOP FOR #1-#5



**The Core Group**  
Structural Engineering  
3848 FM 487 Suite 215 A, Boffinville, Texas 76226  
Phone: 842.452.7723  
Email: CORE@COREGROUPENGINEERING.COM