

REVISIONS, NOTES

Riddle Consulting Engineers, Inc.

structural civil mechanical

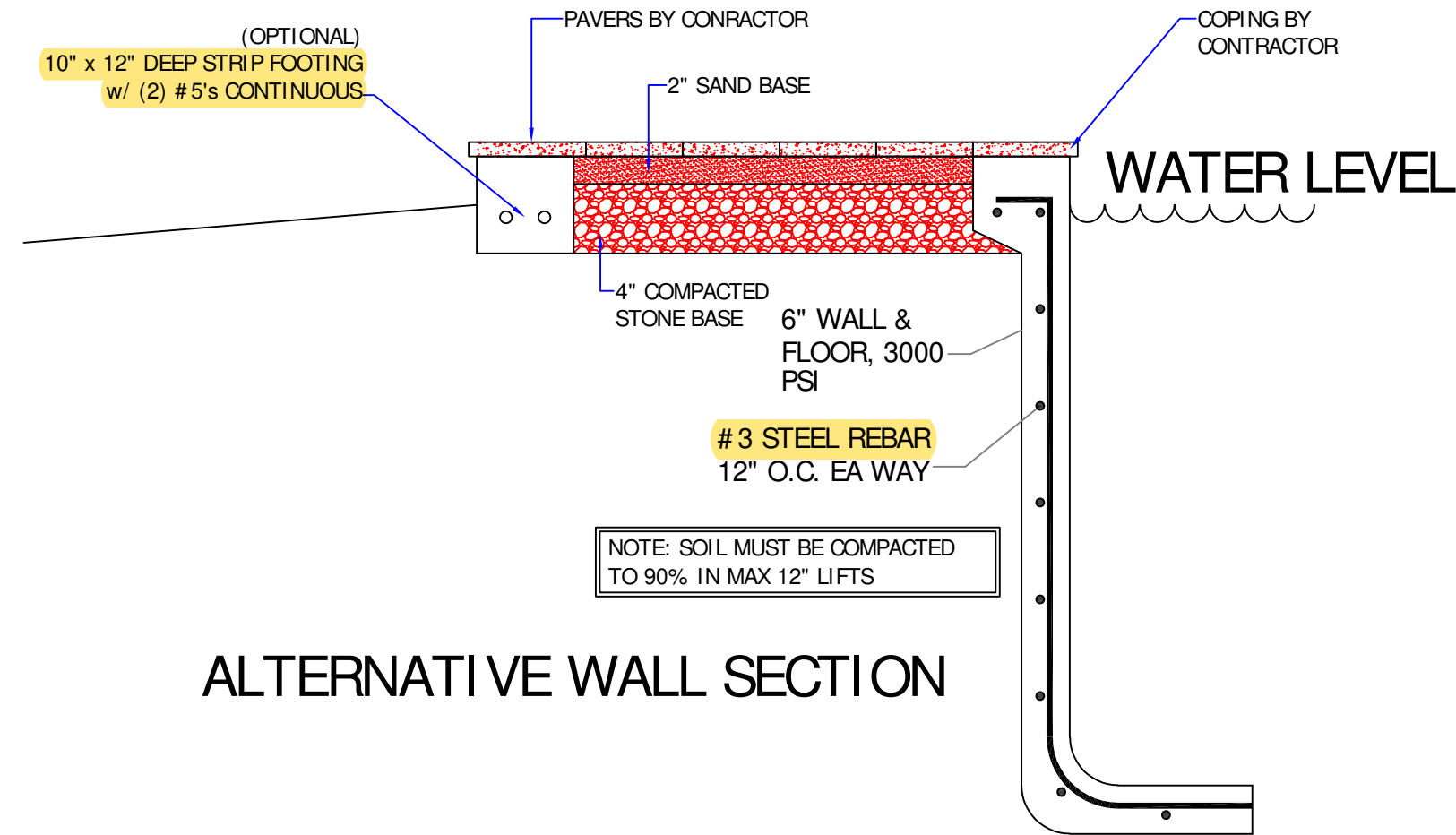
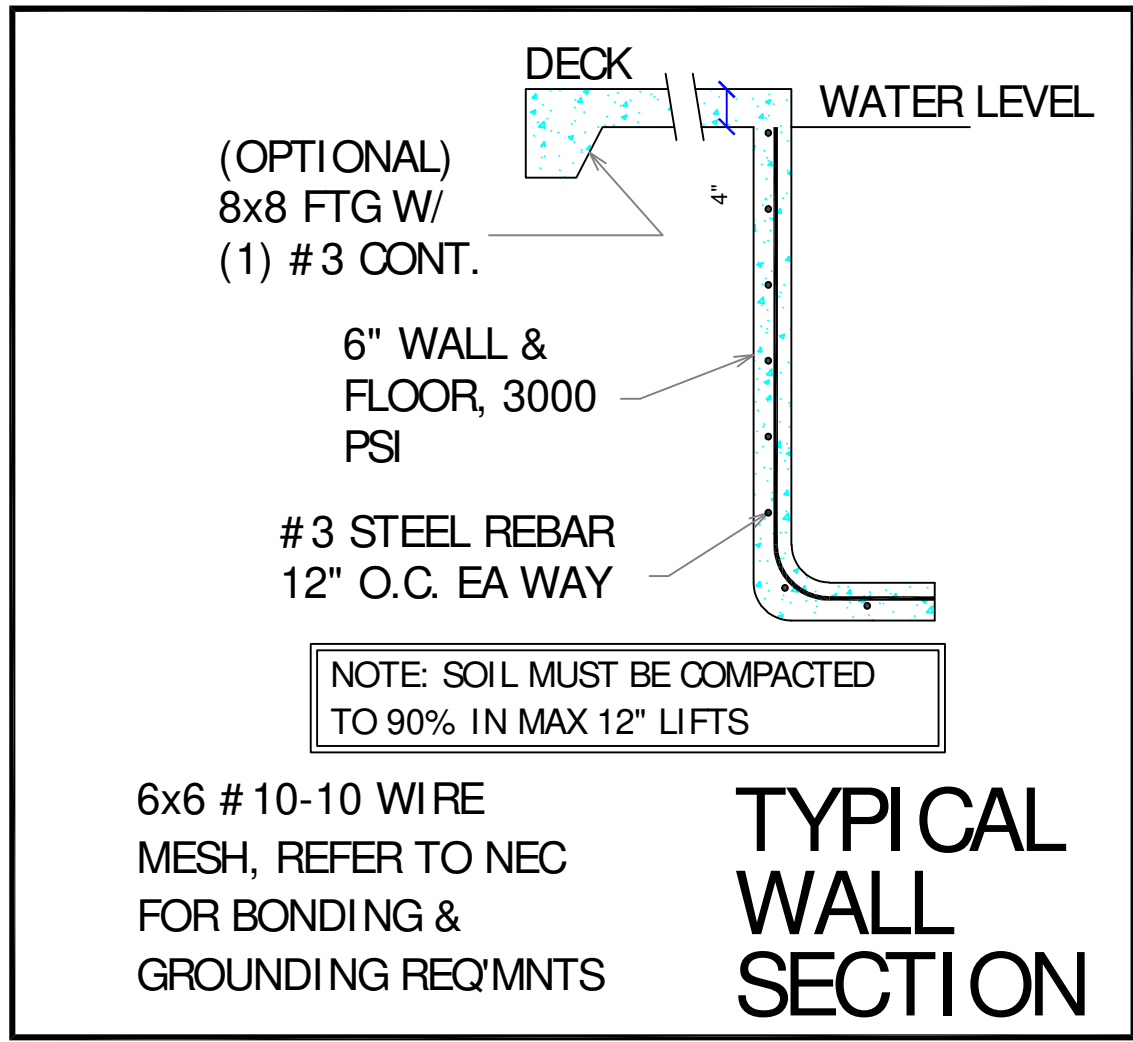
Paul D. Riddle, P.E.
Senior Engineer
COA: 00004759

Paul A. Riddle, Jr.
Structural Engineer

EMAIL: PROJENGINEER@RCL.COM
ADDRESS: 1720 SE CITY HWY 484
BELLEVUE, FL 34420
PHONE: (352) 245-7041
FAX: (352) 245-5458
WEBSITE: WWW.RIDDLEENGINEERING.COM

A CUSTOM DESIGN FOR
**BLACKWELL
RESIDENCE**
AQUATIC ARTS

REVISIONS, NOTES



- ENGINEERING NOTES:
1. ALL WORK IS TO COMPLY WITH ALL APPLICABLE CODES & ORDINANCES.
 2. CONSTRUCTED OF 3000 PSI CONCRETE OR EQUAL WITH #3 REBAR 12" O.C. EACH WAY, TIED AT EVERY OTHER INTERSECTION. MIN COVER FOR REBAR IS 2.5" MIN OVERLAP IS 18".
 3. N/A

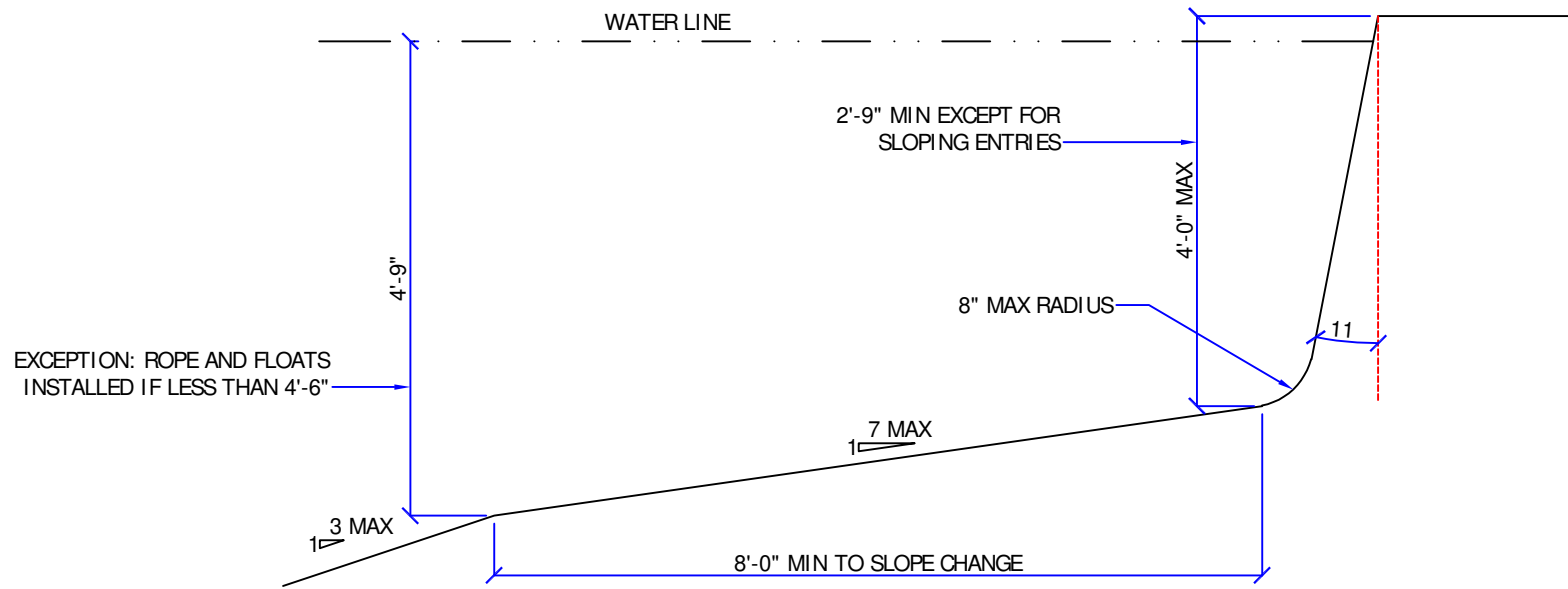
4. ASSUMED SOIL BEARING = 2 KSF
5. CIRCULATION SYSTEMS, COMPONENTS, & EQUIPMENT SHALL COMPLY W/ NSF 50.
6. INSTALL CONTROL JOINTS @ 20'-0" ON CENTER IN POOL DECKING.
7. PLANS TO CONFORM TO NEC 2017
8. 2020 FBC RESIDENTIAL 7th EDITION APSP13
9. CONCRETE STAIRS ARE 12" TREAD WIDTH AND 10" MAXIMUM HEIGHT
10. ALL CONSTRUCTION SHALL COMPLY WITH ANSI 5-03, 2017 NEC ARTICLE 680, & ANSI-NSPI 3-99 IN-GROUND SPA CONSTR.

* 11. ENGINEERS DESIGN IS FOR STRUCTURAL ONLY. DESIGN OF PIPING/EQUIPMENT ETC.

BY POOL CONTRACTOR

FENCE REQUIREMENTS:

1. MINIMUM 48" HEIGHT
2. 2" MAX VERTICAL CLEARANCE BETWEEN GRADE & BARRIER BOTTOM.
3. MAX OPENING SHALL NOT ALLOW PASSAGE OF 4" SPHERE.
4. FENCE POSTS WILL BE LOCATED ON POOL-SIDE OF FENCE.
5. GATE WILL BE SELF-LOCKING WITH APPROVED LOCKING DEVICE.



FLOOR SLOPE DETAIL NTS

STEPS: MIN. TREAD 10" x 12", 7" MIN RISER, 12" MAX RISER. INTERMEDIATE TREADS AND RISERS TO BE UNIFORM.

GENERAL NOTES:

- 1) Per UL listing, pool motors require GFCI protection
- 2) FSPA requires the motor controller to be capable of 2 speeds, a time clock will not satisfy this unless it has 2 trip settings.
- 3) If heater installed (other than solar), it must comply with FBC-EC403.9.1 & have a cover per 403.9.3 (this applies to mechanical (not solar) heaters---cover required)
- 4) Outdoor swimming pools shall be provided with a barrier complying with Sections R4501.17.1.1 through R4501.17.1.14.
- 5) NEC 680.26(C) requires a conductive metal part of 9 sq., in. in direct contact with the pool water.
- 6) R4501.17.1.9 All doors and windows providing direct access from the home to the pool shall be equipped with an exit alarm complying with UL 2017 that has a minimum sound pressure rating of 85 dB at 10 feet.

EQUIPOTENTIAL BONDING GRID:

ALL METAL PARTS SPECIFIED IN 680.26(B) MUST BE BONDED TO AN EQUIPOTENTIAL BONDING GRID WITH A SOLID COPPER CONDUCTOR NOT SMALLER THAN 8 AWG. THE TERMINATION OF THE BONDING CONDUCTOR MUST BE MADE BY EXOTHERMIC WELDING, LISTED PRESSURE CONNECTORS, OR LISTED CLAMPS THAT ARE LABELED AS SUITABLE FOR THE PURPOSE. THE EQUIPOTENTIAL BONDING GRID MUST EXTEND UNDER PAVED WALKING SURFACES FOR 3 FEET HORIZONTALLY FROM THE WATER (680.26(C)).

THE EQUIPOTENTIAL BONDING GRID MUST BE FORMED FROM EITHER OR BOTH OF:

THE STRUCTURAL REINFORCING STEEL OF A CONCRETE PERMANENTLY INSTALLED POOL, OUTDOOR SPA, OR OUTDOOR HOT TUB, TIED TOGETHER BY THE USUAL STEEL TIE WIRES.

THE METAL WALLS OF A PERMANENTLY INSTALLED POOL, OUTDOOR SPA, OR OUTDOOR HOT TUB

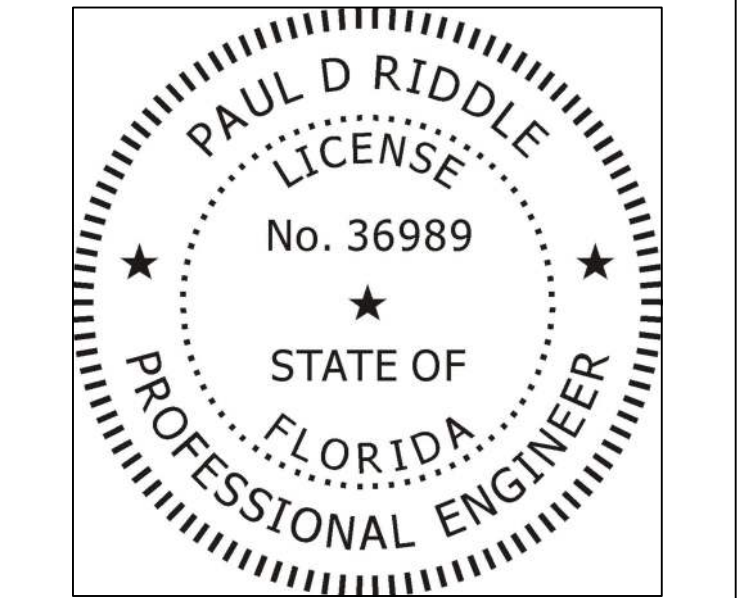
THE EQUIPOTENTIAL BONDING GRID CAN BE CONSTRUCTED WITH 8 AWG BARE SOLID COPPER CONDUCTORS BONDED TO EACH OTHER AT ALL POINTS OF CROSSING BY EXOTHERMIC WELDING, LISTED PRESSURE CONNECTORS OF THE SET SCREW OR COMPRESSION TYPE, LISTED CLAMPS, OR OTHER LISTED FITTINGS (250.8).

THE EQUIPOTENTIAL BONDING GRID MUST COVER THE CONTOUR OF THE PERMANENTLY INSTALLED POOL, OUTDOOR SPA OR HOT TUB AND DECK EXTENDING 3 FEET HORIZONTALLY FROM THE WATER. THE EQUIPOTENTIAL BONDING GRID MUST BE ARRANGED IN A 1-FOOT BY 1-FOOT NETWORK OF 8 AWG CONDUCTORS, WITH A TOLERANCE OF 4 INCHES.

EXCEPTION: THE EQUIPOTENTIAL BONDING GRID SHALL NOT BE REQUIRED TO BE INSTALLED UNDER THE BOTTOM OR VERTICALLY ALONG THE WALLS OF VINYL LINED POLYMER WALL, FIBERGLASS COMPOSITE, OR OTHER POOLS CONSTRUCTED OF NON-CONDUCTIVE MATERIALS.

ANY METAL PARTS OF THE POOL, INCLUDING METAL STRUCTURAL SUPPORTS, SHALL BE BONDED IN ACCORDANCE WITH 680.26(B). POURED CONCRETE, PNEUMATICALLY-APPLIED CONCRETE, AND CONCRETE BLOCK SHALL BE CONSIDERED CONDUCTIVE MATERIAL

NOTE: IF ANY PART OF THE POOL ENCLOSED UPON THE ANGLE OF REPOSE, PLACE STEEL @ 6" o.c. EA WAY IN AREAS OF QUESTION



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY PAUL D. RIDDLE, PE ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

IGC CA 1
Digital Signer: IGC CA 1
DN: CN=PAUL D RIDDLE, dnQualifier=A01410D00001855EA473080011E08C, O=Florida, C=US
Date: 2023.11.17 09:23:44 -05:00

PAUL D. RIDDLE, P.E.
P.E. 36989

DRAWN: JASON R. RIDDLE

DATE: Nov. 17, 23

COPYRIGHT © 2023
THESE PLANS ARE PROTECTED BY COPYRIGHT LAWS. ANY UNAUTHORIZED USES MAY RESULT IN LEGAL ACTION.

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

1 OF 1

JOB NUMBER: 2230626