

FENCE:

Florida Building Code requires that all public pools shall be surrounded by a minimum 48" high fence. The fence shall be continuous around the perimeter of the pool area that is not otherwise blocked or obstructed by adjacent buildings or structures and shall adjoin with itself or abut to the adjacent members. Access through the barrier other than from doored exits of adjacent building(s) shall be through self-closing, self-latching, lockable gates of 48" minimum height with the latch located a minimum of 54" from the bottom of the gate or at least 3" below the top of the gate on pool side. Gates shall open outward away from the pool area.

RESTROOMS

Outside access to facilities shall be provided for bathers at outdoor pools and if they are not visible from any portion of the pool deck, signs shall be posted showing directions to the facilities. These directions shall be legible from any portion of the pool deck and the letters shall be a minimum of one inch high. Walkways shall be provided between the pool and the sanitary facilities, and shall be constructed of concrete or other nonabsorbant material having a smooth slip resistant finish for the first 15 feet of the walkway measured from the nearest pool water's edge.

Floors: smooth, non-slip, impervious, pitched to floor drains, cove wall to floor, no carpet, duckboard or footbaths. Provide permanent towel, tissue, soap dispensers and waste baskets. Label doors. Install hose bib w/ vacuum breaker, either in resorts or outside nearby. Water shall be from an approved potable source with air break. Diaper changing tables shall be provided at facilities that cater to families with small children.

NOTE: Restrooms are located within 200 FT walking distance of pool waters edge.
Mens Room will have: 2 Water Closet, 2 Urinal, 3 Lavatory.
Womens room will have: 4 Water Closet, 3 Lavatory.

TOTAL AREA IN SQ. FT.	MEN'S RESTROOM			WOMEN'S RESTROOM		
	URINAL	W/C	LAVATORY	W/C	LAVATORY	
0 - 2,500	1	1	1	1	1	
2,501 - 5,000	2	1	1	5	1	
5,001 - 7,500	2	2	2	6	2	
7,501 - 10,000	3	3	3	9	3	

POOL AREA OCCUPANCY LOAD			
LOCATION	S.F.	±	OCCUPANTS
SWIMMING POOL WATER SURFACE	1746	50	34
FENCED POOL DECK SURFACE	7,159	30	238
TOTAL			272

REQUIRED # EGRESS / OCCUPANT LOAD	
1 - 500 OCCUPANTS	2
501 - 1,00 OCCUPANTS	3
1,001 OR MORE OCCUPANTS	4

THE POOL, DECK AND EQUIPMENT SHOWN ARE DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING APPLICABLE CODES:
DEPARTMENT OF HEALTH (DOH) 64E-9 FLORIDA ADMINISTRATIVE CODE
FLORIDA STATUTES, CHAPTER 514
FLORIDA BUILDING CODE 2014, FIFTH EDITION
FLORIDA PLUMBING CODE 2014
NATIONAL ELECTRIC CODE (NEC) 2011
NATION FIRE PROTECTION ASSOCIATION (NFPA) 70
NATION FIRE PROTECTION ASSOCIATION (NFPA) 101

POOL INFORMATION

Capacity: 50,000 Gallons
Area: 1,746 Square Feet
Perimeter: 221 Feet
Design Flow Rate: 213 GPM (3.91 hour turnover rate)
Unit Count: 284 units (non-transiant)

POOL RECIRCULATION PUMP: PENTAIR WHISPERFLOX XFE-20, 5HP, SELF PRIMING, 213 GPM @ 50'
VACUUM PUMP: STA-RITE MAX-E-PRO 1 HP P6E6E-206L, SELF PRIMING, 70 GPM @ 50'
FILTER: AQUAWORKS AWDE 214/24 , VACUUM D.E. FILTER SYSTEM, 24 GRIDS, 4.5 SF/EA = 108 SF, 216 GPM, TOTAL CAPACITY

CHEMICAL FEEDERS: STENNER 45M5 (CL)
STENNER 45M2 (pH)

Valves: Proportional flow, ball globe, or butterfly for return line, main drain, gutter and heater by-pass or approved equal, otherwise gate. Feeders to be wired with failure proof interlock with the recirculation pump.

Pipe: PVC Schedule 40 NSFpw
Gutter: Pentair 542039 (2"x4")

Flow Meter: Blue White CF 30400P
Vacuum Fitting: Hayward VAC-LOCK

anchors: Hayward SP1392

Transformers: Area Lighting LG-300 / 12Volt.

Leaf Skimmer: LION 1010

Vacuum Head: RAINBOW 214

Brush: A&B 3004

Vacuum Hose: Plastiflex

Concrete: 3500 psi, 28 day

Steel: ASTM GR40, A615

Poles: (3) Jed, 16' Straight

Heater: NONE

Level (Static) Line Grade: SP1019

Main Drain: Lawson Aquatics (12"x12")

MLD-FGD1212-SECURE
meet ASME/ANSI A112 19-8-2007
NSF50, 64E-9

Inlets: Hayward SP1425

Escutcheons: Frost 41661

Lights: Amerlite Series 300w / 12Volt,
ground/NEC.

Life Ring: (2) 24" W/30' Throw Line, Jim Buey

Hook: (2) RAINBOW 153

Test Kit: Taylor K-2006

Ladder: Smith LFB 36B

Tread: 6" Maximum from wall, 3" Minimum from wall.
Crossed Braced Stainless Steel, Slip Resistant Treads,
28" minimum above deck. Must have caps or bumpers
that rest firmly against pool wall.

POST POOL RULE SIGN

NO GLASS OR ANIMALS IN THE FENCED POOL AREA

NO FOOD OR BEVERAGES IN POOL OR ON POOL WET DECK

SHOWER BEFORE ENTERING POOL

DO NOT SWALLOW THE POOL WATER

MAX. MAIN POOL LOAD 42 PERSONS

NO DIVING

POOL HOURS DAWN a.m. TO DUSK p.m. (Until lighting certified)

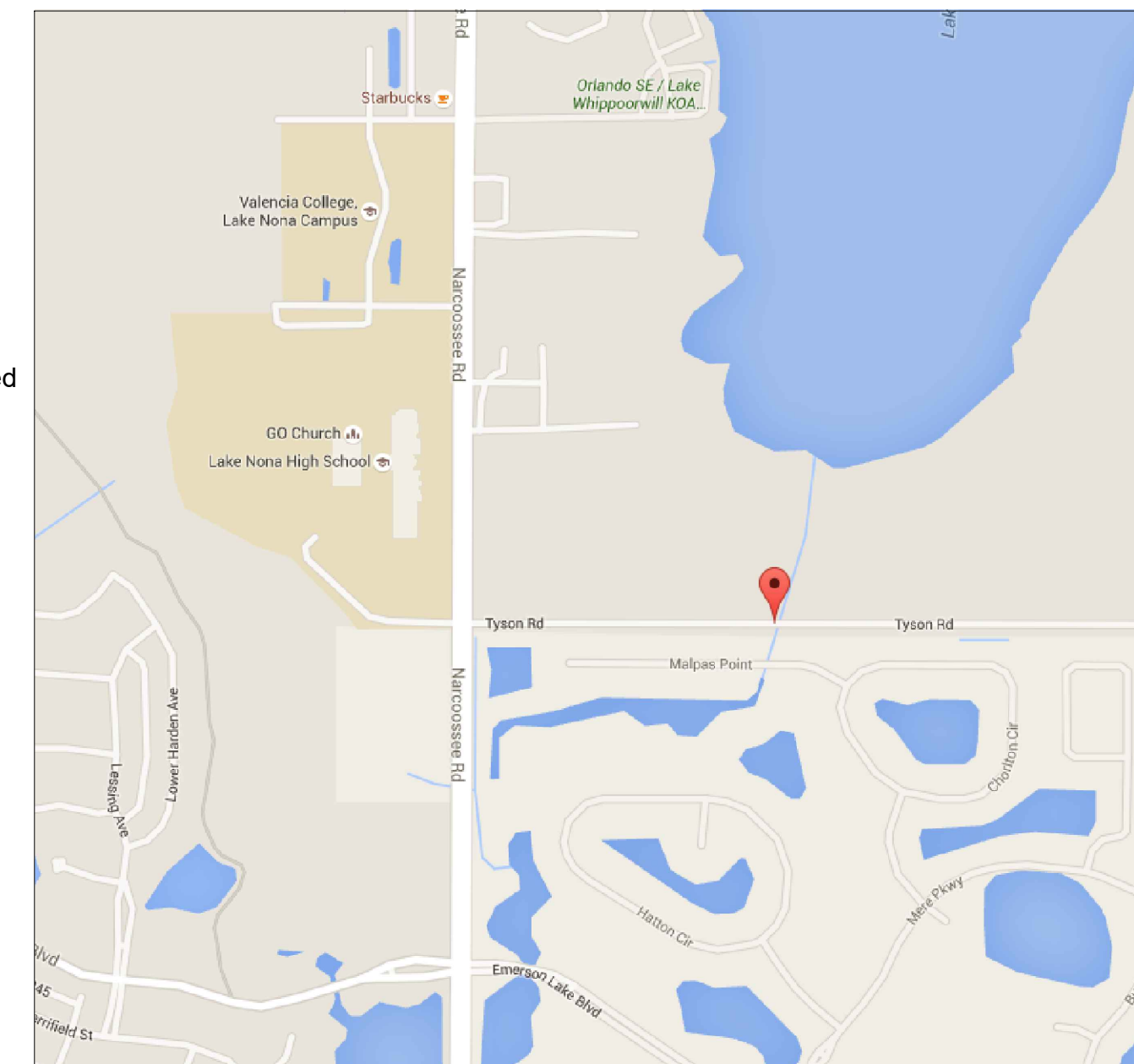
NOTE: Pool Rule Letters to be 1" high minimum
except NO DIVING shall be 4" high minimum.

(SIGN TO BE PROVIDED BY OWNER)

ALL EQUIPMENT IS SPECIFIED ON THE BASIS OF DESIGN. SUBSTITUTION FOR ANY EQUIPMENT NEEDS TO BE APPROVED BY THE DESIGN ENGINEER AND OWNER. THE OWNER IS NOT RESPONSIBLE FOR FEE AJUSTMENTS FOR BIDS THAT HAVE BEEN SUBMITTED BASED ON CONTRACTORS EQUIPMENT THAT IS NOT SPECIFIED ON THE PLANS AND NOT APPROVED BY THE DESIGN ENGINEER.

GENERAL NOTES:

- Structure suitable when empty for ground water not higher than 6" above main drain.
- Permanent Tile depth markers, minimum 4" high with contrasting color, slip resistant flush on deck or top of beam not more than 2 feet from water edge and inside back of gutter (glazed) minimum 4" high.
- Permanent Red International *NO DIVE* Tiles, non-slip flush minimum 4" high, on top of the deck not more than 2 feet from water edge every 25 feet of perimeter maximum see detail.
- All equipment shall have NSF, UL, or appropriate approval.
- All electrical, grounding, wiring & bonding to comply with Florida building code FBC 2014, 5th Edition, NEC Section 680.26(C). No overhead power within 10 feet. Electrician must certify compliance to engineer. NEC 680.26(C) requires that all parts specified in 680.26(B) shall be connected to an equipotential bonding grid with solid copper conductor, insulated, covered, or bare, not smaller than 8 AWG or rigid metal conduit of brass or other identified corrosion-resistant metal conduit. Connection shall be made by exothermic welding or by listed pressure connectors suitable for the purpose and are of stainless steel, brass, copper, or copper alloy.
- Pool make-up water is from an approved source with air gap.
- No direct connections between water and sanitary systems, minimum 3" gap.
- Vacuum breakers on all hose bibs in pool area.
- Minimum 7" vertical clearance above deck and pool water.
- No food or drink services to be within 12 feet of inner edge of pool and spa deck.
- Walkways between pool and sanitary facilities shall be impervious, slip resistant for the first 15 feet from pool water edge.
- If night swimming is allowed, overhead lighting shall provide at least 3 foot candles of illuminations at the water and wet deck level.
- Overhead illumination of 30 foot candles at floor level in equipment room.
- Owner to provide storage of chemicals under roof, protected from access by unauthorized persons.
- Owner to provide traffic barriers at deck if needed.
- Main drain(s) to meet ASME/ANSI A112 19-8-2007, NSF50, 64E-9 and comply with Virginia Graeme Baker Act.
- Feeders to be interlocked with recirculation pump.
- Pipe: PVC schedule 40 NSFpw
- Gauges: 2" minimum; 0-60 psi.
- Test Kit: Taylor 2006 or Equal
- All electric and ground to meet NEC or local code.
- This pool is not classified as a Title II or Title III pool and does not require ADA lift or ramp.
- The equipment area or collector tank or chemical containers shall not be accessible to unauthorized individuals.
- Install new equipment and plumbing per manufacturers instructions.
- Plastic pipe subject to a period of prolonged sunlight exposure must be coated to protect it from ultraviolet light degradation
- ALL EQUIPMENT MUST BE LABELED AND EASILY READ, THIS INCLUDES THE FLOWMETER.
- All equipment (pumps, motors, pressure gauges, valves, auto and manual fills, piping, filters, flow indicators and flow meters) must be operating properly before calling this office and/or the Health Department for inspection.
- Lighting certification is not part of this submittal. Contact a Lighting or Electrical engineer for certification.
- Direct access to equipment is required.
- Pool and Bathhouse electrical outlets to be GFCI with trip points 6mA or less with cover.
- Pool chemicals to be stored away from other materials in a cool, dry , ventilated area with restricted access.
- Pool to have Shepherd's Hook, Straight Pole, Ring Buoy for safety equipment.
- The deck must not have pits and crevices more than $\frac{3}{16}$ " deep.
- A flow meter shall be provided with properly located and proper clearances upstream and down stream.
- A gate to the equipment area must be provide within 10' of the equipment area.
- The equipment room area must provide clearances for all equipment as prescribed by the manufacturer to allow normal maintenance and removal.
- All equipment meets NSF/ANSI Standards 50-2007.
- Recirculation pump must havea hair and lint strainer.
- All exposed PVC piping will be painted for UV protection.
- The plans meet FBC 2014, 5th Edition, Section 454.1.
- The plans meet 2011 National Electric Code
- All depth markers are to indicate actual depths within 3".
- This pool is exempt from ADA requirements, because it is not classified as a Title II or Title III public swimming pool (transient facility). See http://www.ada.gov/qa_existingpools_titleIII.htm for details



LOCATION MAP:

Intersection of Narcoossee Road and Tysons Road
Lake Nona, Florida 32832
Orange County

DRAWING INDEX

SHEET 1 - SPECIFICATIONS AND NOTES
SHEET 2 - SITE PLAN/DECK LAYOUT
SHEET 3 - POOL PLUMBING PLAN
SHEET 4 - POOL LAYOUT PLAN
SHEET 5 - POOL DETAILS
SHEET 6 - POOL EQUIPMENT PLANS
SHEET 7 - BONDING PLAN

Sheet 1 of 7

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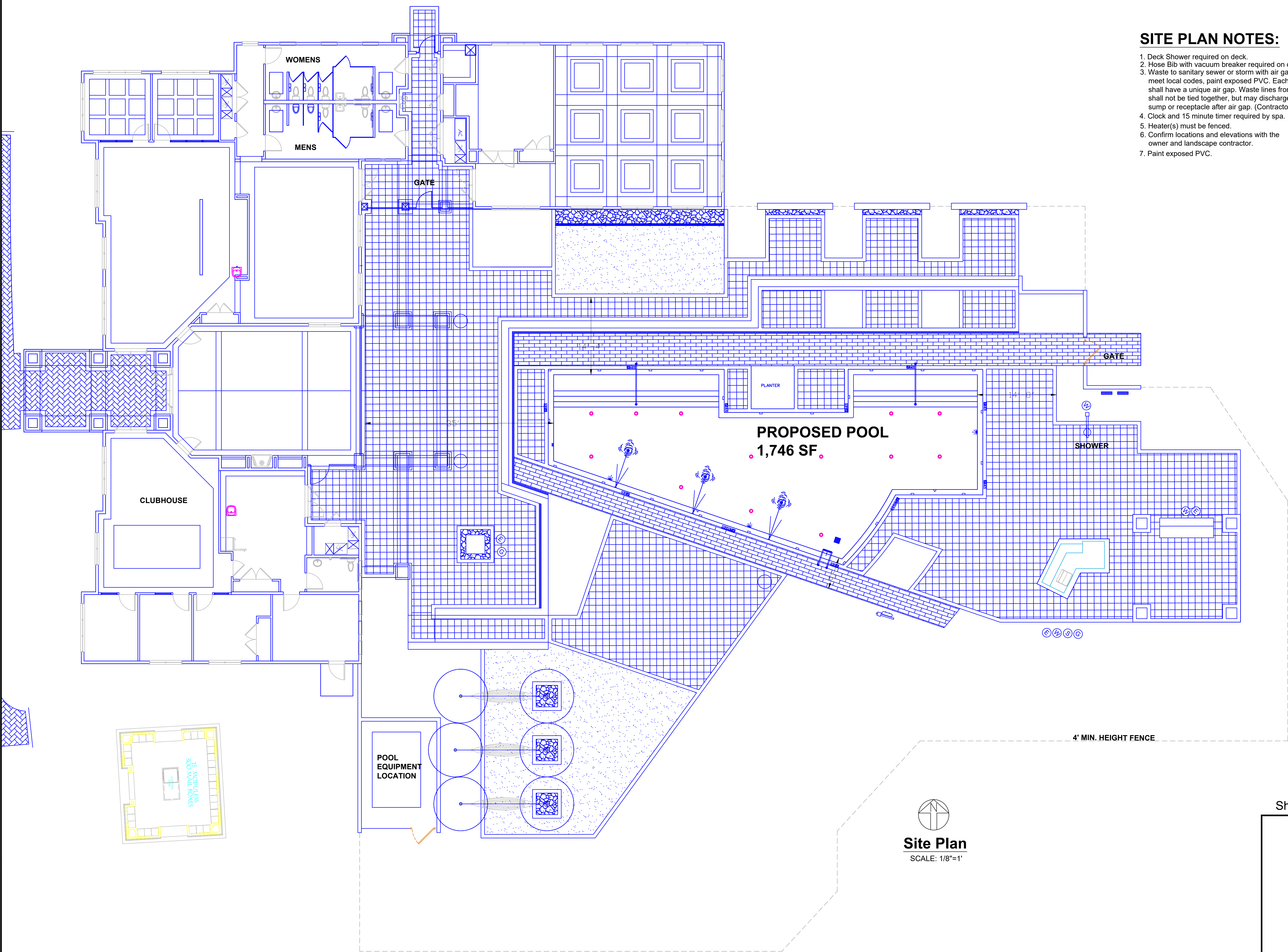
For: The Bainbridge Companies

Bainbridge at Nona Place Pool
Notes and Specifications

#	Revision Description	Date

Date: 7/15/16
Drawn by: SAL

SAMUEL A. LIBERATORE, P.E. #65740



SITE PLAN NOTES:

1. Deck Shower required on deck.
2. Hose Bib with vacuum breaker required on deck.
3. Waste to sanitary sewer or storm with air gap, meet local codes, paint exposed PVC. Each waste line shall have a unique air gap. Waste lines from different sources shall not be tied together, but may discharge into a common sump or receptacle after air gap. (Contractor to provide)
4. Clock and 15 minute timer required by spa.
5. Heater(s) must be fenced.
6. Confirm locations and elevations with the owner and landscape contractor.
7. Paint exposed PVC.

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For: The Bainbridge Companies

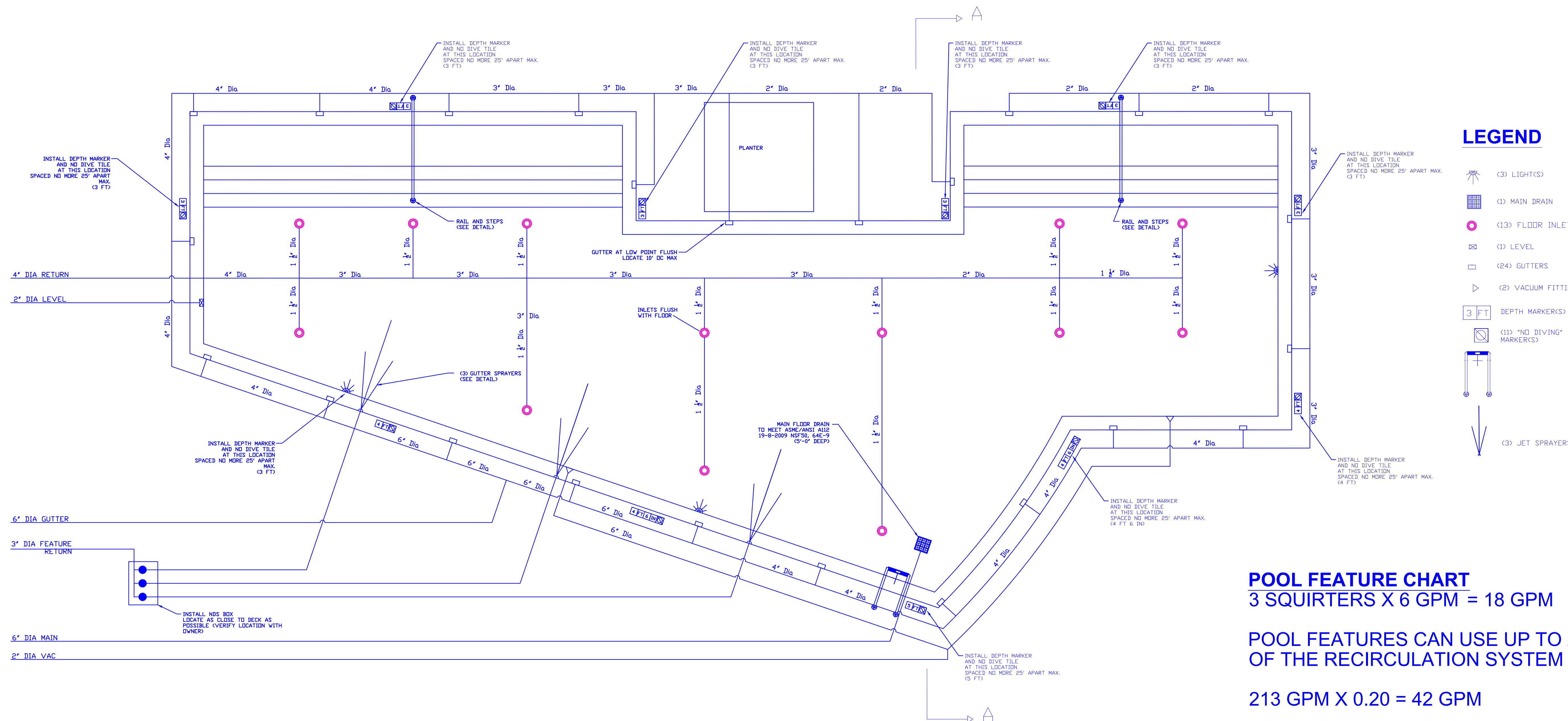
Bainbridge at Nona Place Pool
 Site Plan

SAMUEL A. LIBERATORE, P.E. #65740

#	Revision Description	Date

Date: 7/15/16
 Drawn by: SAL

Site Plan
 SCALE: 1/8"=1'



LEGEND

- (3) LIGHT(S)
- (1) MAIN DRAIN
- (13) FLOOR INLETS
- (1) LEVEL
- (24) GUTTERS
- (2) VACUUM FITTINGS
- 3 FT DEPTH MARKER(S)
- (1) 'NO DIVING' MARKER(S)
- (3) JET SPRAYERS

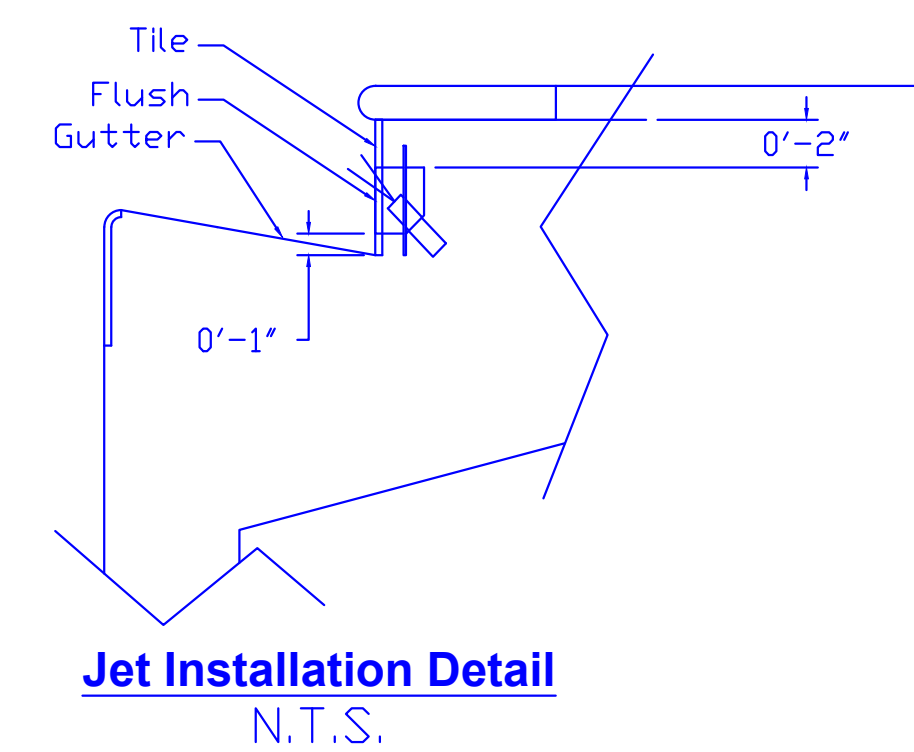
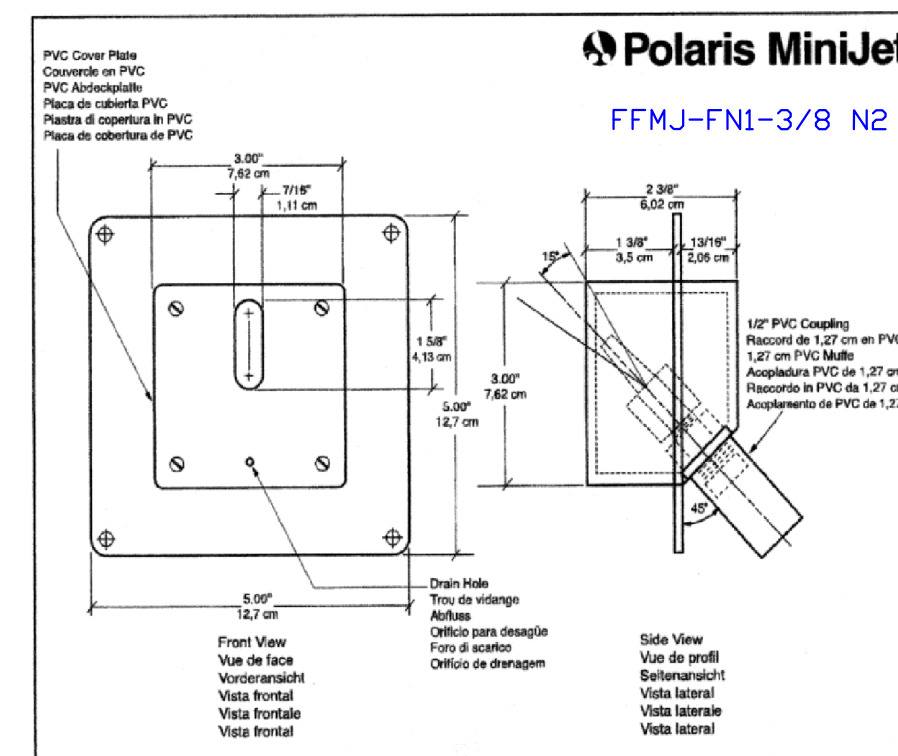
POOL FEATURE CHART
 3 SQUIRTERS X 6 GPM = 18 GPM

POOL FEATURES CAN USE UP TO 20% OF THE RECIRCULATION SYSTEM

213 GPM X 0.20 = 42 GPM

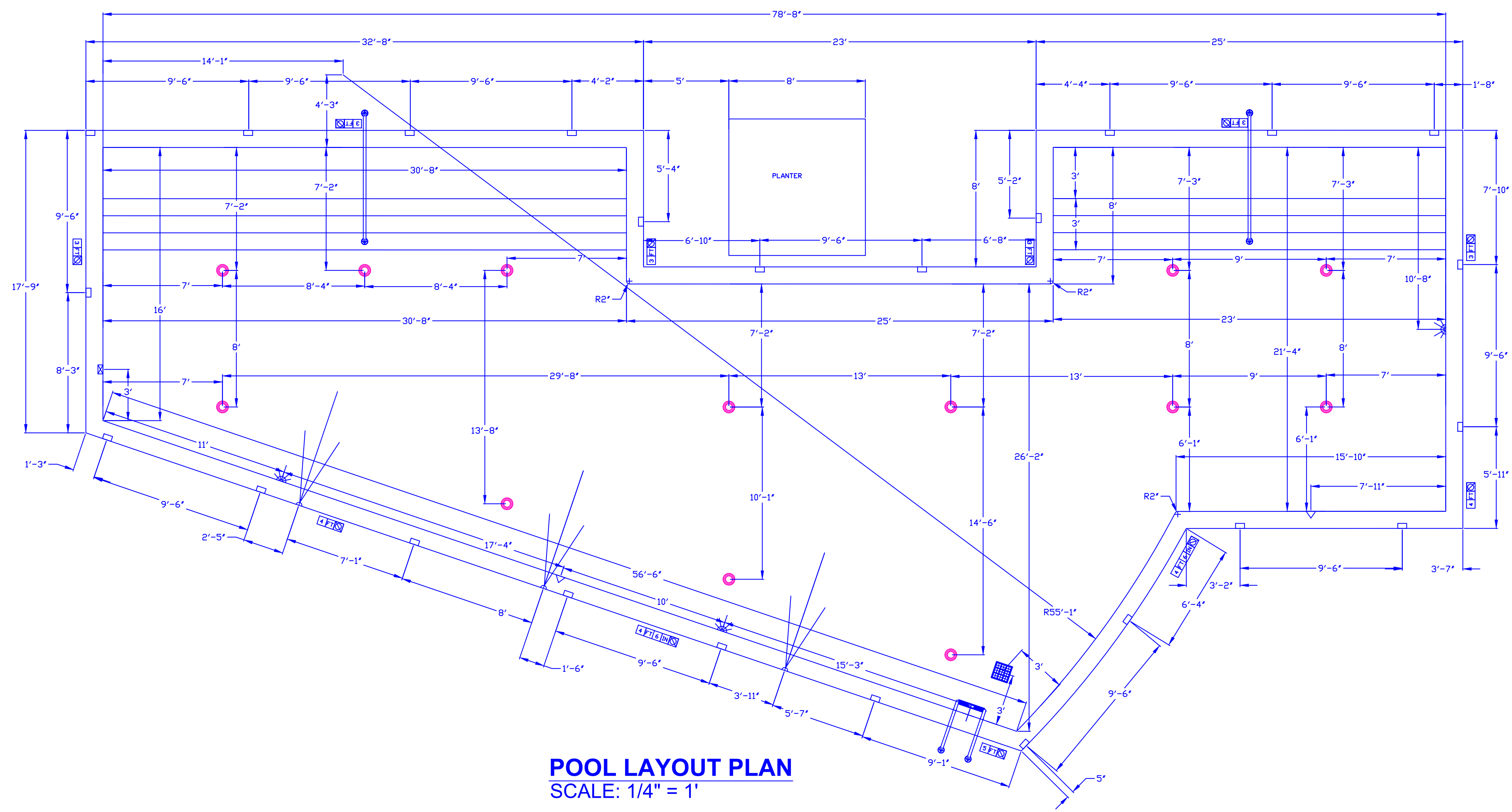
42 GPM > 18 GPM

POOL PLUMBING PLAN
 SCALE: 1/4" = 1'



#	Revision Description	Date

Date: 7/15/16
 Drawn by: SAL



POOL LAYOUT PLAN
SCALE: 1/4" = 1'

LEGEND

- (3) LIGHT(S)
- (1) MAIN DRAIN
- (13) FLOOR INLETS
- (1) LEVEL
- (24) GUTTERS
- (2) VACUUM FITTINGS
- (3 FT) DEPTH MARKER(S)
- (1) "NO DIVING" MARKER(S)
- (1) LADDERS
- (3) JET SPRAYERS

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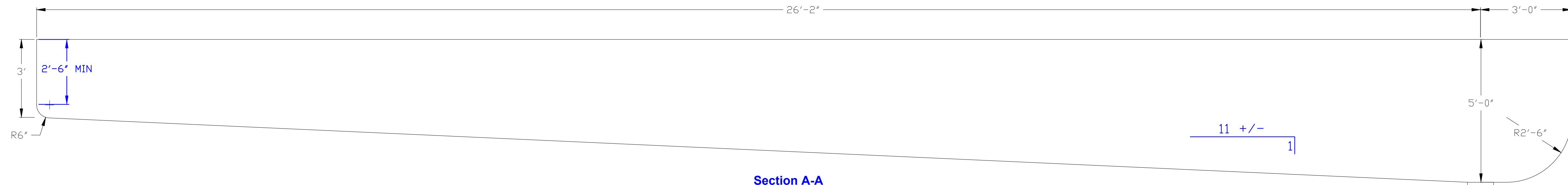
For: The Bainbridge Companies

Bainbridge at Nona Place Pool
Pool Layout Plan

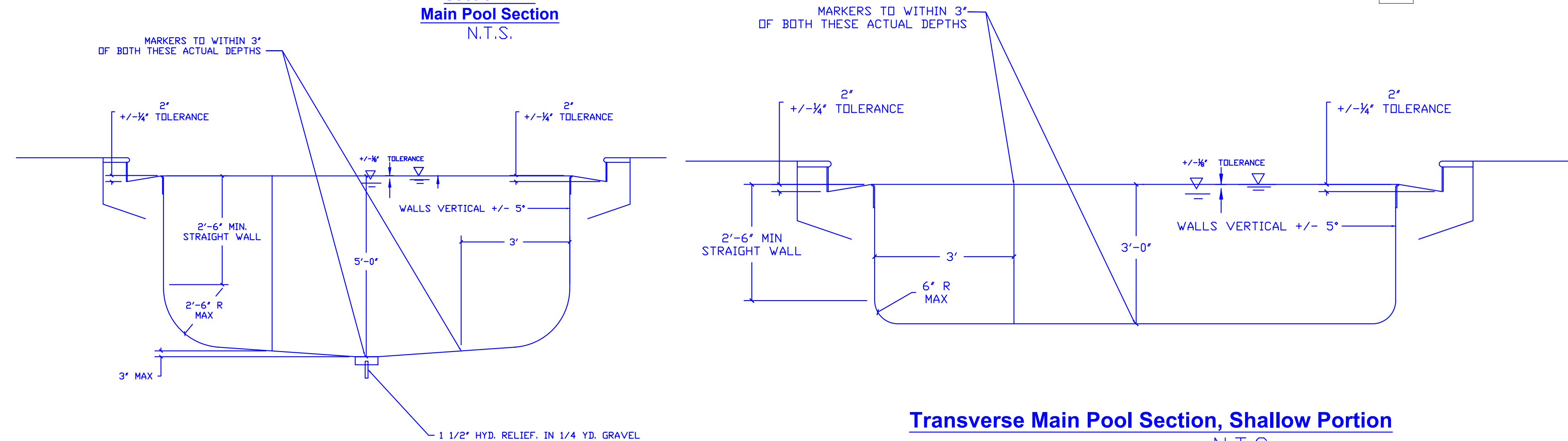
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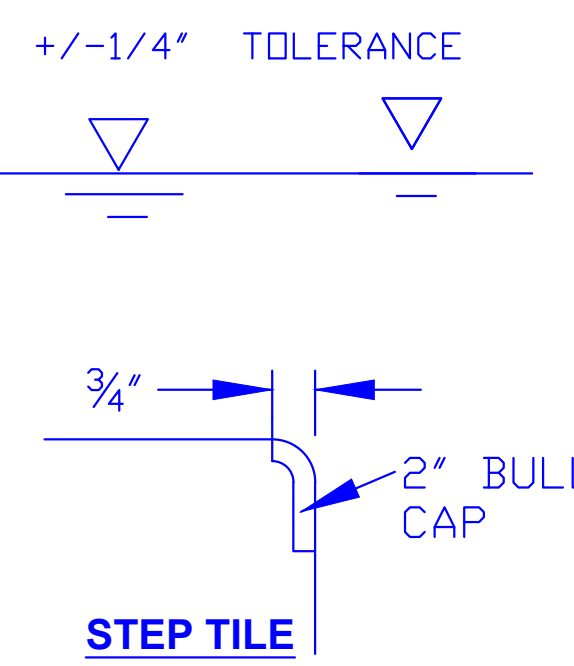


Section A-A
Main Pool Section
N.T.S.

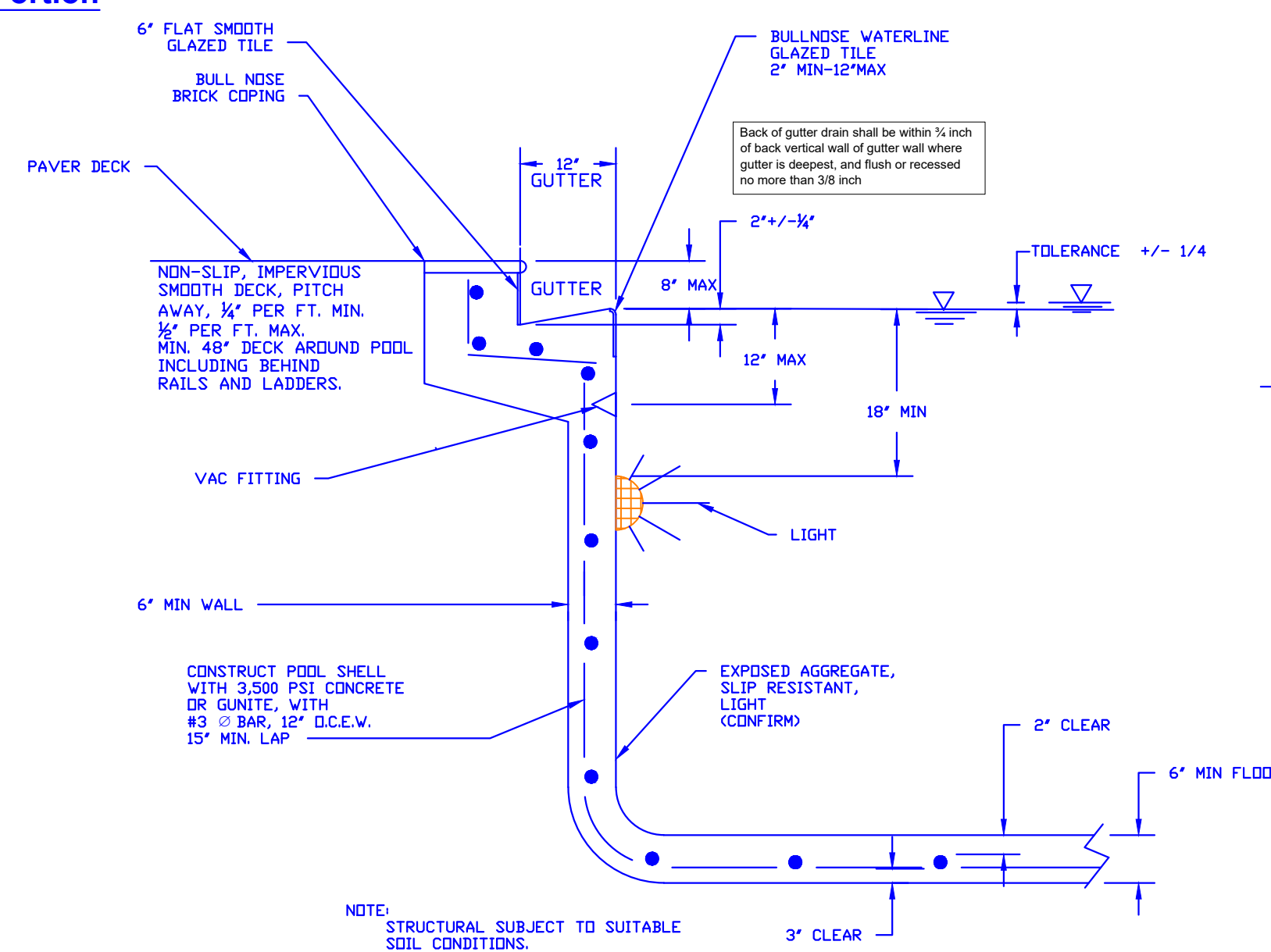


Transverse Main Pool Section, Shallow Portion
N.T.S.

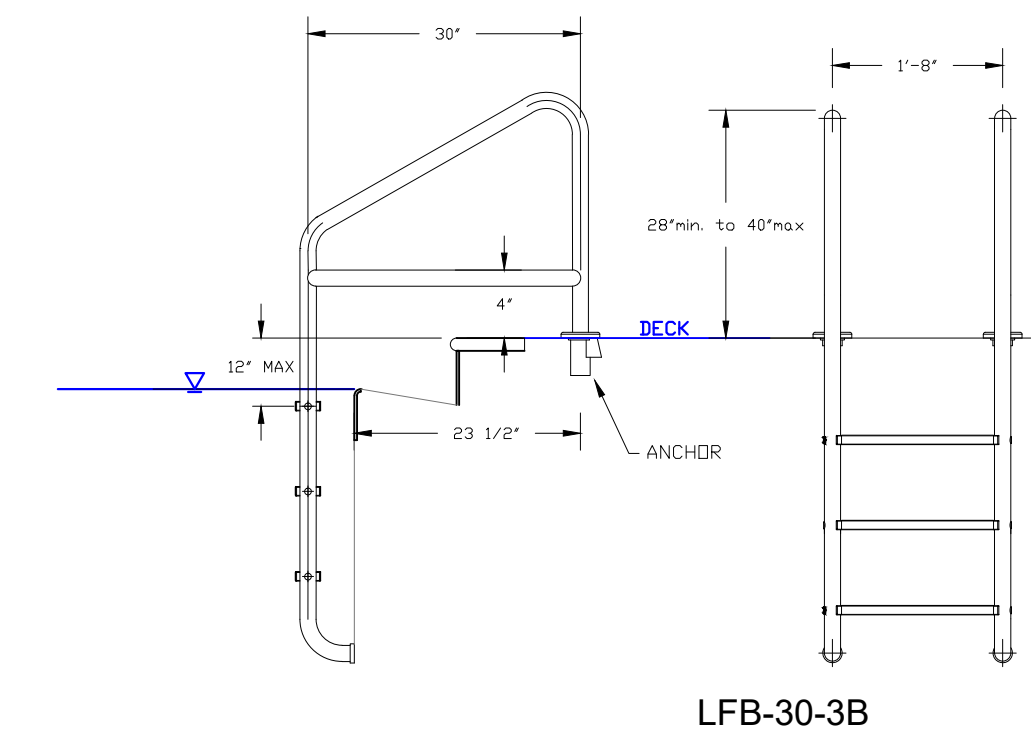
Transverse Pool Section, Deep Portion
N.T.S.



STEP TILE

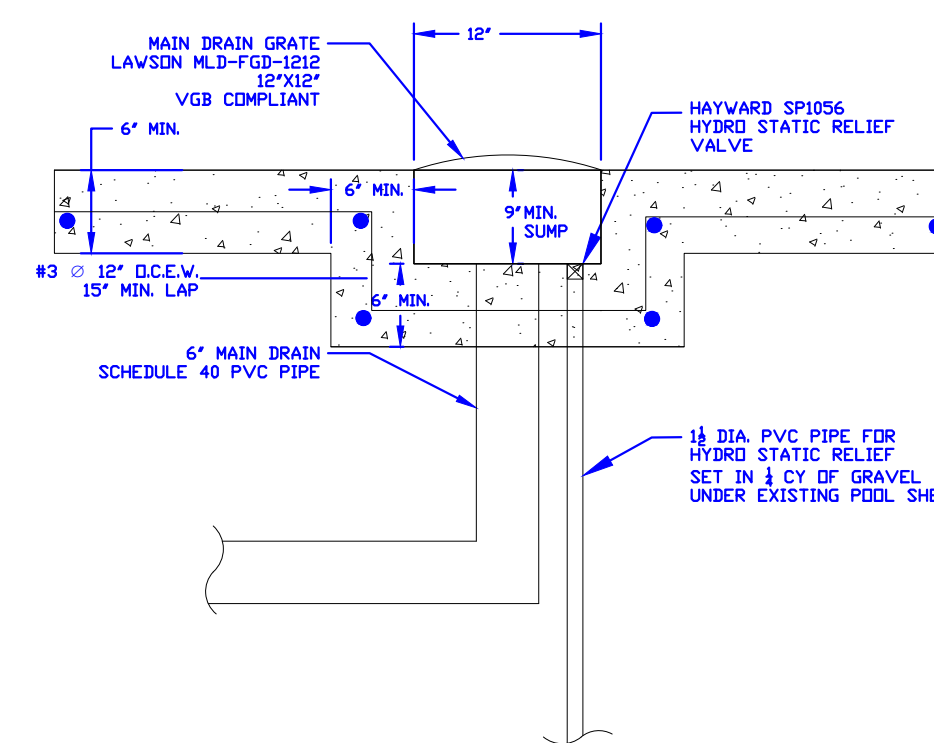


Gutter, Wall and Floor Detail
N.T.S.

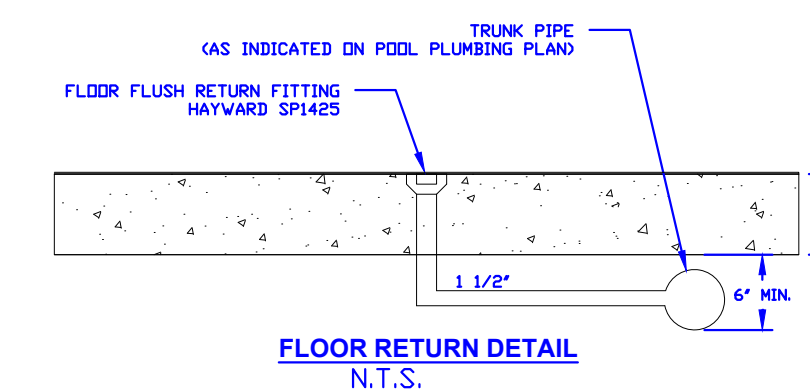


Ladder Custom: S.R. Smith Custom, Stainless Steel
Tread: 6" Maximum from wall, 3" Minimum from wall.
Cross Braced, Slip Resistant Treads, 28" minimum / 36" max above deck.
Frame, 1.9" OD x .065", Type 304 Stainless Steel, with white rubber bumpers.
Steps, acrylic plastic and have a slip resistant top surface.
Escutcheon, (pin EP-100F), stainless steel.
Anchor Assembly: AS-100B (see spec sheet for SRS-908)

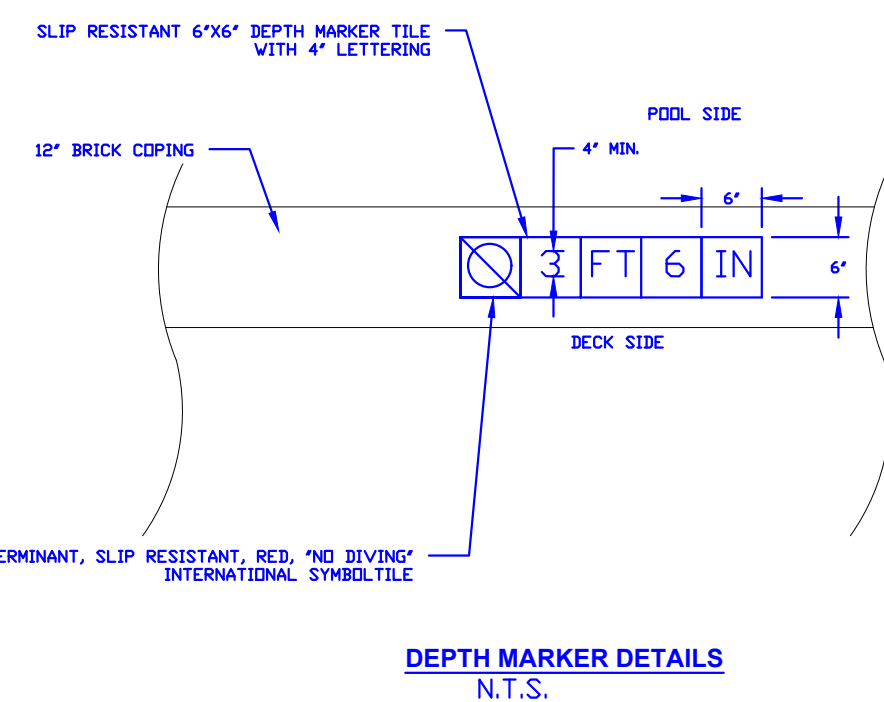
Ladder Detail
SCALE: nts



Main Drain Detail
N.T.S.

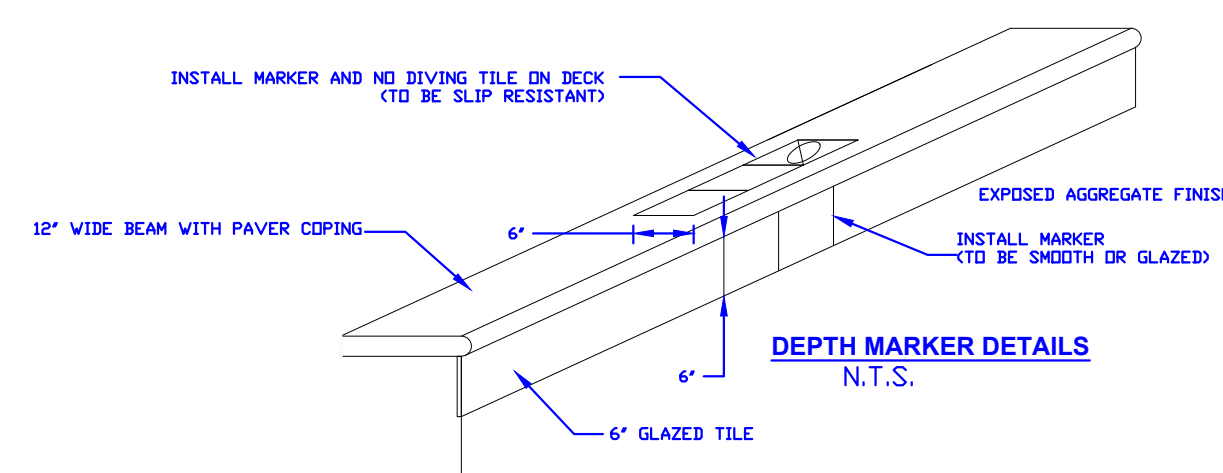


FLOOR RETURN DETAIL
N.T.S.

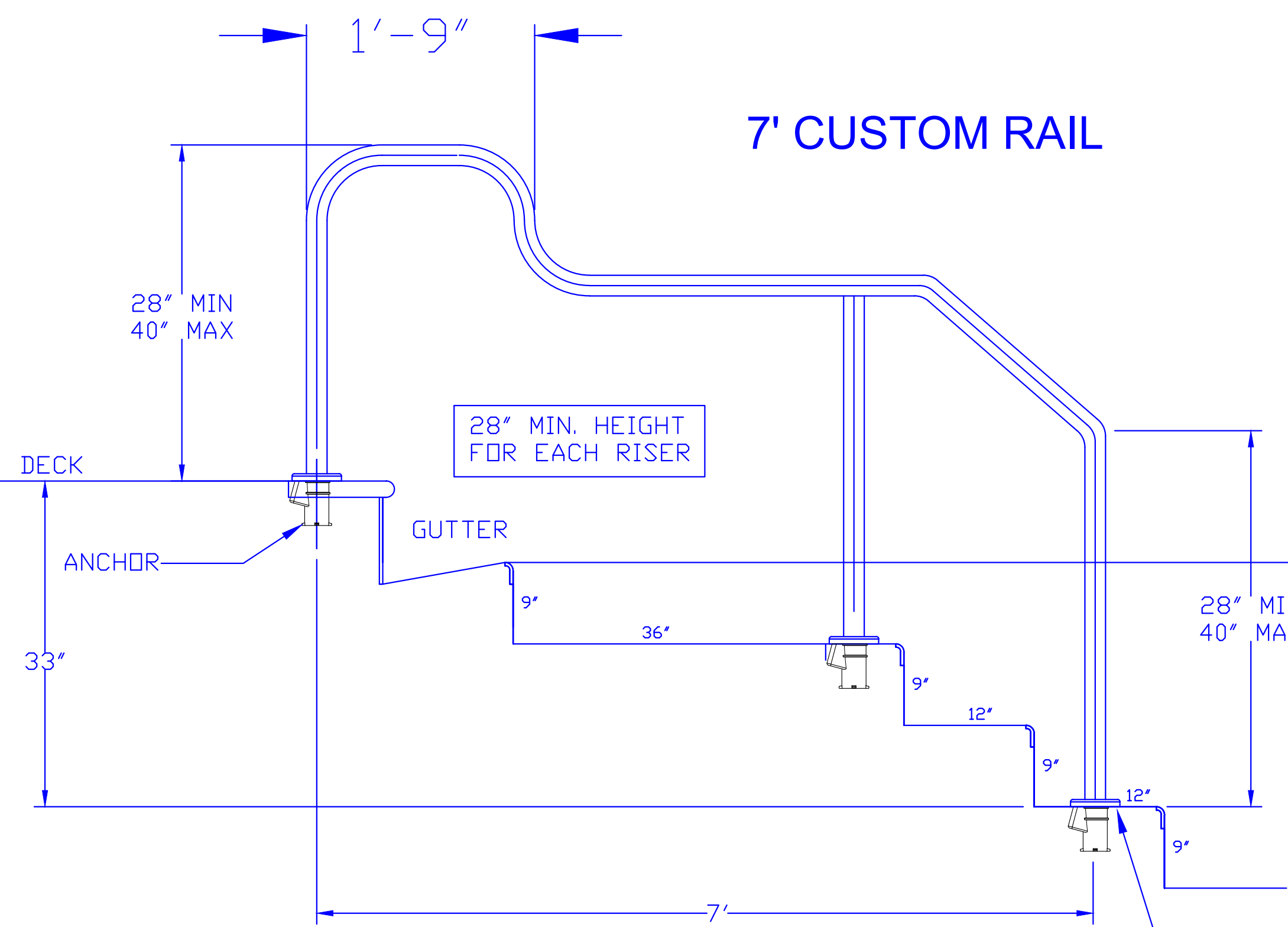


DEPTH MARKER DETAILS
N.T.S.

NOTE:
1. DEPTH MARKERS AND NO DIVING TILE NOT TO BE MORE THAN 24" FROM WATER'S EDGE.
2. DEPTH MARKERS TO BE ON DECK AND INSIDE POOL AT WATER LINE.



DEPTH MARKER DETAILS
N.T.S.



Pool Step and Rail Detail
N.T.S.

NOTE:

- ALL STEP TILE SHALL BE SLIP RESISTANT, MUNSELL, COLOR VALUE FROM 0 TO 4, (DARK) AND CONTINUOUS AROUND ENTIRE STEP.
- INTERMEDIATE STEPS SHALL BE UNIFORM IN WIDTH AND HEIGHT.
- ALL SLIP RESISTANT TILE SHALL HAVE A COEFFICIENT OF FRICTION OF AT LEAST 0.6 AS MEASURED USING ASTM C 1028.

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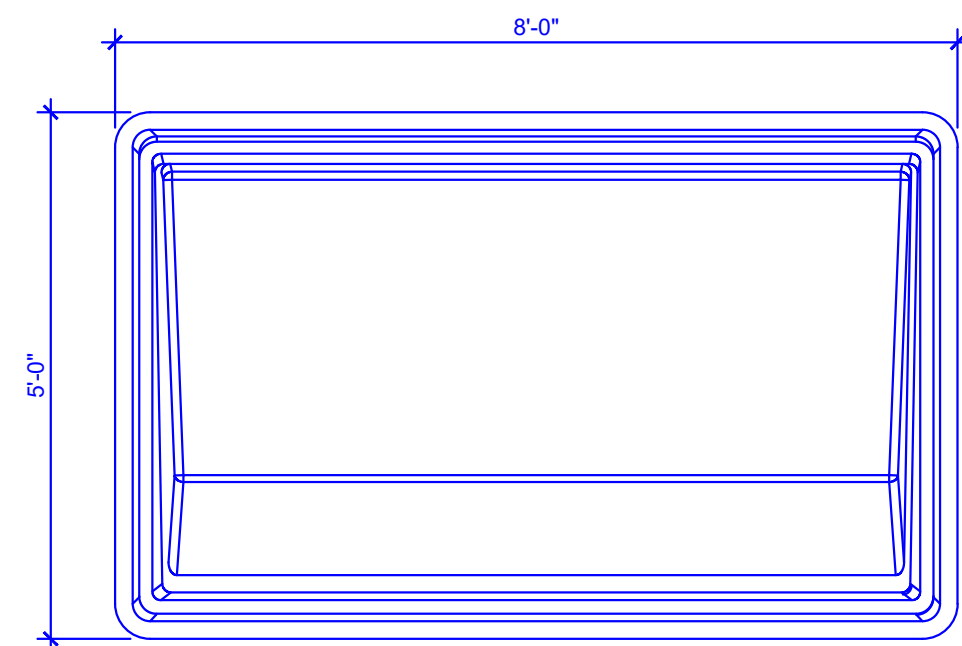
For: The Bainbridge Companies

Bainbridge at Nona Place Pool
Profiles and Details

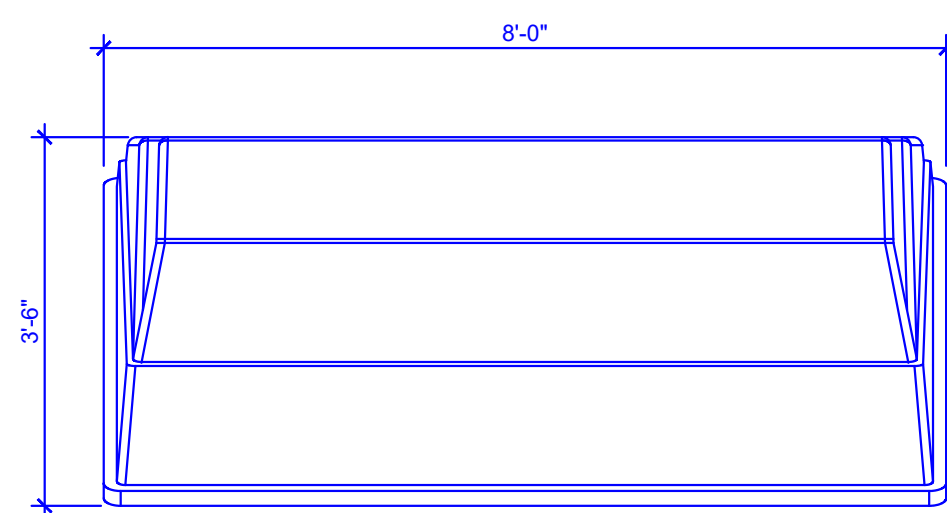
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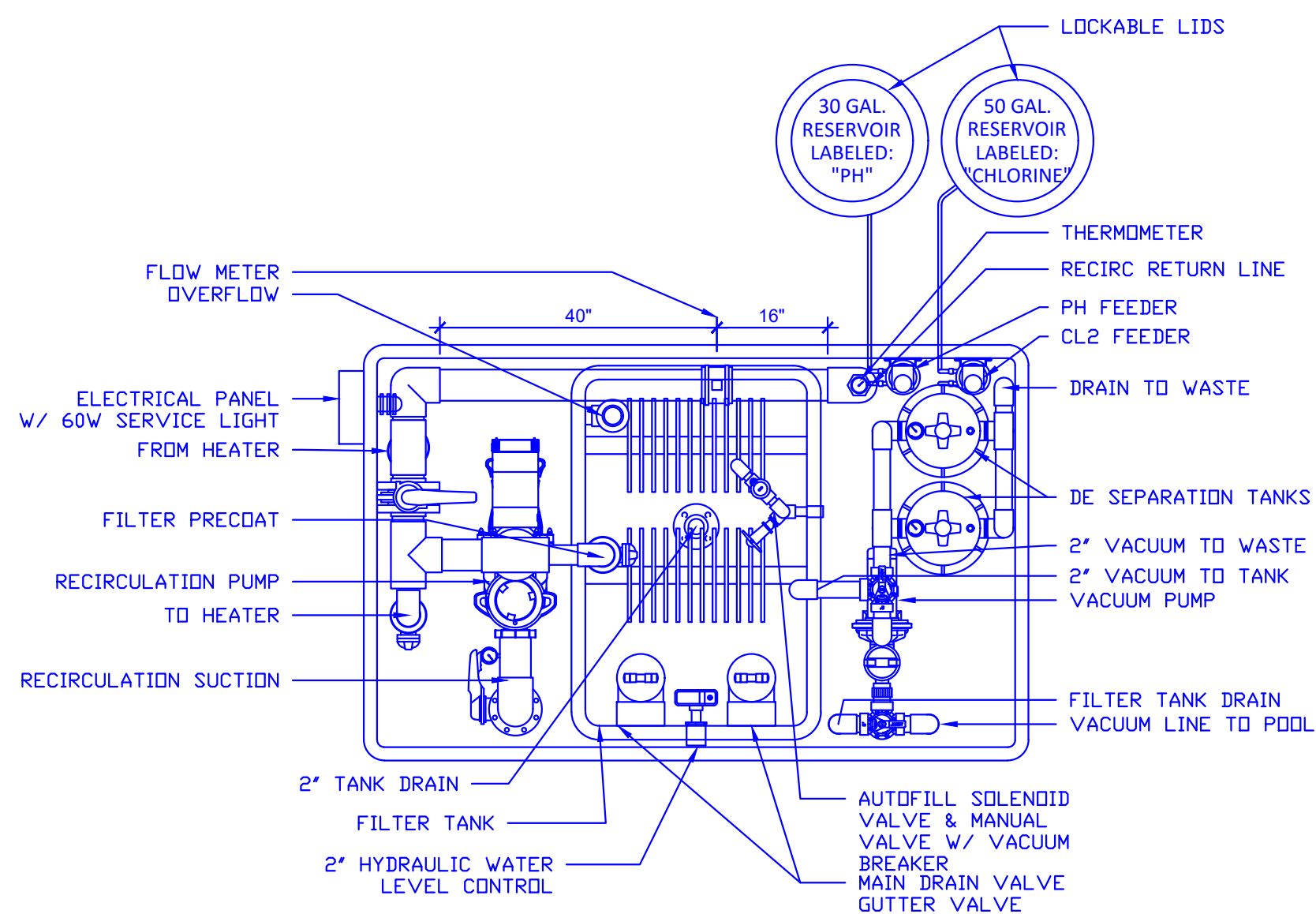
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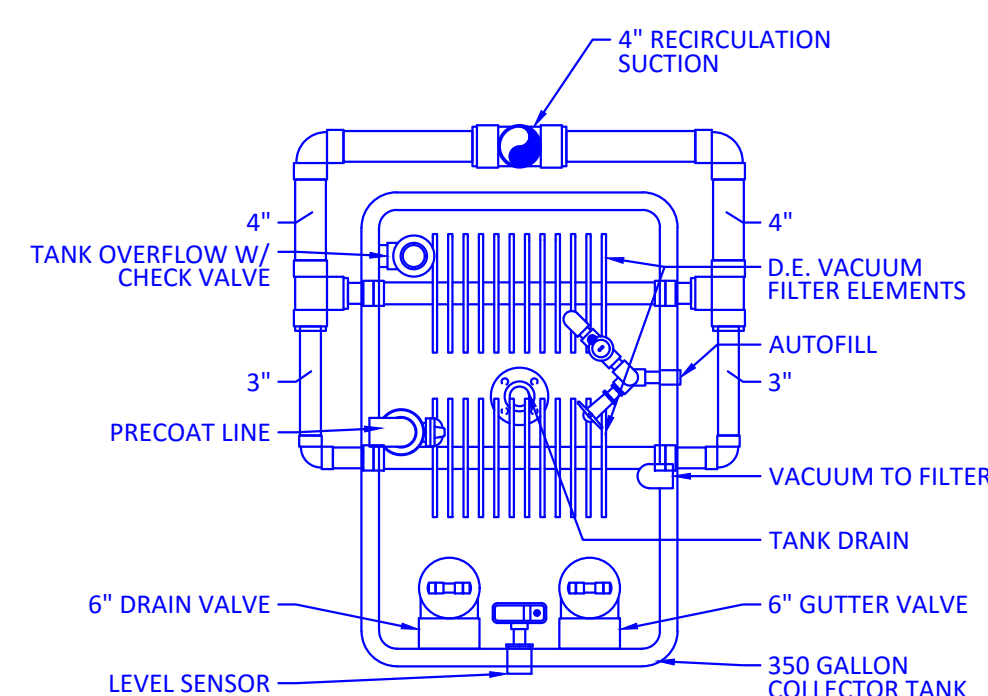
TOP VIEW



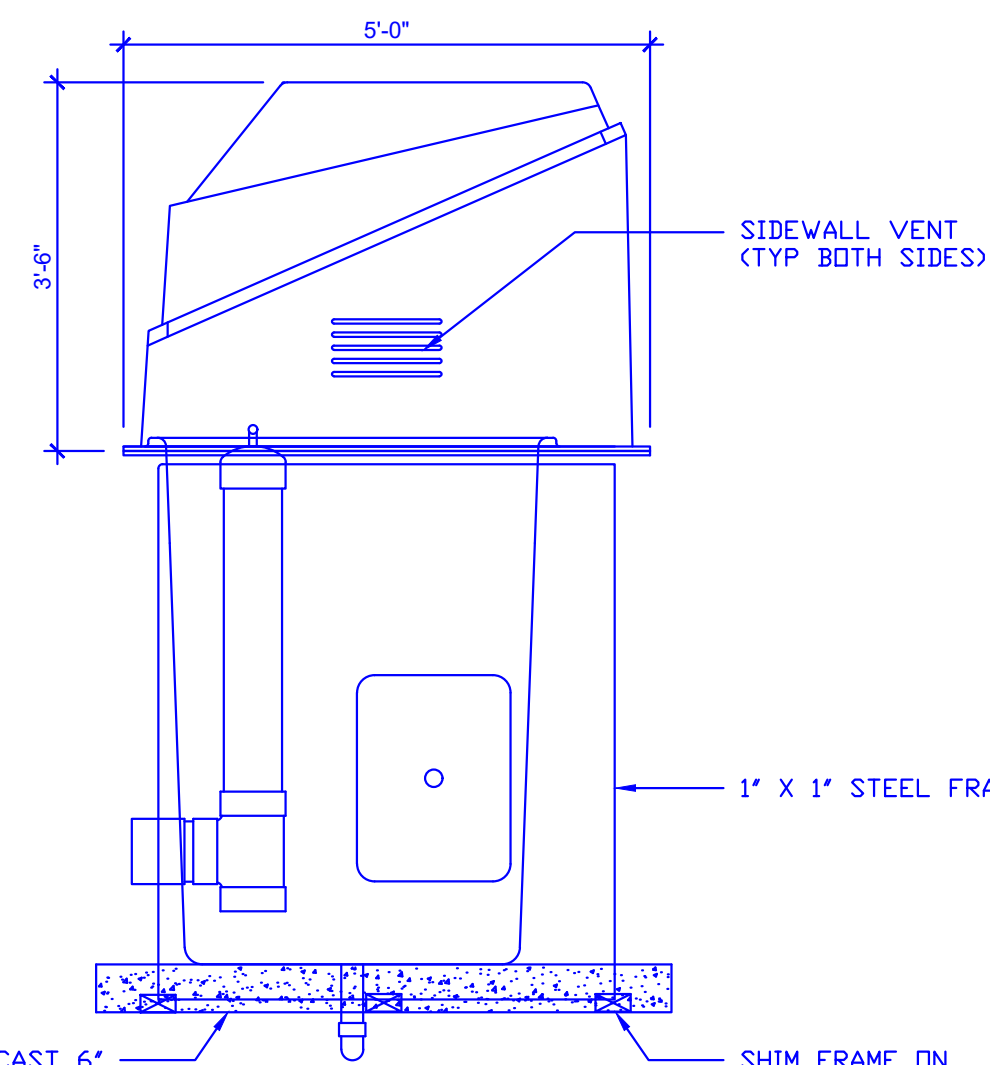
LID FRONT VIEW



EQUIPMENT PLAN
5'x8' CABINET - INTERNAL FILTER TANK



FILTER TANK ID
PLAN VIEW

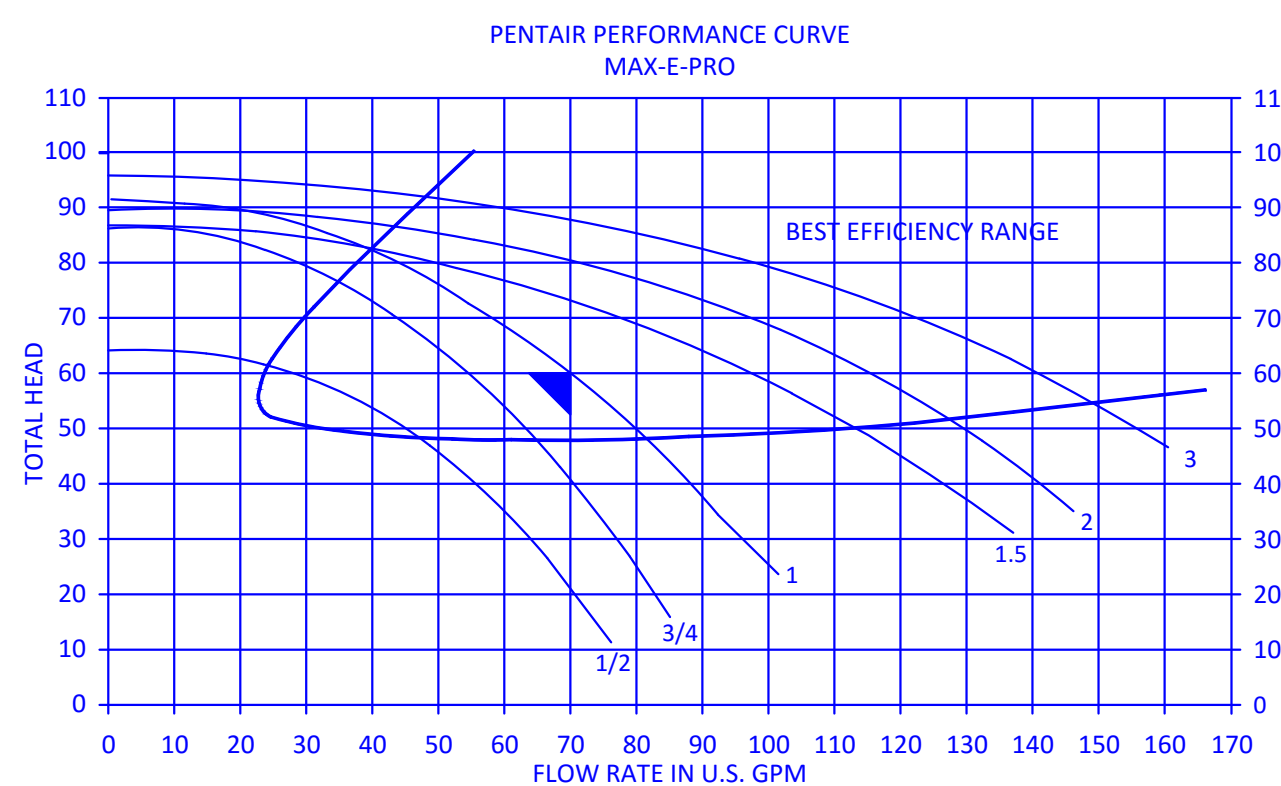
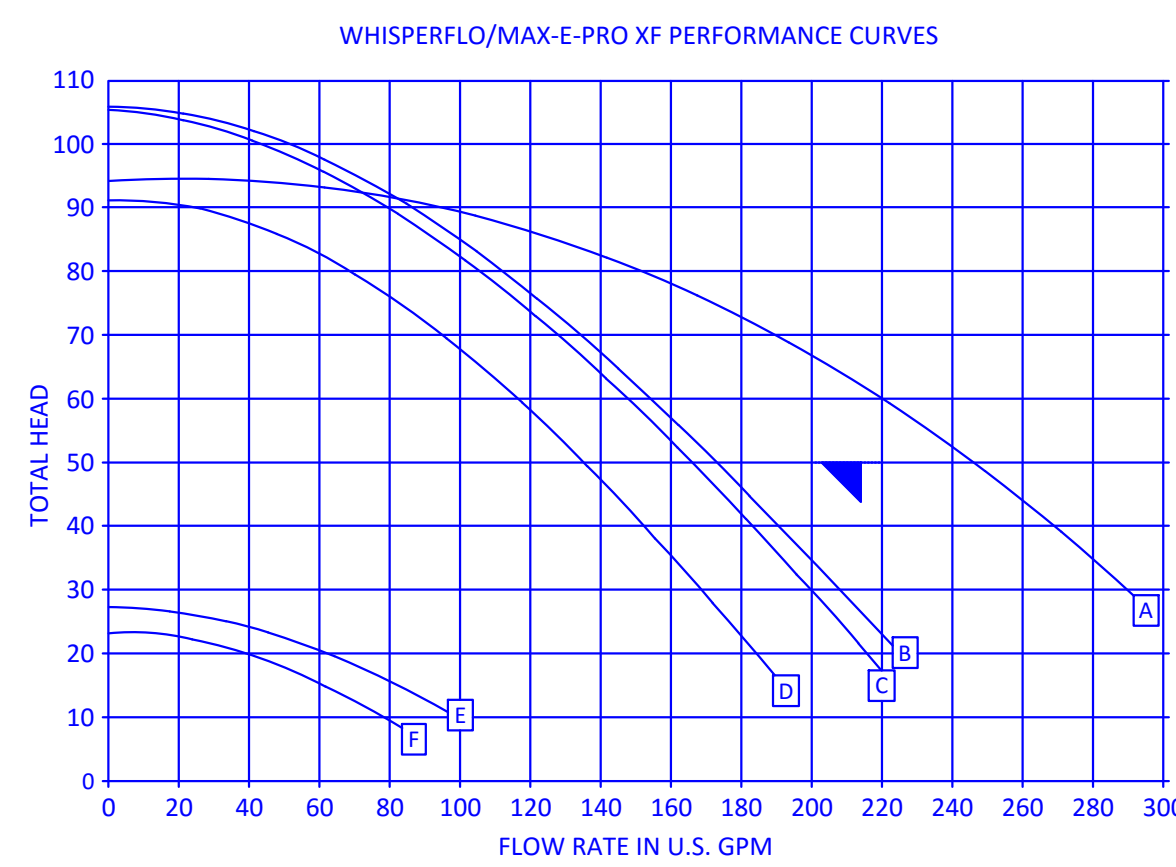


SIDE ELEVATION

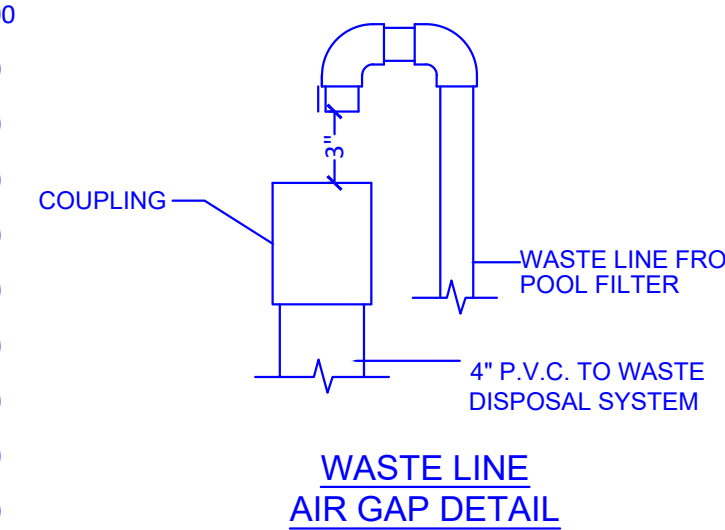
NOTES:

1. PLUMBING - ALL PIPE & FITTINGS SHALL BE SCHEDULE 40 PVC PER ASTM D1785 AND N.S.F. APPROVED AND STAMPED FOR POTABLE WATER APPLICATIONS. JOINTS TO BE SOLVENT WELDED PER ASTM D2855. ALL PLUMBING AND MATERIALS TO CONFORM TO FLORIDA BUILDING CODE 2014 - FIFTH EDITION.
2. ELECTRICAL - ALL ELECTRICAL EQUIPMENT WIRING, INSTALLATION AND GROUNDING OF POOL COMPONENTS SHALL CONFORM TO NATIONAL FIRE PROTECTION ASSOC. 70, NATIONAL ELECTRICAL CODE (N.E.C.) LATEST EDITION AND ALL APPLICABLE LOCAL CODES. CHEMICAL FEED PUMPS TO BE INTERLOCKED WITH THE RECIRCULATION PUMP.
3. EQUIPMENT - ALL PUMPS, FILTERS AND DISINFECTION EQUIPMENT SHALL BE TESTED AND APPROVED BY THE PERTINENT MANUFACTURER USING THE NSF/ANSI STANDARD 50 AND LISTED AS APPROVED BY THE NSF.
4. THE FILTER ROOM FLOOR IS SLIP RESISTANT AND SLOPED TO FLOOR DRAINS.
5. ALL PLASTIC PIPING SUBJECT TO PROLONGED SUNLIGHT EXPOSURE MUST BE COATED TO PROTECT IF FROM ULTRAVIOLET LIGHT DEGRADATION.
6. EACH WASTE LINE SHALL HAVE A UNIQUE AIR GAP. WASTE LINES FROM DIFFERENT SOURCES (E.G. POOL, SPA, OVERFLOW, SUMP PUMP) SHALL NOT BE TIED TOGETHER BUT MAY DISCHARGE INTO A COMMON SUMP OR RECEPTACLE.
7. THE WASTE LINE MUST BE CONNECTED TO AN APPROVED WASTE DISPOSAL SYSTEM ACCORDING TO LOCAL OR STATE CODES.
8. ALL COLLECTOR TANKS SHALL HAVE COVED INTERSECTIONS AND SLOPE TO THE TANK DRAIN.
9. AN AUTOMATIC AND MANUAL WATER MAKEUP CONTROL MUST BE PROVIDED TO MAINTAIN THE WATER LEVEL AT THE LIP OF THE OVERFLOW GUTTER OR AT THE MOUTH OF THE RECESSED AUTOMATIC SKIMMERS AND MUST DISCHARGE THROUGH AN AIR GAP INTO A FILL PIPE OR COLLECTOR TANK. OVER THE RIM FILL SPOUTS ARE PROHIBITED.
10. A RATE OF FLOW INDICATOR, READING IN GPM, SHALL BE INSTALLED ON THE FILTER RETURN LINE. THE RATE OF FLOW INDICATOR SHALL BE PROPERLY SIZED FOR THE DESIGN FLOW RATE AND SHALL BE CAPABLE OF MEASURING FROM ONE HALF TO AT LEAST ONE-AND-ONE-HALF TIMES THE DESIGN FLOW RATE. THE CLEARANCES UPSTREAM AND DOWNSTREAM FROM THE RATE OF FLOW INDICATOR SHALL COMPLY WITH THE MANUFACTURER'S INSTALLATION SPECIFICATIONS.
11. THESE PLANS HAVE BEEN PREPARED IN COMPLIANCE WITH THE 2014 FLORIDA BUILDING CODE - FIFTH EDITION.

AWDE214/24 EQUIPMENT LIST	
RECIRCULATION PUMP	PENTAIR WHISPERFLOXF XFE-20, 5HP, SELF PRIMING, 213 GPM @ 50' TDH, 208-230V, 1Φ, 22.0/19.9A
VACUUM PUMP	STA-RITE MAX-E-PRO 1 HP P66GE-206L, SELF PRIMING, 70 GPM @ 60' TDH, 115/230V, 1Φ, 16.0/8.0A
FILTER TANK SIZE	AT350, 350 GALLON CAPACITY
DE FILTER ELEMENTS	(24) - 13.5" x 24" ELEMENTS, 4.5 SQ. FT EACH, 108 SQ. FT. TOTAL
(2) SEPARATOR TANKS	DE SEPARATION TANK, 80 SQ. FT. EACH, 160 SQ. FT. TOTAL
WATER LEVEL CONTROL	AQUATEK HYDRAULIC VALVE W/ MANUAL FILL VALVE & RESERVOIR
CHLORINE FEEDER	STENNER 45MS, 50 GPD CAPACITY, 110V
CHLORINE RESERVOIR TANK	MIN. 30 GALLON WITH LOCKABLE LID
pH FEEDER	STENNER 45M2, 10 GPD CAPACITY, 110V
pH RESERVOIR TANK	MIN. 30 GALLON WITH LOCKABLE LID
FLOWMETER	BLUE/WHITE F-30400P, 4", 125 TO 500 GPM RANGE
THERMOMETER	PRECISION INSTRUMENT CO B2B1-K WITH 1/2" NPT THERMOWELL 30 TO 240°F RANGE
VACUUM GAUGE	WIKA, 0-30 IN HG, LIQUID FILLED, 1/4" NPT, 2" FACE DIAMETER
PRESSURE GAUGE	WIKA, 0-60 PSI, LIQUID FILLED, 1/4" NPT, 2" FACE DIAMETER
CHEMISTRY CONTROLLER	na



PIPE AND VALVES CHART	
LINE FUNCTION	SIZE
MAIN DRAIN	6"
GUTTER	6"
STATIC LINE	2"
RECIRCULATION PUMP SUCTION	4"
RECIRCULATION RETURN	4"
FILTER PRECOAT	2-1/2"
VACUUM LINE TO POOL	2"
TANK DRAIN	2"
VACUUM TO FILTER TANK	2"
VACUUM TO WASTE	2"
FRESH WATER FILL LINE	1"
OVERFLOW	2"
TO HEATER	2-1/2"
FROM HEATER	2-1/2"



FEEDER & CIRCUIT SCHEDULE:					
MARK	PHASE	NEUTRAL	GROUND	CONDUIT	REMARKS
A					PANEL FEED
B	2	#12	1 - #12	1/2"	UL SEALTITE
C	2	#10	1 - #10	3/4"	UL SEALTITE
D	1	#12	1 - #12	1/2"	SEALTITE TO LIGHT
E	1	#12	1 - #12	1/2"	SEALTITE TO PANEL
F	1	#12	1 - #12	1/2"	SEALTITE TO PANEL
CONDUCTORS AND CONDUIT INSTALLED BY OTHERS					

PANEL SCHEDULE:				
1 PHASE, 3 WIRE, 120/240 VAC, INSULATED/BONDABLE SPLIT NEUTRAL				
CIRCUIT	POLE	TRIP	LOAD	AMPS
1	2	40A	RECIRC. PUMP W/ (2) INTERLOCKED CHEM. FEEDS	25.4
2	2	20A	VACUUM PUMP	13.8
3	1	15A	SERVICE LIGHT	1.5
4	2	20A	GFCI	15.0
TOTAL MAXIMUM LOAD				55.7

FIXTURE SCHEDULE:			
MARK	DESCRIPTION	VOLTAGE	MANUFACTURER & MODEL NO.
A	MAIN LUG BREAKER PANEL (24 CIRCUIT)	120/240V	EATON, BR24L125RSEP
B	RECIRCULATION PUMP	208-230V	PENTAIR, WHISPERFLOXF, 022011, XFE-20
C	VACUUM PUMP	115/230V	STA-RITE, MAX-E-PRO, P66AGE-205L
D	100 WATT SERVICE LIGHT FIXTURE	115V	INTERMATIC, VPKG11GCI-100W
E			
F	CHLORINE FEEDER PUMP	115V	STENNER, 85MS
G	ACID FEEDER PUMP	115V	STENNER, 45MS
H	GFCI	115V	PASS & SEYMOUR

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For: The Bainbridge Companies
 Bainbridge at Nona Place Pool
 Pool and Spa Equipment Details

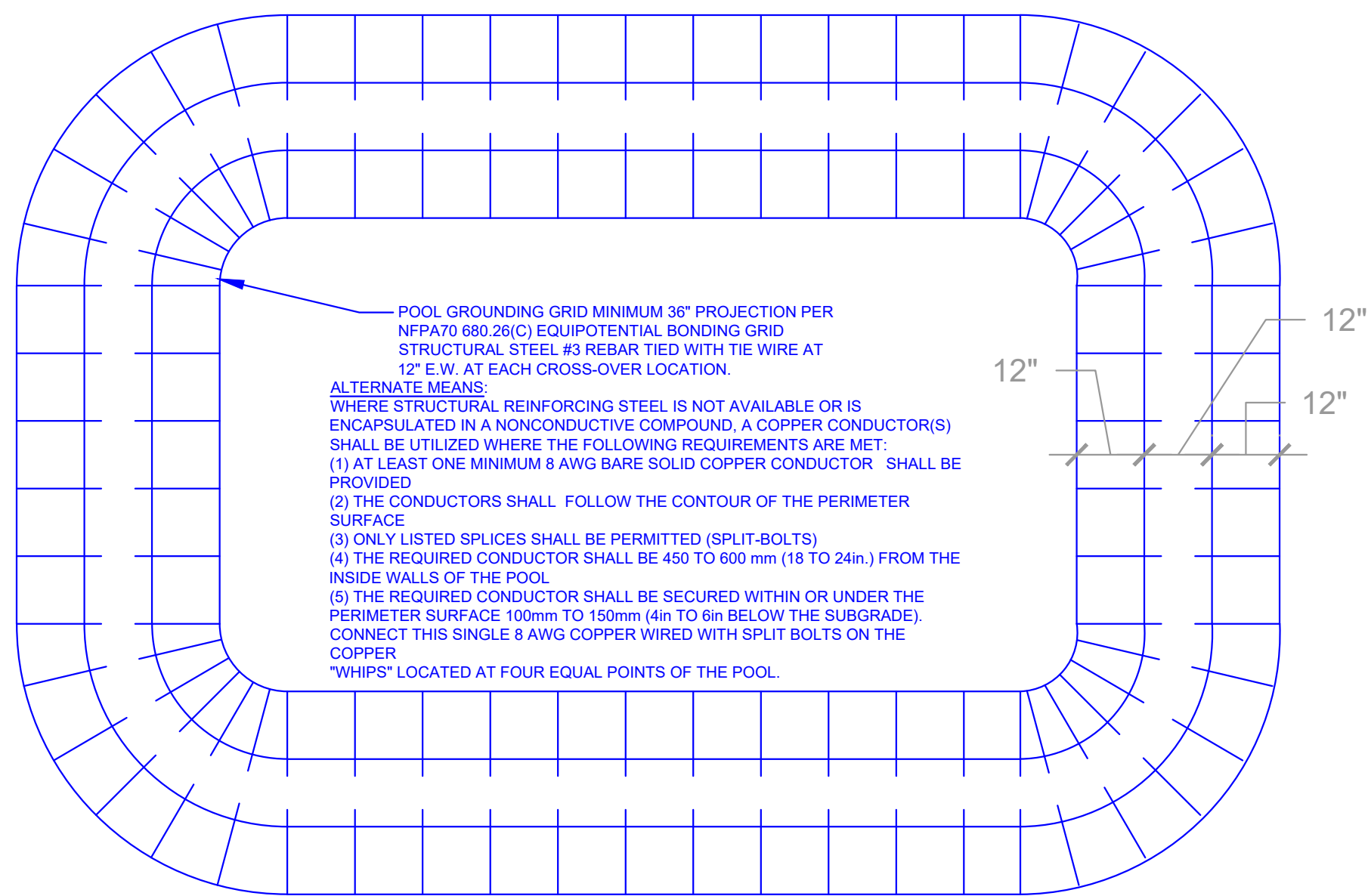
SAMUEL A. LIBERATORE, P.E. #65740

#	Revision Description	Date

Date: 7/15/16
 Drawn by: SAL



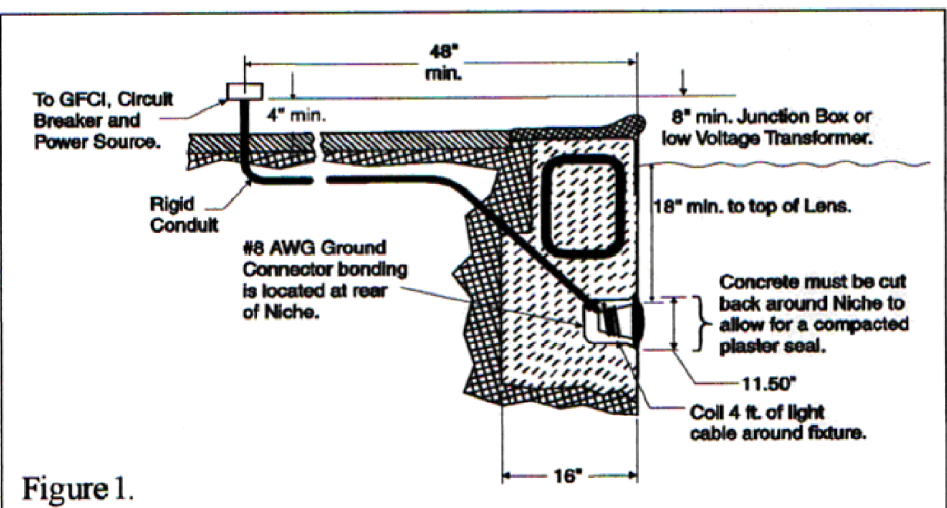
JOB NAME: AW5HPXF
 LOCATION: N.T.S.
 SCALE: N.T.S.
 DRAWN BY: M.C.M.
 DATE: 05-15-13
 REVIEWED BY: S. D. H.



POOL EQUIPOTENTIAL GRID REQUIREMENT
SCALE: NTS

SECTION I. Installing light fixture during new pool construction.

- A. Preparatory steps which must be completed by the electrician before light fixture is installed; see Figure 1.
- Verify that the pool meets the requirements of the current National Electrical Code and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code which the pool's electrical system must meet are listed below.
 - The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and an appropriately rated circuit breaker.
 - The Junction Box (or, for 12 volt models, the low voltage transformer) must be located at least 8 inches above water level, 4 inches above ground level, and at least 48 inches from the edge of the pool; see Figure 1.
 - The light fixture and all metal items within 5 feet of the pool must be properly electrically bonded.
 - The wet niche must be properly installed so that the top edge of the lens on the underwater light is at least 18 inches below the surface of the water in the pool; see Figure 1.
 - The wet niche must be properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the niche; see Figure 1.

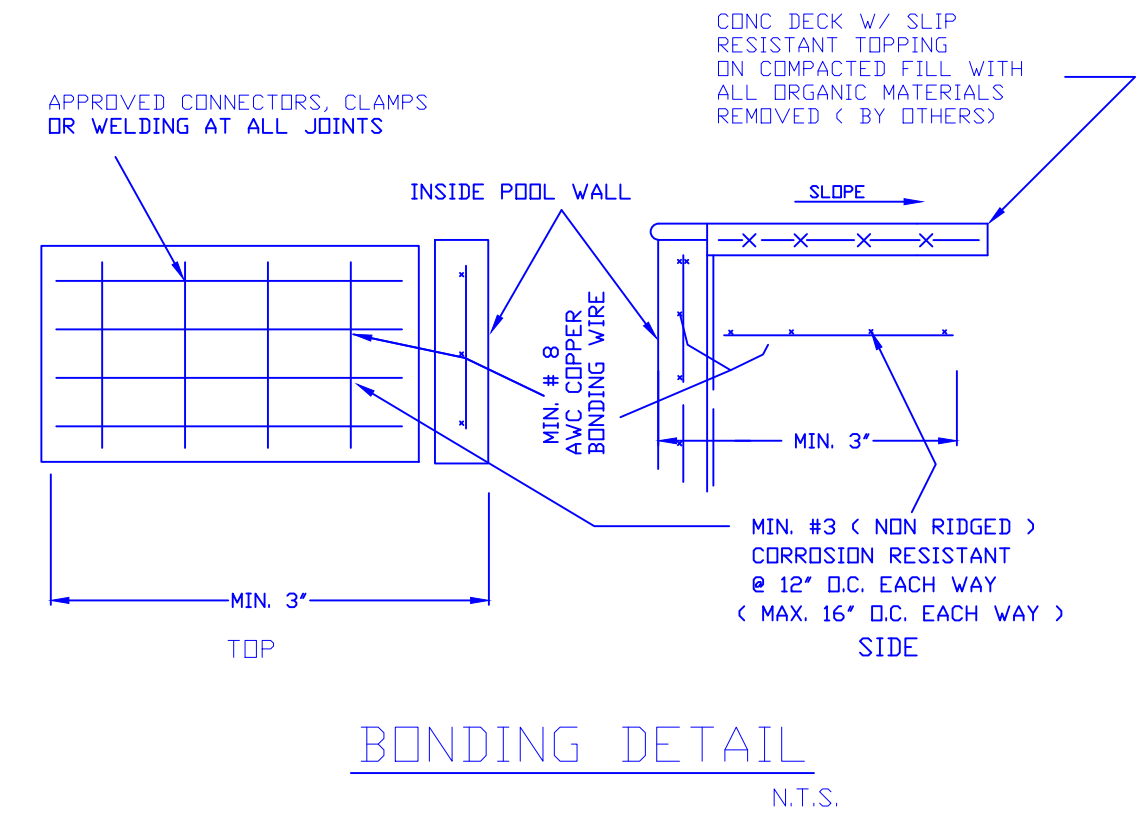


NOTE
The pool or spa electrical system can be verified with a Pool and Spa Electrical Qualification Test Kit. The test kit is available from Pentair Pool Products. The electrical system inspection using this kit must be performed by trained and certified personnel.

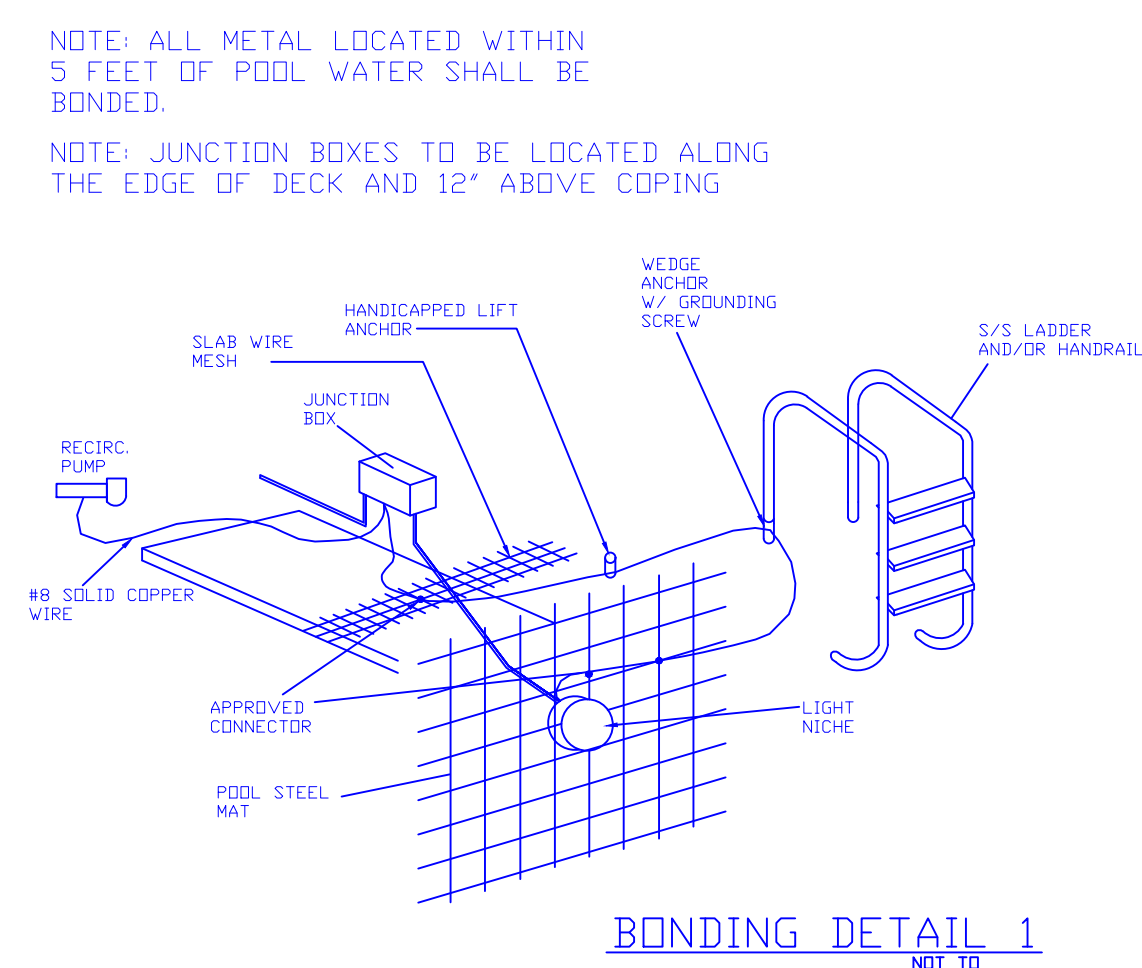
- To be certain that the pool's electrical system meets all applicable requirements, the electrician should also consult the local building department.
 - Use only Pentair Pool Products wet niches to insure proper bonding and grounding connections.
- B. Steps to perform after the electrical system requirements are met.
- Feed cord through conduit to Junction Box, leaving at least 4 feet of cord at the light fixture to coil around the light; see Figure 1. This 4 feet of cord around the light allows the light to be serviced after the pool is filled with water.
 - Cut the cord at the Junction Box, leaving at least 6 inches of cord to make connections.
 - Strip 6 inches of the outer cord jacket to expose the three insulated wires. Be careful not to damage the insulation on the three inner wires.
 - Connect all three wires to the corresponding circuit wires in the Junction Box (black wire to power, white wire to common, and green wire to ground) and secure the Junction Box cover in place.

WARNING
Never operate this underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious burns or in breakage of the lamp or lens. This may result in serious injury to pool users, installers, or bystanders, or in damage to property.

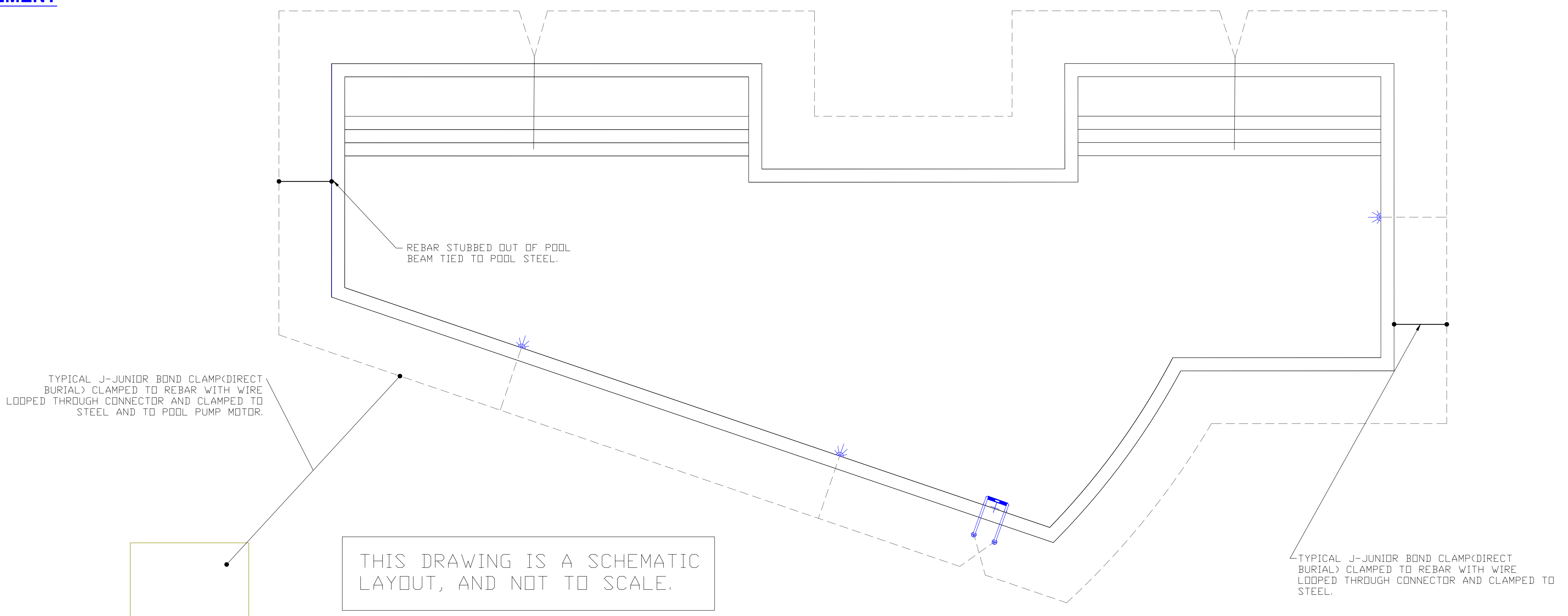
- Replace the light assembly into niche and tighten special pilot screw.



DECK BONDING GRID MUST COMPLY WITH N.E.C. CODE (ARTICLE 680.26 (C))



BONDING DETAIL 1
NOT TO SCALE



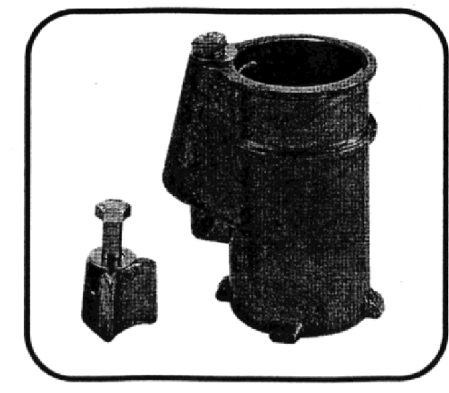
THIS DRAWING IS A SCHEMATIC LAYOUT, AND NOT TO SCALE.

- NOTES:**
- #8 SOLID COPPER BONDING WIRE TO BE RUN CONTINUOUS TO POOL FILTRATION EQUIPMENT AND ELECTRICAL SUPPLY PANEL.
 - BOND TO ALL METALLIC ITEMS LOCATED IN THE POOL AND TO THE REBAR.

POOL BONDING PLAN
SCALE: NTS

4-INCH BRONZE ANCHOR SOCKET (AS-100B)

APPLICATION
This is a cast bronze anchor socket suitable for use on most residential and moderate to heavy-duty commercial installations in most geographic areas.



STANDARD FEATURES
The 4" (101.6mm) deep cast Bronze Anchor Socket Assembly (AS-100B) provides a suitable mounting point for most residential and many moderate to heavy duty commercial fixtures of 1.31" (33mm) outer diameter. The anchor is tapped for and is provided with a 25" (635mm) #20 (U.S. threading) brass ground screw for bonding. Fixtures are secured in the anchor by means of a Wedge Assembly (PN: 9-409A) consisting of a cast bronze wedge tapped for a 5/16" (13.177.9mm) (U.S. threading) 1.25" (31.8mm) long bolt and washer (included). This unit is individually packaged for single unit sales.

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For: The Bainbridge Companies
Bainbridge at Nona Place Pool
Bonding Plan

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Date: 7/15/16
Drawn by: SAL

SAMUEL A. LIBERATORE, P.E. #55740