

NO CHANGES TO LANDSCAPE OR GRADING

ALL SOIL WILL BE  
DISPOSED OF IN AN

all property lines, easements  
and buildings, both  
existing and proposed, are

DRAINAGE IN REAR AND ALONG SIDES OF

The project proposed to export 100 cubic yards of  
material from this site. All export materials shall  
be discharged to a legal disposal site. The approval  
of this project does not allow processing and sale  
of material, all such activities requires a separate  
Conditional Use Permit

This project shall comply with:  
California Building Code 2022,  
California Residential Code 2022,  
Building Energy Efficiency Standards  
2022,  
California Plumbing Code 2022,  
California Energy Code 2022,  
&  
California Mechanical Code 2022

CRC AV100.1  
CRC AV100.2  
CRC AV100.3  
CRC AV100.8

CEC 680.6.  
CEC 680.6.10.  
CEC 680.6.26.  
  
CEnergyC 110.4 (a)(1-4)  
  
CPC 603.5.5  
CPC 813.1  
CPC APPENDIX L603.3.6.3.

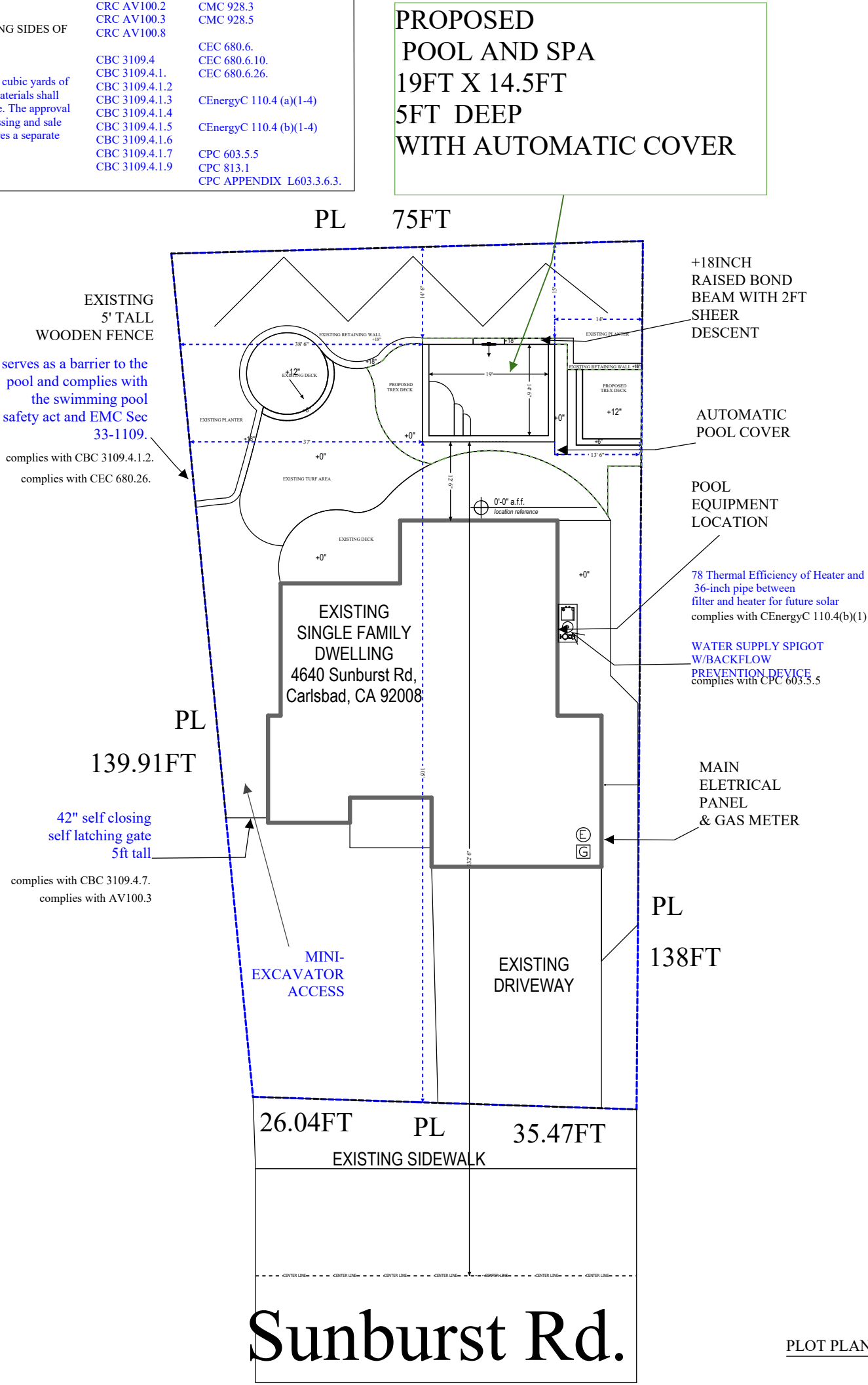
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Blue Haven Pools and Spas  
9580 Black Mountain Rd. #M  
San Diego, CA 92126  
LIC#: 1011748

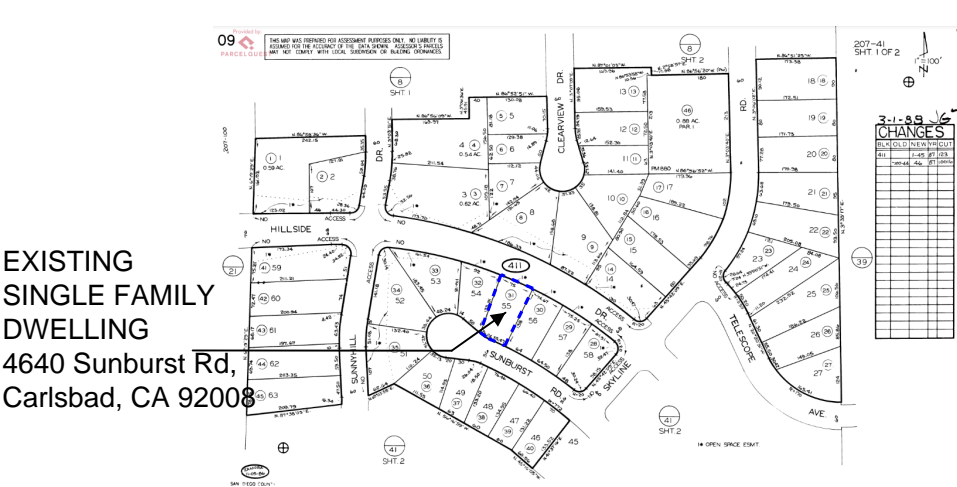
WOODS RESIDENCE  
4640 Sunburst Rd,  
Carlsbad, CA 92008  
APN: 207-411-31-00  
Legal Description: TR  
11592 LOT 55



PLOT PLAN

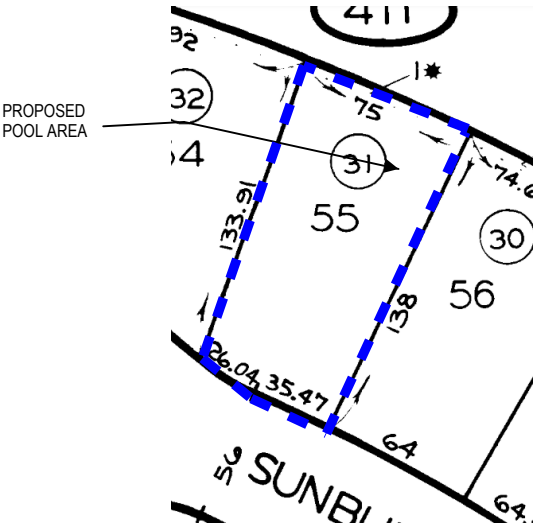
1  
A1

Scale: 1/20" = 1 ft



PLOT PLAN B

2  
A2



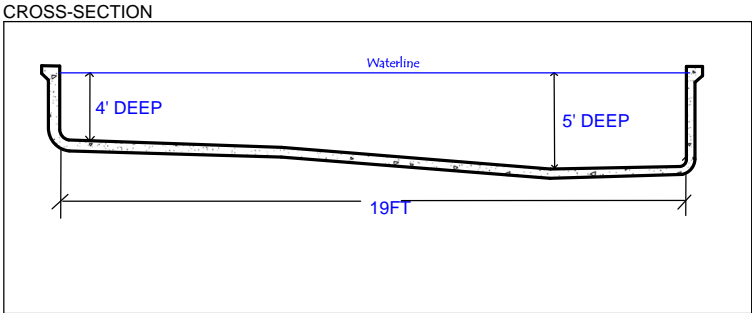
GOOGLE LAYOUT +  
PROPERTY LINE

3  
A3

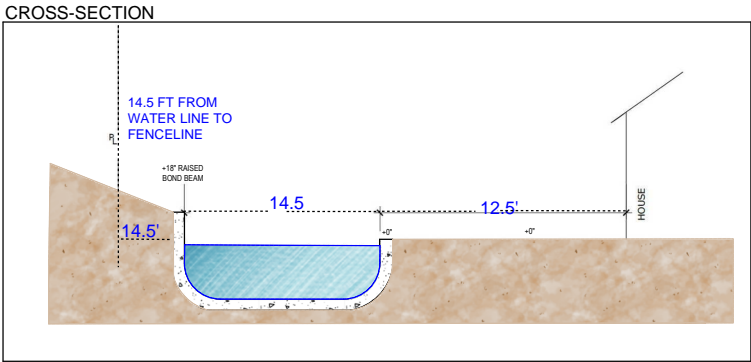


POOL DESIGN CONCEPT

4  
B1



CROSS SECTION DRAWING 4 A4



CROSS SECTION DRAWING 5 A5

SWIMMING POOL HEATING-  
REFERENCE 2019 RESIDENTIAL MANUAL  
SEC.5.7 SWIMMING POOL AND HEATING.  
ANY NEW OR PREPLACEMENT GAS OR  
ELECTRIC SWIMMING POOL HEATER  
SYSTEM IN A RESIDENTIAL OCCUPANCY  
SHALL BE EQUIPPED WITH ALL OF THE

- 1) an on-off switch mounted on the outside of the heater for easy access.
- 2) a permanent weatherproof plate or card, easily readable giving instructions for efficient operation of the swimming pool.
- 3) pool and spa heaters may not have continuous burning pilots.
- 4) a length of plumbing (36" min) between filter and the heater to allow for future solar heating.
- 5) outdoor pool/spas equipped with gas or electric heater shall also be equipped with a pool/spa cover. the cover should be filled and installed prior to last inspection.

outdoor lighting.

all luminaries mounted to the building or the other buildings on the same lot shall be high efficacy luminaries or must be controlled by a motion sensor AND controlled by one of these:  
PHOTOCONTROL or ASTRONOMICAL TIME CLOCK or ENERGY MANAGEMENT CONRTOL SYSTEM

The pool will comply with CBC3109.4.1.5

(1) CHAINLINK FENCE POOL ENCLOSURE  
5FT TALL

Chain Link Dimensions  
Mesh size for chain link fences ARE not greater than a 21/4 inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 13/4 inches (44 mm).

IN ADDITION TO THE  
PERMANENT ENCLOSURE  
(5FT TALL FENCE)

The Swimming pool or spa shall be equipped with at least two (2) of the seven drowning prevention safety features listed in 2022 CBC Section 3109.2 and the California swimming pool safety acts section 115922.

(1) Swimming pool alarms that, when placed in pools, will sound upon detection of accidental or unauthorized entrance into the water. These pool alarms will meet and be independently certified to the ASTM Standard F2208 "Standards Specification for Pool Alarms," which includes surface motion, pressure, sonar, laser and infrared type alarms.

(2) The residence will be equipped with exit alarms on those doors providing direct access to the pool. The alarm is designed to monitor the doors. A high output 110 dB alarm siren sounds when the magnetic contact is broken without pressing the adult bypass button.

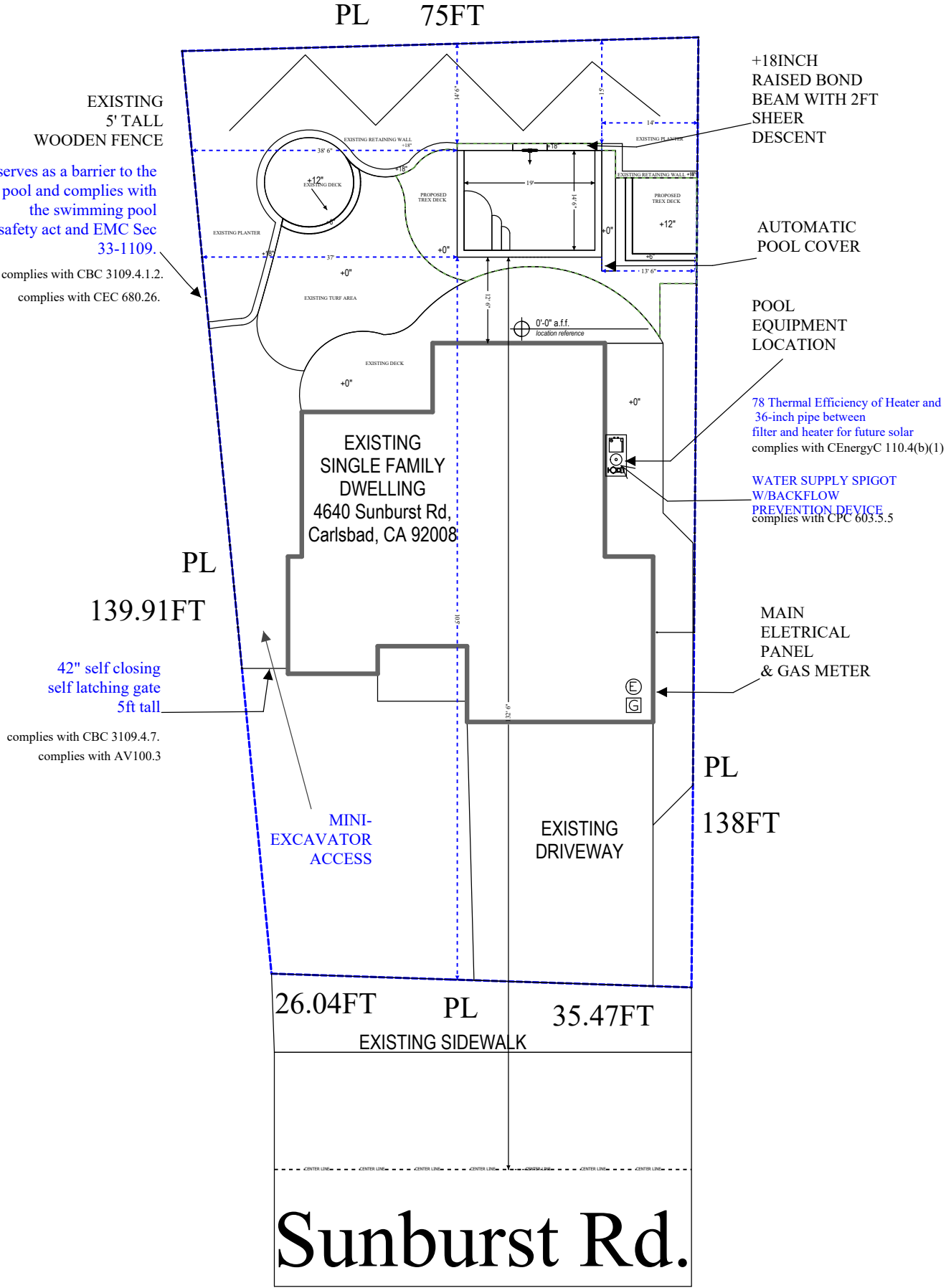
3) All doors providing direct access from the home to the swimming pool will be equipped with a self-closing, self-latching device with a release mechanism placed no lower than 54 inches (1372 mm) above the floor.

4) Fencing shall comply with the Pool Safety Act , M C Sec. 33-1109 and AV100.3

The pool will comply with CB3109.4.1.7

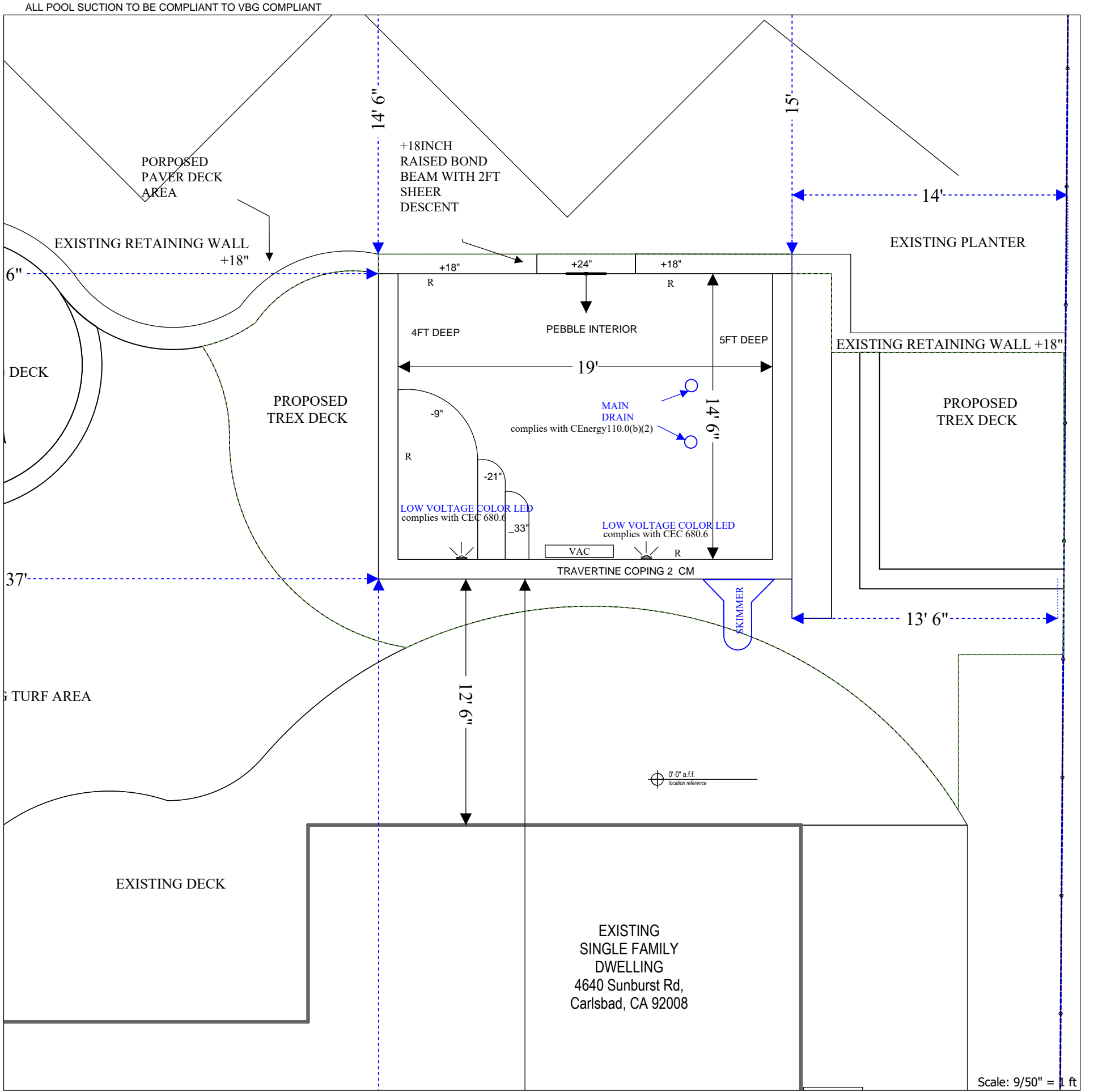
(1) 42" self closing  
self latching gate  
5FT TALL

Access doors or gates comply with the requirements of Sections 3109.4.1.1 through 3109.4.1.6 and are be equipped to accommodate a locking device. Pedestrian access gate opens outward away from the pool and shall be self-closing and have a self-latching device. Doors or gates other than pedestrian access doors or gates shall have a self-latching device. Release mechanisms shall be in accordance with Sections 1008.1.9 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate 3 inches (76 mm) or more, below the top of the door or gate, and the door or gate and barrier shall be without openings greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.



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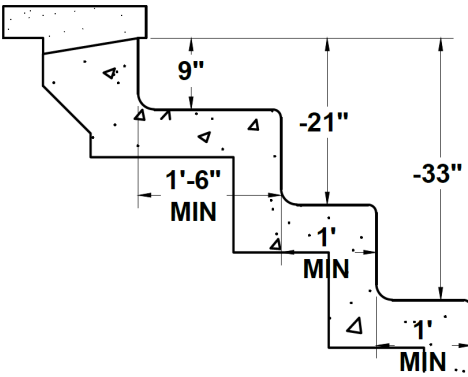
POOL SPECS

SIZE: 19FT X 14.5FT	SQFT: 276 SQFT
DEPTH: 3FT TO 5FT	PERIMETER: 67 L.F. CONTRACT
EST TOTAL GALLONS: UNDEFINED	SKIMMERS: 1POOL
RETURNS: 4 RETURNS	INTERIOR MATERIAL: PEBBLE CAT 1 STANDARD
	TILE: TBD
NOTES: NONE	

PLUMBING

RETURNS: 4	SKIMMERS: 1
POOL MAIN DRAINS: 1	SPA MAIN DRAINS: 1
CLEANING SYSTEM: SALT GENERATOR	HEADS:
VAC LINES: 1	ROBOT VAC: HAYWARD SMART POOL CLEANER
WATER FEATURES: NONE	SPA SPILLWAY: TILE
LIGHTS IN POOL: 2 LEDS COLOR	
TOTAL PIPE:	
SPECIAL:	
NOTES: PVC PIPE 2 INCHES	

STEP SIDE VIEW



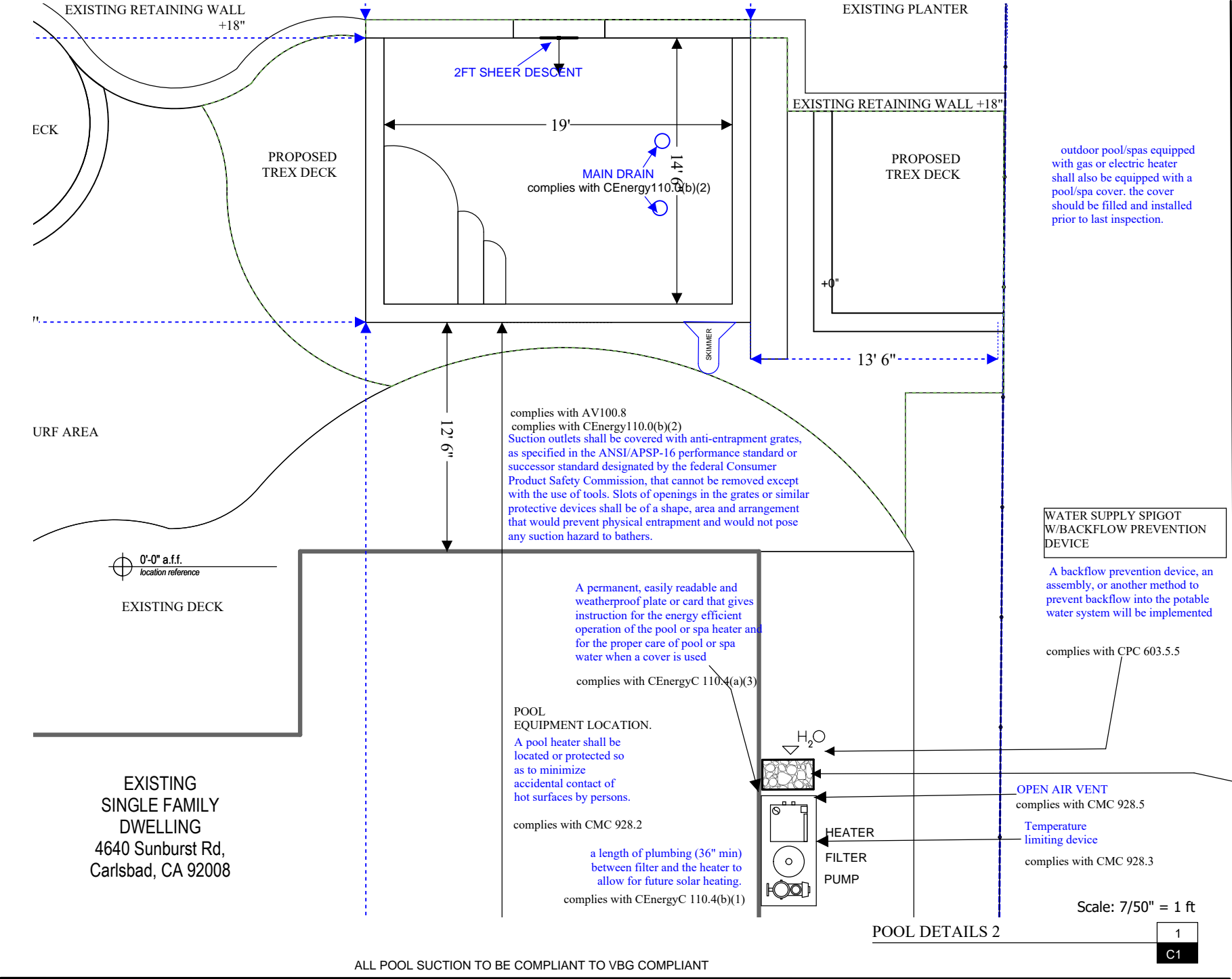
CROSS SECTION DRAWING

8  
A8

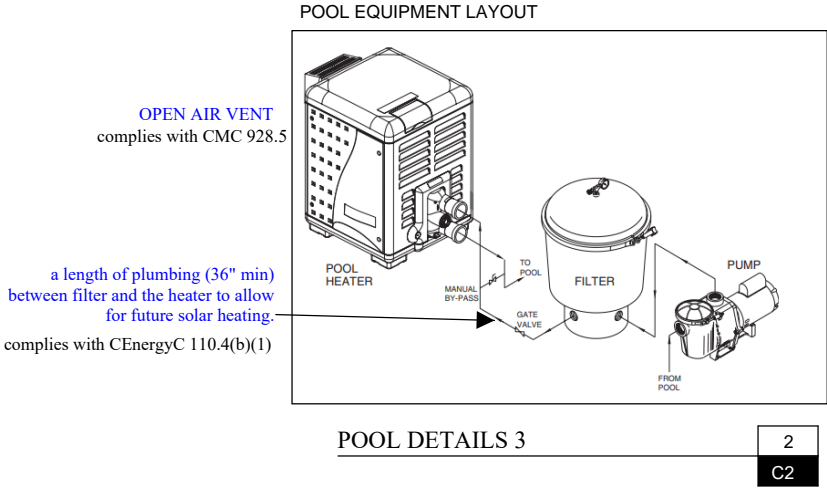


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EQUIPMENT	
(1) Pentair IntelliFlo Variable Speed High Performance Pump VS+SVRS 3.2kW 3HP Max 230V	
Horsepower:	3 HP
Speed:	Variable Speed
Voltage:	230V
Pipe Size:	2 "
(1)Pentair MasterTemp Low NOx Heater - Electronic Ignition - HD Cupro Nickel - Natural Gas - 400K BTU ASME - 461021	
BTU Rating:	400K
Gas Type:	Natural Gas
Location:	Outdoor
Ignition:	Electronic
(1)Pentair Clean & D.E Filter   420 Sq. Ft.   EC-160301	
Square Foot:	420
Color:	Almond
Plumbing:	2"
Type:	In-Ground



The pool shall have directional inlets that adequately mix the pool water; and A time switch or similar control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during off-peak electric demand period, and for the minimum time necessary to maintain the water in the condition required by applicable public health standards.

complies with CEnergyC 110.4(b)(3)

This project will comply with the current edition of the AV100.8 Construction Requirements for Building a Pool or Spa

- 1) The suction outlets of the pool or spa for which the permit is issued will be equipped to provide circulation throughout the pool or spa as prescribed in Paragraphs 2 and 3.
- 2) The swimming pool and spa will have two circulation suction outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more "T" fittings, and that are separated by a distance of at least three feet in any dimension between the suction outlets. This pool will only have (1) Pentair 3HP variable speed pump.
- 3) The circulation system will have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).
- 4) The circulation system will have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).
- 5) Whenever a building permit is for the remodel or modification of any existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool, or spa be upgraded so as to be equipped with anti-entrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.

CMC 928.5 Venting

A pool heater listed for outdoor installation shall be installed with the venting means supplied by the manufacturer and in accordance with the manufacturer's installation instructions. [NFPA 54:10.21.5] (See Section 802.2.4, Section 802.2.5, Section 802.3.3, and Section 802.8 through Section 802.8.5)

Pool heaters will be provided with temperature or pressure-limiting devices in accordance with the following  
CMC 928.3 Temperature limiting device

CMC 928.2 Clearance

The installation of pool heaters shall comply with the following requirements:  
In no case shall the clearances be such as to interfere with combustion air, draft hood, or vent terminal clearance and relief, and accessibility for servicing.  
A listed pool heater shall be installed in accordance with its listing and the manufacturer's installation instructions.  
An unlisted pool heater shall be installed with a clearance of not less than 12 inches (305 mm) on the sides and the rear. A combustible floor under an unlisted pool heater shall be protected in an approved manner.

THIS POOL WILL CREATE NO WSTEWATER THAT WILL ENTER DRAINS OR STORM WATER DRAINS.

THIS GRAVEL AREA SHALL BE USED TO EMPTY THE DISCHARGE FROM THE FILTER.  
CONSISTING OF diatomaceous earth  
complies with CPC 813.1.

CPC 603.5.5 Water Supply Inlets

A backflow preventer suitable for the degree of hazard, installed in accordance with the requirements for that type of device or assembly as set forth in this chapter.

CEnergyC 110.4(a)(2)

A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting

CEnergyC 110.4(a)(3)

A permanent, easily readable and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used

CEC 680.6 Grounding

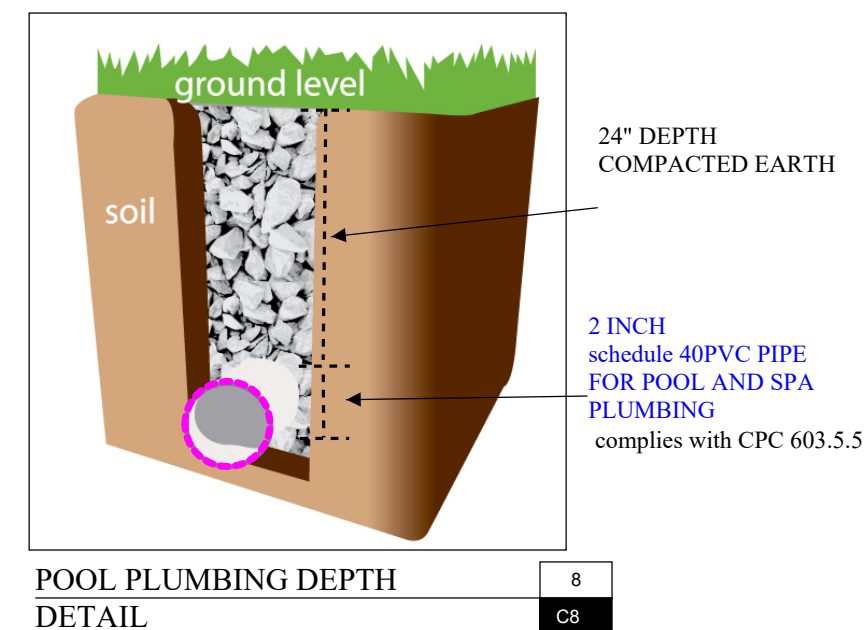
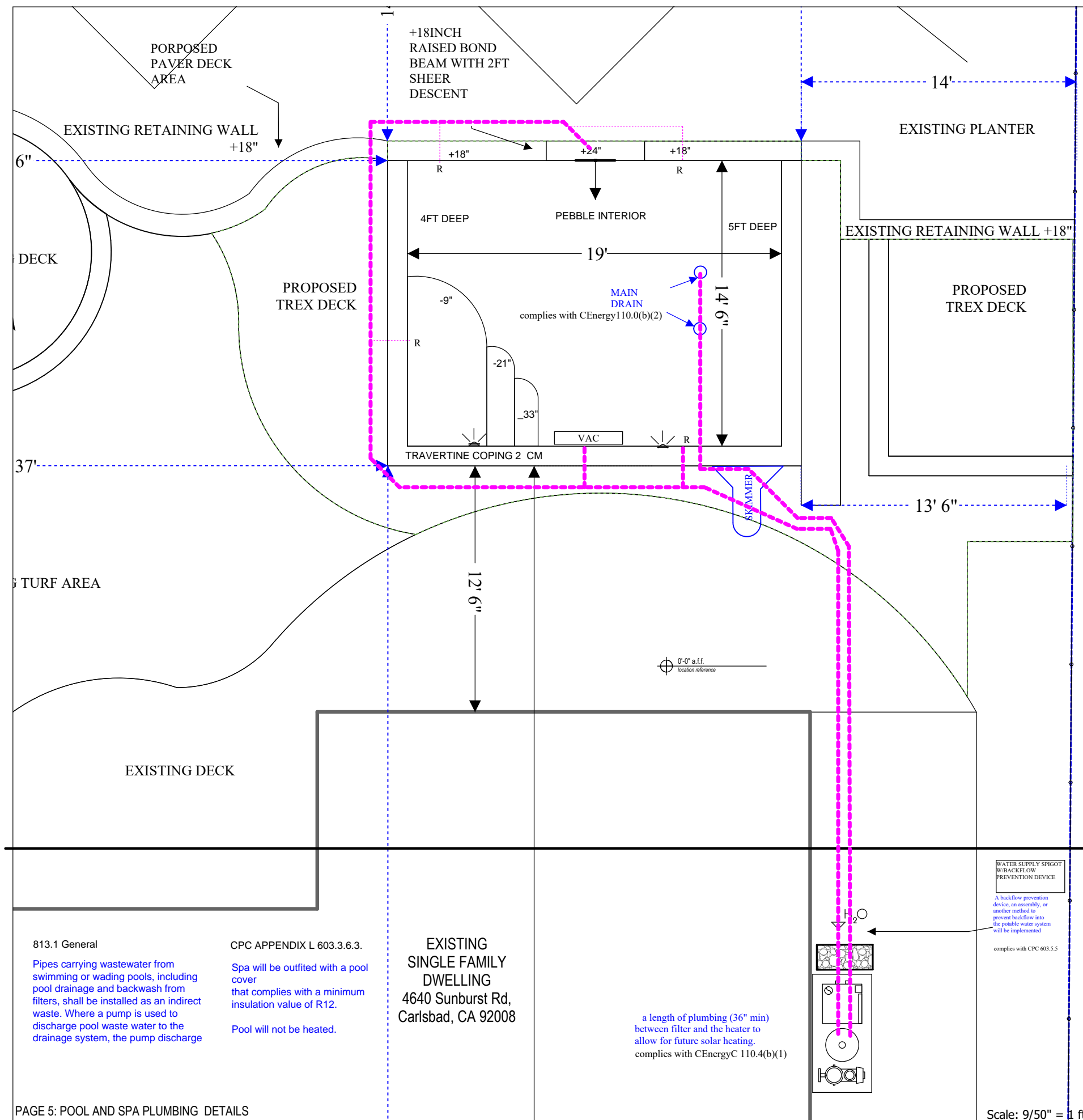
Electrical equipment shall be grounded in accordance with Parts V, VI, and VII of Article 250 and connected by wiring methods of Chapter 3, except as modified by this article. The following equipment shall be grounded:  
Through-wall lighting assemblies and underwater luminaires, other than those low-voltage lighting products listed for the application without a grounding conductor  
All electrical equipment located within 1.5 m (5 ft) of the inside wall of the specified body of water  
All electrical equipment associated with the recirculating system of the specified body of water  
Junction boxes  
Transformer and power supply enclosures  
Ground-fault circuit interrupters  
Panelboards that are not part of the service equipment and that supply any electrical equipment associated with the specified body of water

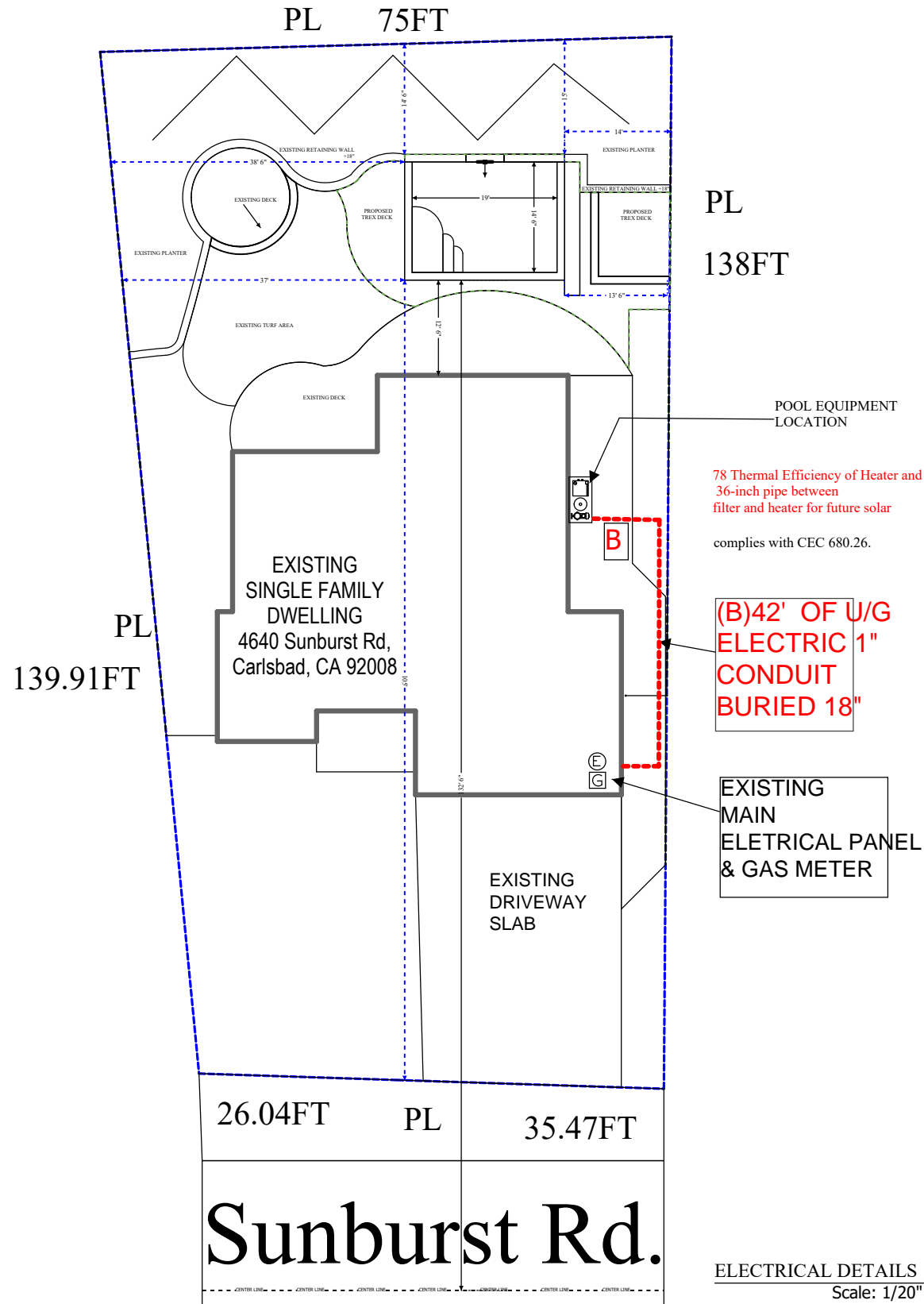


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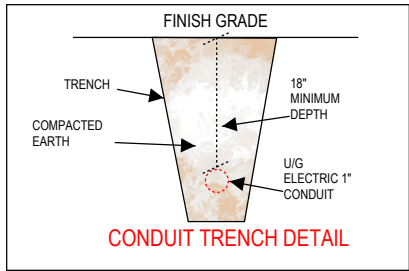
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ELECTRICAL DETAILS  
Scale: 1/20" = 1 ft



CONDUIT TRENCH DEPTH  
DETAIL

680.11 Underground Wiring

Underground wiring within 1.5 m (5 ft) horizontally from the inside wall of the pool shall be permitted. The following wiring methods shall be considered suitable for the conditions in these locations:

Intermediate metal conduit

680.10 Minimum cover for the conduits

From Main Panel to Pool  
Equipment: 42ft

Wrapped Intermediate metal  
conduit buried 18" minimum

#12 Wires  
#12 Ground Wire  
Pool Bonded w/ #8 Bond Wire

20 Amp 220V Breaker for Pool  
Equipment

20 Amp 110V Breaker for GFCI  
& Pool Light

(B)42' OF U/G  
ELECTRIC 1" CONDUIT  
BURIED 18"

Swimming Pool: Equipotential Bonding (NEC)

UNDERWATER LIGHTING

Metal forming shells and mounting brackets of no-niche luminaires shall be bonded

BONDING CONDUCTOR REQUIREMENT

8 AWG or larger covered or bare solid copper conductor

PERIMETER SURFACES

Paved or unpaved surfaces shall be attached to the pool reinforcing steel at a min of four points uniformly spaced around the perimeter of the pool.

where structural reinforcing steel is not available or is encapsulated in a non-conductive compound, a copper conductor ring may be utilized. 8 AWG bare solid copper secured within or under the perimeter surface 4" to 6" below the subgrade.

BONDING CONNECTIONS

Shall be made by exothermic welding, by listed pressure connectors or clamps that are labeled as being suitable for the purpose and that are made of stainless steel, brass, copper, or copper alloy, machine screw-type fasteners that engage not less than two threads or are secured with a nut, thread-forming machine screws that engage not less than two-threads, or terminal bars. Sheet metal & self-drilling screws are NOT acceptable.

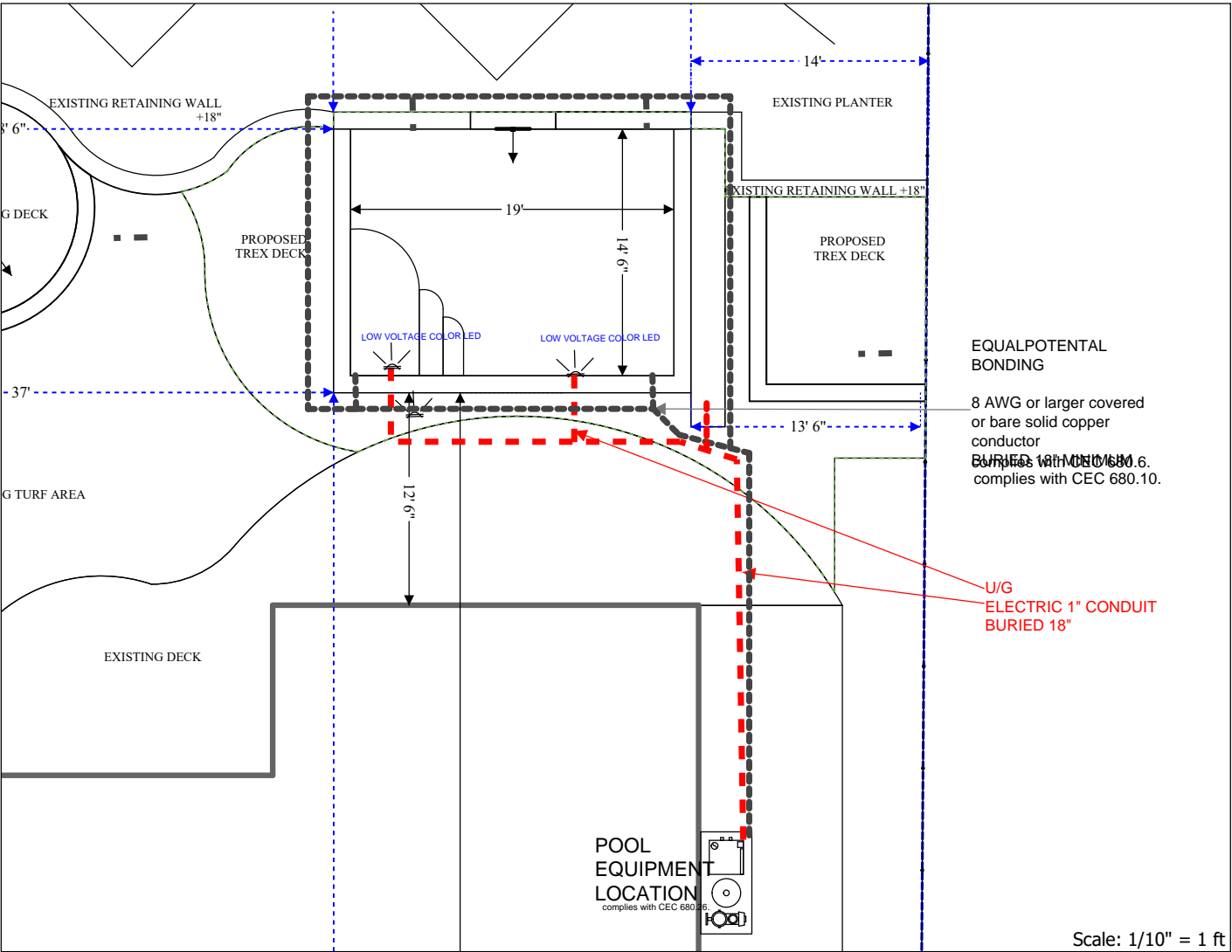
UNPAVED PERIMETER SURFACES

shall have a copper conductor grid or copper ring bonded to the shell reinforcing

FIXED METAL PARTS

All metallic parts of the pool structure, including reinforcing metal shall be bonded

Swimming Pool: Equipotential Bonding (NEC)



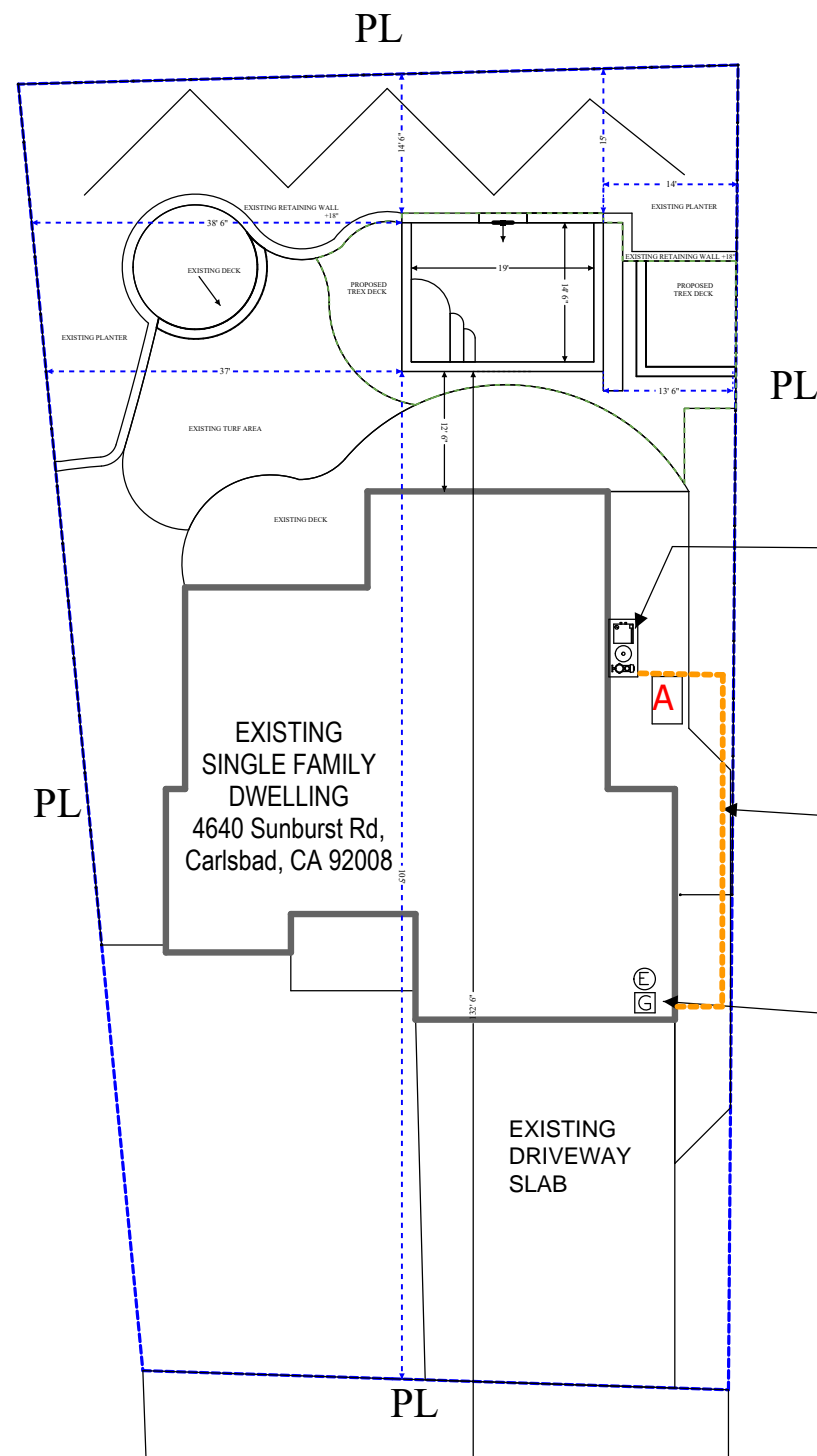
CONDUIT LAY OUT

Scale: 1/10" = 1 ft



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Sunburst Rd.

POOL EQUIPMENT LOCATION

78 Thermal Efficiency of Heater and 36-inch pipe between filter and heater for future solar

complies with CEC 680.26.

(A) 42' OF POLY GAS LINE 2.00" POLY LINE BURIED 24"

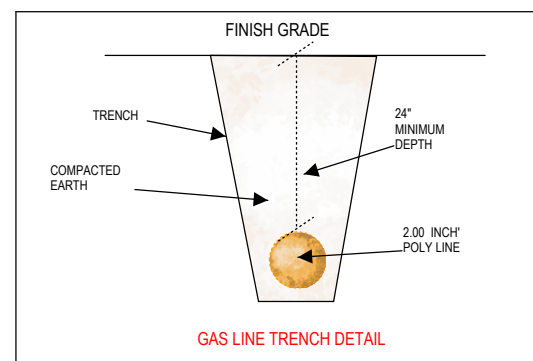
EXISTING MAIN ELETRICAL PANEL & GAS METER

EXISTING DRIVEWAY SLAB

Scale: 1/20" = 1 ft

GAS LINE LAYOUT

3  
D3

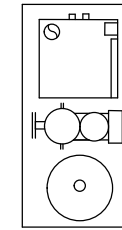


GAS LINE TRENCH DETAIL

4  
D5

Gas Piping Isometric:  
\* Natural gas delivered at 7" water column  
\* 1,100 BTU/cubic foot  
\* P/E GAS LINE

400K BTU HEATER IN EQUIPMENT AREA



Section Length\* BTU/hr Pipe  
A 42' 400K 1.50"

EXISTING GAS METER

G

GAS LINE

42' OF POLY GAS LINE 1.50 INCH' POLY LINE BURIED 24" INCHES DEEP

GAS LINE DETAIL

6  
D6

## NATURAL GAS SIZING TABLES FOR PE PIPE

Maximum Capacity of PE Pipe in Cubic Feet per Hour with a Gas Pressure of 6.0 in. WC and a Pressure Drop of 0.5 in. WC (based on a 0.60 specific gravity gas)

Tubing Size	Tubing Length (ft)														
	5	10	15	20	25	30	40	50	60	70	80	90	100	125	150
1/2" CTS	110	74	59	50	44	39	33	29	26	24	22	21	20	17	16
3/4" IPS	635	426	338	286	252	227	192	169	152	139	129	120	113	100	90
1" CTS	823	553	438	371	326	294	249	219	197	180	167	156	147	129	116
1" IPS	1173	787	624	529	465	419	355	312	281	257	238	223	209	184	166
1-1/4" IPS	2108	1415	1121	950	835	752	638	561	505	462	428	400	376	331	298
1-1/2" IPS	2765	1900	1526	1306	1158	1049	898	796	721	663	617	579	547	485	439
2" IPS	5964	3997	3166	2683	2360	2125	1801	1584	1426	1305	1209	1130	1063	935	842

Tubing Size	Tubing Length (ft)														
	200	250	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
1/2" CTS	13	12	10	9	8	7	6	6	6	5	5	5	5	4	4
3/4" IPS	76	67	60	51	45	40	37	34	32	30	29	27	26	25	24
1" CTS	99	87	78	66	58	52	48	44	42	39	37	35	34	32	31
1" IPS	141	124	111	94	83	75	68	63	59	56	53	50	48	46	44
1-1/4" IPS	253	222	200	170	149	134	123	114	106	100	95	90	86	83	79
1-1/2" IPS	376	333	302	258	229	207	191	178	167	157	149	143	137	131	126
2" IPS	714	628	565	479	421	380	347	322	301	283	268	255	243	233	224

1000BTUH=1CFH

GAS LINE DETAIL

7  
D7

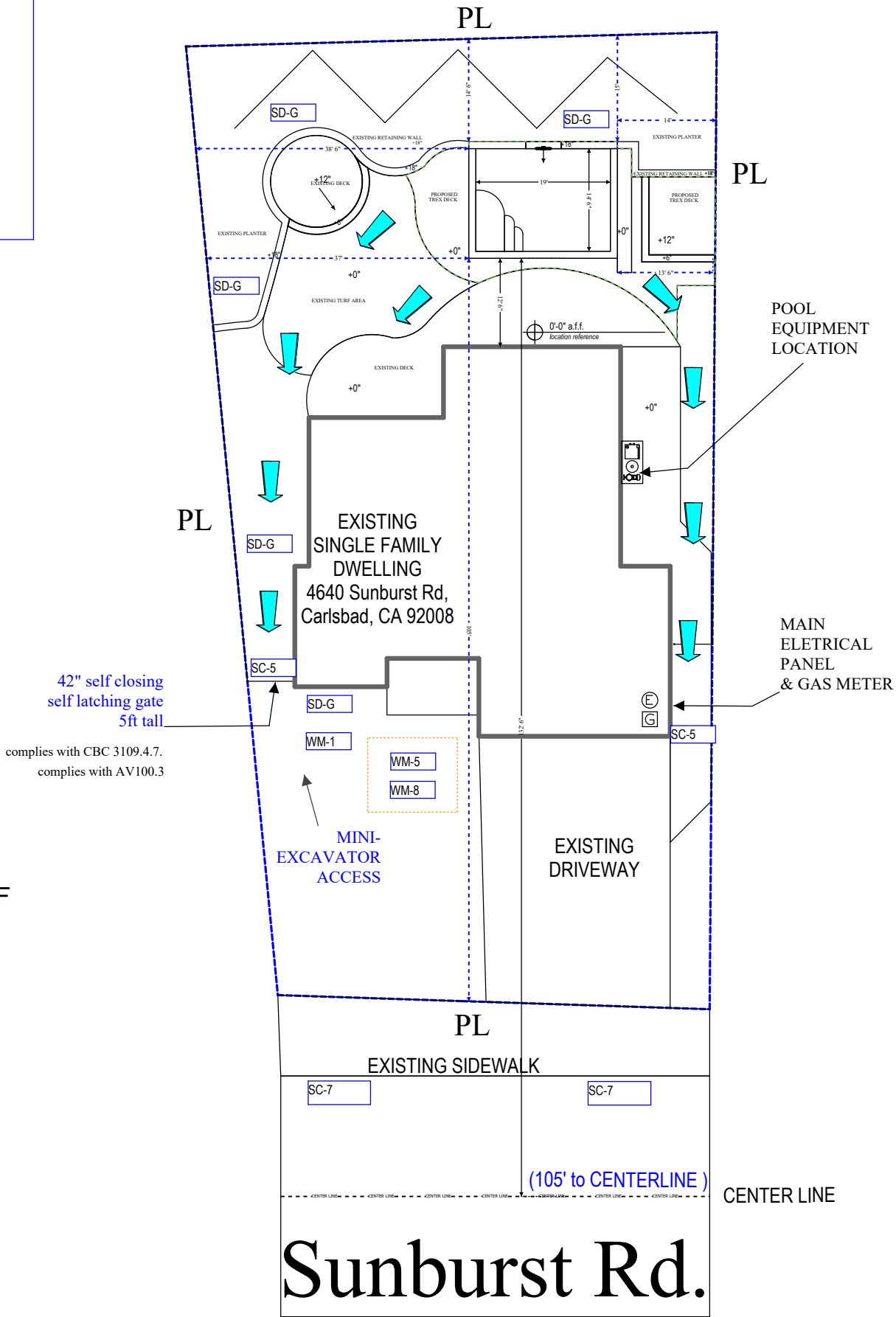


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BMP LEGEND

SD-G	CONSERVE NATURAL FEATURES
SC-5	FIBER ROLLS
SC-7	STREET SWEEPING
WM-1	MATERIAL DELIVERY
WM-5	SOLID WASTE MANAGEMENT
WM-8	CONCRETE WASTE MANAGEMENT



- Storm Water Notes
- This project shall comply with all requirements of the City of
- 1) The contractor shall implement best management practices (BMPs) during all phases of construction.
  - 2) Sufficient BMPs must be installed to prevent silt, mud, or other construction debris from being tracked into the adjacent streets) or storm water conveyance systems due to construction vehicles or any other construction activity. The contractor shall be responsible for cleaning any such debris that may be in the street or conveyance system at the end of each work day or after a storm event that causes a breach in the installed construction BMPs.
  - 3) Storm water pollution prevention devices and or practices shall be modified as needed as the project progresses to ensure effectiveness. If at any time, BMPs are found to be intentionally disabled, run-over, removed, or otherwise ineffective, they shall be modified and replaced immediately.
  - 4) Trash and construction solid wastes shall be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind. The storage of all construction materials and construction wastes must be protected against the potential release of pollutants into the environment.
  - 5) A concrete washout shall be provided on all projects which propose the construction of any concrete improvements that are to be poured in place on the site.
  - 6) All BMPs shall be maintained in working order at all times. All slopes that are created or disturbed by construction activity must be protected against erosion and sediment transport at all times.
  - 7) If trenching/digging activities are not completed within one day, proper BMPs will be implemented.
  - 8) If debris or materials will be stored for longer than one day, proper BMPs will be implemented.



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DRAINAGE IN REAR AND ALONG SIDES OF  
RESIDENCE TO BE MAINTAINED

Scale: 1/20" = 1 ft