

shall be the General Contractor (and/or) the sub-contractor's responsibility to verify all dimensions, details, and job site conditions prior to proceeding with the work, and report any discrepancies to the Architect before starting construction.

All information shown on the drawings relative to existing conditions is given as the best present knowledge, but without guarantee of accuracy. Where actual conditions conflict with the drawings, they shall be reported to the Architect so that the proper revisions may be made.

The Contract drawings and Specifications represent the finished structure and do not indicate the method of construction. The Contractor shall supervise and direct the work and shall be solely responsible for construction means, methods, techniques, sequences, and procedures, including, but not limited to, bracing and shoring. Observation visits to the site by field representatives of the Architect / Engineer shall not include inspections of the protective measures or the construction procedures.

Any support services performed by the Architect / Engineer during the construction shall be distinguished from Contract and detailed inspection services which is furnished by others. These support services performed by the Architect/Engineer, whether of material or work, and whether performed prior to, during, or after completion of construction, are performed solely for the purpose of assisting in quality control and in achieving conformance with Contract documents, but do not guarantee Contractor's performance and shall not be construed as supervision of construction.

All materials and workmanship shall conform to the requirements of the 2022 CBC and COUNTY OF ORANGE 2022 Amendments and all other applicable codes, regulations and laws.

In no case shall working dimensions be scaled from plan or details. Figures on drawings govern scaled measurements and larger scale governs smaller scaled drawings.

Contractors and sub-contractor's shall coordinate with representatives of water, electric, gas, telephone and cable T.V. companies to verify available facilities.

If due to the nature of material or method of construction, details or dimensions as shown on drawings or specified cannot be satisfactorily achieved, the contractor or sub-contractor shall immediately advise the Architect and request any adjustment he considers necessary for the proper execution of the work, this request shall be made before any material is ordered or fabricated. Any unsatisfactory work that develops during fabrication or installation shall be corrected at the Contractor's expense, if the Architect has not been notified.

The Contractor and his sub-contractors shall coordinate their work with each other and cooperate with each other so as to facilitate general progress of work. Each trade shall afford other trades every reasonable opportunity for installation of their work and for storage of their materials. The Contractor shall coordinate all work at the site. All discrepancies shall be called to the attention of the Architect and be resolved before proceeding with the work.

General Notes and Typical Details shall apply to all parts of the job except where they may conflict with Details and Notes on other sheets. Where conditions are not specifically indicated, but are of similar character to Details shown, similar Details of construction shall be used subject to review by the Architect.

Each sub-contractor shall verify and check all dimensions, conditions, grade elevations, and recipient surfaces to determine their suitability to receive required additional construction and finishes. Report immediately any defects in any recipient surfaces or conditions to the Owner in writing. Commencing work indicates acceptance of conditions and surfaces as being satisfactory.

The General Contractor shall be responsible for obtaining and paying for all permits and fees required, not normally covered by the general building permit.

Typical Details shall be used where applicable, and only when no specific detail is shown.

Any proposed substitutions to the materials or equipment specified by manufacturer's name or trade name, shall be equal or superior to the original or contract in all respects. Architect must be notified in writing. At the Architect's option, detailed specifications, performance data, or samples may be required to be submitted to substantiate the claims of equality.

Bidder's attention is directed to the requirements of the State of California Business and Professional Code, Division 3, Chapter 9, known as, and ordinarily cited as the "Contractor's License Law". Contractors and sub-contractors, at the time of submission of the Bid, must have the appropriate licenses for the work to be performed under the Contract.

Each bidder shall include all costs of maintaining insurance in compliance with the provisions in the Conditions of the Contract. No successful bidder shall commence work until a Certificate of Worker's Compensation Insurance and Liability Insurance naming General Contractor and Owner as additional insured is delivered to General Contractor.

Sub-contractor shall guarantee all work and material for a period of one year from the date of completion.

Omissions of conflicts between the various elements of the Working drawings and/or Specs. shall be brought to the attention of the Architect prior to proceeding with any work involved.

Definition of similar: Nearly, but not exactly the same, having a resemblance.

A pre-construction meeting with the Architect is required prior to building these plans.

Inspections are required by the architect during all phases of construction. No walls shall be covered up without the Architect's approval.

Building permits shall be presumed to incorporate the provision that the contractors shall carry out the proposed work in accordance with the approved plans and with all requirements of the code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of the code.

See schedules and interior elevations.
25 lined feet of exterior wall, with one opening within 3 feet of end

6800.1 Provide all materials, tools, appurtenances, and equipment necessary to complete all Wood Finish, Cabinet Work, and Millwork as indicated on the drawings and/or described in these Specifications. Work shall consist of but not necessarily be limited to:

Schedule Of Work To Be Included:

- A. Visiting the site prior to bidding.
- B. Studying the complete bid documents.
- C. Interior trim including, but not limited to the following:
 - 1. Base
 - 2. Casing
 - 3. Handrails at all stairs
- D. Doors
- E. Wood shelving
- F. Field measurements and instructions
- G. Cooperation with others
- H. Laminate plastic counter and splash at back bar.
- I. Apron under all bar tops as needed.

6800.2 Grading – Plywood

- A. For general purposes, shall be Douglas Fir, Grade A—C, Cabinet doors shall be Grade Birch B or better.
- B. For general shelving purposes, shall be Douglas Fir edge banded with B or better Douglas Fir, with supports 3'-0" o.c.

SUBDIVISION 7100 - Insulation
Shop drawing submittal required

7100.1 Mineral fiber type, conforming to Federal Specification HH- 1-521e, Type II or III and meets CEC quality standards.

7100.2 Each batt shall be marked with the "R" value of the insulating fiber only - not the installed "R".

7100.3 Furnish and install mineral wool insulation batts as manufactured by Johns-Manville, Owens-Corning Fiberglass, or approve equal, in accordance with manufacturer's printed instructions. Install in areas of "R" values as follows:

Roof/ceiling R-30
Stud-exterior R-13
Interior - wall R-11
Floor (over unheated) R-19
Floor (over exterior space) R-19

7100.4 Upon completion of the installation of the insulation, both the Builder and the insulation applicator shall execute a card certifying that the insulation has been installed in conformance with Article 5, Subchapter 1, Chapter 1, Title 25, of the California Administrative Code. The card must be posted in a conspicuous location within the building, prior to final inspection.

7100.5 At plumbing walls, with waste lines only, stud space to be fully insulated.

7110.6 Insulation used in sound control assemblies may be either fiberglass or mineral wool, but the material should have at least one open face to provide proper acoustical absorption.

work to conform to 2022 CBC and COUNTY OF ORANGE Amendments. Also, see structural notes and specifications.

Shop drawing submittal required.

Installation as per manufacturer's recommendations. For additional info see Spec-1 for Ice & Water shield.

7200.1 Guarantee – Contractor shall guarantee all material and workmanship for a period of two years from the date of completion. Material awareness as specified.

7200.2 Independent roof inspection is required during and at the completion of work to certify approved certification.

7200.3 Underpayment to be minimum of 30 lb. typical.

7200.4 Hips and Ridges – Should be fabricated to attain harmonious appearance. Use strip of 30# felt about 12" wide over the crown of all hips and ridges.

7200.5 Valley and Flashing – All valleys to be under laid with a strip of 30# felt applied over sheathing and extend at least 10" on each side of center line. Roof valley flashing to be, not less than 24 gauge galvanized metal extending at least 18" each way from centerline, and have a splash diverter at least 1" high at the flow line section of flashing to overlap a minimum of 6".

7200.6 Sloped Roof–See plans for specifications

7200.7 Supply all roofing sheet metal or coordinate with sheet metal sub-contractor..

All work to conform to 2022 CBC and COUNTY OF ORANGE Amendments and SWMAA. Also, see details and specifications.

Shop drawing submittal required.

7400.1 Sub-contractor shall furnish all material, labor, equipment, services, and competent supervision to install the sheet metal work.

7400.2 Sheet metal contractor shall fabricate and install ALL FLASHING REQUIRED FOR WATERTIGHT JOB, and not be limited to the following:

A. Scuppers and flashing for all balconies and entries.

B. Copings and gravel guards, when gravel roof.

C. All attic vents, see Attic ventilation calc. On roof plan.

D. Drip flashings – hemmed exposed edges ? 1 piece.

E. Flashings at roofs and planters and pot shelves.

7400.3 Supply and install mechanical exhaust fan ducts, Z-bar flashing, roof to wall flashing, coping on all parapets, gravel stops, downspouts, leader heads and gutters, and plaster base screeds.

7400.4 Supply and install Z-bar flashing, roof to wall flashing, coping on all parapets, gravel stops, downspouts, scuppers, leader heads and gutters, and plaster base screed. Coordinate with roofing sub-contractor.

7400.5 All sheet metal shall be 26 gauge bonderized unless otherwise specifically noted.

SUBDIVISION 7900 – Weather-stripping

All work to conform to 2022 CBC AND COUNTY OF ORANGE Amendments. Also, see structural notes and specifications.

Shop drawing submittal required.

7900.1 All exterior doors to receive 4" bronze anodized interlocking thresholds with spring type jamb and head weather-strip. Provide a rain strip on all doors exposed to weather. Provide a matching aluminum sill cover on all concrete slabs.

7900.2 Install thresholds prior to carpet and subsequent to finish decking and/or all hard surface materials.

7900.3 All pairs of doors, if shown on plans, to receive matching door T- astragal at center of opening.

7900.4 Caulk all exterior door thresholds with clear flexiseal sealant prior to installation.

7900.5 All exterior doors and windows shall be fully weather stripped.

7900.6 Caulk all exterior joints around windows and door frames, between wall panels.

7900.7 Caulk openings for all electrical and plumbing penetrations.

7900.8 Flash all exterior openings with Moistop. all tape shall be tight.

DIVISION 08 – DOORS AND WINDOWS

Also see Door and Window Schedules
Comply with The City Security Requirements

SUBDIVISION 8700 – Security – Finish Hardware

8700.1 All openings at ground floor are security opening and the following notes shall apply:

A. Swinging Doors:

1. All exterior in-swinging doors shall have one piece rabbetted jamb.

2. All pin-type hinges which are accessible from outside the secure area when the door is closed shall have non removable hinge pins.

3. The strike plate for latches and the holding device for projecting deadbolts in wood construction shall be secured to the jamb and wall framing with screws not less than 2-1/2" in length.

4. Deadbolts shall contain hardened inserts.

5. Straight deadbolts shall have a minimum throw of 1" and an embedment of not less than 5/8".

6. A hook shaped or an expanding lug deadbolt shall have a minimum throw of 3/4".

7. Wood flush type doors shall be 1-3/4" thick minimum with a solid core of wood or particle board of 25 pcf density.

8. Wood panel type doors shall be 1-3/8" thick minimum with all panels fabricated from material not less than 3/8" in thickness provided, all shaped portions of the panels are minimum 1/4" thick.

B. Cylinder guards shall be installed on all cylinder locks whenever the cylinder projects beyond the face of the door or is otherwise accessible to gripping tools.

8700.2 Panic hardware required on all exit doors.

(See also – 8700 & 8900)
To comply with THE COUNTY OF ORANGE Code

8800.1 Furnish all metal sash and pertinent hardware complete.

8800.2 All windows and doors shall be of the size indicated on the drawings.

8800.3 Horizontal sliding aluminum window sash shall conform to Specifications HS-A2 of the Architectural Aluminum Manufacturers Association and shall be: Fleetwood Westwood series 250 White Anodized, minimum guarantee of one year.

A Minimum depth of active and inactive panels shall be 1/3".

B. Fixed sash units shall have names of the manufacturer's stock type as recommended for purpose shown on drawings. Sight lines for the fixed units shall line up with ventilator sections when adjacent to or in combination with sliding windows.

C. Windows shall be constructed to allow either shop or field glazing with aluminum glazing beads. Provide extruded aluminum glazing beads of the window manufacturer's standard design, cut to proper length.

8800.4 Windows and doors shall be equipped with aluminum insect screens, complete with frames and hardware. Screen frames shall be of extruded aluminum sections, fixed type for mounting on the outside, fitted with continuous removable plastic or aluminum springs permitting replacement of the wire cloth. Corners shall be reinforced. The finished screens shall be square, flat in one plane and not distorted by stretching of wire. Screen cloth shall be standard fiberglass of 18 x 14 mesh.

8800.5 All windows shall be certified and labeled to show conformance with Air Infiltration Standards of 1977 American National Standards Institute (A131.4, A134.4, and A134.4) when tested in accordance with ASTM 283-73 with a pressure differential of 1.37 oz./s.f. (See Security Notes for additional requirements.)

8800.6 If painted aluminum windows are installed, no solvents may be used for clean-up.

8800.7 All windows and operators shall be installed by the manufacturer or his authorized representative, and shall be set plumb, square, level and true within their respective openings. Like units of each window or battery of windows shall finish in the same plane and with like members accurately aligned. Aluminum in contact with plaster, concrete, or steel shall be separated from the similar material with self-adhering, plastic or synthetic rubber tape, 50 mils minimum thickness. Screws, rivets, bolts, and other fastening devices shall be of aluminum, non-magnetic stainless steel or other non-corrosive materials compatible with aluminum; cadmium plated fasteners are not acceptable. Aluminum window and door supplier shall furnish rough-in dimensions to framer. If openings are not plumb and square or properly sized, framer must be notified.

8800.8 Glass glazing and skylights shall conform to U.B.C. A.A.G.C.

8800.9 Fully tempered glass shall be used at all sliding glass doors and windows.

8800.10 Glass and glazing shall conform to local codes and meet Federal and State requirements. Glazing subject to human impact to meet requirements of U.B.C. 5406.

8800.11 Glass for glazing purposes shall be standard brand complying with Federal Specification for Glass Flat, for Glazing.

A. Tempered glass 1/8" thick.

B. Mirrors shall be 1/4" silvering – quality, copper backed polished plate glass.

8800.12 Manufactured doors and windows to be certified as required by California Energy Commission (CEC).

SUBDIVISION 9100 - Lath & Plaster - Exterior Plaster

All work to conform to 2022 CBC AND COUNTY OF ORANGE Amendments.
Also, Shop drawing submittal required.

9100.1 Lath and plaster shall comply to the Uniform Building Code or to local code.

9100.2 All exterior walls and soffits shown to be stucco finished shall receive a full 7/8" three coats (rough scratch, rough brown and brush coat) of stucco plaster with 3/4" metal lath over 15# felt, or K-lath type backing shall be applied over wood studs.

9100.3 Apply color coat with complete coverage in a textured finish and color selected by the Architect.

9100.4 Supply all material, including lath, metal trim, sand, cement, plastic cement, color coat, lime and scaffolding, in quantities as required to maintain a production rate consistent with the project progress schedule.

9100.5 Flash all exterior openings with 15# felt. All laps to be tight.

9100.6 Excess materials, bags, boxes to be removed by subcontractor.

9100.7 The Contractor shall provide his own scaffolding.

9100.8 Adjacent surfaces of other materials shall be protected from damage by water or plaster materials. Plaster surfaces, cut out to install work of other trades, shall be neatly patched. Damaged or defective work shall be made good. During work, all rubbish, droppings, and waste materials shall be promptly cleaned up and removed.
At completion, the building and premises shall be left clean and free of all plaster and other materials coincident to this work.

9100.9 Metal lath, typically, shall be diamond mesh expanded, copper bearing steel, weighting not less than 3.4 lbs. per square yard.
Metal shall be shop coated after fabrication with a rust- resisting point for interior use and be galvanized for exterior use.

9100.10 All windows shall be fully masked and protected prior to plastering.

9100.11 All tops of pot shelves, parapets, projected ledges, shall have one layer of W.R. Grace #1ce & Water Shield# over stucco backing.
Also see details and Sheet Spec-1.

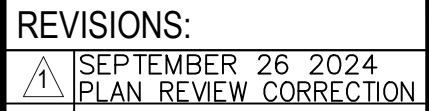
Also, see structural notes and specifications.
Shop drawing submittal required.

9200.1 All installation shall be in accordance with U.B.C. requirements. Install Gypsum drywall on all interior walls and ceilings as follows: Walls and ceilings—typical—1 layer, 5/8" type X?; walls except bathroom, walls and showers. 5/8" green board.

9200.4 Apply taping and joint treatment (mudding) sufficient number of times on all drywall joints, corners (inside and out) and nail sets to prevent any cracking or irregularities. Provide metal corner aids (Milcor) at all interior walls as required.

9200.5 Gypsum Wallboard:

- A. Joint Filler — factory mixed compound as recommended by wallboard manufacturer.
- B. Joint reinforcement — cross fibered paper, tapered edge as recommended by wallboard manufacturer.
- C. Use water resistant board in restroom/shower areas.
- D. Protect all windows and surfaces from texture over spray.



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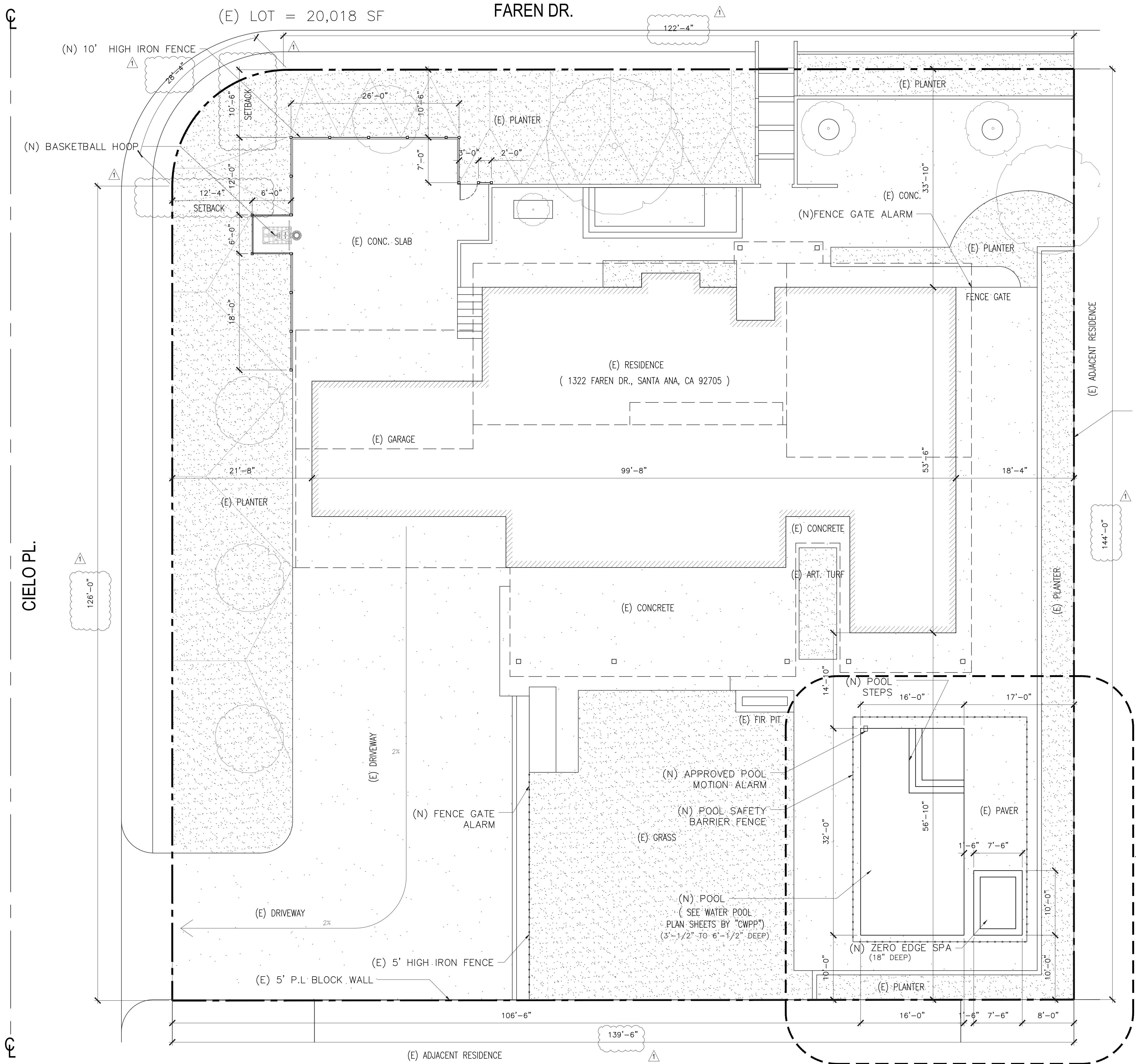
**CRYSTAL WATER POLLS
& BASKETBALL COURT FENCE
HOME IMPROVEMENT PROJECT**

TITLE: 1322 FAREN DR.,
SANTA ANA, CA 92705

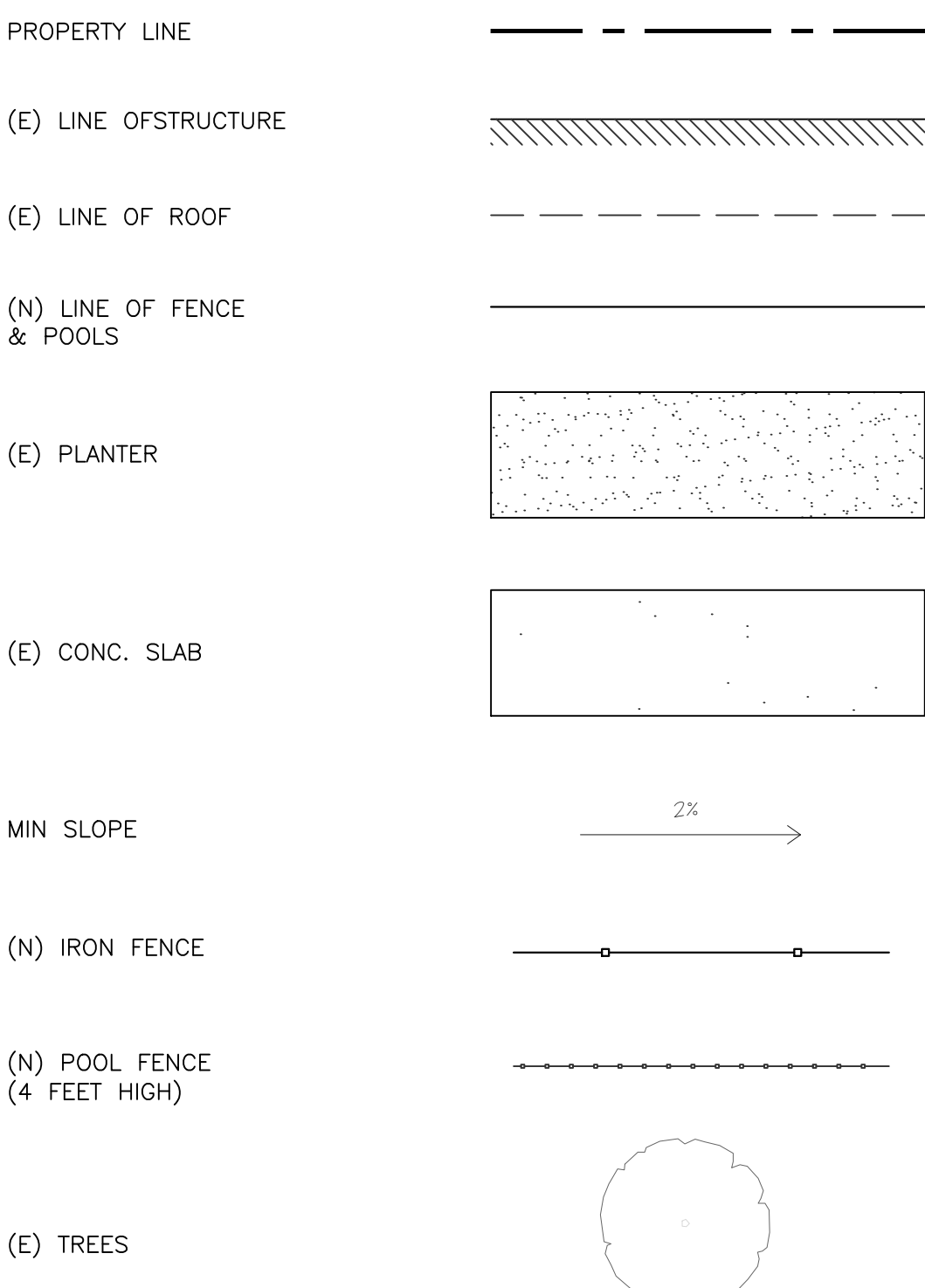
GENERAL NOTES

SHEET 1.

GN1.0



LEGEND: SITE PLAN



GENERAL NOTES:

(E) - EXISTING
(N) - NEW

POOL SAFETY BARRIER FENCE NOTE:

A SAFETY BARRIER HELPS PREVENT OR SLOW A CHILD FROM GETTING TO THE WATER.
A FOUR-SIDED ISOLATION FENCE IS THE BEST BARRIER AS IT COMPLETELY SURROUNDS THE POOL OR SPA.
ISOLATION FENCES ARE SPECIALLY DESIGNED SO THAT CHILDREN CANNOT EASILY GET OVER, UNDER OR THROUGH THEM.
ALL FENCE GATES AND LADDERS LEADING TO A POOL OR SPA ARE SELF-CLOSING AND SELF-LATCHING, WITH LATCHES ABOVE THE CHILD'S REACH.
OTHER BARRIERS APPROVED BY CALIFORNIA LAW FOR USE WITH NEW OR REMODELED HOME POOLS INCLUDE POOL SAFETY COVERS, REMOVABLE MESH POOL FENCING, SELF-CLOSING AND LATCHING DEVICES ON THE HOME'S DOORS, EXIT ALARMS ON DOORS, SWIMMING POOL ALARMS, OR ANY OTHER BARRIER APPROVED BY LOCAL BUILDING OFFICIALS.
CALIFORNIA LAW APPROVES ONLY CERTIFIED SAFETY COVERS. THEY MUST COMPLETELY COVER THE POOL OR SPA SO CHILDREN CANNOT FALL INTO THE WATER.
1. ALL DOORS OPENING INTO POOL OR SPA AREAS SHOULD CLOSE AND LATCH AUTOMATICALLY.
2. LATCH RELEASES SHOULD BE CHILD-RESISTANT OR OUT OF THE REACH OF CHILDREN.
3. DOORS AND WINDOWS LEADING TO THE POOL OR SPA AREA SHOULD BE EQUIPPED WITH APPROVED EXIT ALARMS (BATTERY OR WIRED TO HOME ELECTRICAL SYSTEM) THAT MAKE A LOUD SOUND THROUGHOUT THE HOUSE AND HAVE A TEMPORARY BYPASS SWITCH LOCATED OUT OF A CHILD'S REACH.
4. APPROVED SWIMMING POOL ALARMS SHOULD BE PLACED IN THE WATER TO DETECT MOVEMENT. CAUTION: THESE SHOULD NOT BE USED WITHOUT SOME OTHER PHYSICAL BARRIER.

(SEE WATER POOL PLAN SHEETS BY "CWPP")

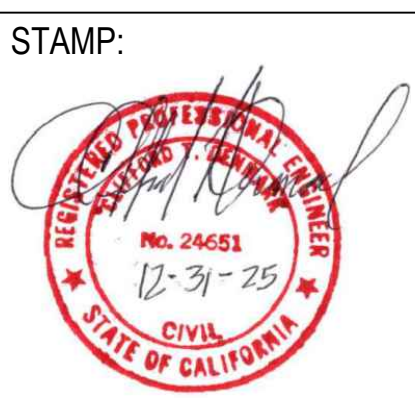
NEW SITE PLAN
SCALE: 1/8" = 1'-0"



REVISIONS:
SEPTEMBER 26 2024
PLAN REVIEW CORRECTION

DESIGNER:
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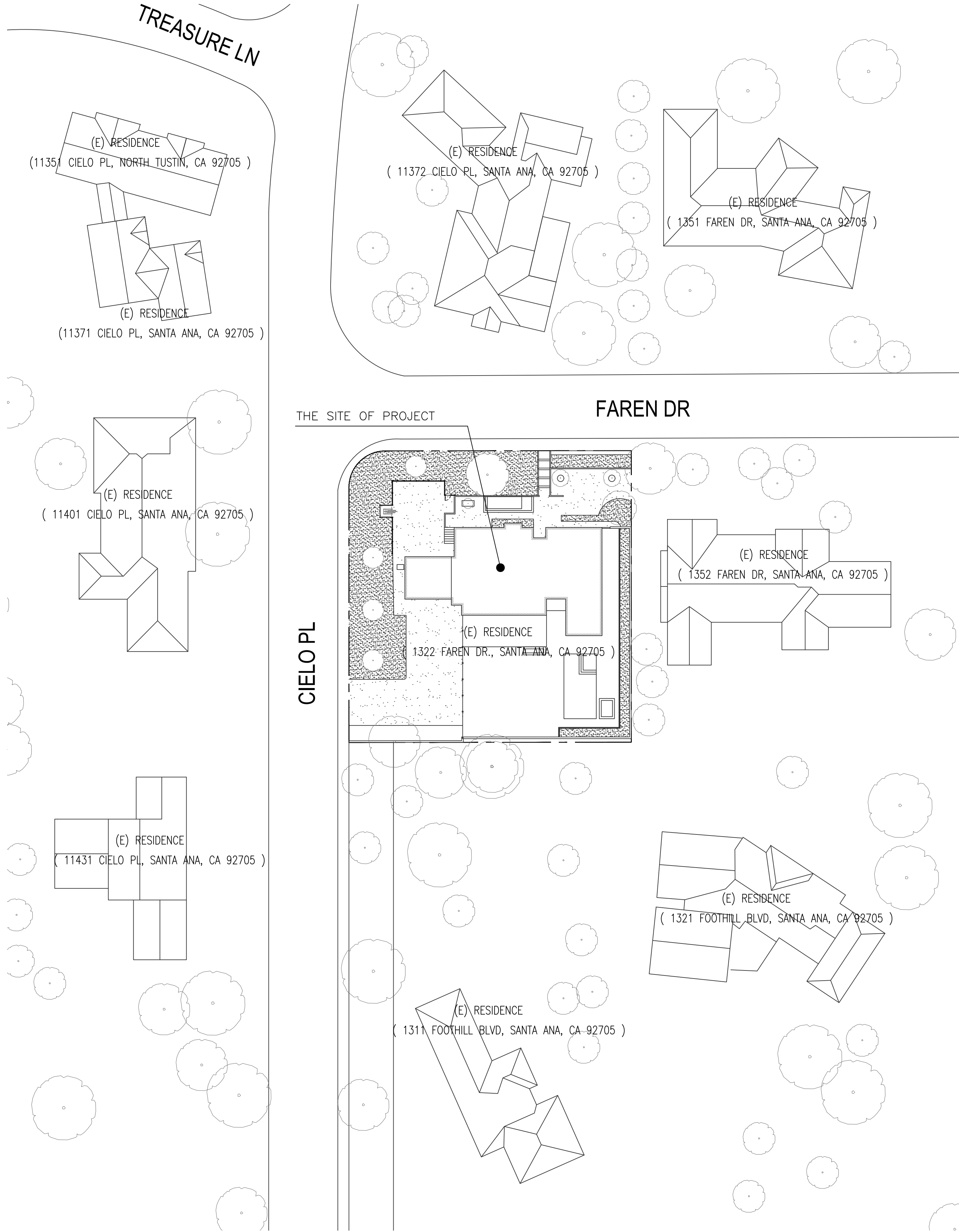
Design & Prepared by
Eleazar Graham



PROJECT:
**CRYSTAL WATER POLLS
& BASKETBALL COURT FENCE
HOME IMPROVEMENT PROJECT**
1322 FAREN DR.,
SANTA ANA, CA 92705
TITLE:
NEW SITE PLAN

DATE: SEP. 26, 2024
SCALE: AS INDICATED
DRAWN: EAG & WY
JOB NO.: WP0502-15683DLCH
SHEET:

SP1.1

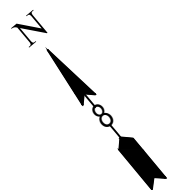


LEGEND: SITE PLAN

PROPERTY LINE OF PROJECT	
(E) LINE OFSTRUCTURE	
(E) PLANTER	
(E) CONC. SLAB	
(E) TREES	

GENERAL NOTES:

- (E) - EXISTING
(N) - NEW



ADJACENT NEIGHBORING USES SITE PLAN

SCALE: 1/8" = 1'-0"

1

NEW SHEET



REVISIONS:
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STAMP:



PROJECT:

CRYSTAL WATER POLLS
& BASKETBALL COURT FENCE
HOME IMPROVEMENT PROJECT

1322 FAREN DR.,
SANTA ANA, CA 92705

TITLE: ADJACENT NEIGHBORING USES SITE PLAN

DATE: SEP. 26, 2024

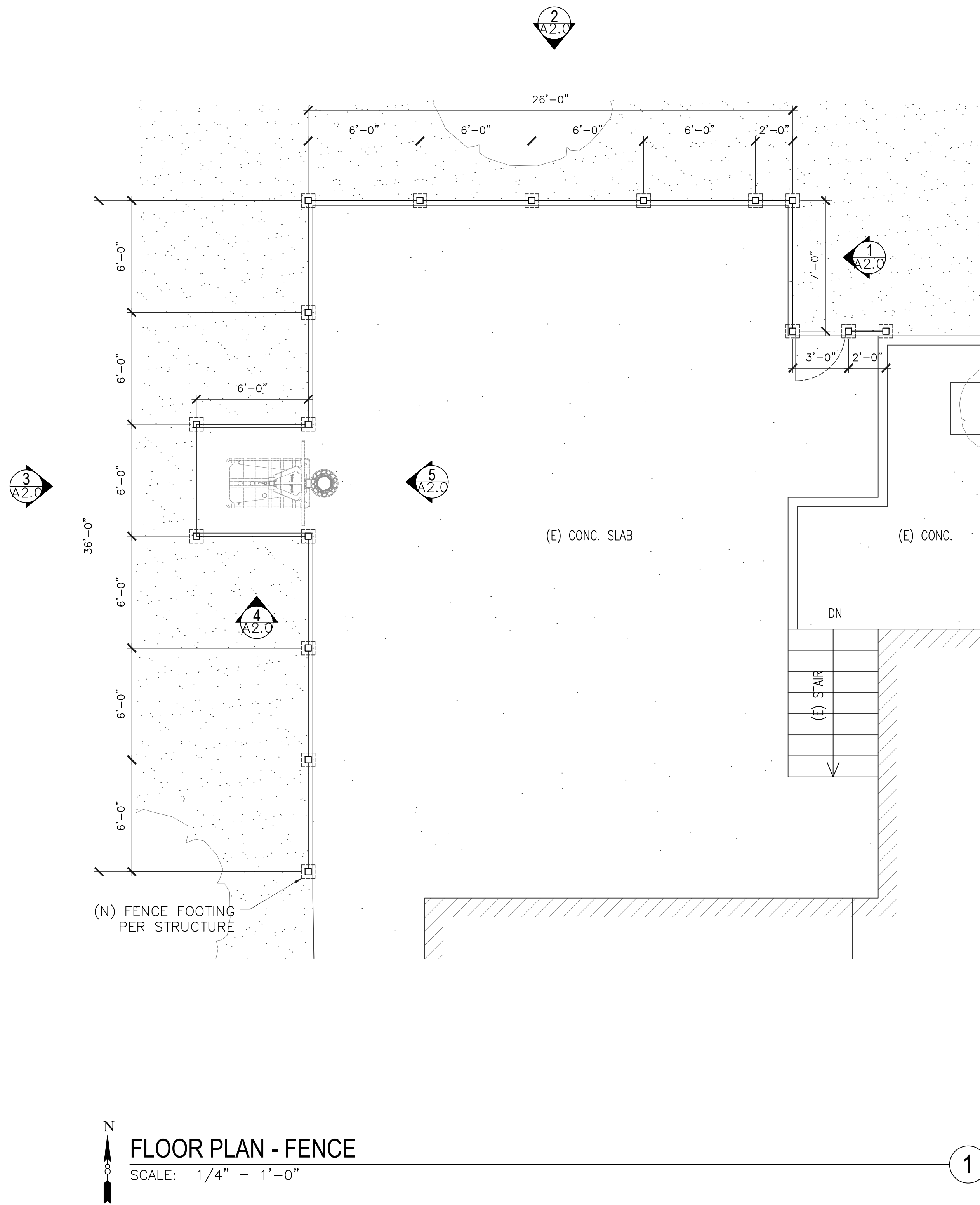
SCALE: AS INDICATED

DRAWN: EAG & WY

JOB NO.: WP0502-15683DLCH

SHEET:

SP1.2



LEGEND: FLOOR PLAN

- (E) LINE OFSTRUCTURE
- (E) PLANTER
- (N) IRON FENCE
- (N) FOOTING

GENERAL NOTES:

- (E) - EXISTING
- (N) - NEW



REVISIONS:

NO.	DESCRIPTION	DATE
1	SEPTEMBER 26 2024 PLAN REVIEW CORRECTION	

DESIGNER:

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PROJECT:

CRYSTAL WATER POLLS
& BASKETBALL COURT FENCE
HOME IMPROVEMENT PROJECT

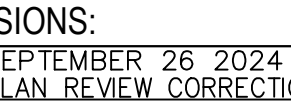
1322 FAREN DR.,
SANTA ANA, CA 92705

TITLE:

FENCE FLOOR PLAN

DATE: SEP. 26, 2024
SCALE: AS INDICATED
DRAWN: EAG & WY
JOB NO.: WP0502-15683DLCH
SHEET:

A1.0



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ECT:

1322 FAREN DR.,
SANTA ANA, CA 92705

TITLE:

SEP. 26, 2024

E: AS INDICATED

VN: EAG & WY

NO.: WP0502-15683DL

ET:

A2.0



SCALE: $1/2'' = 1'-0''$



SCALE: $1/2" = 1'-0"$



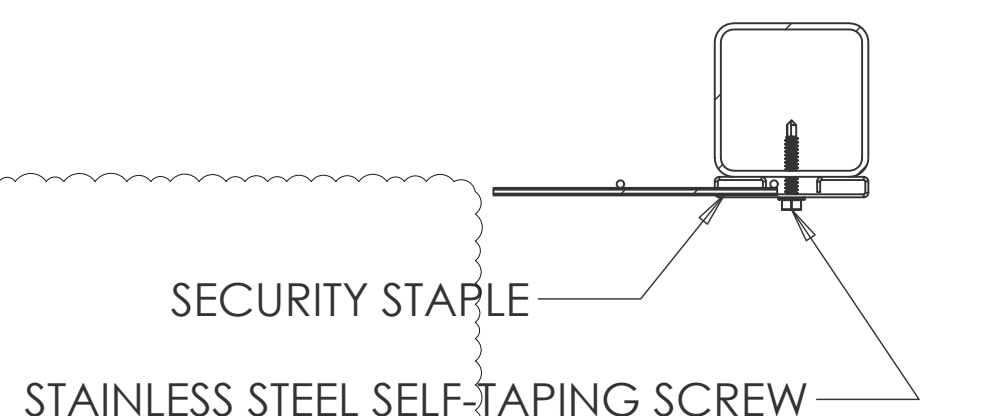
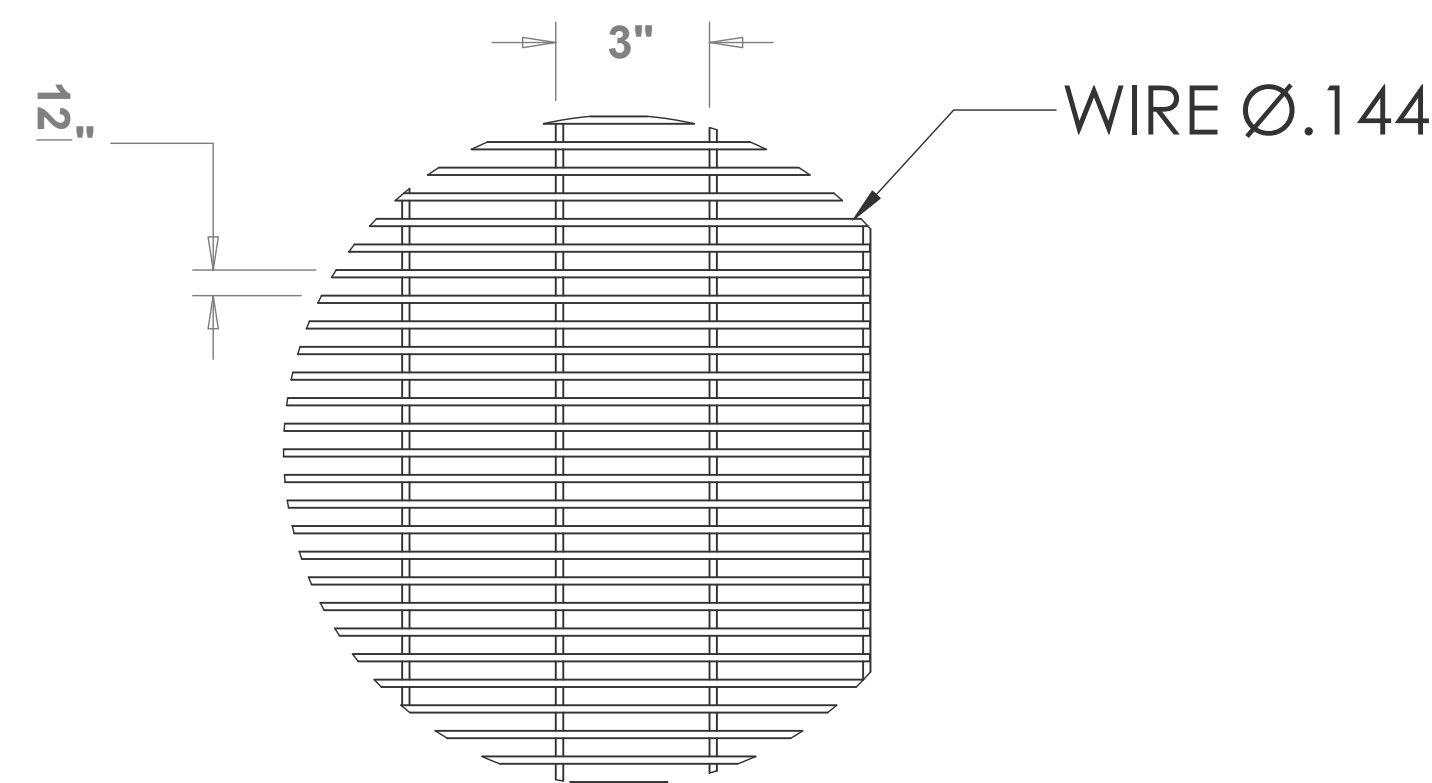
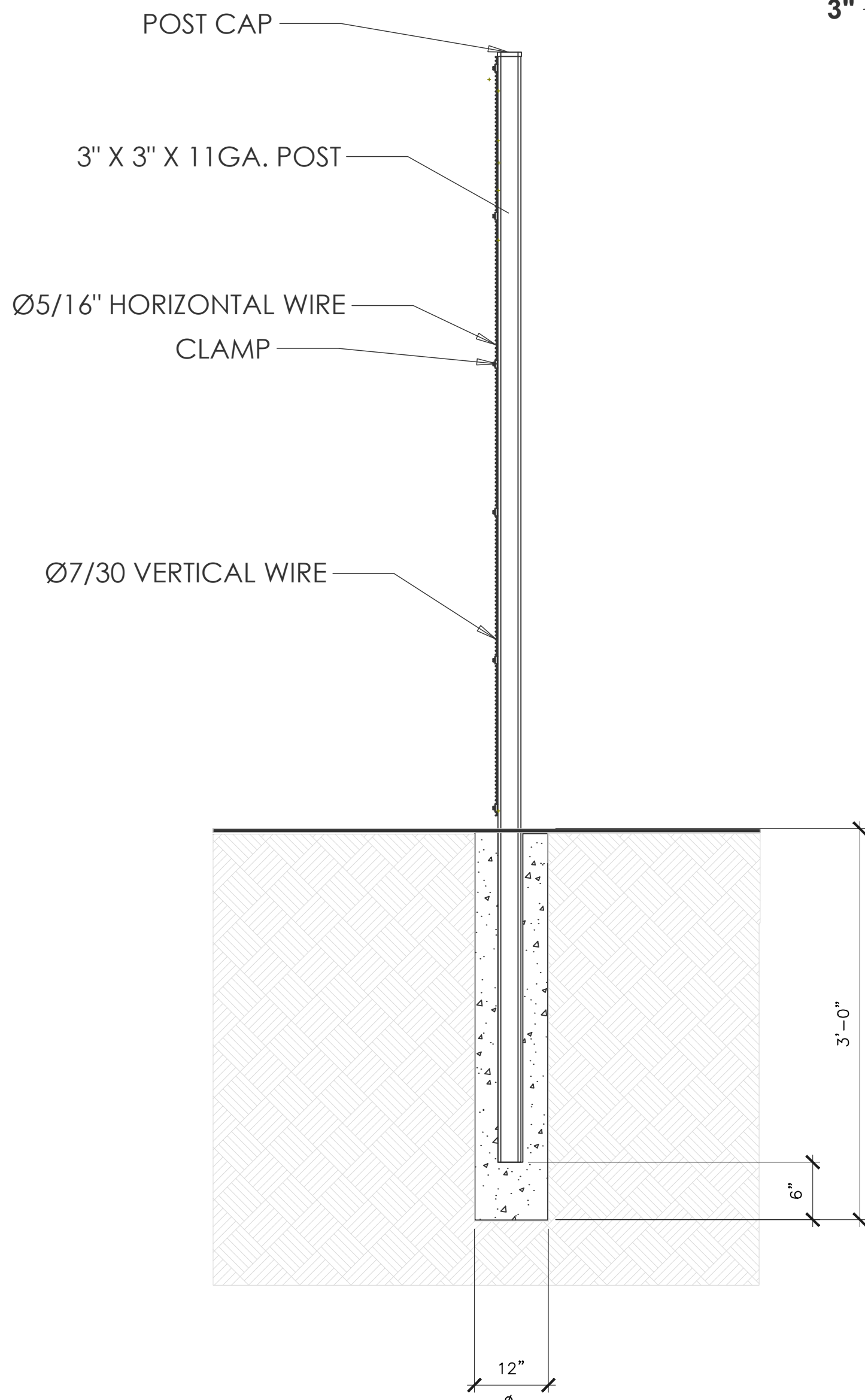
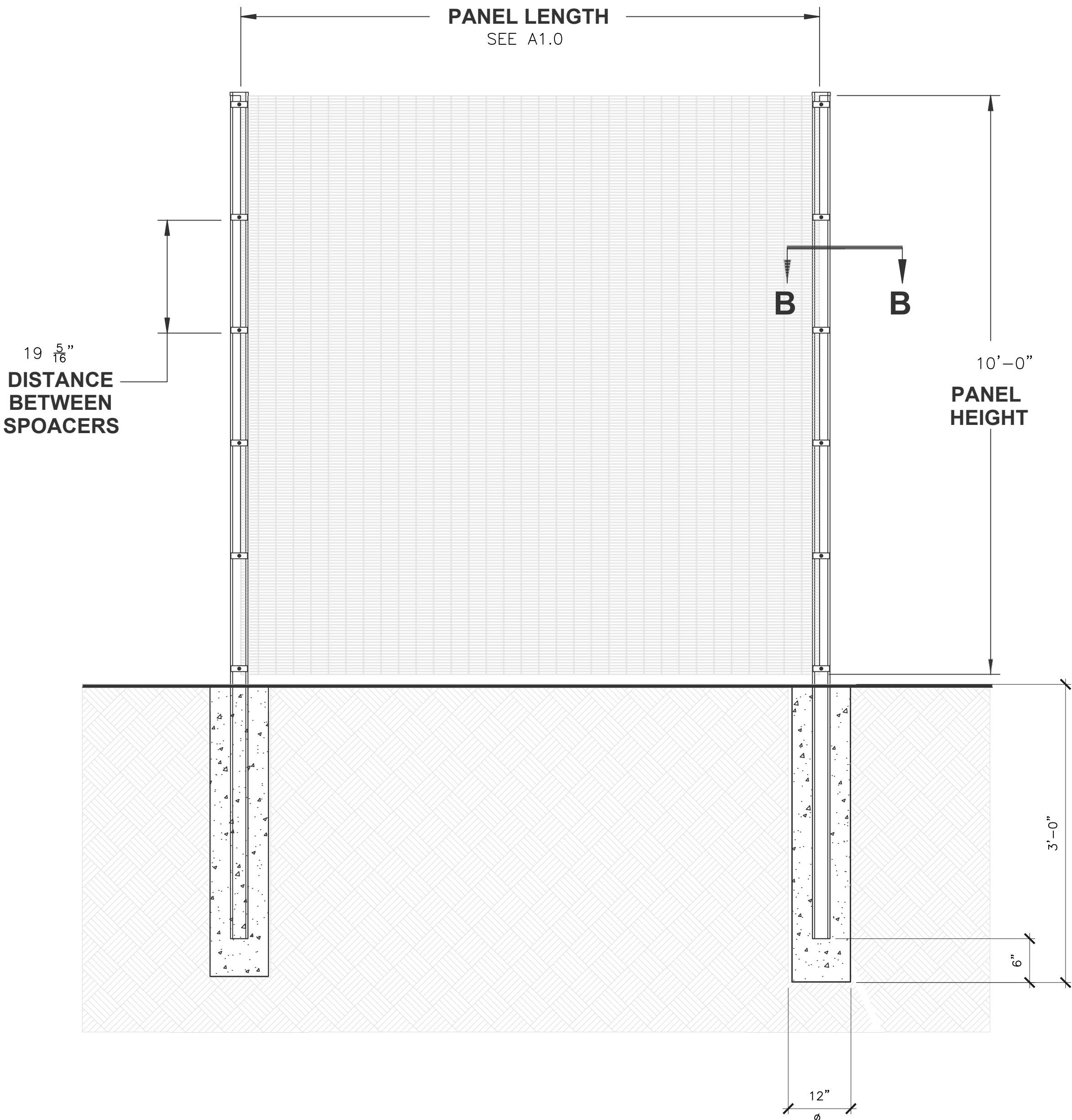
SCALE: $1/2" = 1'-0"$



SCALE: $1/2'' = 1'-0''$



SCALE: $1/2" = 1'-0"$



SECTION B-B
SCALE 1 : 8

DETAIL A
SCALE 1 : 8



PANEL			
		TOLERANCE	SPECIFICATION
HORIZONTAL WIRE DIAMETER	0.144"	±0.0019"	
VERTICAL WIRE DIAMETER	0.144"	±0.0019"	
TENSILE STRENGTH	80 ksi		
ZINC COATING	G60		ASTM A-641
POWDER COATING THICKNESS	100 MICRONS		ASTM D-7091

POST AND HARDWARE			
	DIMENSION	SPECIFICATIONS	NOTES
POST SIZE	3"x3"	ASTM A-513	SMALLER POST MAY BE USED AS DETERMINED BY ARCHITECT OR ENGINEER
POST GAUGE	11		SMALLER GAUGE MAY BE USED AS DETERMINED BY ARCHITECT OR ENGINEER
TENSILE STRENGTH	44945 lbs/in²	ASTM A-500	
POST ZINC COATING	G60		
YIELD STRENGTH	32997 lbs/in²	ASTM A-500	
POST CAP			AS PROVIDED BY MANUFACTURER
HARDWARE CLAMPS	UNIVERSAL CLAMP	ELECTROGALVANIZED STEEL	
POWDER COAT THICKNESS	100 MICRONS		ASTMD-7091



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PROJECT:

CRYSTAL WATER POLLS
& BASKETBALL COURT FENCE
HOME IMPROVEMENT PROJECT

1322 FAREN DR.,
SANTA ANA, CA 92705

STRUCTURAL DETAILS

DATE: SEP. 26, 2024

SCALE: AS INDICATED

DRAWN: EAG & WY

JOB NO.: WP0502-15683DLCH

SHEET:

AD1.0



NAME: Nick Dedmond	
ADDRESS: 1322 Faren Dr	
CITY: Santa Ana	STATE: Ca
PHONE: 805.455.8968	ZIP: 92705
WORK: _____	
CELL: 805.455.8968	

EQUIPMENT	
POOL PUMP: 3 HP VS	2ND PUMP: 2HP Super Flo
FILTRATION: D.E	FILTER SIZE: 60 Sq Ft
HEATER: 400k BTU	INLINE: 1 1/2"
TIMER: Auto	GAS: Natural
SPECIAL:	
NOTES:	

Pool Alarms



General Plan

1

CALCULATIONS

METHODOLOGY:

(SURCHARGE LOADING BASED ON BOUSSINESQ METHOD, MODIFIED BY TERZAGI FOR TYPICAL BUILDING/FOOTING, 1,000 P.S.F. BEARING PRESSURE).

γ = EQUIVALENT FLUID PRESSURE

$$OTM = 1/6 \gamma H^3 + \sum [(P)(r)]$$

WHERE γ = 60 p.c.f. AND

$$P_i = 1/2(\sigma_i + \sigma_{i-1})(6 \text{ in})$$

r_i = vertical dist. from P_i to z depth.

NET MOM = OTM - RESISTING MOMENT

$$f_s = \frac{M(12 \text{ in/ft})}{A_s j d} = \frac{M_t (12)}{A_s (0.887) d}$$

$$f_c = \frac{M(2) 12 \text{ in/ft}}{j k b d^2} = \frac{M_t (2)(12)}{(0.887)(0.339)(12) d^2} < 1125 \text{ psi}$$

$$v_c = \frac{(1/2) \gamma H^2}{(12 \text{ in/ft}) j d} = \frac{\gamma H^2}{(2)(12)(0.887) d} < 55 \text{ psi}$$

f'_c = 2,500 p.s.i.

F_s = 20,000 p.s.i.

f_c = 0.45 f'_c = 1125 p.s.i.

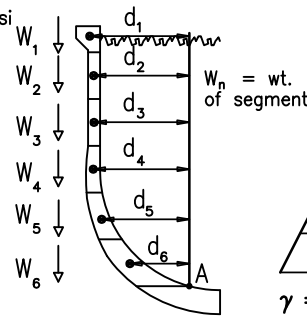
V_c = 1.1 $\sqrt{f'_c}$ = 55 p.s.i.

RETAINING WALL SURCHARGE, E.F.P. = 60 P.C.F.
RESULTS FOR 'X' = 1'-0" W/ NO RAISED BOND BEAM

DEPTH 'D'	SOIL OTM ft-#	LOAD OTM ft-#	SOIL RM ft-#	NET Mom	t	VERTICAL STEEL	f_s p.s.i.	f_c p.s.i.	v_c p.s.i.
2'-6"	156	277	88	424	6"	#3 @ 12"	17803	489	21.2
3'-0"	270	531	98	831	6 1/2"	#3 @ 6"	15137	565	23.9
4'-0"	640	1235	134	1949	7 1/2"	#3 @ 4"	18291	742	26.4
5'-0"	1250	2131	258	3316	8 1/2"	#3 @ 3"	19021	809	27.6
6'-0"	2160	3158	546	4809	10"	add 2 #4	18964	755	26.7
7'-0"	3430	4274	1142	6563	11"	add 3 #4	16365	731	28.2
8'-6"	6141	6061	5309	6893	11 1/2"	"	16096	692	34.3

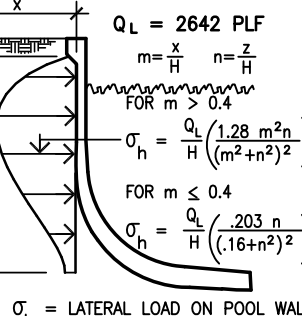
RESISTING MOMENT:

RESISTING MOMENT ABOUT POINT A
 $RM = W_1 d_1 + W_2 d_2 + \dots + W_n d_n$

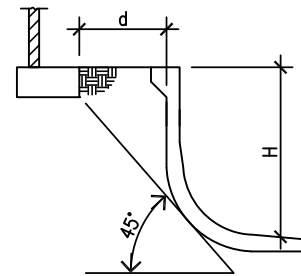


LOADING DIAGRAM:

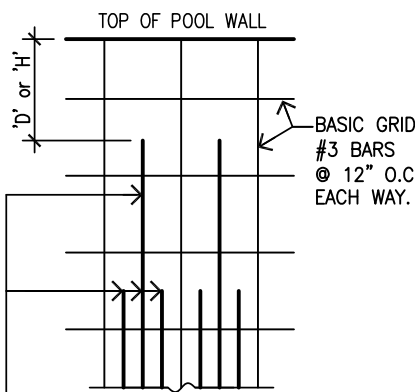
Q_L = RESULTANT FROM TYPICAL WALL.
 $Q_L = 2642 \text{ PLF}$



THIS DETAIL IS NOT NEEDED WHEN 'd' IS GREATER THAN 'H'.



TYPICAL REBAR REINFORCING DIAGRAM



VERTICAL REINFORCEMENT AS SPECIFIED IN TABLE STARTS A DISTANCE 'D' OR 'H' DOWN FROM TOP OF POOL WALL. REINFORCEMENT OTHER THAN BASIC GRID NEED NOT EXTEND TO TOP OF POOL WALL. ADD BARS TO BE EQUALLY SPACED BETWEEN BASIC GRID.

NOTE: THIS DETAIL IS NOT SUITABLE FOR USE WITH INVERTED FOOTING RETAINING WALLS (NO TOE). RETAINING WALL BY OTHERS OR EXISTING RETAINING WALL.

UP TO 1 1/2:1 SLOPE or FLAT BACKFILL.

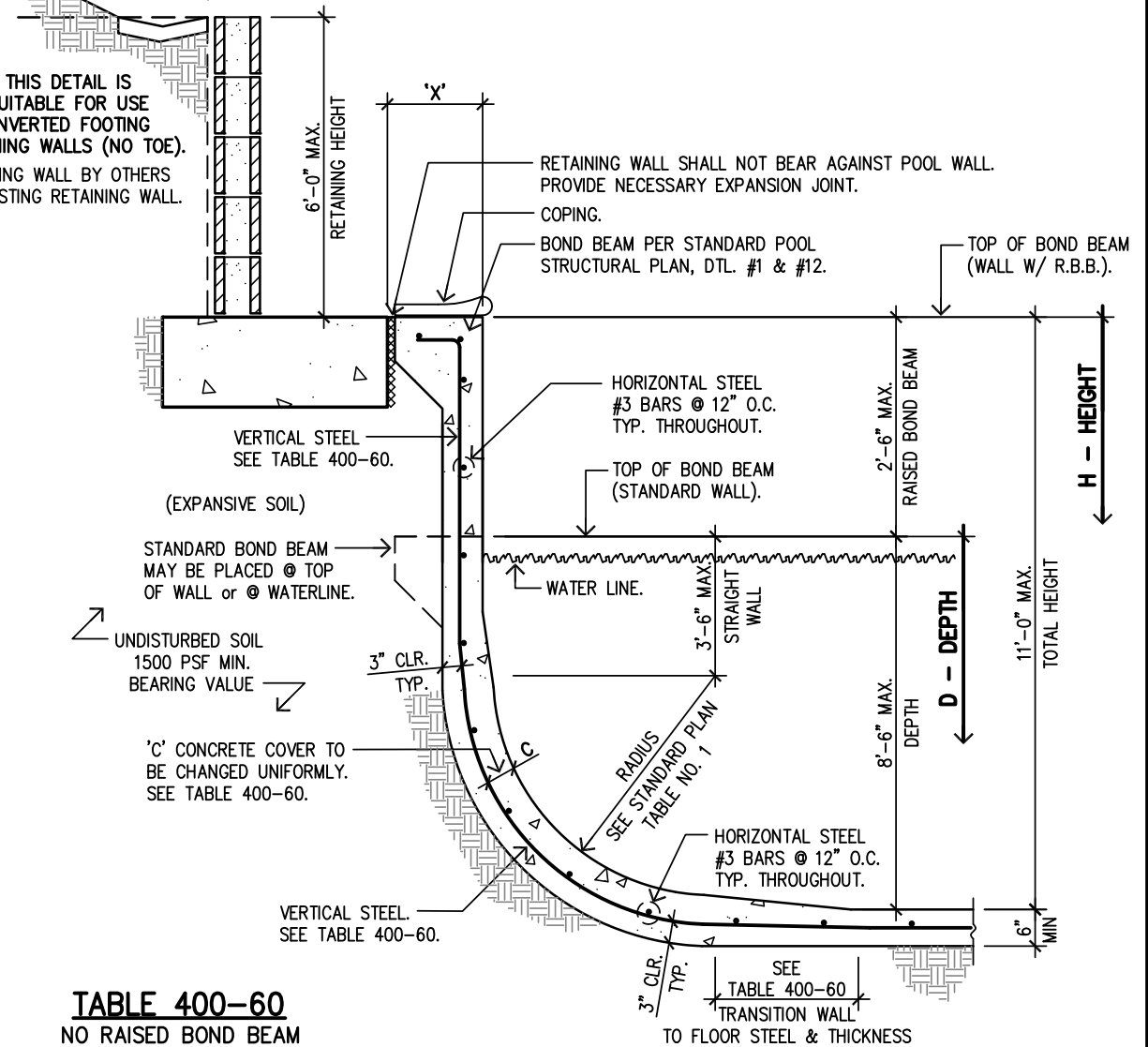


TABLE 400-60
2'-6" MAX. RAISED BOND BEAM

TOTAL HEIGHT H	'X' = 1'-0" to 2'-11"			'X' = 3'-0" to 4'-11"			'X' = 5'-0" to 6'-11"			'X' = 7'-0" & OVER		
	2'-6" MAX. R.B.B.	REQ'D TRANS.		2'-6" MAX. R.B.B.	REQ'D TRANS.		2'-6" MAX. R.B.B.	REQ'D TRANS.		2'-6" MAX. R.B.B.	REQ'D TRANS.	
	C	VERTICAL STEEL		C	VERTICAL STEEL		C	VERTICAL STEEL		C	VERTICAL STEEL	
0 to 1'6"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"
2'-0"	3"	#3 @ 6"	2'-0"	3"	"	2'-0"	3"	"				
2'-6"	3"	"	2'-0"	3"	#3 @ 6"	2'-0"	3"	#3 @ 6"	2'-0"			
3'-0"	3 1/2"	#3 @ 4"	2'-0"	3 1/2"	"	2'-0"	3"	"	2'-0"	3"	#3 @ 6"	2'-0"
3'-6"	4 1/2"	"	2'-0"	3 1/2"	#3 @ 4"	2'-0"	3"	#3 @ 4"	2'-0"	3 1/2"	"	2'-0"
4'-0"	5"	#3 @ 3"	2'-3"	4 1/2"	"	2'-0"	3 1/2"	"	2'-0"	3 1/2"	#3 @ 4"	2'-0"
4'-6"	6"	"	2'-10"	5"	#3 @ 3"	2'-3"	4"	"	2'-0"	4 1/2"	"	2'-0"
5'-0"	6"	add 2 #4	3'-6"	6"	"	2'-10"	5"	#3 @ 3"	2'-3"	4 1/2"	"	2'-0"
5'-6"	7"	"	4'-0"	6 1/2"	add 2 #4	3'-4"	6"	"	2'-10"	5 1/2"	#3 @ 3"	2'-4"
6'-0"	7 1/2"	"	4'-5"	7 1/2"	"	3'-10"	6 1/2"	add 2 #4	3'-4"	6 1/2"	"	2'-10"
6'-6"	8 1/2"	add 3 #4	4'-10"	8"	add 3 #4	4'-4"	7 1/2"	"	3'-10"	7"	add 2 #4	3'-4"
7'-0"	9 1/2"	"	5'-0"	9"	"	4'-9"	8"	add 3 #4	4'-3"	8"	"	3'-10"
7'-6"	9 1/2"	"	5'-2"	9"	"	4'-10"	9"	"	4'-4"	8"	add 3 #4	3'-11"
8'-0"	9 1/2"	add 3 #5	5'-2"	9"	add 3 #5	4'-11"	9"	"	4'-5"	9"	"	3'-11"
8'-6"	10"	"	5'-2"	10"	"	5'-0"	9"	"	4'-8"	9"	"	4'-0"
9'-0"	10"	"	5'-3"	10"	"	5'-2"	10"	add 3 #5	4'-8"	9"	"	4'-3"
9'-6"	10"	"	5'-4"	10"	"	5'-3"	11"	"	4'-9"	10"	"	4'-4"
10'-0"	10"	"	5'-5"	10 1/2"	"	5'-4"	11"	"	4'-10"	11"	"	4'-5"
10'-6"	10 1/2"	"	5'-5"	10 1/2"	"	5'-6"	11"	"	4'-11"	12"	"	4'-5"
11'-0"	10 1/2"	"	5'-6"	10 1/2"	"	5'-8"	11"	"	5'-2"	12"	"	4'-6"

SEE ADD BARS DIAGRAM

TABLE 400-60

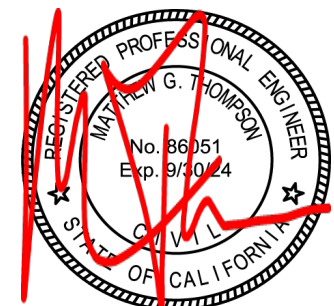
NO RAISED BOND BEAM

'D' OR 'H' IS DISTANCE FROM TOP OF POOL WALL DOWNWARD. BEGIN SPECIFIED STEEL & GUNITE THICKNESS AT INDICATED 'D' OR 'H' DEPTH. (SEE STANDARD STRUCTURAL PLAN, DETAIL #2)

POOL DEPTH D	'X' = 1'-0" to 2'-11"			'X' = 3'-0" to 4'-11"			'X' = 5'-0" to 6'-11"			'X' = 7'-0" & OVER		
	NO RAISED BOND BEAM	REQ'D TRANS.		NO RAISED BOND BEAM	REQ'D TRANS.		NO RAISED BOND BEAM	REQ'D TRANS.		NO RAISED BOND BEAM	REQ'D TRANS.	
	C	VERTICAL STEEL		C	VERTICAL STEEL		C	VERTICAL STEEL		C	VERTICAL STEEL	
0 to 1'6"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"	3"	#3 @ 12"	2'-0"
2'-0"	3"	#3 @ 6"	2'-0"	3"	"	2'-0"	3"	"	2'-0"	3"	"	2'-0"
2'-6"	3"	"	2'-0"	3"	#3 @ 6"	2'-0"	3"	#3 @ 6"	2'-0"	3"	"	2'-0"
3'-0"	3 1/2"	#3 @ 4"	2'-0"	3 1/2"	"	2'-0"	3"	"	2'-0"	3"	#3 @ 6"	2'-0"
3'-6"	4 1/2"	"	2'-0"	3 1/2"	#3 @ 4"	2'-0"	3"	#3 @ 4"	2'-0"	3 1/2"	"	2'-0"
4'-0"	4 1/2"	#3 @ 3"	2'-4"	4 1/2"	"	2'-0"	3 1/2"	"	2'-0"	3 1/2"	#3 @ 4"	2'-0"
4'-6"	5 1/2"	"	2'-11"	5"	#3 @ 3"	2'-3"	3 1/2"	#3 @ 3"	2'-0"	4"	"	2'-0"
5'-0"	5 1/2"	add 2 #4	3'-3"	6"	"	2'-5"	4 1/2"	"	2'-0"	4"	#3 @ 3"	2'-0"
5'-6"	6 1/2"	"	3'-5"	6"	add 2 #4	2'-8"	5"	add 2 #4	2'-3"	5"	"	2'-0"
6'-0"	6 1/2"	add 3 #4	3'-6"	7"	"	2'-10"	5 1/2"	"	2'-5"	5"	add 2 #4	2'-0"
6'-6"	7 1/2"	"	3'-8"	7"	add 3 #4	3'-0"	5 1/2"	add 3 #4	2'-9"	6"	"	2'-2"
7'-0"	7 1/2"	"	3'-9"	8"	"	3'-2"	6 1/2"	"	2'-10"	5 1/2"	"	2'-4"
7'-6"	7 1/2"	"	3'-10"	8"	"	3'-4"	6 1/2"	"	3'-2"	6 1/2"	"	2'-6"
8'-0"	8"	"	3'-11"	7 1/2"	"	3'-6"	6 1/2"	"	3'-4"	7"	"	2'-9"
8'-6"	8"	"	4'-0"	7 1/2"	"	3'-10"	6 1/2"	"	3'-8"	7"	"	2'-11"

SEE ADD BARS DIAGRAM

FOR USE ONLY AT
150 Holgate St
La Habra CA 90631



Date: 9/7/2022

22-12622

RETAINING WALL SURCHARGE
UPSLOPE OR LEVEL BACKFILL
MAX. FOOTING BEARING PRESSURE = 1,500 P.S.F.
EQUIVALENT FLUID PRESSURE = 60 P.C.F.

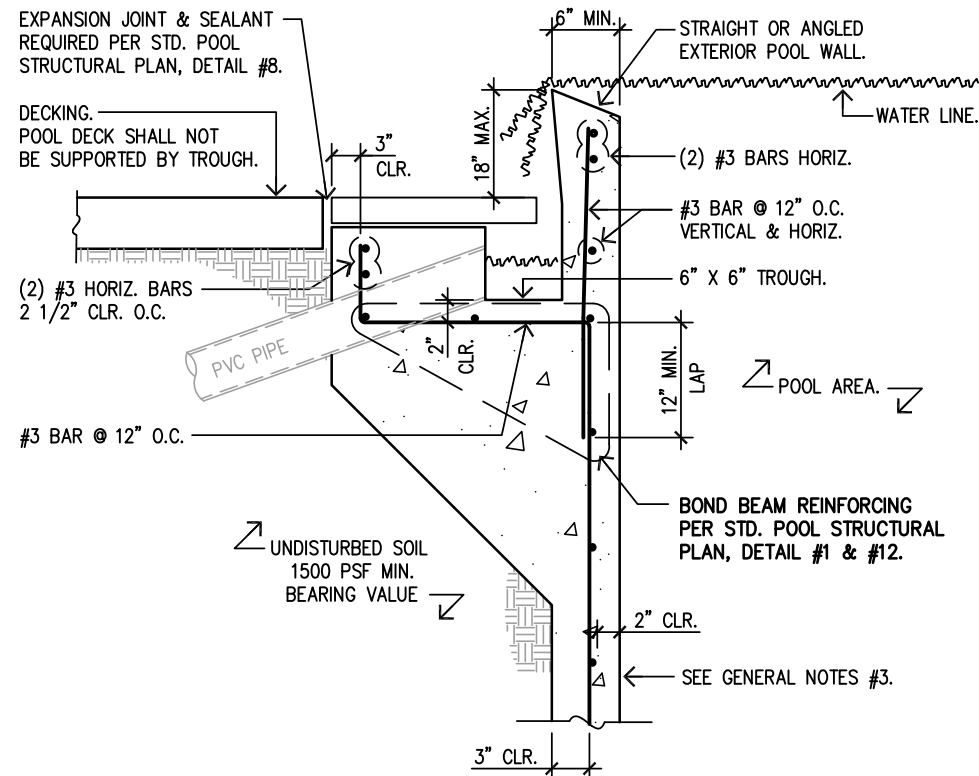
DETAIL #400-60

Ron Lacher, R.C.E.
1201 N. Tustin Ave.
Anaheim, CA 92807
Fax: (714) 630-6114
Phone: (714) 630-6100

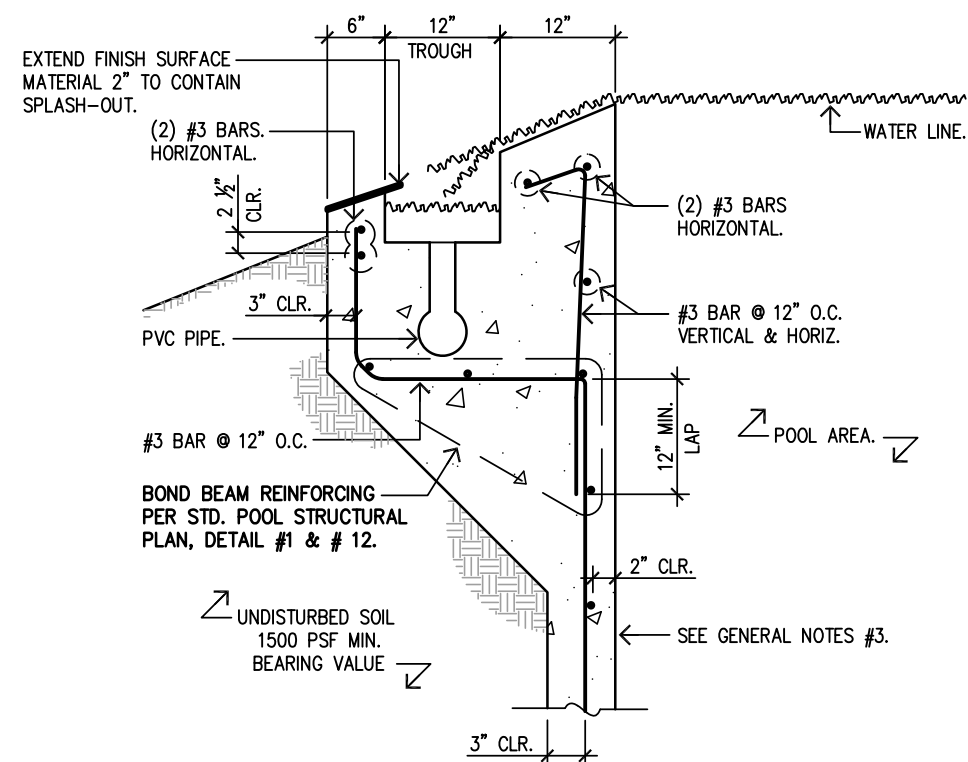
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engineering
inc.

PLAN VALID ONLY WITH ENGINEER'S
SIGNATURE IN RED INK ON PLAN.
THIS DETAIL TO BE USED IN CONJUNCTION
WITH STANDARD POOL STRUCTURAL PLAN

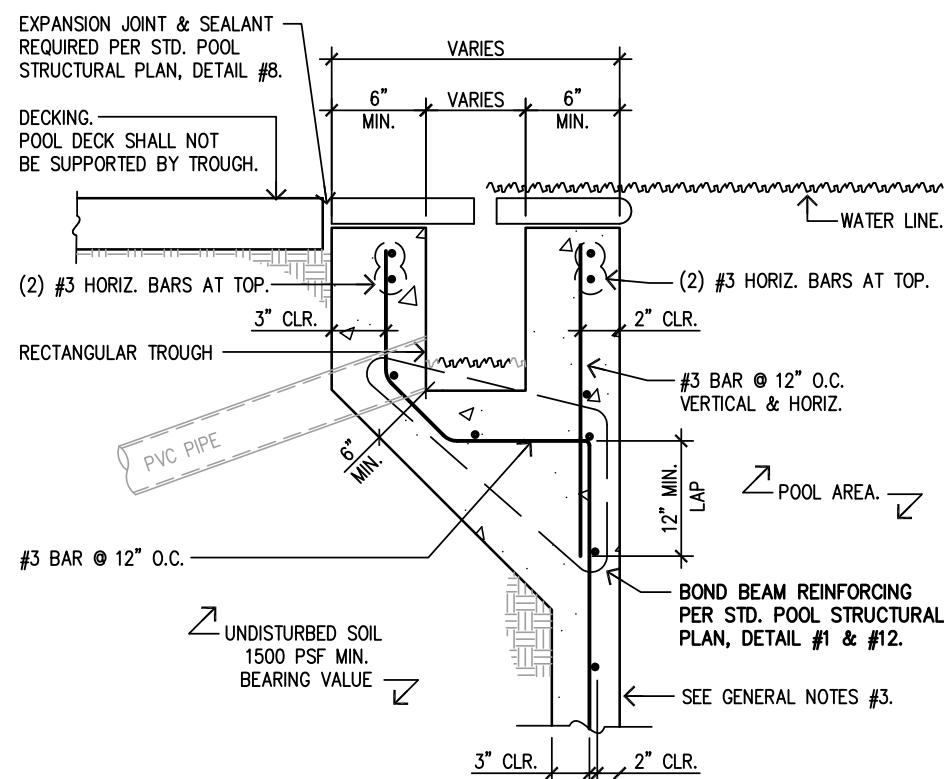




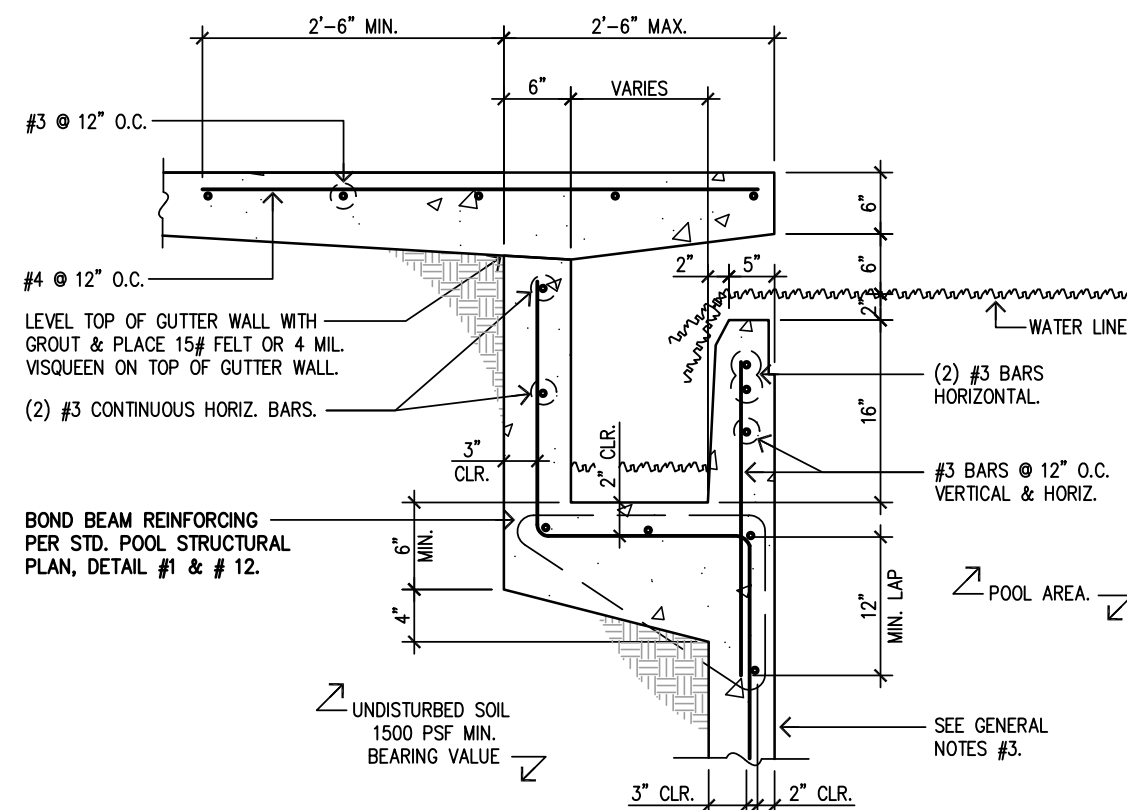
TROUGH AT LEVEL EDGE



TROUGH AT TOP OF WEIR WALL



3H AT ZERO EDGE



OVERFLOW GUTTER

GENERAL NOTES:

1. LAP ALL STEEL 24" MIN. UNLESS NOTED OTHERWISE.
2. MAINTAIN 2" CLEARANCE BETWEEN ALL PLUMBING & REINFORCING STEEL.
3. FOR POOL WALL GUNITE THICKNESS & STEEL REINFORCING, SEE STANDARD POOL STRUCTURAL PLAN.
4. FINAL CONFIGURATION OF WEIR AS DIRECTED BY CONTRACTOR.
5. GUTTER TROUGH TO BE WATERPROOFED.
6. SPECIAL PRECAUTIONS MUST BE TAKEN TO WATERPROOF PENETRATIONS INTO TROUGH.

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Anaheim, CA 92807
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Date: 9/7/2022

22-12622

VANISHING OR ZERO EDGE TROUGH
& OVERFLOW GUTTER DETAIL

PLAN VALID ONLY WITH ENGINEER'S
SIGNATURE IN RED INK ON PLAN.
THIS DETAIL TO BE USED IN CONJUNCTION
WITH STANDARD POOL STRUCTURAL PLAN

DETAIL #649

